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Memo #9

Date: February 27, 2017

To: Brian Foley/Fairfax County Land Development Services
Kristen Munz/Fairfax County Land Development Services
Stephen Beach/River Towers Condo Board
Nancy Rivers/River Towers Condo Board
Melanie Wallace/River Towers Condo Board
Bill Nichols/River Towers Condo Board
Veronica Brown/River Towers Condominiums
Marla Diaz/Whiteford Taylor Preston
Michael McNamara/Pillsbury Winthrop Shaw Pittman

From: Allyn Kilsheimer

RE: River Towers Condominiums
Structural Frame Remediation Analysis and Design
Follow-Up to Memo #8

KCE Job No. 2016-18

This is a follow-up to our Memo #8 dated February 21, 2017. The items noted therein will not be repeated unless modified here or in later memos. This memo is to be taken as an adjunct to that memo and will be part of a continuing series of memos regarding the subject matter to keep all parties informed.

Updated Field Information (Building 6631)

- Excavation to evaluate several piles was completed. Water encountered in excavation and $\pm 6''$ voids were found under the pile caps.
- Continuing with core drilling samples of concrete
- Excavate on interior columns to find base plates (no pedestal called for on original drawings
 - Was to have been per detail G7 on Sheet S-2, which would indicate to top of pile cap 1'-0" below top of reinforced slab with a milled column welded to the base plates. Excavation is down $\pm 2'-6''$ and the plate found was encapsulated by some concrete from the slab and/or some earth).
- Minor movement ($\pm 1/8''$) was noted (thermal and/or reading error) in exterior masonry walls
- Thickness readings of steel column flange at column 72 through and including 80 ongoing at approximately top of the existing slab and $\pm 5'-6''$ above.
- Worcester Eisenbrandt began mobilizing to site to cut temporary access openings in the exterior wall, at the stem of the tee to determine conditions, etc.



MEMBER

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- VIKA is beginning to monitor the wall with robotic remote reading devices.
- No fireproofing has been found on columns (apparently metal lath and plaster had been in place in limited areas before the October event.
- No damp-proofing has been found on columns.

Events Affecting Scheduling

We have been asked to attempt to develop a schedule of re-occupancy. Below is a listing with no dates or durations yet determined, as all directions and dates are subject to remediation as needed.

I. Building 6631

- Finished installing emergency shoring under columns in porte cochere ($\pm 6-8$ weeks from completion of access openings in concrete, assuming no weather delays).

II. Evaluate Condition of Exterior Wall

- Plumbness
- Cavity
- Horizontal joint reinforcing
- Remediation (possibly pin, tie, or rebuild).
- Remove portions of existing columns under second floor and splice out.
- Determine method to level up existing structural slab interior area of building
 - Remove finishes
 - Expose concrete floor
 - Add flowable concrete fill
 - Reinstall finishes
- Install fireproofing and damp-proofing on all exposed porte cochere columns.
- Install finishes on columns on all exposed porte cochere columns.
- Reopen porte cochere.
- Allow re-occupancy of stem portion of building.

III. Buildings 6621 and 6641

- Evaluate fireproofing and damp-proofing as well as thickness of metal in porte cochere area.
- Evaluate condition of top floor masonry wall.
- Install temporary “emergency” shoring, if necessary, at porte cochere.
- Remove scaffolding in Buildings 6621 and 6641.
- Install fireproofing and damp-proofing on all exterior porte cochere columns.
- Install finishes on columns.
- Reopen porte cochere.

We would note that Building 6631 is months away from re-occupancy, but Buildings 6621 and 6641 are only a few months from removing the scaffolding in the porte cochere, barring any unforeseen circumstances.