



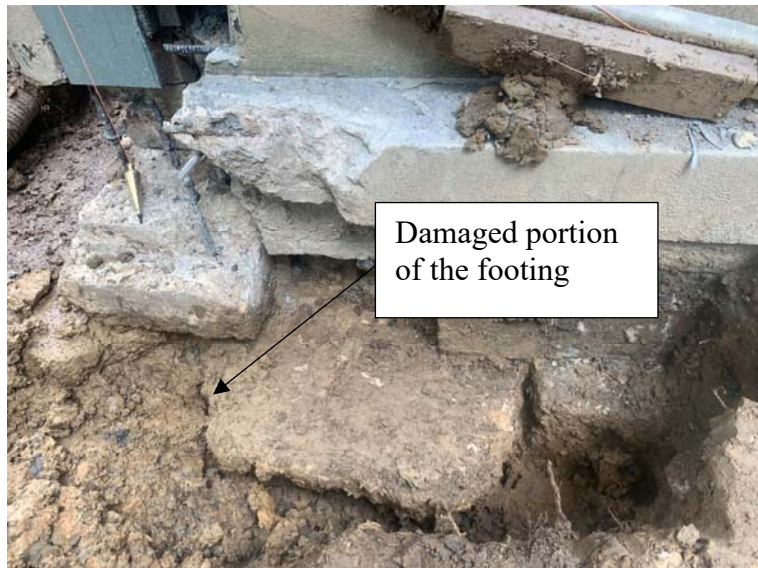
Behind the Walls: The Silent Collapse of Structural Integrity



1. Sever corrosion of existing metal strap.



2. Previous maintenance repair to address the cracks on the precast panel. It is evident from pictures that rebar is severely corroded.



3. A portion of the footing is damaged due to poor soil condition and an inadequate water management system.



4. New connections have been designed to allow thermal movement of the precast panel and have been revised to accommodate the electrical outlet.



5. Concrete cracks in the precast column segments.



6. Disengagement of the mechanical embedment from the spandrel panel.



7. Segments of columns have been removed and replaced.



8. Another example of previous maintenance repair; the spall has been filled with sealant.



9. Severe corrosion of steel connections. Image from interior showing disengagement.



10. Severe corrosion of steel connections. Image taken from exterior after column was demolished.



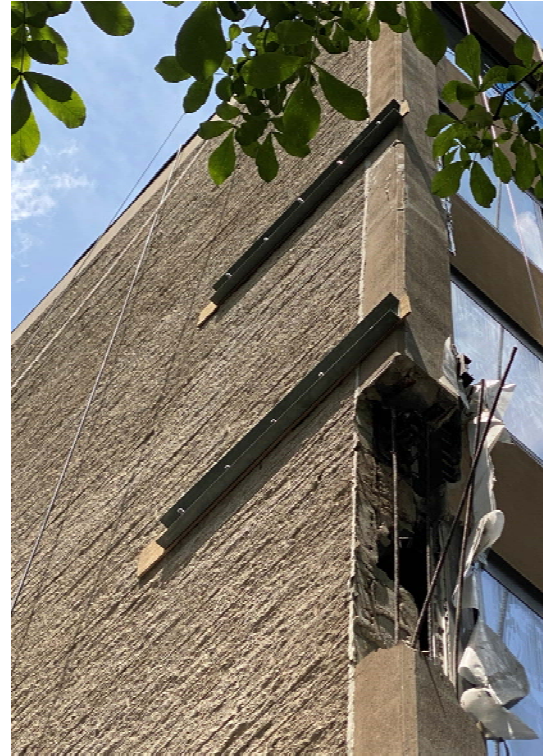
11. Shoring with turnbuckle device. Note the construction barrier/demising wall separating the bedroom from the work zone.



12. Cracks hidden by the coating.



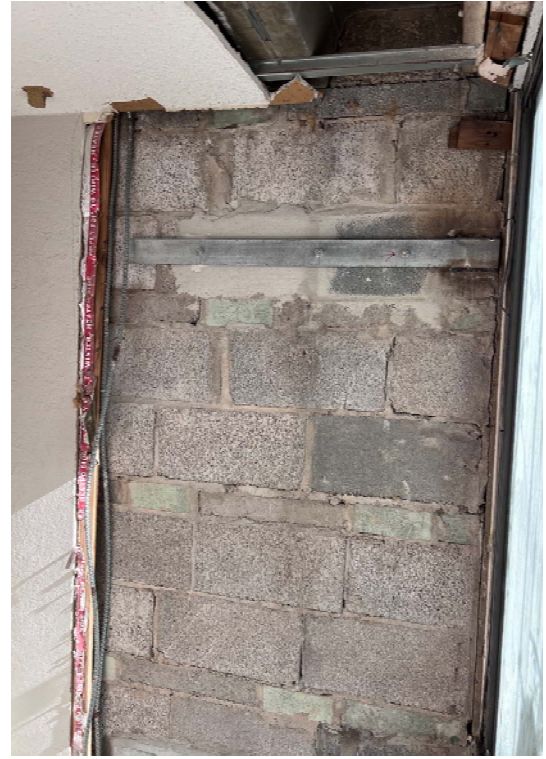
13. The concrete column profile and sever corrosion of rebars.



14. Modification to the shoring during the construction.



15. New connection includes slotted holes, enabling thermal movement of the precast panels.



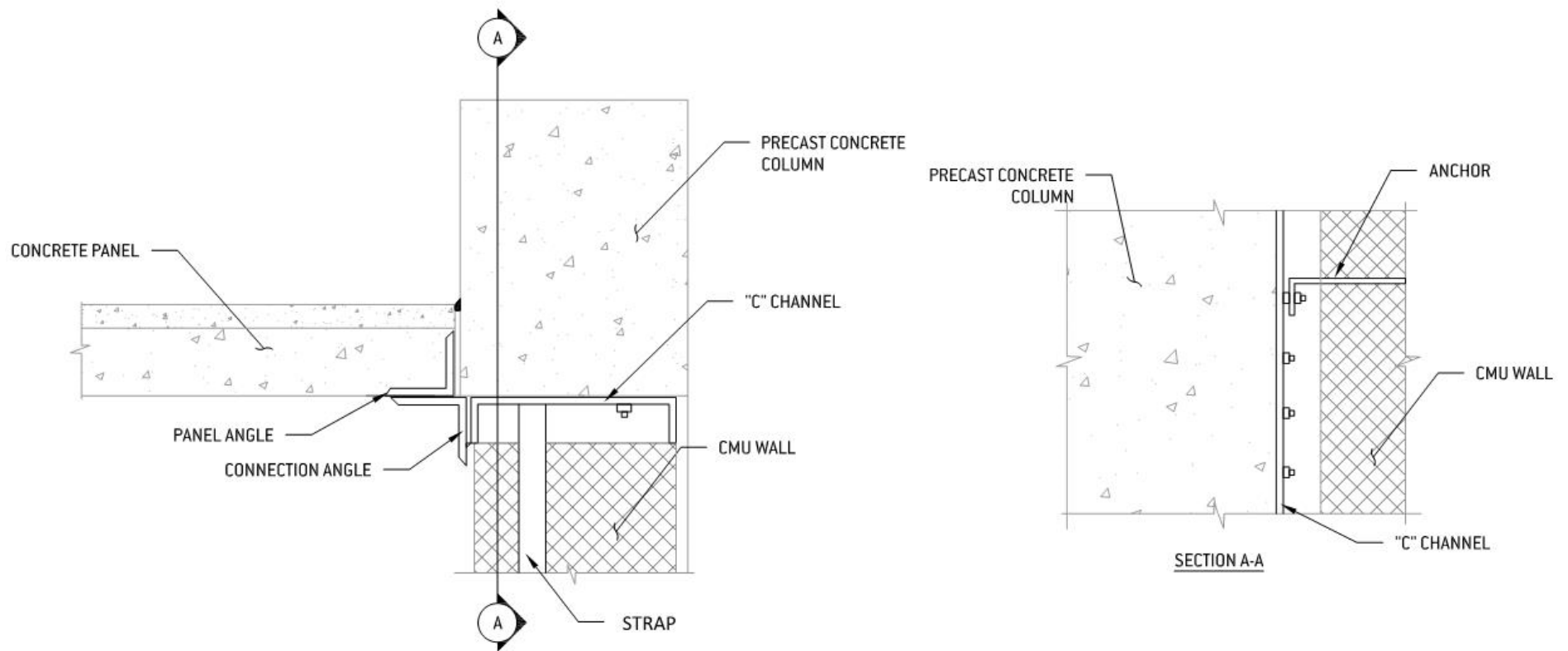
16. New metal strap.



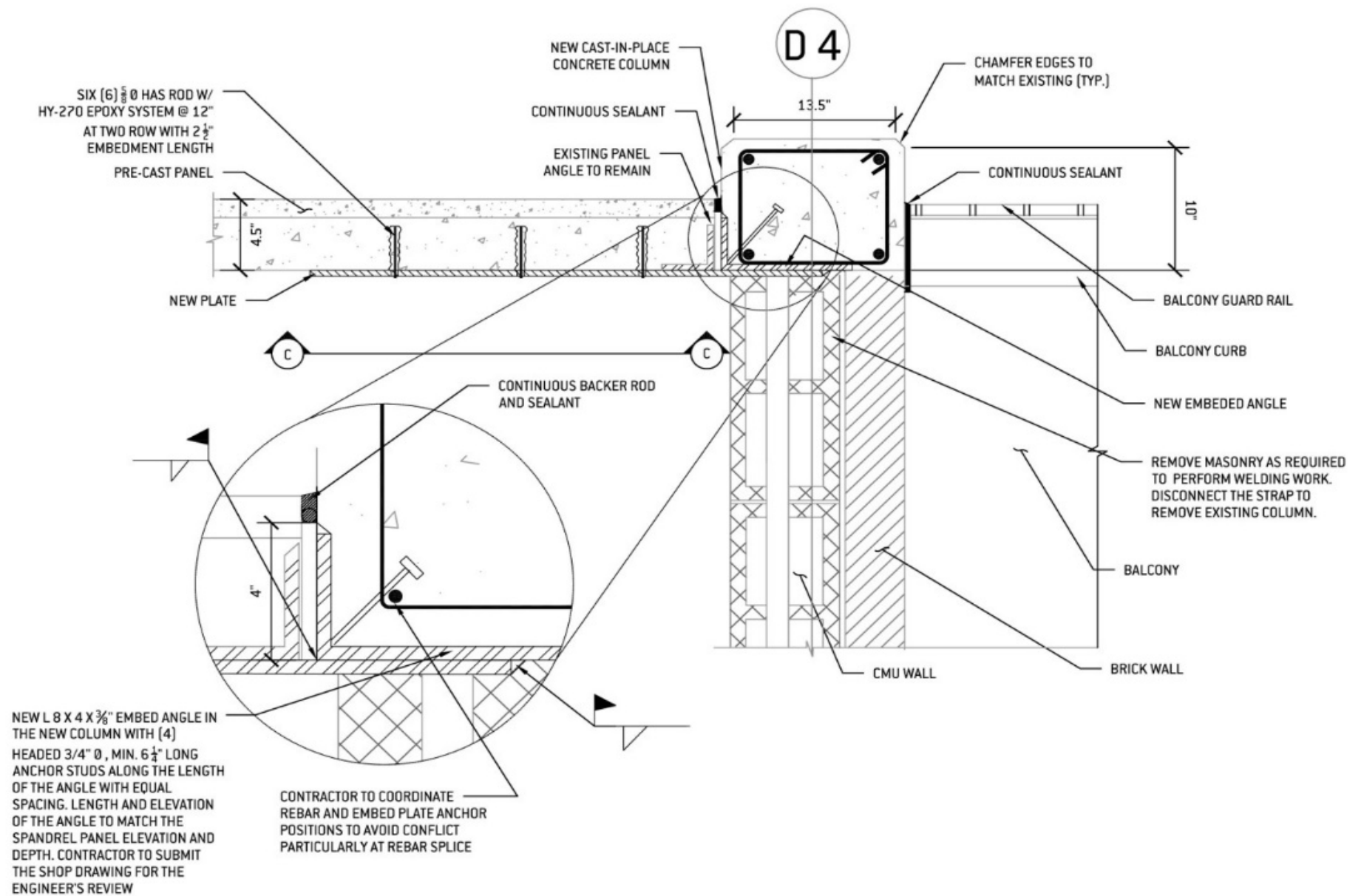
17. The extent of the repair work at one of the tiers during the construction.



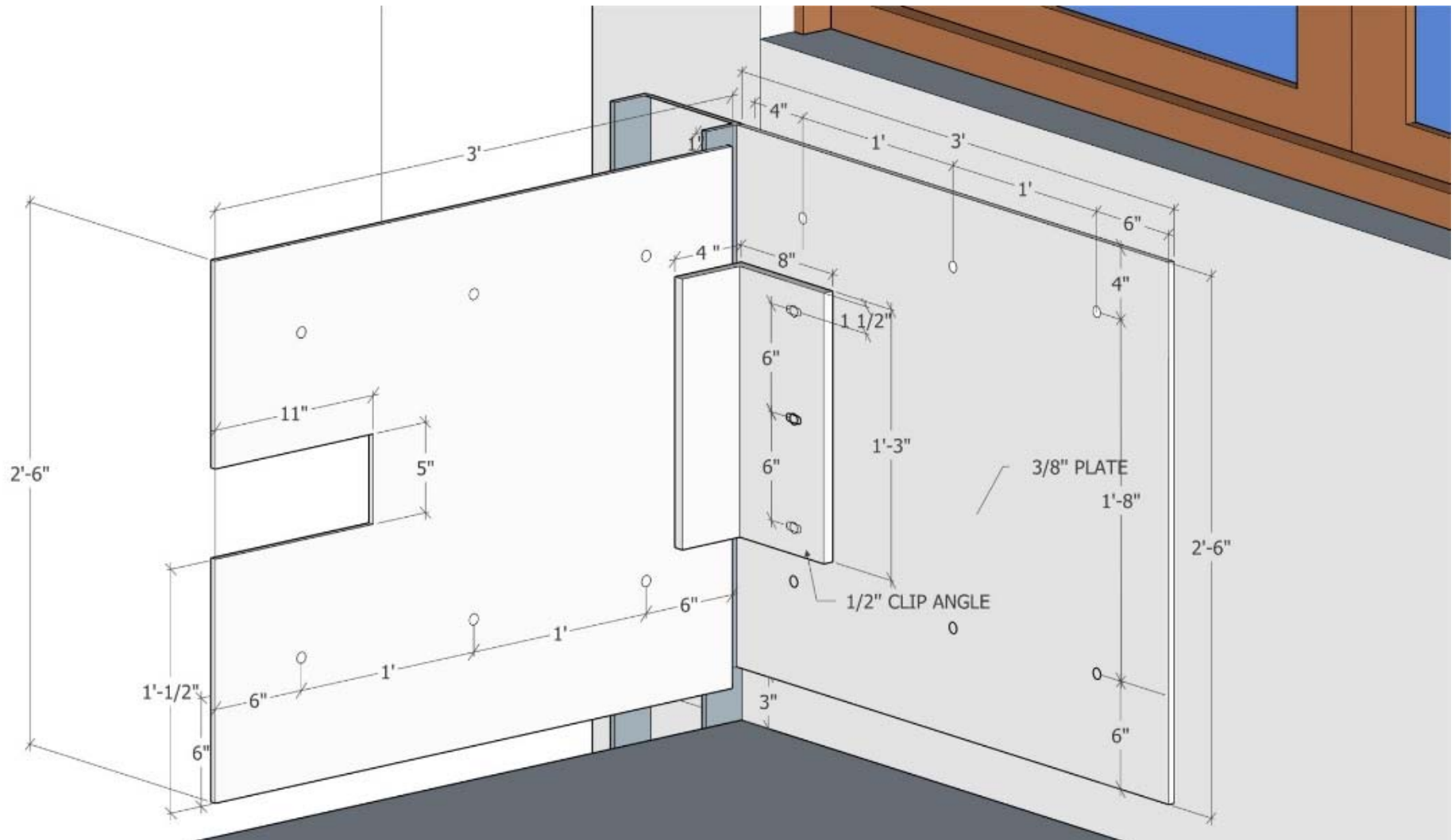
18. The completed repair work at one of the tiers, demonstrating the improvements made during construction.



19. Original in-situ connection details



20. New connections and column details.



21. New connections and column details.