

COST OVERRUN DETAIL – PARKWOOD COMMONS

February 2021

Sewer Lines: The extensive repairs and overall condition of the existing cast iron sewer lines were unknown beyond minor repairs prior to closing. The original scope included the lines to be cambered and jetted with contingency for repairs as needed. After construction start, during an attempt to connect new piping to the existing line, it was made clear that there was an issue with the existing lines. Upon further inspection using cameras, it became clear that the existing underground sewer lines for all 100 units would need to be replaced.

Replacements occurred under the slab inside each unit and were extended using scheduled 40 PVC line to tie into the exterior sewer main. The PVC replacement includes a 4" diameter as opposed to the narrower 3" diameter cast iron piping as well. Scheduled 40 PVC has significant advantages for the present and long-term wellbeing of the residents. On the contrary, the former cast iron sewer lines were significantly deteriorated as shown in pictures provided below in Exhibit A. The deterioration of the cast iron piping would lead to costly ongoing maintenance expenses and constant tenant interruption. Health issues due to backed up sewage, excess moisture resulting in mold due to leaks, and unflattering smells were becoming apparent and would only increase without the immediate replacement of the sewer lines using modern Scheduled 40 PVC piping.

Plumbing Lines: Copper water lines are common for older developments. While in some cases these lines are still intact and efficient pipes, the copper piping at Parkwood Commons was type m (the thinnest water type manufactured). During demolition, it was discovered that over the last 50 years the copper piping was deteriorated and had slowly leaked water into the interior walls. This leakage has resulted in mold, as further described below. To avoid additional leakage and continuous plumbing repairs, all interior copper water lines were replaced with Uponor water piping. The new Uponor water piping fully replaced the pre-existing copper pipe connecting to the main shut off in each unit. Uponor piping is a solution that, "minimizes connections, resists corrosion, pitting and scaling, offers greater resilience in freezing conditions and lasts the life of the structure." The newly fitted Uponor water lines can be viewed in Exhibit B below.

Mold Remediation: As referenced above, the conditions of the existing cast iron sewer lines and deteriorated copper piping manifested in water leaks and subsequent significant presence of moisture. This, coupled with a high vacancy issues, resulted in these issues left ignored and caused serious mold issues as shown in Exhibit C below. The extent of these issues preceding closing was not made apparent. Furthermore, due to positive asbestos testing in the drywall containing a lot of the mold, removal and remediation become a larger cost challenge.

Asbestos Removal: Suspect Asbestos Containing Material (ACM) was observed at the Project during pre-closing testing. Upon additional environmental testing, the drywall joint compound specifically was identified as ACM. Remediation of asbestos is required when construction activities result in disturbing materials containing asbestos. Drywall not removed or cut would not require asbestos remediation. All drywall demolition was completed in accordance with OSHA regulations. Given this, the environmental remediation was included in the original budget and scope for the areas of indicated for drywall replacement.

With the additional complication of issues discussed above, the drywall containing mold had to be removed and replaced. The additional replacement of drywall was found to also contain asbestos, and subsequently was required to be remediated.

Exhibit A:
Previously Existing Cast Iron Sewer Lines

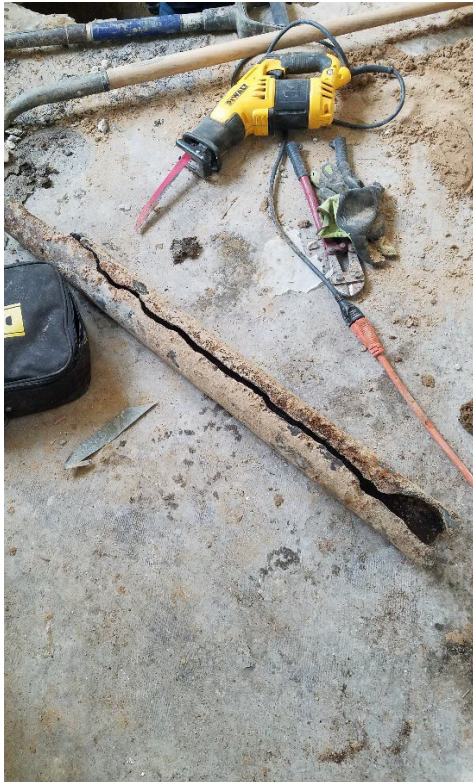


Exhibit B:
New Plumbing and Sewer Lines



Exhibit C:
Prior Mold Issues

