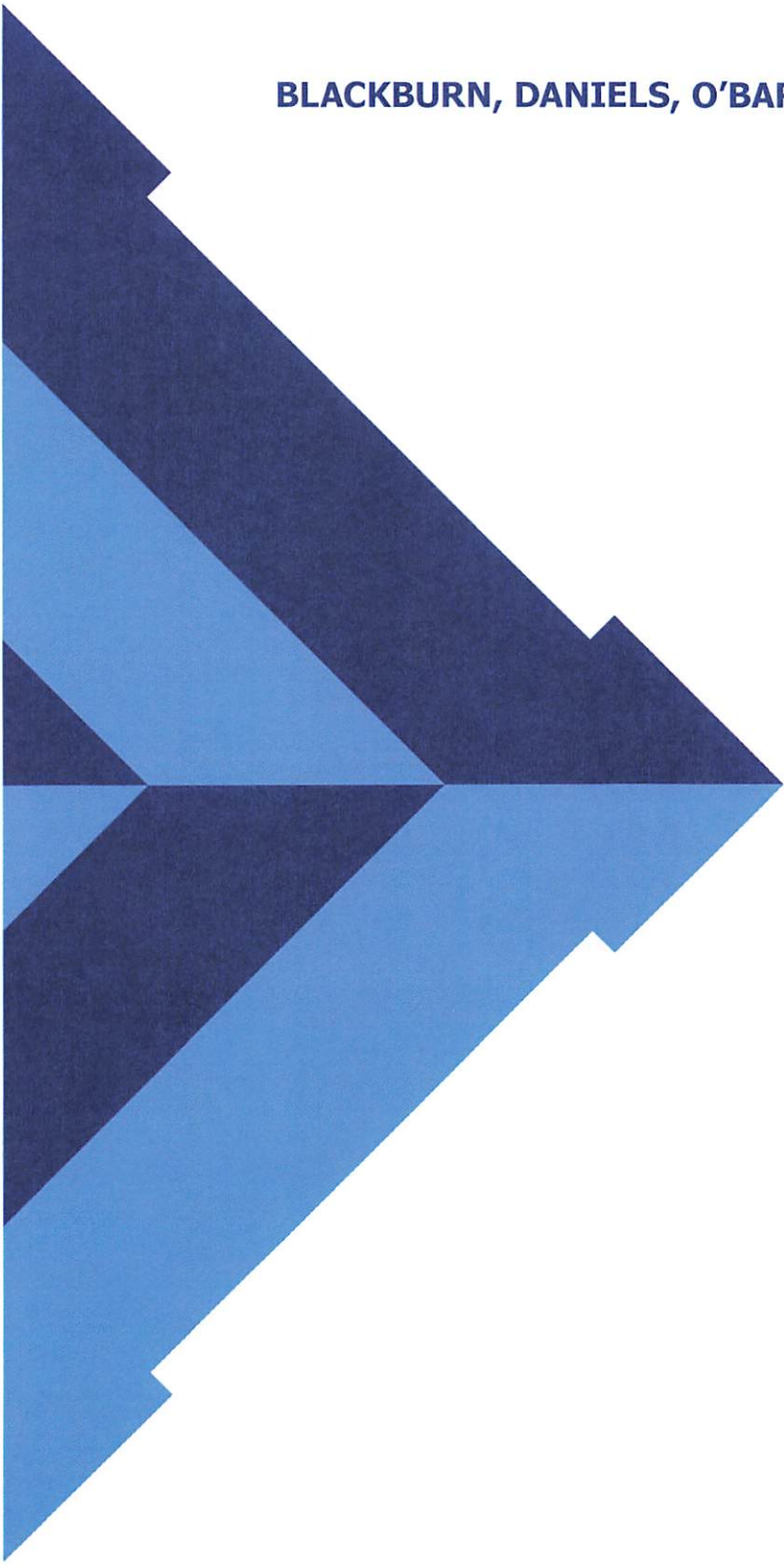


APPENDIX C

BLACKBURN, DANIELS, O'BARR STRUCTURAL ENGINEERS



Observation Report



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To: Hal Gandy
From: Jack Daniels
Date: 5-11-20
Subject: Alexander City Hall and Police Station Observation

Observation Date: 4-2-20
Site Conditions: Normal

Comments:

A site visit was made to the Alexander City Hall and Police Station on 4-2-20 to observe the structural condition of the two buildings. The purpose of the site visit was to walk through and observe the buildings and determine if there are any structural issues. The observation consisted of a walk around the exterior of the building, an interior walk through of the building, and a roof observation. No demolition was made during the observation so the only parts of the building observed were those exposed to view.

At the time of the observation both the City Hall building and the Police Station were occupied and being used for business. The City Hall building was the first building observed. The structural system for this building was a mixture of several types of construction as it appears it has been added on to and or renovated in the past. The older portion appears to consist of wood framed floors and roof. The newer portion appears to consist of bar joist floor system with wood roof. At some point there was a concrete vault added to the older portion with columns that extend to the basement area. This building has many stairs accessing the different levels and areas of the building but the primary structure consists of a basement a main level and a mezzanine level. The many existing additions and levels will make it extremely difficult to make this building ADA compliant. At the time of the observation there appeared to be some minor cracks in some of the interior CMU walls. These may be seen in picture #2. My recommendation for the cracks would be to patch them and monitor for worsening conditions. If the cracks worsen over time then remedial repairs may need to be made. There were also

some areas in the older wood framed portion that appears to have sagging floors. These may be seen in picture #5. It is difficult to determine exactly why these floors are sagging but may be due to long term deflections, rot, or water damage. At the rear of the building the exterior finish has been removed from what I was told to be cracking. This may be seen in picture #8. One of the major structural concerns with this building is with the attachment of the precast panels at the front of the building. At the time of the observation near the top corners, the precast panels appear to be pulling away from the building. These may be seen in pictures # 9 thru #11. This is most likely due to a failing connection. I recommend removing the panels that appear to be displaced and try an determine a proper solution once the connections can be viewed.

The Police department building was the next building observed and was previously used as the City Hall originally built in the 1930's. This building is constructed with a concrete frame and has a basement, main level, upper level and a roof. All levels appear to be a concrete frame. There was an addition made in 1982 that appears to consist of a bar joist floor system with metal deck and slab. At the time of the observation there appears to be quite a bit of water intrusion near the junction of the old building and the 1982 addition. There is also a crack in the interior finish of a bathroom. These pictures may be seen in pictures #12 thru #14. On the exterior of the building there appears to be some stair stepping cracks in the brick near the top corners of the building. These may be seen in pictures #16 and #17. My recommendation for the cracks in the brick would be to patch them and monitor for worsening conditions. If the cracks worsen over time then remedial repairs may need to be made. Overall there were no major structural concerns with this building at the time of the observation

Whenever one assess whether or not it is advantageous to keep an existing building, and possibly make modifications to it, the applicable Building Codes need to be taken into consideration. Much of what the Owner may want to be done to the structure may not be feasible based on the requirements of the code. The International Building Code 2009 Chapter 34 on Existing Structures Section 3403 thru 3405 discusses additions, alterations or repairs to existing buildings. Our interpretation of the code is that if any alterations are required to the structure then the building will have to comply with the code requirements for a new structure. This stipulation in the code can and will greatly affect some of the decisions the Owner will make regarding what will need to stay and what will need to be altered.

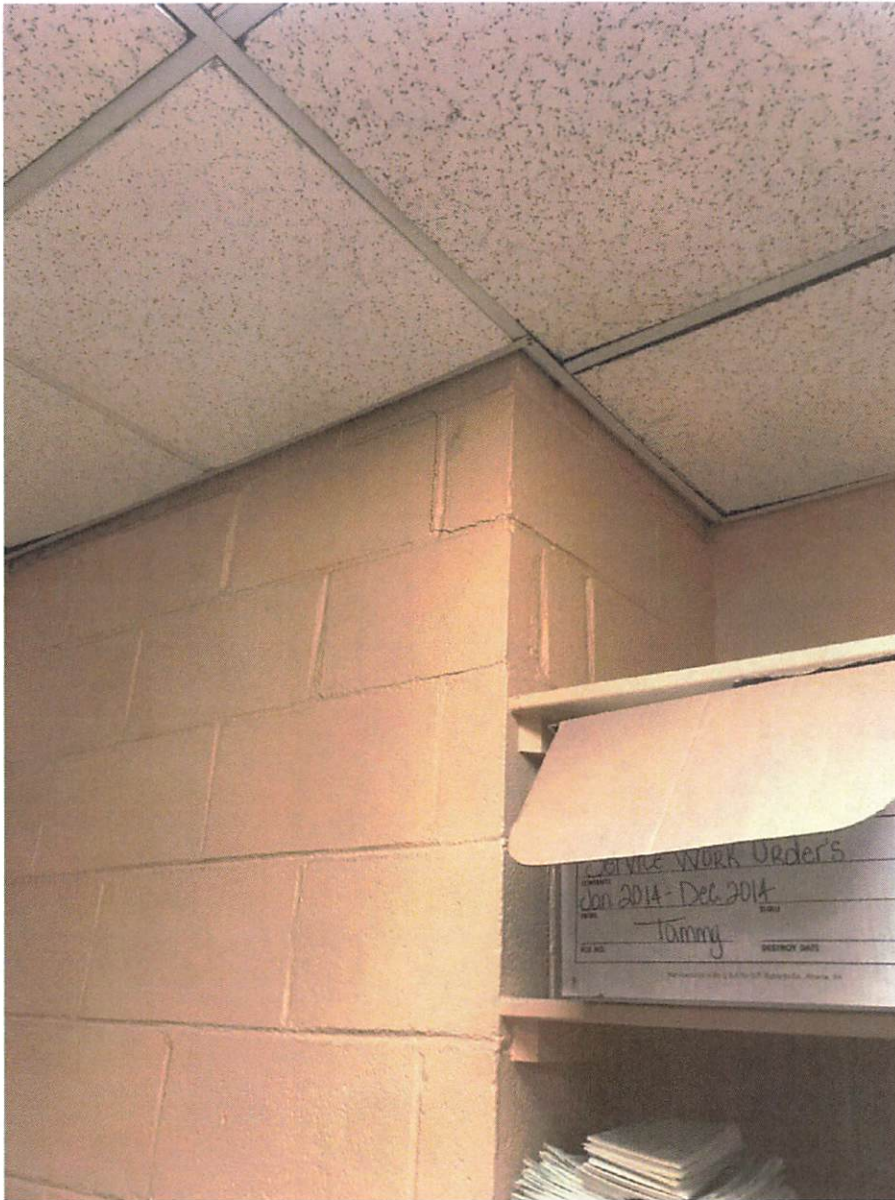
It may be possible to make modifications to the existing structure, however the Owner will have to compare the cost of these repairs to the cost of demolition and replacing the space with a new structure. These costs will not only be structural in some areas of the buildings, but also aesthetics, mechanical, electrical and plumbing systems will have to be evaluated for suitability. It has been our experience that if the structure has to be modified then it will not be cost effective to renovate a building.

Please note that Blackburn Daniels O'Barr was not the structural engineer of record for this building and therefore assumes no responsibility for the design and construction of the existing building.

Thank you for the opportunity to provide our services, if any question arise from this observation report please contact our office.



Picture #1. Front lobby of City Hall



Picture #2. CMU cracks



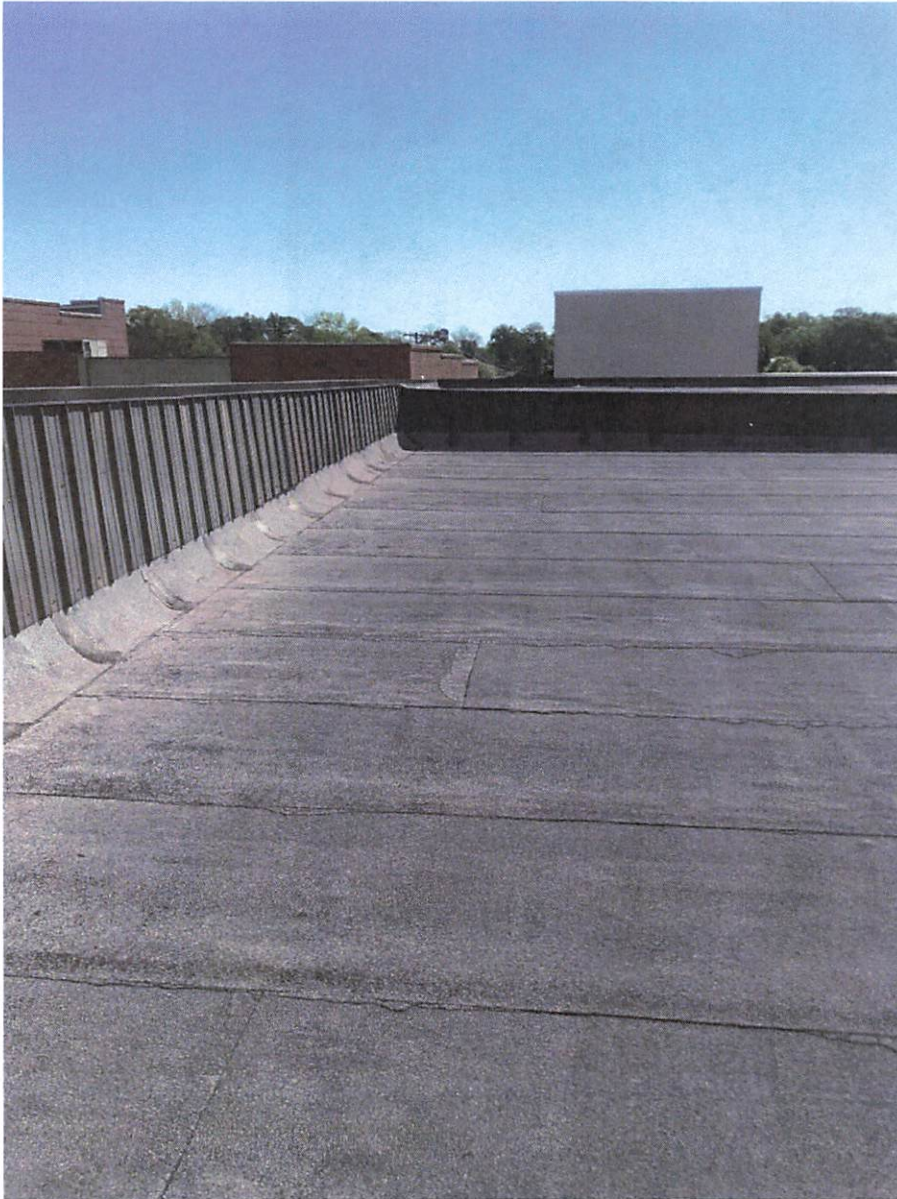
Picture #3. Wood framed floor system



Picture #4. Water intrusion



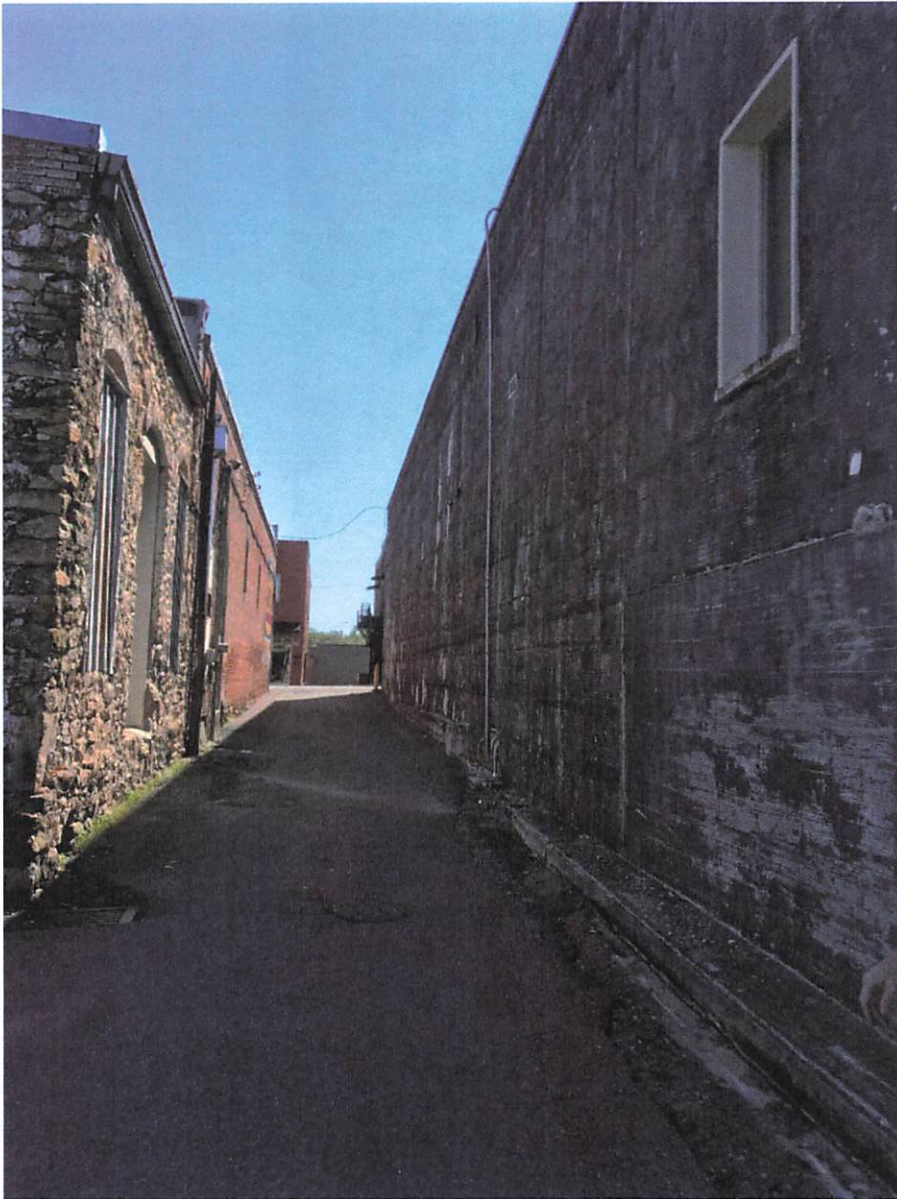
Picture #5. Are where floor appeared to sag



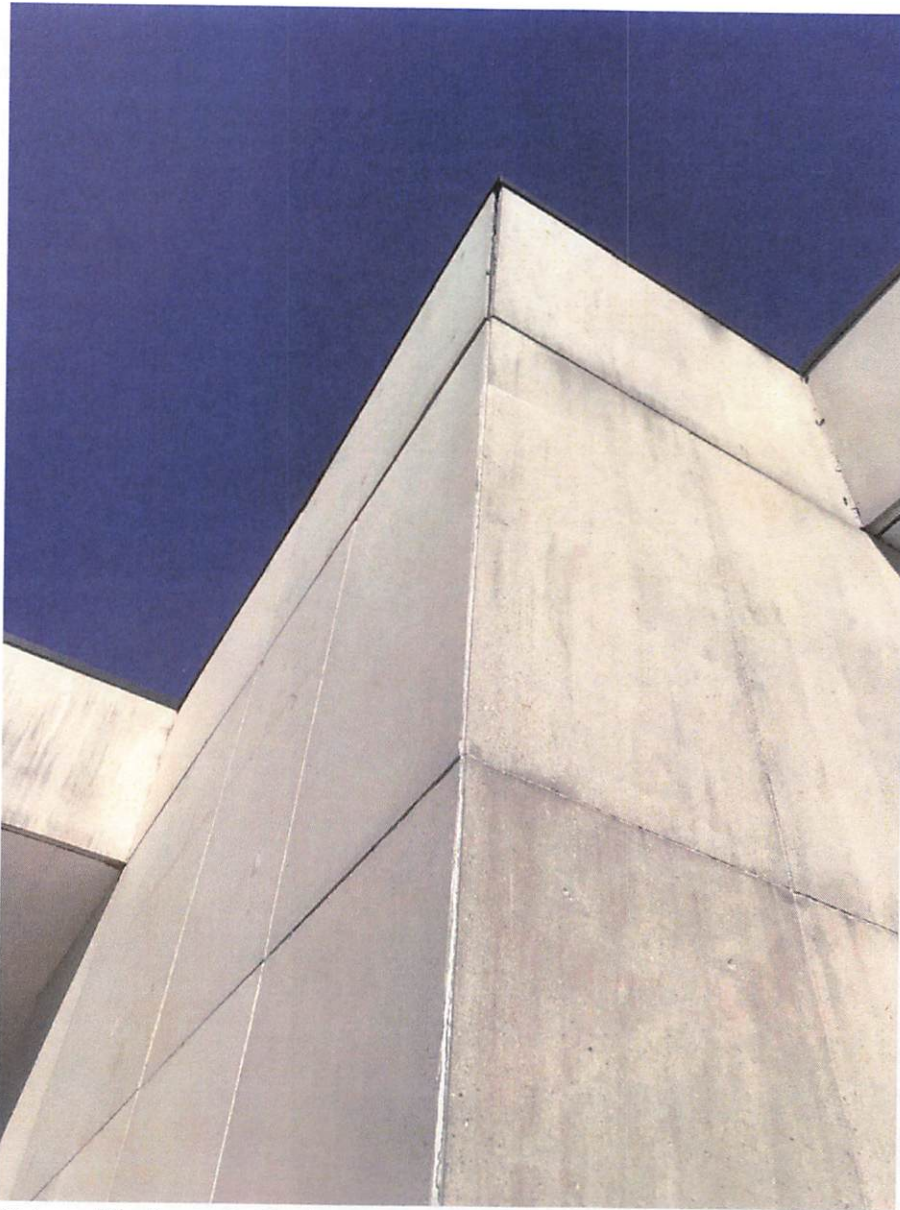
Picture #6. Roof



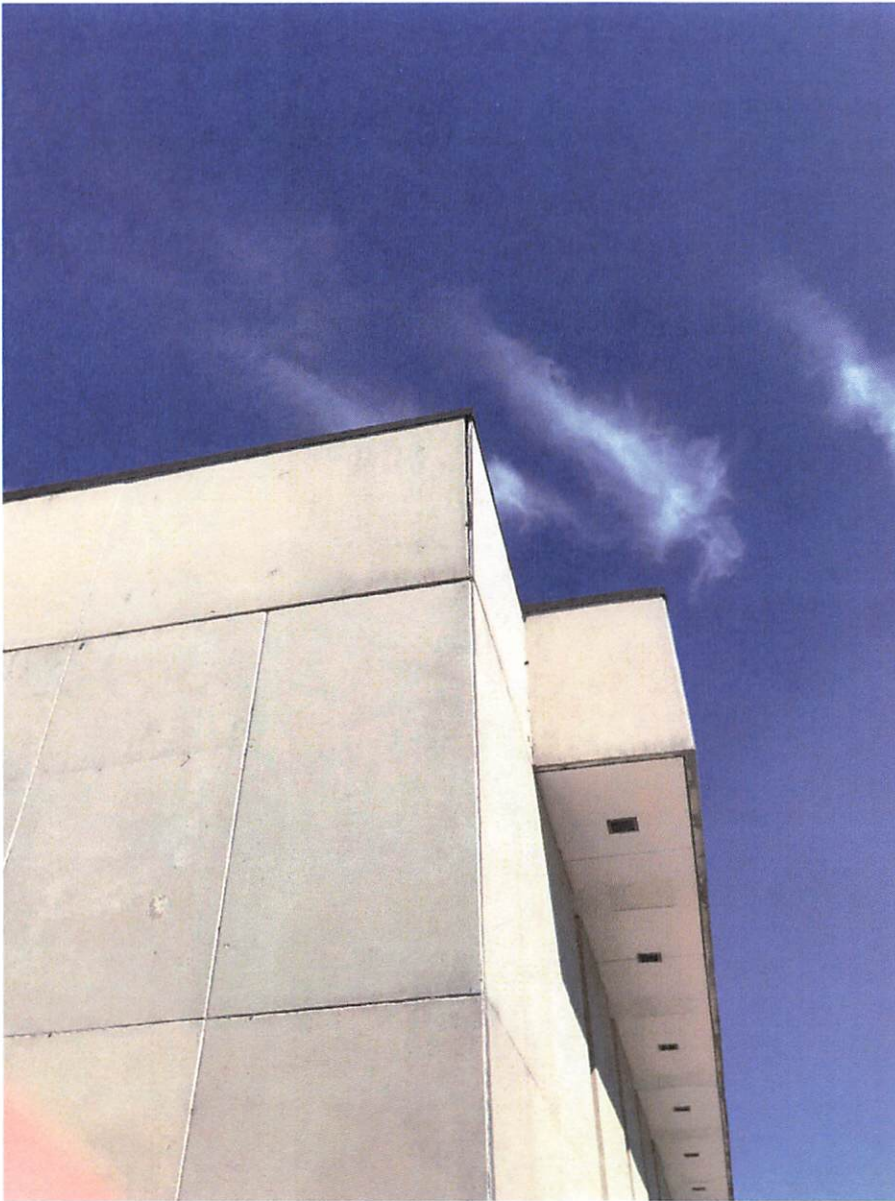
Picture #7. Added steel most likely from an addition



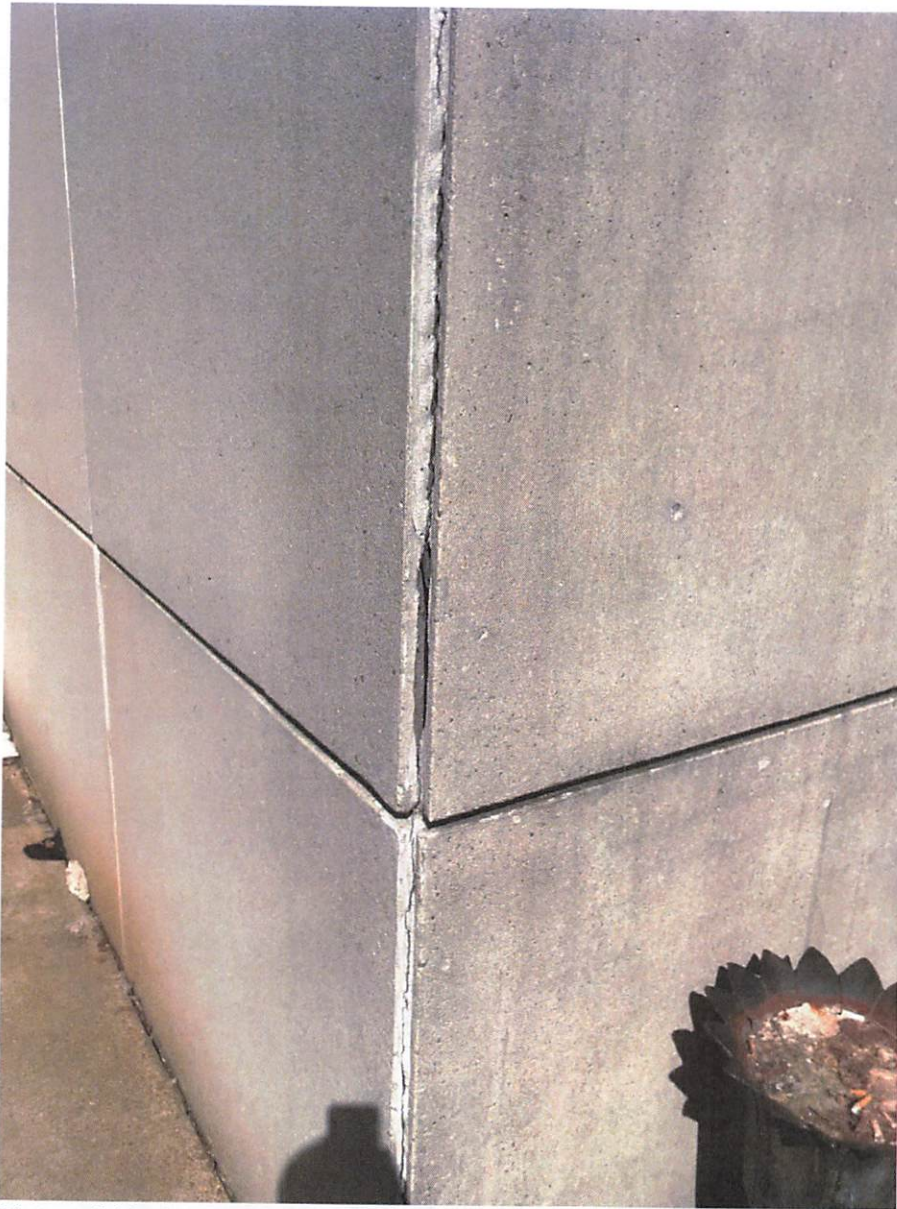
Picture #8. Exterior finish has been removed



Picture #9. Precast attachment appear to be failing



Picture #10. Precast pulling away from building



Picture #11. Precast joints appear to be failing



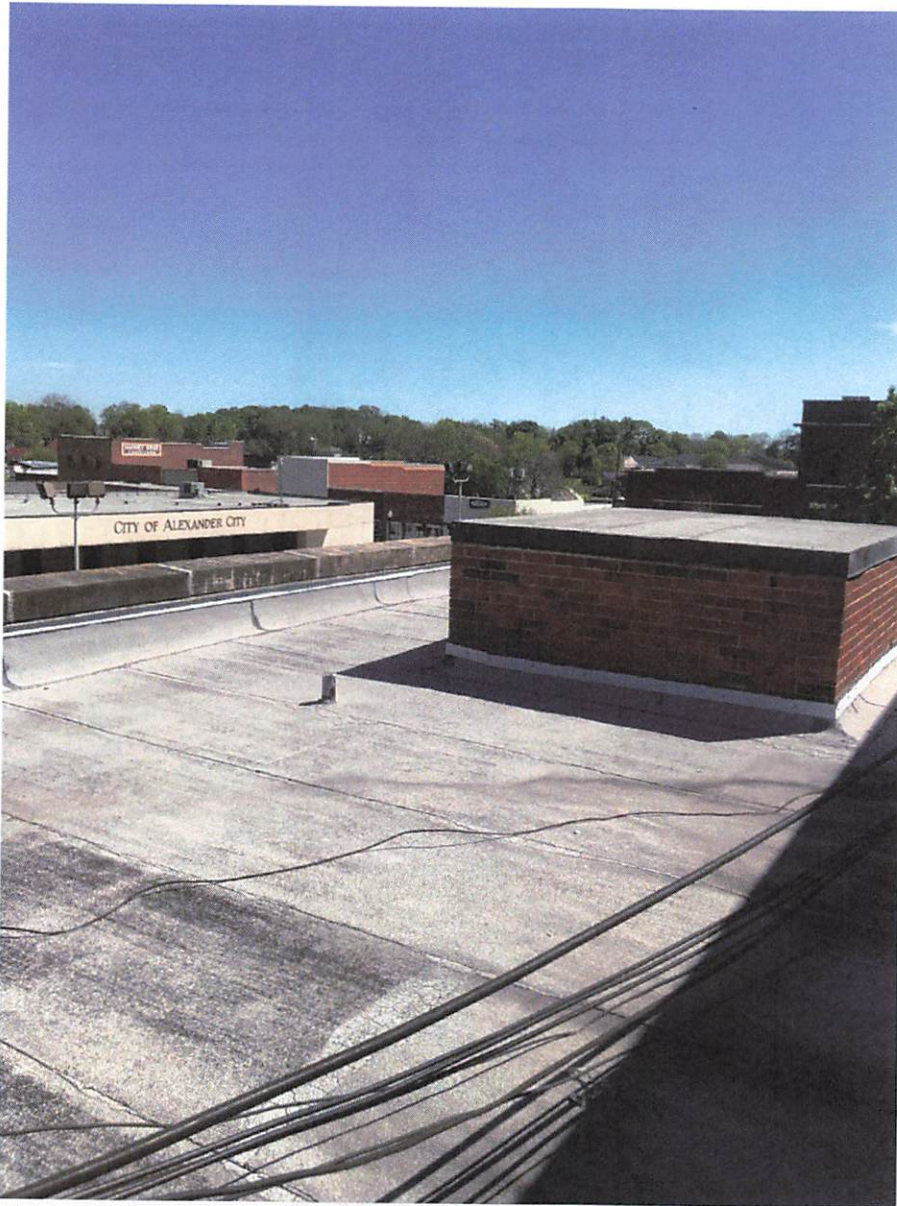
Picture #12. Water intrusion at police department



Picture #13. Water damage



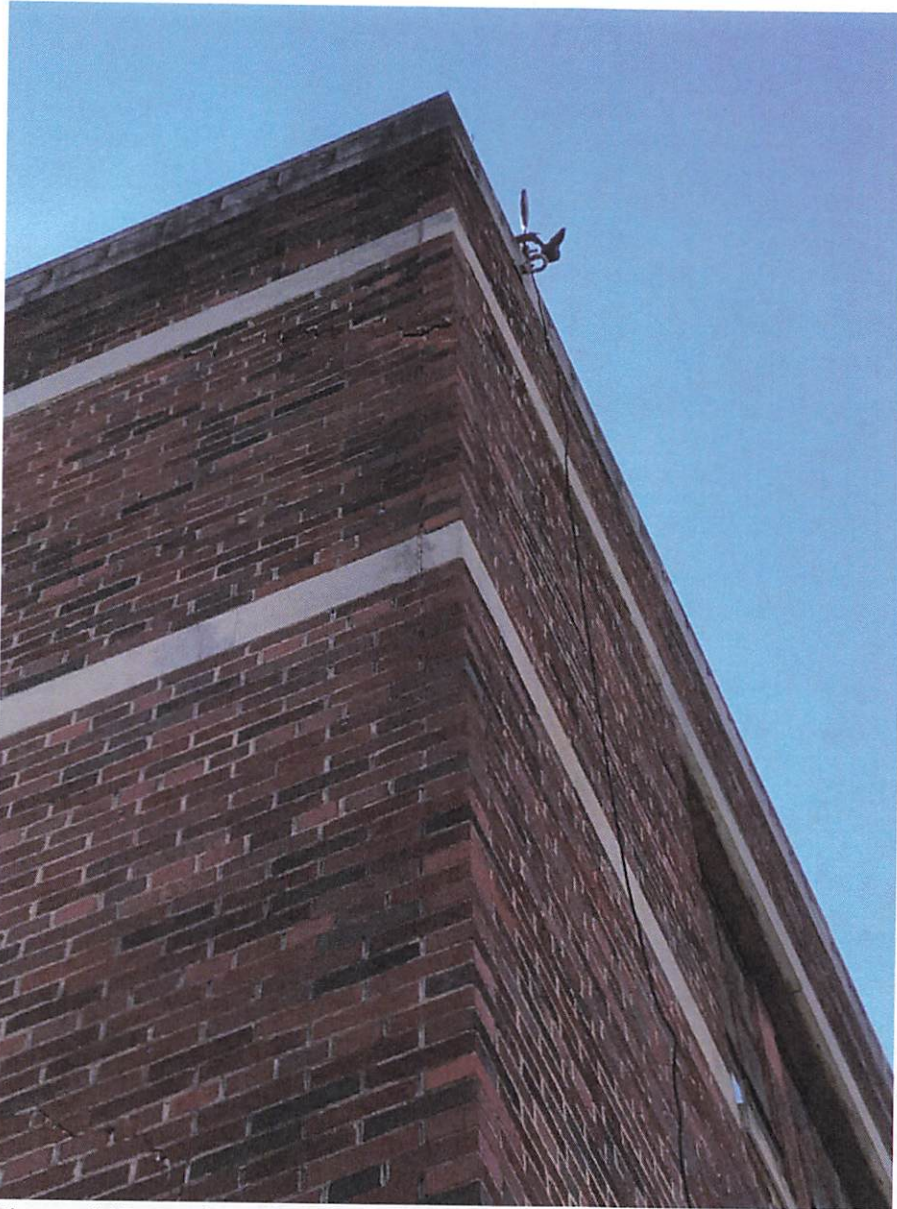
Picture #14. Crack in interior finish



Picture #15. Roof of police department



Picture #16. Crack in exterior brick



Picture #17. Crack in the exterior brick