



AMERICAN
STRUCTUREPOINT
INC.

September 21, 2012

Mr. Michael Kuehl
Colliers International
900 East 96th Street, Suite 350
Indianapolis, Indiana 46240

Re: 448 West Norwood Street
Indianapolis, Indiana
Structural Condition Assessment
Project No. 201201484

Dear Mr. Kuehl:

At your request, American Structurepoint, Inc. has completed a structural condition assessment of the existing building at the above-referenced location. The purpose of this assessment was to evaluate the overall structural condition of the building, focusing on concerns including deflected floor framing as well as a deteriorated exterior wall, and to recommend conceptual repairs.

BACKGROUND

The following information was provided by you:

1. The subject building consists of an approximate 23,000 square foot, two and three story structure. The western portion was constructed in 1894 as a church. The building is believed to have undergone several renovation and addition projects.
2. The building is presently owned by the State of Indiana. It was most recently occupied by the Department of Corrections serving as a Community Re-Entry Center. The building is currently vacant.
3. The floor plans in Appendix A were provided for our review and reference.

For the purpose of this report we will assume the front of the building faces West Norwood Street to the south (Photos 1 and 2).



OBSERVATIONS

The following observations were made regarding the exterior of the building.

1. The western portion of the roof consisted of newer asphalt composition shingles on the high sloped roofs as well as newer EPDM membrane over gutters and low-slope roofs (Photo 3). Roofing materials were in overall good condition and the roof generally felt solid under foot.
2. The eastern portion of the roof consisted of modified bitumen roofing in overall poor condition. Areas of the roof felt soft under foot (Photo 4).
3. Brick masonry exterior walls were in overall poor condition.
 - a. Widespread spalled and missing mortar from the masonry joints was observed throughout the exterior (Photo 5).
 - b. Isolated minor stair-step cracking was observed on the western portion of the building (Photo 6). Some cracks had been previously repaired.
 - c. The eastern portion of the building revealed many open and previously repaired cracks on the south, east and north elevations (Photos 7, 8, 9, and 10). These cracks were consistent with foundation settlement as well as thermal expansion and contraction of the walls and expansion (pack) rusting of the steel lintels. The east exterior wall appeared to have settled approximately one-half to one inch vertically.
 - d. The east exterior wall above the lower roof leans and bows eastward (Photo 11). We estimate the wall has shifted up to approximately six inches out of plumb at the top. Open cracks, displaced brick, and corroded steel lintels were also observed on this wall.
 - e. Deteriorated and missing sealants were common at window and door openings.

The following observations were made regarding interior framing in the western portion of the building.

4. The western portion of the building consisted of cast in place reinforced concrete foundation walls, unreinforced multi wythe brick exterior load bearing walls, and wood framed floors and roof.
5. Evidence of long-term water infiltration was observed at the north stair on the exterior wall, including corroded steel support of the first floor landing (Photo 12).
6. Wood trusses supporting the roof over G-dorm on the second floor were reinforced with steel rod collar ties. No evidence of distress or deterioration of the trusses was observed from the floor level.

The following observations were made regarding interior framing in the eastern portion of the building.

7. The eastern portion of the building consisted of a two story structure with wood framed floors on the first and second levels and unreinforced multi wythe brick exterior load bearing walls. The central area of the first level was open to above and had a roof structure elevated several feet above the north and south ends. Steel beams and trusses supported wood roof framing.
8. Wood joists supporting the roof were excessively spaced by observation. Areas of moisture deterioration as well as apparent mold growth were observed in the attic space (Photo 13).
9. Active roof leaks were observed at multiple locations in the southern two-story area, and were typically accompanied by deteriorated wood roof and floor framing as well as deteriorated and water-stained finish materials (Photos 14 and 15). Some previously repaired finishes were observed.
10. A severe sag or deflection of the second level floor structure was observed in the northern two-story area containing A, B and C Dorms. The sag measured approximately three inches maximum and was greatest below a wall along the corridor. . The plaster ceiling in the kitchen below revealed numerous cracks and past repairs (Photo 16).

CONCLUSIONS AND RECOMMENDATIONS

Based on our observations, experience, and engineering judgment, we offer the following opinions and recommendations.

1. The east exterior brick masonry wall above the lower roof revealed significant deterioration, numerous past repairs, and severe westward leaning and bowing. This wall is unstable; it should be removed and reconstructed.
2. Other exterior brick masonry walls at the east end of the building revealed cracking and numerous previous repairs consistent with foundation settlement, thermal movement, and expansion (pack) rusting of the steel lintels. These walls should be repaired or partially replaced. Significantly corroded steel lintels should be replaced.
3. Floor framing supporting the northeast corner of the second floor (A, B and C Dorms plus corridor) exhibits severe permanent deformation, likely caused by long term support of the upper level wall where deformation is highest. The floor structure supporting these spaces must be reinforced or replaced.
4. The east end of the building exhibited multiple areas of active water infiltration. Long term exposure to moisture has caused significant deterioration to wood framing members. These members should be repaired or replaced where appropriate.
5. Roofing on the eastern portion of the building was in poor condition, beyond its useful life, and exhibited active leaks in multiple locations. Joists supporting the upper and lower roofs are inadequate as constructed. In addition, joists connected to the aforementioned east exterior wall have likely shifted with the wall. Significant deterioration of wood framing and roof decking

materials due to long term moisture exposure was observed in multiple locations. All wood roof joists, wood decking, and roofing materials should be replaced.

6. Repair the façade adjacent to the north stair to stop water infiltration. Repair or replace corroded steel supporting the north stair first floor landing.
7. Mortar joints of exterior brick masonry walls throughout the building were failing. All mortar joints should be re-pointed.
8. Sealants at windows and doors were typically deteriorated or missing; all sealants should be removed and replaced.

We do not recommend occupying the eastern portion of the building until deficiencies in the floor framing and east exterior wall are stabilized or corrected.

The first floor of eastern portion of the building was supported by wood floor framing, suggesting a crawl space exists below. A possible access opening observed in the weight room could not be opened. The floor framing and foundation walls should be inspected from within the crawl space. The first floor framing is likely in fair condition overall and may require isolated repairs to correct damage caused by water infiltration similarly observed in the spaces above.

Due to the extent and intrusive nature of recommended repairs, we suggest the Owner consider demolishing the eastern portion of the building.

Please note this report is based on a visual inspection of the property. We shall not be responsible for the inspection of, or failure to inspect, items that are concealed by other building components, nor for the inspection of any items outside of the specified scope of services. The recommendations presented in the report are general and should not be implemented without the assistance of a design professional. If additional information is discovered, it should be forwarded to our office for review and comment. American Structurepoint reserves the right to amend and/or modify this report if any new and/or significant data that could affect this investigation become available.

If you have any questions, or require further assistance, please feel free to contact me at your convenience at (317) 547-5580.

Very truly yours,
American Structurepoint, Inc.



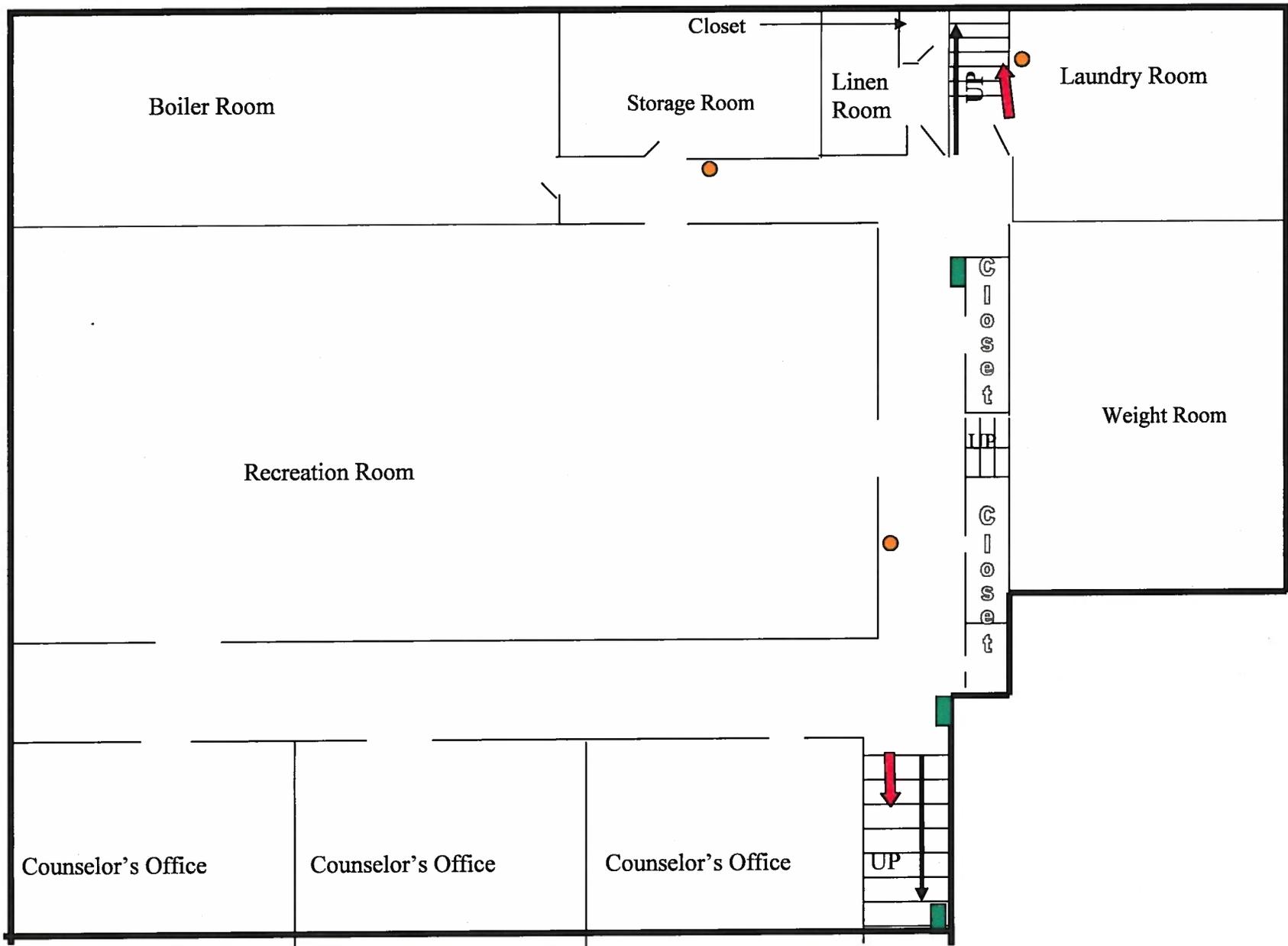
Wesley J. Merkle, PE
Project Manager

WJM:alo

Enclosures

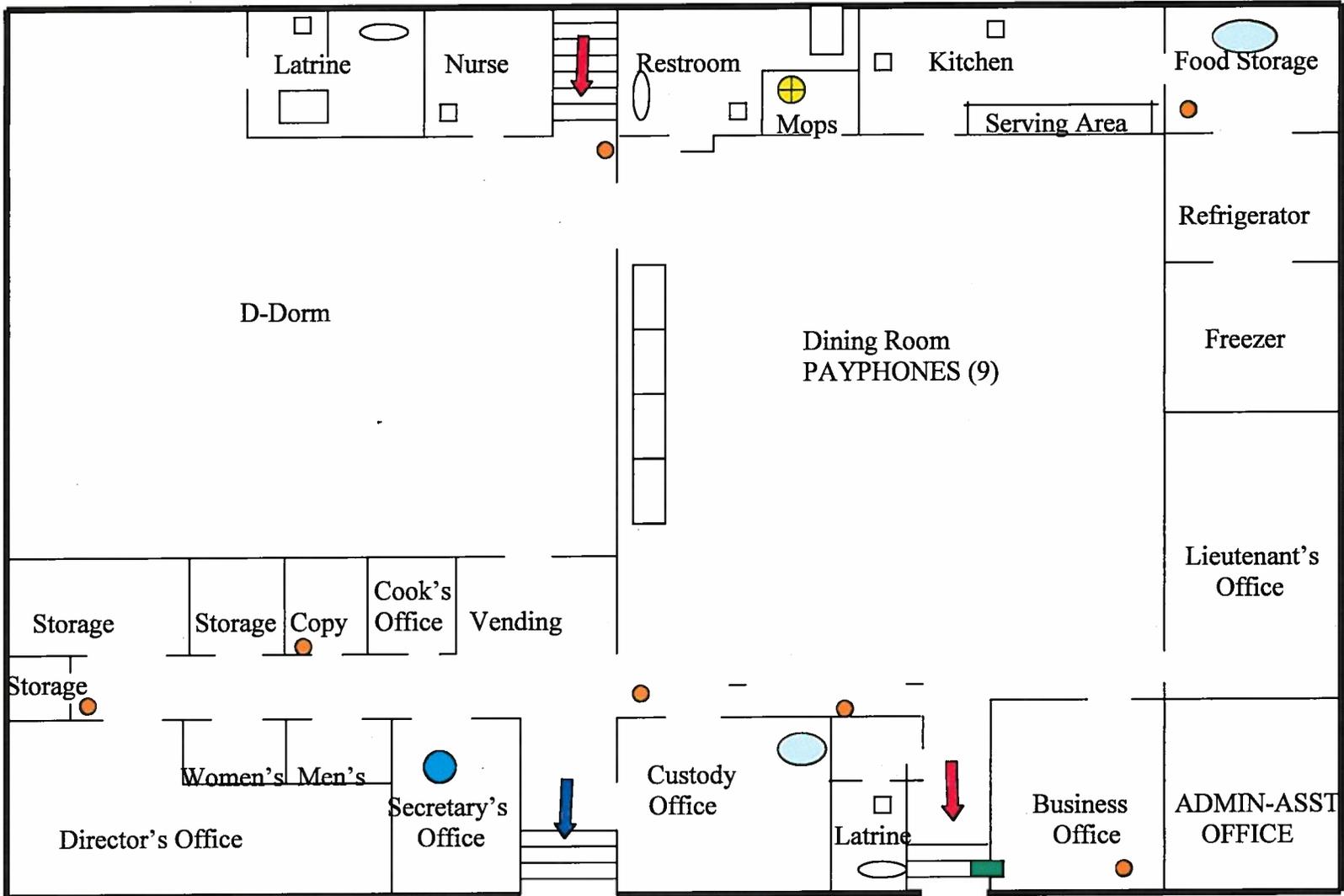


APPENDIX A
Floor Plans provided by client

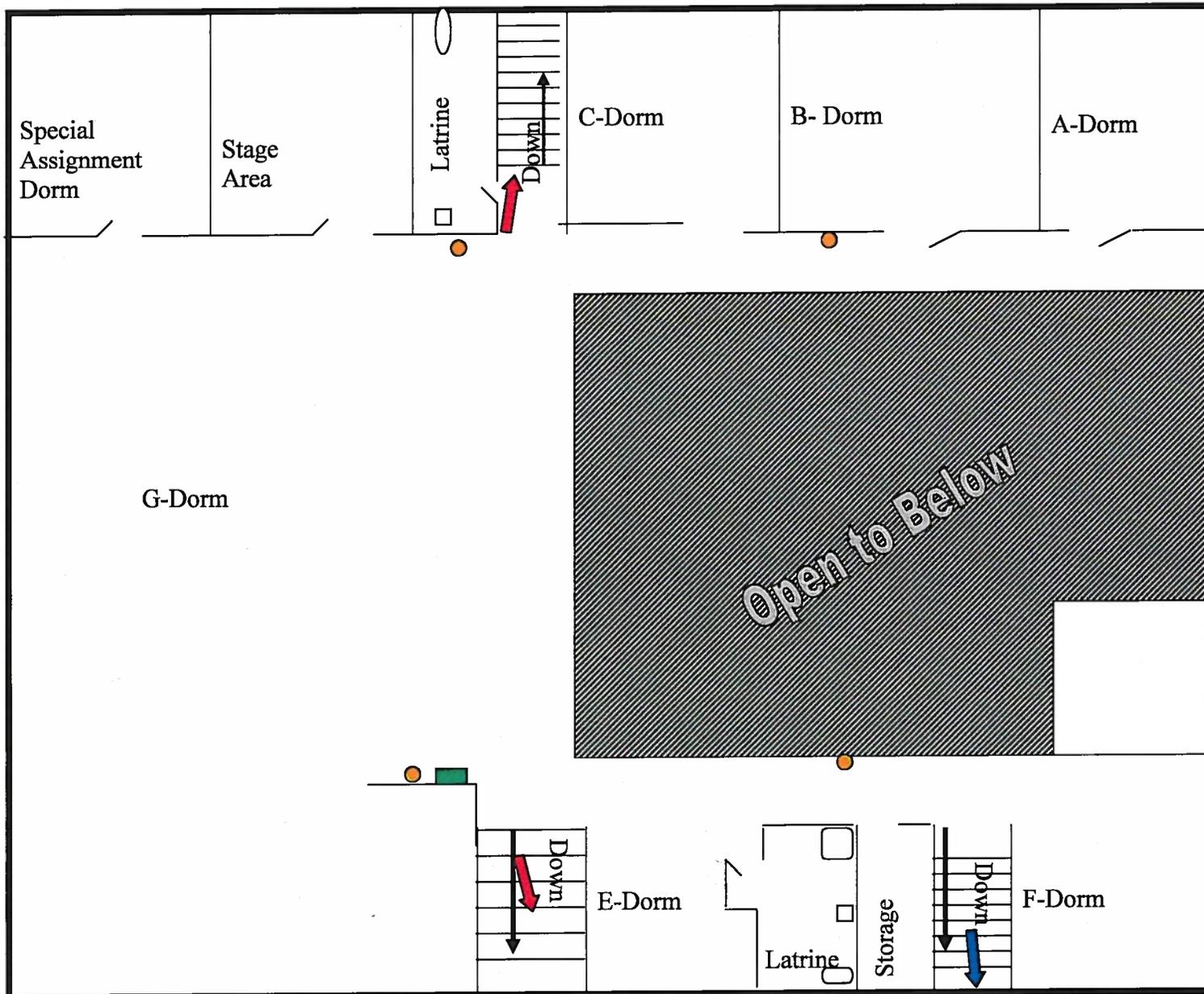


-  - Primary Exit Route
-  - Secondary Exit Route
-  - Fire Pull Box
-  - Fire Extinguisher

IMWRC - 1 ST FLOOR



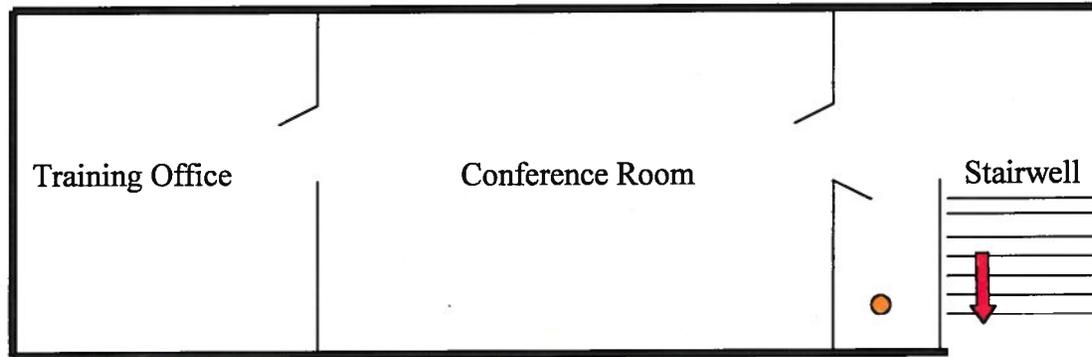
IMWRC - 2ND FLOOR



- - Shower
- - Sink
- - Urinal

- - Fire Extinguisher
- - Pull Box
- ➔ - Primary Exit Route
- ➔ - Secondary Exit Route

IMWRC - 3RD FLOOR



-  - Primary Exit Route
-  - Secondary Exit Route
-  - Fire Pull Box
-  - Fire Extinguisher

PHOTOGRAPHS

**448 West Norwood Street
Indianapolis, Indiana
Project No. 201201484**



Photo 1: Overall view of the building, looking northeast



Photo 2: Overall view of the building, looking southwest

**448 West Norwood Street
Indianapolis, Indiana
Project No. 201201484**



Photo 3: Newer roofing over the western portion of the building



Photo 4: Roofing over the eastern portion of the building in poor condition

**448 West Norwood Street
Indianapolis, Indiana
Project No. 201201484**



Photo 5: Deteriorated mortar joints near the roof on the west elevation



Photo 6: Cracked and deteriorated brick masonry at the southwest corner of the building

448 West Norwood Street
Indianapolis, Indiana
Project No. 201201484

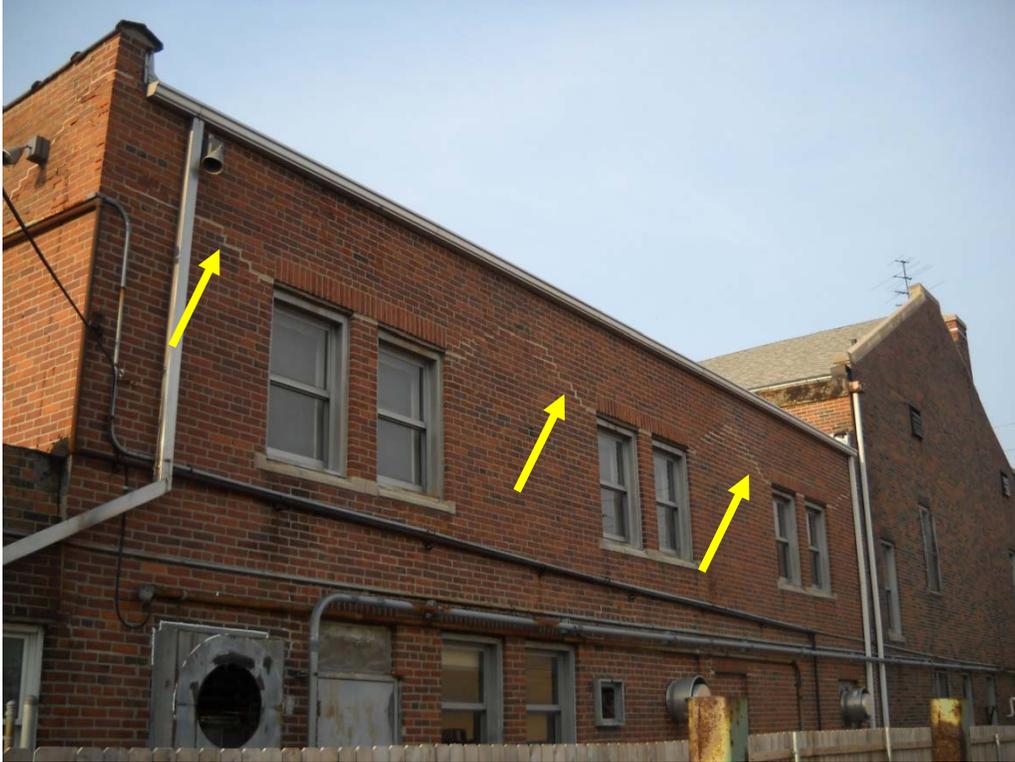


Photo 7: Previously repaired cracks in brick masonry on the north elevation



Photo 8: Previously repaired cracks in brick masonry on the south elevation

448 West Norwood Street
Indianapolis, Indiana
Project No. 201201484

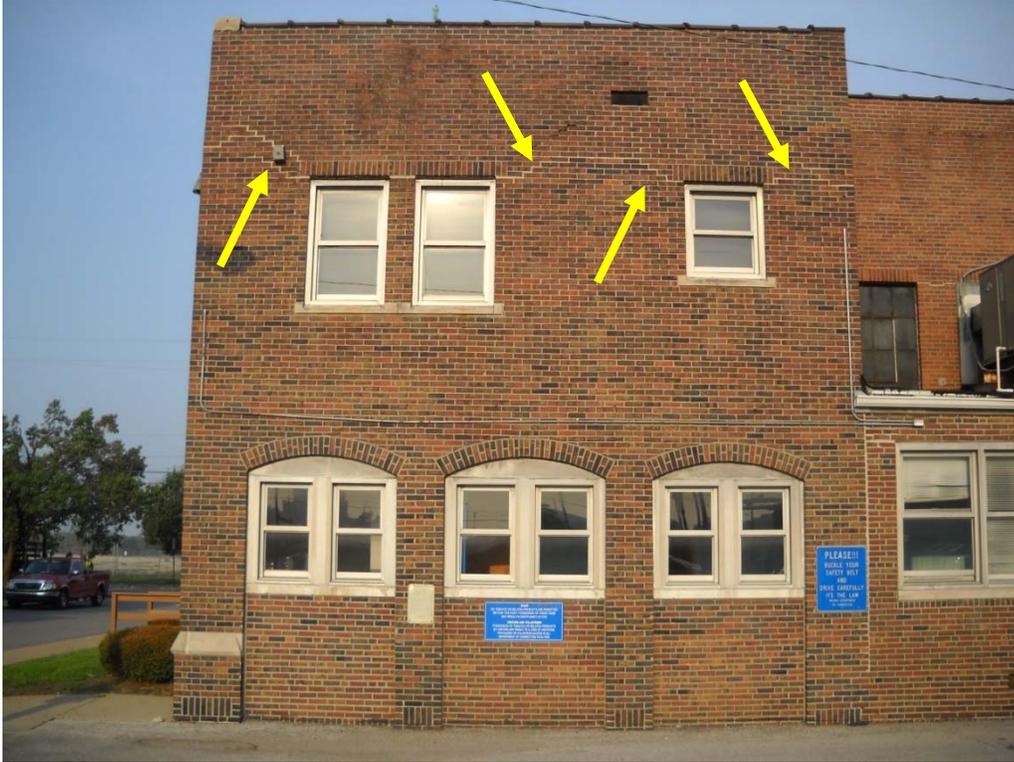


Photo 9: Previously repaired cracks in brick masonry on the east elevation



Photo 10: Open cracks, previously repaired cracks, corroded steel lintels on the east elevation above the lower roof

448 West Norwood Street
Indianapolis, Indiana
Project No. 201201484



Photo 11: Leaning and bowing brick masonry wall on the east elevation above the lower roof



Photo 12: Corroded steel support for the first floor landing

448 West Norwood Street
Indianapolis, Indiana
Project No. 201201484



Photo 13: Moisture deterioration of wood roof decking and apparent mold growth of roof joists



Photo 14: Previously repaired and deteriorated ceiling and south exterior wall in F-Dorm on the second floor

448 West Norwood Street
Indianapolis, Indiana
Project No. 201201484



Photo 15: Deteriorated wood framing supporting the floor below F-Dorm



Photo 16: Repairs and cracks in the plaster ceiling above the kitchen