

From: Rita <ritalmitchell@gmail.com>

Sent: Thursday, July 08, 2021 5:32 PM

To: Brummer Christine <brummerceb@gmail.com>; OWSBoard@umich.edu <owsboard@umich.edu>; Narda Wishka <nmwishka@gmail.com>; Miller Lucy <portmiller@sbcglobal.net>; Verena Brunner <vlbru@umich.edu>; Ziegler Glenn <geziegler@att.net>; Melissa Snyder <melissa@snyderjr.com>; Crockett Christine <christinecrockett8@gmail.com>; Jeff Crockett <jeffcrockett8@gmail.com>; Chamberlin, Marsha <marsha.chamberlin@gmail.com>; Mark Hodesh <mark@downtownhomeandgarden.com>; rick plewa <richard_j_plewa@comerica.com>; marshua@umich.edu; Thacher, Jill <JThacher@a2gov.org>; Ramlawi, Ali <ARamlawi@a2gov.org>; Briggs, Erica <EBriggs@a2gov.org>; Joseph Arcure <arcure1@gmail.com>

Subject: Fwd: 415 W Washington: Preserve Habitat & Biodiversity

Hi All,

Here is my belated message to the HDC, cobbling together prior information.

Rita

Begin forwarded message:

From: Rita <ritalmitchell@gmail.com>

Subject: 415 W Washington: Preserve Habitat & Biodiversity

Date: July 8, 2021 at 4:54:09 PM EDT

To: hdc@a2gov.org

Dear Historic District Commissioners,

You will be considering a potentially big change in the city owned property at 415 W. Washington St. on your agenda tonight. I ask that you pause and consider the effect that any large structure may have on the existing industrial chimney that is located in the central area of the property, near the northernmost building which is a roosting site for near-endangered chimney swifts (*Chaetura pelagica*).

Chimney swifts are being affected by climate change and loss of habitat. They roost in large numbers during their migration periods in spring and fall. Chimneys provide refuge during their migration, and chimneys of the type located at 415 W Washington St are becoming more and more rare. These birds serve the community by catching and eating insect prey for their food. What they eat results in many fewer mosquito bites! Chimney swifts fly constantly during daytime hours, and do not perch on horizontal surfaces. Their feet require a vertical surface. They adapted to using chimneys for night-time roosting, as logging resulted in removal of large hollow trees from their habitats. The chimneys are a last resort, and losing any viable chimney means a continuing decline in the bird population. Additional information on the birds is available here:

a2gov.org/departments/Parks-Recreation/NAP/birds/Pages/Chimney-Swifts.aspx

The chimney at 415 W. Washington was inspected and found to be in fair to good structural condition. Washtenaw Audubon Society and the Sierra Club Huron Valley Group have supported retention and repair of the chimney for the ongoing good of the community. Retention of the chimney will support biodiversity as well as environmental education about the benefits of the birds to our community.

Additional detail is attached, a message series between myself and Cathy Theisen, DVM, Conservation Chair of Washtenaw Audubon Society, indicating that Washtenaw Audubon Society strongly supports retaining the existing chimney at a height of 9.4 feet above any newly built rooflines, and we believe that is what the public asked for when the resolution was passed.

City Council has supported retention of the chimney. Please follow Council's previous recommendations and consider limiting the scope of development, in order to protect a bird population that is in serious decline.

Thank you,

Rita Mitchell
621 Fifth St.
Ann Arbor, MI 48103

From: outfresh@aol.com 
Subject: Re: 415 W. Washington & Chimney Swifts
Date: April 21, 2020 at 9:09 PM
To: ritalmitchell@gmail.com, ARamlawi@a2gov.org, CTaylor@a2gov.org, zackerman@a2gov.org, JHayner@a2gov.org, jgrand@a2gov.org, ABannister@a2gov.org, ChSmith@a2gov.org, JEaton@a2gov.org, ENelson@a2gov.org, KGriswold@a2gov.org, JLumm@a2gov.org
Cc: tcrawford@a2gov.org, joneal@onealconstruction.com, joneal@Onealconstruction.com, nshiffler@comcast.net



Dear Mayor and Council members:

Washtenaw Audubon Society would like to weigh in on the issues Rita has presented and share what information we have in regard to the Chimney Swifts' needs as the property at 415 W. Washington is being developed. As the Conservation Chair of this association, I've spent a fair amount of time researching this issue and have two new documents that I hope will provide some guidance as you consider the complex issues before you.

The Habitat Creation overview (attached) was shared with me by Megan Hiebert, Ontario's Swiftwatch Coordinator. Swifts are an endangered species in Ontario; thus, Canada is a leading source for many of the studies, scientific abstracts, and anecdotal evidence of what conditions help swifts to succeed. Further, our climate is much more similar to Ontario than to the Southwestern USA, another leading source of swift literature. **I hope you'll take the time to read this document, especially the "Decision Tree" chart, which helps communities decide what to do during construction projects involving Chimney Swifts.** Here are some bullet points with key facts about Chimney Swifts:

- Nesting towers are built to house one pair of swifts; these are much easier to replicate than are roosts. The Washington St. chimney is a roost and has hosted over 1,000 birds in a single season.
- Chimney Swifts choose a roost chimney based on location, dimensions, materials, and internal microclimate. Since many of these requirements are still being researched, much is unknown about the precise specifications they need.
- Chimney Swifts prefer an average chimney height of 9.4 feet above the surrounding roofline.
- Chimney Swifts display a strong preference for chimneys in which they have previously roosted (i.e., high site fidelity), which makes efforts to preserve existing chimneys the most likely to be successful for continued roosting.
- Chimney Swifts generally choose sites away from taller buildings or trees in order to avoid predation as they enter/exit the chimney.

Here's how the "Decision Tree" ranks the available options for construction success around Chimney Swifts:

1. Retaining an existing chimney is the cheapest and best guarantee of roosting Chimney Swift success. Washtenaw Audubon had understood that this was the

Chimney Swift success. Washtenaw Audubon had understood that this was the path we would follow, especially since engineering studies have shown the existing chimney is in good condition. (Cost estimate: no additional expense)

2. Extend the height of the existing chimney to 9.4 feet above proposed rooflines. Unfortunately, this may alter the stability of the chimney. (Cost estimate: \$1000-\$3,500)
3. Build a false chimney attached to one of the new buildings, exactly replicating conditions of the original chimney, designed under the guidance of a panel of experts. (Cost estimate: \$5-8,000)
4. Create a new stand-alone chimney in a nearby site). In Canada, only 3 out of 60 attempts to build new chimneys have been successful. (Low cost estimate: \$85K)

The second attachment, "Bridgetown," is an analysis of a chimney attached to a school slated for demolition. Engineers deemed the chimney unstable, and so decided to build a new, stand-alone chimney nearby, which was successfully used by swifts in 2019. **If you read nothing else in this attachment, please note the long list of biologists, Chimney Swift scientists, and Department of Wildlife experts that formed a steering committee to build exactly the right structure.** I believe we would need a similar panel of experts before attempting to modify the existing chimney.

I will continue to dig for more information on how construction decisions are made, but this will give you food for thought in the meantime. Washtenaw Audubon strongly supports retaining the existing chimney at a height of 9.4 feet above any newly built rooflines, and we believe that is what the public asked for when the resolution was passed. While there are no guarantees the swifts will accept this altered environment, research and past experience has shown that this is the best option for saving this Near-Threatened species.

We are grateful for your service to the citizens of Ann Arbor, your diligence in considering this issue, and your commitment to the natural flora/fauna that makes Ann Arbor "Tree Town, USA". I will do my best to answer any questions you have, and search for further information as needed.

I hope you all are staying safe and well in these troubling times.

Cathy Theisen, DVM
Conservation Chair, Washtenaw Audubon Society
www.cathythevet.net
734-864-2381

-----Original Message-----

From: Rita <ritamitchell@gmail.com>

To: Ramlawi A <ARamlawi@a2gov.org>; Taylor C <CTaylor@a2gov.org>; Ackerman Z <zackerman@a2gov.org>; Hayner J <JHayner@a2gov.org>; Grand J <jgrand@a2gov.org>; Bannister A <ABannister@a2gov.org>; Smith C <ChSmith@a2gov.org>; Eaton J <JEaton@a2gov.org>; Nelson E <ENelson@a2gov.org>; Griswold K <KGriswold@a2gov.org>; Lumm J <JLumm@a2gov.org>

Cc: Crawford Tom <tcrawford@a2gov.org>; O'Neal Joe <joneal@Onealconstruction.com>; CATHY THEISEN <outfresh@aol.com>; Shiffler Nancy <nshiffler@comcast.net>

Sent: Sun, Apr 19, 2020 3:05 pm

Subject: 415 W. Washington & Chimney Swifts

Dear Mayor and Council Members,

I reviewed agenda item CA-7, [Resolution to Direct the City Administrator, Ann Arbor Housing Commission, and Planning Commission to Create Proposed Application Materials, Review and Recommend Development Entitlements to the City Council for 415 W. Washington to Support the Development of Affordable Housing in the City](#)

Prior discussions of 415 W. Washington site included an assessment of the condition of the existing chimney that is a recognized roosting site for the near-endangered chimney swifts. Their presence and use of the chimney were identified as a potential community environmental education opportunity. I am concerned that the resolution before you appears to omit consideration of preservation of the chimney for the purpose of bird habitat.

Please remember that the birds are a part of our ecosystem. They eat significant numbers of flying insects and thus provide an ecosystem benefit to our community. We should reciprocate and provide their important roosting habitat by preserving the chimney and assuring that the design of any structure located near it will avoid impeding their continued use of the chimney.

See below, with **bold font** added:

415 W. Washington poses numerous challenges toward the realization of Affordable Housing:

- The property is impacted by floodplains, which both limits the potential building envelope and the use of federal funding to support the development of affordable housing.
- The property is adjacent to the railroad, which further renders the site ineligible for federal affordable housing funding.
- **Methods to potentially preserve chimney swift habitat could become a limiting factor of site development.**
- **Unknown environmental impacts to be addressed.**

I ask that you include preservation of the chimney for habitat for the chimney swifts, as one of the entitlement elements required for development. Arrange for a qualified ornithologist to consult with design staff, regarding any proximate structures that may be built. Protection of the chimney will allow Ann Arbor's ongoing support for the ecological services provided by the birds, and their continued existence.

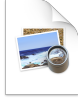
Thank you.

Sincerely,

Rita Mitchell
621 Fifth St.
Ann Arbor, MI 48103



Habitat Creation
techni...4.docx



Bridgetown
CHSW...19.pdf

STRUCTURAL EVALUATION REPORT



Chimney at 415 W. Washington Ann Arbor, Michigan

Submitted to:

DiClemente Siegel Design Inc.
28105 Greenfield Road
Southfield, MI 48076
Phone: (248) 569-1430

Submitted by:

Desai/Nasr Consulting Engineers, Inc.
6765 Daly Rd
West Bloomfield, Michigan 48322
Phone: 248-932-2010
Fax: 248-932-3088
www.desainasr.com

DNCE Project No. : 18-1339

Date Submitted: November 20, 2018

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1.0 EXECUTIVE SUMMARY

DiClemente Siegel Design Inc. authorized Desai/Nasr Consulting Engineers to perform an evaluation of the chimney connected to the building located at 415 W. Washington St, Ann Arbor, MI 48103.

A two-story building at the address indicated above has been vacant for several years and is planned to be fully demolished. A chimney is connected to the south face of the building (at the east side) with a concrete beam acting as a flue. As desired by the owner, the chimney is proposed to remain after the demolition of the adjacent building.

Original Construction Drawings were not available at the time of the condition assessment; therefore, the findings of this report are based on visual inspection of exposed structural elements and experience with buildings of similar construction and era. No destructive or non-destructive testing was performed. As such, although this condition assessment is useful for detecting gross issues, it may not detect every issue, especially subtle or hidden conditions.

Buried elements such as foundations were observed to the extents possible, but with limited results due to the visual nature of the inspection.

2.0 INTRODUCTION

A walk-through style visual inspection of the above captioned property was conducted on Thursday, November 1st, 2018 by Alaa Chehab of Desai/Nasr Consulting Engineers, Inc., and Doug Forsyth of the City of Ann Arbor. The walk-through inspection was limited to observation of elements that were readily accessible and visible. The inspection was limited to the exterior of the chimney and to the inside of the adjacent building to check how the concrete flue is attached to the building frame from the inside. Based on the observations and pictures taken (see APPENDIX A) during the site visit, conclusions and recommendations are made and presented in section 6.0 of the present report.

3.0 GENERAL DESCRIPTION

The chimney is approximately 48 ft tall with plan dimensions of approximately 5.5 ft x 5.5 ft, constructed from clay bricks and supported on a reinforced concrete base (Figure 1). The concrete base of the chimney is connected to the adjacent building through a concrete beam that is approximately 6 ft long, 2.75 ft x 2.75 ft in section, and 8 ft above ground level. There is also a 7 ft high masonry wall connecting the chimney (at the north-west corner) to the adjacent building wall (Photoset 3). Due to the lack of Existing Structural Drawings and the visual nature of the inspection, the chimney foundation layout is assumed to be isolated from the adjacent building foundation.

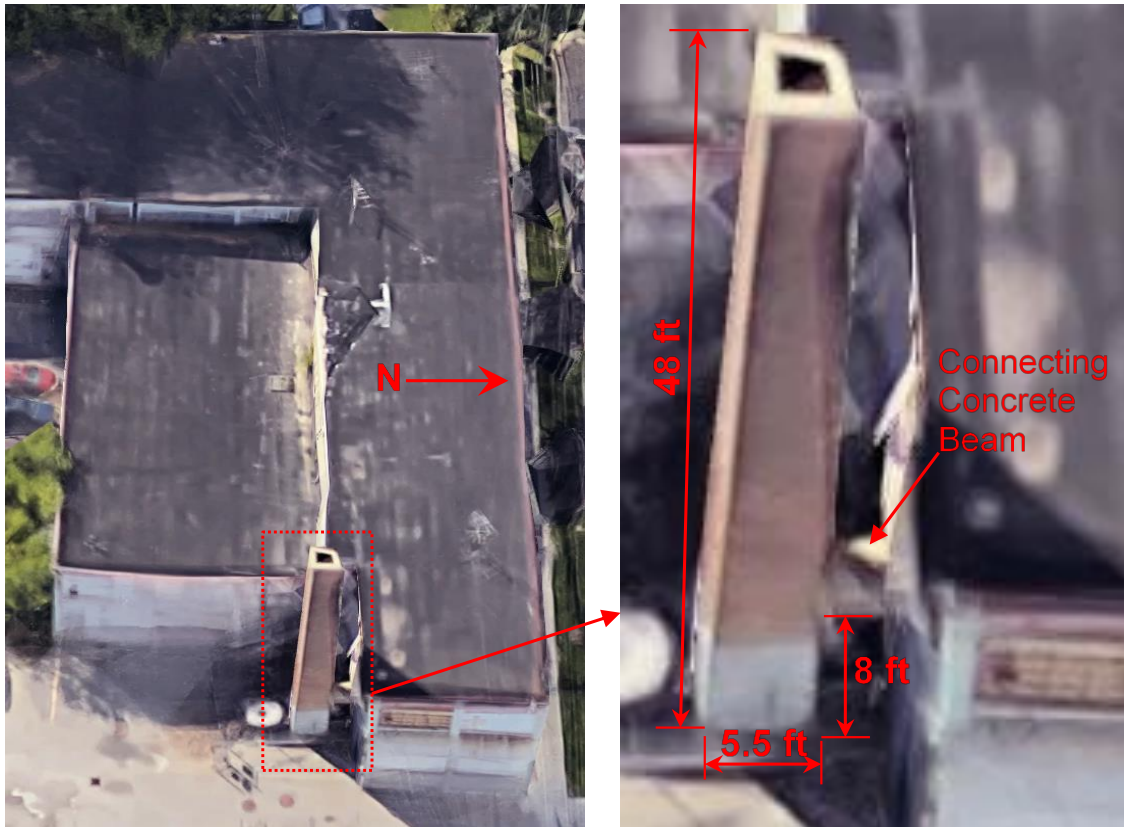


Figure 1. Chimney configuration and attachment to adjacent building.

4.0 CONDITION ASSESSMENT – CHIMNEY EXTERIOR

Based on the visual inspection of the chimney exterior and the attached flue, deteriorations in brick and concrete were observed. Photos of areas where deteriorations were found are provided in APPENDIX A of this report, and summarized as follows:

- Loose bricks and lack of mortar between bricks at top of chimney (Photoset 1).
- The concrete base of the chimney has vertical cracks at the south side, east and west sides (Photoset 2).
- Major crack in bricks extending from the west to the south side of the chimney, above the concrete base (Photoset 3).
- Cracks in the concrete beam (Photoset 4).
- Sever horizontal crack in the existing building concrete frame near the beam attachment point (Photoset 4).

5.0 STRUCTURAL EVALUATION

The lack of availability of original construction drawings requires a load evaluation to be performed. Based on the dimensions, and estimated material type/grade of the existing structural elements, load capacity can be assessed using the current ASCE-7 and BIA design guidelines and standards.

In order to examine the effect of removing the existing concrete beam (flue) connecting the chimney to the adjacent building, two models for the chimney structure have been analyzed (Figure 2). In both models, distributed lateral wind forces along the entire height of the chimney structure were applied in the north-south direction. The first model (a) is based on the existing conditions, while the second model (b) is based on the scenario where the beam is completely removed and the chimney is acting as a “stand-alone” structure. As shown in Figure 2, the resulted flexural moment at the base of the chimney after removing the beam (case b) became much larger, compared to the case where the beam is connected to the chimney, by approximately 4 times. However, this difference in the moment at the bottom is based on the assumption that the connecting beam is supporting the chimney in the horizontal direction, 8 ft above ground, and transferring lateral forces from the chimney to the existing building frame (presented by the reaction at point A).

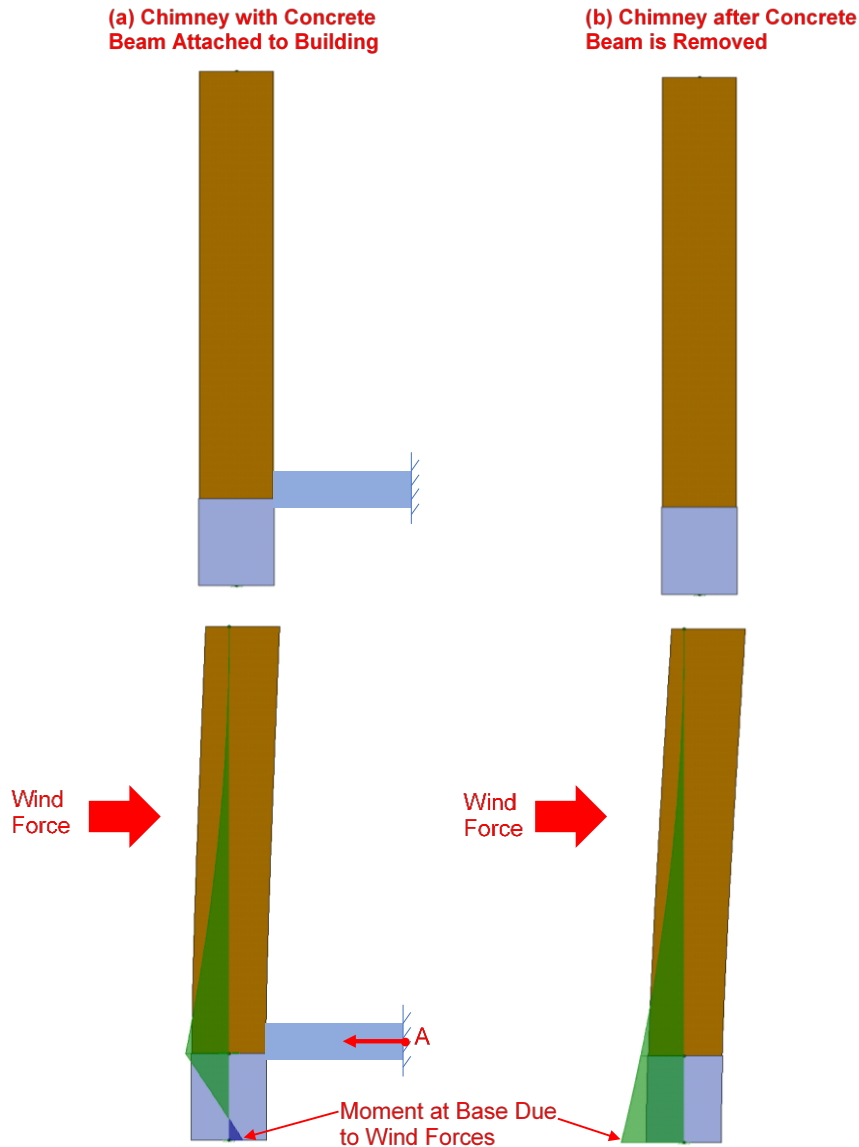


Figure 2. Concrete beam attachment to chimney and the adjacent building.

Furthermore, the analysis results showed significant lateral forces at point A, and thus for such large lateral force to be supported at that point, the beam must be connected to the building frame. This connection to the building frame was not visible from the inside of the building as shown in Photoset 5 where the beam is mainly passing through and supported by the existing wall, but not attached to the frame above.

6.0 CONCLUSIONS AND RECOMMENDATIONS

In general, the chimney structure is in a fair to good condition. There are no signs of settlement of the existing chimney base, but a few areas of cracking and loose brick as listed above (section 4.0). However, it should be noted that these areas require major repairs to be made acceptable by current building code requirements. It is recommended to repoint loose brick with new mortar, especially at the top of the chimney, as soon as possible to avoid further deterioration that could potentially become severe and risk falling.

Since no structural connection between the concrete beam and the existing building frame was visible, it is assumed that the beam was not designed as a main lateral support member to the chimney structure. Therefore, removing this beam should not affect the lateral stability of the chimney as a stand-alone structure, assuming that the chimney is supported on an isolated foundation. Thus, if the final decision is to keep the chimney, isolating the chimney foundation against vibration and soil movement during demolition and construction is highly recommended. Temporary shoring is advised during demolition of the adjacent building, and until the new construction is completed.

Appendix A

Chimney Top



Photoset 1: Loose bricks and lack of mortar joints at top of chimney.

Chimney Base

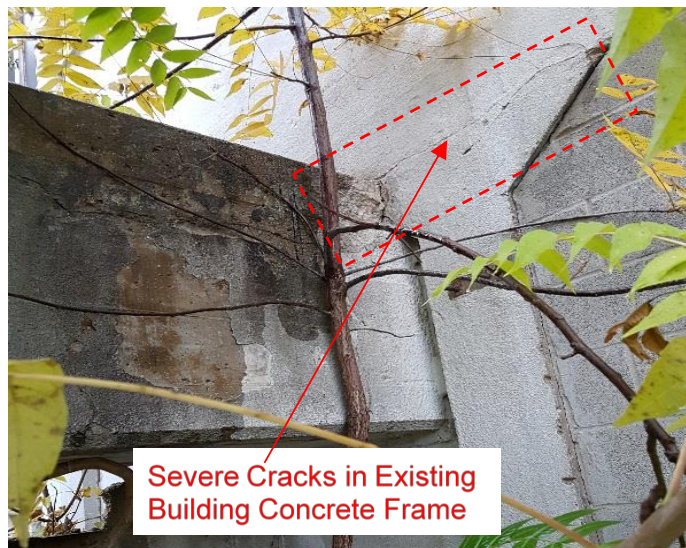
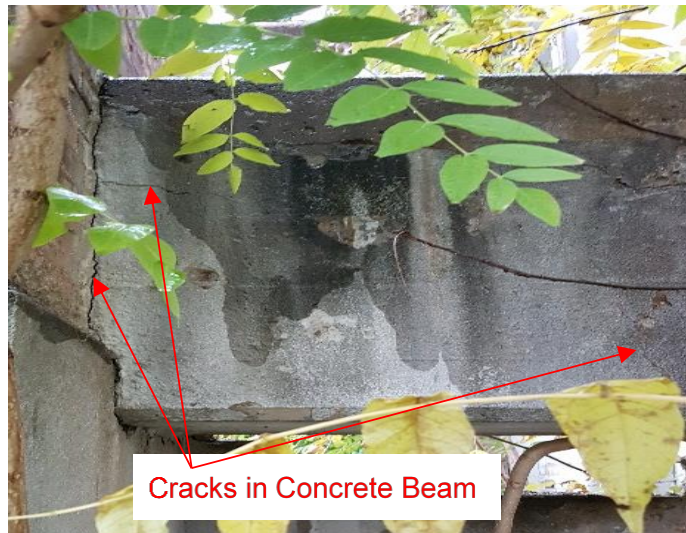


Photoset 2: Major vertical cracks along the south and east sides of the base.



Photoset 3: Major horizontal cracks in brick above the concrete base along south and west sides.

Connecting Concrete Beam



Photoset 4: Cracks in concrete beam and the adjacent building frame.



Photoset 5: Extension of the concrete beam end to the inside of the adjacent building.