

415 West Washington Historic Structure 2017 Reassessment

415 West Washington, Ann Arbor, MI, 48103
Follow-up to Rueter Associates Assessment of August 29, 2013
November 1, 2017

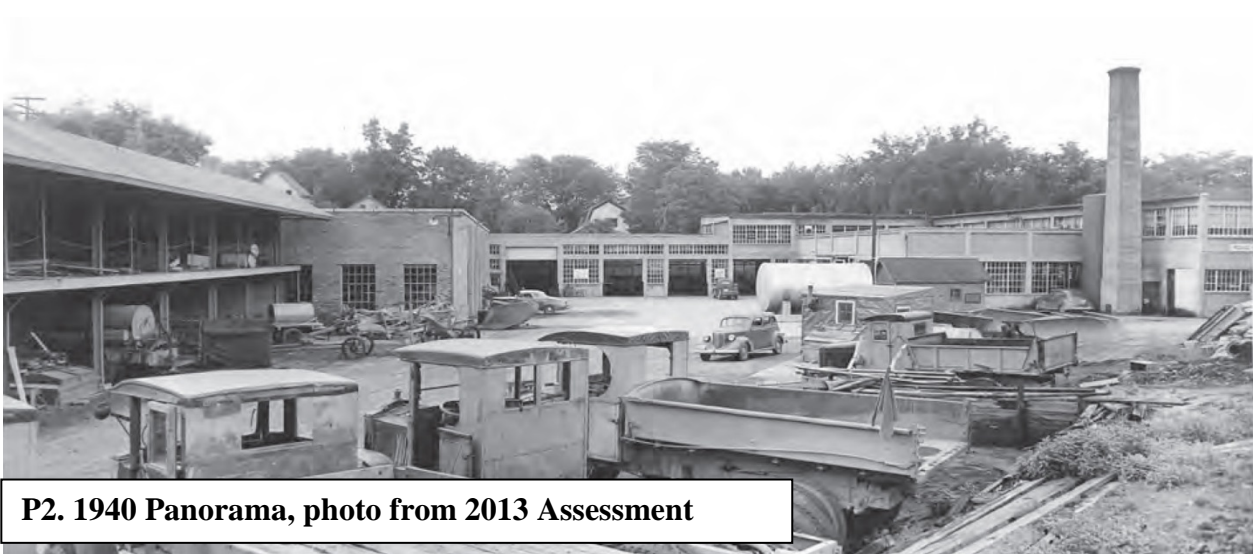


Table of Contents

Page		Photographs
1	Cover Page	P1, P2
2	Table of Contents	
3	Scope of Work, Color Coded Key Plan	
4	Approach, Photograph Chronology	
5	Area A – High Bay Space, Building Element Condition Matrix	P3
6	Area A – Photographs	P4, P5, P6
7	Area A - Condition Evaluation	
8	Area B – Concrete Frame and Second Floor Addition Building Element Condition Matrix	P7, P8
9	Area B – Photographs, North Facade	P9, P10
10	Area B – Photographs	P11, P12, P13, P14
11	Area B – Condition Evaluation	P15, P16
12	Area C – Concrete Frame and Partial Second Floor Building Element Condition Matrix	P17, P18
13	Area C – Photographs	P19, P20, P21, P22
14	Area C – Condition Evaluation	
15	Area D – Brick Bearing Wall Garage, Building Element Condition Matrix	P23, P24
15	Area D – Photographs	P22, P23
16	Area D – Photographs	P25, P26
17	Area D – Condition Evaluation	
18	Area E – Steel Frame Storage Structure Building Element Condition Matrix	P27, P28
19	Area E - Condition Evaluation	
20	Preservation Plan, Areas A, B and C	
21	Preservation Plan, Areas D & E	
22	Cost Estimates, Conclusion	

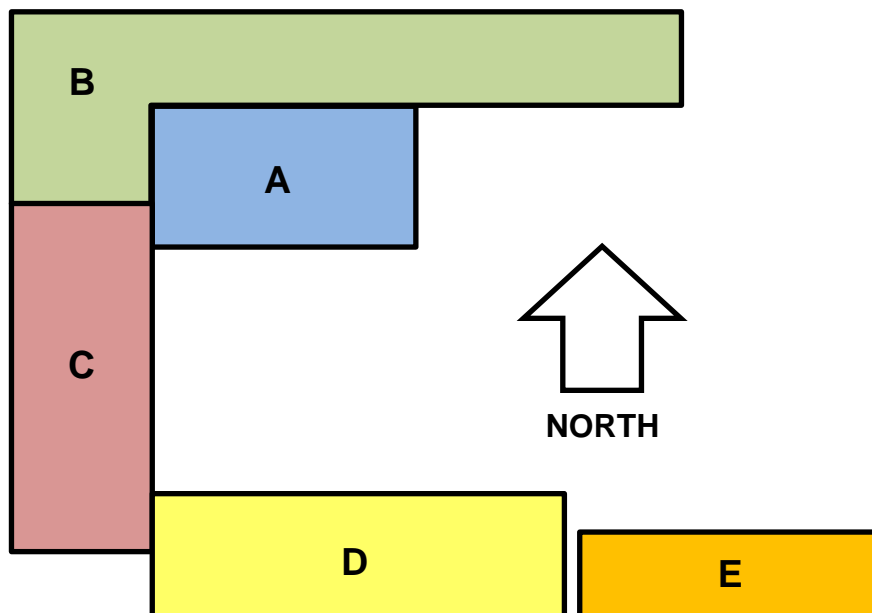
Scope of Work – This report is intended to provide the City of Ann Arbor with an updated assessment of the buildings located at 415 West Washington Ave. The original comprehensive assessment was published by Rueter Associates of Ann Arbor, Michigan on August 29, 2013, hereafter referred to as the “2013 Assessment.” While the 2013 Assessment addressed the historical significance of the buildings, that is not within the scope of this report. The focus of this report is to identify the physical change, if any, in the condition of the building elements analyzed in Part 3 of the 2013 Assessment, entitled “Condition Assessment.” In general, this includes the following areas:

Site Features

- Adjacent Paving and walks

Individual Structures

- Area A. High Bay Space
- Area B. Concrete Frame and Second Floor Addition
- Area C. Concrete Frame and Partial Second Floor Addition
- Area D. Brick Bearing Wall Garage
- Area E. Steel Framed Storage Structure
- General Mechanical and Electrical Systems



Approach – The 2013 Assessment divided the site into five separate buildings and / or areas and individual building elements within each area were evaluated for condition, falling into 3 categories: good, fair, or poor. Recommendations were provided for repair, rehabilitation, and adaptive reuse and cost estimates for such work. This report is limited to the reassessment of the condition of the individual building elements, and updates to the previously provided Preservation Plan and Cost Estimates. The following items were not within the scope of this report: reassessment of historical significance, floodplain, flood insurance, building code, ADA accessibility, and energy code compliance. It is unlikely that the findings regarding these items have changed significantly since the 2013 Assessment. The condition of various building elements are shown in the “Building Element Condition Matrices” provided herein. The condition of each building element is shown in side-by-side fashion to facilitate easy comparison between the 2013 and 2017 findings. In some cases, the condition of building elements were not definitively identified as good, fair, or poor in the 2013 Assessment. These have been identified as “unspecified” in the 2013 Assessment column.

Photograph Chronology – The photographs in this report were taken on 10/20/17 for the purpose of this Reassessment, unless noted otherwise. All photographs are numbered (P1, P2, etc.) for reference. Several photographs have been extracted from the 2013 Assessment and inserted herein with the corresponding 2017 photograph adjacent to it on the same page to facilitate direct visual comparison. In some cases, the precise perspective could not be reproduced due to adjacent buildings, vegetation, and other obstructions.

Area A- High Bay Space

Area A - High Bay Space		2013 Assessment	2017 Assessment	Comments
Building Element Condition Matrix				
1	Foundation	Unknown	Unknown	Progressive differential settlement
2	Steel Warren Trusses	Good	Good	No significant change
3	Concrete Roof Deck	Fair	Fair	No significant change
4	Lattice Columns	Poor	Poor	Progressive deterioration evident
6	Floor Slab	Poor	Poor	New slab recommended
7	Roofing and Waterproofing	Poor	Poor	Progressive deterioration
8	Window Frames	Fair	Fair	Progressive deterioration
9	Window Glass	Poor	Poor	No significant change
10	Doors, Hollow Metal Type	Poor	Poor	Progressive deterioration
11	Door, Overhead, 12'x12'	Poor	Poor	Progressive deterioration
12	Mechanical Systems	Unspecified	Poor	No longer serviceable
13	Electrical Systems	Inadequate	Poor	No longer serviceable



P3. Area A, Interior, 2017



P4. Area A, Interior, 2017



P5



P6

Area A Condition Evaluation – Area A appears to have experienced marginal progressive deterioration since the 2013 Assessment. This is evident primarily due to rusting of metal doors, spalling of concrete encasement of lattice columns, and staining of roof deck from leaks near mechanical equipment penetrations. As stated in the 2013 Assessment, the mechanical and electrical systems are not readily adaptable for potential future uses. This portion of the building could possibly be renovated for uses similar to its current use (e.g. storage / warehouse) notwithstanding the floodplain issue. However, because this area is structurally contiguous to Area B, the feasibility of such reuse is significantly diminished.

Area B – Concrete Frame and Second Floor Addition

Area B - Concrete Frame and Second Floor Addition		2013 Assessment	2017 Assessment	Comments
Building Element Condition Matrix				
1	Foundation	Unknown	Unknown	Progressive differential settlement
2	Walls, Window Sills, Upper	Fair	Poor	Progressive cracking evident
3	Walls, Window Sills, Lower	Poor	Poor	Progressive cracking evident
4	Walls, Parapet	Fair	Fair	No significant change
5	Floor / Ceiling Structure	Unspecified	Good	Progressive deterioration
6	Roof Structure	Unspecified	Good	No significant change
7	Floor Slab	Unspecified	Poor	New slab recommended
8	Roofing and Waterproofing	Very Poor	Poor	Appears to have been repaired
9	Window Frames	Fair	Poor	Will not meet energy code
10	Window Glass	Poor	Poor	No significant change
11	Doors, Exterior	Poor	Poor	Progressive deterioration
13	Interior Finishes	Fair	Poor	No longer serviceable
14	Mechanical Systems	Unspecified	Poor	No longer serviceable
15	Electrical Systems	Inadaquate	Inadaquate	No longer serviceable





P9. North Façade, 2017



P10. North Façade, 2013 Assessment Photo

New OSB sheathing appears to have been installed over the upper windows. The plywood security panels with simulated painted window sashes seen in the 2013 photo are no longer visible. These were either removed or covered over by the new OSB sheathing. The overall visual appearance of the north and east facades is very poor.



P11



P12



P13. Block "W", 2013 Assessment



P14. Block "W", 2017 Reassessment



Area B Condition Evaluation - Area B appears to have experienced significant progressive deterioration since the 2013 Assessment. This is evidenced by debris on grade along the base of the wall from recent spalling concrete (P11), severe cracking of reinforced concrete columns exposing internal reinforcing bars (P7 & P8), and stress cracks at window lintels along north wall (). We believe that these and other observations are indicative of significant degradation of the primary load bearing structural components of the building. The interior finishes are not suitable for reuse of any type (P15 & P16). Although the 2013 Assessment suggested repairing the existing windows due to their historical character, we do not believe this would be possible while still meeting the current Michigan Energy Code.

Area C – Concrete Frame and Partial Second Floor Addition

Area C - Concrete Frame and Partial Second Floor Addition		2013 Assessment	2017 Assessment	Comments
Building Element Condition Matrix				
1	Foundation	Unknown	Unknown	No significant change
2	Steel Warren Trusses	Very Good	Very Good	No significant change
3	Steel Roof Channels	Good	Good	No significant change
4	Steel Roof Deck	Very Good	Good	Progressive rusting evident
5	Walls, Concrete Frame	Fair	Fair	Progressive cracking evident
6	Floor Slab	Unspecified	Fair	No significant change
7	Roofing and Waterproofing	Fair	Fair	No significant change
8	Window Frames	Good	Fair	Progressive deterioration
9	Doors, Exterior	Fair	Fair	Progressive deterioration
10	Interior Finishes	Unspecified	Poor	Second floor finishes are poor
11	Mechanical Systems	Unspecified	Poor	No longer serviceable
12	Electrical Systems	Inadaquate	Inadaquate	No longer serviceable



P17. 2013 Assessment Photo



P18. 2017 Reassessment Photo



P19. 2013 Assessment Photo



P20. 2017 Reassessment Photo



P21



P22

Area C Condition Evaluation - Area C appears to have experienced minimal progressive deterioration since the 2013 Assessment. This is evident primarily in rusting of metal deck (P21) and evidence of minor roof leakage. Vegetation growing on roof is further evidence of progressive deterioration of the roof membrane (P22). As stated in the 2013 Assessment, the mechanical and electrical systems are not readily adaptable for potential future uses.

Area D – Brick Bearing Wall Garage

Area D - Brick Bearing Wall Garage	2013 Assessment	2017 Assessment (Note 1)	Comments
Building Element Condition Matrix			
Foundation	Unknown	Unknown	No significant change
2 Steel Beams	Good	Unknown	No significant change
3 Steel Bar Joists	Good	Unknown	No significant change
4 Steel Roof Deck	Good	Unknown	No significant change
5 Walls, Brick	Fair	Unknown	No significant change
6 Walls, Parapet	Good	Unknown	No significant change
7 Walls, Window Sills	Fair	Unknown	No significant change
8 Walls, Coping	Poor	Unknown	No significant change
9 Floor Slab	Unspecified	Unknown	No significant change
10 Roofing and Waterproofing	Fair	Unknown	No significant change
11 Window Frames	Good	Fair	Progressive deterioration
12 Doors, Exterior	Fair to Poor	Poor	Progressive deterioration
13 Interior Finishes	None	Unknown	Exposed structure
14 Mechanical Systems	Unspecified	Unknown	No longer serviceable
15 Electrical Systems	Inadequate	Inadequate	No longer serviceable
Note 1 - 2017 Assessment was of exterior only; unable to enter buildings interior.			



P23. 2013 Assessment Photo



P24. 2017 Reassessment Photo



P25. 2013 Assessment Photo



P26. 2017 Reassessment Photo

Area D Condition Evaluation - Area D appears to have experienced minimal progressive deterioration since the 2013 Assessment. Our assessment of this area was limited to the exterior of the building because access to the interior was not possible. The brick appears to be in substantially the same condition as the 2013 Assessment. This area is being utilized as equipment storage by a City department and could not be accessed at the time of our inspection. However, from observations through windows, no significant signs of change were observed.

Area E – Steel Frame Storage Structure

Area E - Steel Framed Storage Structure		2013 Assessment	2017 Assessment (Note 1)	Comments
Building Element Condition Matrix				
1	Foundation	Unknown	Unknown	No significant change
2	Steel Beams	Fair	Fair	No significant change
3	Steel Columns	Fair	Fair	No significant change
4	Steel Decking	Fair	Fair	No significant change
5	Walls, Brick	Fair	Fair	Drainage issue persists
9	Floor Slab	Unspecified	Unknown	No significant change
10	Roofing and Waterproofing	Fair	Poor	Progressive deterioration evident
11	Window	Fair	Fair	Progressive deterioration
12	Doors, Exterior	Fair to Poor	Poor	Progressive deterioration
13	Interior Finishes	None	None	
14	Mechanical Systems	None	None	
15	Electrical Systems	None	None	
Note 1 - 2017 Assessment was of exterior only; unable to enter buildings interior.				



P27. 2013 Assessment Photo



P28. 2017 Reassessment Photo

Area E Condition Evaluation - Area E appears to have experienced marginal progressive deterioration since the 2013 Assessment. The corrugated metal roof appears to have experienced progressive rusting since the 2013 Assessment; however there does not appear to be leakage at this time. Our assessment of this area was limited due to the inability to access the interior of the building. We note that this building was excluded from Rehabilitation estimates in the 2013 Assessment in any case.

Preservation Plan – The following is the reassessment of the 2013 Preservation Plan, based on 2017 observations. Note that categories which have moved to a higher level are highlighted in red. Comments are provided only for items that have moved to a higher level. For other comments please refer to the 2013 Assessment.

Preservation Plan		2013 Assessment Deficiency Level	2017 Assessment Deficiency Level	Comments
Area A - High Bay				
1	Roofing and Coping	Critical	Critical	
2	Mechanical Systems	Critical	Critical	
3	Site Features	Critical	Critical	
4	Walls	Serious	Serious	
5	Windows and Doors	Serious	Critical	Significant progressive rusting
6	Electrical Systems	Serious	Serious	
7	Foundation	Minor	Minor	
Area B - Concrete Frame and Second Floor Addition				
1	Site Features	Minor	Minor	
2	Foundation	Minor	Minor	
3	Structural System	Serious	Critical	Significant deterioration, see P7, P8, P9 & P10
4	Walls	Serious	Serious	
5	Roofing, Coping and Gutters	Critical	Critical	
6	Windows	Serious	Serious	
7	Doors	Minor	Critical	Significant progressive rusting
8	Plumbing	Minor	Minor	
9	Mechanical Systems	Minor	Serious	Not serviceable
10	Electrical Systems	Minor	Serious	Not serviceable
Area C - Concrete Frame and Partial Second Floor Addition				
1	Mechanical Systems	Critical	Critical	
2	Site Features	Serious	Serious	
3	Façade	Serious	Serious	
4	Roofing and Coping	Serious	Serious	
5	Windows	Serious	Serious	
6	Doors	Serious	Serious	
7	Plumbing	Minor	Minor	
8	Electrical Systems	Serious	Serious	

Preservation Plan		2013 Assessment Deficiency Level	2017 Assessment Deficiency Level	Comments
Area D - Brick Bearing Wall Garage				
1	Site Features	Serious	Serious	
2	Walls	Serious	Serious	
3	Roofing and Coping	Serious	Serious	
4	Windows	Serious	Serious	
5	Doors	Serious	Serious	
6	Foundation	Minor	Minor	
7	Plumbing	Minor	Minor	
8	Mechanical	Minor	Minor	
9	Electrical	Minor	Minor	
Area E - Steel Framed Storage Structure				
1	Site Features	Serious	Serious	
2	Walls	Minor	Minor	
3	Roofing and Gutters	Minor	Serious	Progressive rusting of corrugated metal roof

Floodplain – All structures in the study area are located in the 100-year floodplain. The hydraulic study from the 2013 Assessment indicates that anywhere from 4.8’ to 8.7’ of water could be expected to cover the first floor of buildings during a 100 year storm event. Only the second floor of Areas B and C are located above the floodplain. This represents a critical consideration with respect to potential reuse of the structures. As stated in the 2013 Assessment, it is not feasible to flood proof the site or the buildings due to basic physical characteristics. Another alternative would be to raise the first floor elevation to 1 foot above floodplain level. However, aside from the prohibitive cost, this would result in first floor ceiling heights that would render the balance of those floors unsuitable for habitation as remaining ceiling heights would be inadequate. Essentially, all first floors areas within all areas are suitable only for non-habitable uses such as parking and storage. For that reason a usability factor of 25% has been applied to the cost estimates below. This is an arbitrary figure intended to allow comparative cost estimates based on cost per square foot.

Cost Estimates

Stabilization Costs – The 2013 Assessment estimated the cost of stabilization to be \$2,646,598.39. Stabilization was defined as the work required for repairing deteriorated building elements and preventing further deterioration. This would not address the floodplain issues or bring the building up to current building codes. As such, the building could not provide beneficial occupancy upon completion of said stabilization measures. We would estimate that the cost of stabilization has increased by approximately 5% due to inflation and an additional 5% due to progressive deterioration. Therefore the adjusted cost estimate for stabilization would be approximately \$ 2,910,000.00.

Rehabilitation Cost - The 2013 Assessment estimated the cost of rehabilitation to be \$6,398,238.11. Rehabilitation was defined as the work required to bring the building up to current building codes as required to accommodate business or assembly uses. This included new entry enclosure, elevator, stairs, new plumbing, HVAC and electrical systems, barrier free rest rooms, and related site improvements. We would estimate that the cost of rehabilitation has increase by approximately 5% due to inflation and an additional 10% due to progressive deterioration and more stringent building code requirements such as the Michigan Energy Code. Therefore, the 2017 cost estimate for rehabilitation is approximately \$ 7,357,000.00.

The total building area, excluding Area E as per the 2013 Assessment, is 31,486 square feet. The 2017 cost of rehabilitation is therefore approximately \$233/SF ($\$7,357,000.00 / 31,486 \text{ SF} = \$233/\text{SF}$). It should be noted, however, that virtually the entire building is located in the floodplain. Therefore, beneficial use of the ground floor for other than site amenities and parking has low feasibility. Assuming 25% utilization of the ground floor, the total usable area of the building is approximately 14,000 SF. Based on this, the cost per square foot of usable area would be significantly higher than \$233/SF, and could be as high as \$525/SF ($\$7,357,000.00 / 14,000 \text{ SF} = \$525/\text{SF}$). This far exceeds the cost of a new structure which would be in the range of \$200/SF, including demolition and environmental remediation costs.

Conclusion – In general the buildings have experienced progressive deterioration caused by exposure to the elements and lack of ongoing maintenance. The historical value of preservation is not within the scope of this report. Aside from any possible historical value, the building does not appear to be a strong candidate for adaptive reuse or rehabilitation.