

To: Capital Planning Task Force. August 18, 2017
Harbour Cove Windows: Highlights from four reports.

Every page that refers to windows in the four envelope studies done since 2006 is annotated in the following document. Then, in the next document (Item #2, below) there is a complete copy of each of these pages. There is additional data in the various Appendices to those reports, but they add little to the purpose of this paper. I can e-mail you copies of all reports except the 2013 RDH Report, which happens to be the least useful anyway.

The BECA Report of 2014, by the way, is the most carefully researched and comprehensive of the four reports.

Item #2, below has a handwritten page number in the upper right hand corner of each page. For example, all pages copied from the RJC 2017 Report are found on pages 1-18 , the 2014 BECA Report data are on pages 19-32, the 2013 D.R. on 33-39, and the 2006 M and H Report on 40-51.

In the following four sections of this e-mail, the pages referred to are from the original source document. For example, in section #1 immediately below, the comment about “Page 5” refers to the actual page number in the original document that was produced by RJC. That page is then copied in the item #2 document on handwritten page number 3.

Any errors or omissions are unintentional and will be immediately corrected if someone points them out. All comments and suggestions are welcome.

1. The RJC Depreciation Report, May 2017.

Page 5 from the RJC report contains some observations about the importance of retaining professional help when planning to implement a depreciation report but emphasizes that the details of why and how to do this are not part of this report.

Page 12 comments about the pros and cons of “bundling” projects as opposed to separating them in order to achieve cost efficiencies. They point out that this report presents “separated” projects because our council asked for that to be done.

Page 13-17 presents an “item schedule” for the building envelope with cost estimates for each item over a 30 year period. The total is \$45,461,000.

Pages 18-26 show the annual cost estimates for each year of the next 30 years given the RJC assumptions on timing of various remediation options.

Pages 50-51 describes the original construction details of our window assemblies and analyzes the problems that they present due to design deficiencies and aging. The conclusion is that all window assemblies should be replaced.

Pages 56-57 point out that the IGUs are past their expected life. It is recommended that they be replaced on an ad hoc basis from the regular maintenance budget, that \$20,000 per year be devoted to this, and that IGU replacement be suspended two years in advance of replacing window assemblies.

2. The “BECA Report” by RJC, February 2014.

Page 1 from the BECA Report is an executive summary and includes the observation that “It is our opinion that the existing aluminum windows and doors are nearing the end of their functional service life and should be targeted for replacement over time.”

Pages 4-5 presents the findings from a survey of all 304 suites: 159 responded. A couple of highlights are: 62% reported various window problems; 23% reported air penetration around windows and doors; and, some reported problems with mildew.

Pages 6-7 report on 60 examinations of interior wall assemblies, mainly adjacent to windows and doors. “Approximately 30%” had moderate to severe problems”.

Pages 12-15 provides a detailed description of how the window and door assemblies are constructed. It then reviews what problems have been faced, and are emerging, as a result of design issues, maintenance issues, and normal aging. On page 15 a recommendation is made that all window and door assemblies be replaced..

Page 23 provides a summary of remediation recommendations and the recommendation on p. 15 is repeated.

Page 26 provides a summary of probable cost over a ten year period. Cost projections for window and door assemblies total \$15,250,000 in 2013, fourth-quarter dollars.

3. Depreciation Report by RDH, May 2013.

Pages 4-5 from the 2013 report provide a list of all building enclosure projects completed as of 2013.

Page 11 presents the estimated cost of “capital expenditures” for window and door renewal over a 30 year period. The total for “roofs, windows, doors, etc” is \$22,958,000. Unfortunately, “roofs, windows, doors” is never defined.

Page 16 provides a commentary on the limitations of the M and H report also recommends that the next steps by HC should be to commission a “building enclosure condition assessment”. This was then done in 2014.

4. Morrison and Hershfield Report, Sept. 2006.

Pages 6-7 from the M and H Report introduce the reader to the documents reviewed by M and H and provide a cursory overview of our repair history at that time. Reference is made to a long history of caulking as the most common types of repair activities for leaking windows.

Pages 12- 13 report on the findings from 8 exploratory openings in the wall assemblies beside or below windows in 3 suites. All 8 openings showed water damage. Other damage is also described.

Pages 14-16 discuss causes and consequences of water ingress around windows and doors. Replacing entire window and door assemblies is explained as the most cost effective solution.

Pages 18-19 describe three orders of priority for envelope remediation at HC. Windows and doors are listed as priority level #2 for action in 2-10 years.

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