## Settlement Building Update

SRG has provided the following summary letter with recommendations for the coming year.

As you will read several buildings will be reclassified from High Priority and moved to Medium and Low priority. These buildings have either had significant work done or have not experienced any major changes during the past few cycles.

Based on SRG's investigative work and this letter, we can anticipate doing work on the following beginning possibly this spring and into the next budget year 2019.

Buildings 845 (Ripon) and 929 (Martha Custis) both are experiencing internal cracking, slated windows and exterior brick out of plane. SRG inspected unit 1630 Ripon last week and was slated to inspect 3431 Martha Custis this week. They will then issue a new recommendation letter and based on our conversations with them these 2 buildings more than likely will only need brick façade, window resetting and interior finish work as the foundations were not comprised. Thus, no underpinning. We are hoping to get the work done in this budget cycle (2018) prior to year-end.

Building 112 has had full investigation including Geotech soil sampling and based on the conditions here we will be looking to underpin from the left front (3101 Valley) around the side (3103 Valley) to the rear (3105 Valley). This will be roughly half of the building.

Building 527, unit 1340 Martha Custis has had several issues over the past few years. Parkfairfax has stabilized the slope and poured new concrete walkways here. SRG during their investigation discovered an entire piece of crawlspace foundation is missing. It is assumed that this was done during conversion to run new lines into the building. This has caused a major structural deficiency under and along the side and rear walls of this unit. Here too we will need to underpin and make needed foundation, window resetting, exterior brick façade as well as interior finish work.

Once we receive the Geotech report for 527, SRG will then develop a scope and bidding process for both 112 and 527. This work would be planned for 2019 (new budget).

As for 718, the front remaining brick work will begin once we remove the interior adjacent walls as we have discovered the crack runs into the second interior brick course. We have already begun that process and have been in contact with 4-unit owners in that building. We will be opening up closet walls in 3212, 3126, 3218 and 3220 and also landing walls to the upstairs in 3216 and 3218 as well. No one will need to vacate their home while this work is done. Once completed, we will address the failing retaining walls both out front and on the side adjacent to building 716 in the spring when the landscape restoration is completed.

The Association's funding plan is adequate and will cover these needed costs. As everyone knows the conditions here can change rather quickly but aside from the annual monitoring and based on the current full inspection should see a lull on settlement work after 2019 for a few years.



January 8, 2018

Parkfairfax Condominium 3360 Gunston Road Alexandria, VA 22301

Attention:

Mr. Mark Miller, General Manager

Subject:

Summary Letter for Professional Engineering and Consulting Services

High Priority Building Visual Survey Reassessment

Parkfairfax Condominium Alexandria, VA 22302 SRG Project #R16066.02

Dear Mr. Miller

In 2016 and 2017, Structural Rehabilitation Group, LLC (SRG) was retained by the Owner to perform a brief visual survey to identify which structures within the property exhibit visual evidence of masonry cracking or other wall distress that would suggest that a differential settlement problem may exist. The goal of this survey was to help accommodate the Board in the fiscal planning associated with the potential major expenditures associated with foundation stabilization work as well as repair/maintenance work.

Per our summary report (dated March 30, 2017) regarding our visual survey, SRG identified thirty-one (31) of the 285 buildings that appeared to meet the criteria to be considered a "High Priority" building. Table 1 below (from our summary report) lists the "High Priority" buildings noted during the 2016/2017.

Table 1: List of "High Priority" Buildings					
109	(314)	709	822*	(840)	Pool House A
111	509^	712*	830	845*	
112	(519)	716	831*	849	
204	520 <b>^</b>	718	(832)	929^	
(206)	527	(720)	836	962*	
(209)	537	723	838	(970)	

XXX denotes building that was on the "High Priority" list of the 2010 façade survey

(XXX) denotes building that was on the "Medium Priority" list of the 2010 façade survey

\* denotes building that was on the "Low Priority" list of the 2010 façade survey

^ denotes building that was on the "Min/No Distress" list of the 2010 façade survey

19630 Club House Road Suite 720 Montgomery Village, MD 20886



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Given the number of buildings that appeared to meet the criteria to be considered "High Priority" from our 2016/2017 survey, the Owner retained SRG to perform a visual survey of the visually and physically accessible areas of the 31 structures previously designated as "high priority" buildings and review our historical information/data we have regarding the 31 buildings to determine if any of these buildings can be assigned to the other categories listed in our March 30, 2017 summary report.

On December 27, 2017, representatives of SRG visited the site to perform a spot-check visual survey of the exterior masonry façade of the 31 buildings listed in Table 1 above. Our spot-check visual survey of the façade at each of the 31 buildings followed the parameters listed in our March 30, 2017 summary report. Subsequent to our December 27, 2017 site visit, SRG reviewed our survey findings and compared our observations with our historical documentation.

## **RECOMMENDATIONS**

Based on SRG's December 27, 2017 site visit and our review of our historical documentation regarding the 31 subject buildings, our recommendations our listed below.

- 1. From our review of our crack gage monitoring summary letters, it is our opinion that the crack gage monitoring at Building 831 can be stopped and the building can be categorized as "Medium Priority". We also recommend that cracked/failed window-to-masonry perimeter sealants observe during our site visit be removed and replaced.
- 2. Buildings 509, 519, and 520 be categorized as "Low Priority".

We recommend that the cracks observed within the mortar joints of the exterior be repointed and the damaged/broken brick be removed and replaced. We also recommend that cracked/failed window-to-masonry perimeter sealants observe during our site visit be removed and replaced.

3. Buildings 109, 204, 314, 709, 712, 723, 836, 962, and 970 be categorized as "Medium Priority".

We recommend that the cracks observed within the mortar joints of the exterior be repointed and the damaged/broken brick be removed and replaced. We also recommend that cracked/failed window-to-masonry perimeter sealants observe during our site visit be removed and replaced.

4. Buildings 111, 209, 537, 720, 830, 832, 838, 840, 849, and Pool House A remain categorized as "High Priority."

We recommend that the cracks observed within the mortar joints of the exterior be repointed and the damaged/broken brick be removed and replaced. We also recommend that cracked/failed window-to-masonry perimeter sealants observe during our site visit be removed and replaced.



Mr. Mark Miller
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High Priority Building Visual Survey Reassessment
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This will allow a "reset" of the façade at each building so that any future movement or differential settlement may be differentiated from movement that had occurred in the past.

The movements observed from the exterior during this survey do not suggest underpinning is required at this time. However, as part of the "High Priority" designation, we recommend that the exterior façade of these buildings be visually observed every 6 months.

5. Buildings 206, 716, and 822 remain categorized as "High Priority."

We recommend that the cracks observed within the mortar joints of the exterior be repointed and the damaged/broken brick be removed and replaced. We also recommend that cracked/failed window-to-masonry perimeter sealants observe during our site visit be removed and replaced.

This will allow a "reset" of the façade at each building so that any future movement or differential settlement may be differentiated from movement that had occurred in the past. The movements observed from the exterior during this survey do not suggest underpinning is required at this time.

These three (3) buildings on the "High Priority" list, currently have crack gage monitors installed at multiple locations throughout their brick façade. We recommend that the gages at Buildings 206 and 716 be monitored on a 3-month cycle. Building 822 is recommended to continue being monitored on a 6-month cycle.

- 6. Building 112 is currently under investigation for differential settlement. This building is to remain categorized as "High Priority".
- 7. SRG submitted our summary report regarding our investigative work for Building 527 to the Owner on December 22, 2017. Please refer to our summary report regarding our findings and recommendations pertaining to Building 527. This building is to remain categorized as "High Priority".
- 8. SRG is scheduled to visit Building 845 on Tuesday, December 9, 2018 to observe the distress within the exterior façade and gain access to the interior of Unit 1630 as well as the crawlspace below Unit 1630. This building is to remain categorized as "High Priority".
- 9. Building 718 is currently in the construction phase to address the foundation stabilization and structural repairs. The work is being performed by Avon Corporation. This building is to remain categorized as "High Priority".
- 10. Building 929 remains categorized as "High Priority." Based on the cracks observed at the façade of this building, we recommend that a structural investigation be performed.

Please note that our recommendations listed in this summary letter are based on the information currently available to SRG (i.e. a snap shot in time). Should the Owner become aware of any reported issues/concerns regarding the buildings listed in this summary (or any of the other building

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located on-site), SRG is to be notified immediately so we may visit the site to observe the reported issues/concerns and adjust the building priority and recommendations accordingly.

## **CLOSING COMMENTS**

Building plans were not made available and this somewhat restricted our evaluation for this project. In addition, review of the building plans may reveal that other defects related to the structural framing components/system(s) at this project. If this information becomes available, SRG will review the documents on an hourly basis for information relative to the wall, floor and roof framing and if appropriate, we can, at your request, issue any necessary modifications to our summary letter.

Although our evaluation was confined to visual examination of exposed surfaces and review of historical documents, we believe it was sufficient for us to form a reasonable judgment of the existing general conditions. It should be noted that we were requested to inspect only portions of this project. As such, we examined areas that appeared to be representative of the entire project and we believe that the typical conditions reported exist throughout; however, we cannot be certain that differing conditions do not exist.

SRG has endeavored to perform our services in a manner consistent with the degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances in the Washington Metropolitan area. Due to the general nature of our scope of work, SRG cannot take responsibility can be assumed for latent defects that may appear in the future, for items that were not examined, or for differing opinions of others. In addition, we cannot warrant or guarantee the building or its components.

We appreciate the opportunity to be of service to you. Please contact us if you have any questions or comments regarding the information presented in this summary letter.

Sincerely yours,

STRUCTURAL REHABILITATION GROUP, LLC.

Joseph W. Wilcher III, P.E. Senior Project Manager

Looph Ar. Willen

Ryan T. Blatz, P.I. **Project Engineer**