FAIRHURST

Aberdeen City Council

Balnagask

Re-inspection Reports

February 2025

BON ACCORD
ABERDEEN
CITY COUNCIL

Executive Summary

1. Fairhurst have been appointed by Aberdeen City Council (ACC) to carry out inspections to assess the condition of the Reinforced Autoclaved Aerated Concrete (RAAC) roof panels at the Balnagask mono-pitched type residential properties in Aberdeen.

2. Following intrusive inspections undertaken over the course of 2024, ACC requested re-inspections, as part of the short-term management strategy for the properties, in order to monitor the condition of the RAAC panels over time and re-assess the risk. To date, the following properties have been re-inspected:

   - 276 Balnagask Road
   - 461 Balnagask Road
   - 12 Burnbank terrace
   - 9 Burnbank Terrace
   - 36 Burnbank terrace
   - 38 Burnbank Terrace
   - 26 Farquhar Road
   - 33 Farquhar Road
   - 51 Farquhar Road
   - 16 Lochnagar Road
   - 264 North Balnagask Road
   - 25 Pentland Crescent

3. This report provides a summary of the findings from the re-inspections and our re-assessment of the condition and recommendations and / or management strategies for the above properties.

4. As before, the re-inspection scope and procedure follows the guidance by The Institution of Structural Engineers (IStructE) - Reinforced Autoclaved Aerated Concrete (RAAC) Investigation and Assessment - Further Guidance - April 2023, assessing the following risk factors:

   - End bearing;
   - Anchorage reinforcement;
   - Cut panels;
   - Cracking;
   - Builder's works / building modifications;
   - Water ingress;
   - Deflection measurements;
   - Adverse or changes in loading.

5. The re-inspections consisted of re-visiting the affected properties, and undertaking a visual inspection through all previously installed loft hatches, assessing previously identified defects for signs of deterioration, and identifying new defects. The end bearings and anchorage reinforcement were not assessed during the re-inspections, as these were complete at the intrusive inspection stage and are not liable to change over time.

6. Following a review of the survey findings, there has been no significant deterioration within these properties over the previous 6-12months, as seen within the individual property reports appended.

7. While the re-inspections show minimal deterioration, the risks associated with the panels remain constant, as noted below.

Risk Factors	Assessment
End bearing	External wall supports all exceeded 75mm bearing
	Internal wall supports ranged between 40mm - 60mm bearing, with 1No. panel noted to be as low as 10mm
Anchorage/longitudinal reinforcement	Anchorage reinforcement missing to at least 1No. panel
Cut panels	None
Cracking	Transverse cracking found along full length of panel and within 500mm of the support. Spalling and corrosion of rebar also observed
Builder's works / building modifications	Damaged units from cable conduits and SVPs
Water ingress	Dampness has been noted to underside of panels
Deflection measurements	Lowest measurement span / 133, but with major cracking and spalling
Adverse or changes in loading	Replacement roofing systems with additional insulation

Red – Critical or High Risk
Amber – Medium Risk
Green – Low Risk

8. As the RAAC panels will continue to deteriorate over time, the following short-term management strategy should continue to be applied to properties containing RAAC panels until such time as the properties are decanted:

- Visual re-inspections of occupied properties should continue to be undertaken to continually monitor and assess the condition of the RAAC panels;
- The awareness campaign should continue for all owners and occupants;
- No additional loads are to be applied to any RAAC roof panel. Roof to be treated as a fragile roof by those requiring access to the roof;
- Building owner / occupant to report any changes of condition (water leaks, cracks, debris etc.);
- Significant weather events to be monitored by the building owner inc. heavy snowfall, heavy rainfall and storms, at which point, properties still in use should be re-inspected.

Property Reports

See overleaf

Job Number: 165151	Project : ACC - 276 Balnagask Road RAAC Re-Inspection	Date of Site Visit: 27/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 11:35
	Purpose of visit: Re-inspection of RAAC panels	Time: (Departure) 12:30

Introduction
An inspection was carried out at 276 Balnagask Road on 29th January 2024, during which an intrusive survey was conducted. As part of this survey, three loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 27th January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations
All previously inspected areas were reviewed through the three loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

Conclusion
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short-term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025

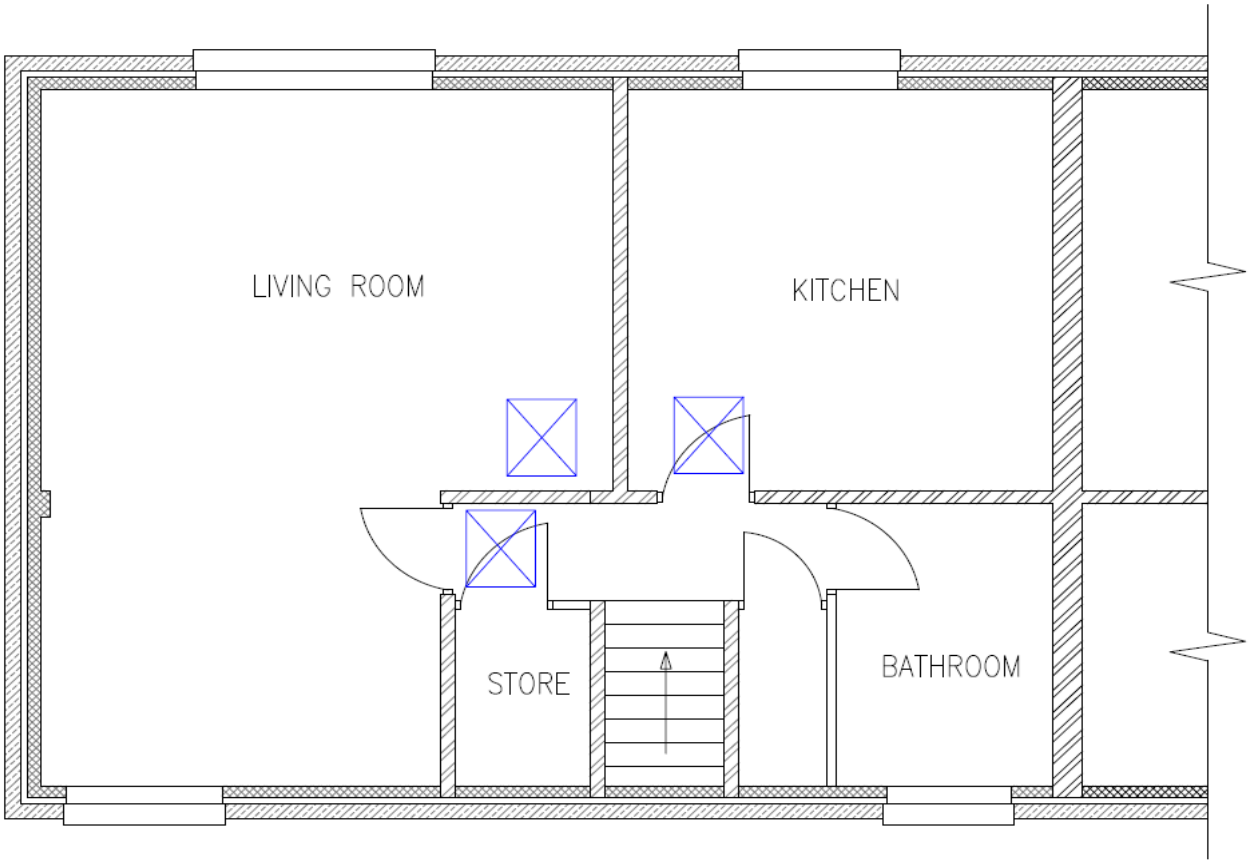


Fig1: Two-Storey House - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

Table 1 - IStructE Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 27/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – No changes noted during inspection dated 27/01/2025.	 

Builder's works / building modifications (High Risk) – Typically cored on site during construction for penetration of conduits and SVP with damage to units. – No changes noted during inspection dated 27/01/2025.	 
Water ingress (Low Risk) – We did not identify any water ingress within the property via our hatch inspections. – No changes noted during inspection dated 27/01/2025.	

Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 27/01/2025.	 
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted. – No changes noted during inspection dated 27/01/2025.	

SITE VISIT RECORD

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 27/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 15:30
	Purpose of visit: Re-inspection to record current condition	Time: (Departure) 16:00

Observations\Queries\Comments:

Introduction
An inspection was carried out at 461 Balnagask Road on 29th September 2023, during which an intrusive survey was conducted. As part of this survey, all ceiling finishes were removed, exposing all panels. Several panel bearings were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 27th January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations
All previously inspected areas were reviewed. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

Conclusion
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025

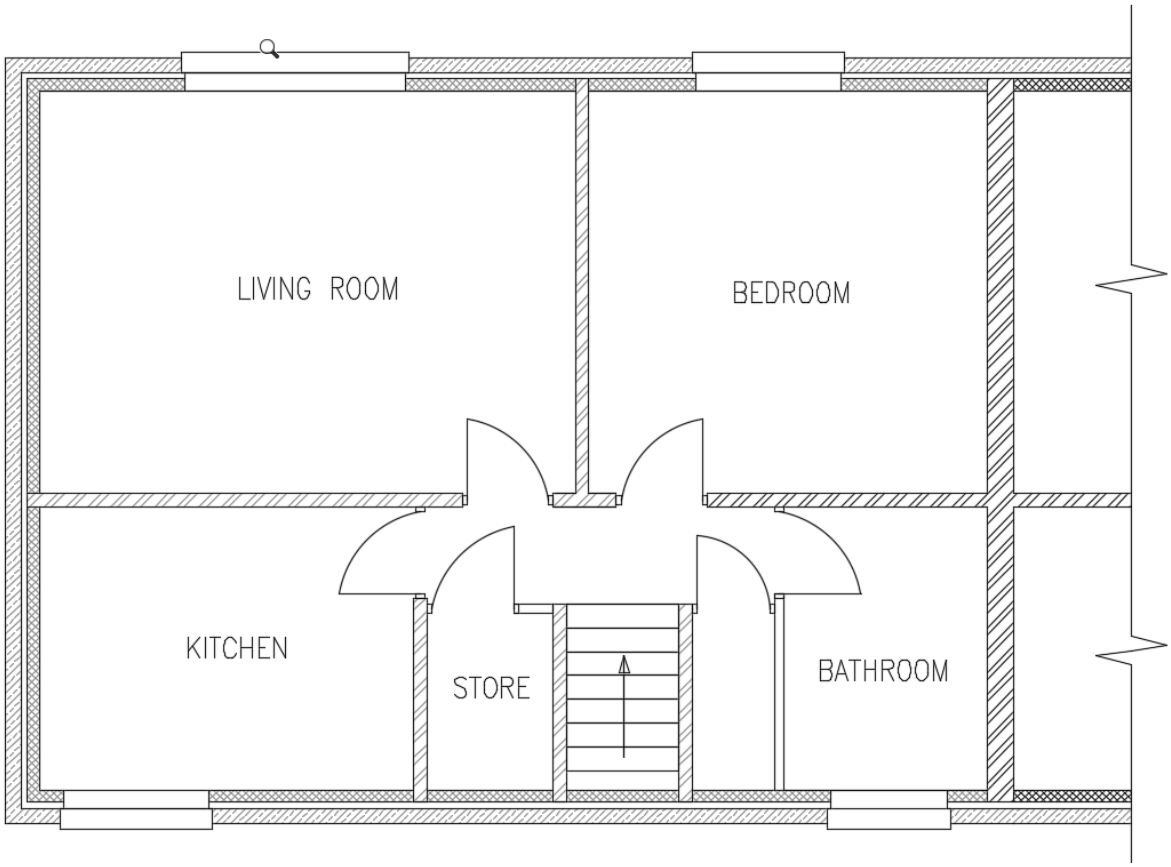


Fig1: Flat - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

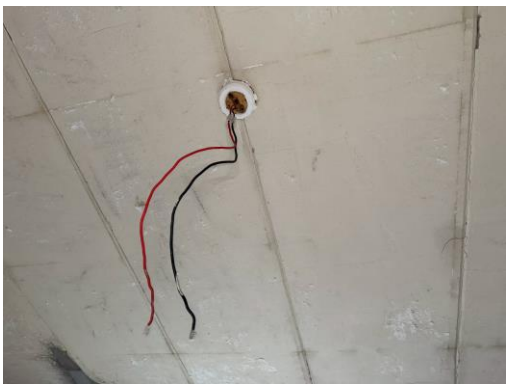
Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (High Risk) – Cut panel noted within the bathroom in the property.	
Cracking (High Risk) – Multiple areas of transverse cracking found along full length of panels and within 500mm of the support.	  

Builder's works / building modifications (High Risk)

- Typically cored on site during construction for penetration of conduits and SVP with damage to units.



Water ingress (Low Risk) – We did not identify any water ingress within the property	
Deflection measurements (Medium Risk) – Deflection measurements were taken during the initial inspections, with no issues present. – Areas were visually inspected during this follow up inspections, with no issues noted.	 
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted.	

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 23/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 14:00
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 14:45

Observations\Queries\Comments:

Introduction
An inspection was carried out at 12 Burnbank Place on 12th February 2024, during which an intrusive survey was conducted. As part of this survey, three loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 23rd January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations
All previously inspected areas were reviewed through the three loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

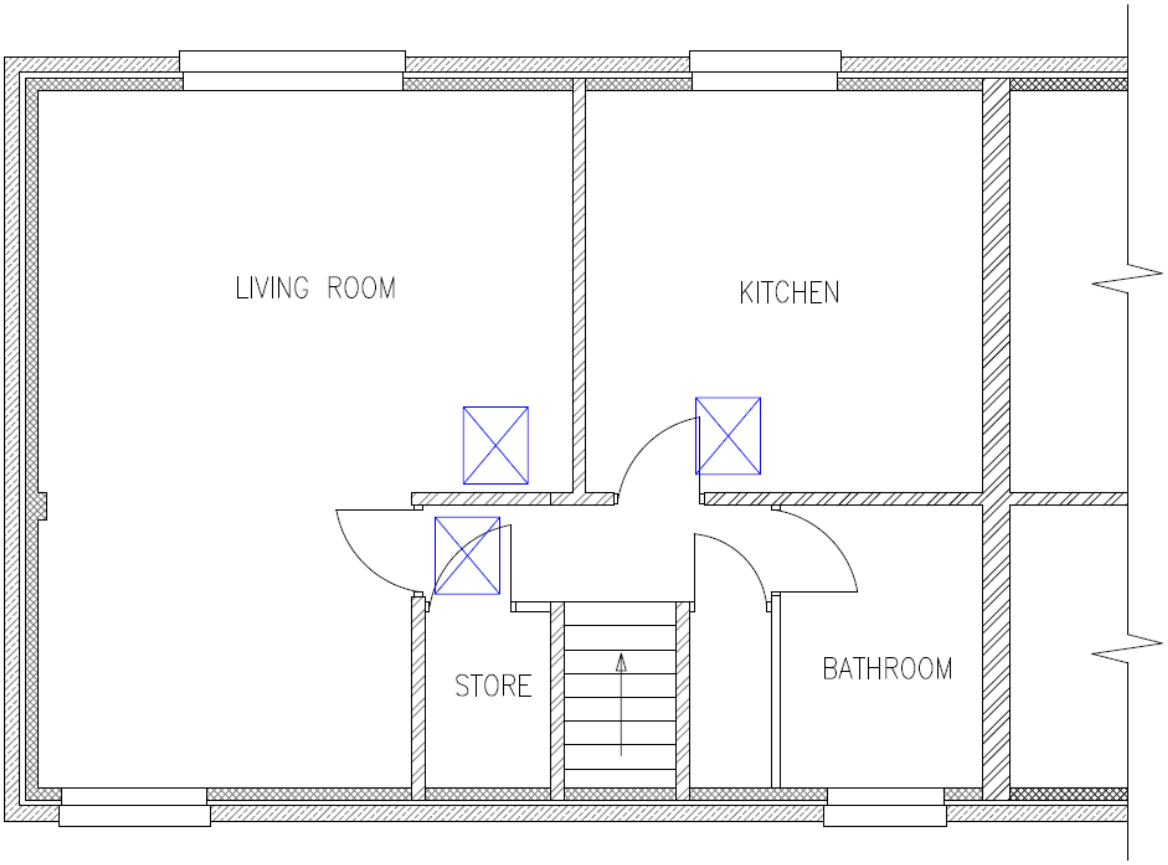
Conclusion
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025



Two-Storey House - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 23/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – No changes noted during inspection dated 23/01/2025.	 

Builder's works / building modifications (High Risk) – Typically cored on site during construction for penetration of conduits and SVP with damage to units – No changes noted during inspection dated 23/01/2025.	 
Water ingress (Low Risk) – We did not identify any water ingress within the property via our hatch inspections. – No changes noted during inspection dated 23/01/2025.	

Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 23/01/2025.	 
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted. – No changes noted during inspection dated 23/01/2025.	

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 23/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 14:50
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 15:30

Observations\Queries\Comments:

Introduction
An inspection was carried out at 9 Burnbank Terrace on 14th March 2024, during which an intrusive survey was conducted. As part of this survey, three loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 23rd January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations
All previously inspected areas were reviewed through the three loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

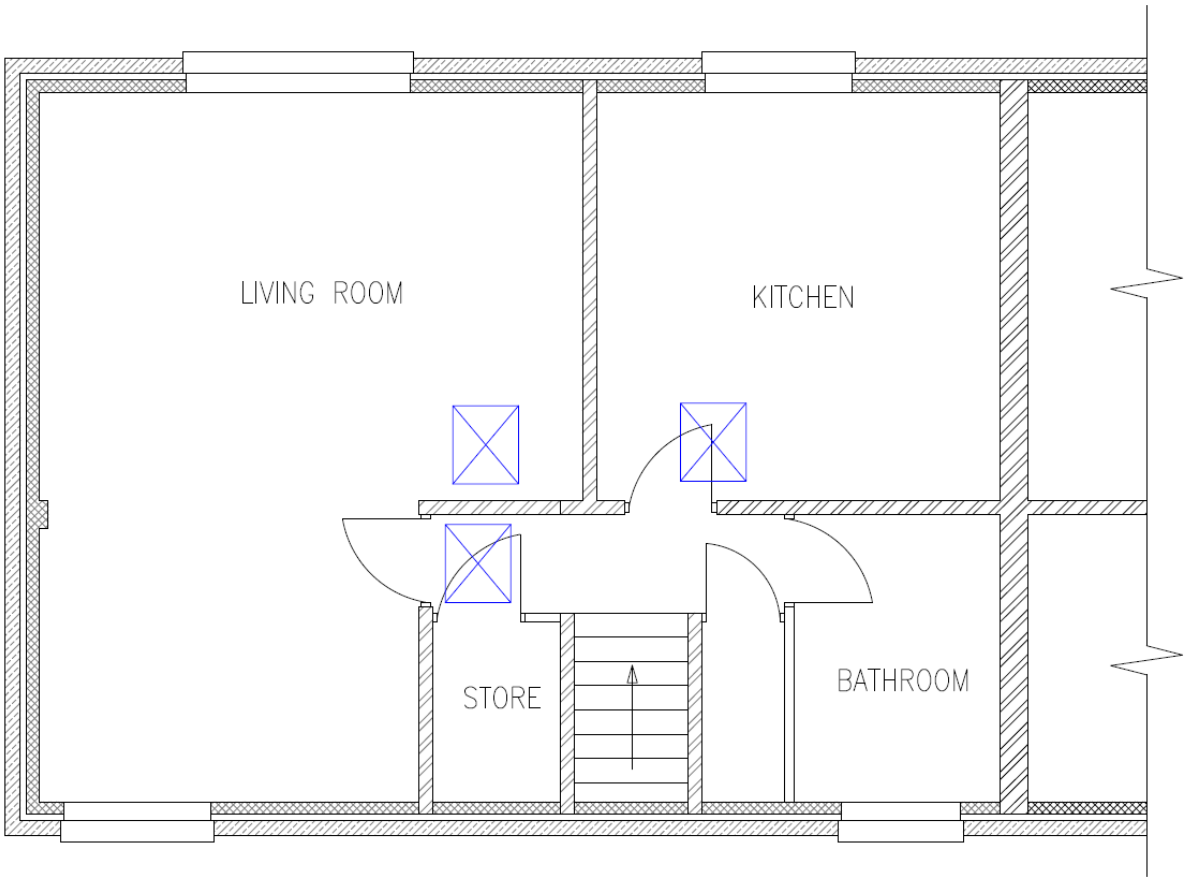
Conclusion
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025



Two-Storey House - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 23/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – No changes noted during inspection dated 23/01/2025.	 

Builder's works / building modifications (High Risk)

- Typically cored on site during construction for penetration of conduits and SVP with damage to units
- No changes noted during inspection dated 23/01/2025.

Water ingress (Low Risk) – We did not identify any water ingress within the property via our hatch inspections. – No changes noted during inspection dated 23/01/2025.	
Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 23/01/2025.	  

	
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted. – No changes noted during inspection dated 23/01/2025.	

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 23/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 15:35
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 16:15

Observations\Queries\Comments:

Introduction

An inspection was carried out at 36 Burnbank Terrace on 14th March 2024, during which an intrusive survey was conducted. As part of this survey, four loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 23rd January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations

All previously inspected areas were reviewed through the four loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

Conclusion

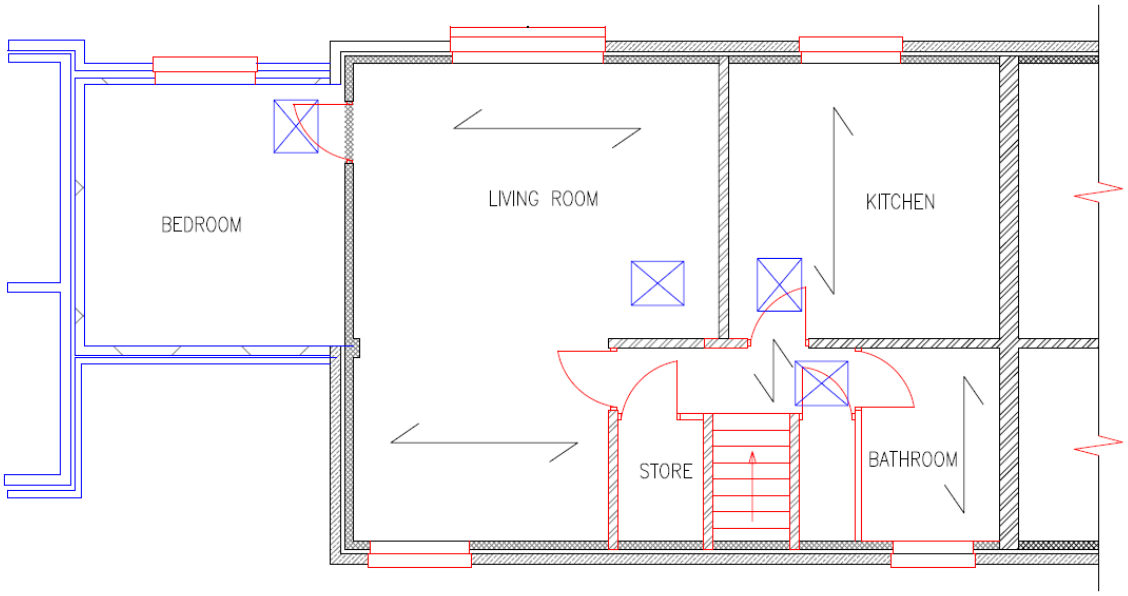
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025



2-Storey House with Pend - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 23/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – No changes noted during inspection dated 23/01/2025.	 
Builder's works / building modifications (High Risk) - Typically cored on site during construction for penetration of conduits and SVP with damage to units - Damage to units including exposed and affected reinforcement - No changes noted during inspection dated 23/01/2025.	

Water ingress (Medium Risk) – Damp / mould noted to underside of panels within pend only, however, no visible signs of water penetration. – No changes noted during inspection dated 23/01/2025.	
Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 23/01/2025.	 
Adverse or changes in loading (Medium Risk) - Replacement roofing system with additional insulation noted. - No changes noted during inspection dated 23/01/2025.	

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 23/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 16:20
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 16:55

Observations\Queries\Comments:

Introduction
An inspection was carried out at 38 Burnbank Terrace on 5th February 2024, during which an intrusive survey was conducted. As part of this survey, three loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 23rd January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations
All previously inspected areas were reviewed through the three loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

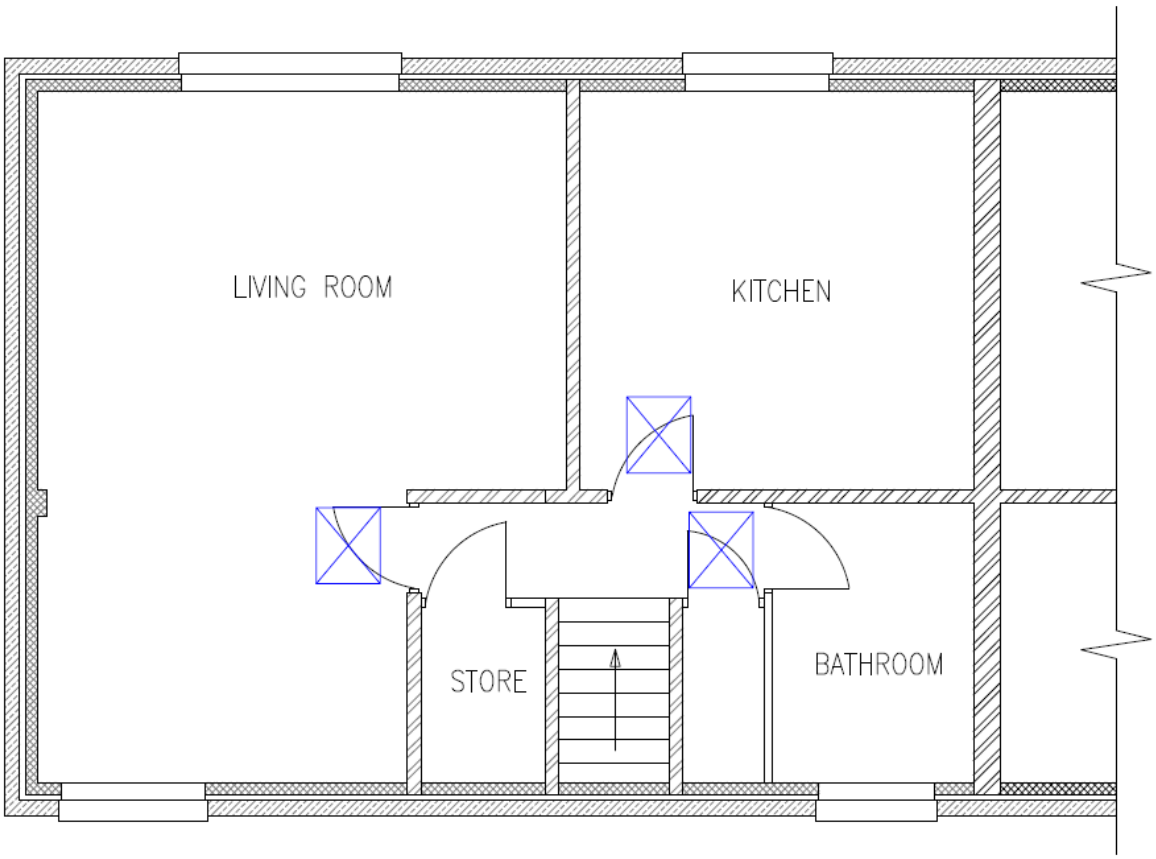
Conclusion
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025

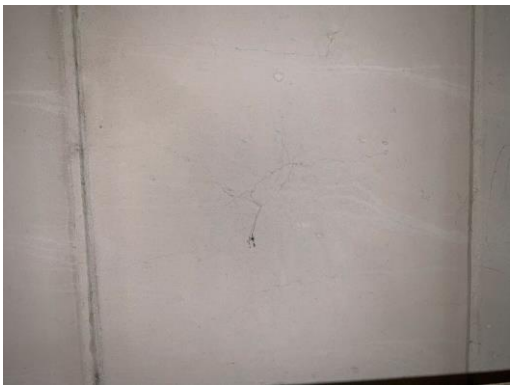


2-Storey House - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – Spalling to edge of 1no. panel.	  

Builder's works / building modifications (High Risk) – Typically cored on site during construction for penetration of conduits and SVP with damage to units	
Water ingress (Low Risk) – We did not identify any water ingress within the property via our hatch inspections.	
Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection.	 

	 
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted	

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 23/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 11:45
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 12:25

Observations\Queries\Comments:

Introduction

An inspection was carried out at 26 Farquhar Road on 17th January 2024, during which an intrusive survey was conducted. As part of this survey, three loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 23rd January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations

All previously inspected areas were reviewed through the three loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

Conclusion

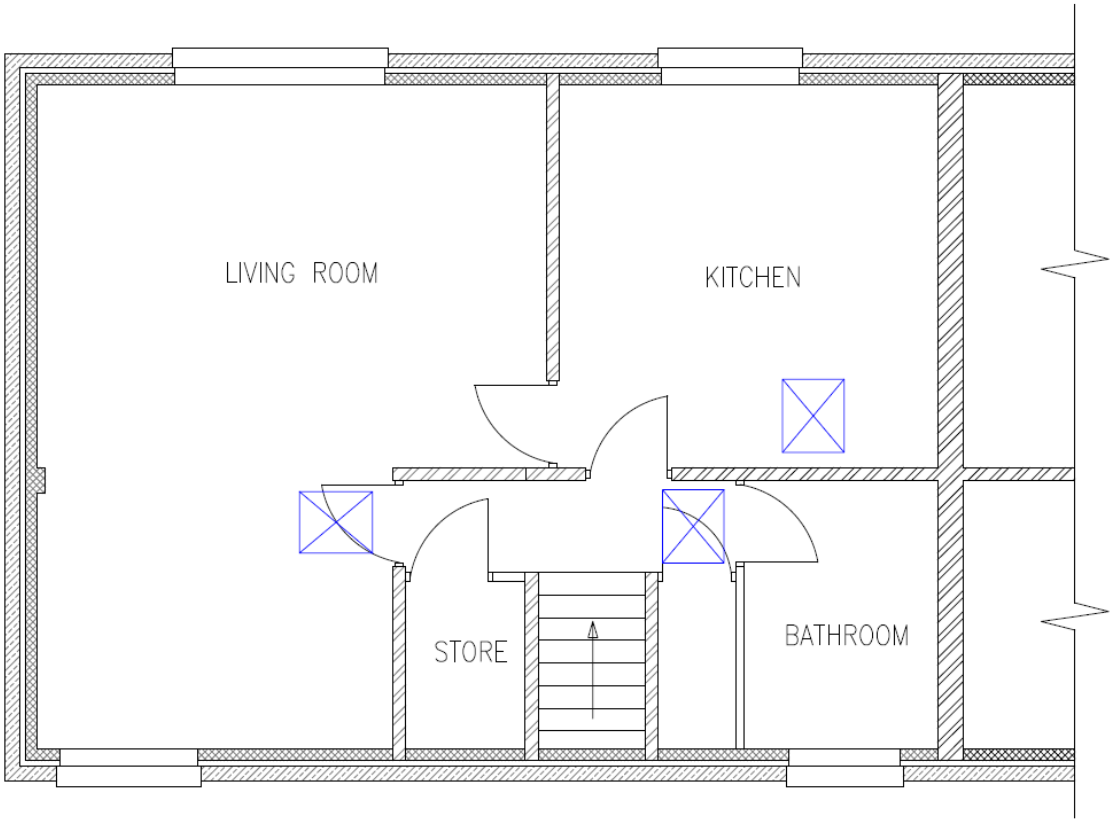
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025



2-Storey House - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 23/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – Minor concrete spalling to edge of 1no. panel – No changes noted during inspection dated 23/01/2025.	  

Builder's works / building modifications (High Risk)

- Typically cored on site during construction for penetration of conduits and SVP with damage to units
- Expanding foam material noted in roof space
- No changes noted during inspection dated 23/01/2025.

Water ingress (Low Risk)

- We did not identify any water ingress within the property via our hatch inspections.
- No changes noted during inspection dated 23/01/2025.

Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 23/01/2025.	  
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted – No changes noted during inspection dated 23/01/2025.	

Job Number: 157606	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 27/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 14:00
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 14:40

Observations\Queries\Comments:

Introduction

An inspection was carried out at 33 Farquhar Road on 15th January 2024, during which an intrusive survey was conducted. As part of this survey, three loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 27th January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations

All previously inspected areas were reviewed through the three loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

Conclusion

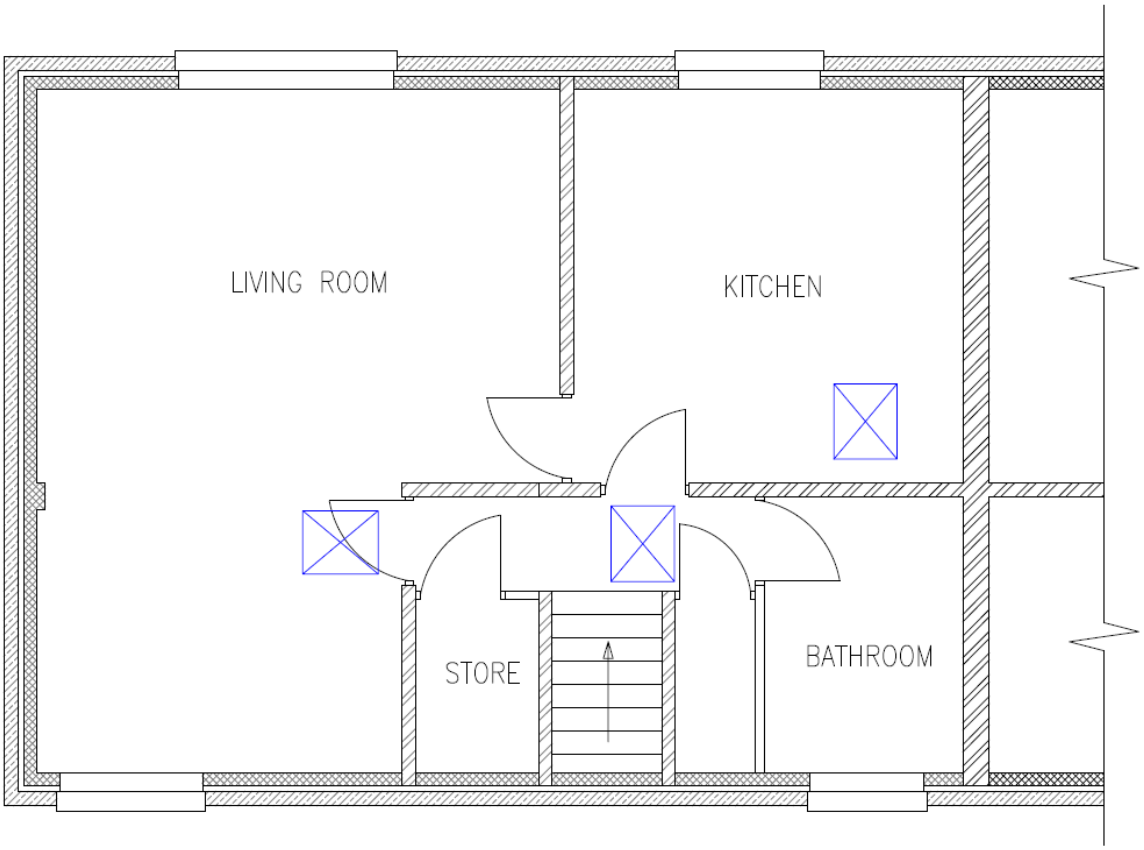
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025



Two-Storey House - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 27/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – No changes noted during inspection dated 27/01/2025.	  

Builder's works / building modifications (High Risk) – Typically cored on site during construction for penetration of conduits and SVP with damage to units – No changes noted during inspection dated 27/01/2025.	 
Water ingress (Low Risk) – We did not identify any water ingress within the property via our hatch inspections. – No changes noted during inspection dated 27/01/2025.	

Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 27/01/2025.	 
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted – No changes noted during inspection dated 27/01/2025.	

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 23/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 12:30
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 13:15

Observations\Queries\Comments:

Introduction
An inspection was carried out at 51 Farquhar Road on 15th January 2024, during which an intrusive survey was conducted. As part of this survey, three loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 23rd January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations
All previously inspected areas were reviewed through the three loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

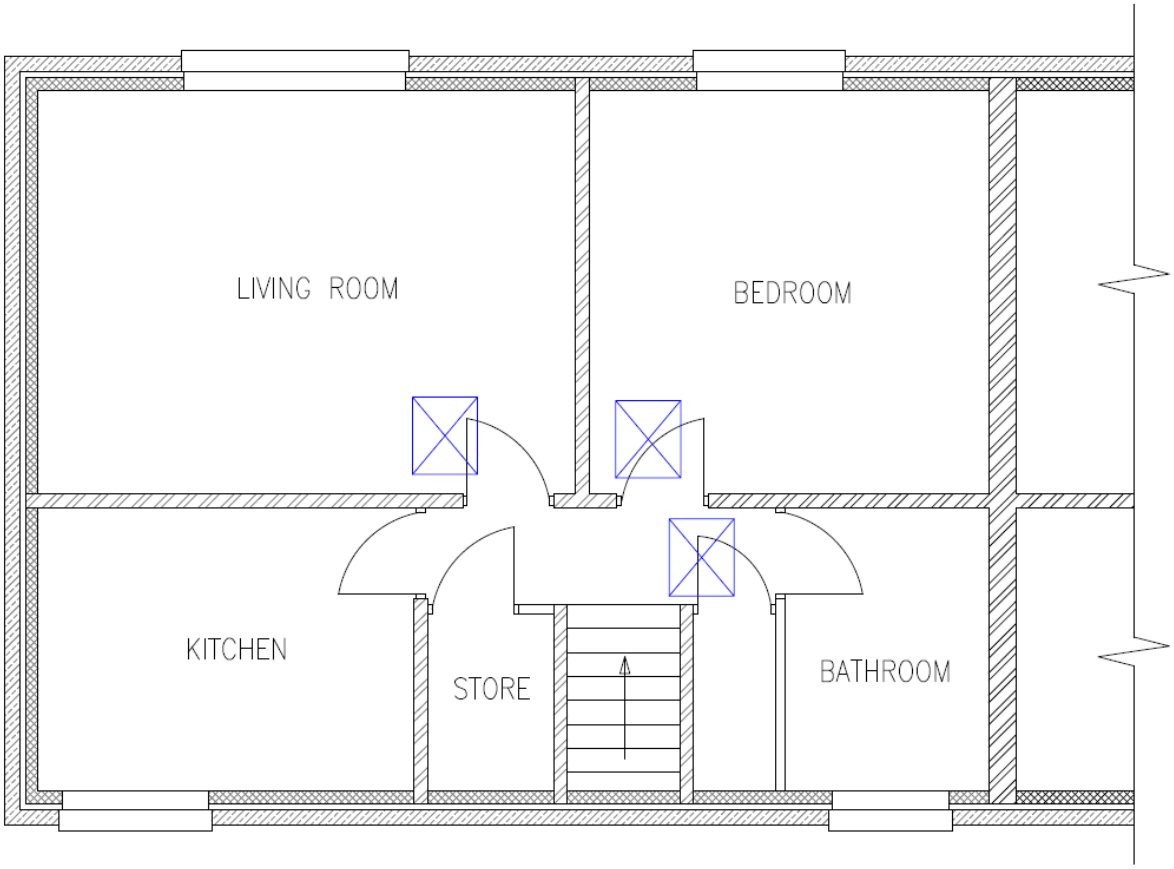
Conclusion
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025



Flat - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 23/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – No changes noted during inspection dated 23/01/2025.	  

Builder's works / building modifications (High Risk)

- Typically cored on site during construction for penetration of conduits and SVP with damage to units
- No changes noted during inspection dated 23/01/2025.

Water ingress (Low Risk) – We did not identify any water ingress within the property via our hatch inspections. – No changes noted during inspection dated 23/01/2025.	
Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 23/01/2025.	 
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted – No changes noted during inspection dated 23/01/2025.	

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 27/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 10:50
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 11:20

Observations\Queries\Comments:

Introduction

An inspection was carried out at 16 Lochnagar Road on 5th February 2024, during which an intrusive survey was conducted. As part of this survey, three loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 27th January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations

All previously inspected areas were reviewed through the three loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

Conclusion

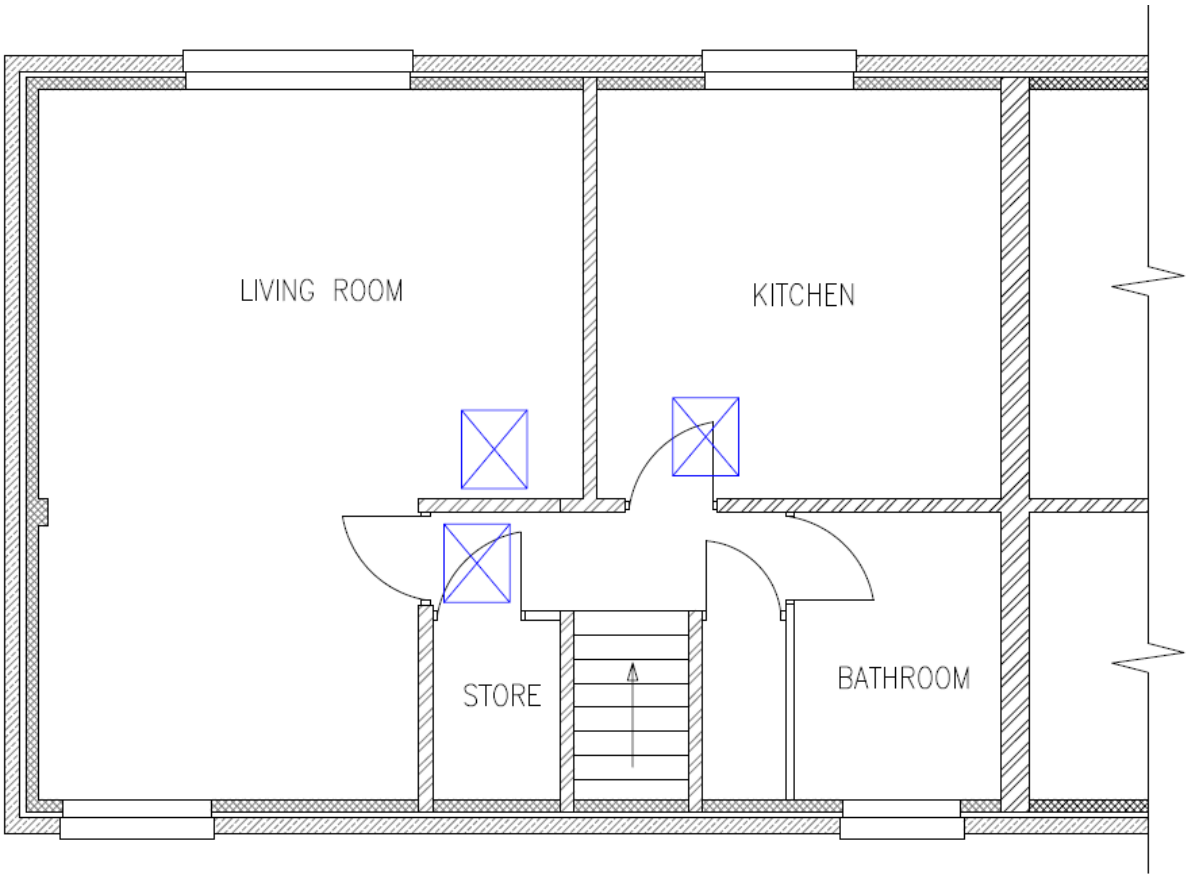
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025



Two-Storey House - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 27/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – Longitudinal cracking noted along 1no. panel. – Minor spalling noted with reinforcement noted in 1no. location. – No changes noted during inspection dated 27/01/2025.	  

Builder's works / building modifications (High Risk) – Typically cored on site during construction for penetration of conduits and SVP with damage to units – Previous repair noted to panel – No changes noted during inspection dated 27/01/2025.	 
Water ingress (Low Risk) – We did not identify any water ingress within the property via our hatch inspections. – No changes noted during inspection dated 27/01/2025.	

Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 27/01/2025.	 
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted. – No changes noted during inspection dated 27/01/2025.	

SITE VISIT RECORD

FAIRHURST

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 27/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 12:30
	Purpose of visit: Re-inspection within hatches to record current condition	Time: (Departure) 13:10

Observations\Queries\Comments:

Introduction

An inspection was carried out at 264 North Balnagask Road on 7th February 2024, during which an intrusive survey was conducted. As part of this survey, four loft hatches were installed (see Fig. 1 for locations), exposing six RAAC panel bearings across three locations. These areas were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 27th January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations

All previously inspected areas were reviewed through the four loft hatches installed during the initial site visit. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

Conclusion

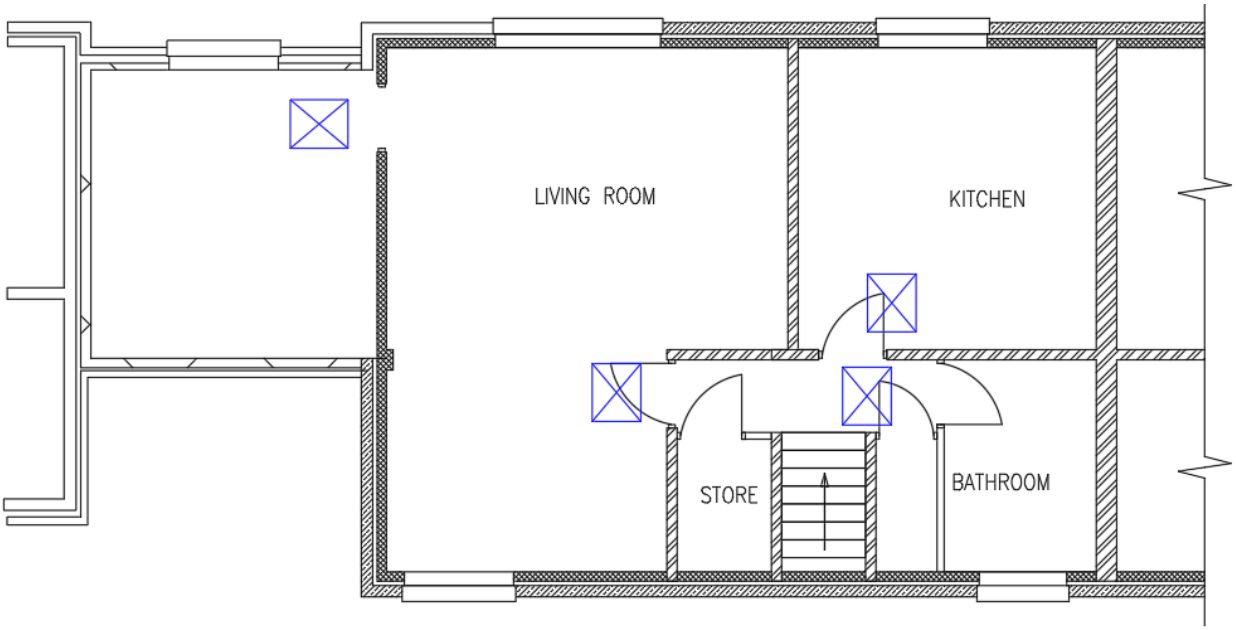
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025



Two-Storey House with pend - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (Low Risk) – We did not identify any cut panels within the property via our hatch inspections. – No changes noted during inspection dated 27/01/2025.	
Cracking (High Risk) – Transverse cracking found along full length of panels and within 500mm of the support. – No changes noted during inspection dated 27/01/2025.	  

	
Builder's works / building modifications (High Risk) – Typically cored on site during construction for penetration of conduits and SVP with damage to units – No changes noted during inspection dated 27/01/2025.	 
Water ingress (Low Risk) – We did not identify any water ingress within the property via our hatch inspections. – No changes noted during inspection dated 27/01/2025.	

Deflection measurements (Medium Risk) – No deflection measurements taken through the hatches, however, no excessive deflections noted from visual inspection. – No changes noted during inspection dated 27/01/2025.	 
Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted – No changes noted during inspection dated 27/01/2025.	

SITE VISIT RECORD

FAIRHURST

Job Number: 165151	Project : ACC - RAAC Balnagask Mono-Pitches	Date of Site Visit: 27/01/2025
Present: Fairhurst (FH)	Prevailing Weather: Overcast	Time: (Arrival) 16:05
	Purpose of visit: Re-inspection to record current condition	Time: (Departure) 16:40

Observations\Queries\Comments:

Introduction
An inspection was carried out at 25 Pentland Crescent on 25th October 2023, during which an intrusive survey was conducted. As part of this survey, all ceiling finishes were removed, exposing all panels. Several panel bearings were broken out to assess RAAC-related risks in accordance with Table 1 of the IStructE guidelines, including:

- End bearing
- Transverse reinforcement location
- Cracking/spalling
- Cut panels
- Builder's works/modifications
- Water ingress
- Deflections
- Adverse/changes in loading

A follow-up survey was conducted on 27th January 2025 to assess whether any deterioration had occurred in the RAAC panels since the initial inspection.

Observations
All previously inspected areas were reviewed. Any defects were recorded and compared to the original survey findings. No deterioration was observed in the RAAC panels since the original inspection.

Photographs taken during the inspection can be found in the appendix.

Conclusion
While the RAAC panels in this property show no signs of further deterioration, the IStructE guidelines remain unchanged, and the RAAC risk profile continues to be classified as high risk due to the following factors:

- End bearing
- Cracking/spalling
- Cut panels
- Builder's works/modifications

To manage these risks while tenants are being relocated, ACC has implemented the short term mitigation strategy of undertaking an inspection regime over the past year.

Follow up Action Required:

Distribution: Internal file, Aberdeen City Council	Date: 25/02/2025

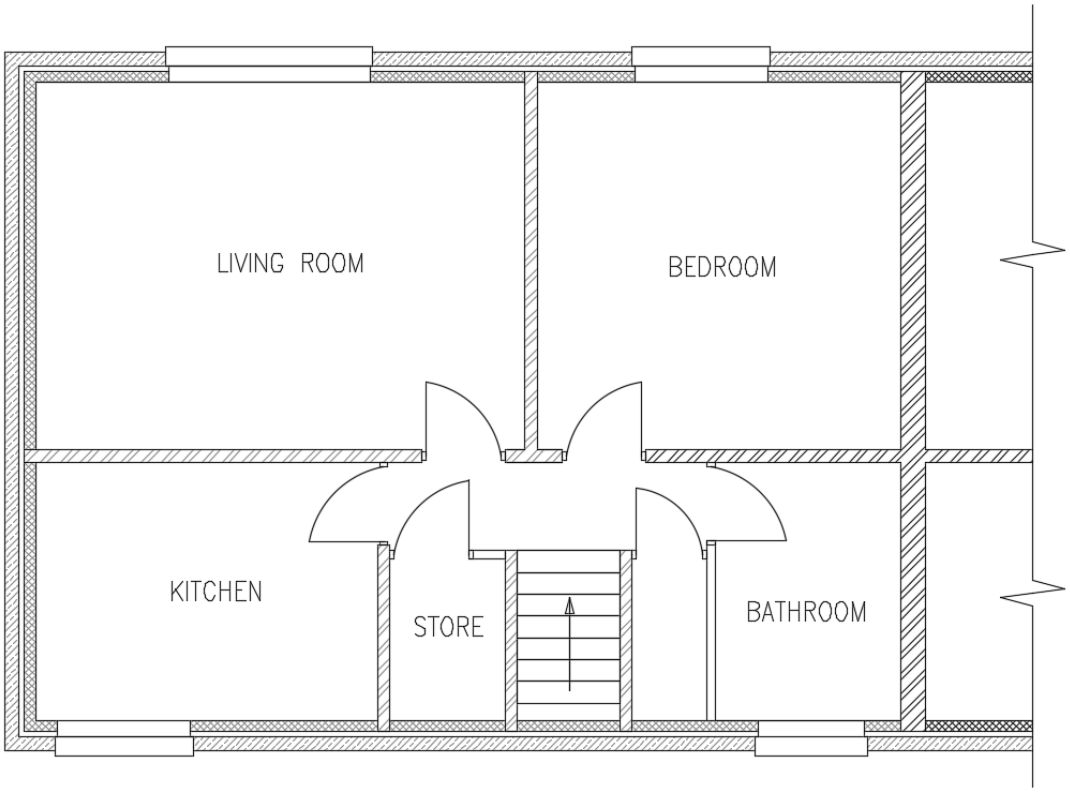


Fig1: Flat - First Floor Layout

Assessment category	Risk category	
Red	Critical risk	Requires urgent remedial works which may include taking out of use or temporary propping to allow the safe ongoing use of a building. Depending on the extent, this may be part or all of the building. Combined with awareness campaign for occupants including exclusion zones.
	High risk	Requires remedial action as soon as possible. Combined with awareness campaign for occupants, which may include exclusion zones, signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, change in loading, etc.
Amber	Medium risk	Requires inspection and assessment on a regular basis, eg, annually. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.
Green	Low risk	Requires inspection and assessment occasionally, say three year period depending on condition. Combined with awareness campaign for occupants, which may include signage, loading restrictions and the need to report changes of condition, eg, water leaks, debris, etc.

Table 1 – Risk categories

IStructE Table 1 - Risk Categories

Risk Factors	Typical Survey Photographs
Cut panels (High Risk) - We did not identify any cut panels within the property	
Cracking (High Risk) – Multiple areas of transverse cracking found along full length of panels and within 500mm of the support.	  

Builder's works / building modifications (High Risk)	

- Typically cored on site during construction for penetration of conduits and SVP with damage to units.

Water ingress (Low Risk)

- We did not identify any water ingress within the property, however we did note the presence of black mould present to the panels within the bedroom

Deflection measurements (Medium Risk)

- Deflection measurements were taken during the initial inspections, with no issues present.
- Areas were visual inspected during this follow up inspections, with no issues noted.

Adverse or changes in loading (Medium Risk) – Replacement roofing system with additional insulation noted.	

www.fairhurst.co.uk

Aberdeen
Bristol
Dundee
Edinburgh
Elgin
Glasgow
Inverness
Leeds
London
Manchester
Newcastle upon Tyne
Sheffield
Watford
Westhill

CIVIL ENGINEERING • STRUCTURAL ENGINEERING • TRANSPORTATION • ROADS & BRIDGES
PORTS & HARBOURS • GEOTECHNICAL & ENVIRONMENTAL ENGINEERING • PLANNING &
DEVELOPMENT • WATER SERVICES • CDM COORDINATOR SERVICES

FAIRHURST