6th April 2026

Ms Marion Campbell

26-6486 – 6 Hazeldean Crescent, Oban – Structural Inspection

Dear Ms Campbell,

Further to your recent request, we confirm that we visited 6 Hazeldean Crescent, Oban on Wednesday 25th March 2026. The purpose of the visit was to inspect the condition of the existing dwelling and identify any visible structural defects or repairs that may be required. At the time of the inspection, the weather conditions were bright and wet.

The property is a precast reinforced concrete dwelling located within a residential area in Oban, Argyll and Bute, on the west coast of Scotland. The external walls of the dwelling are comprised of reinforced concrete with a rendered facade. Internal loadbearing and non-loadbearing walls are assumed to be of timber construction. The ground floor is formed of a concrete slab and timber joists assumed to form the first floor however this could not be confirmed due to floor finishes being present. The roof construction is assumed to be formed of timber trusses, spanning front to back, at approximately 450mm centres. The attic space and trusses could not be inspected due to no access available at the time of inspection.

Following our inspection, we provide the following observations:

External Inspection

The front elevation of the property was noted to have been subjected to weathering with areas of paint spalling and significant discolouration across the rendered façade (See photo 1). The concrete window piers on both the first floor and ground floor appeared to be in a state of disrepair with deep cracks notes. The middle window into the living room on the ground floor was noted to have a crack that had propagated vertically through the render on the inside face of the pier from the underside of the lintel downwards towards the window cill where it returns towards the windowpane (See photo 2). Similar defects were also noted on the bedroom window piers directly above the living room (See photo 3). A notable crack was identified to have propagated vertically down the centre of the right-hand side window pier and curves at the base around the window cill. To assess the extent of the cracking, the render would need to be removed to expose the condition of the concrete. Furthermore, significant deterioration of the kitchen window pier on the rear elevation was also noted with an area of corroded reinforcement exposed (See photo 4). Corrosion of embedded steel reinforcement within concrete can be significantly accelerated in the presence of elevated chloride ion concentrations. This is particularly relevant in structures constructed before modern standards were implemented, as chloride-based admixtures were commonly used in concrete mixes up until the late 1960's. These admixtures, while once considered beneficial for workability and curing, are now known to contribute to long-term durability issues due to their role in initiating corrosion of reinforcement. Additionally, the depth of the concrete between the reinforcement and the elements (referred to as concrete cover) is essential for protecting the reinforcement from external contaminants such as chlorides and carbon dioxide. From the exposed area at the kitchen window, it appeared as though there was insufficient cover to the reinforcement which is likely to have contributed to the deterioration.

Directly below the living room window a long, horizontal crack (less than 5mm wide) had propagated through the render (See photo 5). From the visual inspection, this crack appears to be the result of weathering and poor maintenance over a prolonged period of time therefore cosmetic in nature.

The canopy located over the front entrance is formed of a slate tiled roof supported on a steel SHS post and a masonry wall with vertical timber posts supported on a half-height masonry wall (See photo 6). The SHS post was

noted to be in a state of disrepair with significant spalling of paint and on the SHS post and timber elements along with areas of corrosion and deformed at the mid-section (See photo 7-8). Additionally, the timber members have rotted at the base causing the timber to disintegrate and separate from the timber cope (See photo 9). The masonry wall which supports the eaves beam between both properties was in reasonable condition however areas of render have disintegrated, and concrete has been exposed on the front face of the adjoining wall with the neighbouring property (See photo 10). Furthermore, the canopy roof appeared to be level, and no depressions were noted across the face of the roof (See photo 11).

The rear elevation of the property was also noted to have been subject to weathering with discolouration of the render noted below the ground floor windows and behind the rainwater down pipe which suggests that these areas have had excessive moisture exposure causing algae to develop (See photo 12).

The roof profile of the property was noted to be finished with concrete tiles with notable algae growth across the extent of the roof. The ridge line of the dwelling appeared to be plumb with no notable depressions identified across the roof profile (See photos 13-14). The gable end of the property was noted to have notable discolouration, and algae growth however had no significant structural defects were noted at the time of inspection (See photo 15).

Ground Floor Inspection

Upon entry into the property, the first area of inspection was the ground floor hallway which was in sound condition with no cracking or defects noted within the space (See photos 16-17). The living room space was inspected next which was also in sound condition with no structural cracking identified at the time of inspection. A small, localised area of discolouration was noted on the ceiling within the living room which appeared to follow a linear pattern approximately 1m from the gable wall (See photo 18). An additional area of discolouration was also noted on the internal wall to the left of the electric fireplace (See photo 19). The cause of the discolouration could not be confirmed at the time of inspection due to finishes being present therefore intrusive investigations would be required to assess the condition of the structure. The ground floor bathroom also appeared to be in sound condition with no notable defects identified in the finishes (See photo 20). The kitchen space was also in good condition with no visible cracking or deformations noted at the time of inspection (See photo 21). The floor space within the kitchen pantry had no finishes present which confirmed that the ground floor is constructed of concrete slab (See photo 22). All ground floor door and window openings appeared to be level and opened with ease.

First Floor Inspection

The top landing of the stairs up to the first floor appeared to slope from the party wall towards the gable wall which has caused separation between the landing and the skirting (See photo 23). There was no cracking identified on the underside of the stair trimmer or on the wall below to suggest that there had been any significant structural movements. The floor was noted to slope in this direction throughout the first-floor level of the property however no signs of structural movement were noted which would have been related to this at the time of inspection (See photo 24). All window and door openings were plumb and level at the time of inspection. The attic hatch was noted to be located within the hallway however due to no ladder access provided the attic space could not be inspected therefore we are unable to comment on the condition of the attic structure (See photo 25).

Conclusion

Following the recent visual inspection, we conclude that the property is in good structural condition however it has been subject to weathering and consequential deterioration as a result of poor maintenance. The visual inspection of the first-floor area found that there was a notable slope in the floor which is likely to have caused the separation noted between the finishes at the landing. We are of the opinion that this is the result of settlement over time as there are no signs of subsidence or resultant cracking in other parts of the property. The ground floor area was also found to be in good condition with no imminent structural defects noted. It would be recommended that additional investigation is carried out to assess the cause of discoloured locations within the living room space to prevent any deterioration. The visual inspection of the external façade highlighted a number of defects including the deterioration of several window piers on the front and rear elevation which appear to be the result of corroded reinforcement. If left unaddressed, these defects could lead to structural failure therefore we recommend that intrusive investigations should be carried out to assess the condition of the concrete behind the affected render on the window piers and relevant remedial works should be carried out by a qualified professional. Additionally, the front entrance canopy was noted to be in a state of significant disrepair with numerous members damaged from water ingress and poor maintenance. Despite the notable defects, the structure was stable at the time of inspection however we would recommend that the timber elements and steel SHS post were replaced to prevent further deterioration which could lead to failure of the structure.

Recommendations

From the conclusions we would recommend the following: -

1. Replacing the rotted timbers on the front entrance porch with timbers treated with an approved preservative recommended by the British Wood Preservative Association to prevent deterioration from exposure to the elements.
2. Replacing the SHS post supporting the front entrance canopy with a galvanised steel SHS post to prevent deterioration from exposure to the elements.
3. Remove all loose or cracked render from affected window piers to assess the condition of the concrete behind. See appendix A for details on the specification for remedial works.

We trust the above summary of comments meet with your requirements on this matter, however, should you wish to discuss any aspect further please do not hesitate to contact us.

Kind Regards,

Shona McCrea
Structural Engineer
For Cowal Design Consultants Ltd.

Photographs

Photo 1 – Discolouration on the front elevation

Photo 2 – Cracking noted on living room window pier

Photo 3 – Cracking noted at base of first floor bedroom window piers on front elevation

Photo 4 – Exposed reinforcement at base of kitchen window pier on the rear elevation

Photo 5 – Hairline crack noted in render under living room window on front elevation

Photo 6 – Front entrance canopy structure

Photographs

Photo 7 – Deformation of SHS post and weathering of structure

Photo 8 – Weathering of timber elements

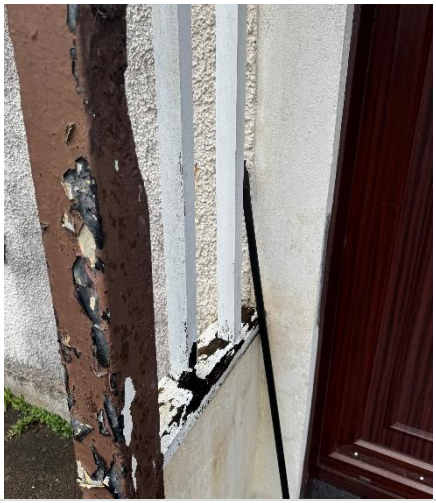


Photo 9 – Timber posts and cope rotted

Photo 10 – Paint spalling and concrete exposed on shared wall

Photo 11 – Canopy roof structure

Photo 12 – Discolouration below rear windows and behind RWP

Photographs

Photo 13 – Roof profile on front elevation

Photo 14 – Roof profile on rear elevation

Photo 15 – Condition of gable end

Photo 16 – Ground floor hallway

Photo 17 – Living room

Photo 18 – Living room

Photographs

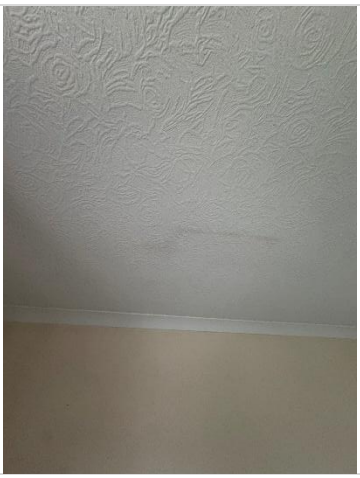


Photo 18 – location of discolouration on living room ceiling

Photo 19 – Discolouration noted on internal wall in living room

Photo 20 – Ground floor bathroom

Photo 21 – Kitchen in good condition

Photo 22 – Exposed ground floor slab

Photo 23 – Separation at skirting on landing

Photographs

	
Photo 24 – Floor sloping in first floor	Photo 25 – First floor hallway and attic hatch

Appendix A

Repair of Corroded Steel Reinforcement in Concrete Columns

Break out of Defective Concrete

(BS EN 1504-10)

- Carefully remove all loose, cracked, carbonated or chloride contaminated concrete to expose sound substrate.
- Concrete should be broken back to a minimum of 20-25mm behind the reinforcement (or until clean steel is fully accessible.
- Avoid damaging remaining sound concrete and reinforcement.

Treatment of Reinforcement

(BS EN 1504-7)

- Clean exposed reinforcement to SA 2 ½ standard (wire brushing, needle gunning, or grit blasting).
- Assess section loss:
- < 10% loss: retain steel and apply corrosion protection.
- 10-15% loss: splice in replacement reinforcement, designed and lapped in accordance with BS 8110.
- Apply a cementitious or epoxy-based corrosion protection coating compatible with the repair mortar.

Reinstatement of Concrete Section

(BS EN 1504-3 – Class R3 or R4 depending on structural requirements)

- Prime the substrate as required by the repair system manufacturer.
- Rebuild the column profile using a structural repair mortar
- Low shrinkage.
- High bond strength.
- Compatible modulus and thermal properties.
- Ensure full encapsulation of reinforcement and reinstatement of original geometry.
- Cure in accordance with manufacturer's requirements.

TREATMENT OF REINFORCEMENT

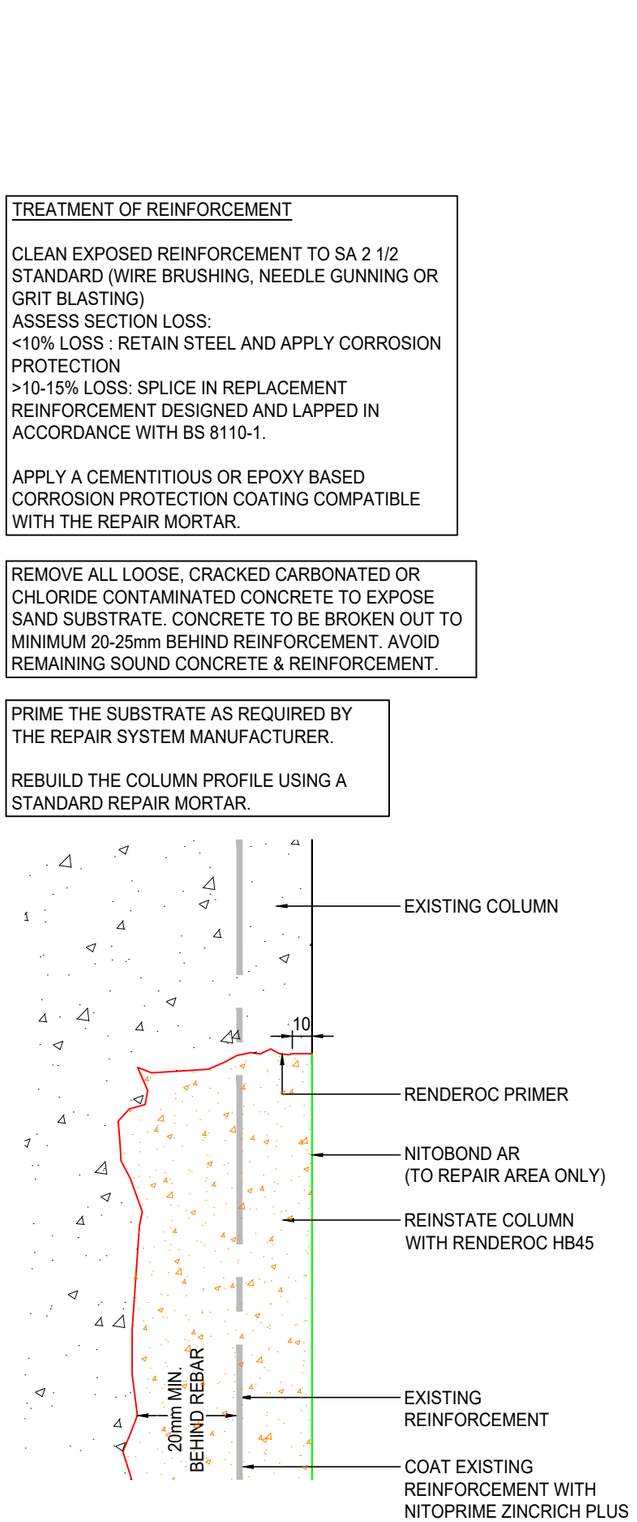
CLEAN EXPOSED REINFORCEMENT TO SA 2 1/2 STANDARD (WIRE BRUSHING, NEEDLE GUNNING OR GRIT BLASTING)
ASSESS SECTION LOSS:
<10% LOSS : RETAIN STEEL AND APPLY CORROSION PROTECTION
>10-15% LOSS: SPLICE IN REPLACEMENT REINFORCEMENT DESIGNED AND LAPPED IN ACCORDANCE WITH BS 8110-1.

APPLY A CEMENTITIOUS OR EPOXY BASED CORROSION PROTECTION COATING COMPATIBLE WITH THE REPAIR MORTAR.

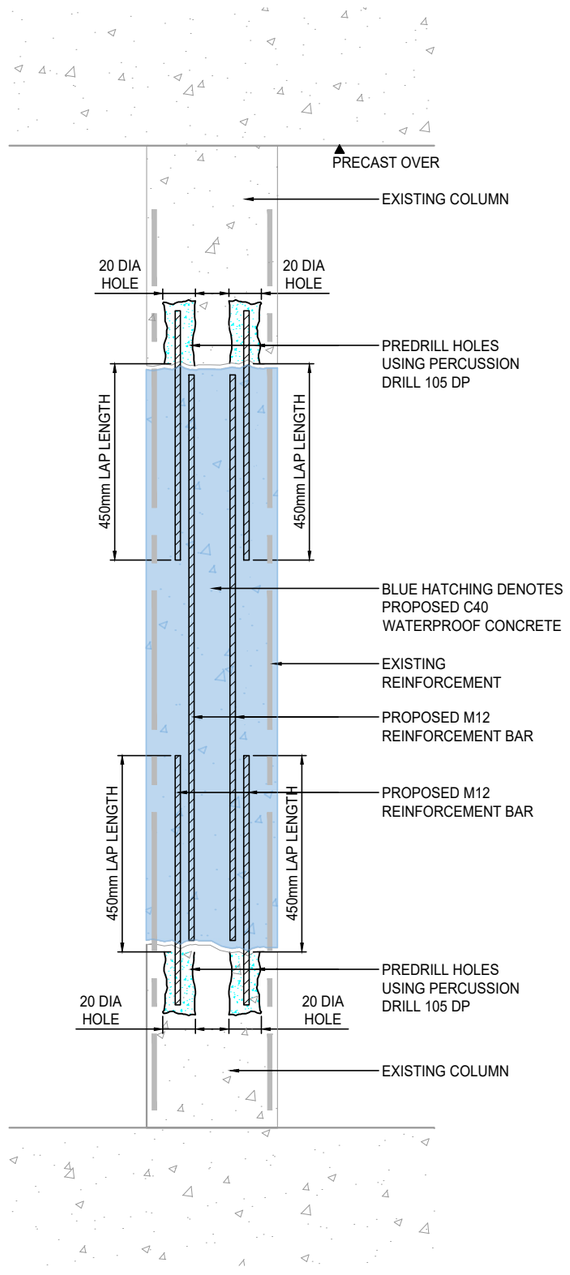
REMOVE ALL LOOSE, CRACKED CARBONATED OR CHLORIDE CONTAMINATED CONCRETE TO EXPOSE SAND SUBSTRATE. CONCRETE TO BE BROKEN OUT TO MINIMUM 20-25mm BEHIND REINFORCEMENT. AVOID REMAINING SOUND CONCRETE & REINFORCEMENT.

PRIME THE SUBSTRATE AS REQUIRED BY THE REPAIR SYSTEM MANUFACTURER.

REBUILD THE COLUMN PROFILE USING A STANDARD REPAIR MORTAR.



<10% CROSS SECTION AREA LOSS
(CONCRETE REPAIR DETAIL)
(SCALE NTS)



>10% CROSS SECTION AREA LOSS

(CONCRETE REPAIR DETAIL)

(SCALE NTS)