



To enhance communication with property management agents and other persons in the property industry, the Buildings Department (BD) publishes and sends this quarterly newsletter to all stakeholders and hopefully through them, this newsletter will reach the hands of building owners.

Little Forum

Minor Works Control System

Before the implementation of the Minor Works Control System (MWCS), any person who intended to carry out building works in private buildings (including A&A works in existing buildings) or on private land were required to submit plans to BD for prior approval and consent in accordance with the Buildings Ordinance (BO), unless such works were exempted under section 41(3) of BO. Otherwise, the works would be regarded as unauthorised building works and BD could take enforcement actions under the prevailing policy.

Since the full implementation of the MWCS on 31 December 2010, building owners and occupants are able to carry out small-scale building works in private buildings in a safe, lawful and convenient manner. The MWCS can improve the quality of the building works and building safety. Submissions under the simplified requirements of the MWCS to BD are even free of charge.

Since its implementation up to June 2019, BD had received over 850 000 minor works submissions. The MWCS is generally welcomed by both the public and the construction industry. A total of 126 items of building works have been included as minor works subject to the control under the MWCS, and more types of amenity features as well as minor building works will be designated as minor works.

BD has put in place the following measures to facilitate the implementation of the MWCS and to assist the public and the construction industry in using the system effectively:

- provide a mobile app to the public as a quick guide to the MWCS;
- provide detailed information on BD's website;
- distribute leaflets and general guidelines and hold talks on minor works to the public, building owners and owners' corporation introducing the system to assist in the public's understanding of the classification of minor works and appointment of a Prescribed Building Professional and Prescribed Registered Contractor for carrying out minor works;
- provide enquiry services to the public;
- provide 24-hour e-submission service; and
- provide technical guidelines and practice notes on minor works for practitioners.



Class I (44)
Relatively more complicated



Class II (40)
Relatively less complicated



Class III (42)
Small-scale and mostly household minor works



Available on the App Store



GET IT ON Google play

Download mobile app
"Quick Guide for Minor Works"



For details,
please visit BD's website
<https://bit.ly/33L86TD>



Spalling of Concrete

Prevention is better than cure. To carry out timely maintenance, it is important for building owners to have basic knowledge of building defects. Most of the buildings in Hong Kong are constructed in reinforced concrete, which consists of cement, aggregates, admixtures, water and steel bars. Concrete spalling is a common building defect.

Common Symptoms

- Water/rust stains on the surface or there is water seepage.
- Cracks on the surface, usually longitudinal cracks along the steel bars in concrete.
- Bulging of the surface.
- Spalling of concrete, loose plastering / finishes, sometimes with rusty steel bars exposed.



Spalling of concrete caused by water seepage with steel bars exposed



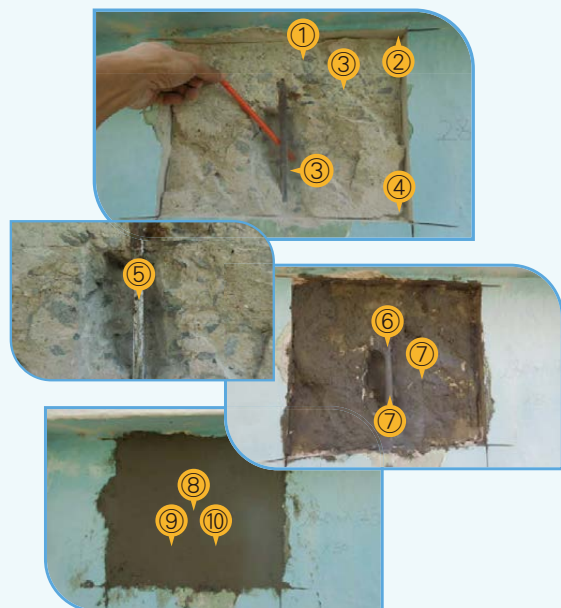
Longitudinal crack along the steel bar in concrete

Possible Causes

- Ageing and natural deterioration of reinforced concrete. Carbonation is a natural reaction. When the surface layers of concrete become carbonated with time, they will lose the alkalinity that protects the steel bars in concrete from corrosion. When steel bars become rusty, they will expand and force the surrounding concrete to crack, resulting in spalling of the concrete.
- Prolonged water seepage can cause corrosion of the steel bars inside the concrete, eventually resulting in spalling of the concrete.

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Common Repair Methods



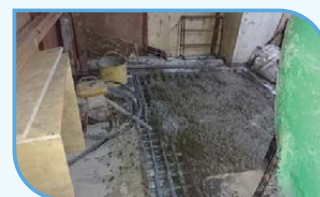
Patch Repair

This is the most common repair method for minor surface concrete spalling. Possible steps involve:

- ① Remove all loose concrete to eliminate the imminent danger.
- ② Mark the area to be repaired.
- ③ Hack off all defective concrete to sound substrate. A clearance of 15 mm – 25 mm should be left between the steel bars and the concrete substrate to provide sufficient room for applying repair mortar and completing the removal of rust on the steel bars.
- ④ Saw cut the edges of the marked repair area to a depth of 5 mm – 10 mm to avoid feather edges.
- ⑤ Remove all the rust on the steel bars with a wire brush. If the diameters of the steel bars are substantially reduced by more than 15%, it is necessary to supplement the steel bars by lapping or fillet weld.
- ⑥ Apply primer to the steel bars as soon as possible after removing the rust on the steel bars.
- ⑦ Apply bonding agent to the concrete substrate and the primed steel bars after the primer is sufficiently cured.
- ⑧ Patch up with appropriate repair mortar when the bonding agent is still tacky.
- ⑨ Spray curing membrane over the repair mortar for curing.
- ⑩ Conduct visual inspection to identify any cracks and carry out tapping test to identify hollow sounding areas after the curing.

Re-casting

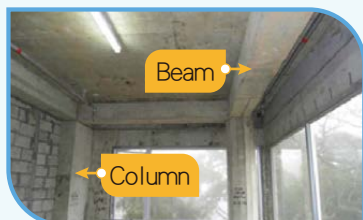
If the defective concrete is extensive and penetrates beyond the steel bars, it is necessary to carry out partial or complete demolition, and the affected parts have to be re-casted.



Re-casting a floor slab

Structural Elements of a Building

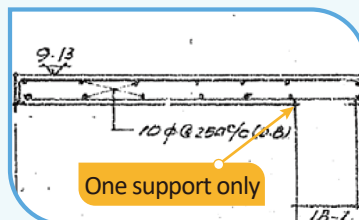
Columns, beams and cantilevered structures are common structural elements of a building. Concrete spalling of structural elements may adversely affect the structural stability of the building. In this regard, building owners should carry out immediate repairs to such spalling. This is especially true for cantilevered structures, which are supported at one end only. It is like we lift our arm and there is only one support at the shoulder. All the loading acting on the cantilevered structures will be transferred to the main building structures through this point. Therefore, the whole structure will collapse when failure occurs at this point, causing serious consequences. Common examples of cantilevered structures are projecting structures located on the exteriors of buildings like canopies, balconies, air-conditioning platforms, etc.



Columns and beams



Cantilevered canopy



Structural details of cantilevered canopy

Minor Works Control System

Repair of structural elements, such as columns, beams, slabs and cantilevered slabs, is a minor works item (item 1.17 or 2.17) under the Minor Works Control System. Building owners should appoint a Prescribed Building Professional and/or a Prescribed Registered Contractor for carrying out such works.



For the relevant minor works items, please visit BD's website

<https://bit.ly/2ZwZD20>

Building Safety Advanced Certificate Course



BD will conduct the Building Safety Advanced Certificate Course in November and December at BD Headquarters. Tailored for those who have completed the Building Safety Certificate Course at BD's E-Learning Centre, this course aims at enhancing the public's awareness of building care through an in-depth exploration of the topics related to the Mandatory Building Inspection Scheme and the Mandatory Window Inspection Scheme, fire safety, water seepage, unauthorised building works and dilapidated buildings, the Land Registry's services, as well as the Minor Works Control System. It will be conducted in Cantonese and is free of charge. Please stay tuned to BD's website for details.



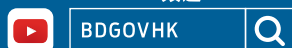
To complete the BSACC, please visit BD's E-Learning Centre

<https://elearning.bd.gov.hk>

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