

Technical Bulletin

TB 0228- Ragbolt extensions

Purpose

The purpose of this technical bulletin is to notify Regional employees of the availability of column ragbolt extensions, which can be attached to a column ragbolt so that the column base plate is not situated below ground level.

Note that ragbolt extensions are for maintenance purposes only and to be used on existing installations that are part of the network. New ragbolts must be installed at the correct height such that the column base plate is at ground level.

Background

In accordance with MMI 0003, the column base plate must not be installed below ground level in order to reduce the likelihood of corrosion attacking the column. If this occurs, a defect must be raised and the column and ragbolts shall be replaced within 6 months.

In practice, depending on the ground moisture or soil type, some buried columns are found without corrosion or with mild corrosion that does not compromise its mechanical strength. Adding a column extension to the ragbolt will lift the column base plate above ground level, reducing the likelihood of ground level corrosion.

Actions

For column base plates found below ground level during routine inspections and where the required mechanical strength of the column base plate is compromised due to corrosion, the column must be replaced in accordance with MMI0003 Section 5.12.

The ragbolt and threaded studs must also be examined for mechanical strength and it must be replaced immediately if either is compromised. A new ragbolt will then have to be installed correctly

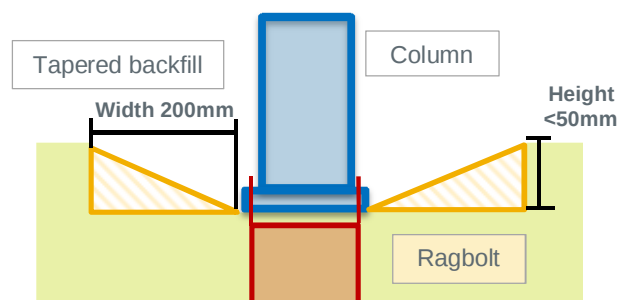
such that the column base is at ground level in accordance with LCI 0001 Section 5.1.3.

Installation of Ragbolt Extensions

The ragbolt extensions are pre-treated with a protective epoxy coating. Care must be taken not to damage this coating upon installation.

If the existing column base plate and ragbolt still have the required mechanical strength to last until the next routine inspection, the following actions will be taken:

- If the integrity of the column and ragbolt is not compromised, but there is corrosion present, the corrosion must be removed and cold galv applied (stock code SP10277 or SP17298) to affected area with a minimum thickness of 100µm.
- If the existing column base plate is 50mm below the ground level or less, then dish excavation will be carried out and backfill will be tapered down 200mm away from column base plate, gradually sloping until it is slightly below the base plate level. The surface of the excavation must be finished with clean, stone-free sandy loam to prevent water pooling; also use existing turf if available, for residential.

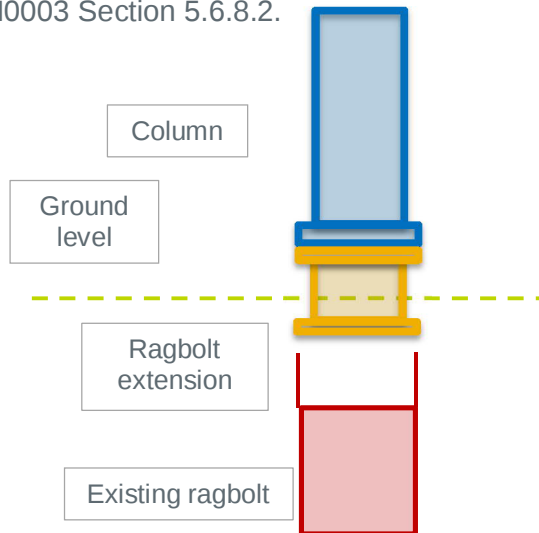


- For instances where the column baseplate is greater than 50mm below ground level, a

ragbolt extension will be attached to raise the column base to at least ground level. The following extension heights are available:

- o 200mm
- o 300mm
- o 500mm

Excavation must be backfilled in accordance with MMI0003 Section 5.6.8.2.

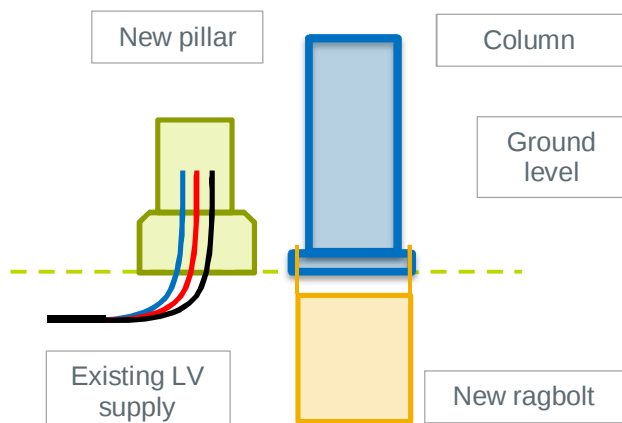


LV supplies and SLCP boards

If existing LV equipment and SLCP boards can be re-installed into the existing column and is still accessible for repair or maintenance, a ragbolt extension can be used to raise the column base to ground level as above.

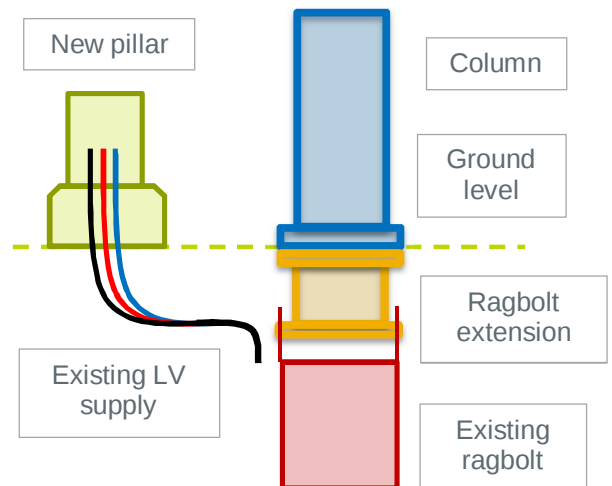
For columns where the access for maintenance or repair is compromised after an extension is installed, the following methods can be used to resolve the issue:

1. Re-terminate LV service to a new pillar. Install a new ragbolt next to LV pillar, with the column base plate correctly situated at ground level.



2. Re-terminate LV supply to a new pillar situated next to the streetlight only column and a ragbolt extension will be installed on the existing ragbolt.

Note that corrosion on the existing column must be removed and cold galv applied (stock code SP10277 or SP17298) to affected area with a minimum thickness of 100µm.



Stock codes

The stock codes for the column ragbolt extensions are:

- 200mm – **001567098**
- 300mm – **001567106**
- 500mm – **001567114**

Drawing Number

The drawing number for the ragbolt extension is 404166 Rev A and is attached in Annexure 1. It can also be found on Content Server.

Impacted Standards

The contents of this technical bulletin will be included in the next update of the following standard(s):

MMI 0003 – Routine external structural inspection of streetlight columns and LV pillar

Annexure 1 – Ragbolt extension drawing 404166 Rev A

