11/10/2019

Wall collapse

3 September 2019

Incident overview

While being demolished, a seven-metre brick wall collapsed onto a neighbouring property in the Sydney suburb of Balgowlah. Although no-one was injured, occupants were evacuated and Public Works said the property would need to be demolished because of the damage and unstable structure.

Photograph: Construction site where works were being undertaken.

The investigation

- SafeWork NSW inspectors responded to the incident.
- SafeWork NSW commenced an investigation to determine the cause and circumstances of the incident.
Safety information

Businesses are reminded of their duty to identify hazards and manage risks to health and safety in accordance with the provisions of the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2017.

Consider ‘reasonably practicable’ control measures to manage the risks associated with unplanned structural collapse during demolition and excavation work. Before starting demolition work:

- Collect all structural documentation for the building, such as ‘as-built’ structural drawings, geotechnical reports and designer safety reports.
- Get a competent person to give you an engineering report, if structural or geotechnical information isn’t available, if the structure has been damaged or weakened (by fire or deterioration), or if the demolition method will impose substantial stress on the building.
- Get a competent person to check the building for asbestos, make sure it’s removed and get a clearance certificate prior to commencement of demolition.
- Consult with all relevant competent persons during the planning of the demolition works with consideration of the structural documentation and/or engineering investigation reports.

When planning the works consider the:

- effect of the proposed demolition methods and sequence on the stability and integrity of the structure being demolished, and any adjacent or adjoining buildings, at all stages of the demolition.
- maximum permissible wind speed for partially demolished structures.
- plant to be used for the work, including the size, type, position and reach.
- ground conditions and how that may affect the use of plant or other demolition methods.
- provision of safe access and safe work working areas.

In addition:

- Clearly communicate to all relevant persons when ‘hold-points’ are required during the demolition sequence to allow for the inspection and/or testing by competent persons.
- Ensure workers are competent and have received training and instructions on the demolition methods and sequencing.

When undertaking demolition work:

- Make sure the work is supervised by a competent person and done in accordance with the planned methods and sequence.
- Use braces, propping or shoring, to make sure the building and any nearby structures are safe and structurally stable at all times.
- Use exclusions zones to protect workers from falling objects, unplanned structural collapse and moving plant – even when work has stopped for the day, or if the risk of a structural collapse exists.
- Implement fall protection devices if work is done at heights.
- Don’t work from the top of a wall that is being demolished.
- Adequate controls are in place to minimise exposure to silica dust.

The information contained in this publication is based on knowledge and understanding at the time of writing. No conclusions should be drawn from the information in this publication about the cause of the incident or the culpability of any party.
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- Wear safety glasses, ear muffs, dust masks, gloves and long-sleeved clothing.

Also consider:

- When removing entire wall sections using manual demolition methods that incorporate hand tools, such as jackhammers, sledge hammers, and picks, avoid weakening the wall by:
  - starting demolition at the top course of bricks using a hammer and chisel
  - removing an entire row before starting the next.

Further information

- Demolition Work Code of Practice
- Excavation Work Code of Practice
- Wall Safety during construction work guidance material
- AS 2601-2001: The demolition of structures