



AUS-SPEC

Infrastructure Specifications

0201 Demolition

0201 DEMOLITION

IMPORTANT: This document has been adapted from the NATSPEC suite of specification templates for use in the Cessnock City Council area by both Council and industry. NATSPEC regularly updates the base templates (currently in April and October each year), and Council may incorporate changes into its version of AUS-SPEC from time to time. To assist in highlighting any changes made by Council to the NATSPEC templates, the following conventions are used.

- See ANNEXURE M at the end of this document which contains (where practical) Cessnock City Council customisations (also known as 'office master' text). References to the Annexure are to also be inserted at relevant clauses in the main body of the document.
- Where content is added to the main body of the document, it is to be shown **in brown text like this**.
- Where content is deleted or excluded from the main body of the document, it is to be shown ~~struck through like this~~. Such clauses are to have no effect.

Where there is a conflict between main body text and Cessnock City Council specific clauses, Council's specific clauses shall prevail.

1 GENERAL**1.1 RESPONSIBILITIES****General**

Requirement: Carry out demolition, as documented.

Exclusions: This worksection does not cover (unless customised for a specific project) all requirements for:

- Permanent shoring or underpinning, which should be detailed on the project drawings.
- Provisions to be set in place for the use of explosives.

1.2 CROSS REFERENCES**General**

Requirement: Conform to the following:

- **0136 General requirements (Construction)**
- ~~0171 General requirements.~~

1.3 STANDARDS**General**

Demolition: To AS 2601 (2001).

1.4 INTERPRETATION**Definitions**

General: For the purposes of this worksection, the following definitions apply:

- Demolition: The complete or partial removal of a building or structure, by pre-planned and controlled methods or procedures.
- Dilapidation record: The photographic or video, and written record of the condition of the portion of the existing building retained, adjacent buildings, and other relevant structures or facilities, before the start of demolition work.
- Dismantle: The reduction of an item to its components in a manner to allow re-assembly.
- Recover: The disconnection and removal of an item in a manner to allow re-installation.

1.5 SUBMISSIONS**Authority approvals**

Evidence of compliance: Before starting demolition, submit evidence of the following:

- Requirements of authorities relating to the work under the contract have been obtained.
- A permit to demolish (including DA consent if required) has been obtained from Council or the appropriate government authority.
- A scaffold permit from the appropriate authority, if scaffolding is proposed to be used.
- Certification that each person having access to the construction site has completed site-specific WHS induction training.
- Precautions necessary for protection of persons and property have been taken and suitable protective and safety devices have been provided to the approval of the relevant authority.
- Certificate from the relevant authority confirming treatment for any rodent infestation has been carried out.
- Fees and other costs have been paid.

Execution details

Requirement: Submit the following, as documented:

- Hazardous Substances Management Plan, including laboratory analysis of hazardous substances.
- Investigation and work plan.
- Safe Work Method Statement.

Off-site disposal locations: Submit details of the proposed locations for the disposal of material required to be removed from the site, and evidence of conformance with the requirements of relevant authorities.

Recycling: Submit details of the proposed recycling facility, and the following:

- Nominated facility for this project: any waste management centre licenced to recycle the types of waste to be received from the project.
- Certification: Submit evidence of disposal of recycled materials.
- Concrete crushing: If proposed on site, submit details of plant and environmental controls.

Stockpile locations: Submit details of the proposed locations of on-site stockpiles for demolished materials for recycling in the works. Coordinate with the locations for storage of other waste streams. Prevent mixing and pollution. This is to form part of any Waste Management Plan required by 0173 Environmental management worksection.

Records

Dilapidation record:

- Before demolition: Submit to each owner of each adjoining or adjacent property, a copy of the part of the record relating to that property and obtain their written agreement to the contents.
- Rectification work: Submit written acceptance of rectification works from the owner of each adjoining or adjacent property affected.

Tests

Requirement: Submit compliance test results for building services components to be re-used.

1.6 INSPECTION

Notice

Inspection: Give notice so that inspection may be made of the following as Witness Points or Hold Points:

- Adjoining and adjacent structures before starting demolition.
- Services before disconnection or diversion.
- Trees documented to be retained, before starting demolition.
- Contents of building before starting demolition.
- Structure after stripping and removal of roof coverings and external cladding.
- Underground structures after demolition above them.
- Remaining excavations after removal of underground work.
- Site after removal of demolished materials.
- Services after reconnection or diversion.
- Adjoining and adjacent structures at completion of demolition.

2 PRODUCTS

2.1 DEMOLISHED MATERIALS

Demolished material diverted from landfill

Demolished material classes table

Class	Requirement	Ownership
Recovered items for re-use in the works	Recover without damage items identified in the Recovered items for re-use in the works schedule	Principal/proprietor
Recovered items for delivery to the principal	Recover without damage items identified in the Recovered items for delivery to the principal schedule	Principal/proprietor
Demolished material for recycling in the works	Stockpile material identified in the Demolished material for recycling in the works schedule	Contractor
Demolished material for recycling off-site	Demolish and deliver for recycling material identified in the Demolished material for recycling off-site schedule	Contractor
Dismantle for relocation as part of the works	Dismantle without damage and store items identified in the Dismantle for relocation schedule	Principal/proprietor
Demolish for removal	Remove from site demolished materials identified in the Demolish for removal schedule . Do not burn or bury on site Transit: Prevent spillage of demolished materials in transit	Contractor

3 EXECUTION

3.1 HAZARDOUS SUBSTANCES

Identified hazardous substances

Register: Hazardous substances ~~have been~~ **are to be identified as if** present on site and a Hazardous substances register ~~has been prepared~~ **is to be prepared by the Contractor for approval by the Principal before starting work..**

Availability: Not Used

Audit

Requirement: Prepare a Hazardous Substances Management Plan to AS 2601 (2001) clause 1.6.1. Include the following:

- Asbestos-containing materials.
- Flammable or explosive liquids or gases.
- Toxic, infective or contaminated materials.
- Radiation or radioactive materials.
- Noxious or explosive chemicals.
- Tanks or other containers that have been used for storage of explosive, toxic, infective or contaminated substances.

Removal of hazardous substances

Standard: To AS 2601 (2001) clause 1.6.2.

Procedure for asbestos removal: **To be prepared by the Contractor's accredited hygienist, in accordance with any DA consent conditions.**

Reference: If removal of asbestos or of material containing asbestos is required, see the WHS authority's Code of Practice applicable to the state and

How to safely remove asbestos Code of Practice (2020) by Safe Work Australia.

Compliance with this requirement targets the Banned or Highly Toxic Materials requirement for removal of banned or highly toxic materials within the Minimum Expectation level of the Exposure to Toxins credit in Green Star Buildings (2021).

3.2 INVESTIGATION AND WORK PLAN

General

Requirement: Before demolition or stripping work, prepare the work plan to AS 2601 (2001) Section 2. Include the checklist items appropriate to the project from AS 2601 (2001) Appendix A, and the following:

- Method of protection and support for adjoining or adjacent structures.
- Locations and details of service deviations and terminations.
- Sequence of work.
- If the demolition program results in components temporarily cantilevered, provide a certificate from a professional engineer.
- Proposals for the safe use of mobile plant on suspended structural members including provisions for the protection of lower floors in the event of structural failure.
- Structural engineering report and demolition methodology, as appropriate, if the structure is suspected to contain unbonded prestress tendons.

Reference: Refer to AS 2601 (2001) Appendix D for more information on the demolition of prestressed concrete structures.

- If implosion methods are proposed, provide a separate report of methods and safeguards.
- Wheel loads of tipping or loading vehicles.

3.3 SUPPORT

Temporary support

General: If temporary support is required, certification for its design and installation is required from a professional engineer engaged by the contractor.

Existing buildings: Until permanent support is provided, provide temporary support for sections of existing buildings, or parts of buildings, being retained and which normally rely on support from work to be demolished.

Suspended slabs: If mobile plant is required for use on suspended structural members, conform to structural engineering requirements and the work plan.

Reference: Refer to AS 2601 (2001) clause 3.4.3.3 for more information.

Ground support: Support excavations for demolition of underground structures.

Adjoining or adjacent structures: Provide supports to adjoining or adjacent structures where necessary, sufficient to prevent damage resulting from the works.

Lateral and vertical supports: At least equal in capacity to that originally provided by the structural element or structure to be demolished.

Reference: See AS 2601 (2001) clause 1.7 for protection of adjoining buildings and E5.1 on basements and other below-ground structures.

Permanent supports

General: If permanent supports for adjacent structures are necessary and are not documented, give notice and obtain instructions.

3.4 PROTECTION

Encroachment

General: Prevent the encroachment of demolished materials onto adjoining property, including public spaces.

Weather protection

General: If walls or roofs are opened for alterations and additions, provide temporary covers to prevent water penetration. Provide covers to protect existing plant, equipment and materials intended for re-use.

Dust protection

General: Provide dustproof screens, bulkheads and covers to protect existing finishes and the immediate environment from dust and debris.

Security

General: If walls or roofs are opened for alterations or additions, provide security against unauthorised entry to the building.

Temporary screens

General: Fill the whole of designated temporary openings or other spaces using dustproof and weatherproof temporary screens, fixed securely to the existing structure. Install to shed water to avoid damage to retained existing elements, and adjacent structures and contents.

Type: Timber framed screens sheeted with 12 mm plywood and painted. Seal the junctions between the screens and the openings.

Designated openings: Not Used

Temporary access

General: If required, provide a substantial temporary doorset fitted with a rim deadlock, and remove on completion of demolition.

Exposed surfaces

General: Where necessary, protect and weatherproof the surfaces of adjoining structures exposed by demolition.

Treatment of exposed surface: Not Used

Existing services

Location: Before starting demolition, locate and mark existing underground services by potholing or other non-destructive digging, in the areas that will be affected by the demolition operations.

Utility services: Contact BEFORE YOU DIG AUSTRALIA to identify location of underground utility services pipes and cables.

Essential services: Shut off, cap or control services not required for the demolition work, at or outside the building line before commencing demolition. Conform to the requirements of the relevant existing utility authority, as appropriate.

Underground utility services to be retained: Do not excavate by machine within 1 m of existing underground services.

Fixed items

Individual protection: Protect the following items in their existing positions: Not Used

Recovered items

General: If items are documented for recovery and re-use, minimise damage during removal and recover all associated components required for their re-use.

3.5 DEMOLITION – BUILDING WORKS

General

Requirement: To the approved Safe Work Method Statement and work plan.

Encroachment

General: If encroachments from adjacent structures are encountered and are not documented, give notice and obtain instructions.

Sequence

Sequence of demolition: Not Used

Concrete slabs

Partial demolition or penetrations: Using a diamond saw, neatly cut back or trim to new alignment with a clean true face. Do not overcut at corners. If required, provide protection to exposed reinforcement along the newly sawn concrete slab edge, as documented.

Storage: Do not store demolished materials on suspended slabs.

Material below grade

Extent: Demolish the following: Not Used

Remaining voids: Stabilise and provide barriers.

Explosives

General: Do not use explosives.

3.6 DEMOLITION – BUILDING SERVICES

General

Requirement: Decommission, isolate, demolish and remove from the site all equipment and associated components that have become redundant as a result of the demolition.

Breaking down: Disassemble or cut up equipment where necessary to allow removal.

Demolition of refrigeration systems

Standard: To AS/NZS 5149.4 (2016).

Refrigeration system to be demolished: Not Used

Components for re-use

General: Before returning to service, clean components and test for conformance to Australian Standards, as required.

3.7 COMPLETION

Notice of completion

General: Give at least 5 working days' notice of completion of demolition so that adjoining or adjacent structures may be inspected following completion of demolition.

Reinstatement

Assessment of damage: Use the dilapidation record to assess the damage and rectification work arising from the demolition work.

Rectification: Repair damage arising from the demolition work. Obtain written acceptance from the owner of each adjoining or adjacent property of the completeness and standard of the rectification work.

Removal of temporary supports

General: Obtain written instructions from the structural engineer at the completion of demolition before removing temporary supports.

4 SELECTIONS

The use of these schedules in addition to project Drawings on Council or private development works is optional, at the Superintendent's discretion.

4.1 DEMOLITION

Recovered items for re-use in the works schedule

Item	Location for re-use

Recovered items for delivery to the principal schedule

Item	Delivery location

Demolished material for recycling in the works schedule

Material

Demolished material for recycling off-site schedule

Material

Dismantle for relocation schedule

Item	Location for storage	Location for re-assembly

Demolish for removal schedule

Item

5 ANNEXURE A - REFERENCED DOCUMENTS

The following documents are incorporated into this worksection by reference:

AS 2601	2001	The demolition of structures
AS/NZS 5149		Refrigerating systems and heat pumps - Safety and environmental requirements
AS/NZS 5149.4	2016	Operations, maintenance, repair and recovery (ISO 5149-4:2014, MOD)
Cessnock City Council		Development Engineering Handbook

6 ANNEXURE M – CESSNOCK CITY COUNCIL SPECIFIC CLAUSES

M1.	Variations to or non-conformances with Council's AUS-SPEC are to be evaluated with reference to the procedure in Council's <i>Development Engineering Handbook</i> . Acceptance is to be obtained in writing from: a) an authorised representative of Council's Director of Infrastructure and Engineering Services.	Variation procedure
M2.	This specification applies in addition to any development consent (DA) conditions. If there is any inconsistency, the conditions of consent shall prevail.	DA Conditions
M3.	Refer to the Cessnock City Council Development Engineering Handbook for final inspection, works-as-executed and handover requirements.	Completion

7 AMENDMENT HISTORY

0	15/01/2024	First Published
---	------------	-----------------