

Modification of Infrastructure Approval

Section 115ZI of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning under the Instrument of Delegation dated 11 October 2017, I approve the modification of the State significant infrastructure approval referred to in Schedule 1, subject to the conditions in Schedule 2.



Glenn Snow
Director
Transport Assessments

Sydney *14 November* 2017

SCHEDULE 1

Infrastructure Approval:

SSI 6788 granted by the Minister for Planning on 20 April 2016.

For the following:

Development for the purposes of the WestConnex New M5 project being a new multi-lane road link east of the Kings Georges Road Interchange, at Kingsgrove to the St Peters Interchange.

Modification:

Modification by way of including limiting tensile strain to the settlement criteria in condition D8, and revising the terminology used within conditions D6-D9 and condition B58. (SSI 6788 MOD 1).

SCHEDULE 2

1. Delete condition B58 and replace with the following:

- B58 The Proponent must undertake dilapidation surveys and prepare dilapidation reports on the current condition of surface and sub-surface structures identified as at risk from settlement or vibration. The dilapidation surveys and reports must be prepared by a suitably qualified and experienced person(s) and must be provided to the owners of the surface and sub-surface structures for review prior to the commencement of potentially impacting construction activities.

Subsequent dilapidation surveys must be undertaken to assess damage to the surface and sub-surface structures that may have resulted from the construction of the SSI within three months of the completion of construction in an affected area, unless otherwise approved by the Secretary. The Proponent must carry out rectification at its expense and to the reasonable requirements of the surface and sub-surface structure owner(s) within three months of completion of the post-dilapidation surveys unless otherwise agreed by the owner of the affected surface and sub-surface structure.

Note: For the purposes of condition B58, "surface and sub-surface structures" are taken to include, but is not limited to, underground and above ground structures, utility services and infrastructure, buildings roads and bridges.

2. Delete condition D6 and replace with the following:

- D6 A geotechnical model of representative geological and groundwater conditions must be prepared prior to excavation and tunnelling in subject area(s) to identify geological structures and groundwater features. This model must include details of proposed excavations and tunnels, construction staging, and identify surface and sub-surface structures, including and specific attributes, which may be impacted by the SSI. The Proponent must use this model to assess the predicted settlement, ground movement, stress redistribution and horizontal strain profiles caused by excavation and tunnelling on adjacent surface and sub-surface structures.

3. Delete condition D7 and replace with the following:

- D7 The Proponent must undertake a review of surface and sub-surface structures at risk from damage to determine appropriate criteria to prevent damage, prior to excavation and tunnelling works that may pose a settlement risk. Criteria for surface and sub-surface structures which are not included in condition D8 (**Table 1**) must be determined in consultation with the owner(s) of the surface and sub-surface structures prior to commencement of any excavation or tunnelling works potentially affecting the surface and sub-surface structures.

4. Delete condition D8 and replace with the following, and amend Table 1:

- D8 In the case of buildings, roads, parking areas and parks, the appropriate criteria which governs the greatest risk of damage are to be selected from **Table 1** (Maximum Settlement, Maximum Angular Distortion or Limiting Tensile Strain) unless the Proponent has determined more stringent criteria under condition D7.

Table 1 — Settlement Criteria

Surface and Sub-Surface Structures	Maximum Settlement	Maximum Angular Distortion	Limiting Tensile Strain *
Buildings - Low or non-sensitive properties (i.e. < 2 levels and car parks)	30 mm	1 in 350	0.1
Buildings and pools - High or sensitive properties (i.e. > 3 levels and heritage items)	20 mm	1 in 500	0.1
Roads and Parking areas	40 mm	1 in 250	n/a
Parks	50 mm	1 in 250	n/a

* As defined in Burland et al. 'Building response to tunnelling – Case Studies from construction of the Jubilee Link Extension', London, Thomas Telford (2001)

5. Delete condition D9 and replace with the following:

- D9 Should the geotechnical model in condition D6 identify exceedances of the relevant criteria established by conditions D7 and D8, the Proponent must implement an instrumentation and monitoring program to measure settlement, distortion or strain as required. The Proponent must also identify and implement appropriate mitigation measures in consultation with the owners of the relevant surface and sub-surface structures prior to excavation and tunnelling works to ensure where possible that the surface and sub-surface structures will not experience exceedances of the relevant criteria.

The adopted criteria does not remove any responsibility from the Proponent for the protection of existing surface and sub-surface structures or for rectifying any damage to surface and sub-surface structures resulting from the SSI.

Note: For the purposes of conditions D6, D7, D8 and D9, "surface and sub-surface structures" are taken to include, but is not limited to, underground and above ground structures, utility services and infrastructure, buildings roads, bridges, car parks, parking areas, parks and swimming pools.