APPENDIX A ENVIRONMENTAL ASSESSMENT

See the department's website at
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4326

APPENDIX B SUBMISSIONS

See the department's website at
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4326

APPENDIX C PROPONENT'S RESPONSE TO SUBMISSIONS

See the department's website at
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4326

APPENDIX D CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act* 1991. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

(a) *if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle);*

(b) *the principle of inter-generational equity - that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the inter-generational principle);*

(c) *the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the biodiversity principle); and*

(d) *improved valuation, pricing and incentive mechanisms should be promoted (the valuation principle).*

The Department has considered the proposed development in relation to the ESD principles and has made the following conclusions:

- **Precautionary Principle** – The application is supported by technical and environmental reports which conclude that the proposal's impacts can be successfully mitigated. No irreversible or serious environmental impacts have been identified. No significant climate change risks are identified as a result of this proposal.
- **Inter-Generational Principle** – The location of new residential development on a site with good access to public transport will reduce travel demands and enable residents to make sustainable travel choices which will protect the environment for future generations.
- **Biodiversity Principle** – There is no threat of serious or irreversible environmental damage as a result of the proposal. The proposal is confined to the redevelopment of a site already occupied by existing development and, as such, is unlikely to impact upon biological diversity or ecological integrity.
- **Valuation Principle** – The valuation principle is more appropriately applied to broader strategic planning decisions and not at the scale of this application. The principle is not considered to be relevant to this particular application.

A term of approval is recommended requiring the proponent to give further consideration to the incorporation if sustainable technologies and ESD measures. With the incorporation of measures to achieve a best practice ESD outcome on the site, the department is satisfied that the proposal is consistent with the principles of ESD.

Section 75I(2) of the Act / Clause 8B of Regulations

Section 75I(2) of the Environmental Planning and Assessment Act 1979 and clause 8B of the Environmental Planning and Assessment Regulation 2000 provides that the Director General's Report is to address a number of requirements. These matters and the Department's response are set out below:

Section 75I(2) criteria	***Response***
Copy of the proponent's environmental assessment and any preferred project report	The Proponent's EA and PPR are located at **Appendices A and C** to this report respectively.
Any advice provided by public authorities on the project	All advice provided by public authorities on the project for the Minister's consideration is set out in **Section 4** of this report.
Copy of any report of a panel constituted under Section 75G in respect of the project;	No statutory panel was required or convened in respect of this project.
Copy of or reference to the provisions of any State Environmental Planning Policy that substantially governs the carrying out of the project;	Each relevant SEPP that substantially governs the carrying out of the project is identified below, including an assessment of proposal against the relevant provisions of the SEPP.

Except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division	An assessment of the development against relevant Environmental Planning Instruments is provided below.
Any environmental assessment undertaken by the Director General or other matter the Director General considers appropriate	The environmental assessment of the project application is this report in its entirety.
A **statement of compliance** with the environmental assessment requirements under this Division with respect to the project.	In accordance with section 75I of the EP&A Act, the Department is satisfied that the Director-General's environmental assessment requirements have been complied with.
Clause 8B criteria	***Response***
An assessment of the environmental impact of the project	An assessment of the environmental impact of the proposal is discussed in **Section 5** of this report.
Any aspect of the public interest that the Director-General considers relevant to the project	The public interest is discussed in **Section 5** of this report.
The suitability of the site for the project	The suitability of the site for the proposed development is discussed in **Section 5** of this report. The proposed density, built form, traffic and other impacts have been considered by the Department and the site is considered suitable for the proposed development.
Copies of submissions received by the Director-General in connection with public consultation under section 75H or a summary of the issues raised in those submissions.	A summary of the issues raised in the submissions is provided in **Section 4** of this report. The Proponent's response to the submissions appear at **Appendix C**. A copy of the submissions are provided at Appendix **B**.

State Environmental Planning Policy 55 – Remediation of Land

Refer to discussion in relation to Contamination in **Section 5.8**.

State Environmental Planning Policy (Infrastructure) 2007

The proposal exceeds the apartment number thresholds referred to in Clause 104 and Schedule 3 of the Infrastructure SEPP. Accordingly, the proposal was referred to the RMS as a 'Traffic Generating Development'. The RMS comments are discussed in **Sections 4.1** and **5.5** of this report.

State Environmental Planning Policy (Building Sustainability Index) 2004

The proponent has committed to complying to the requirements of BASIX. A future environmental assessment requirement has also been included in the recommendation to ensure compliance with the SEPP.

State Environmental Planning Policy 65 – Design Quality of Residential Flat Development and Compliance with the RFDC

The design quality principles of SEPP 65 and the RFDC aim to ensure adequate environmental and residential amenity can be achieved in new residential flat buildings. In addition, the RFDC sets out a number of 'rules of thumb' which provide numerical guidelines for residential flat development to ensure the development complies with the intent of the SEPP 65. **Tables 1** and **2** below demonstrate that the building envelopes proposed under the Concept Plan are capable of complying with the requirements of SEPP 65 and the RFDC.

Table 1: Assessment of Compliance with the SEPP 65 Design Principles

Design Principle	Assessment
Context	The subject site is located on Artarmon Road, Willoughby. The site is bounded by Artarmon Road to the North, the Castle Vale development to the east, a number of low density residential dwellings and a Council reserve to the south, and Richmond Avenue to the west. The central portion of the site currently houses a four-storey commercial building and a four to six-storey studio building. Both buildings are currently used by the Nine Network for television production, broadcasting and administrative uses. In addition, the site contains 13 single-storey dwellings fronting Richmond Avenue and Scott Street. These dwellings are currently used as office and storage space by the Nine Network. Development adjacent to the northern and western boundaries of the site is characterised by low density development predominantly comprised of Inter-War and Californian bungalows. Immediately east of the site is a high density 1970s development comprised of nine two to nine-storey residential flat buildings. Due to technological changes within the broadcasting industry, the subject site no longer serves the needs of the Nine Network. Accordingly, the department considers that the proposed Concept Plan provides an appropriate framework to transition the use of the site from a commercial use to a residential use. Furthermore, subject to the modifications to the building envelopes recommended in **Section 5.2** of this report, the department considers that the Concept Plan proposal will provide an appropriate transition between the low density residential development located to the north and west of the site, and the medium and high density residential development located immediately east and south-east of the site. In addition, the department considers that landscape concept for the site will assist in providing an appropriate transition between residential development located adjacent to the northern, eastern and western boundaries of the site, and the council reserve abutting the southern boundary of site.
Scale	The Willoughby LEP zones the site 'Commercial Television'. The LEP does not specify a height limit for the site, however a FSR maxima of 0.5:1 has been allocated to the site. The zoning, height and FSR maxima allocated to the surrounding sites reflects the existing low density character of the areas immediately north and west of the site (FSR maxima of 0.4:1 and an 8.5 m height limit), and the medium and high density character of the residential buildings immediately east and south-east of the site (FSR maxima of 1:1 and a 27 m height maxima immediately east of the site, and an FSR maxima of 0.9:1 and a height maxima of 12 m immediately south-east of the site). In summary, the revised Concept Plan seeks to concentrate the 10 and 12-storey building envelopes for future Buildings B, G and E in the centre of the site, with development along the peripheral boundaries comprised of envelopes ranging in height between three and five-storeys. **Figure 1** overleaf depicts the location of the proposed building envelopes.

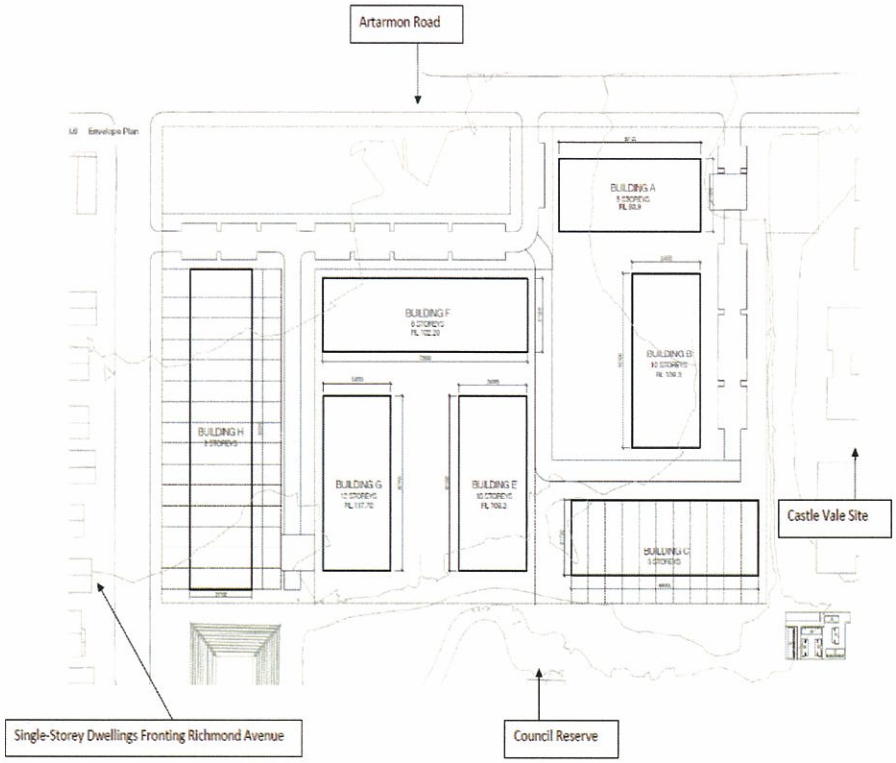

Figure 1: Proposed Concept

The department considers that the siting of the abovementioned building envelopes will provide an appropriate transition between the taller envelopes proposed in the central portion of the site, and the low, medium and high development adjacent to the site. Specifically the department is satisfied that:

- The five-storey envelope proposed for Building A has been sited to provide an appropriate transition between the taller buildings in the centre of the site (Buildings G, E and F) and the height, bulk and scale of the buildings on the adjoining Castle Vale site. In addition, the department considers that the height of the proposed envelope will not dominate the two-storey dwellings located on the northern side of Artarmon Road given that the northern side of Artarmon Road is significantly elevated. In addition, the 16 m wide landscape buffer proposed adjacent to Artarmon Road responds to the existing street setbacks and will soften the bulk and scale of the future buildings.
- The 10-storey envelope proposed for Building B will be partially screened by Building A when viewed from the areas north of the site. In addition, the envelope provides an appropriate response to the bulk and scale of the Castle Vale development located immediately east of the site. Notwithstanding, in order to ensure the future building does not overshadow the buildings located to the south of the site, the department has recommended a modification requiring this envelope to step down to the south of the site.
- The three-storey building envelope proposed for Building C will be comprised of terrace style dwellings to respond to the character of the two and three-storey attached dwellings located south-east of the site. Whilst the department is satisfied that the proposed envelope is generally compatible with the scale of the adjoining development, the department has recommended modifications to this envelope to reduce the impacts of overshadowing on the adjoining properties to the south.
- The 10 to 12-storey envelopes proposed for Buildings E, F and G are generally of an appropriate scale, however, the department has recommended modifications to the building envelope for Buildings G and E to ensure appropriate setbacks are provided to enable the retention of existing trees on site/facilitate the planting of substantial trees to soften the future buildings when viewed from the south.
- The three-storey envelope proposed for Building H will provide an appropriate transition down to the single-storey dwellings located on the western side of Richmond Avenue. It is proposed that Building H will be comprised of terrace style dwellings to provide a sympathetic response to the scale and character of Richmond Avenue. In addition, this building envelope is set back 10 m from the site boundary to

	facilitate the retention of substantial trees and respond to the substantial building setbacks that are characteristic of the development located on the western side of Richmond Avenue.
Built Form	The revised concept provides a sympathetic response to the low density development located on the northern and western boundaries of the site, and the medium and high density dwellings located immediately east and south-east of the site. Specifically, the building envelopes have been conceived to provide: • A human scale along each boundary of the site by providing building envelopes that relate to the height of the adjoining buildings, and the incorporation of substantial landscaped buffers that respond to the predominant street setbacks along Artarmon Road, Richmond Avenue and Scott Street. • A more 'urban' scale within the central portion of the site to reduce impacts on regional view lines and enable view sharing within the site. • Active frontages along each boundary of the site to provide street presence and passive surveillance. • A high level of internal amenity by ensuring RFDC compliant setbacks are provided between each building envelope. As the Concept Plan does not detail the materials and finishes that will be incorporated into the design of the future buildings, or the types of architectural features that will be utilised to articulate the buildings within each building envelope, the department has recommended future environmental assessment requirements that will ensure: • Each building achieves a high quality of design. • There is variation in the design of each building. • Architectural features and/or treatments are provided to provide an appropriate level of building articulation.
Density	The application proposes the creation of 452 residential apartments. An indicative unit mix for the residential component of the development is as follows: • 36 per cent one-bedroom apartments. • 44 per cent two-bedroom apartments. • 20 per cent three-bedroom apartments, although refer to discussion in **Section 5.8.2**. Given that the site is located three kilometres south-east of the Chatswood CBD, 1.2 kilometres west of the Artarmon train station, 1.1 kilometres east of the Northbridge Shopping Centre, and 600 to 800 m west of regional recreational facilities, the department considers that the density of the development capitalises on the site's proximity to existing infrastructure and services and provides an appropriate unit mix to cater for a variety of households.
Resource, Energy and Water Efficiency	The application has been designed to optimise the number of north facing and dual aspect apartments to maximise solar access and reduce costs associated with heating, cooling and lighting. The landscape concept has been conceived to enable the incorporation of best practice bio-retention drainage swales within the road corridors and public open space areas. In addition, the concept seeks approval to collect grey water for re-use within the proposed pocket parks and communal recreation areas. It is proposed that all future residential buildings will comply with BASIX requirements, and the department has recommended that further consideration be given to the incorporation of sustainable technologies into future building design, through the provision of a detailed ESD plan with future development applications. Future Environmental Assessment Requirements are also recommended to ensure the future buildings also comply with the requirements of the RFDC, the BASIX SEPP and the final landscape plan for the site incorporates best practice water sensitive urban design principles.
Landscape	The Concept Plan seeks to: • Create one liner park fronting Artarmon Road and one linear park between Buildings A, B, C, F and G. Both parks will be landscaped with Australian natives and provided with community facilities such as BBQs and play equipment. • Provide substantial front and rear gardens to buildings A, B, and H to provide privacy, amenity, and respond to the existing setbacks along Richmond Avenue. • Provide a continuous landscape buffer along the southern and eastern boundary of the site to increase privacy and soften the built form of the development when viewed from the south and the east of the site. • Provide a north-south landscaped corridor between Artarmon Road and the council reserve immediately south of the site. • Provide a pedestrian connection through the site to the adjoining public reserve and Walter Street.

	• Ensure the retention of existing trees on site. • Incorporation of water sensitive urban design measures, including landscaped swales, native planting and re-use of grey-water on-site. The department has assessed the landscape concept and considers that it will provide a high quality public and private domain for future building occupants. In addition, the department considers that the design will: • Enhance connections between Artarmon Road and the adjoining public reserve to the south, and provide improved permeability through the site in comparison to the existing situation. • Provide opportunities to integrate water and soil management across the site. • Respond to the micro-climate of the site, and reinforce habitat values by providing landscaped corridors through the site. • Provide a contextual response to the surrounding development by incorporating appropriate setbacks and planting.
Amenity	The building envelopes have been conceived to ensure: • 70 per cent of the apartments receive a minimum of two hours sunlight at the winter solstice. • 60 per cent of apartments are cross ventilated. • Visual and acoustic privacy is provided via the use of appropriate setbacks. • A suitable amount of open space is provided to service future residents an enable deep soil planting. In addition, the Concept Plan seeks to incorporate adaptable apartments across the site to ensure the development will provide accommodation for people of all age groups with varying degrees of mobility as per the requirements of the RFDC.
Safety and Security	The preliminary floor plans provided for the ground level of each building and the proposed landscape concept demonstrate that the proponent is committed to providing a development that will provide a clear delineation between public and private spaces and avoid the creation of concealed spaces, as per the principles for crime prevention through environmental design. The department has recommended Future Environmental Assessment Requirements to ensure the final landscape plan/(s) and the design of each individual building incorporates crime prevention through environmental design principles.
Social Dimensions and Housing Affordability	The *Willoughby Discussion Paper - Housing*, prepared to support the Willoughby LEP 2012 notes that by 2031 13,627 additional dwellings will be required to service the residential population of the Willoughby LGA. This represents a 19.6 per cent increase beyond the 2011 residential population. The department considers that the proposed unit mix is robust enough to cater for the changing needs of the local community. However, the department notes that the EA seeks approval to set aside the adaptable housing requirements of section C6 of the *Willoughby Development Control Plan* (Willoughby DCP) on the basis that the Willoughby DCP rate is substantially higher than the rates applied in similar LGAs (50 per cent required under the Willoughby DCP, and 15 per cent required under the City of Sydney DCP, 10 per cent under the North Sydney DCP, and 10 per cent under the Parramatta DCP), and the requirements of AS 4299 (20 per cent adaptable dwellings) and the RFDC. The department has reviewed the proponent's justification for varying the adaptable housing rate in the context of similar developments approved within the Willoughby LGA, and agrees that the adaptable housing rate specified in AS 4299 is appropriate to accommodate the needs of future residents. The department has recommended a Future Environmental Assessment Requirement to ensure that 20 per cent of all dwellings across the site are adaptable as per the definition provided in AS 4299. The Concept Plan also includes a Statement of Commitment requiring future applications to ensure that four per cent of all residential floor space is dedicated free of cost to Council to ensure that below market rental housing is provided for essential community service workers. The department has recommended a Future Environmental Assessment Requirement to ensure that this occurs.
Aesthetics	The department notes that the building aesthetics will be determined under future development applications. Future Environmental Assessment Requirement are recommended in relation to design excellence, façade massing and articulation and variation in design between buildings.

Table 2: Compliance with the RFDC Requirements

RFDC Requirement		Proposed	Compliance
Building Depth	18 m.	The proposed building envelopes range in depth between 21 and 24 m. The RFDC acknowledges that building envelopes can be deeper than that specified in the RFDC, provided that future buildings are designed not to exceed 18 m in depth from glass line to glass line, unless satisfactory daylight and ventilation can be achieved.	Capable of Compliance
Separation Below 9- Storeys	13 m between habitable and non-habitable rooms.	Whilst no minimum separation distances are annotated on the plans, the department notes that the proponent's SEPP 65 assessment specifies that all building envelopes have been sited to achieve compliance with the requirements of the RFDC. The department has imposed a Future Environmental Assessment Requirement to ensure that this occurs.	Capable of Compliance
Separation Above 9-Storeys (above 25 m)	24 m between habitable rooms/ balconies.		
Floor to Ceiling Height	2.7 m.	2.7 m proposed for all habitable rooms.	Capable of Compliance
Units Per Core Area	Maximum of 8 units.	Based on the indicative floor plans, a maximum of five units per core area.	Capable of Compliance
Solar Access	70% of units to achieve 2 hours in mid-winter	Based on the indicative floor plans, 81 per cent of units would be capable of achieving two hours solar access in mid-winter.	Capable of Compliance
Cross-Ventilated Units	60%	Based on the indicative floor plans for each building, 65 per cent of apartments could be cross ventilated.	Capable of Compliance
Communal Open Space	25%–30% of site	75 per cent of the site will be utilised to accommodate communal open space and roadways.	Capable of Compliance
	25% deep soil planting	The department considers that there is sufficient area available to ensure 25 per cent of the site can accommodate deep soil planting.	Capable of Compliance
Private Open Space	Courtyards – 25 m^2 and 4m depth.	The building envelopes are of a sufficient size to ensure courtyards and balconies can comply with the minimum requirements of the RFDC.	Capable of Compliance
	Balconies – 2 m depth		
Unit Size	One- bedroom – 50 m^2	No minimum area is specified for one, two or three-bedroom apartments, however the department considers that the size of the building envelopes will ensure apartments can be designed to achieve compliance with the minimum unit sizes specified in the RFDC. Notwithstanding, in order to ensure this occurs the department has recommended a Future Environmental Assessment requirement requiring the proponent to achieve compliance	Capable of Compliance
	Two- bedroom – 70 m^2		
	Three- bedroom – 95 m^2		

RFDC Requirement		Proposed	Compliance
		with the requirements of the RFDC.	
Storage	• 6 m^3 for studio/one-bedroom apartments. • 8 m^3 for two-bedroom apartments. • 10 m^3 for three-bedroom apartments.	Based on the indicative apartment mix proposed under the Concept Plan, a total of 3,473 m^3 of storage space is required to service the future buildings. The department notes that the Concept Plan proposes to ensure that 50 per cent of storage will be provided within each apartment. The department considers that the proposed building envelopes are large enough to enable apartments to be designed to accommodate the storage requirements of the RFDC.	Capable of Compliance
Single Aspect Units	Max. 8 m to window	Based on the indicative floor plans, there are some single aspect apartments that do not achieve compliance with this requirement. The proponent notes that these apartments are north facing and can be designed to accommodate large windows to provide appropriate levels of light penetration. The department considers that the building envelopes are flexible enough to enable compliance with the RFDC when each development application is lodged.	Capable of Compliance
	Max. 10% single aspect south facing	Based on the indicative floor plans, one per cent of single aspect apartments will be south facing.	Capable of Compliance
Kitchen to Window	Max. 8 m	Based on the indicative floor plans, there are some single aspect apartments where the back of the kitchen is located in excess of 8 m from a window. The department considers that the building envelopes are flexible enough to enable compliance with the RFDC when each development application is lodged.	Capable of Compliance
Vehicle Access	Min. width 6 m	Based on the indicative basement plans, it would be possible to ensure all basements are accessed via a driveway with a minimum width of 6 m.	Capable of Compliance

Willoughby Local Environmental Plan (LEP) 2012

The provisions of Willoughby LEP 2012 apply to the site. The only relevant controls to this application are Clause 2.3 Zone Objectives and Development Control Table and Clause 4.4 Floor Space Ratio (FSR).

The site is zoned SP2 Infrastructure: Telecommunications Facility and the proposed development is prohibited on the site (only roads and telecommunications facilities are permissible under the current zoning. Refer to discussion in relation to permissibility in **Section 3.5**. The LEP permits an FSR of 0.5:1 and the proposal would result in an FSR of 1.6:1. Refer to detailed consideration in **Section 5.1.** The non-compliance with the FSR control is considered acceptable.

APPENDIX E GOVERNMENT ARCHITECT'S ASSESSMENT

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Nominated Architect Peter Poulet ARN 5754

Ms Natasha Harrass
Department of Planning and Infrastructure
22-33 Bridge Street
Sydney 2000

RE: Architectural Design Review for Channel 9, Willoughby, Major Project Application MP10_0198 (DoPI 2013/173)

Dear Natasha,

We have reviewed the Preferred Project Report submitted on 10th October 2013. A summary of our review of the proposed changes and recommendations are attached.

Please do not hesitate to contact me if you require any clarification.

Yours sincerely,

Darlene van der Breggen
Principal Urban Designer

10th December 2013

SUBMITTED MATERIAL:
The following assessment is based on the Response to Submissions and revised Preferred Project Report submitted on 10th October 2013, focussing on the Urban Design Report Parts 1 to 7:

GENERALLY:
The revised proposal incorporates significant changes to the overall structure of the development - with improved permeability within the site, connectivity to adjacent sites and changes to built form which result in some reduction in the visual and scale impact of the development. Nevertheless, there is still no urban design rationale for high rise development in this suburban setting

Certain aspects of the bulk and scale of new buildings, site planning and design of the public domain, including site permeability, connectivity with adjacent sites, building address are still a concern.

TOWER HEIGHT AND BULK:
The reduction of the tower numbers and height is commendable, but the location and form of the tallest buildings is problematic for the following reasons:

- there is still an uncomfortable disparity of scale within the site, particularly the relationship of Blocks E and G with the adjacent row housing. As previously noted, these 12 storey blocks present a sheer face to the scale of 3 storey row housing.

- Visibility of tallest buildings from the south. As previously noted, a maximum recommended height of 10 stories should be confined to the centre of the site, with lower scaled development (6 stories) at peripheries, especially to the south, from where the site is most visible.

PUBLIC DOMAIN
Changes to site planning and resolution of the public domain have addressed many of the previous concerns with this application. Some issues are still problematic:

- Site permeability: previous proposal had 2 fully trafficable streets extending to the southern boundary of the site, there is now only one road.

- Retaining Scott Street and connecting it to Roadway 1 improves the permeability and provides better street address. However the 'shared street' status of the connecting streets results in open space that is not clearly 'public' compared with the other new roadways in the site (see following note).

- The new shared way is less effective that than the other roadways as it has different finishes and a different alignment - the footpaths are narrow and the road corridor has no kerbside parking which would facilitate deliveries, drop offs and casual access throughout.

- Address – as noted above, access to blocks B,C and E is improved, but the shared way looks and functions like a private internal footpath rather than a public roadway.

- Improvements to the major north south connection (roadway 2) to Walter St reserve are noted but the removal of kerbside parking and the limited width of the footpaths will actually discourage public use of the street, and reduce the amenity of Block G frontage for residents and visitors.

- Part 2 of the Urban Design Report (Concept Plan) indicates that roadway 1 is only 5.8m wide (page 13 sketches) and f– this is inadequate for a 2way carriageway with kerbside parking on each side (width should be about 9.5m).

- The changes to the southern boundary to replace the hard retaining walls with landscaped embankments will help to integrate the site with its topography, but the flatness of the overall site plan still results in steep connections to the reserve at the south, discouraging public access through the site.

- Access to Walter street reserve to the south of the site should be provided from within the site. The current plan relies on the accessible route (ramps etc) to be provided within the reserve. As previously noted, provision for the future ramped (or accessible) path should be accommodated within the Channel 9 site.

BULDING DESIGN

The PPR notes that SJB Architects will be involved in the further development of the project. Such a large development would benefit from the diversity that comes from involving a range of talented designers and a broader palette of design techniques and materials.

CONCLUSIONS and RECOMMENDED CONDITIONS:

1. Site structure:
   - Realign the new shared way to connect directly with the north south section of Roadway 1, instead of the 'driveway' configuration currently proposed.

   - The shared way should be designated and designed as a roadway for its full length, with the same status as Roadways 1 and 2.

   - Extend the north south section of Roadway 1 to the southern boundary (as originally proposed) to provide street access to the full frontage of Block E, and potential future access to the Walter St reserve to the south.

   - Provide for vehicle turning at the end of Roadways 1 and 2, and adequate width for 2 way carriageway and kerbside parking to Roadway 1

2. Height and Scale:
   - Development along the southern edge of the site should be reduced to 6 stories, ie blocks E and G should be reduced to 6 stories for a third of their length. This will reduce visibility from the south and provide a better height transition with block C.

   - Provide a podium to Block G as height transition with row housing on Richmond Ave.

3. Open Space:
   - Upgrade the 'shared way' to match other new roadways – including pavement finishes, footpaths etc
   - Reinstate kerbside parking for Roadway 2 and also provide parking along the 'shared way'.

4. future development:
   - Encourage use of different designers for buildings as well as the parks.

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Nominated Architect Peter Poulet ARN 5754

Ms Natasha Harrass
Department of Planning and Infrastructure
22-33 Bridge Street
Sydney 2000

RE: Architectural Design Review for Channel 9, Willoughby, Major Project Application (DoPI 2013/173)

Dear Natasha,

Further to the revised submission received on 15th May 2013, and discussions following our draft submission on 30th May, a summary of our review of the submitted materials and recommendations are attached.

Please do not hesitate to contact me if you require any clarification.

Yours sincerely,

Darlene van der Breggen
Principal Urban Designer

21st June 2013

SUBMITTED MATERIAL:
Assessment is based on the 2 options submitted for review on 15th May 2013:

- Site tour and presentation by SJB project team on 15th May 2013.
- Environmental Assessment Concept Plan (EACP) prepared by SJB
- Environmental Assessment Report prepared by JBA

GENERALLY:
While the proposal is supported by thorough analysis, and has been resolved to a high degree, there is no urban design rationale for high rise development in this suburban setting, nor has the disparity of scale been resolved.
The resolution of the public domain, including site permeability, connectivity with adjacent sites, building address, significant trees removal etc is also of concern.

TOWER HEIGHT AND BULK:
The location, orientation and form of the tallest buildings is problematic for the following reasons:

- Considerable impact on key vistas, especially from across the valley to the south. The view analyses shown on pages 58 to 119 of the EACP demonstrate that heights of 10stories and higher have an unacceptable visual impact and are the most disruptive on distant views.
- overshadowing of open spaces.
- Imbalance of scale with adjacent developments - especially Block G which presents a sheer 18st face to the single lot town houses on the opposite side of the street. (particularly since a stated project principle is to '*use podiums to screen the height of development by setting back upper levels from the street edge*')
- slab blocks are primarily oriented to east west - northern orientation is preferred
- tower bulk is amplified by the buildings' 24m width (vs SEPP 65 recommended minimum of 18m)
- there is no urban design case for the proposed heights:
    - the site is not at a transport hub
    - the site does not justify 'iconic' status
    - proposed heights are out of scale and character with adjacent development, even the 8-9st Castle Vale apartment buildings to the east
    - as a purely residential development there is no diversity of uses to support the proposed heights or densities.

PUBLIC DOMAIN

- Plan does not respond to the considerable level changes that characterise the site. new retaining walls at the southern boundaries create a more level 'platform' for the development but this has an adverse impact on adjacent properties with high sheer walls along those boundaries facing adjacent properties (refer to sections D and E, part 7.10 in EACP), without the softening effect of the existing trees that are to be removed (see note below).

- There is no proper arborist assessment to support removal of the existing trees, which are well established and provide good amenity on site.

- While there is substantial open space on site, it is not well programmed except for the main park on Artarmon Rd eg significant open space along the eastern and southern boundary setbacks (behind blocks A, B, C, E and G) are not accessible and relatively unusable for tenants.

- The main park on Artarmon Rd is below footpath level for its entire frontage – this suggests that it is a private garden and discourages public access and use.

- Permeability is limited – trafficable streets should be connected to improve permeability through the site, currently 2 of the main streets are dead ends.

- Address – the blocks B,C,E,F and G (preferred option) have entries that can only be reached by internal footpaths. This is a poor outcome resulting from the limited extent of the internal street network.

- Carpark entries – are too prominent and disruptive on the public domain as all traffic is concentrated on only 2 access points, resulting in major 'black holes' at the entry points. To reduce impact, traffic should be distibuted across more entries dispersed across the site. Alternatively, the carpark entry/exit lanes should be restricted to a single lane width, with adequate capacity for queuing inside the carpark.

- Carparks are too close to the southern boundary (see separate note), preventing future access paths / ramps to be provided to the Walter street reserve to the south (see note below).

- No provision for access to Walter street reserve to the south of the site. As there is a significant level change, the development should be setback from the southern boundary to allow for a future ramped (or accessible) path connecting the park to the Channel 9 site (see note below).

- Further to the previous note, the open space strategy does not improve open space connectivity of the area. It is strongly recommended that the new park be reconfigured into a north south orientation to provide a direct link between Artarmon Rd and the Council Park to the south. Ideally the link should be stepped down to distribute the level change across the site and encourage movement through the park.

CONCLUSIONS and RECOMMENDED CONDITIONS:

1. Site structure:
   - Review street structure to provide greater public access into and connection through the site, ie roadways 1 and 3 should be connected to avoid dead ends.

   - Provide direct open space connection with Walter St reserve to the south. Ideally the connection should fall to the south to maximise visual connection from Artarmon Road. Development above and below ground should be set back from southern boundary to provide for a generous connection.

2. Height:
   - Reduce heights to a max of 10 stories, though development along the southern and eastern boundaries should not exceed 6 stories as this is largely hidden by existing tree canopies.

   - Provide for podiums or other methods to provide height transition with low scale development.

3. Building Orientation:
   - The majority of building frontages should be oriented to the north.

4. Open Space:
   - provide a direct open space link between Artarmon Rd and the Council reserve to the south (see note above) with clear visual connection for its full length.
   - the new park should be on grade with the Artarmon Road footpath for its full length.
   - Peripheral open space along the eastern and southern boundaries should be clearly programmed or incorporated into private gardens for ground level units.
5. existing trees:
   - provide a full arborist assessment to support removal of the existing trees
6. Carparks:
   - there should be more, smaller car park entries dispersed across the site. Alternatively, the two carpark entry/exit lanes should be restricted to a max of 2 lanes width, with adequate internal capacity for queuing inside the carpark.
   - Underground carparks should be setback from boundaries to preserve natural ground levels.
7. Building address:
   - All new developments should have a clear street address and building entries that are directly accessible and visible from trafficable streets.

APPENDIX F INDEPENDENT TRAFFIC ASSESSMENT

Subject	Channel 9 Site - Arup Response to PPR		
Date	Updated – 3 December 2013	Job No/Ref	230946

1. Study Background

This document has been prepared to provide traffic and transport advice relating to the proposed Concept Plan for the Channel 9 Site (MP10_0198). This document should be read in conjunction with the Transport and Accessibility Impact Assessment for PPR (19 August 2013), prepared by AECOM.

2. July 2013 Independent Transport Assessment

In July 2013 Arup prepared an independent transport assessment for the proposed Concept Plan. Key changes to the development proposal subsequent to the issue of this document include:

- A reduction in the maximum number of residential dwellings, from 585 to 450
- A associated reduction in the number of on-site car parking spaces, from 736 to 531

The July 2013 assessment prepared by Arup concluded the key constraint on the existing road network is during the Saturday peak hour at the Willoughby Road / Artarmon Road intersection. Based on the results of traffic modelling for the future Saturday peak hour, it was proposed that the intersection be upgraded as shown in Figure 1.

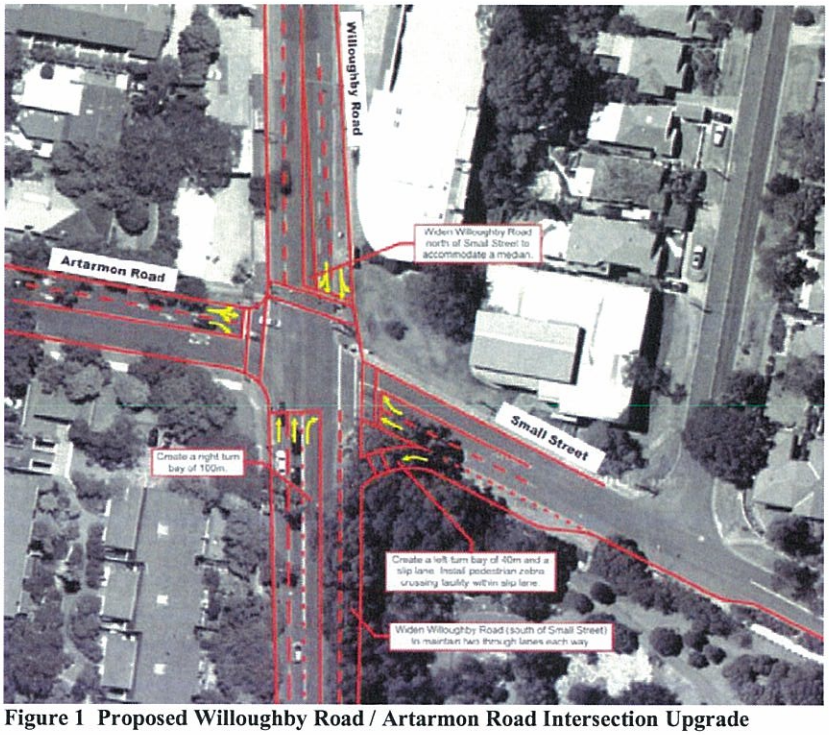

Figure 1 Proposed Willoughby Road / Artarmon Road Intersection Upgrade

3. Traffic Modelling

Arup has updated the traffic modelling to reflect the reduction in residential dwellings under the revised development proposal. The results of the modelling are shown in Table 1

Table 1 Traffic Modelling Results

Location	Peak Hour	Existing (June 2013)			Future as per EA (585 dwellings)			Future as per PPR (450 dwellings)		
		LOS	DOS	AVD	LOS	DOS	AVD	LOS	DOS	AVD
Willoughby Road / Artarmon Road	AM Peak (8am – 9am)	B	0.82	23	B	0.87	28	B	0.86	26
	PM Peak (5pm – 6pm)	B	0.83	25	C	0.88	31	B	0.88	25
	Saturday Peak (11am -12pm)	D	1.06	44	F	1.20	82	E	1.18	68

Legend: AVD – Average Vehicle Delay (seconds), LOS – Level of Service, DOS – Degree of Saturation

4. Analysis

As the intersection already operates at capacity on a Saturday morning, it's performance is sensitive to any increase in traffic. The modelling forecasts the intersection to operate at Level of Service E during the Saturday peak hour, a deterioration from existing levels but an improvement from the previous analysis.

Based on the revised analysis, the intersection upgrade previously recommended (as per Figure 1) as a component of the Concept Plan approvals can no longer be supported. This is predominantly due to the reduced traffic impacts from the 450 dwellings proposed on the Channel 9 site. Additionally, some of the traffic impacts at this intersection are the result of the future expansion of the Willoughby Leisure Centre – the timing and scale of which is currently uncertain.

It is acknowledged that vehicle delays will occur in the vicinity of this intersection – however these will be confined to only a short period of time on Saturday mornings. For the remainder of the week (including the commuter peak hours, the intersection is forecast to operate satisfactorily.

As previously noted, Saturday travel is more discretionary compared with weekday travel, and therefore residents have greater scope on Saturdays to delay their journeys to avoid traffic congestion at busy intersections.

5. Recommendation

It is recommended that, prior to the development of 200 dwellings on the Concept Plan site[1], revised traffic counts and modelling be undertaken at this intersection during a weekday AM/PM peak hour, as well as a Saturday morning during netball season. Should the modelling indicate the intersection to be operating at an unsatisfactory level of service (F), the developer should initiate discussions with the RMS and Willoughby Council to facilitate the upgrade of this intersection.

A key benefit of this potential upgrade is that it allows the (currently banned) right turn from Willoughby Road into Small Street during the PM peak to be reinstated. This will therefore provide a benefit to both residents of the Concept Plan site and the wider community. The project could be jointly therefore by the proponent and Council based on this common benefit.

[1] Indicative only and to be confirmed following further scenario testing

6. Proposed Right Turn Restriction – Willoughby Road / Artarmon Road

To improve the level of service at this intersection, the applicant has recommended that right turn traffic movements from Willoughby Road into Artarmon Road be restricted on Saturday mornings. This proposal is not supported on the following grounds:

- Imposing this restriction disadvantages existing road users not associated with the development turning right into Artarmon Road. These users will be required to turn right off Willoughby Road prior to Artarmon Road, potentially shifting the issue from one location to another.
- Turning restrictions (under sign control only) outside of weekday peak hours are not commonly utilised in Sydney. Without a physical barrier to prevent vehicles turning, this restriction is often difficult to manage and enforce.
- The restriction provides only a minor benefit with respect to road network performance (from level of service D to C), while at the same time reducing the permeability of the road network

Despite the above comments, it is still recommended however that the applicant consult with the RMS and Council prior to the initial occupation of the site regarding this potential right turn ban.

7. Site Access Arrangements

The Concept Plan for the development outlined in the PPR proposes a minor modification to the vehicular site entry on Artarmon Road, shifting approximately 5m west on Artarmon Road. The applicant has adopted the recommendation made in Arup's independent transport assessment to provide a raised pedestrian crossing on Artarmon Road at Edward Street. The raised crossing will provide safe pedestrian access across Artarmon Road, as well as significantly reduce eastbound vehicle speeds as the crossing will be signposted at 25km/hr. At these reduced traffic speeds there is sufficient site distance for vehicles to safely turn right out of the Channel 9 site onto Artarmon Road.