

- (b) commercial premises along Herbert Street providing community health and primary care services and research and education facilities,
- (c) other commercial uses (including for research and technology purposes),
- (d) vehicular and pedestrian access to and from, and within, the site (including direct pedestrian access to St Leonards Station),
- (e) accommodation for people receiving acute medical or other health-related services,
- (f) retail and residential uses.

4.2.8 The site (and these forms of development for the Royal North Shore Hospital site) was added to Schedule 5 of the Major Projects SEPP on 29 September 2006. It was also on this date that the Minister formed the opinion under Clause 6A of the Major Projects SEPP that the current proposal for:

- retention and/or replacement of the main hospital buildings, known as Building 1, Building 2 and the Douglas Building, as core facilities in the redevelopment of the hospital, including existing emergency services;
- commercial development on Herbert Street with direct access to St Leonards Station, to accommodate community health and primary care services, as well as research and education facilities, and incorporating parking, escalators and lifts to improve access to the hospital for patients and staff;
- new acute accommodation with direct connections to Building 1, Building 2 and the Douglas Building; and
- creating development parcels for future retail, residential, commercial and/or research/high technology uses.

Meets the description of development that is a kind described in Item 2 of Schedule 5, that is the above development (a) to (f) and for the purposes of redevelopment the Royal North Shore Hospital site.

4.2.9 The implications of this are that Sections 75K, 75L and 75Q of the Act exclude proponent or objector appeals in respect of the determination of an application for approval of the project, Section 75R of the Act excludes with respect to the project all environmental planning instruments (other than SEPPs that specifically relate to the project) and Council Orders under Division 2A of Part 6, and Section 75T of the Act excludes third-party appeals against the project under this Act or other environment protection legislation.

4.3 Permissibility

4.3.1 The site is zoned 5(a) – Special Uses “A” Zone under the provisions of Willoughby Local Environmental Plan 1995 (WLEP 1995) and is lettered “Hospital”.

4.3.2 The specific objective for the 5(a) zone is “identify land to be used for particular public or community purpose”.

4.3.3 Clause 13(3) of WLEP 1995 provides that development consent must not be granted unless the proposed development is consistent with one or more of the aims of this plan and at least one specific objective of the zone within which the development is proposed to be carried out. It is considered that the development proposal accords with the objective of the zone for the reasons set out in **Appendix G**.

4.3.4 In addition to “exempt development”, which is permissible without development consent, development for the following purposes may be carried out within the 5(a) zone, but only with development consent:

Demolition

Development for the purpose of:

- a) The particular land use indicated by red lettering on the map (i.e. Hospital).
- b) Commercial operation of school facilities and sites

- c) Community facilities
- d) Community use of schools and recreation facilities
- e) Drainage
- f) Roads
- g) Recreation areas
- h) Recreation facilities
- i) Utility installations

- 4.3.5 Whilst the redevelopment of the hospital (and demolition of the existing buildings) is permissible with development consent, the new build residential and employment generating elements of the proposal are not permissible with development consent under these provisions given that they fall within the 5(a) – Special Uses "A" Zone and do not constitute one of the categories of development set out above.
- 4.3.6 Section 75O(3) of the Act provides that the Minister cannot approve the carrying out of a project that would be wholly prohibited under an environmental planning instrument. However, Section 75O(3) of the Act does not apply in this instance as part of the development proposal is permissible on the site due to its 5(a) zoning in WLEP 1995.
- 4.3.7 As the project is also a Critical Infrastructure Project, the underlying zoning does not need to dictate permissibility of the proposal.
- 4.3.8 As part of the application for concept approval, project approval is sought for demolition, excavation and preparatory site works. This can be achieved without the need for a separate application for development through the provisions of Section 75P(1)(c) of the Environmental Planning and Assessment Act 1979 ("the Act") on the basis that no further environmental assessment is required.

4.4 Minister's power to approve

- 4.4.1 Section 75O of the Act provides the Minister with the power to approve the application as the proposal is not wholly prohibited.

4.5 Other relevant legislation and environmental planning instruments

- 4.5.1 **Appendix G** sets out the relevant consideration of legislation (including other Acts) and environmental planning instruments as required under Part 3A of the Act.

5 CONSULTATION AND ISSUES RAISED

5.1 Public Exhibition

- 5.1.1 Section 75H(3) of the EP&A Act requires that once the Environmental Assessment (EA) has been accepted by the Director General, the Director General must, in accordance with any guidelines published in the Gazette, make the EA publicly available for at least 30 days. The Director General has not published any specific guidelines in relation to the public exhibition of the concept plan.
- 5.1.2 A "test of adequacy" was undertaken by the Department which determined that the matters contained in the Environmental Assessment Requirements were adequately addressed in the Environmental Assessment prior to public exhibition.
- 5.1.3 Broadly the process followed in terms of the public exhibition was as follows:
- *The application was placed on public exhibition from 2 August 2006 until 1 September 2006.*
 - *Copies of the EA were available for inspection at Willoughby City Council and the Department of Planning's offices in Sydney during the exhibition period.*
 - *Details of the application were published in the Sydney Morning Herald, the North Shore Times and the Mosman Daily and made available on the Department of Planning's website.*
 - *Copies of the EA were forwarded to relevant Government agencies, key stakeholders and adjoining businesses.*
 - *All landowners in the vicinity of the site were notified and invited to make submissions.*
- 5.1.4 In response, a total of 20 written submissions were made of which 13 were received from agencies, Council and key stakeholders and 7 were received from hospital staff and local residents. Copies of submissions received from public authorities are provided at **Appendix E**. The Department forwarded these responses to the proponent on 25 September 2006.
- 5.1.5 The relevant planning issues raised during the exhibition period can be summarised as follows and are addressed in detail in Section 6 below:
- *Land Use and Floor Area*
 - *Urban Design and Built Form*
 - *Gore Hill Transmission Tower*
 - *Transport Management*
 - *Heritage and Conservation*
 - *Improvement of Amenities and Services*
 - *Early Works Package*
- 5.1.6 Following the exhibition period, several meetings between the Department, the proponent and adjoining landowners took place both on and off site to discuss the issues raised. The proponent has been involved in ongoing discussions and negotiations with agencies, Council, key stakeholders and adjoining landowners to address the effects of the proposal.
- 5.1.7 The proponent lodged a response to the issues raised in those submissions together with a preferred project report and a revised statement of commitments on 1 December 2006. An amended concept plan was also submitted at that time which includes various minor modifications and supplementary environmental assessment in response to issues raised.

5.2 Independent Hearing and Assessment Panel

- 5.2.1 Section 75G of the Environmental Planning and Assessment Act provides that the Minister may constitute an independent panel to assess any aspect of a project. No panel was constituted for the purposes of Section 75G.

6 ASSESSMENT

6.1 Director General's Environmental Assessment Report

6.1.1 The purpose of this submission is for the Director General to provide a report on the project to the Minister for the purposes of deciding whether or not to grant approval to the project pursuant to Section 75O of the Act.

6.1.2 Section 75I(2) sets out the scope of the Director General's report to the Minister. Each of the criteria set out therein have been addressed below, as follows:

(a) a copy of the proponent's environmental assessment and any preferred project report; and

The proponent's EA is included at **Appendix F** whilst the preferred project report is set out for the Ministers consideration at **Appendix C**.

(b) any advice provided by public authorities on the project; and

All advice provided by public authorities on the project for the Minister's consideration is set out at **Appendix E**.

(c) a copy of any report of a panel constituted under Section 75G in respect of the project; and

No independent hearing and assessment panel was undertaken in respect of this project.

(d) a copy of or reference to the provisions of any State Environmental Planning Policy (SEPP) that substantially govern the carrying out of the project; and

An assessment of each relevant State Environmental Planning Policies that substantially govern the carrying out of the project is set in **Appendix G**.

(e) 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; and

An assessment of the development relative to the prevailing EPI's is provided in **Appendix G**.

(f) any environmental assessment undertaken by the Director General or other matter the Director General considers appropriate.

The environmental assessment of the project is this report in its entirety.

(g) a statement relating to compliance with the environmental assessment requirements under this Division with respect to the project.

An assessment of compliance with the environmental assessment requirements under this Division with respect to the project is included at **Appendix H**.

6.2 Summary of Significant Issues

6.2.1 Clause 8B of the Regulations sets out the matters for environmental assessment and Ministerial consideration. It states that the Director General's report is to include an assessment of the environmental impact of the project, any aspect of the public interest that the Director General considers relevant to the project, the suitability of the site for the project and copies of public submissions received by the Director General.

6.2.2 The Department, in consultation with Council, relevant Government Agencies and key stakeholders identified a number of issues that were incorporated into the DGEAR's (see Section 6.1) which were subsequently addressed in the proponent's EA. Following the exhibition period there are a number of outstanding issues which require further consideration and resolution under Clause 8B of the Regulations as set out overleaf.

6.3 Land Use and Floor Area

Raised By

- 6.3.1 Department of Planning; Space 207 Partnership; Local Resident(s); Willoughby City Council; North Sydney Council; Lane Cove Council

Consideration

- 6.3.2 Implementation of the development proposal will reduce the total gross floor area (GFA) of RNS public hospital from about 136,000m² to 130,000m² (with no change proposed to RNS private hospital). However, it is likely that both the public and private hospitals will continue to grow incrementally over time and consequently no maximum gross floor area is specified within the hospital precincts. All floorspace proposed within Precincts 1 and 2 will be developed solely for "hospital" and ancillary purposes only (e.g. food and beverage outlets, small scale convenience retail) and research and education facilities. Precinct 8 will be developed as a specialist medical research and education facility (Project Approval MP 06_0192 was granted for this development by the Minister on 29 January 2007).
- 6.3.3 The proponent has produced an indicative plan showing how the site could be developed in the future with building envelopes identified within each non-hospital development precinct (i.e. Precincts 3 to 7) for commercial, residential or retail uses or a combination of each. The majority of the commercial uses are located in closer proximity to St Leonards Railway Station within Precincts 3, 4, 5 and 6 and the residential uses are located further away from the station towards the northern extremity of the site. In land use planning terms, the Department is generally satisfied with this approach as it will encourage public transport modal choice for potential employees with residential floorspace being located furthest away from the station, where private car usage is more likely to occur.
- 6.3.4 The proponent is seeking approval for a total of 176,200m² GFA for the development precincts not associated with the hospital redevelopment (i.e. Precincts 3 to 7). Given that the timing for implementation of the project is currently programmed to take place over a time period of approximately 10 years, the concept plan has been developed to cater for perpetually changing market conditions. On this basis, the proponent prepared a land use and floor area table showing the potential range of GFA for each precinct and each floorspace type on a numerical and percentage basis, in the hope of gaining a flexible approval, which can facilitate a range of outcomes, dependent upon market conditions at that time.
- 6.3.5 The St Leonards Strategy (SLS) seeks the achievement of mixed employment and housing for the RNSH site which reflects the strategic planning policies set out within NSW Metropolitan Strategy. Whilst not a prescribed target, it is assumed that 1,500 new residents could be provided on the site, including 850 private residences, 450 nurses and student accommodation and 200 medi-hotel or hotel rooms. Provision of about 3,250 new jobs is envisaged for the site (excluding those generated by RNSH). Based upon certain assumptions made in relation to occupancy rates within Willoughby LGA and typical floorspace densities for employees, the Department estimates that approximately 160,000m² non-hospital GFA should be provided across Precincts 3 to 7.
- 6.3.6 Overall, the total proposed minimum floorspace of 113,859m² GFA falls short of the Department's estimated yield of 160,000m² GFA by some 46,141m² GFA. However, the proponent is seeking approval for a maximum total GFA of 176,200m², which equates to about 16,200m² GFA above the Department's estimated yield for the site. The distribution and location of floorspace achieved across the site will be dependent upon market conditions provided there is sufficient flexibility provided by the minimum and maximum floorspace ranges specified within the land use and floor area table. Whilst this approach is considered to be generally acceptable, the Department requires greater comfort that the proportion and distribution of approved floor area and land uses are appropriate in the context of prevailing strategic planning policies.
- 6.3.7 On balance, the Department is of the view that a minimum of 42,500m² GFA should be developed as

private residential accommodation. A minimum of 15,000m² GFA should be developed as temporary accommodation of which 10,000m² GFA should be for nurses and students and 5,000m² GFA should be developed as short term, hotel accommodation. At least 77,500m² GFA should be developed for employment generating purposes. RNSH concept plan provides a minimum of 63,767m² GFA of private residential floorspace (exceeded by 21,267m² GFA), no minimum of temporary accommodation floorspace (short by 15,000m² GFA) and a minimum of 50,092m² GFA of employment generating floorspace (short by 27,408m² GFA).

- 6.3.8 Following a detailed assessment of the planning, urban design and environmental considerations associated with the development proposal (in particular those relating to urban design and built form – see Section 6.4 below), it is recommended that a maximum site-wide GFA of 178,370m² be stipulated. This figure is an amalgamated total of the permitted GFA per development precinct. The extent to which each broad land use is achieved across each development precinct (and indeed rises above the minima specified within the terms of approval) will be dependent upon prevailing market conditions when they are released for development in the future when applications for development within the non-hospital precincts are lodged in the future.

Resolution

- 6.3.9 Terms of approval for the project have been developed which ensures the proposal is generally consistent with the SLS and sufficient flexibility has been provided to cater for changing market conditions that may occur over the next 10 years.
- 6.3.10 The Department recommends that the Minister approve the following site and precinct wide gross floor areas and sets a combination of minimum and maximum gross floor areas for each broad land use. Floorspace is non-transferable between precincts. In addition, broad land use distribution should be approved across the development precincts to ensure sustainable land use planning objectives are achieved. Subsequent applications for development on the site will need to demonstrate consistency with prevailing strategic planning policies as well as the requirements, scope and content of the concept plan approval. These have been set out within the terms of approval accordingly.

Precinct	Private Residential (m²)	Temp Accommodation (m²)	Employment (m²)	Total (m²)
3	Nil	Nil	X	4,000
4	Nil	X	X	46,345
5	Nil	Nil	X	24,920
6	X	X	X	37,365
7	X	X	X	65,740
Total	Minimum 42,500 – 76,200 Maximum	Minimum 15,000 [including 10,000 nurse/student accom. & 5,000 short term hotel]	Minimum 77,500	178,370
SLS	(42,500)	(32,500) [including 22,500 nurse/student accom. & 10,000 hotel/medi-hotel]	(81,250)	(156,250)

6.4 Urban Design and Built Form

Raised By

- 6.4.1 Department of Planning; Willoughby City Council; Space 207 Partnership; Local Resident(s); NSW Heritage Office; Broadcast Australia (BA); North Sydney Council; Lane Cove Council

Consideration

- 6.4.2 The indicative concept plan (as referred to in Section 3.4 and Figure 11) is generally reflective of the

maximum development potential and gross floor area articulated by the land use and floor area matrix. Detailed urban design and built form issues will be subject to separate assessment as subsequent applications for development(s) are lodged including their compliance (or otherwise) with environmental planning controls (e.g. Willoughby DCP, SEPP65 etc). Notwithstanding that, broad planning parameters need to be established on the site to guide future development on the site.

Building Height and Overshadowing

- 6.4.3 The proponent has produced a composite building height map which sets a maximum height plane across the site. The heights are primarily based upon a number of solar access principles with the primary aim of restricting overshadowing of public and private open space as well as surrounding development (see Section 3.6).
- 6.4.4 Given that the indicative concept plan generally reflects the maximum development potential sought under this approval it is recommended that the maximum building heights specified therein should be adopted at this stage subject to specific modifications to mitigate certain issues raised during the Department's assessment of the proposal. This is especially relevant given the solar height plane is in many cases higher than the indicative scheme's envelopes. Modifications to these heights are discussed below.

Setbacks, Streetscape and Building Separation

- 6.4.5 A mix of built edges, active edges and setbacks are proposed within the RNSH concept plan to achieve certain urban design and built form outcomes as summarised within Section 3.9. In particular, a 4 metre setback is proposed along the Herbert Street frontage, with an extra 4 metre "articulation zone" along the Herbert Street frontage of Precinct 4, within which built structures will only occupy a maximum of 50% of the plan area of the zone. Precinct 7 will incorporate an 8 metre setback to provide north bound views along Herbert Street into the Precinct 7 Pocket Park. The proponent has produced an indicative street edge assessment which is included for the Minsters consideration at **Appendix I**.
- 6.4.6 Willoughby City Council and other Councils maintain that a 12 metre setback must be adopted for Herbert Street in order to develop an entry boulevard to the industrial precinct to the north. The Department is of the view that this is excessive. The St Leonards Strategy anticipates levels of development for this and other sites, and seeks to create a coherent sense of place, and improve amenity and public domain outcomes.
- 6.4.7 The principle of setbacks is supported, but only insofar as the development envelopes proposed would create a disproportionate height to the street width. A 12 metre setback would also substantially impinge upon the development opportunity of the site, particularly with the retention and reuse of Reserve Road, leading to higher heights in other parts of the site which in their own right would raise other issues, amongst them overshadowing, impacts on the quality of public domain within the site, and impacts on development by Broadcast Australia's operations and vice versa. The proposed setbacks are a satisfactory balance which ensure appropriate development footprints and heights which will also seek to achieve the objectives of renewed and vital public domain, particularly through the additional 4 metre articulation zone, as well as a new sense of place.
- 6.4.8 The Department recommends that modifications be imposed requiring provision of a 4 metre setback within those precincts fronting Herbert Street and a setback of at least 8 metres within Precinct 7. In addition, it is recommended that any subsequent application for development within Precincts 4, 5, 6 or 7 should achieve a number of urban design outcomes and principles such as articulation and modulation of building façades, creation of upper secondary setbacks, activation of ground level streetscape and increased building separation in proportion of building height.

Relationship with Space 207 Partnership

- 6.4.9 Space 207 Partnership is of the view that the redevelopment proposal will result in significant

overshadowing of what is considered to be a key public open space on the northern side of the 207 Pacific Highway site (given its north facing orientation) and which forms a pedestrian link between Herbert Street and Reserve Road (and ultimately an alternative route through to the hospital).

- 6.4.10 The Department is of the view that the maximum height of the building envelopes proposed within Precinct 4 need to be reduced so as to better respond to the contextual urban design and built form of 207 Pacific Highway. It is recommended therefore that an 8 metre setback be imposed upon the top two storeys of the proposed building envelopes within Precinct 4a at their southern extremity. The maximum height of these envelopes should also be reduced from 13 storeys (RL126) to 11 storeys (RL116). The maximum height of the southern building envelope within Precinct 4b should be reduced from 14 storeys (RL140) to 11 storeys (RL128).
- 6.4.11 However, the Department does not consider that the maximum height of envelopes should be significantly reduced so as to further minimise overshadowing to the pedestrian link between Herbert Street and Reserve Road. This link is identified and functions as a thoroughfare only and is not considered to constitute useable open space. Furthermore, it is likely that any positive open space function that this area presently serves will likely diminish once more meaningful areas of public open space are achieved on the site together with provision of effective site linkages and enhanced pedestrian permeability.

Herbert Street Envelope Heights

- 6.4.12 The Department is of the view that the Herbert Street frontage of the site would benefit from a consistent built form and edge and in some cases higher envelopes. To that end the variable envelope heights proposed of 14, 5, 5, 8, 8 and 8 storeys from Precinct 4 to 7 inclusive have been modified to be 11, 8, 8, 8, 8 and 8 storeys. This in part addresses the floorspace lost in resolving the relationship between Space 207 Partnership and proposed envelopes at Precinct 4. The Department has also formed the view that additional height in Precinct 5 is reasonable in ensuring a consistent height.
- 6.4.13 The Department has also sought advice from the proponent about the affect of an additional 3 storeys at Precinct 5. Whilst some overshadowing may occur to additional apartment on the opposite side of Herbert Street this is likely to only be minimal. The SEPP65 objective of at least two to three hours of solar access to living rooms should and could generally still be achieved, particular as detailed building designs are not yet resolved. Compliance with SEPP65 both within and outside of the site is mandatory as part of Part 3A project assessment or Part 4 development assessment.

Resolution

- 6.4.14 It is recommended that the Minister impose modifications and conditions of approval in the manner set out within each subsection above.

6.5 Gore Hill Transmission Tower

Raised By

- 6.5.1 Department of Planning; Broadcast Australia (BA)

Consideration

- 6.5.2 The Department, in consultation with Broadcast Australia (BA), the operator of the broadcast tower at 217A Pacific Highway (the former ABC studios location), has raised concerns regarding the potential effects of the heights of development identified in the concept plan upon the current and future operational needs of the nearby telecommunications tower and potential impacts that may arise once the site is developed for hospital and mixed use purposes.
- 6.5.3 Gore Hill Transmission Tower has strategic value to broadcasting and communications in the Sydney area providing a channel for a range of television and radio stations and digital services. It should be

noted that the tower transmits both FM and TV signals as opposed to AM/MF signals as per the Homebush Bay tower(s). It is also worth noting that the tower in its own right presently (and in the future) has impacts upon human health and electrical equipment. This is detailed below.

- 6.5.4 The proponent lodged a site-wide report which specifically addresses issues pertaining to the proposed redevelopment on the basis of RNSH concept plan. The issues of relevance are potential impacts upon existing microwave/line of sight links upon the tower to a North Head receiver, Radio Frequency Electromagnetic Radiation (RF EMR) exposure (from the health and safety perspective), Electromagnetic Interference (EMI) upon electrical devices within the new hospital and private development, and potential resultant "ghosting" and "multipath" of signals.

Microwave Link to North Head

- 6.5.5 An existing microwave link operates between North Head and the Gore Hill transmission tower. The relevant equipment is located at height of about RL122 (or 30 metres up the tower). The concept plan does not seek to interfere with this existing link north of Westbourne Street and will not block the line of sight (LOS). Should future microwave links LOS be required (e.g. towards East Sydney) this issue can be overcome by installing link dishes on the transmission tower or relocating the existing dish(es) higher up the tower. It is understood that there are no current proposals to increase height in this part of the site.
- 6.5.6 The portion of the site above which the existing microwave signal passes is over part of the existing multi-deck car park and buildings associated with the private hospital component to a maximum height of RL112 (that is there is about a 10 metre clearance for the width of the microwave). Whilst there is no current approval being sought for redevelopment at this part of the site, a nominal height limit has been set by the Concept Plan at this northern extremity of RL130. Broadcast Australia has sought to reduce this height to RL112 (the existing car park height) to ensure a clear line of sight is preserved.
- 6.5.7 At this stage no action is required under the Concept Plan to address this matter. However, as any future development will need to consider impacts on BAs operations, most likely through the Director-General's environmental assessment requirements, it is recommended that a set of Director-General's requirements be included in the approval to forewarn future developers (whether NSW Health or private) of potential impacts to and of Broadcast Australia's operations. This is enabled via Section 75P(1)(a) where the Minister may determine the further environmental assessment requirements for approval to carry out the project or any particular stage of the project under Part 3A. This requirement will also apply to temporary structures. An alternative and supplementary solution may be to limit heights at this part of the site through the future State significant site listing process.

RF Electromagnetic Radiation (EMR)

- 6.5.8 A key issue raised is that of the height and proximity of the proposed development envelopes to the Gore Hill transmission tower and the human health and safety aspects of exposure to EMR.
- 6.5.9 The current operations and energy levels from the tower do not pose any health affects upon the existing RNSH site under normal operating circumstances. Building 2 (aka the big brown building), is the tallest and nearest existing building to the tower and is subjected to a less than 1% general public reference level under the relevant Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) standard. This ARPANSA standard is the minimum level of radiation the general public may be exposed before risk and impacts on human health are reached. This level is nominated as 100%. In stand-by operation mode this building would be subjected to 3.5% level of the ARPANSA standard. It is understood that human safety levels beyond 30% would be the limit where caution would need to be exercised. Any exposure over 50% would be a significant issue. The only known health effects of this form of radiation is heating of part or all of the body.
- 6.5.10 It is the responsibility of the transmitter to ensure it is operating at a safe general public level under the Broadcasting Services Act. To that end, Broadcast Australia is seeking to ensure amongst other things that it is able to continue operating in its current manner without changes to its tower's configuration or

seeking compensation, and that future augmentation of services (through successful contracts for new technology and transmission options) is not affected by new development imposing restrictions.

- 6.5.11 Based upon the maximum heights proposed across the site (175 metres AHD) the maximum future levels of energy experienced by the proposed development envelopes will not exceed the relevant ARPANSA standard. The maximum exposure as defined by the future needs of the tower has been calculated as being about 9.5% of the general public reference level for the main RNSH building (Building 2) and about 7.5% for the tallest building on-site situated further to the east away from the tower. As the recommended modifications seek to limit the height of this building to the proponent's indicative scheme of 167 metres AHD, this impact is further reduced. The maximum level of 9.5% is considered to be acceptable given the relatively low level of RF EMR exposure.
- 6.5.12 Broadcast Australia has stated that under a future maximum capacity scenario it will be able to satisfy the relevant ARPANSA standard, despite the proposed building envelopes on the RNSH site. No further action is required regarding the effects of EMR. Nonetheless, as for the microwave link, a modification is included to ensure that future development is designed to mitigate impacts from and upon the Gore Hill tower as far as is necessary and possible.

Electromagnetic Interference (EMI)

- 6.5.13 The most significant issue is the potential for EMI to affect the hospital and the resultant mixed use development. High electromagnetic fields can cause electrical equipment and more importantly, medical equipment to perform with steady, momentary or intermittent disruption.
- 6.5.14 The effect of EMI is also related to the transmission of EMR, and hence again related to the height and proximity of development to the tower. Whilst there is a correlation, the impacts are different. As stated above the impact of EMR is warming of the body, whilst EMI affects electrical equipment. It is worth noting that where EMR is likely to be high, the impact of EMI is also commensurate with that of the EMR impacts. That is, if EMR increases by 10%, it is likely EMI will similarly increase.
- 6.5.15 As mentioned above, the potential worst case field is a 9.5% of the general public reference level at the existing RNSH building. The building is subject to no more than a 1% level at this point and has not reported any known EMI occurrences. It should be noted that sensitive electrical and medical equipment is typically designed to withstand higher levels of EMI compared to domestic electrical equipment – typically to about 10 volts / metre (10V/m).
- 6.5.16 As the hospital building will potentially be subjected to more EMR (within the required standard) it will also be subjected to higher EMI (should Broadcast Australia secure every available communications contract as a worst case scenario). Whilst Broadcast Australia has duty to protect human health there is no such standard to ensure no interference of electrical equipment occurs, nor is there a minimum standard required for goods sold in Australia to be shielded from EMI. The only distinction is that higher quality goods are generally shielded, lower quality not. Lower quality goods may be affected by interference of 3V/m.
- 6.5.17 What is known is from the proponent's consultant's report on the matter is that the likely worst case level of EMI at the hospital building will fall within the EMI standards of 3V/metre for domestic equipment and 10V/metre for critical medical equipment. Therefore it is likely that the equipment within the hospital building itself will not be affected.
- 6.5.18 The concerns of Broadcast Australia generally relate to the impact of EMI on domestic electrical goods within apartments atop the tallest buildings within the site. As the tallest buildings are further away from the tower (about 590 metres compared to 410 metres for the main hospital building) and in most cases cascade and step down the topography, there are only going to be isolated situations of EMI in the non-hospital parts of the site. The proposed envelope of 167 metres AHD is generally only likely to be affected at the upper levels and being at an EMR exposure level of about 7.5% at its top floor (and lesser lower), EMI will be nearer the 3V/metre level than the 10V/metre level. Accordingly, inferior electrical equipment may still be affected, but not at as high a level as within the hospital building.

Similarly, superior electrical goods are less likely to be affected. The affect of EMI is also lessened dependent of the location of the electrical good within a room (best way from windows) and the type of building materials used.

- 6.5.19 Typical construction materials all have electromagnetic properties and the important RF properties of each material will depend upon the ability of the material to reflect and absorb the RF signal. Minimising the effects of EMR and EMI will require good RF reflective materials such as glass and reinforced concrete. However, by minimising the RF fields within the building (i.e. more of the signal is reflected) ghosting and multipath may become evident. However, absorptive materials such as concrete drywall, masonry brick and plywood can be used to minimise these effects.
- 6.5.20 Many factors affect RF level attenuation (i.e. losses through walls and windows) and to a lesser extent reflection (i.e. building shielding and reflection). Given that many variables can affect EMI, it is impossible to determine whether there will be an adverse impact from EMI until site specific designs are developed. It is therefore recommended that Director-General's requirements be placed into the approval to address up-front the potential EMI impacts of and on the transmission tower of future development. This will also ensure advice is made available to proponents that not only are there extraordinary externalities affecting the site, but also that development may need to be designed with these impacts in mind.
- 6.5.21 During the construction phase, it is anticipated that EMI causing the electronics in construction cranes to fail will not be an issue provided they are shielded. The reciprocal affect of the cranes impacting upon transmission will be included in the Director-General environmental assessment requirements.

Ghosting and Multipath Effects

- 6.5.22 "Ghosting" and "multipath" effects are produced when part of the signal comes directly from a transmitter whilst another part has been reflected from a hill, building or other large object (such as the built development proposed at RNSH). The reflected signal thus arrives slightly later in time than the direct signal producing another image, or ghost, offset slightly from the main image. Stronger effects are usually caused as a result of the interaction of the radio signal with high reflective materials (e.g. glass, metals) whereas weaker effects are usually as a result of high absorptive building materials (e.g. concrete, brick).
- 6.5.23 The proponent has indicated that ghosting should not be an issue as a result of the proposal due to the relatively short radio path length. In the event that there is ghosting and other similar effects mitigation techniques can be employed. Broadcast Australia has indicated that it would seek assurances that development would not have an adverse impact upon the operation of the tower. To that end any future applications will be required to address potential impacts and any mitigation measures to be employed via the recommended Director-General's requirements. No further action is required as part of this proposal.
- 6.5.24 The overall impacts of the transmission tower are also not an issue for works on-site, including crane operators. Conversely, the cranes themselves should pose no negative affect upon the operation of the tower.

Resolution

- 6.5.25 The Department recommends that in addressing the above matter no further action is required to deal with the effects of EMR, EMI, ghosting, or the line of sight of the microwave link, other than ensuring no redevelopment (temporary or otherwise) be undertaken without first fully considering the affect of the Gore Hill tower on the development, and/or the affect of the development on the Gore Hill tower's operations (particularly when at its potential future maximum transmission output). Accordingly, a set of Director-General's environmental assessment requirements are included in the instrument of approval to ensure that new development (including temporary structures and fixtures – such as the operation of cranes) consistent with the concept plan addresses, where relevant and necessary:

- Line(s) of sight of the microwave link(s) (but only development located within Precinct 2 and where it exceeds RL112;
 - Electromagnetic radiation (EMR) impacts upon human health and safety (including employees on-site, residents, construction workers etc);
 - Impacts of electromagnetic interference (EMI) upon electrical equipment and goods, particularly medical equipment and household goods.
 - Mitigation of any potential ghosting and multi-path impacts to signals.
- 6.5.26 As the proposal is at this stage only conceptual and no detailed development designs are being considered, the Department is satisfied that it has fully considered the implications of and to Broadcast Australia's operations. The proposal will not result in any adverse health impacts, nor does the placement of buildings and uses across the site result in adverse conditions for human health or medical equipment, even in the event of substantial increases in EMR and EMI.
- 6.5.27 Broadcast Australia has sought safeguards to its current and particularly potential future operations. To this end the proposed modification with Director-General's requirements ensure awareness of Broadcast Australia's position, operating requirements and emissions, and impacts on residential receivers. Proposed supplementary solutions can include advisory notes within the State significant site listing of the RNSH site and/or detailed consultation at individual development stage(s) through the Council pre-DA process or Director-General's environmental assessment requirements for individual projects.

6.6 Transport Management

Raised By

- 6.6.1 Department of Planning; Local Resident(s); Member of RNSH staff; State Transit Authority; Gore Hill Memorial Cemetery Trust; Willoughby City Council; Ministry of Transport; Railcorp; North Sydney Council; Lane Cove Council; RTA

Consideration

- 6.6.2 The proponent has lodged a traffic assessment report in support of the application which assesses the transport implications of the RNSH concept plan. It has been carried out on the basis of an indicative future mixed use development scenario which satisfies prevailing strategic policy justification. The report concludes that the transport aspects are appropriate and satisfactory. The Department has assessed each of the relevant transport related issues (below) and considers them to be generally acceptable subject to a combination of statements of commitment made by the proponent together with the imposition of recommended supplementary modifications.

Public Transport Provision

- 6.6.3 St Leonards Railway Station is located in close proximity to RNSH and provides direct rail services between the Central Coast and the CBD, Hornsby the Western Line. It is considered that the capacity of the North Shore Railway Line has sufficient surplus capacity to carry the additional forecast passenger growth. The Chatswood to Epping Line is due for completion in 2008 and will further expand the capacity of the Railway Line to 20 services per hour in each direction.
- 6.6.4 RNSH is directly serviced by Bus Route 144 and has a bus stop located close to the main hospital building at the roundabout at the northern end of Reserve Road. Other bus services are available nearby from Pacific Highway at St Leonards Railway Station and west of Reserve Road for eastbound services between Reserve Road and Herbert Street for westbound services. These provide services to the northern suburbs and the CBD.

- 6.6.5 Other public transport infrastructure upgrades are planned in the short and medium term such as the Lane Cove Tunnel project, Rail Clearways, bus reforms to improve running times and reliability on strategic bus corridors, including Epping Road and Pacific Highway and development of the former ABC site. Long term initiatives will further improve transit accessibility at St Leonards such as the development of new rail links (North West, South West and CBD Harbour Link).
- 6.6.6 It is recommended that a modification be imposed seeking the proponent for development within the development precincts (i.e. Precincts 3 to 7) to seek to enter into an agreement with the RTA, State Transit Authority (STA), Ministry of Transport (MOT) and Sydney Buses to facilitate provision of additional bus services and other public transport improvements within and surrounding the site. The final outcome shall accompany the first subsequent application for development within these precincts.

Travel Demand and Modal Split

- 6.6.7 The proponent undertook a travel survey in May 2005 to establish the modes of transport chosen by members of staff at RNSH. The survey found that the vast majority of staff arrived by car and predominantly drove themselves. It was established that visiting medical officers (100%), doctors (79%) and nurses (85%) are most likely to drive whilst cleaning (42%) and administration staff (60%) were least likely to drive. The train was the next most popular mode of transport followed by the bus.
- 6.6.8 A 15% reduction in day time car usage has been targeted to be achieved through a number of measures such as increased opportunities for employees to live locally and provision of more convenient and secure public transport access (e.g. improved pedestrian access to St Leonards Railway Station). Implementation of short, medium and long term public transport upgrade will further enhance the use of existing and future public transport accessibility.
- 6.6.9 A draft Transport Management and Accessibility Plan (TMAP) has been developed by the proponent. This provides an assessment of RNSH concept plan against strategic planning and transport policy, identifies improvements to non-car access, reduces the site's peak hour traffic generation and develops measures to improve further transport outcomes through a range of measures.
- 6.6.10 The principal form of travel demand management for residential development is locating it within activity centres with high levels of facilities and good public transport in close walking distance. Provision of travel information is also proposed such as bus and train routes, timetables, fares and commuter tickets, bicycle routes and pedestrian routes.
- 6.6.11 Measures aimed at managing travel demand within the commercial aspects of the development include provision of pedestrian access to public transport measures and car parking constraints based upon the reduced rates within Willoughby DCP for sites located in close proximity to public transport corridors.
- 6.6.12 Hospital related development will be subject to traffic demand management measures but primarily restricted to day staff only. Specific measures include parking charges at or above the cost of an average public transport trip to/from RNSH, reduction in staff car parking spaces, encouraging car sharing and additional bus routes to pass through hospital grounds.
- 6.6.13 The proponent has provided a statement of commitment to submit a final TMAP prior to the granting of project approvals for any of the buildings with Precincts 3 to 7. A hospital specific workplace travel agreement will detail specific transport management measures to be implemented in association with the redevelopment of the hospital to be submitted to the Director General for approval prior to project approval of the hospital.
- 6.6.14 The Department recommends that a final TMAP be submitted to and approved by the Director-General prior to or concurrent with lodgement of any subsequent application for development (excluding the approved demolition and preparatory site works to ground level). The approved TMAP shall be prepared and implemented in consultation with the RTA and will be subject to periodic review at appropriate times.

- 6.6.15 The approved TMAP must include provision of a Work Place Travel Plan for each development precinct (excluding those with exclusive residential use) and shall include strategies to promote and encourage public transport use, including (but not limited to) staggered start and finish times for employees and car pooling, so as to minimise the impact upon the road system.

Car Parking

- 6.6.16 Total existing car parking provision at RNSH is approximately 2,762 spaces. The existing multi-storey car park off Reserve Road (approximately 1,850 spaces) will be retained to serve the private hospital, public hospital staff and activities associated with re-use of existing hospital building. Replacement car parking for the new public hospital including for visitors, visiting medical officers and other staff needing immediate car parking to compensate for open air car parking that will be displaced by the new development (approximately 910 spaces) will be provided beneath the new hospital building. Other new development will have its own car parking beneath or beside it.
- 6.6.17 It is intended that constraints upon car parking will be a major tool in reducing reliance upon private vehicle transport. Subject to the formulation of a hospital green travel plan and/or Transport Management and Accessibility Plan (TMAP), a target of at least 15% less hospital parking provisions per person is proposed. Car parking for commercial uses is to be provided at a rate of one space per 110m² of floor area as set out within Willoughby DCP, which applies where the proposed development is located within 500 metres from a railway precinct. The proponent estimates that the said constraints on car parking will mean that about 22.5% of employees will travel by private car.
- 6.6.18 It is intended that the location of commercial or high density residential development in close proximity to good quality public transport corridors will reduce car dependence and encourage public transport use. Car parking rates for residential development will be adopted from Willoughby DCP and be set as a maximum. Similarly, hospital related staff accommodation will be permitted to be provided with car parking at 50% of the DCP where appropriate. Car parking for retail uses will be provided at a rate commensurate with an expectation that approximately half the business will be generated from on or near the site. Indicatively, a car parking rate of 30m² of retail space has been adopted.
- 6.6.19 The Department recommends that the terms of approval include a requirement for provision of car parking in accordance with Council's current adopted Development Control Plan as adopted on 26 July 2006 as in force on 21 August 2006 (see **Appendix J**).

Vehicular Traffic Generation

- 6.6.20 The traffic report accompanying RNSH concept plan estimates existing and future traffic volumes on local road network surrounding the site including estimates of increased traffic generation and effects on new or re-opened roads once the RNSH concept plan is implemented (including the committed development on the former ABC site). In percentage terms, it is anticipated that since Gore Hill Freeway opened in 1992 traffic volumes along Pacific Highway have reduced by between 15% and 24% during peak hours. Along Herbert Street, the reverse has occurred, with traffic volumes having increased by as much as 35% (except north of Ella Street) in the PM peak.
- 6.6.21 There will be no significant change to the range of services or floorspace provided within the existing hospital, rather a rebuilding of the facilities within which they are housed, so as to consolidate them into a smaller number of integrated and more efficient buildings. Additional traffic arising from then RNSH concept plan will be generated by the non-hospital private development precincts. Consequently, the Department concurs with the proponent that the planning agreement need not be entered into for traffic works and intersection upgrade whilst the hospital rebuilding is taking place (i.e. stages A and B) and will need to come into fruition prior to Precincts 3 to 7 being developed.
- 6.6.22 Approximately 1,030 vehicle trips in and 330 trips out in the AM peak and 525 trips in and 935 trips out in the PM peak (a total of 1,460 vehicle movements at the busiest time of the day) is produced by the RNSH. The Department estimates that the most significant increase in vehicular traffic movements will occur at the Pacific Highway/Reserve Road/Berry Road intersection during the PM peak during which

it is anticipated that vehicular traffic movements will increase from 4,565 to 5,357. Other significant increases are envisaged at the Pacific Highway/Herbert Street intersection during the PM peak (+ 641 vehicular traffic movements) and Reserve Road/Frederick Street (+ 594 vehicular traffic movements).

- 6.6.23 Intersection operation analysis has been undertaken in accordance with RTA requirements (SCATES modelling). It is estimated that the intersections surrounding the site operate at a satisfactory level of service (LOS B) or better except at Pacific Highway/Greenwich Road which operates at or near capacity (LOS F). The development proposal will result in a change in the level of service and delay at most of the intersections in both the AM and PM peaks. The most significant changes will be evident at the intersections of Pacific Highway/Herbert Street, Pacific Highway/Reserve Road and Pacific Highway/Campbell Street where levels of service will reduce from LOS A to LOS C.
- 6.6.24 The RTA anticipates that significant queuing and congestion on the section of Pacific Highway, Herbert Street and Reserve Road in close proximity to RNSH will occur during the peak hour traffic periods directly as a result of the development proposal. This will partly be attributable to the inability to pursue a vehicular link road from Chandos Street to Herbert Street (as previously adopted by Willoughby Council) and will be the result of insufficient capacity to store traffic at the Reserve Road intersection. It further envisaged that queuing on Pacific Highway will extend past Herbert Street and Christie Street which will be a significant constraint upon the arterial road network.
- 6.6.25 Provided that the targeted modal split of 22.5% car use for office employees is achieved through constraints on car parking for office employees, the RTA requires the following works to be undertaken as a minimum:
- Pacific Highway/Herbert Street – 50 metre long turn lane within Herbert Street to facilitate dual left and single right turn (out of Herbert Street).
 - Pacific Highway/Reserve Road/Berry Street – approach lane within Reserve Road and squaring up the Reserve Road approach with Berry Street as depicted on RNSH but with the following changes:
 - The right hand turn bay on Reserve Road being 100 metres long.
 - A repeat right turn phase for the right hand turn movement into Reserve Road.
- 6.6.26 In the event that the desired modal split fails to be achieved, road network upgrades, intersection and public transport improvements will be need to be funded and constructed by the proponent. Other transport management measures are proposed within RNSH concept plan, in particular the reopening of Westbourne Street to facilitate east-west bus movements between Pacific Highway and Herbert Street, provision of traffic signals at the Westbourne Street/Herbert Street intersection and the restriction of both the Herbert Street/Yellow Road and Herbert Street/Eileen Street intersections to function as left in/left out only.
- 6.6.27 These and other transport management measures have been developed over time by the proponent, in consultation with RTA, Council and other key stakeholders. The extent to which these are implemented is dependent upon the execution of a planning agreement which is currently being negotiated between the relevant parties. This process has reached a relatively advanced stage and it is anticipated that this will be agreed shortly. The proponent has made a statement of commitment which states that an agreement will be entering into governing any intersection improvements required on external roads prior to the development of any non-hospital related buildings.
- 6.6.28 It is recommended that a modification be imposed requiring a legally binding planning agreement(s) (and/or developer contributions as appropriate) between the proponent, RTA, Council and other agencies to be prepared and executed prior to or concurrent with the lodgement of any subsequent application for development (excluding hospital development and the demolition and preparatory site works to ground level) (i.e. Precincts 3 to 7).

Road Hierarchy

- 6.6.29 A new road system is proposed so as to make the site more permeable to traffic and pedestrians. The plan involves Reserve Road being reopened and a new grid system to allow direct vehicular access into each precinct. It will be managed so as to separate potential traffic movements from local access and circulation traffic through the introduction of a road hierarchy arrangement. Three of the four roads in question have been earmarked as "minor local" and "shared way" roads, the other being identified as a "major local" road.
- 6.6.30 Council is concerned that the provision of four access roads into the site from Herbert Street may cause traffic management problems given that four intersections will be installed along a distance of 350 metres. There is a concern that this may cause extended queuing back from each intersection due to the single lane/kerbside car parking configuration present along Herbert Street. Furthermore, Council does not support the loss of on-street car parking on Herbert Street to address traffic and queuing problems that will be caused by the RNSH redevelopment.
- 6.6.31 The proponent is seeking approval of a conceptual road layout only at this stage and formalisation of the internal road network will be subject of a subsequent application for development. The Department is of the view that this issue can be satisfactorily resolved at that stage. Similarly, car parking provision for the public hospital is to continue to be provided from the existing multi-storey facility whilst each of the private development precincts will have its car parking beneath or immediately beside it. The level of car parking provision will be subject to assessment of subsequent applications for development in accordance with Council's DCP.

Reopening of Westbourne Street

- 6.6.32 Council is concerned that the reopening of Westbourne Street and Reserve Road to through vehicular traffic will provide additional "rat-running" options to southbound motorists wishing to bypass the signalised intersections at Pacific Highway and Herbert Street. The Department, in consultation with the RTA, is of the view that the reopening of Westbourne Street should be permitted in principle.
- 6.6.33 It is recommended that a modification be imposed to facilitate the following staged reopening of the Westbourne Street:
- Part reopening of Westbourne Street onto Reserve Road (left hand turn only) for hospital drops.
 - Full reopening of Westbourne Street to all vehicular traffic, with preference for initial access by public transport operators, subject to meeting the operational requirements of those operators.
- 6.6.34 The extent to which Westbourne Street shall be permitted to reopen will require detailed plans and documentation to be submitted to and approved by the Director-General which address a number of related considerations. The approval allows for the monitoring and management of "rat-running".

Pedestrian and Cycling Accessibility

- 6.6.35 The main pedestrian access into RNSH is from St Leonards Railway Station across a pedestrian footbridge over Herbert Street and along an on-grade dedicated public way through a ground level plaza within Precinct 4, across Yellow shared way, ultimately leading to Precinct 3 and into the main hospital entry point.
- 6.6.36 The proponent will fund the realignment of the existing pedestrian bridge over Herbert Street to provide a more direct, level and obvious pedestrian route between St Leonards Railway Station and Precinct 4. It is also proposed to fund the review and replacement of directional signage throughout St Leonards Railway Station to ensure that this new pedestrian route is clear and apparent to all rail users.
- 6.6.37 The proponent has made two statements of commitments the first of which is to realign the pedestrian overbridge over Herbert Street details of which are to accompany the application for the

redevelopment of Precinct 4. The second statement of commitment involves a comprehensive review of directional signage within St Leonards Railway Station and the RNSH site, in consultation with RailCorp.

- 6.6.38 Council seeks details on the bicycle route through the RNSH site that links with other bicycle routes through the TAFE site, the former ABC site and further to the north. Council's Bike Plan contains a route travelling north – south along Herbert Street between Artarmon and St Leonards. The proponent's response is that off-site linkages are beyond its control and no action is necessary.
- 6.6.39 The Department, in consultation with the RTA and Council, is of the view that a site wide pedestrian and cycling strategy should be prepared and implemented. It is recommended that a modification be imposed by the Minister to this effect together with a modification requiring the pedestrian overbridge to be improved in terms of design and visual impact so as to achieve a desirable urban design outcome.

Resolution

- 6.6.40 It is recommended that the Minister make modifications to the RNSH concept plan in the manner set out within each subsection above.

6.7 Heritage and Conservation

Raised By

- 6.7.1 Department of Planning; Space 207 Partnership; NSW Heritage Office; Gore Hill Memorial Cemetery Trust; Willoughby City Council

Consideration

- 6.7.2 The RNSH site itself, nor any element of it, is currently listed at Commonwealth, State or local level as having heritage significance. However, two buildings lying within the RNSH site are listed on the Department of Health Section 170 State Agency Heritage Register namely the Regional Diabetic Services Building (Building 7) and Lanceley Cottage (Building 9).
- 6.7.3 The Department, in consultation with NSW Heritage Office, is satisfied that any impacts in this regard will be adequately mitigated through a combination of statements of commitment, modifications to the concept plan and conditions to the project approval for demolition and preparatory site works.

Archaeology (Non Aboriginal)

- 6.7.4 The submitted Archaeological Assessment states that the potential archaeological resource on the RNSH site is likely to relate primarily to the pre-hospital early-twentieth century suburban subdivision and cottage development of a portion of the site, and the truncated and disturbed landscape, services and ancillary building remains of the hospital phases of the site. There is a slight chance that deeper remains from Gore's early nineteenth century occupation of the site could be retained in some areas, but their location and anticipated degree of survival is very uncertain.
- 6.7.5 It concludes that the anticipated archaeological resource is unlikely to be of substantial heritage significance. Some remains, such as those associated with Gore's occupation, or intact deposits relating to Building 7 (1910) and Building 9 (1908) could be of Low to Medium local significance if they have survived intact in undisturbed deposits. This is however considered to be unlikely. None of the archaeological resources are anticipated to be of State or High local significance and none are of sufficient integrity to warrant open area research archaeological investigation or conservation in situ.

Aboriginal Archaeology

- 6.7.6 The proponent submitted an Aboriginal Archaeological and Cultural Heritage Impact Assessment in

support of the application to identify any clear and obvious aboriginal cultural heritage issues that may appear so as to inform plans that are currently proposed for the future redevelopment of RNSH through the concept plan. The site inspection did not result in the location of any sites or items of Aboriginal archaeological heritage or the identification of any areas of potential Aboriginal archaeological or cultural heritage sensitivity.

- 6.7.7 Furthermore, it is considered unlikely that any such heritage evidence that may be formerly present on the site will have survived given the high disturbed nature of the site that has occurred as a result of multiple phases of development and alteration over time. No previously recorded sites/items of Aboriginal cultural heritage have been located within the hospital site grounds and no Aboriginal cultural concerns have been identified during the current study with respect to the proposed future upgrade and redevelopment works.

Built Heritage

- 6.7.8 The key heritage outcome is to retain the original hospital grouping including associated landscaping, circular driveway and spacings between buildings. RNSH concept plan enhances the heritage significance of this significant grouping through the creation of a heritage "precinct" (Precinct 3). The two historic cottages (Buildings 7 and 9) and the former mortuary, fronting Herbert Street, are to be conserved within a landscaped setting and the existing chapel on Westbourne Street is to be retained. Steps have also been taken to maintain the alignment of the historically significant Reserve Road as well as elements of early and historic landscaping.

Landscape Heritage

- 6.7.9 A tree heritage study has been undertaken to supplement the Heritage Impact Statement (HIS) so as to provide an assessment of the existing trees on the site and provide guidelines in the relative significance of these trees in relation to their type, condition and association within the RNSH site. Of the 326 trees and palms on the site, 109 are identified as significant to the site on the basis of their aesthetic and historical contribution and comprise 6 distinct groupings of trees and palms that represent landscape design choices and historical development on the site (e.g. a partial avenue of Canary Island Date Palms in the southern part of the site, avenue planting along Reserve Road etc).
- 6.7.10 In addition to the groupings referred to above, a number of individual significant trees from across the site will ultimately be removed. Together, these trees reflect the layered history of the site, often following former paths and drives and they enhance the sense of established landscape at the hospital. Their removal would result in an adverse heritage impact but this will be mitigated by the reinforcement of existing heritage landscaping as proposed within RNSH concept plan. This landscaping will provide a tree hierarchy, incorporate flowering trees continuing the horticultural traditions of the hospital and retain established signature trees where possible and relocates others that cannot be retained in situ.

Resolution

- 6.7.11 The proponent has made a statement of commitment to prepare a Conservation Management Plan(s) (CMP) for Buildings 29 (Original Pavilion Wing Building), 30 (Second Pavilion Wing Building), 31 (Vanderfield Building), 32 (Ansto Building) and 33 (Orthotics/Diabetics Building) in accordance with NSW Heritage guidelines to be approved prior to approval of any works relating to the subject heritage buildings. A further commitment has been made to nominate the "Heritage Precinct" (Precinct 3) to NSW Heritage Office for inclusion on the State Register prior to the lodgement of any project applications for the subject buildings.
- 6.7.12 Whilst NSW Heritage are generally supportive of the adaptive re-use of the buildings within the "heritage precinct" in principle it is of the view that the final decision on this matter should be taken following the preparation of the CMP for this precinct. It is recommended that the Minister imposes a modification upon the approval which requires a CMP shall be submitted to and approved by the Director-General prior to or concurrent with the lodgement of any application for development within

Precinct 3 and submitted with any application for development within that precinct.

- 6.7.13 Supplementary modifications are also recommended to ensure that the detailed recommendations set out within the HIS are implemented. These have been categorised as site interpretation and landscape heritage. In relation to the latter, all subsequent applications for development shall be accompanied by a landscaping plan which identifies significant landscaping features and provides for their future management and maintenance and appropriate planting should be provided to buffer proposed development from adjacent sites (e.g. Gore Hill Memorial Cemetery).
- 6.7.14 Furthermore, as referred to in Section 6.9, Project Approval is not granted for demolition of certain buildings identified within the Heritage Impact Statement (HIS) as being of moderate or high heritage significance. Every effort should be made to retain the subject items as long as possible and demonstrate why they cannot be retained and integrated into the subsequent redevelopment proposal.

6.8 Improvement of Amenities and Services

Raised By

- 6.8.1 Department of Planning; Willoughby City Council; Local Resident(s); Gore Hill Memorial Cemetery Trust; North Sydney Council; Lane Cove Council

Consideration

- 6.8.2 Council has given the proponent in principle concurrence to the draft terms of a voluntary planning agreement (VPA) within the scope of Section 93 of the Environmental Planning and Assessment Act 1979 (the Act). The VPA provides a mix of financial contributions towards open space provision and community facilities as well as dedication of public open space and road infrastructure.
- 6.8.3 In particular, the developer contributions to be provided will be the creation of passive open space areas for general public use, payment to Council of \$3 million for the carrying out of certain embellishment works to Gore Hill Park and payment of \$500,000 toward provision of a community centre (of approximately 250m²) within Gore Hill Park (or elsewhere if agreed between the parties).
- 6.8.4 Provision of a child care facilities for a minimum of 180 spaces which may remain in the ownership of the proponent or may be transferred to private ownership subject to it being made available for public usage. Public pedestrian and bicycle access through the site shall be provided including the rebuilding of the Herbert Street pedestrian overbridge and passenger lift facility.
- 6.8.5 The VPA sets out a number of other considerations that may be included within the VPA once it is formalised in the future. These include management and mechanism for revenue allocation from Gore Hill Park car park, possible acquisitions of a portion of Gore Hill Park to accommodate potential realigned access roads and to encourage buses to serve the RNSH campus.
- 6.8.6 The proponent envisages that Red Road South, Blue Road, Eileen Street East and Yellow Road will be dedicated to Council together with the pocket park and community facility within Precinct 7. The remainder of the internal roads and Precincts 1 and 2 will remain in hospital ownership whilst Precincts 3 to 6 (and the residual part of Precinct 7) will be privately owned.

Resolution

- 6.8.7 The proponent has made a statement of commitment to enter into a planning agreement which will detail agreements in relation to such matters as upgrading the landscape, urban design, and irrigation within Gore Hill Park to be approved by the Minister prior to the submission of any project applications for Precincts 4, 5, 6 or 7.
- 6.8.8 The Department is generally satisfied with this approach but is of the view that a planning agreement(s) or other legally binding agreement between the proponent, RTA, Council and other

agencies shall be prepared and executed prior to the lodgement of any subsequent application for development (excluding Precincts 1 and 2 and the approved demolition works up to ground level).

6.9 Early Works Package

Raised By

- 6.9.1 Department of Planning; Local Resident(s)

Consideration

Terms of Approval

- 6.9.2 As part of the wider concept plan approval, the proponent is seeking project approval for demolition of all hospital related buildings on the site aside from part of Building 1, the whole of Building 2, the Douglas Building and a number of other buildings which are adjudged to be of heritage significance (most notably the original hospital grouping to be retained as a "Heritage Precinct"). The proponent is also seeking approval for site-wide excavation and preparatory site works which is intended to take place over a number of years are part of the overall staging and decanting proposed for the hospital as redevelopment gradually takes place.

- 6.9.3 The intended timescales involved in implementing the project are estimated to take place over an approximate 10 year period and a number of subsequent applications will need to be lodged to enable development to take place on the site. The Department does not wish excavation across the site to take place on the site until such time as there is certainty that development is capable of taking place. Consequently, it is recommended that the terms of approval be set out on the basis that excavation shall not occur until applications relevant for individual precincts and/or buildings have been granted project approval or development consent for redevelopment.

Heritage and Conservation

- 6.9.4 A number of buildings on the site have been identified within the Heritage Impact Statement (HIS) as being of moderate or high heritage significance. These are Buildings 3, 7, 9, 10, 11, 19, 27, 29, 30, 31, 32 and 33 and the Chimney Stack (part of Building 21). The proponent's HIS states that these buildings may fulfil the criteria for local or State listing.
- 6.9.5 The Department, in consultation with NSW Heritage Office, is of the view that the buildings identified within the HIS as having moderate or higher heritage significance within the development precincts (i.e. Precincts 3 to 7) shall not form part of the approval.
- 6.9.6 Notwithstanding this, whilst Building 27 (Day Surgery) has been identified as an item of moderate significance, the Department does not consider that it will add any aesthetic or architectural contribution to the site and is satisfied that this building can be demolished at this stage.
- 6.9.7 Every effort should be made to retain the subject items as long as possible and demonstrate why they cannot be retained and integrated into the subsequent redevelopment proposal. Further details shall be submitted to the Department, in consultation with NSW Heritage Office, together with design documentation, in order to demonstrate the need to demolish these items. Should approval be granted to demolish these items, archival recording must take place in accordance with NSW Heritage Office Guidelines.

Contamination and Remediation

- 6.9.8 The proponent carried out a preliminary site contamination investigation for the RNSH site (excluding the land west of Reserve Road) dated 13 September 2004. A number of potential areas of environmental concern (AEC's) have been identified within the investigation area. The proponent's consultant is of the view that based upon the site history and the limited sampling and analysis

undertaken and experience with similar sites in the past, that the site is capable of being remediated for re-use, provided further investigations are carried out to establish the extent of remediation required.

- 6.9.9 The proponent has made a statement of commitments which states that during demolition works the site will be regularly inspected by experienced personnel. A number of actions will be undertaken where various conditions exist such as existing fill, clayey subsoil and engineered fill. Other methodology statements have been made in relation to excavation, demolition and sub-grade preparation. In addition, a statement of commitment has been made in relation to demolition works which sets criteria for undertaking such works with relevant Australian Standards including asbestos removal.
- 6.9.10 Whilst the Department is generally satisfied that the site is capable of being remediated it is recommended that the project be approved subject to the imposition of conditions requiring further investigations to be carried out so as to comply with SEPP55 requirements. In particular, the site should be remediated in accordance with a Remedial Action Plan and a Hazardous Materials Survey and upon completion of the remediation works on the site, the proponent shall submit a detailed Site Audit Summary Report and Site Audit Statement and Validation Report to the Director to verify that the land is suitable for the proposed uses prior to commencement of works.
- 6.9.11 Any information which comes to light during demolition, remediation, or excavation works which has the potential to alter previous conclusions about site contamination must be immediately notified to the Department of Planning and the Department of Environment and Conservation (DEC) where appropriate.

Geotechnical Investigation

- 6.9.12 A geotechnical investigation has been carried out to provide information on subsurface conditions, a geotechnical model and discussion and recommendations on relevant aspects such as suitable footing types, retention systems, foundation and pavement design parameters. As well as making a number of detailed recommendations in relation to these matters, the report recommends that it may be necessary to carry out further investigations for specific excavation and building sites.
- 6.9.13 Once specific development proposals are known a geotechnical review should be undertaken and, if necessary, additional investigations commissioned to provide the level of information requiring for assessing design parameters. A geotechnical engineer should be engaged to review subsurface conditions during construction stages and to confirm that subsurface conditions are consistent with design assumptions.

Construction Management

- 6.9.14 The proponent has committed to producing a waste management plans and construction management plans prior to commencement of construction both of which are to be submitted with project applications for each building. The statement of commitment also states that prior to commencement of works as the site all asbestos based and other hazardous material will be removed in accordance with the regulations and requirements of the NSW Government and the Worksafe Australia Asbestos Code of Practice and Guidance Notes. Measures to control soil erosion during construction will be introduced in accordance with current guidelines.
- 6.9.15 It is recommended that standard Departmental conditions be imposed upon the approval for demolition requiring Works Management Plan(s) (WMP) to be submitted to and approved by the Director of Strategic Assessments to cover a number of issues such as works traffic, pedestrian management and car parking, noise and vibration management and air quality. During the works, a number of other generic conditions should be imposed such as site notice(s), protection of trees, dust control measures and standard hours of work. Any specific amendment to any of the detailed work practices can be carried through the approved WMP through approval by the Director-General.

Resolution

- 6.9.16 It is recommended that the Minister impose modifications and conditions of approval in the manner set out within each subsection above.

7 CONCLUSION

- 7.1 The Department has reviewed the environmental assessment and the preferred project report and duly considered advice from public authorities as well as issues raised in general submissions in accordance with Section 75(2) of the Act.
- 7.2 Issues raised in the 20 written submissions included compliance with St Leonards Strategy (SLS), the impact of electromagnetic radiation from a nearby major transmission tower (and of the proposal upon it), development staging, car parking, traffic generation, visual impact and built form, contamination and remediation, construction management, acoustics and noise and environmental management.
- 7.3 The Department having considered these issues is of the view that the Concept Plan proposal can be approved, subject to modifications. The Department is satisfied that the site can accommodate the level of floorspace proposed provided that it is not at the expense of planning, urban design and environmental considerations.
- 7.4 Following the exhibition period the proponent met with representatives from the Department to resolve outstanding issues. Additional plans and documentation were subsequently lodged and appropriate modifications and conditions were discussed.
- 7.5 These issues related to land use and floor area; urban design and built form; the Gore Hill transmission tower; transport management; heritage and conservation; improvement to community amenities and services; and the early works package (involving commencement of demolition in preparation of the construction of the new hospital).
- 7.6 The Department is of the view that the combination of statements of commitment made by the proponent together with supplementary modifications and conditions of approval that are recommended be imposed by the Minister, should effectively mitigate and manage issues within acceptable environmental limits.
- 7.7 The Department **recommends that the application be approved** subject to the imposition of modifications and conditions set out in **Appendix A**.

Noted

RS 13/4/07