STATEMENT OF ENVIRONMENTAL EFFECTS

PROPOSED ALTERATIONS & ADDITIONS TO BRISBANE WATERS PRIVATE HOSPITAL (STAGE 2) AND LANDSCAPING WORKS ON LOT 1 DP 787109, NO. 9 VIDLER AVENUE, WOY WOY.

PREPARED FOR PERPETUAL NOMINEES LTD.

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in association with
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CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

1. INTRODUCTION.

Doug Sneddon Planning Pty Ltd has been engaged by Perpetual Nominees Ltd (Level 12 Angel Place, 123 Pitt Street, Sydney NSW 2001) to prepare this Statement of Environmental Effects to accompany a development application to Gosford City Council for alterations and additions to Brisbane Waters Private Hospital (Stage 2) and landscaping works on Lot 1 DP 787109, No. 9 Vidler Avenue, Woy Woy.

The proposed development has a capital value of $6.165m and is identified under Schedule 4A of the EPA Act as 'Regional Development'. The Hunter and Central Coast Joint Regional Planning Panel is therefore authorised to exercise consent authority functions for the proposed development.

This Statement of Environmental Effects addresses relevant matters under Section 79C (1) of the Environmental Planning and Assessment Act; State Environmental Planning Policies; Regional Strategies; Gosford Local Environmental Plan 2014; Gosford Development Control Plan 2013; the Environmental Protection and Biodiversity Act (1999); and the Local Government Act, 1993.

2. SITE DESCRIPTION.

Brisbane Waters Private Hospital is located on Lot 1 DP 787109, No. 9 Vidler Avenue, Woy Woy, having an area of 1.02 ha:

- a Locality Plan is at Figure 1;
- a Locality Aerial Photograph is at Figure 2;
- a copy of the Zoning Plan (Gosford LEP 2014) is at Figure 3; and
- site photographs are provided in Appendix A.

Brisbane Waters Private Hospital is located approximately 1km south of Woy Woy Town Centre and is mostly surrounded by a mix of dwellings; industrial buildings; medical centre; and Woy Woy Hospital. The site of the proposed hospital additions comprises several single storey brick and metal clad buildings surrounded by car parking areas, lawns and garden plots. The site has a slight fall in surface level from the rear western boundary to the eastern street frontage. Surface levels range from RL 5.6m to RL 4.6m AHD.

Brisbane Waters Private Hospital currently accommodates 55 general hospital beds and 34 mental health beds; provides a spectrum of Geriatric services backed by the support of an Allied Health Team comprising Dieticians, Occupational Therapists and Physiotherapists. It is also the only private mental health facility in the Central Coast Region. Additional Hospital car parking is provided on Lot 2 DP 778281 (1,401m2) and Lot 3 DP 778360 (2,083m2), Vidler Avenue and Dwyer Avenue, Woy Woy.

Figure 1: Locality Plan.

Figure 2: Locality Aerial Photograph.

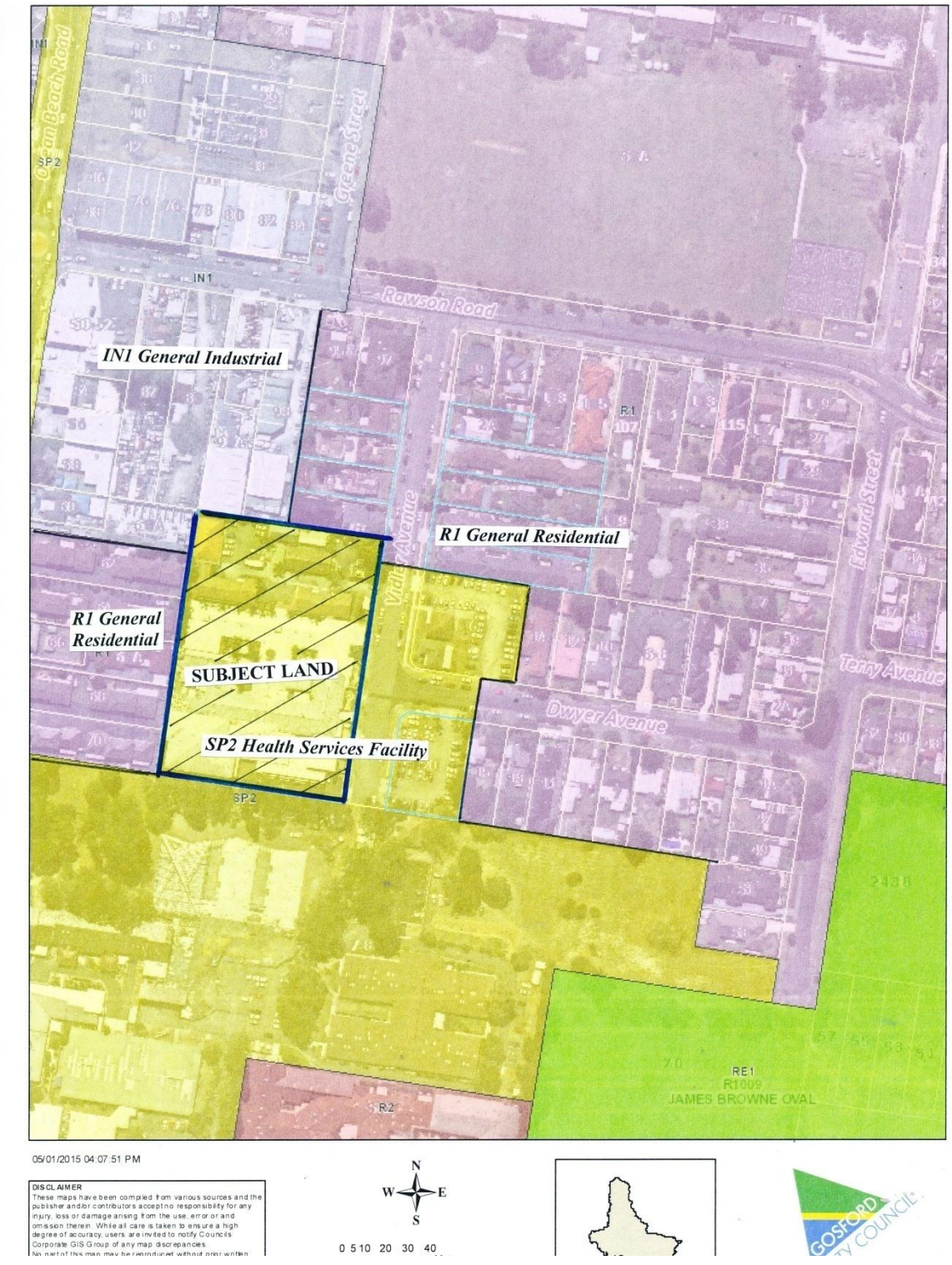

Figure 3: Zoning Map (LEP 2014).

3. DESCRIPTION OF THE PROPOSED DEVELOPMENT.

3.1 Summary of Proposed Works.

The proposed development involves the carrying out the following works:

- demolition of various existing single storey structures, driveways and hardstand located within the area of the proposed hospital additions and minor internal demolition of the existing fitout within the main hospital building in order to provide for additional ward beds;

- construction of a new single storey building at the northern end of the site to consolidate existing administrative offices and consulting suites already located within the hospital campus, incorporating ancillary facilities such as gym; diagnostic medical imaging; kiosk café providing light snacks pre-prepared off-site; staff and patient amenities; and provision of illuminated hospital identification signage (5m wide x 1.5m high) on the street front elevation of the new building;

- internal alterations to the fit-out of the existing hospital to provide 18 additional general hospital and 8 mental health beds (i.e. total of 26 additional beds);

- reconfigure car parking layout within Lot 1 DP 787109 for greater efficiency and to provide one additional disability space;

- provision of new hospital set down/pick up and pedestrian areas fronting Vidler Avenue; and

- site landscaping.

3.2 Architectural Plans.

Details of the proposed development are indicated in Figures 4 - 13 prepared by Healthe Science Planning Consultants (dated 2nd November 2015):

- Figure 4: Cover Sheet (Drawing DA00 – Revision B);
- Figure 5: Existing Site Plan (Drawing DA01 – Revision A);
- Figure 6: Existing Ground Floor/Demolition (Drawing DA10 – Revision B);
- Figure 7: Existing First Floor/Demolition (Drawing DA11 – Revision B);
- Figure 8: Proposed Site/Roof Plan (Drawing DA20 – Revision B);
- Figure 9: Proposed Ground Floor Plan (Drawing DA21 – Revision B);
- Figure 10: Proposed Level 1 Floor Plan (Drawing DA22 – Revision B);
- Figure 11: Elevations & Sections (Drawing DA30 – Revision A);
- Figure 12: Shadow Diagrams (Drawing DA40 – Revision A); and
- Figure 13: Materials Board (Drawing DA50 – Revision A).

3.3 Landscaping Plans.

Details of proposed site landscaping are indicated in Figures 14 – 18 prepared by Moir Landscape Architecture, dated 6th November 2015:

- Figure 14: Cover Page (Drawing LP01;
- Figure 15: Site Analysis (Drawing LP02);
- Figure 16: Landscape Masterplan (Drawing LP03);
- Figure 17: Detail Landscape Plans (Drawing LP04); and
- Figure 18: Planting Schedule (Drawing LP05).

3.4 Storm Water Management/Sediment & Erosion Control.

Conceptual Stormwater Management Design has been undertaken by Northrop, details of which are provided in the Concept Stormwater Report and Concept Sediment and Erosion Control and Stormwater Management Plans in Appendix B.

3.5 Construction Waste Management Plan.

A Construction Waste Management Plan is provided in Appendix C.

3.6 Operational Waste Management Plan.

A copy of the Hospital's Operational Waste Management Plan is provided in Appendix D.

3.7 Site Calculations.

The site calculations associated with the existing hospital and proposed development are:

- Site area (Lot 1 DP 787109) – 1.02 ha;
- Site Area (Lot 2 DP 778281) – 1,401m2:
- Site area (Lot 3 DP 778360) – 2,083m2;
- Total Site Area – 1.368 ha;
- Existing Hospital GFA – 5,615m2;
- Proposed Hospital GFA with additions – 6,930m2 (i.e. + 1315m2);
- Existing FSR – 0.55:1;
- Proposed FSR – 0.679:1;
- Existing bed numbers - 89 beds (includes 33 mental health beds);
- Total existing and proposed bed numbers - 115 beds (i.e. + 26 beds comprising 18 general hospital beds and 8 mental health beds);
- Existing car spaces - 120 spaces (includes 1 existing accessible space);
- Proposed car spaces – No change to the existing 120 spaces (but includes 1 additional disability space = 2 on-site disability spaces);
- Existing maximum peak time staff numbers – 55; and
- Proposed maximum peak time staff numbers including additions – 58 (i.e. +3).

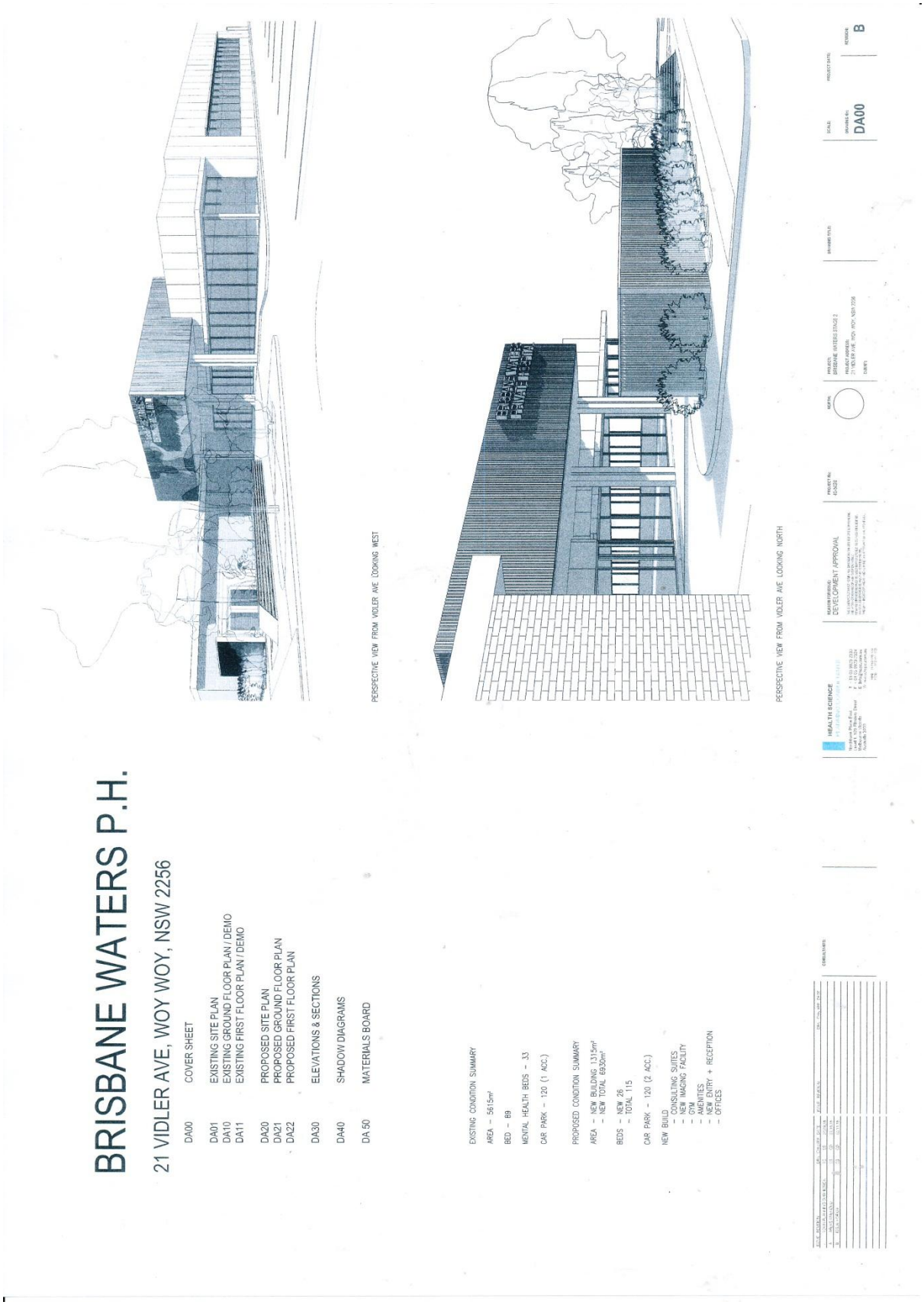

Figure 4: Cover Sheet.

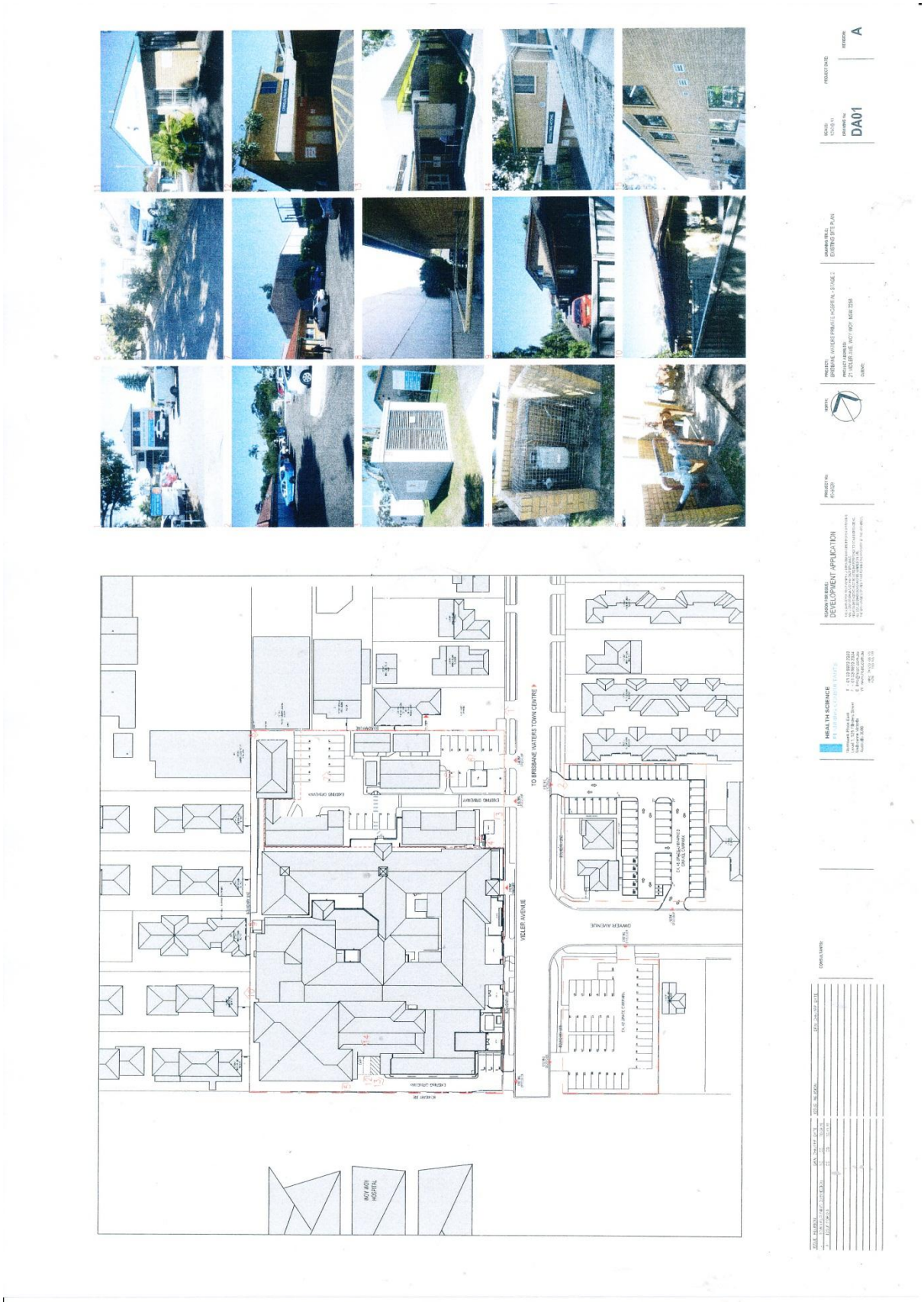

Figure 5: Existing Site Plan.

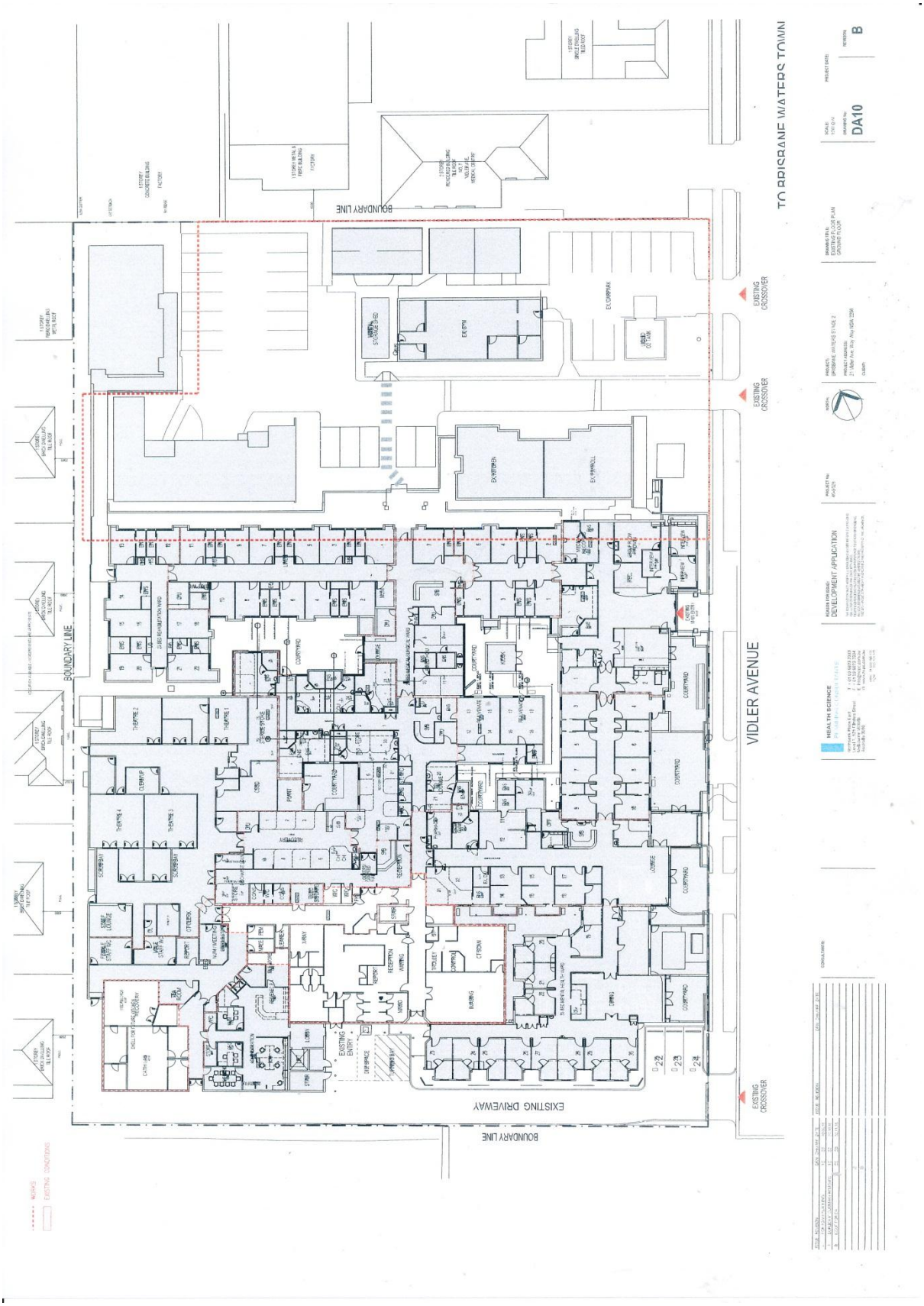

Figure 6: Existing Ground Floor/Demolition.

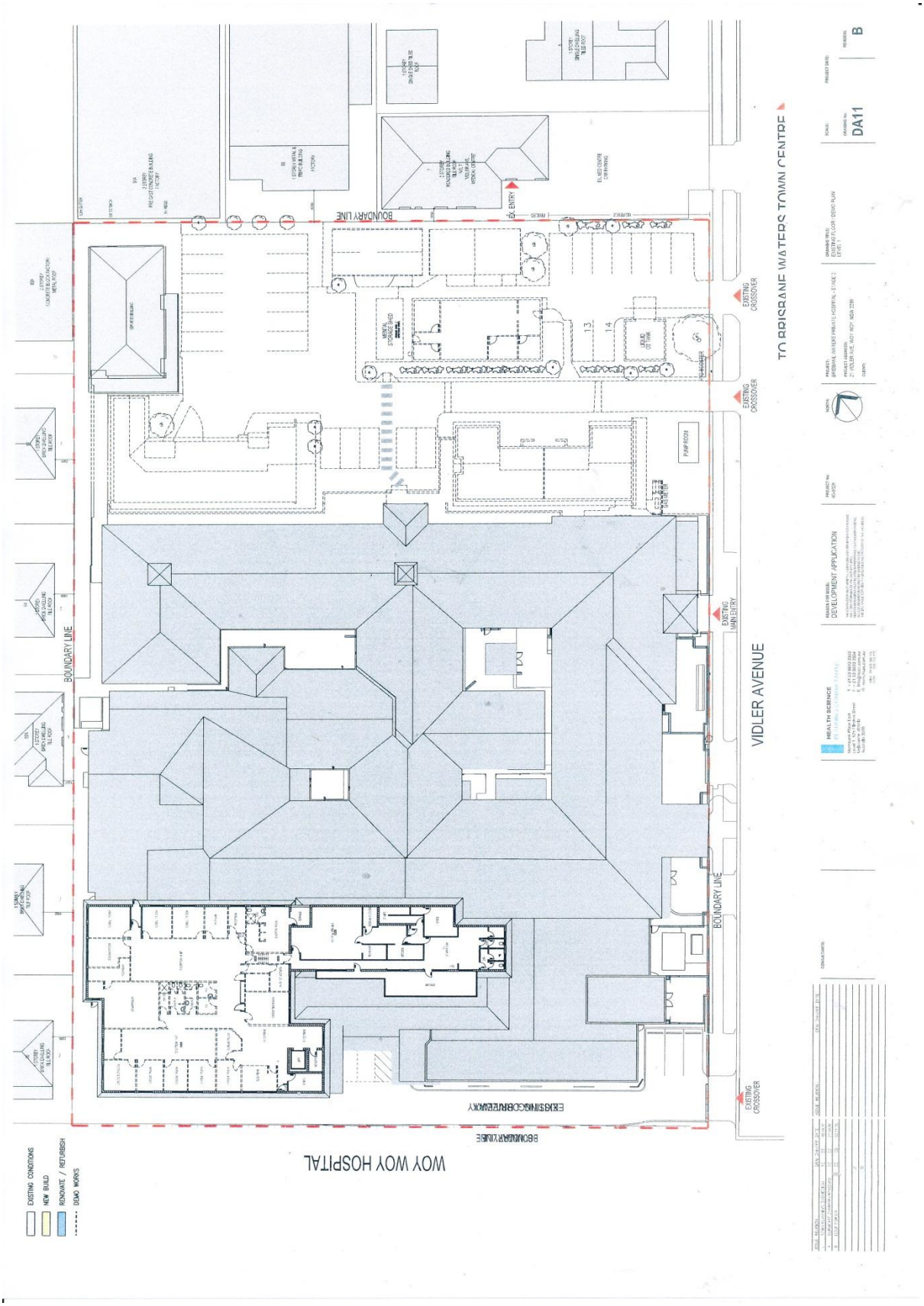

Figure 7: Existing First Floor/Demolition.

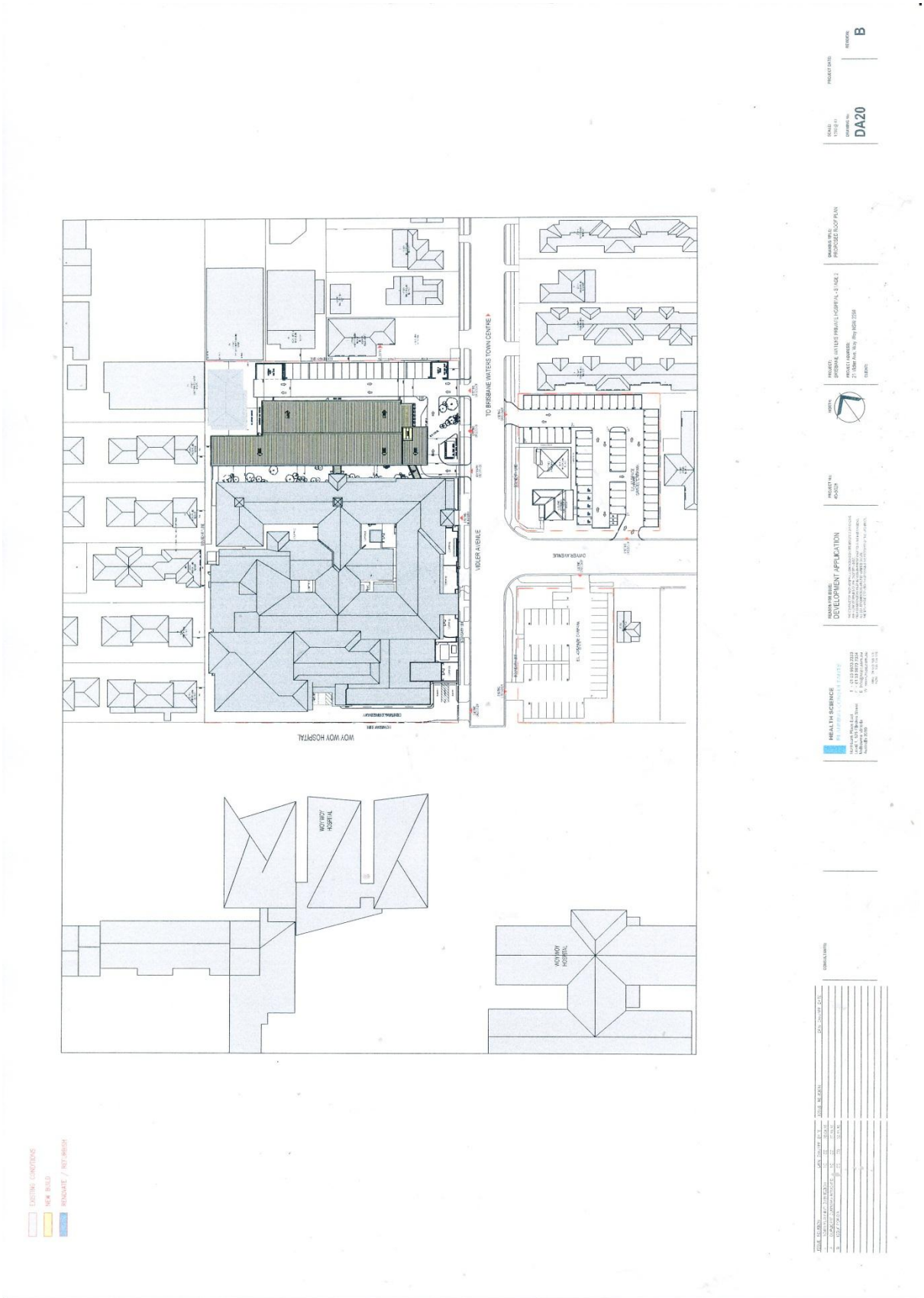

Figure 8: Proposed Site/Roof Plan.

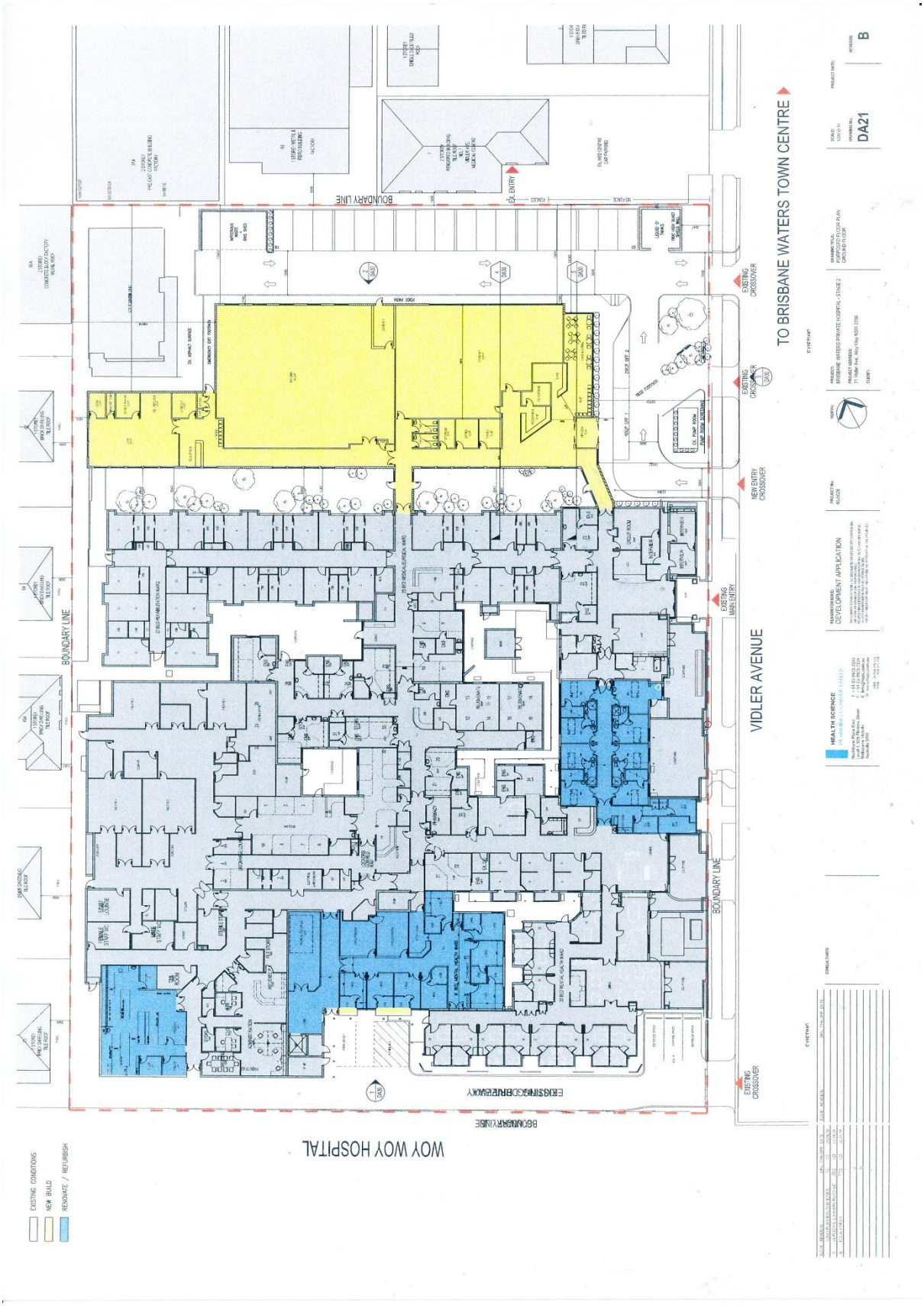

Figure 9: Proposed Ground Floor Plan.

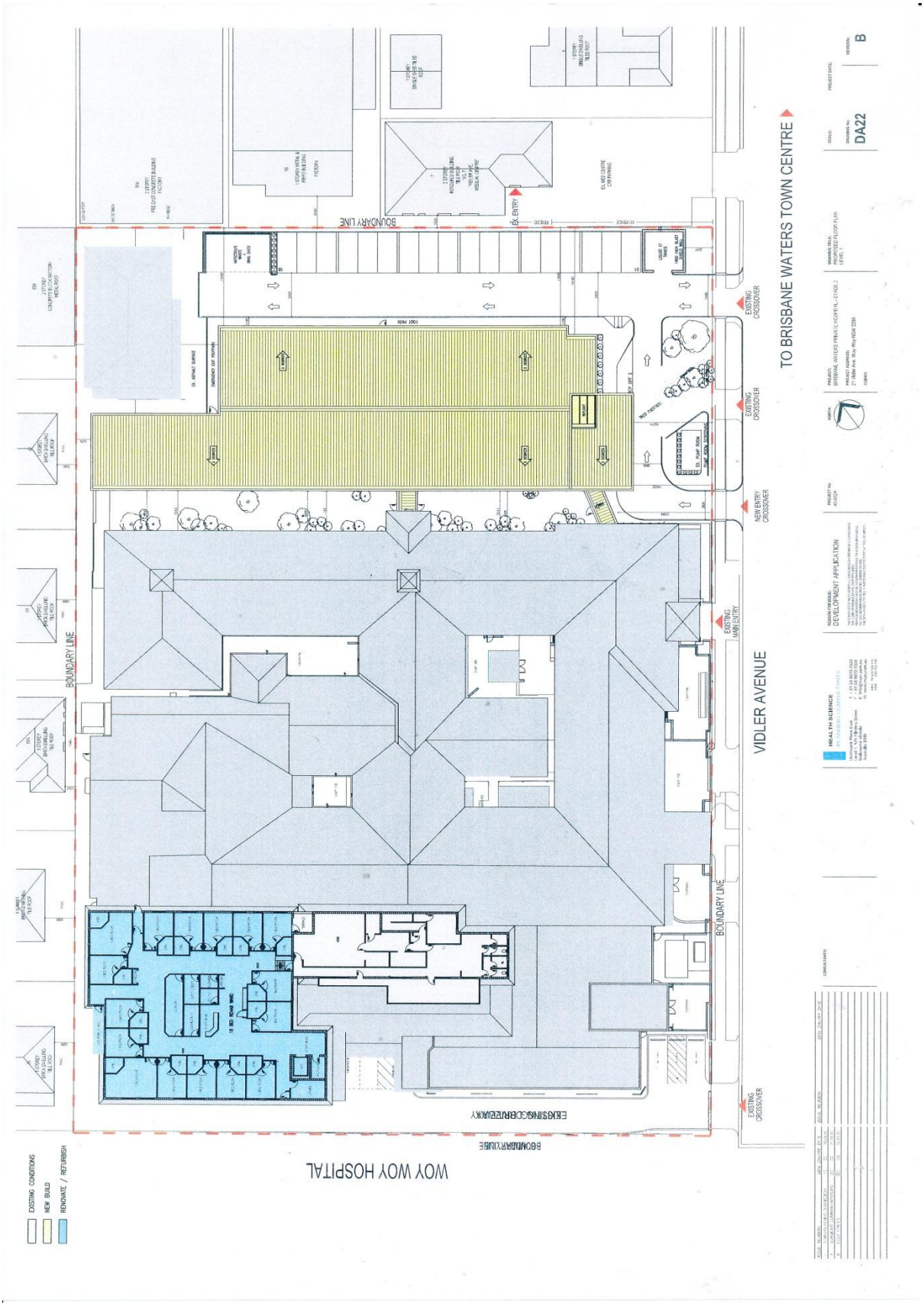

Figure 10: Proposed Level 1 Floor Plan.

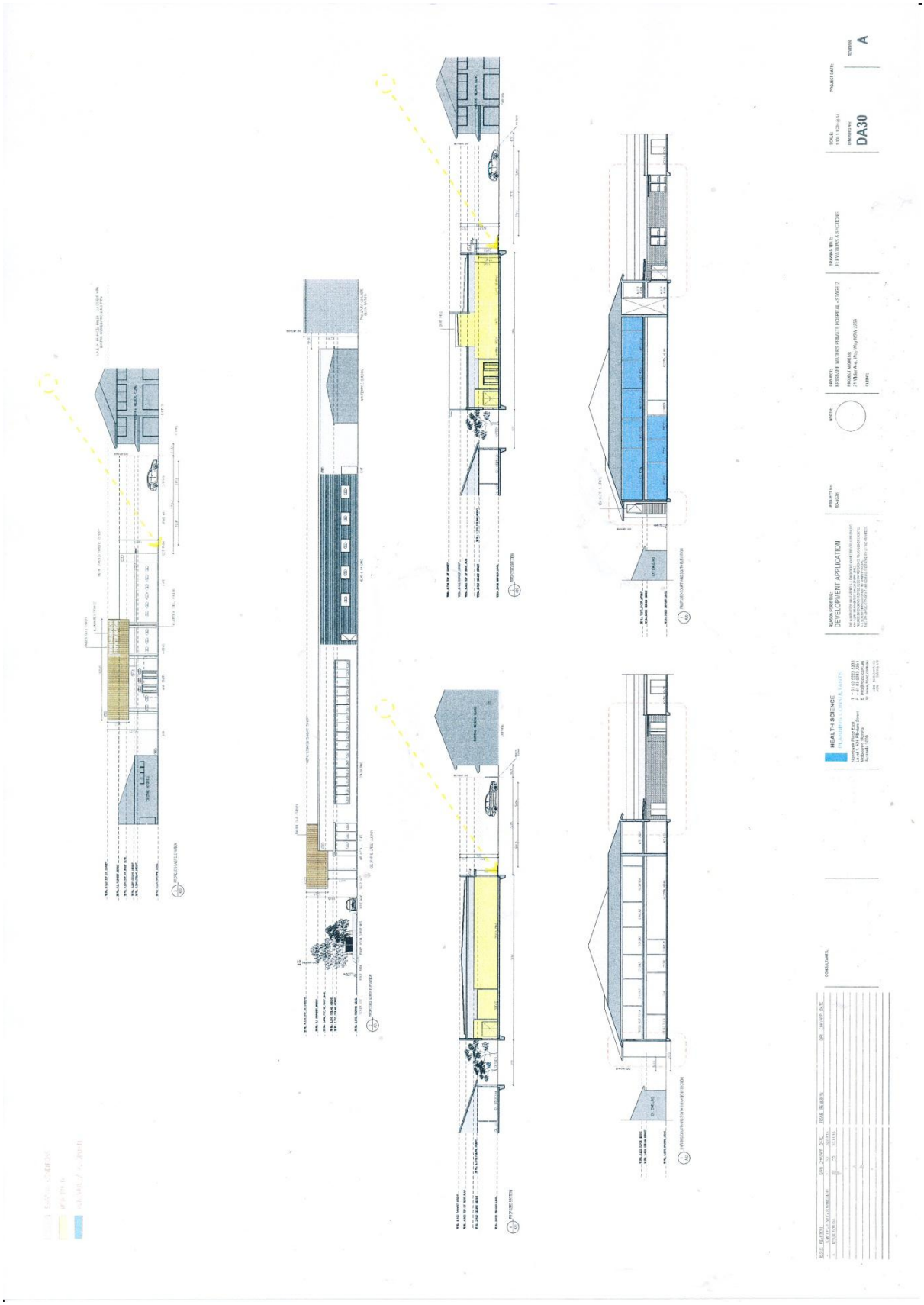

Figure 11: Elevations & Sections.

Figure 12: Shadow Diagrams.

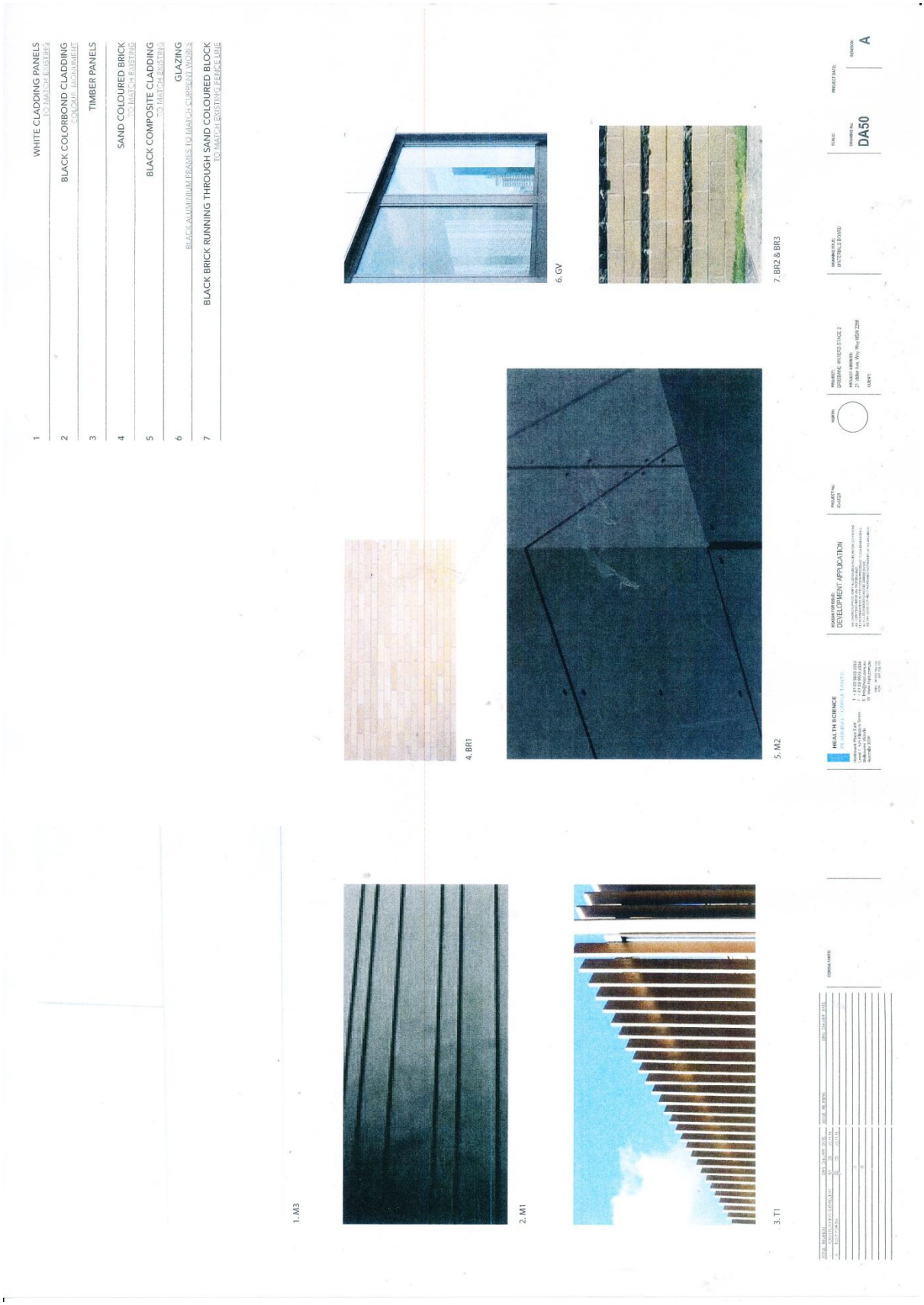

Figure 13: Materials Board.

Figure 14: Landscaping Cover Page.

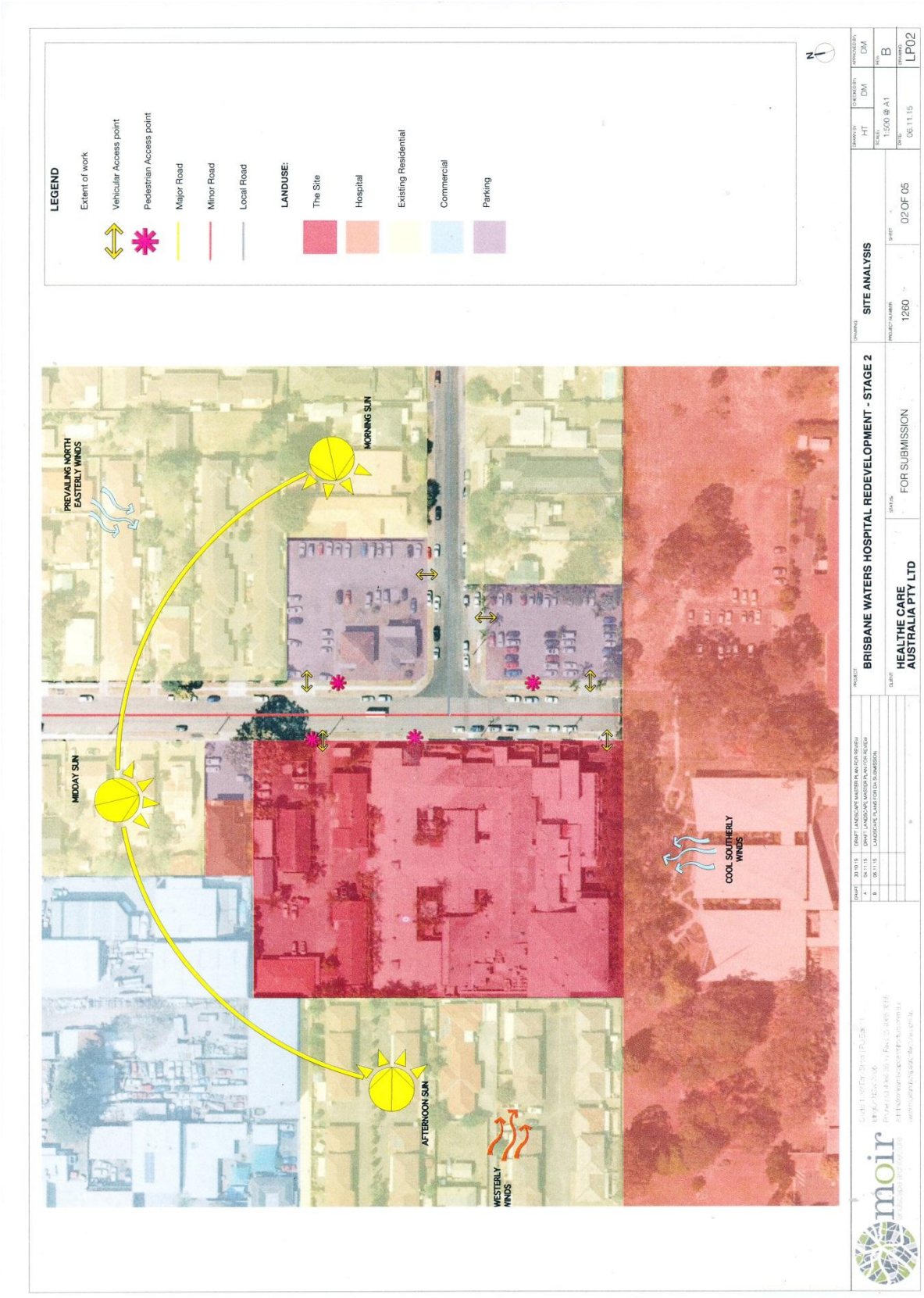

Figure 15: Landscaping Site Analysis.

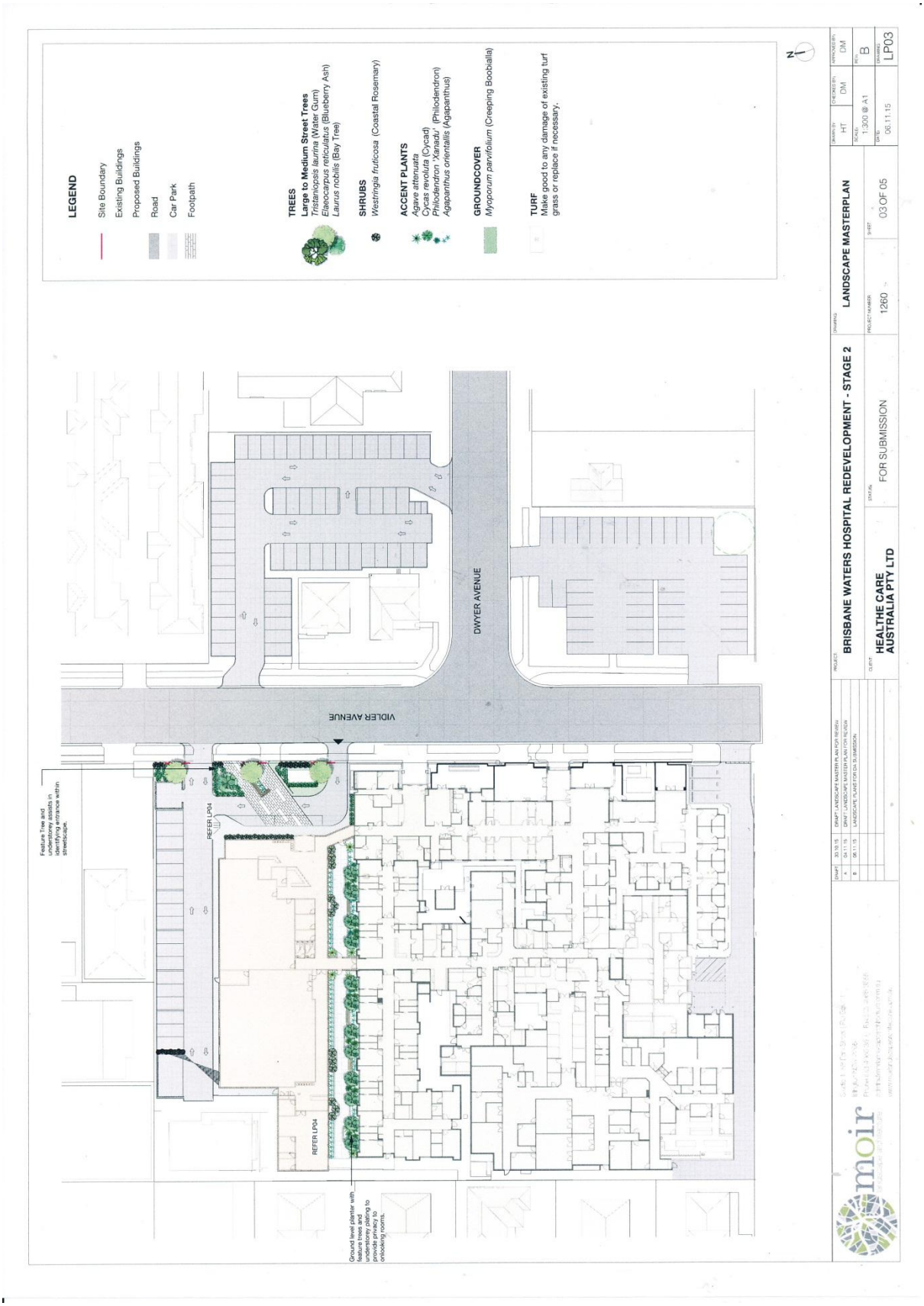

Figure 16: Landscape Masterplan.

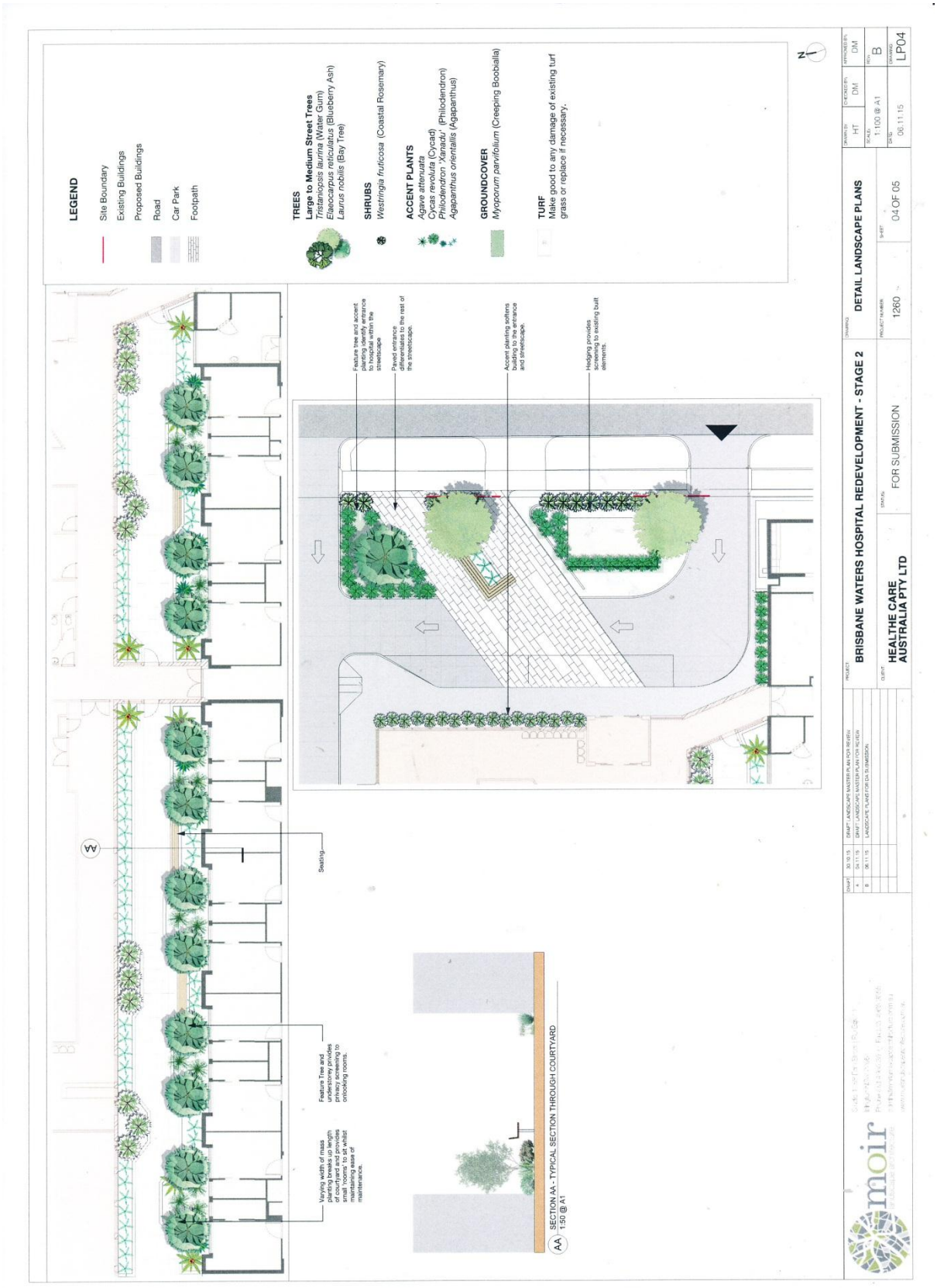

Figure 17: Detail Landscape Plans.

Figure 18: Planting Schedule.

3.8 Annual Fire Safety Statement.

A copy of the Annual Fire Safety Statement (dated 8th May 2015) for Brisbane Waters Private Hospital prepared by Spectrum Fire & Safety, is provided in Appendix E.

4. COMPLIANCE OF THE PROPOSAL WITH PLANNING CONTROLS.

4.1 STATE ENVIRONMENTAL PLANNING POLICIES.

4.1.1 State Environmental Planning Policy (Infrastructure) 2007.

State Environmental Planning Policy (Infrastructure) 2007 **(**SEPP 2007) provides that development for the purpose of health services (including hospitals) may be carried out with consent on land in a prescribed zone. The subject land is zoned *SP2 Infrastructure (Health Services Facility)* under Gosford Local Environmental Plan 2014. SEPP 2007 confirms the permissibility of the proposed development with approval of the consent authority.

(i) "Clause 101 – Development with frontage to classified road" seeks to ensure that new development does not compromise the effective and ongoing operation and function of classified roads.

As the subject land does not have frontage to a classified road, the requirements of Clause 101 do not apply.

(ii) Clause 104 - Referral to the RMS: Clause 104 of the Policy requires development specified in Schedule 3 to be referred to the RTA.

The proposed development is not of a size or capacity identified in Schedule 3 and consequently does not require referral to the RMS.

4.1.2 State Environmental Planning Policy (State and Regional Development) 2011 (SEPP 2011).

The proposed development ('health care facility') has a capital value of $6.165m and is identified under Schedule 4A of the EPA Act as 'Regional Development' for the purposes of the Policy. The Hunter and Central Coast Joint Regional Planning Panel is therefore authorised to exercise consent authority functions for the proposed development.

4.1.3 State Environmental Planning Policy No. 55 – Remediation of Land: Under the provisions of SEPP 55 a consent authority must not consent to the carrying out of development on land unless it has considered whether the land is contaminated.

The subject land has been used for hospital and car parking purposes for a considerable period of time and has not been used for a purpose referred to in Table 1 of the "Contaminated Land Planning Guidelines". It is evident therefore that the land has not been contaminated by previous land use.

4.1.4 State Environmental Planning Policy No. 64 – Advertising and Signage.

The proposed development includes the placement of a 1.5m high x 5m wide "Brisbane Waters Private Hospital" illuminated identification sign on the north-eastern elevation of the proposed hospital additions, facing Vidler Avenue, as shown in Figure 11.

The provisions of Part 2 of SEPP 64 (Clause 8) require that a consent authority must not grant consent to an application to display signage unless it is satisfied that:

- the signage is consistent with the objectives of this Policy as set out in clause 3 (1) (a), and

- the signage the subject of the application satisfies the assessment criteria specified in Schedule 1.

The following assessment is provided of the consistency of the proposed development with these provisions of the Policy.

(i) Objectives of the Policy

The following assessment is provided of the consistency of the proposed signage with the aims/objectives of the Policy:

- ***"(1) This Policy aims:***

  (a) to ensure that signage (including advertising):
  (i) is compatible with the desired amenity and visual character of an area,
  (i) is compatible with the desired amenity and visual character of an area, and
  (ii) provides effective communication in suitable locations; and
  (iii) is of high quality design and finish"

  Response: The proposed signage is consistent with these objectives. The proposed signage is to be located within an established health services precinct where the visual character of building facades prominently display building and business identification signage in order to provide effective patient identification for the location of medical services.

  "(b) to regulate signage (but not content) under Part 4 of the Act".

  Response: The proposed signage is permissible, with the consent of Gosford City Council. An assessment of the proposed signage against the assessment criteria specified in Schedule 1 of the Policy is provided in section (ii) below.

  "(c) to provide time-limited consents for the display of certain advertisements".

  Response: That part of the Policy which regulates the duration of consents for certain

signage to 15 years, does not apply to building/business identification signs of the type proposed by this application.

"(d) to regulate the display of advertisements in transport corridors".

Response: The subject land is not within a transport corridor, as defined by the Policy.

"(e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors".

Response: This Policy objective has no practical application to building or business identification signs.

Summary Assessment: The proposed building/business identification signage is consistent with the relevant objectives of SEPP 64.

(ii) Schedule 1 – Assessment Criteria.

The following assessment is provided of the consistency of the proposed signage with the assessment criteria provided in Schedule 1 of the Policy:

- **Character of the area:**

  "Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?"

  "Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?"

  Response: The proposed signage is compatible with the established health services precinct within the locality. There is no particular theme adopted for outdoor advertising in the area.

- **Special areas:**

  "Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?"

  Response: The proposed signage is located within an established health services precinct and does not detract from the amenity of any *"special area".*

- **Views and vistas.**

  "Does the proposal obscure or compromise important views?
  "Does the proposal dominate the skyline and reduce the quality of vistas?"

"Does the proposal respect the viewing rights of other advertisers?'

Response: The proposed signage does not obscure any important view; does not dominate the skyline; and does not adversely impact the viewing rights of any other advertiser.

- **Streetscape, setting or landscape.**

  "Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?"

  "Does the proposal contribute to the visual interest of the streetscape, setting or landscape?'

  "Does the proposal reduce clutter by rationalizing and simplifying existing advertising?"

  "Does the proposal screen unsightliness?"

  "Does the proposal protrude above buildings, structures or tree canopies in the area or locality?"

  "Does the proposal require ongoing vegetation management?"

  Response: The proposed signage is integrated into the design of the proposed development and the proportions of the proposed signage are appropriate to the built form of the proposed development.

  The proposed signage does not require any ongoing vegetation management.

- **Site and building.**

  "Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?"

  "Does the proposal respect important features of the site or building, or both?"

  "Does the proposal show innovation and imagination in its relationship to the site or building, or both?"

  Response: The proposed signage is compatible with the scale and proportions of the approved development.

- **Associates devices and logos with advertisements and advertising structures.**

  "Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?"

Response: The proposed signage does not require the provision of any associated safety devices, platforms or lighting devices.

- **Illumination.**

  "Would illumination result in unacceptable glare?"

  "Would illumination affect safety for pedestrians, vehicles or aircraft?"

  "Would illumination detract from the amenity of any residence or other form of accommodation?"

  "Can the intensity of the illumination be adjusted, if necessary?"

  "Is the illumination subject to a curfew?"

  Response: The proposed illuminated sign will not result in unacceptable glare; will not affect safety for pedestrians, vehicles or aircraft; will not detract from any residential amenity due to its location within the site; and the proposed illumination is not required to be subject to any curfew.

- **Safety.**

  "Would the proposal reduce the safety of any public road?"

  "Would the proposal reduce the safety for pedestrians or bicyclists?"
  "Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?"

  Response: The location of the proposed signage does not obscure sightlines from public areas and does not reduce the safety of any public road; or reduce the safety for pedestrians, bicyclists, or children.

Summary Assessment: The proposed signage is consistent with the applicable provisions of State Environmental Planning Policy No. 64 – Advertising and Signage.

4.1.5 State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71).

SEPP 71 applies to the subject land and the proposed development and requires the council to have regard to the matters set out in Clause 8 of the Policy when it determines a development application.

An assessment of the consistency of the proposed development with the aims of the Policy and the matters for consideration set out in Clause 8 of the Policy is provided in Appendix F. This assessment demonstrates that the proposed development is consistent with the relevant aims and provisions of the Policy.

4.1.6 Other State Environmental Planning Policies: No other State Environmental Planning Policies apply to the subject land or the proposed development:

- there are no State Environmental Planning Policy No. 14 – Coastal Wetlands on the land;

- there are no State Environmental Planning Policy No. 26 –Littoral Rainforests on the subject land; and

- there is no State Environmental Planning Policy No. 44 – Koala Habitat on the subject land.

4.2 CENTRAL COAST REGIONAL STRATEGY 2006 - 2031.

The proposed hospital alterations and additions are consistent with Strategy objectives to provide health services infrastructure for Central Coast residents.

4.3 GOSFORD LOCAL ENVIRONMENTAL PLAN 2014.

4.3.1 Zoning: Under Gosford Local Environmental Plan 2014 (LEP 2014), the subject land is zoned *SP2 Health Services Facility.* A copy of the zoning map is provided at Figure 3.

For the purposes of LEP 2014 the proposed development is defined as a *'health services facility'*, development which is permissible with the consent of council within the *SP2 Health Services Facility* zone applying to the subject land.

4.3.2 Zone Objectives.

Clause 2.3 (2) of LEP 2014 provides that the consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.

The following assessment demonstrates that the proposed development is consistent with the objectives of the *SP2 Health Services Facility* zone applying to the subject land and the proposed development:

- ***To provide for infrastructure and related uses.***

  Assessment: The proposed alterations and additions to Brisbane Waters Private Hospital provide for the health service needs of the community.

- ***To prevent development that is not compatible with or that may detract from the provision of infrastructure.***

  Assessment: The proposed development is compatible with the provision of health services infrastructure on the subject land.

- ***To ensure that development is compatible with the desired future character of the zone.***

  Assessment: As demonstrated in section 4.4.1 of this Statement of Environmental Effects, the proposed development is compatible with the desired future character of the zone.

4.3.3 Development Standards.

(a) Maximum Permissible Building Height: Clause 4.3 (2) of LEP 2014 provides that development on the subject land shall not exceed a maximum building height of 11.5m.

The proposed development complies with the maximum permissible building height, having a maximum building height of 7.25mm as indicated on the elevations and section drawings provided in Figure 11.

(b) Maximum Permissible Floor Space Ratio: Clause 4.4 (2) of LEP 2014 provides that development on the subject land shall not exceed a maximum floor space ration of 2:1. The proposed development complies.

The existing hospital (GFA – 5615m2) constructed on Lot 1 DP 787109 (1.2 hectares) has a floor space ratio of 0.55:1. Following the proposed development (+ 1,315m2 floor space) the hospital will have a total GFA of 6,930m2 and a FSR of 0.679:1.

The existing and proposed development complies with the 2:1 maximum permissible FSR development standard.

4.4 GOSFORD DEVELOPMENT CONTROL PLAN 2013.

4.4.1 Chapter 2.1 - Character.

Gosford Development Control Plan 2013 Chapter 2.1 - Character, requires development applications to demonstrate consistency or compatibility with development objectives contained within the relevant "Statements of Desired Character" provided in Part 2.

The subject land is located within Character Place *"Woy Woy 9 Sandplain Mixed density"*. The accompanying Statement of Desired Character is primarily applicable to new residential development in the subject locality and has no practical application to hospital development on the subject land.

Notwithstanding, the proposed hospital building additions are of single storey construction; and do not result in any significant change to the existing streetscape or the built character of the locality generally.

4.4.2. Chapter 6.3 - Erosion and Sedimentation Control.

Gosford Development Control Plan 2013 - Chapter 6.3 applies to any activity that involves, or could involve:

- disturbance of, or placing fill on, the soil surface, and/or changes to the contours of the land; or
- changing the rate and/or volume of runoff flowing over land or directly/indirectly entering receiving waters.

The proposed development involves ground disturbance within the footprint of the proposed additions.

As required by Chapter 6.3, a Concept Sediment and Erosion Control Plan, prepared by Northrop, has been prepared for the proposed development, a copy if which is provided in Appendix B.

4.4.3 Chapter 6.7 - Water Cycle Management.

The purpose of DCP 2013 - Chapter 6.7 is to minimise the impact of development on the natural predevelopment water cycle. This will lead to more sustainable outcomes that will protect the environment.

A Concept Stormwater Management Report addressing the requirements of DCP – Chapter 6.7, prepared by Northrop, is provided in Appendix B. In summary, the principal findings of this report are:

- the footprint of the proposed new building is approximately 1,300m2;

- the proposed onsite stormwater management system has been designed to replicate the processes which would occur naturally on-site;

- water conservation measures are proposed to provide adequate reduction in potable demand to meet the intent of the water conservation target (i.e. 40%);

- the water retention target calculation for the proposed development is 18.7m3. For this development it is proposed to incorporate a below ground rainwater tank within the carparking area to manage the runoff from the roof area of the proposed additions. Overflow from the rainwater tank will be directed to a proposed on-site detention tank;

- proposed treatment devices nominated in the report and shown on the accompanying drawings will adequately treat runoff for pollutants prior to being reused, or discharged to the council stormwater system;

- a proposed OSD tank with 20kL capacity will achieve the design intent to limit post development flows to that of the pre-development state;

- the site is not impacted by overland flow derived off site. An overland flow path will be provided within the new car park to direct surface runoff in large storm events to the eastern frontage of the site and to the Vidler Avenue roadway; and

- the site is not identified by council's online mapping as being impacted by catchment flooding.

In conclusion, the report indicates that based on the concept designs, the proposed development can adequately manage and address all issues relating to stormwater runoff.

4.4.4 Chapter 7.1 – Car Parking.

(i) Vehicular Access: As indicated on the Proposed Ground Floor Plan (Figure 9) one new driveway entry crossover is proposed to provide vehicular access to the proposed new set down area. All existing crossovers and main hospital pedestrian entry are retained.

(ii) Traffic Generation/road capacity: The accompanying Transport Impact Assessment prepared by GTA Consultants (Appendix G) indicates that the proposed hospital expansion is likely to generate 21 additional vehicle trips per hour during the hospital's operational peak period between 10.00am to 12.00pm and 2.00pm to 4.00pm. Taking into consideration the existing performance of the surrounding road network, the additional traffic generated by the proposed Stage 2 hospital development is not expected to adversely impact the function and operation of the local road network and intersections, or parking areas in the immediate vicinity.

A summary of the principal conclusions of the Traffic Impact Assessment are provided in section 5.1.5 of this Statement.

(iii) Car Parking: DCP 2013 provides that hospitals shall provide car parking at the rate of 1 space/2 beds and 1 space per 2 employees.

The proposed development will result in an increase in bed numbers to 115 (+ 26) and an anticipated increase in staff present at any one time during peak shifts to 58 (+3), two of which would be required if an MRI is installed and one additional kiosk café staff member if required by the new café operator (note: there are 2 café staff at present).

In order to comply with the car parking rate required by DCP 2013 – Chapter 7.1, the existing hospital and proposed additions would need to provide the following number of car spaces:

- total beds (115) = 57.5 car spaces; and
- maximum staff present at any one time (58) = 29 car spaces.
- total car spaces required: 86.5 spaces = 87 spaces;

The available number of on-site car spaces (120 spaces) will exceed the minimum requirement of DCP 2013 for 87 spaces.

The accompanying Transport Impact Assessment prepared by GTA Consultants (Appendix G) indicates that application of the RMS Guide to the existing and proposed Stage 2 hospital

development generates a demand for 96 car spaces. The provided 120 on-site car spaces are able to adequately accommodate the projected RMS Guide parking demand.

4.4.5 Chapter 7.2 – Waste Management.

A Demolition/construction Waste Management Plan for the proposed development is provided in Appendix C.

An Operational Waste Management Plan for Brisbane Waters Private Hospital is provided in Appendix D.

5. MATTERS FOR CONSIDERATION UNDER SECTION 79C OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979.

The proposed development has the potential to impact the environment in a number of ways. These impacts may be either short term, limited to the period of demolition/construction, or longer term associated with the completion and occupation of the proposed buildings.

This section of the Statement of Environmental Effects assesses the potential development impacts in accordance with the provisions of Section 79C (1) (b – e) of the Environmental Planning and Assessment Act, 1979.

5.1 Section 79C (1) (b): The Likely Impacts of the Development, Including Environmental Impacts on both the Natural and Built Environments, and Social and Economic Impacts in the Locality.

5.1.1 Topography.

The subject land presents no geological or topographical constraints to the proposed development.

5.1.2 Flora and Fauna.

There is no remnant native vegetation located on the subject land and the proposed development therefore has no adverse impact on native flora, fauna, wildlife corridors or critical habitat.

5.1.3 Soil Disturbance and Sediment Control.

The proposed development involves ground disturbance within the footprint of the proposed hospital additions.

Erosion and sedimentation mitigation measures are incorporated into the Erosion and Sediment Control Plan prepared by Northrop and provided in Appendix B.

5.1.4 Drainage and Stormwater Management.

A Concept Stormwater Management Report prepared by Northrop, is provided in Appendix B. In summary, the principal findings of this report are:

- the footprint of the proposed new building is approximately 1,300m2;
- the proposed onsite stormwater management system has been designed to replicate the processes which would occur naturally on-site;
- water conservation measures are proposed to provide adequate reduction in potable demand to meet the intent of the water conservation target (i.e. 40%);
- the water retention target calculation for the proposed development is 18.7m3. For this development it is proposed to incorporate a below ground rainwater tank within the carparking area to manage the runoff from the roof area of the proposed additions. Overflow from the rainwater tank will be directed to a proposed on-site detention tank;
- proposed treatment devices nominated in the report and shown on the accompanying drawings will adequately treat runoff for pollutants prior to being reused, or discharged to the council stormwater system;
- a proposed OSD tank with 20kL capacity will achieve the design intent to limit post development flows to that of the pre-development state;
- the site is not impacted by overland flow derived off site. An overland flow path will be provided within the new car park to direct surface runoff in large storm events to the eastern frontage of the site and to the Vidler Avenue roadway; and
- the site is not identified by council's online mapping as being impacted by catchment flooding.

In conclusion, the report indicates that based on the concept designs, the proposed development can adequately manage and address all issues relating to stormwater runoff.

5.1.5 Access, Traffic Generation and Car Parking.

A Transport Impact Assessment to evaluate the potential traffic impacts of the proposed development has been prepared by GTA Consultants, a copy of which is provided in Appendix G of this Statement.

The principle findings of this Assessment are:

- the Hospital currently accommodates 55 general hospital beds and 34 mental health beds and provides Geriatric Health services backed by the support of an Allied Health Team comprising Dieticians, Occupational Therapists and Physiotherapists. It is the only Private Mental Health facility on the Central Coast;

- the Hospital currently employs a total of 190 staff with a maximum of 55 being on duty at any one time during the busiest day shift;

- there are 4 on-site car parks accessed via 7 driveways located on Vidler Avenue and Dwyer Avenue, accommodating a total of 120 cars;

- emergency and service vehicles are provided access via a single driveway crossover at the southern end of Vidler Avenue in the south-east corner of the hospital;

- Ocean Beach Road is the key north-south sub-arterial road in the general locality. Vidler Avenue and Dwyer Avenue provide local road access to the hospital and allow for two way traffic and kerbside parking within a 50kp/h speed environment;

- Traffic volumes – the site currently generates approximately 120 vehicle movements (two way) during the 10.00am to 11.00am weekday peak hour;

- there is a mix of existing kerbside (70) and on-site car parking (120) spaces available for hospital staff and patients/visitors. Typical weekday mid-morning parking demand is for up to 80 vehicles, or 66% of the total on-site car parking supply;

- whilst it is difficult to confirm the proportion of on-street demand that is associated with the hospital, the sample surveys confirmed that the total demand for on-street parking is 35 spaces, approximately 50% of the 70 spaces available;

- overall, demand for parking both on-site and within the surrounding streets is moderate, with a combined demand of approximately 60% during the peak mid-morning weekday period;

- Busways operates two bus routes with relatively high frequency along Ocean Beach Road in close proximity to the hospital;

- Application of the RMS Guide to the existing and proposed Stage 2 hospital development generates a demand for 96 car spaces. The provided 120 on-site car spaces are able to adequately accommodate the projected RMS Guide parking demand;

- The proposed reconfigured car parks have been designed in accordance with the requirements of AS 2890.1:2004 and AS 2890.6:2009 with respect to car space dimensions and adjacent aisle widths; and

- The RMS traffic generation rates indicate that the proposed hospital expansion is likely to generate 21 additional vehicle trips per hour during the hospital's operational peak period between 10.00am to 12.00pm and 2.00pm to 4.00pm. Taking into consideration the existing performance of the surrounding road network, the additional traffic generated by the proposed Stage 2 hospital development is not expected to adversely impact the function and operation of the local road network and intersections, or parking areas in the immediate vicinity.

5.1.6 Utility Services.

All urban utility services (including reticulated water and sewer services) are currently provided to the subject land and have the capacity to service the proposed development.

5.1.7 Waste Management.

Demolition/construction works and the occupation of the proposed hospital. additions will generate waste products.

A Demolition/construction Waste Management Plan for the proposed development is provided in Appendix C.

An Operational Waste Management Plan for Brisbane Waters Private Hospital is provided in Appendix D.

5.1.8 Scenic Quality/Streetscape/Visual Impact.

The proposed hospital building additions are of single storey construction and are integrated with the architectural design of the main existing hospital building. The proposed development will result in the demolition of existing disparate single storey buildings located adjacent to the northern hospital boundary and their replacement with an architecturally designed hospital addition and site landscaping which will enhance the visual appearance of the streetscape elevation of the hospital.

5.1.9 Potential Impact on Neighbouring Properties.

The proposed development does not result in any amenity impacts on neighbouring properties, which are predominantly blank wall industrial premises and a neighbouring medical centre located at No. 7 Vidler Avenue. A single storey dwelling is located adjacent to part of the western elevation of the proposed hospital addition.
Shadow Diagrams provided in Figure 2 show that the proposed hospital additions do not result in any overshadowing of the neighbouring dwelling.

5.1.10 Cultural Heritage.

The subject land has been extensively modified by the existing hospital development and consequently, it is highly unlikely that there are any items of Aboriginal Cultural Heritage on the land. The subject land and its improvements have no European heritage significance.

5.1.11 Social and Economic Effects.

The proposed development will make a significant contribution to improving the city's health care infrastructure, meeting the community's health care requirements. The site is well located in terms of accessibility by private and public transport and all utility services are available to the proposed development without the need for the upgrading of any public infrastructure by a public authority.

The proposed development will also provide economic/employment benefits for the region in terms of both initial construction multipliers and future economic activity associated with the operation of the hospital.

5.2 Section 79C (1)(c): The suitability of the site for the proposed development.

The Local Government (Ecologically Sustainable Development) Act 1997 (NSW) requires the Council to give consideration to the overarching principles of Ecologically Sustainable Development, namely the adoption of the precautionary principle, intergenerational equity, the conservation of biological diversity and ecological integrity, and improved valuation, pricing and incentive mechanisms. The proposed development does not raise any matters contrary to the principles of Ecologically Sustainable Development.

In terms of the Environmental Protection and Diversity Conservation Act (1999) the proposed development will not have any impact on any matter of national environmental significance.

5.3 Section 79C (1) (d): Any Submissions Made in Accordance With the Act or the Regulations.

No public submissions have been made in relation to this development proposal, which has not been advertised for public comment.

5.4 Section 79C (1) (e): The Public Interest.

Approval of the proposed alterations and additions to Brisbane Waters Private Hospital is in the public interest as they are essential to providing city residents with improved health/medical care infrastructure and services.

6. CONCLUSION.

This Statement of Environmental Effects demonstrates that the proposed alterations and additions to Brisbane Waters Private Hospital (Stage 2), located on Lot 1 DP 787109, No. 9 Vidler Avenue, Woy Woy, is of minimal environmental impact and that the subject land is suitable for the proposed development.

Gosford City Council is requested to grant consent to the proposed development pursuant to the provisions of Gosford Local Environmental Plan 2014 and the provisions of the Environmental Planning and Assessment Act 1979.

Doug Sneddon
8th November 2015.

APPENDIX A: SITE PHOTOGRAPHS.


Site of proposed
Hospital additions
Vidler Avenue
PHOTOGRAPH 1: HOSPITAL FRONTAGE TO VIDLER AVENUE.

PHOTOGRAPH 2: SITE OF PROPOSED ADDITIONS - EXISTING CONSULTANT SUITES VIEWED FROM VIDLER AVENUE.

PHOTOGRAPH 3: SITE OF PROPOSED ADDITIONS - EXISTING HOSPITAL BUILDINGS CAR PARKING VIEWED FROM VIDLER AVENUE.

PHOTOGRAPH 4: REAR OF SITE OF PROPOSED ADDITIONS VIEWED TOWARDS VIDLER AVENUE.

PHOTOGRAPH 5: REAR OF SITE OF PROPOSED ADDITIONS VIEWED TOWARDS NORTHERN PROPERTY BOUNDARY.

PHOTOGRAPH 6: NEIGHBOURING DWELLING LOCATED ADJACENT TO WESTERN PROPERTY BOUNDARY & PROPOSED HOSPITAL ADDITIONS.

APPENDIX B: CONCEPT STORMWATER MANAGEMENT REPORT.
(Northrop – 5th November 2015).

NORTHROP

Suite 4, 257-259 Central Coast Highway
Erina NSW 2250
T (02) 4365 1668 F (02) 4367 6555
E centralcoast@northrop.com.au ABN 81 094 433 100

CONCEPT STORMWATER MANAGEMENT REPORT

for

Proposed Hospital Redevelopment – Stage 2

at

Brisbane Water Private Hospital – Vidler Avenue, Woy Woy

Job No: NL151932
Revision: A
Date: 05.11.2015

	BY	DATE
Prepared	DH	5.11.2015
Checked	BC	5.11.2015
Admin	AC	5.11.2015

1. INTRODUCTION

Northrop Consulting Engineers Pty Ltd has been engaged to undertake conceptual stormwater management design for the proposed redevelopment at Brisbane Water Private Hospital, Vidler Avenue, Woy Woy

The purpose of this report is to summarise the proposed design solutions for the stormwater management for a Development Application submission to Council. The proposed design has been considered in light of Gosford City Council's DCP 2013, in particular Chapter 6.7 – Water Cycle Management, Water Cycle Management Guidelines as well as industry best practice. We note the information contained in this report is not intended to present detailed design solutions but rather provide solutions commensurate with a conceptual design suitable for Development Application assessment.

2. SITE DESCRIPTION

The subject site is bound by residential and light industrial lots to the north and west, Vidler Avenue to the east and an adjoining hospital complex to the south. Figure 1 below shows an aerial image of the site reflecting its current state.

Figure 1: Aerial Image *(GCC 2015)*

The site comprises several single storey brick and metal clad buildings surrounded by car parking areas, lawns and garden plots. The site has a slight fall in surface levels generally falling from the western boundary to the eastern street frontage. Surface levels on site range from RL5.6 to RL4.6 AHD.

Based on previous geotechnical investigations performed for the site, the geotechnical substrate is likely to comprise of sandy clay material over a deep sand layer.

3. PROPOSED DEVELOPMENT

The proposed redevelopment comprises a new building located on the northern side of the site and connected to the existing main private hospital building. The footprint of the new building is approximately 1300m^2. The development generally consists of:

- On grade carparking and associated access driveways;
- New single storey hospital building with concrete slab on ground and metal roof;
- Landscape courtyards ;

The layout of the proposed development has been illustrated in the Concept Stormwater Management Plans contained in Appendix A of this report.

4. PROPOSED STORMWATER MANAGEMENT STRATEGY

4.1 GENERAL STRATEGY

The onsite stormwater management system has been designed to replicate the processes which would occur naturally on site. In its current state, the site coverage is a mix of concrete and sheet metal roofs, concrete and bitumen hardstand and landscape areas. The proposed development will incorporate a number of devices and measures aimed at providing adequate and responsible management of stormwater runoff and flooding.

In line with Chapter 6.7 of GCC DCP 2013 the conceptual stormwater management strategy has considered the following items which will be discussed in the following sections of this report:

- Water conservation;
- Retention;
- Stormwater Quality;
- Onsite Detention;
- Local Overland Drainage;
- Flooding.

4.2 WATER CONSERVATION

The water conservation objective for the proposed development is to reduce potable water demand by 40%. It is proposed that the redevelopment will incorporate the following water saving measures:

- Using AAA+ efficient taps, hoses and fittings and undertaking regular maintenance of these fixtures;
- The use of 4.5/3 duel flush toilet cisterns;
- Providing water efficient washing machines and dishwashers; and
- Landscaping with plant species that require minimal watering and irrigation with appropriate systems to minimise water loss and evaporation. This includes native plant species, using mulch around garden beds, avoiding watering when it's windy, watering during the coolest parts of the day and using drip irrigation;
- Harvested rainwater from the roof of the new building is proposed to be collected and reused for irrigation of landscaping areas and wash down.

It is our opinion that the measures outlined above will provide adequate reduction in potable demand to meet the intent of the water conservation target.

4.3 RETENTION

The intent of water retention targets is to mimic the natural catchment hydrology from all development sites, in terms of:

- Quantity - the annual volume of stormwater reaching natural creeks and waterways;
- Rate - the peak flow rates leaving the site; and
- Response - the time it takes for rain to runoff the site.

To satisfy the intent of the retention targets it is proposed to incorporate stormwater source controls to the impervious catchments for the site. In order for stormwater source controls to be effective, they need to have sufficient capacity to meet the above targets. Sizing of controls is described in The Water Smart Planning Provisions for the Hunter, Central, & Lower North Coast Regions document (HCCREMS, 2007). Sizing is based on the concept of mitigation of increased stormwater runoff arising from impervious surfaces, for rainfall events with an average recurrence interval of 3 months.

The depth of stormwater runoff that must be captured by the stormwater source controls in order to achieve frequent discharge mitigation is termed the mitigation depth. The mitigation depth for the Gosford area is not yet available in the Water Smart Planning Provisions however mitigation depths for various soil types are documented for Maryville (Newcastle) and are shown below in Table 1.

Soil Texture	Mitigation Depth (mm)
Sand	14
Sandy loam	14
Clay loam	10
Clay	7

Table 1: Mitigation Depth (Maryville, Newcastle)

Given the rainfall and soil characteristics of the area are similar to that in the Newcastle City and Lake Macquarie regions of which use similar mitigation depths to shown in Table 1, it is considered that a mitigation depth of 14mm for a sand soil profile be approporiate for the site.

The volume of stormwater runoff that must be captured by a source control to achieve frequent discharge mitigation relative to the impervious surfaces that drain to the control is referred to as the mitigation storage and is calculated as shown below:

MS = (MIC x MD) / 1000

where: MS = mitigation storage (m^3)

MIC = managed impervious catchment (m^2)

MD = mitigation depth (mm)

Using this method, the following mitigation storage for the impervious areas of the proposed development is calculated as shown below:

Mitigation depth = 14mm (sand soil type)

Roof area = $1334m^2$

Mitigation Storage = (1334 x 14) / 1000

= $18.7m^3$

Using this method, the total mitigation storage, or retention storage, is 18.7m^3. For this development it is proposed to incorporate a below ground rainwater tank within the carparking area to manage the runoff from the roof area. Overflow from the rainwater tank will be directed to the proposed on-site detention tank which is discussed in later sections of this report.

4.4 STORMWATER QUALITY

In general, treatment devices on site have been incorporated within the stormwater system such that they treat stormwater runoff prior to reuse or discharge off site. Individual stormwater quality devices and mechanisms incorporated within the development will treat runoff for different pollutant types and sizes. The treatment devices designed within the development is outlined below:

- Runoff from roofs (containing small amounts of phosphorus and dust particles) will be treated by proprietary first flush devices. By capturing the first portion of runoff from roofs the first flush devices will effectively remove dead insects, bird & animal droppings and concentrated tannic acids from the stormwater system. Runoff captured by first flush devices will, in accordance with common practice, be emptied from the device straight onto the site at a rate of approximately 1l/hr. The solid material captured in the first flush holding device accumulates over time and is periodically removed offsite thereby reducing potential pollution export to the downstream receiving system.

- It is proposed that leaves & gross pollutants will be filtered from runoff by meshed filters fitted to downpipe orifices.

- Runoff collected from roofs will be directed to the reuse tank. The tank will allow for settling of fine sediments and nutrients which will collect in the tank sump and be periodically removed from site.

- The retention of rainwater itself provides a reduction in pollutant export from the site. By reducing the volume of stormwater discharging from the site there is an associated reduction in pollutant export.

- Surface runoff from the pavement areas will be directed to new surface inlet pits. Inlet pits in these areas will be fitted with EnviroPod filter inserts that will polish hydrocarbons at the source and prevent ingress of gross pollutants into the stormwater system

It is our opinion that the treatment devices outlined above and shown in the drawings will adequately treat runoff for pollutants prior to it being reused or discharged into the council stormwater system.

4.5 ONSITE DETENTION

In accordance with Gosford City Council Chapter 6.7, on-site detention will be required to be investigated to limit post development flows from the proposed development site to less than or equal to pre-development flows for all storm events up to and including the 100 year ARI storm event. Runoff from the proposed development was modelled using the runoff routing software DRAINS incorporating an on-site detention facility. This was compared to the pre-developed site in its natural state.

A new detention tank was modelled to detain runoff from the proposed development to a level expected from the site prioir to any development. .

The total site area is 3,032m^2. The pre-developed site was modelled as being 100% pervious, as it would be in its natural state. The post developed site was broken into two catchments. The catchment that was detained by the OSD Tank had an area of 2,852m^2 and was modelled as being 90% impervious. The 180m^2 area that bypasses the OSD Tank and was not detained was modelled as being 100% impervious.

The ILSAX hydrological model in DRAINS was used to generate runoff hydrographs for the pre-developed and post-developed site. Data from the Bureau of Meteorology (BOM) was used to generate design storms. Runoff parameters were selected to replicate the site conditions that will be present in the post-developed case and that which currently occur in the pre-developed case. A summary of parameters used for the model are shown below:

Impervious depression storage	= 1 mm
Pervious depression storage	= 5 mm
Time of concentration	= 5 minutes
Soil type	= 3
Antecedent moisture condition	= 3

Storm durations ranging from 5 minutes to 270 minutes were investigated for each of the design storm events that were analysed. The pre-development case was modelling based on the existing site characteristics with the existing detention basin. The post-development case was modelled incorporating a 20kL detention tank with orifice plate discharge. The stage discharge characteristics of the tank were modelled with a depth of 0.9m and orifice plate opening of 150mm diameter. A comparison between the pre-development and post-development flows from the site for the critical storm duration for each of the design storm events, up to and including the 100 year ARI is presented below in Table 2.

ARI	Pre-Developed Peak Flow (m^3/s)	Post-Developed Peak Flow (m^3/s)
100	0.179	0.173
50	0.160	0.140
20	0.145	0.132
10	0.123	0.117
5	0.107	0.105

Table 2: DRAINS output comparing pre-development and post-development flows

As can been seen from Table 2 above, the peak post-development flows for storm events up to the 100 year ARI have been detained to less than that for the pre-development site. Confirming the OSD facility as modelled with 20kL capacity will achieve the design intent to limit post-development flows to that of the pre-development state.

4.6 LOCAL OVERLAND DRAINAGE

The site is not impacted by overland flow derived off site. An overland flow path will be provided within the new carpark to direct surface runoff in large storm events to the eastern frontage of the site and to the Vidler Avenue roadway.

There is a small courtyard strip proposed between the existing and new buildings. To achieve functional and complying grades for disabled access, it is not possible to achieve a dedicated overland flow path. In this area the pipe system will be sized to convey the runoff for a 100 year ARI storm event with 50% pit blockage.

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4.7 FLOODING

According to Gosford City Councils online flood mapping, the site is not identified as being impacted by catchment flooding. A screen shot from the mapping is shown below in Figure 3.

Figure 2: Aerial Flood Image *(GCC 2015)*

Based on this information provided by Council's online flood mapping, additional investigations into flooding have not been considered.

5. CONCLUSION

The proposed stormwater management design presented above has been prepared to comply with Gosford City Council's DCP as well as industry best practice. The design philosophy is based on the principle of at source treatment, to reduce conveyance infrastructure and manage water quantity and quality aspects.

At a concept level the system has been designed to cater for frequent and infrequent storm events.

Based on the above, our investigation and concept designs indicate the proposed development can adequately managed and address all items surrounding stormwater runoff. Should you have any queries, please feel free to contact the undersigned on (02) 4365 1668.

D. Holland

Daniel Holland
Civil Engineer

Limitation Statement

Northrop Consulting Engineers Pty Ltd (Northrop) has been retained to prepare this report based on specific instructions, scope of work and purpose pursuant to a contract with its client. It has been prepared in accordance with the usual care and thoroughness of the consulting profession for the use by Healthe Care. The report is based on generally accepted practices and standards applicable to the scope of work at the time it was prepared. No other warranty, express or implied, is made as to the professional advice included in this report.

Except where expressly permitted in writing or required by law, no third party may use or rely on this report unless otherwise agreed in writing by Northrop.

Where this report indicates that information has been provided to Northrop by third parties, Northrop has made no independent verification of this information except as expressly stated in the report. Northrop is not liable for any inaccuracies in or omissions to that information.

The report was prepared on the dates shown and is based on the conditions and information received at the time of preparation.

This report should be read in full, with reference made to all sources. No responsibility is accepted for use of any part of this report in any other context or for any other purpose. Northrop does not purport to give legal advice or financial advice. Appropriate specialist advice should be obtained where required.

To the extent permitted by law, Northrop expressly excludes any liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this report.

References:

Gosford City Council, Gosford Development Control Plan 2013, February 2014

Gosford City Council, Design Specification for Survey, Road and Drainage Works, August 2008

BMT WBM Pty Ltd, Draft New South Wales MUSIC Modelling Guidelines, August 2010

Hunter & Central Coast Regional Environmental Management Strategy, Water Smart Model Planning Provisions, 2007

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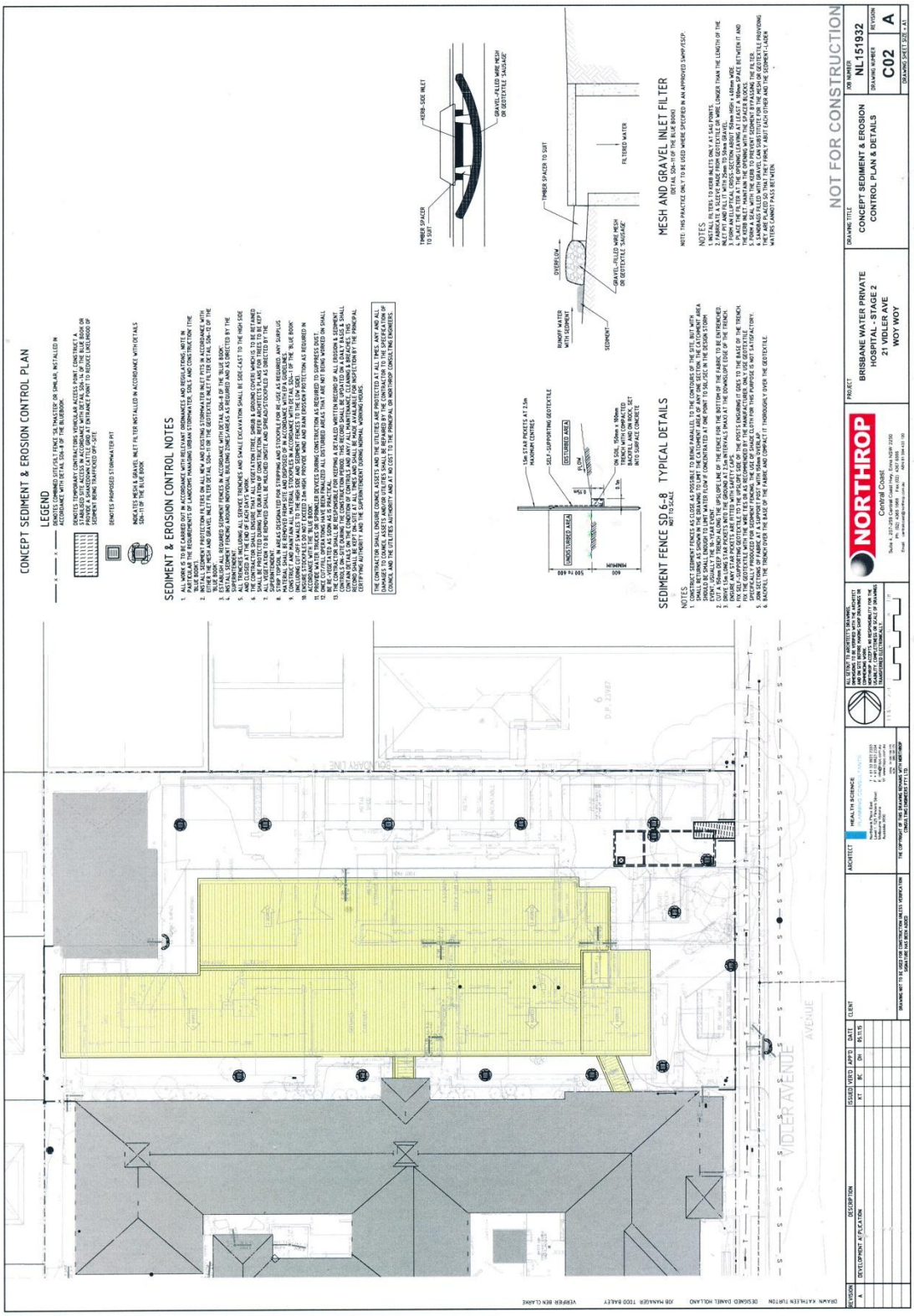
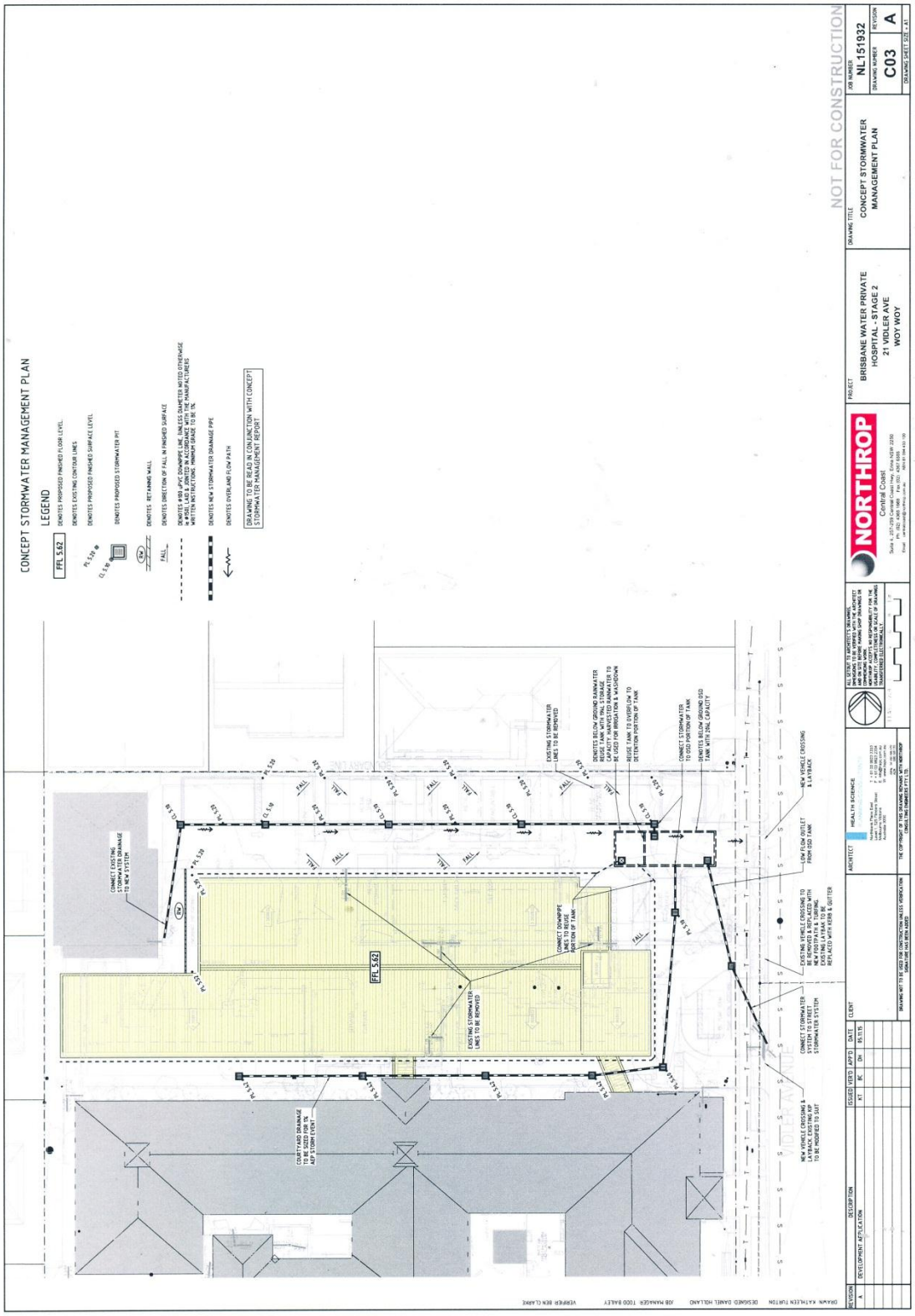
APPENDIX A – SUPPLEMENTARY INFORMATION

- Concept Sediment & Erosion Control Plan
- Concept Stormwater Management Plan

BRISBANE WATER PRIVATE HOSPITAL
STAGE 2
21 VIDLER AVE, WOY WOY
NORTHROP
DRAWING SCHEDULE
DRG No. DRAWING TITLE
C01 COVER SHEET
C02 CONCEPT SEDIMENT & EROSION CONTROL PLAN & DETAILS
C03 CONCEPT STORMWATER MANAGEMENT PLAN
APPROXIMATE LOCATION OF SITE
LOCALITY PLAN
NOT FOR CONSTRUCTION
BRISBANE WATER PRIVATE HOSPITAL - STAGE 2
21 VIDLER AVE
WOY WOY
COVER SHEET
NL151932
C01
A


CONCEPT SEDIMENT & EROSION CONTROL PLAN
LEGEND
SEDIMENT & EROSION CONTROL NOTES
SEDIMENT FENCE SD 6-8 TYPICAL DETAILS
MESH AND GRAVEL INLET FILTER
NOT FOR CONSTRUCTION
NORTHROP
Central Coast
BRISBANE WATER PRIVATE HOSPITAL - STAGE 2
21 VIDLER AVE
WOY WOY
CONCEPT SEDIMENT & EROSION CONTROL PLAN & DETAILS
NL151932
C02
A
VIDLER AVENUE


CONCEPT STORMWATER MANAGEMENT PLAN
LEGEND
NOT FOR CONSTRUCTION
NORTHROP
BRISBANE WATER PRIVATE HOSPITAL - STAGE 2
21 VIDLER AVE
WOY WOY
CONCEPT STORMWATER MANAGEMENT PLAN
NL151932
C03
A

APPENDIX C: CONSTRUCTION WASTE MANAGEMENT PLAN.

Waste Minimisation and Management Plan

Waste Management Plan Form 1. Land use or activity proposed.

Outline of Proposal

Site Address BWPH – 9 VIDLER AVENUE, WOY WOY

Applicant's Name and Address

HEALTHE CARE AUSTRALIA

LEVEL 8, 160 SUSSEX STREET, SYDNEY NSW 2000

Tel: 02 9215 8200 Fax: 02 9700 9078 Mob: 0409 061 382

Buildings and other structures currently on site

Brief description of proposal

ALTERATIONS TO EXISTING HOSPITAL INCLUDING DEMOLITION OF EXISTING BUILDING & CONSTRUCTION OF NEW SINGLE STOREY BUILDING.

The details provided on this form are the intentions for managing waste related to this project

Signature of Applicant _____ Date 06 NOV 15

Page 1 of 5

Waste Management Plan Form 2. Details of waste management – demolition phase.

MATERIALS ON-SITE			DESTINATION		
			Reuse and Recycling		Disposal
	Estimated				
Type of Materials	Vol. (m^3)	Wt. (t)	ON-SITE *specify proposed reuse or on-site recycling methods	OFF-SITE *specify contractor and recycling outlet	*specify contractor and landfill site
Ash felt					**TBA when builder is selected**
Concrete					**TBA when builder is selected**
Steel					**TBA when builder is selected**
Plasterboard					**TBA when builder is selected**
Timber					**TBA when builder is selected**

Waste Management Plan Form 3. Details of waste management – construction phase.

MATERIALS ON-SITE			**DESTINATION**		
			Reuse and Recycling		**Disposal**
	Estimated				
Type of Materials	Vol. (m^3)	Wt. (t)	ON-SITE *specify proposed reuse or on-site recycling methods	OFF-SITE *specify contractor and recycling outlet	*specify contractor and landfill site
Soil					**TBA when builder is selected**
Concrete					**TBA when builder is selected**
Steel					**TBA when builder is selected**
Plasterboard					**TBA when builder is selected**
Timber					**TBA when builder is selected**
Plastic					**TBA when builder is selected**
Paper					**TBA when builder is selected**
Card Board					**TBA when builder is selected**
Organic (food waste)					**TBA when builder is selected**
Paint / Liquid					**TBA when builder is selected**

Waste Management Plan Form 4. Ongoing management of waste.

TYPE OF WASTE TO BE GENERATED	EXPECTED VOL. PER WEEK	PROPOSED ON-SITE STORAGE AND TREATMENT FACILITIES	*DESTINATION*
Please specify e.g. food waste, glass, paper, metal, off-cuts etc.	Litres or m^3	e.g. waste storage and recycling area, garbage chute, on-site composting compaction equipment	recycling*disposal*specify contractor
General Waste	**4 x 3000 lt Bins Collected 4 times per week**	**Stored onsite within collection binds and commercial waste contractor to be engaged**	**Unknown until waste contract let**
Recycling – Sorted into Paper / Cardboard, Secured Office Paper, Mixed Containers (PET, Glass etc)	**Cardboard – 2 x 3000 lt Binds collected 3 times per week Security Papers – 4 x 240 lt binds collected 2 times per week Mixed Recyclables – 6 x 240 Lt Bins collected 2 times per week**	**Stored onsite into various streams – commercial waste contractor to be engaged**	**Unknown until waste contract let**
Garden Waste & Compost		**Disposed of by future landscape contractor**	**Unknown until waste contract let**
Clinical / Infectious Waste	**10 x 240 lt Bins Collected 3 times per week 20 x 20 lt Sharps**	**Specialist Clinical Waste Contractor to be engaged**	**Unknown until waste contract let**

	Containers collected 3 times per week	

Waste Management Plan Form 5. Ongoing management of waste.

Describe how you Intend to ensure ongoing management of waste on-site (e.g. lease conditions, caretaker/manager on-site).
Waste is managed by the operations manager onsite who is responsible for letting and managing the various waste contractors under a Consultant / Contractor Agreement. **A Waste Audit is also undertaken on a 6 monthly basis to ensure the current contracting arrangement are suitable for the amount of waste being generated.**
Thank you for the information.

APPENDIX D: BRISBANE WATERS PRIVATE HOSPITAL: OPERATIONAL WASTE MANAGEMENT PLAN – COVER & CONTENTS

(Note: A full copy of the Operational Waste Management Plan can be provided on request).

Brisbane Waters Private Hospital

WASTE MANAGEMENT PLAN

Mission Statement

Healthecare is committed to maintaining a waste management system that is safe, efficient, cost effective and considers environmental issues.

Table of Contents

TABLES

APPENDIX E: ANNUAL FIRE SAFETY STATEMENT.

(Spectrum Fire & Security – 8th May 2015).

Trading as Spectrum Fire & Security
A.B.N 83 160 366 352
Suite B, 255 Rawson Street
Auburn NSW 2144
Phone: 02 9714-4700 Fax: 02 9714-4744

Annual Fire Safety Statement
Issued under the Environmental Planning & Assessment Regulations, 2000

Name of Building:	Brisbane Waters Private Hospital
Address of Building:	21 Vidler Avenue, Woy Woy NSW 2256
Owner's Name:	
Owner's Address:	
Date of Assessment:	7th May 2015

Essential/Critical Fire Safety Measures

MEASURE	STANDARD OF PERFORMANCE	STANDARD OF MAINTENANCE
Automatic Fire Detection System *	AS1670.1 BCA Spec E2.2a	AS1851 – 2005
Smoke & Heat Detectors *	AS1670.1	AS1851 – 2005
Emergency Warning & Intercommunication System	AS2220.1 & 2 BCA E4.9	AS1851 – 2005
Occupant Warning System	AS1670.4 BCA E2.2a	AS1851 – 2005
Automatic Fail Safe Devices (Electro Magnetic hold open devices)	AS1670.1 BCA D2.19	AS1851 – 2005
Fire Doors, Smoke Doors, Solid Core Doors *	AS1905.1 BCA Spec C3.4	AS1851 – 2005
Fire Hose Reel System *	AS2441 BCA E1.4	AS1851 – 2005
Fire Hydrant System *	AS2419 BCA 1.3	AS1851 – 2005
Portable Fire Extinguishers *	AS2444	AS1851 – 2005
Fire Blankets	AS2444	AS1851 – 2005
Wall Wetting Sprinkler and Drencher System *	AS2118.2, BCA E1.5	AS1851 – 2005
Warning & Operational Signage	LGA S657	Visual Inspection
Emergency Lighting #	AS2293.1 BCA E4.2 & E4.4	AS2293.2 – 1995
Exit Lighting #	AS2293.1 BCA E4.5, E4.6 & E4.8	AS2293.2 – 1995
Fire & Smoke Proof Walls *	BCA C2.5	Visual Inspection
Fire Isolated Stairs *	BCA Clauses C3.8(i), Spec C1.10, D1.3 & D2.2	Visual Inspection
* Indicates repairs required to comply with Australian Standards # Pending test results		

I, Karl Bevege of Spectrum Fire

Certify that:

1. That each essential fire safety measure specified in this statement has been assessed by a properly qualified person and was found, when it was assessed, to be capable of performing:
   a) In the case of an essential fire safety measure applicable by virtue of a fire safety schedule, to a standard no less than specified in the schedule, or
   b) In the case of an essential fire safety measure applicable otherwise than by virtue of a fire safety schedule, to a standard no less than that to which the measure was originally designed and implemented, and
2. That a properly qualified person (whether the person referred to paragraph (1) or another person) has inspected the building and has certified that, as at the date of the inspection, the condition of the building did not disclose any grounds for a prosecution under Division 7 of Part 9 of the Environmental Planning and Assessment Regulation 2000, and
3. The information contained in this certificate is, to the best of my knowledge and belief, true and accurate

Dated: 8th May 2015 _____ (Contractor)

Notes:

- A copy of this statement must be forwarded to the Council and the Commissioner of the N.S.W. Fire Brigades and a copy must be prominently displayed in the building.
- A person is guilty of an offence if the person makes any statement, knowing it to be false or misleading in an important respect, in or in connection with any document lodged with Council.

APPENDIX F: ASSESSMENT - STATE ENVIRONMENTAL PLANNING POLICY NO. 71 (COASTAL PROTECTION).

STATE ENVIRONMENTAL PLANNING POLICY NO. 71 – COASTAL PROTECTION

ASSESSMENT OF PROPOSED ALTERATIONS AND ADDITIONS TO BRISBANE WATERS PRIVATE HOSPITAL (STAGE 2), ON LOT 1 DP 787109, NO. 9 VIDLER AVENUE, WOY WOY.

1. SUBJECT LAND/COASTAL ZONE.

The subject land is described as Lot 1 DP 787109, No. 9 Vidler Avenue, Woy Woy.

The land is located within the "Coastal Zone" for the purposes of State Environmental Planning Policy No. 71 – Coastal Protection and the NSW Coastal Policy 1997. The land is not identified as being affected by coastal processes.

2. PROPOSED DEVELOPMENT.

The proposed development involves alterations and additions to Brisbane Waters Private Hospital.

A full description of the proposed development is provided in Section 3 of the accompanying Statement of Environmental Effects.

3. MATTERS FOR CONSIDERATION.

Clause 7 of SEPP 71 requires the matters set out in clause 8 of the Policy to be taken into account by the consent authority when it determines a development application on land to which the Policy applies.

The following assessment of the proposed development is provided in relation to the matters identified in clause 8 of the Policy.

3.1 "*(a) The aims of the Policy*".

- *"(a) to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales Coast, and"*

  Assessment: The proposed development is located on privately owned land and does not have an adverse effect upon the natural, cultural, recreational and economic attributes of the New South Wales Coast.

- *"(b) to protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and"*

  Assessment: The proposed development does not impede any existing public access to, or along, the coastal foreshore.

- *"(c) to ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and"*

  Assessment: The subject land is privately owned and the proposed development has no adverse implications for the identification of new opportunities for public access to the foreshore.

- *"(d) to protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and"*

  Assessment: The subject land has been used for hospital purposes for an extensive period of time and has been significantly altered as a consequence of existing development. Consequently, it has no significance for Aboriginal cultural heritage.

- *"(e) to ensure that the visual amenity of the coast is protected, and"*

  Assessment: As demonstrated in the accompanying Statement of Environmental Effects, the proposed development is visually compatible with the bulk/scale/character of development within the locality and will not result in any adverse impact on the scenic amenity of the coast as the subject land and the proposed development is located a considerable distance from the coastline.

- *"(f) to protect and preserve beach environments and beach amenity, and'*

  Assessment: The proposed development has no impact on beach amenity.

- *"(g) to protect and preserve native coastal vegetation, and"*

  Assessment: The subject land contains no native coastal vegetation.

- *"(h) to protect and preserve the marine environment of New South Wales, and"*

  Assessment: The proposed development has no adverse impact on the marine environment.

- *"(i) to protect and preserve rock platforms, and"*

  Assessment: The proposed development has no impact on local rock platforms.

- *"(j) to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6(2) of the Protection of the Environment Administration Act 1991), and"*

  Assessment: The proposed development has no adverse impact on biodiversity, ecological integrity and does not interfere with, nor will be damaged by, coastal processes.

- *"(k) to ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and"*

  Assessment: The proposed development is demonstrated in the accompanying Statement of Environmental Effects to be compatible with the intended bulk and scale of development within the locality and does not adversely impact the scenic quality of the area.

- *"(l) to encourage a strategic approach to coastal management."*

  Assessment: As demonstrated in the accompanying Statement of Environmental Effects, the proposed development is consistent with the intended future character of the locality and has no adverse consequences for coastal management.

3.2 *"(b) Existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved".*

Assessment: The proposed development has no adverse impact on any public access to the coastal foreshore by pedestrians or persons with a disability.

3.3 *"(c) opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability"*

Assessment: The subject land is privately owned and currently used for hospital purposes. The site is not identified as being required for the provision of any new point of public access to the coastal foreshore.

3.4 *"(d) the suitability of development given its type, location and design and its relationship with the surrounding area"*

Assessment: The proposed development is appropriate to the site having regard to its existing use as a hospital and its consistency with the outcomes sought by the Councils local planning controls, as demonstrated in the accompanying Statement of Environmental Effects.

3.5 *"(e) any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore"*

Assessment: The proposed development does not have an adverse impact upon the visual amenity of the coastal foreshore; does not cause overshadowing of the coastal foreshore; and will not result in any loss of views of the coastal foreshore gained from any public place.

3.6 ***"(f) any scenic qualities of the New South Wales Coast, and means to protect and improve these qualities"***

Assessment: The subject land is located within a long established urban area and the proposed development has no adverse impact on the scenic quality of the New South Wales Coast, being well removed from the coastline.

3.7 ***"(g) measures to conserve animals (within the meaning of the Threatened Species Conservation Act 1995) and plants (within the meaning of that Act), and their habitats"***

Assessment: The subject land does not contain habitat for threatened flora or fauna.

3.8 ***"(h) measures to conserve fish (within the meaning of Part 7A of the Fisheries Management Act 1994) and marine vegetation (within the meaning of that Part), and their habitats"***

Assessment: The subject land does not contain aquatic/marine habitat.

3.9 ***"(i) existing wildlife corridors and the impact of development on these corridors"***

Assessment: The subject land does not comprise part of a wildlife corridor.

3.10 ***"(j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards"***

Assessment: Due to its physical separation from the coastal foreshore, the proposed development will not be effected by, and will not impact upon, coastal processes/hazards.

3.11 ***"(k) measures to reduce the potential for conflict between land-based and water-based coastal activities"***

Assessment: The proposed development does not present any potential conflict between land based and water based activities.

3.12 ***"(l) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals"***

Assessment: The subject land does not have Aboriginal cultural heritage significance in view of its physical modification and use for hospital purposes.

3.13 ***"(m) likely impacts of development on the water quality of coastal waterbodies"***

Assessment: The proposed development will not result in sedimentation or stormwater discharges which would adversely impact the water quality of coastal waterbodies.

3.14 ***"(n) the conservation and preservation of items of heritage, archaeological or historic significance"***

Assessment: The subject land contains no items of heritage, archaeological or historic significance identified under Gosford Local Environmental Plan 2014.

3.15 ***"(o) only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy apples, the means to encourage compact towns and cities"***

Assessment: This proposal does not involve the preparation of a draft local environmental plan.

3.16 ***"(p) only in cases in which a development application in relation to proposed development is determined:***

(i) the cumulative impacts of the proposed development on the environment, and

(ii) measures to ensure that water and energy usage by the proposed development is efficient."

Response: Approval of the proposed development will not generate adverse cumulative impacts on the environment as a consequence of the approval of similar applications given the categorisation of the proposed development (i.e. hospital).

4. SIGNIFICANT COASTAL DEVELOPMENT.

The proposed development is not '*Significant coastal development'* for the purposes of the Policy.

5. DEVELOPMENT CONTROL (PART 4 OF THE POLICY).

5.1 Clause 14 – Public Access: *"Public Access: A consent authority must not consent to an application to carry out development on land to which this Policy applies if, in the opinion of the consent authority, the development will, or is likely to, result in the impeding or diminishing, to any extent, of the physical, land based right of access of the public to or along the coastal foreshore"*

Assessment: The proposed development will not impede or diminish the right of public access to the coastal foreshore.

5.2 Clause 15 – Effluent Disposal: *" The consent authority must not consent to a development application to carry out development on land to which this Policy applies in which effluent is proposed to be disposed of by means of a non-reticulated system if the consent authority is satisfied the proposal will, or is likely to, have a negative effect on water quality of the sea or any nearby beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform"*

Assessment: The proposed development will be serviced by council's reticulated sewage system.

5.3 Clause 16 – Stormwater: *"Stormwater: The consent authority must not grant consent to a development application on land to which this Policy applies if the consent authority is of the opinion that the development will, or is likely to, discharge untreated stormwater into the sea, a beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform"*

Assessment: The proposed development will incorporate stormwater treatment and detention devices which will adequately treat runoff for pollutants prior to being reused, or discharged to the council stormwater system. The proposed development will not result in the discharge of untreated stormwater to the sea, onto a beach, or rock platform.

6. CONCLUSION.

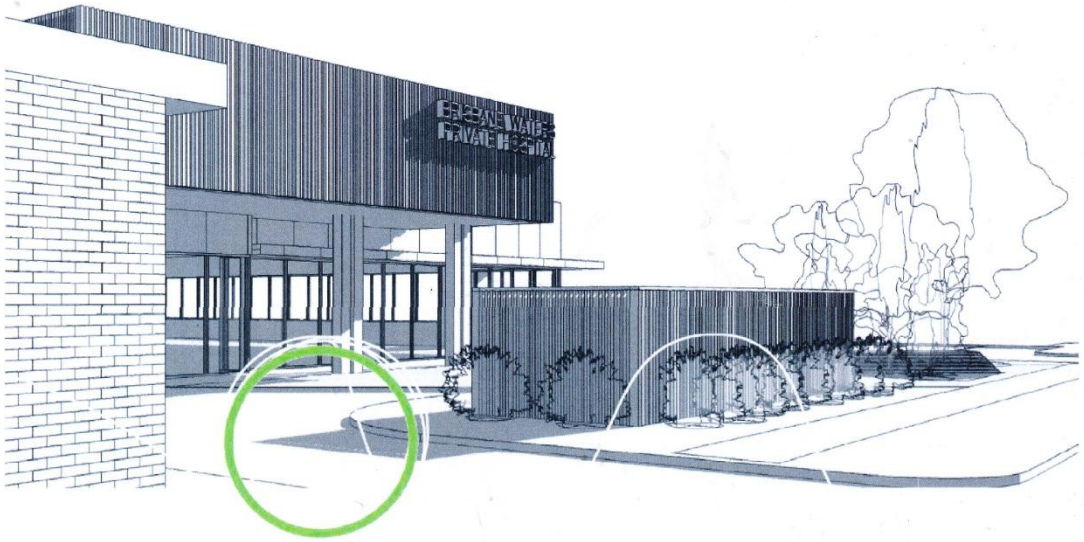
This assessment demonstrates that the proposed alterations and additions to Brisbane Waters Private Hospital, on Lot 1 DP 787109, No. 9 Vidler Avenue, Woy Woy, is consistent with the aims and relevant provisions of State Environmental Planning Policy No. 71 – Coastal Protection.

Doug Sneddon
8th November 2015.

APPENDIX G: TRANSPORT IMPACT ASSESSMENT.

(GTA Consultants – 3rd November 2015).

GTAconsultants



Brisbane Waters Private Hospital
Stage 2 Development
Transport Impact Assessment

Client //	Healthe Care
Office //	NSW
Reference //	16S1217000
Date //	03/11/15

Brisbane Waters Private Hospital

Stage 2 Development

Transport Impact Assessment

Issue: A - 03/11/15

Client: Healthe Care
Reference: 16S1217000
GTA Consultants Office: NSW

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	03/11/15	Final	Bernard Lo	Rhys Hazell	Brett Maynard	

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Table of Contents

Figures

Tables

1. Introduction

1.1 Background

Healthe Care engaged GTA Consultants to complete a traffic and transport impact assessment for the Stage 2 development of Brisbane Waters Private Hospital ('Hospital') located at 21 Vidler Avenue, Woy Woy.

The Hospital is cognisant of the region's growing health related demands and in response, a Development Application (DA) is to be submitted to Gosford City Council for:

- construction of a new building at the northern side of the site to consolidate existing administrative offices and consulting suites with ancillary facilities such as gym and imaging facilities
- provision of 18 additional general hospital beds and 8 mental health beds
- reconfiguration of an on-campus car park for greater efficiency
- provision of a new set-down/ pick-up area
- provision of a new pedestrian area fronting Vidler Avenue.

1.2 Purpose of this Report

This report sets out an assessment of the anticipated transport conditions in the vicinity of the Hospital and includes consideration of the following:

i pedestrian and bicycle requirements
ii the transport implications of the proposed expansion
iii existing transport and parking conditions surrounding the site
iv suitability of the proposed parking in terms of supply (quantum) and layout
v service vehicle requirements
vi the traffic generating characteristics of the proposed expansion
vii suitability of the access arrangements for the site
viii the transport impact of the development proposal on the surrounding road network.

1.3 References

In preparing this report, reference has been made to the following:

- an inspection of the site and its surrounds
- City of Gosford Development Control Plan (DCP)
- Australian Standard/ New Zealand Standard, Parking Facilities, Part 1: Off-Street Car Parking AS/NZS 2890.1:2004
- Australian Standard, Parking Facilities, Part 2: Off-Street Commercial Vehicle Facilities AS 2890.2:2002
- Australian Standard / New Zealand Standard, Parking Facilities, Part 6: Off-Street Parking for People with Disabilities AS/NZS 2890.6:2009
- Guide to Traffic Generating Developments, Roads and Maritime Services (RMS), 2002
- Building Code of Australia, 2014

Statement of Environmental Effects: Proposed alterations and additions to Brisbane Waters Private Hospital (Stage 2) on Lot 1, DP 787109, No. 9 Vidler Avenue, Woy Woy.

Doug Sneddon Planning Pty Ltd – November 2015.

- plans for the proposed development prepared by Health Science Planning Consultants, Drawing Numbers DA0001, DA10-11, DA20-22, dated 02 November 2015
- other documents and data as referenced in this report.

2. Existing Conditions

2.1 Site Overview

The Brisbane Waters Private Hospital site (Lot 1 DP 787109) is located at 21 Vidler Avenue, Woy Woy. The site occupies a large 1.02 hectare allotment and has frontages to Vidler Avenue and Dwyer Avenue.

The site is located approximately 1km south of Woy Woy Town Centre and is mostly surrounded by a mix of residential dwellings. Brisbane Waters Secondary College and light industrial uses are located to the north while Woy Woy Hospital adjoins the site to the south.

The location of the site and its surrounding environs is shown in Figure 2.1.

Figure 2.1: Subject Site and Its Environs

Basemap source: Google maps

The Hospital, which currently accommodates 55 general hospital beds and 34 mental health beds, provides a spectrum of Geriatric services backed by the support of an Allied Health Team comprising Dieticians, Occupational Therapists and Physiotherapists. It is also the only Private Mental Health facility in the Central Coast region.

The Hospital currently employs a total of 190 staff, with approximately 55 on duty during the busiest day shift. There are 4 on-site car parks accommodating a total of 120 cars, accessed via 7 driveways located on Vidler Avenue and Dwyer Avenue.

The layout of the Hospital campus is illustrated in Figure 2.2.

Figure 2.2: Private Hospital Site Extent

Basemap source: Google Maps

2.2 Road Network

Ocean Beach Road is the key north-south sub-arterial road connecting Woy Woy Town Centre to the north (via Railway Street) with Umina to the south. With a signposted speed limit of 60km/h, Ocean Beach Road has a carriageway width of approximately 12m and mostly provides one traffic lane and one parking lane in each direction.

Rawson Road is an east-west collector road connecting Blackwall Road to the east with Ocean Beach Road and Railway Street to the west. There is a signposted speed limit of 60 km/h and a carriageway width of approximately 12m, with one traffic lane and one parking lane in each direction.

Vidler Avenue and Dwyer Avenue each provide access to the Hospital and allow for two-way traffic and kerbside parking within a 50km/h speed environment.

There are several traffic and parking controls implemented on the local road system, with some of the key measures detailed as follows:

- roundabout controlled intersection at Ocean Beach Road and Rawson Road
- marked foot crossing on Ocean Beach Road south of Rawson Road
- School Zone restrictions on Rawson Road and the northern end of Vidler Avenue
- pedestrian refuge on Rawson Road immediately west of Vidler Avenue
- 2P parking restrictions on Vidler Avenue along the frontage of the hospital
- bus zones on both sides of Ocean Beach Road near Waratah Road.

2.3 Site Access and Traffic Generation

Access to the Hospital at-grade car parks is provided via several vehicle crossovers fronting Vidler Avenue and Dwyer Avenue. The main visitor car park is located in the south-east corner of Vidler Avenue and Dwyer Avenue.

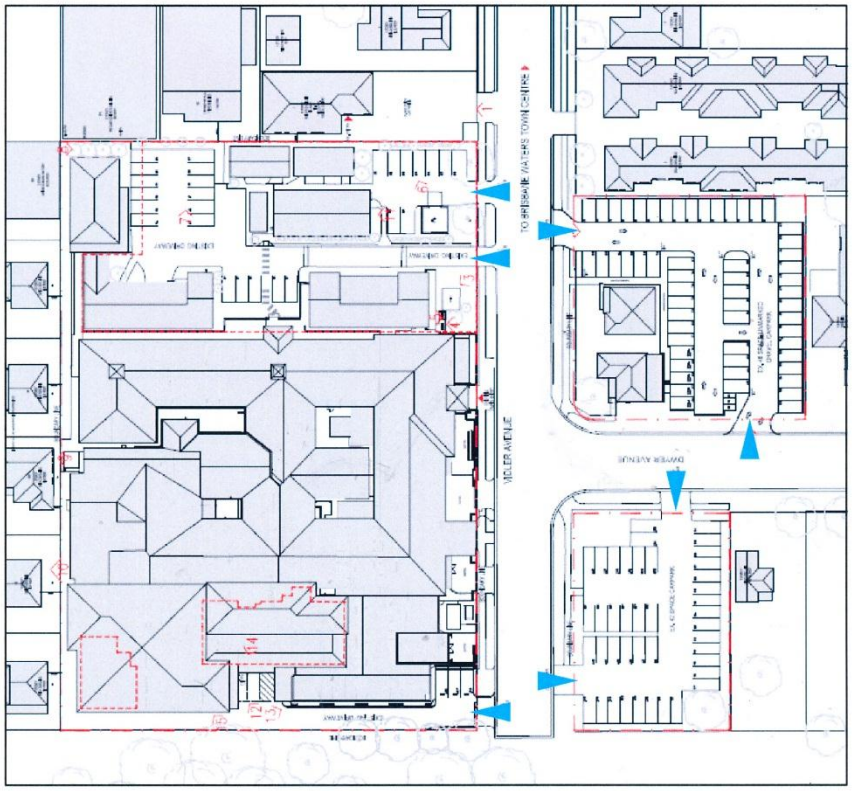
Emergency vehicles and service vehicles are provided access via a single driveway crossover at the southern end of Vidler Avenue in the south-east corner of the hospital buildings.

The existing car park and emergency/ service vehicle site access locations are shown in Figure 2.3.

Statement of Environmental Effects: Proposed alterations and additions to Brisbane Waters Private Hospital (Stage 2) on Lot 1, DP 787109, No. 9 Vidler Avenue, Woy Woy.

Doug Sneddon Planning Pty Ltd – November 2015.

Figure 2.3: Existing Site Access Locations



Basemap source: HSPC

2.4 Traffic Volumes

GTA completed sample traffic counts of the site access driveways during the typical weekday mid-morning peak period to gain a good understanding of the existing traffic volumes associated with the Hospital. Based on these results, the site currently generates approximately 70 vehicle movements (two-way) during the 10:00am to 11:00am weekday peak hour.

Spot check traffic counts were also completed at the time of the site visit, to gain an understanding of existing traffic flows on the surrounding road network. The results are as follows:

- Ocean Beach Road 800 vehicles per hour
- Rawson Road 450 vehicles per hour
- Vidler Avenue 200 vehicles per hour.

When referencing the *Guide to Traffic Generating Developments* (RMS, 2002), these mid-block traffic volumes are typical of urban road functions and are generally within their expected environmental capacities. This is consistent with site observations given that general traffic flow and intersection operations were generally satisfactory.

2.5 Car Parking

2.5.1 Supply

There is a mix of kerbside parking and off-street car parks available for use by both Hospital staff and patients/ visitors. There are a total of 120 spaces available in the 4 on-site at-grade car parks providing parking for staff, visitors and disabled users.

A single ambulance bay is located in the southern car park with access directly via the southern end of Vidler Avenue.

There is also approximately 70 on-street parking spaces along Vidler Avenue and Dwyer Avenue in close vicinity to the Hospital entrances. Of these approximately 10 spaces are restricted to 2P parking.

2.5.2 Demand

Sample car parking demand surveys were also completed at the time of the site visit during the mid-morning peak period. The results are shown in Table 2.1.

Table 2.1: Existing On-Site Car Parking Demand

Location	Demand	Supply	% Occupied
South-east	35	42	83%
North-east	30	48	63%
North	11	26	42%
South	3	4	75%
	79	**120**	**66%**

As shown in Table 2.1, typical weekday mid-morning parking demand is up to 80 vehicles, or 66% of the total on-site car parking supply.

While it is difficult to confirm the proportion of on-street demand that is associated with the Hospital, the sample surveys confirmed that total demand for on-street parking is 35 spaces. With an approximate supply of 70 spaces, on-street parking demand during the mid-morning peak period equates to approximately 50%.

Overall, demand for parking both on-site and within the surrounding streets is moderate with a combined demand of approximately 60% during the peak mid-morning weekday period.

2.6 Public Transport

Busways currently operates two bus routes along Ocean Beach Road and in close proximity to the Hospital. These services combine to provide a relatively high frequency, with convenient connections between Woy Woy Town Centre and the surrounding local areas and regional centres.

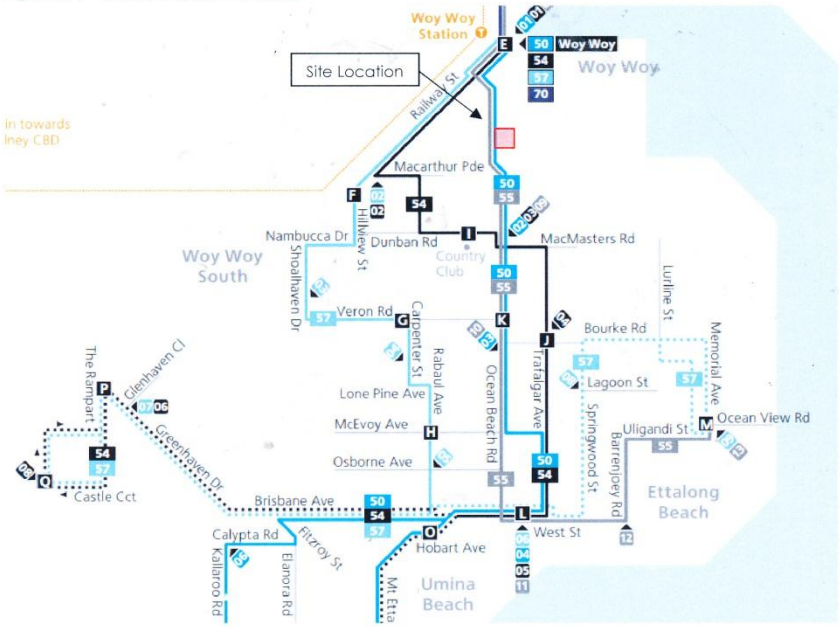
The local bus services are summarised in Table 2.2.

Table 2.2: Local Area Bus Services

Route	Route Description	Location of Stop	Distance to Nearest Stop	Frequency (Weekdays)	First/Last Service
50	Woy Woy Station to Umina Beach	Ocean Beach Road near Waratah Avenue	400m (5 minute walk)	30 min.	3.42am/ 12.05am
55	Gosford Station to Ettalong Beach		400m (5 minute walk)	30 min.	5.56am/ 6.35pm

Details of the bus network map is reproduced in Figure 2.4.

Figure 2.4: Local Areas Bus Network



Source: Busways

Woy Woy Railway Station is located approximately 1.3km to the north (15-20 minute walk) and is a major station on the Central Coast and Newcastle Line. It provides convenient and high frequency connections between Sydney and Newcastle.

2.7 Pedestrian and Cycle Infrastructure

Well established pedestrian footpaths are provided on both sides of Vidler Avenue and on the southern side of Dwyer Avenue in the immediate vicinity of the Hospital. Established footpaths are also located on both sides of Rawson Road and Ocean Beach Road.

As such, pedestrian connectivity between the Hospital and the key surrounding generators, including the nearest bus stops (on Ocean Beach Road close to Waratah Avenue) is satisfactory.

There is limited dedicated cycle infrastructure in the vicinity of the site at present and it was observed that roadways are generally shared between cyclists and motorists.

Statement of Environmental Effects: Proposed alterations and additions to Brisbane Waters Private Hospital (Stage 2) on Lot 1, DP 787109, No. 9 Vidler Avenue, Woy Woy.

Doug Sneddon Planning Pty Ltd – November 2015.

3. Development Proposal

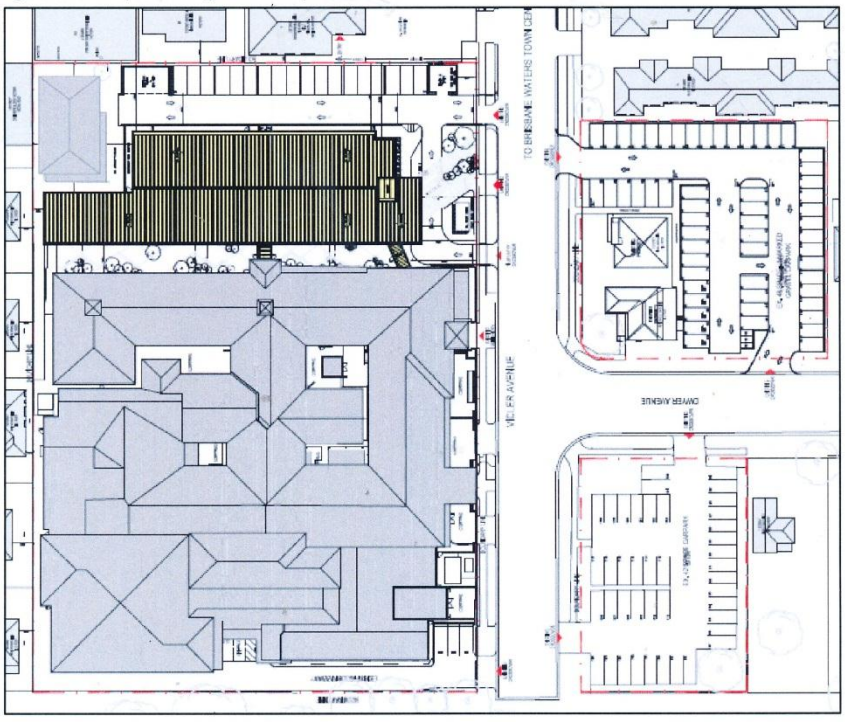
3.1 Overview

To accommodate the growing demand for the private hospital services on the Central Coast, it is proposed to develop Stage 2 of the planned expansion of Brisbane Waters Private Hospital. The Stage 2 works include the following:

- construction of a new building at the northern side of the site to consolidate existing administrative offices and consulting suites with ancillary facilities such as gym and imaging facilities
- provision of 18 additional general hospital beds and 8 additional mental health beds
- reconfiguration of an on-campus car park for greater efficiency
- provision of a new set-down/ pick-up area
- provision of a new pedestrian area fronting Vidler Avenue.

The schematic site layout plan is shown in Figure 3.1.

Figure 3.1: Proposed Stage 2 Development



Source: HSPC

3.2 Car Parking

The proposed new building location will necessitate modifications to the northern on-site car park layout and configuration. Given this, the car park is proposed to offer a new set-down/ pick-up area with capacity for 2 vehicles and for use by visitors and patients as part of the Stage 2 works.

The overall supply of on-site car parking will be retained at 120 spaces.

3.3 Vehicle Access

The existing car parks and site access driveways are to be largely retained, with the only exception being the reconfigured set-down/ pick-up area fronting Vidler Avenue.

The proposed set-down/ pick-up area would be accessed on the western side of Vidler Avenue via a 3.8m wide entry-only driveway, with the internal loop circulating north to intersect with the existing northern site access. Vehicles will exit the site via the existing 5.5m wide northern crossover along Vidler Avenue.

It is understood that all access and parking arrangements associated with ambulance operations/ movements will remain unchanged.

3.4 Bicycle and Pedestrian Facilities

Gosford City Council's Development Control Plan (DCP) 2013 does not specify requirements for bicycle parking. It is recommended that bicycle parking/ storage facilities be provided as part of the Stage 2 development to encourage and facilitate access to the primary hospital services for all user groups. Ideally bicycle parking/ storage facilities should be provided near hospital access locations to enable convenient access by users.

The primary pedestrian access and linkages from the local road network will be via a new pedestrian zone along the Vidler Avenue frontage. Pedestrians will continue to make use of the surrounding streets to access the Hospital, including Vidler Avenue as the primary route, with Dwyer Avenue and Rawson Road also important links.

A high level of pedestrian connectivity is currently provided internal to the hospital buildings to accommodate staff, patients and visitors throughout. The Stage 2 development will refocus the main pedestrian access with a higher level of amenity over existing facilities.

3.5 Loading Areas

While there will be a new service area within the reconfigured car park, access arrangements for majority of the loading/ service activities will largely remain at the southern carpark.

It is understood that all service vehicles requiring access to the Hospital are rigid trucks and vans no larger than 8.8m in length and are generally limited to after-hours access only.

4. Car Parking

4.1 Car Parking Requirements

The car parking requirements for different development types are set out in Gosford City Council DCP 2013, however no specific guidance for private hospitals is provided. While DCP 2013 provides a recommendation for medical centres and health consulting rooms, it is broadly recognised that these facilities operate in a different manner to that of a typical private hospital.

The RMS Guide specifies car parking requirements for private hospitals based on an extensive parking demand survey (although the age of this data is noted). The Guide indicates that the Peak Parking Accumulation (PPA) can be estimated with reference to the total number of beds (B) and the average staff per day shift (ASDS) by the following calculation:

- PPA= -19.56 + 0.85B + 0.27ASDS

Application of the RMS criteria to the Stage 2 development indicates a peak total Hospital parking demand of 96 spaces. Comparatively, the criteria reflect a current peak demand (based on existing bed and staffing levels) of 71 spaces and therefore represents an increase of 25 spaces over existing. The 71 spaces for existing site operations is relatively consistent with the observed existing peak occupancy of 79 spaces at the time of the site inspection.

On this basis, the projected RMS Guide parking demand of 96 spaces is considered representative of the Hospital's operation following the Stage 2 development, with the 120 on-site car parking spaces able to adequately accommodate any such additional demand.

4.2 Disabled Parking

The disabled car parking requirements for different development types are set out in the Building Code of Australia, 2014. There is currently one on-street disabled parking space along Vidler Avenue near the main entrance with one additional disabled space to be provided as part of the Stage 2 development.

This results in a total provision of two disabled spaces available for use by the Hospital.

4.3 Motorbike Parking

DCP 2013 does not provide specific guidance on motorcycle parking for private hospitals. It is however recommended that up to 5 motorcycle spaces be provided where possible and within the existing hospital car parking areas to encourage motorcycle travel to the hospital, especially by staff.

4.4 Car Parking Layout Review

The design plans have been reviewed against the requirements of the Australian Standard for Off Street Car Parking (AS2890.1:2004 and AS2890.6:2009). This assessment included the following:

- bay and aisle widths

- adjacent structures
- turnaround facilities
- circulation roads and any ramps/ grades
- set-down/ pick-up area
- parking for persons with disabilities.

The reconfigured car parks have been designed in accordance with the requirements of AS 2890.1:2004 and AS 2890.6:2009 with respect to car space dimensions and adjacent aisle widths. The set-down/ pick-up area should be designed to accommodate two parked vehicles while maintaining a through adjacent lane to maintain appropriate operations. The driveway crossovers are located away from adjacent intersections with appropriate sight lines in each direction for pedestrian and vehicle safety.

5. Traffic and Access

5.1 Traffic Impact Assessment

The *Guide to Traffic Generating Developments* (RMS, 2002) documents extensive traffic generation rates for a variety of land uses.

For private hospitals, the Guide recommends the following trip generation rates based on the number of beds and the average number of staff per weekday shift:

- Peak Vehicle Trips (PVT) = -14.69 + 0.69B + 0.31ASDS
- Morning Vehicle Trips (MVT) = -10.21 + 0.47B + 0.06ASDS
- Evening Vehicle Trips (EVT) = -2.84 + 0.25B + 0.40ASDS.

where 'B' represents the number of beds proposed and 'ASDS' is the average staff per day shift.

It is understood that the Hospital expansion would result in changes to bed numbers and daily staff levels as detailed in Table 5.1.

Table 5.1: Hospital Operation Comparison

	Bed No. (B)	Staff (ASDS)
Existing	89	55
Post-Development	115	67

Application of the RMS criteria on the above details indicate the following traffic generation as a result of the Stage 2 development.

Table 5.2: Traffic Generation Comparison

	Peak Trips (PVT)	Morning Trips (MVT)	Evening Trips (EVT)
Existing	64 veh. trips/hr	25 veh. trips/hr	42 veh. trips/hr
Future	85 veh. trips/hr	48 veh. trips/hr	53 veh. trips/hr
Increase	**21 veh. trips/hr**	**13 veh. trips/hr**	**9 veh. trips/hr**

The RMS traffic generation rates indicate the proposed expansion is likely to generate 21 additional vehicle trips per hour during the Hospital's operational peak period; that is 10:00am to 12:00pm and 2:00pm to 4:00pm.

Importantly, the post-development operation would result in minor increases to vehicle trips during the weekday AM and PM peak traffic hours. This equates to 13 vehicle trips during the AM peak hour and 9 vehicle trips during the PM peak hour.

On the basis of the above and taking into consideration the existing performance of the surrounding road network, the additional traffic generated by the Stage 2 development is not expected to impact on the function and operation of the surrounding roads and intersections, or parking areas in the immediate vicinity.

5.2 Service Vehicles

It is understood that existing servicing arrangements and vehicles are adequately accommodated and will have sufficient capacity to accommodate the minor additional demand resulting from the Stage 2 development.

5.3 Emergency Access

As discussed, access and parking for ambulances is provided via Vidler Avenue in the south-west corner of the site and along the southern boundary. This is not proposed to change as a result of the Stage 2 development.

5.4 Construction Traffic Management

The proposed construction of the Stage 2 development generally involves the demolition of on-site structures and parking in the northern section of the site and construction of a new building to house new Hospital beds and associated facilities.

The overall principles of traffic management during construction activity include:

- provide an appropriate and convenient environment for pedestrians
- minimise the impact on pedestrian movements
- maintain appropriate capacity for pedestrians on footpaths adjacent to the site along Vidler Avenue
- maintain appropriate public transport access
- minimise the loss of on-street parking
- maintain access to/ from adjacent properties
- restrict construction vehicle movements to designated routes to/ from the site
- manage and control construction vehicle activity in the vicinity of the site
- carry out construction activity in accordance with approved hours of works.

5.4.1 On-Street Works Zone

It is assumed that construction vehicles could generally be accommodated on-site. As such, works zones would not likely be required. If necessary, approval for works zones would be sought through Council.

5.4.2 Hours of Operation

It is recommended that construction hours of operation are chosen in consultation with Council and in accordance with the NSW Environment Protection Authority (EPA). As such, the following construction hours are recommended, subject to further correspondence with Council:

- Monday to Friday 7.00am to 6.00pm
- Saturday 7:00am to 1:00pm
- Sunday no work.

Any work outside the approved construction hours would be subject to specific prior approval from Council.

6. Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

i Brisbane Waters Private Hospital provides medical services to the surrounding local and regional areas and recognises the growth in the region's health-related demands.

ii The site is accessible by selected bus services with links to Woy Woy Railway Station, however the majority of staff and visitors are likely to travel by car.

iii The provision of bicycle and pedestrian facilities is somewhat limited as part of the existing Hospital.

iv The surrounding road network and intersections currently operate satisfactorily with minimal queuing and delay during the mid-morning hospital peak period.

v Existing demand for parking is moderate, with approximately 60% of all on-street and on-site car parking spaces occupied during the mid-morning peak period.

vi The Stage 2 development would likely result in an increased demand of 25 spaces to bring about a total Hospital parking demand of 96 spaces. Parking demand estimates for the existing Hospital compare relatively well against site observations.

vii The existing parking supply of on-site 120 spaces is not proposed to change and will be able to meet the future Hospital parking demands.

viii The design plans include a new set-down/ pick-up area along the Vidler Avenue frontage with capacity for two vehicles to park and still allow vehicles to pass.

ix Emergency vehicle access is via the southern end of Vidler Avenue and is not proposed to change.

x Service vehicle access would be maintained in the same locations, albeit with some minor additional capacity at the western end of the reconfigured northern car park.

xi Internal and external access for pedestrians would be expanded through a wide pedestrianised area adjacent to the new building fronting Vidler Avenue and in the vicinity of the set-down/ pick-up area.

xii Site access, internal circulation and overall design of the new car park is generally compliant with the relevant Australian Standards.

xiii It is recommended that parking and storage for bicycles and motorcycles is provided on-site to encourage uptake of more sustainable transport modes, especially for staff.

xiv The Stage 2 development is expected to result in a marginal increase in traffic generation, with between 9 and 21 additional vehicle trips in any peak hour.

xv There is adequate capacity in the surrounding road network to cater for the traffic generated by the Stage 2 development.

xvi Appropriate traffic and pedestrian control measures would be implemented during construction for safe movement of all road users.