NORTH WEST REGIONAL HOSPITAL MULTI-STOREY CARPARK AND ROAD REALIGNMENT PROGRAM OF WORKS

SUBMISSION TO THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

October 2011
Executive Summary

Document Purpose
The purpose of this document is to inform the Parliamentary Standing Committee on Public Works of the need for this project and to explain the processes undertaken during the design phase to maximise the delivery of the desired outcomes and how the design of the works address the needs for the North West Regional Hospital.

Project Budget
The available project funding is $5 500 000. This money is allocated from the DHHS Capital Investment Program.

Current project cost planning details that the internal road realignment and the new multi storey car park can be delivered within this budget.

Project Program
Design and tender documents are scheduled for completion in November 2011, with Contractors to be appointed in December 2011 for the road works and February 2012 for the main Car park contract, subject to the required approvals and receipt of satisfactory tenders. The construction program will be undertaken and the overall program of works is scheduled for completion by end January 2013.

General Project Scope
The project scope encompasses the realignment of the existing hospital road that interconnects Uplands Place and Brickport Road and the construction of a new multi-storey car park for notionally an additional 200 car parks on the site.

Design Approach
The planning approach that has been adopted is detailed design of the road realignment in close consultation with the Regional cancer Care Centre consultancy team’s design of this new facility and its impact on expanding the existing building footprint and therefore requiring a realignment of the existing link road.

The design of the proposed car park will be undertaken on a Design and Construct basis with the value for money question for the Department being to maximise the number of additional car park spots that will be created under the available funding. By making the provision of the most affordable cost per car park an open market approach, the Department will maximise the benefit that will be obtained from the available budget.

A full assessment of the proposed building structure, existing services and geotechnical ground conditions has been undertaken to provide the appropriate details to the design and construction contracts.

Consultation with the community and key stakeholders has been ongoing and will continue particularly once construction starts due to significant changes to access routes and parking on the site.
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1. Document Purpose

This submission to the Parliamentary Standing Committee on Public Works is presented on behalf of the Department of Health and Human Services (DHHS) and specifically the North West Regional Hospital (NWRH).

The purpose of this document is to inform the Parliamentary Standing Committee on Public Works of the need for the proposed project and how the design of the works will address this need.

This submission seeks approval for the construction of a new multi-level car park at the NWRH in order to meet the growing emergency medical care needs of the local community and to accommodate the planned increase in services for the NWRH through construction of the proposed new Cancer Care Centre, redevelopment and expansion of the Department of Emergency medicine and potential expansion of the Mental Health Spencer clinic.

The realignment of the internal road between Brickport Road and Uplands Place is necessary to accommodate the planned construction of the new Cancer Care centre, which for optimal configuration and inter-relationship with the rest of the hospital requires expansion of the hospital at the main entrance and on a tightly confined property space onto the existing access road.

The project will be put to tender with a view to completion and occupation of the new car park by December 2012.

Your consideration and approval of this redeveloped facility is sought in the accompanying Submission.

The document includes the following:

- Confirmation that the proposed investment in infrastructure is the most appropriate means to support planned expansion of health services delivery on site.
- Evaluation of the suitability of the proposed Design.
- Discussion of 'value for money issues' relating to the design and construction of this project.

2. Project Definition

2.1 Primary Objectives

The NWRH is a State Government owned premise, providing Acute level health services to the North West region.

The new works will provide:

- An increase in car parking of potentially 200 car parks or nearly a 60% increase over current DHHS parking capacity, to meet significant increased patient demand on site since the original construction and future planned presentation increases through the provision of expanded services such as the new Cancer Care Centre;
- Realignment of the existing hospital link road to enable construction of the planned new Cancer Care Centre on a physically constrained site.
2.2 General Scope

The project incorporates the realignment of the existing hospital road between Brickport Road and Uplands Place to accommodate the planned construction of a new regional Cancer Care Centre and the construction of a new multi storey car park to overcome existing and expected future car park shortages on site.

Site Assessment

The Department has undertaken an initial review of the site with a detailed survey plan and geotechnical analysis of the ground conditions in the area of the planned works as part of providing quality information for the car park and road works tenders.

Detailed assessment of the planned Regional Cancer Care Centre has been undertaken with an initial footprint expansion developed. This has been utilised as the basis from which the existing road requires realignment.

A concept plan for the proposed car park has been undertaken by the consultant team to assess the potential overall capacity increase in car parking that could be undertaken on the site and as a basis from which the Design and Construct teams can base a proposal and assessment from.

New Facility Details

With the construction of a new on site Cancer Care Centre, there is a need to increase the existing footprint of the hospital, with the only available means being onto the existing hospital link road between Brickport Road and Uplands Place. Whilst the road realignment is relatively straightforward and will meet all necessary regulations and standards, the main impact is a loss of nearly 40 existing car parks at completion.

The construction of a new multi level car park will occur over the top of existing car parking at the South Western entrance from Brickport Road and providing a link between car parking at the South West and South Eastern areas of the hospital site. A further level of car parking will be constructed at the South of the hospital with a connection to a further deck of car parking over the South Western end of the site. An initial extension to ground level car parking at the South Eastern end of the car park.

Conceptual layouts have identified that an additional 320 car park sites can be catered for on site, which is a significant increase to the approximate 321 car parks that are currently on site in this area. (Note that the adjacent Private hospital has additional car parking and some additional car parking has been provided as part of the recent Patient Accommodation project)

The development works will be in full compliance with contemporary standards and building codes.
Need for the Project

3.1 The Service
The NWRH Multi Storey car park and road realignment will provide the following site enhancements:

- Provision of adequate space for construction of the planned Regional Cancer Care Centre
- Provision of an additional nominal 200 car park spots for expanded patient and visitor presentations to the NWRH campus.

3.2 Existing Facility
The Crown originally acquired the land on which the North West Regional Hospital is located in 1993. A Commercial arrangement was entered into with the Burnie Hospital Limited (BHL) to lease the land for a 50 year period to them and that BHL would construct a purpose built hospital for the Department on a lease back arrangement for the 50 year term with an option to purchase at the end of the term. The new hospital was opened to the public in 1995.

In 2009 a lease renewal option was due for the site and the Department saw an opportunity in discussions with the Department of Treasury & Finance to purchase outright the site as a means of reducing future lease liability for the Department.

Purchase of the facility was finalised in late 2010.

The building is a purpose built hospital managed by the North West Area Health Service and is co-located with a private hospital and university of Tasmania educational and training facilities.

Like all Acute facilities around the state, hospital admissions have increased significantly from the original planned capacity, with DEM presentations alone at the NWRH having increased from the design capacity of 12,000 presentations, but is currently seeing in the region of 25,000 presentations per annum, with similar increases in attendances across other medical services and a broad expansion of services on the site over a number of years.

3.3 Limitations with the current facility
With the North West Regional Hospital having been successful in obtaining funding for construction of a new Regional Cancer Care Centre, both the original site Master plan and the current Consultants have identified that with significant site constraints on site, that the only appropriate location for this new facility is integrated adjacent to the current entrance, Department of Emergency medicine and adjacent to existing Medical imaging services.

With these quite significant constraints on the planned Cancer Care Centre it was identified that the only available space to expand into was the existing Link Road between Brickport Road and Uplands Place. The expansion of the Cancer Care Centre is extending the footprint of the hospital by some 15 meters, which in turn requires the relocation of the existing internal link road. The attached documentation for the road realignment provides a clear indication of the extent of relocation that is required by this development.
With the gradual expansion of attendances to the NWRH since its construction in 1995 the available site car parking has become increasingly congested with a number of dangerous practices beginning to occur on site. In summary the following outlines the issues that have arisen in recent years:

- Currently, dangerous parking activity occurs on a regular basis at the NWRH, particularly near no standing zones and on the sloping grassed area (where parking is currently permitted due to the current lack of parking spaces available within the existing designated car park). Accidents are regularly reported and documented, some of which have the potential to be life threatening. Any decision to defer or deny the redevelopment of the car park carries additional liability risk to the State.

Parking on grass verges & parking on no-standing section of existing hospital link road

Parking on grass verge at end of South Eastern end of car park
• Parking spaces in residential roads adjacent to the NWRH site are also at capacity, which causes a high level of annoyance to neighbouring residents.

Example of congested car parking that has been occurring on adjacent residential areas at Upland Road

This situation reached unsafe levels recently, resulting in the Burnie City Council creating non car parking zones in nearby residential roads on the basis of road management safety and ensuring emergency services access (such as fire trucks) to these suburban roads.

• Car parking in actual lanes of existing car park road network

Example of cars parked in actual internal road of car parks, creating congestion and additional pedestrian risks
A typical example of car parking at full capacity
3. Consultation and Governance

Preliminary Consultation

In formulating the plans for the road realignment and the multi-storey car park, the following stakeholders were consulted.

- Facilities staff at North West Regional Hospital
- TAS Ambulance
- Review with NWRH facilities and maintenance staff
- Review with Consultant team associated with the planned NWRH Cancer Care Centre
- Local Council
- Crown Law
- Relevant and associated Standards and Guidelines

Project Control Group

Stakeholder consultation has commenced throughout the project with relevant staff. The non-clinical nature of this project however means that key staff involved in the project are restricted to Hospital management and infrastructure and facilities staff. The following diagram illustrates the, Project Control Group (PCG), Project Team and Consultant Team relationships.

![Project Coordination/Governance Structure Diagram]

The Project Control Group and Project Team have been meeting on a regular basis to enable the project to evolve in line with the project timeline, the aim being to enable an adequate
consultation phase while still allowing sufficient periods for documentation and procurement of the project. The Project Control Group oversees the progress of the project. The Project Manager and Project Team report to the PCG to enable the PCG to track progress, provide guidance and issue formal approvals at key milestone points of the project.

This approach was identified during the initial consultation phase to maintain the project momentum to effect tendering of the project by the end of 2011.

Design Approval

The Steering Committee, through the NWAHS Acting CEO have endorsed the project schematic design. Final sign off of the developed plans for the planned multi storey car park will occur once the Contractor has been appointed and their schematic designs are developed.

The utilisation of a design and construct contracting methodology for the car park will allow the "market" to assess and consider a broad range of options and these will be reviewed by the Project Control group with the solution that is most advantageous to the North West Regional hospital being the one which will be selected as the preferred tender and which detailed design will be undertaken in close consultation with the PCG.
4. Addressing the Need

5.1 Design Philosophy

The design philosophy is relatively straightforward, focussed around the delivery of the above outcomes, through adhering to the following principles:

- Enabling Works;
  - Construction of a nominal 40 additional car parking spots as an extension to the existing south eastern end of the NWRH car park.
  - This will provide an initial space for potential main contract plant and site sheds to be located without taking additional car park spots on site during the construction period of the road realignment and during the multi level car park development.

- In the Stage 1 road realignment;
  - Relocating the existing road south to allow an expansion of the site building envelope and create additional footprint for the planned Cancer Care Centre
  - Minimising the number of car parks that would be lost through the realignment.
  - Providing improved ambulance emergency access and vehicle traffic calming
  - Provide improved entry / exit configurations and internal car park traffic flow

- In the stage 2 multi-storey car park;
  - Improve vehicle flow and improve car park access management
  - Provision of a new car park link road to improve car park access and reduce traffic flow on pedestrian loaded main road
  - Provide additional upper level car park decks with potential capacity for an additional 150+ car park spots
  - To ensure potential future expansion capability of a further 100+ car parking spots
  - Provision for potential future helipad development
  - Provision for potential additional vertical patient bed lifts and possible pedestrian fly-bridge over the realigned road to the new cancer care centre
  - Minimise visual impact on private residents, on site staff and patient accommodation and on general public, patients and visitors to the hospital
  - Minimise any potential for additional recurrent costs to the hospital.

The development of the multi storey car park over the top of existing on ground parking has been identified as a critical piece of infrastructure spending at the North West Regional Hospital.
With DEM presentations alone doubling since original construction from a planned 12,000 to currently 25,000 per annum there is already a significant short-fall of car parking on site, which is evidenced by the levels of dangerous parking necessary by patients, staff and visitors to attend site. This will be exacerbated with the construction of the new multi storey Regional Cancer Care Centre which will construct some 16 additional oncology treatment bays / beds and associated support and outpatient’s facilities, new Linac bunkers and increased medical imaging capability. These facilities alone have the potential to add a further practical load onto the hospital car parking of up to 50 car park spots per day with staff, patient and visitor numbers increasing.
5.2 Architecture & Interiors

The over-all site integration of the planned multi storey car park has been defined around ensuring minimal impact both to surrounding private residents and on existing on site patient and staff accommodation.

The architectural design elements are considered as being very simplistic and was a consideration in the decision to procure the car park under a design and construction methodology in which the key aspects of the project are in maximising the potential number of car park sites, which is more a constructability issue rather than aesthetics.

5.3 Design Process

Individual design processes are being used on each stage of this project.

A traditional design and tender process is planned for the road realignment in which there is a requirement for close integration and appreciation of the planned interface with the new cancer care centre, and using the traditional approach in which a well documented design solution can be developed.

For the planned multi-storey car park development which has very limited interface with other project works, apart form the Stage 1 car park realignment, a more innovative design and construct procurement model is deemed more appropriate as the majority of the solution relates to constructability and allowing the construction industry to be a direct driver in the end solution will ensure that the Department obtains the greatest value for money solution in this specific instance.

As part of this process the Department have engaged a Contract Superintendent and have undertaken site analysis and a concept plan as attached to assist Contractors with the broad vision that the Department is looking at achieving for the site.

5.4 Building Services Design

Electrical Services including Fire Detection & Lifts

As a new facility, all necessary engineering services will be provided, with supply of electrical services being from existing hospital infrastructure

The following systems are included in the new works:

- Appropriate fire detection systems for a multi storey car park
- All new lighting to meet the requirements of AS/NZS 1680
- Inclusion of solar or similar renewable energy systems to reduce impact on hospitals recurrent operating budgets
Emergency lighting and Exit lighting system to AS 2293.

- Security cameras and access controls
- Consideration of new bed lift

**Hydraulics**

Generally the existing hospital infrastructure will be used and includes:

- Connection of new stormwater to accommodate the new car parking into existing infrastructure.

**5.5 Project Staging**

The program of works is scheduled to occur in three stages as they are discrete packages of works, each with separate timing imperatives.

**Enabling Works**

Some preliminary works to ensure minimal disruption to existing car parking capacity will be undertaken with the extension of the existing South East car park for an additional 40 nominal car parking spots.

**Stage 1**

Stage 1 will be the road realignment. With the Cancer Centre footprint having been resolved, the design for this stage has been completed and is ready to go to tender once Development Application approval has been obtained from Council. It is expected that Council Approval will occur at a similar time as PSCPW approval could occur and allow tendering of the package of the works to occur at this time. This will ensure that the works will be completed prior to any tender being let for construction of the planned Cancer Care Centre which is currently at schematic design stage.

**Stage 2**

The tender documentation has been completed for the planned Car park project with concept sketches, site surveys and geotechnical reports all ready to be issued for tender. This project can go to the market at any time as no other construction project inter-relationships exist and it stands as a standalone project with limited impact on existing site infrastructure. Once a program for the PSCPW hearing has been issued, a suitable tender date will then be determined.

A further bid is being considered for future master planned works on the site which include the provision of a helipad as a future extension of the planned multi-storey car park and the design of this stage will allow for the future provision of this capability.
5. Project Schedule

The construction program for the construction of the car park and the road realignment will need to be conducted in a multi stage construction package, due to working on an existing operating site that must be maintained and to facilitate other projects planned for the site.

The current project status is that the initial design phases are completed and the design and tender documents are being progressed to tender.

<table>
<thead>
<tr>
<th>Summary Project Timeline</th>
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</thead>
<tbody>
<tr>
<td><strong>Project Stage</strong></td>
</tr>
<tr>
<td>Design and Documentation – Stage 1</td>
</tr>
<tr>
<td>Documentation Stage 2</td>
</tr>
<tr>
<td>DA – Stage 1</td>
</tr>
<tr>
<td>PSCPW Hearing</td>
</tr>
<tr>
<td>PSCPW approval</td>
</tr>
<tr>
<td>Stage 1 Tender Advertisement</td>
</tr>
<tr>
<td>Stage 2 Tender Advertisement</td>
</tr>
<tr>
<td>Contract Award – Stage 1</td>
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<tr>
<td>Contract award – Stage 2</td>
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<tr>
<td>Construction period for Stage 1</td>
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<tr>
<td>Design period Stage 2</td>
</tr>
<tr>
<td>DA – Stage 2</td>
</tr>
<tr>
<td>Construction period Stage 2</td>
</tr>
</tbody>
</table>
6. Project Budget

The available total funding for the redevelopment is $5,500,000, which is made up of:

- $300,000 in 2009/10 from the DHHS Capital Investment Program,
- $4,000,000 in 2010/11 from the DHHS Capital Investment Program,
- $1,200,000 in 2011/12 from the DHHS Capital Investment Program

The total project has been split nominally into the two sub-projects at:

Stage 1 – Road Realignment $1,200,000
Stage 2 – Car park construction $4,300,000

The cost of the programmed redevelopment is currently advised at:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling works – existing car park extension</td>
<td>$100,000</td>
</tr>
<tr>
<td>Stage 1 – Road Realignment</td>
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<tr>
<td>Stage 2 - Car Park construction</td>
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<tr>
<td><strong>Subtotal of Construction Works</strong></td>
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<td>Art in Public Buildings</td>
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<td>Professional Fees &amp; other fees</td>
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<td>Loose Furniture and Equipment</td>
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<td>Design Development Contingencies</td>
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<td>IT and Equipment</td>
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<tr>
<td>CPI and Cost escalation allowances</td>
<td>$30,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$5,500,000</strong></td>
</tr>
</tbody>
</table>

Stage 1 works will be undertaken in standard documentation and tendering procurement arrangement. The technical nature of this component of the design and its inter-relationship with the planned construction of the Cancer centre, required a significant level of initial consultant investigation and design before it would be suitable to go to the market.

Stage 2 car park will be undertaken as a Design and Construct procurement arrangement, with associated design fees therefore embedded into the total Car Park construction figures. This approach has been identified as the contractual methodology which will achieve the greatest value for money benefit for the Department. As the project objective is to deliver as many additional car park spots at the NWRH as possible, by requiring the broad construction market to make their own assessment of the greatest number of car park spots that can be achieved within a fixed budget, this primary project aim will be achieved.

The Design and Construct component will manage the bulk of the project value, through tendering the known budget, but with the assessment criteria strongly weighted as to the number of car parks which will be constructed by each tenderer.
With the Commonwealth's National Economic Stimulus package in the Education Sector easing with the completion of many of the BER projects, it is predicted that more competitive pricing will occur which will maximise the potential benefit for the project in respect of the number of car parks which will be added to the site.

It is noted that a reasonable contingency allowance is in the project budget and that should any of this not be required under the main budget, a number of areas have been identified on site, on which additional on ground car parking could be provided, thus ensuring that the site gains the greatest benefit from the available funds.
7. Recommendations

The Project Control Group and Project Team have carefully assessed and explored the options and solutions available and have determined that the design submitted delivers the project outputs as determined in the project functional brief. In addition, the design is consistent with the strategic long-term direction proposed for the site.

The current facilities are inadequate, inefficient and struggle to cope with the demand pressures for this growing community. The proposed development is a crucial element in the State’s Provision of Health Care.

It is recommended that this submission be viewed favourably and in the spirit of the benefit it will provide to the local community. The proposed works will address the highest priority outputs that the North West Regional Hospital is required to deliver appropriate levels of health and community services.
Appendix A – Proposed Schematic Design