



Tasmanian Health Service  
ROYAL HOBART HOSPITAL

TASMANIAN  
HEALTH  
SERVICE

# **Royal Hobart Hospital Redevelopment Status Update**

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# Executive Summary

This report provides a status update on the \$689 million Royal Hobart Hospital (RHH) Redevelopment project – Tasmania's largest health infrastructure project.

The current hospital is in critical need of redevelopment and expansion.

There are substantial benefits for Tasmanians to the improved RHH Redevelopment project that will deliver a state-of-the-art 10 storey inpatient precinct (K-Block).

The project is already delivering the largest refurbishment program to the RHH in decades. The lynchpin of the project is the construction of a temporary inpatient facility which allows for the safe decanting of patients during construction. Its modular pre-fabricated design was specified to minimise the impact of construction and to allow for its full removal and reuse elsewhere once K-Block is completed.

However, the size and complexity of the RHH Redevelopment cannot be underestimated. It is a massive undertaking that will continue to respond to challenges.

Two significant issues have emerged since the contracted date for practical completion and Guaranteed Construction Sum were finalised with the Managing Contractor and are being addressed. These are: (i) the need for substantial rectification works to the temporary inpatient facility; and (ii) the management of greater than anticipated asbestos containing material in the areas of the hospital being refurbished. Delays have resulted in relation to the temporary inpatient facility which is currently forecast for completion in October 2016. In addition, the handling of asbestos and rectification of fire separation deficiencies has impacted on the construction program to date, and is likely to further do so into the future. This in itself further supports the need to redevelop the RHH.

The rectification works to the temporary inpatient facility are the direct responsibility of the builder and do not change the contracted date for practical completion. These rectification works are being completed at no cost to the project and the latent conditions within the refurbishment works are being addressed within the project's budget. The project remains on budget.

There are financial incentives for the Managing Contractor to reduce delays to the project and significant work is being undertaken to do so.

The contract includes incentives for the Managing Contractor to minimise delays.

After 30 days after the date for practical completion, Managing Contractor delay damages of \$17 000 per day apply. After 60 days after the date for practical completion, Managing Contractor delay damages of \$35,000 per day apply.

As a result of the issues discussed above, it is now anticipated that K-Block will be completed mid-2019 unless the Managing Contractor is able to successfully program works to make up time and thereby reduce delays.

The Managing Contractor is an experienced tier I partnership and it is their role and responsibility to program works as effectively and efficiently as possible. They are getting on with the job of building Tasmania's new hospital and continue to encourage Tasmanian businesses to be involved in building this critical piece of public infrastructure for our community.

# Introduction

The Tasmanian Government is delivering the \$689 million RHH Redevelopment project (the project) - a state-of-the-art health facility for generations of Tasmanians to come.

It is widely recognised that the RHH is long overdue for redevelopment and expansion. The condition of the current buildings limits the capacity to provide contemporary health services. Many of the buildings are near the end of their functional life.

Patient care will be improved in the new ten-storey inpatient facility known as K-Block, with services arranged in precincts such as women's, adolescents' and children's; medical; surgical; and mental health services.

K-Block will provide almost 250 beds and there will be seven more operating and procedures rooms.

With the Tasmanian Government's improved project there is:

- an improved design – with a more usable floor plate, better facilities, a new hyperbaric chamber, and the critically important helipad
- a project that is appropriately costed and funded and affordable for Tasmania
- a decanting strategy critical to the safe construction of K-Block – affording the lowest overall risk profile and specifically, a reduced clinical risk related to construction
- strong governance that is safely steering the largest every health infrastructure project for our State and
- a contracted tier one builder who has the highest level of experience in construction projects the size of our new hospital.

These directly respond to the critical risks project faced prior to the work of the Tasmanian Government's RHH Redevelopment Rescue Taskforce (the Taskforce) in 2014.

The Tasmanian Government is committed to stimulating the State's economy. The construction of K-Block is also creating jobs and providing opportunities for local businesses. The total project will generate around \$1.6 billion in economic benefit to the State and the Managing Contractor has estimated that K-Block alone will generate 400 direct jobs.

Construction in the middle of a working hospital is not without its challenges, but K-Block is being built using the least disruptive, safest and most efficient approach for patients, staff and the community.

## Current Construction Works

Over \$50 million of building works are occurring onsite so K-Block can be built. This alone is the largest capital investment program at the RHH in decades, providing long term accommodation for patient services. This includes a new inpatient oncology ward and surgical and medicine wards.

The refurbishment and construction works are required to decant around 125 patient beds and associated services from the hospital building known as B-Block. B-Block must be demolished so that K-Block can be built in its location.

The decanting strategy has used all available space efficiently for patient and administrative areas. However, additional beds are required to ensure safe onsite decanting and maintenance of operational inpatient beds during construction.

The only vacant space of sufficient size for the accommodation requirements is the Liverpool Street forecourt; however, the heritage values of the main hospital building in Liverpool Street (C-Block) make a permanent building in this location undesirable.

Assessments of the RHH Liverpool Street forecourt found the installation of a 54-bed temporary inpatient facility was feasible in this location.

A fully modular pre-fabricated design has been specified for a number of very important reasons.

The design involves significant off-site construction which reduces the overall disruption to the hospital. It can also be efficiently and cost-effectively dismantled, moved, re-assembled and commissioned once K-Block is completed. A fully relocatable design means that the substantial investment required for a temporary solution can be used elsewhere, providing a long term asset or return on investment if sold.

The Managing Contractor (John Holland Fairbrother Joint Venture) was engaged by the Principal (Crown in Right of Tasmania) through the signing of the Managing Contractor Contract in September 2013. The Managing Contractor is responsible for delivering K-Block, fit for purpose, by the contracted date of December 2018. The contract also allows for the Principal to engage the Managing Contractor to carry out early works. This has provided the mechanism for delivering the majority of the current construction works including the temporary inpatient facility.

The current State Government introduced the *Tasmanian Buy Local Policy* to enhance opportunities for local businesses by actively seeking involvement by local businesses, and ensuring that requirements do not unnecessarily preclude those businesses from bidding or otherwise disadvantage local suppliers.

The Managing Contractor is responsible for complying with the State Government's procurement policies. This includes encouraging Tasmanian businesses as per the *Tasmanian Buy Local Policy*.

# Emerging Issues

The RHH Redevelopment will experience a range of issues because of the sheer size of the construction works compounded by the project occurring on the campus of an operational hospital with ageing infrastructure and existing buildings containing hazardous materials.

Patient, staff and construction worker safety is paramount during construction and there are significant processes in place to ensure safety is prioritised and that issues are responded to and managed quickly and thoroughly.

Two issues have emerged during the current construction works: (i) the need for substantial rectification works on the temporary inpatient facility; and (ii) the management of latent conditions within refurbished areas, particularly asbestos removal.

## Temporary Inpatient Facility

Tasmanian business Fairbrother is the subcontractor for the temporary inpatient facility. It committed to completing the works within the required timeframe (February 2016) with a fully modular pre-fabricated solution without unacceptable conditions or qualifications. Fairbrother is also appropriately prequalified with the Tasmanian Department of Treasury and Finance for undertaking building works in excess of the value of this subcontract. They in turn subcontracted the required works packages to multiple subcontractors including the construction of the prefabricated modules to Victorian company, Modscape.

Following the successful installation of the supporting steel structure and the prefabricated modules, a number of unexpected issues arose in relation to the temporary inpatient facility.

These included the discovery of mould and issues with fire separation, the roof and the floor fixing.

Significant rectification works are now being undertaken by the builder at no cost to the project.

The rectification works to the temporary inpatient facility are the direct responsibility of the builder and do not change the contracted date for practical completion.

Fairbrother has already publicly advised that it takes full responsibility for rectifying all the issues with the temporary inpatient facility and ensuring that it delivers a building that is to the high standard that the company is known for.

A large workforce is now progressing significant reconstruction works and working extended hours and most weekends to refit the facility as soon as possible. This is occurring at no additional cost to the project but is obviously causing delays to the demolition of B-Block.

The resourcing, working hours and rate of progress through to the completion of the temporary inpatient facility is under continual monitoring by the RHH Redevelopment's project manager to ensure the outstanding work is delivered as efficiently as possible.

The most recent advice from the Managing Contractor is that the temporary inpatient facility is currently forecast to be completed in October 2016.

## **Mould Health Risks and Alleged ‘Illness Cluster’**

The Managing Contractor has advised that all the mould has now been removed. The temporary inpatient facility will be accepted for handover by the Principal when the rectification works are complete and the building is both safe and fit for purpose.

The RHH Redevelopment consulted with the hospital's hygienists and infection control staff. It also engaged its own independent industry hygienist to verify that the mould identification and rectification works were appropriate.

During the course of these works, allegations were publicly asserted that the mould had caused an ‘illness cluster’ amongst construction workers. WorkSafe Tasmania undertook a detailed investigation and found that, upon detection of the mould, relevant and appropriate containment and remediation measures were implemented and the associated health and safety risks were being appropriately managed. Furthermore, the investigation did not find any evidence to support suggestions that an ‘illness cluster’ existed within the workforce relating to the mould.

## **Management of Latent Conditions**

Latent conditions are physical conditions on, underlying or adjacent to a construction site which by their nature cannot be identified before the works commenced.

Although building condition and hazardous materials audits were conducted prior to works commencing, the management of significant latent conditions is required as part of the refurbishment works. These latent conditions are due to the age of the buildings and the extent of multiple refurbishment works occurring over decades. Additionally, because the refurbishment works are often being undertaken in patient areas, it has not been possible to conduct extensive inspections of areas until they have been vacated so as to minimise disruption from the works.

The management of latent conditions includes the need to remove greater than anticipated asbestos containing materials and rectification of fire separation deficiencies which has required amendments to the program.

The management of latent conditions is being addressed within budget. The project continues to be managed within its budget.

## **Removal of Asbestos**

Health and safety of patients, staff and construction workers are a priority for the RHH and the RHH Redevelopment project.

The issue of asbestos usage in building products up until the 1980s is something which all States and Territories are dealing with. The presence of asbestos in old buildings like the RHH is well known.

The presence of asbestos in the existing hospital buildings is another reason why the construction of K-Block and Government's substantial investment in the current refurbishments is important.

Undisturbed, asbestos containing materials do not pose a risk. Friable asbestos (building materials that are loose or crumbling and where fibres can easily be released into the air) must be removed or remediated. As far as practicable, materials containing asbestos have been removed from the areas being refurbished. In a limited number of cases where removal was not practicable, the materials containing asbestos have been encapsulated.

The Taskforce commissioned a hazardous materials audit to provide even more up to date information on areas to be refurbished under the decanting strategy.

Greater than anticipated asbestos containing materials have been uncovered during construction works as decades old construction works are peeled back and latent conditions revealed.

As a precautionary measure, to supplement prior hazardous materials audits, all refurbishment areas are inspected by an independent industry hygienist to identify where asbestos is present and verify that the areas are clean and safe for works to proceed after the asbestos has been removed.

Licensed contractors have been engaged to undertake the removal of hazardous materials and this only occurs within a cordoned off area within an enclosed construction zone. Contractors are required to wear full personal protective equipment and are reminded of this safety requirement.

All subcontractors are required to receive site induction from the Managing Contractor which includes hazardous materials awareness. They are required to apply caution at all times. If there is any doubt about whether a building material contains asbestos, works must cease until investigations confirm it is safe to continue.

Where dust or debris is observed in or around construction zones which may contain asbestos material, immediate action is taken to ensure the area is safe for everyone. This may include relocating staff, closing off areas, cessation of construction works, air and particle testing, industrial cleaning and sealing of materials or other rectification work where required.

Air testing is routinely conducted in construction zones and adjacent areas. To date, all air tests have had been clean.

## **Fire Separation**

A key element of fire safety in large buildings is fire separation. To prevent the rapid spread of fire and to provide time to evacuate and fight the fire, fire resistant barriers are required between floors and separating large floor areas.

In the case of the areas being refurbished, the buildings were constructed to previous standards but had multiple alterations over many decades. Penetrations made between the floors were not fire rated to current standards.

The project is addressing these deficiencies in the fire separation to ensure that the refurbished areas meet contemporary standards.

# Management of the Construction Program

The Managing Contractor must take positive steps to re-schedule, re-program, expedite and adjust activities, sequences and the carrying out and execution of the work under the contract to ensure that a satisfactory progress is maintained.

Its construction program for K-Block contained modest contingency time. It is now unlikely that the Managing Contractor will achieve its required contracted finish date based on the anticipated delays to the temporary inpatient facility. Revision of the program to achieve the contracted completion date remains the responsibility of the Managing Contractor.

The Government ensured that the GCS contract included significant incentives for the Managing Contractor to minimise delays. Subject to the terms of the contract, after 30 days after the date for practical completion, Managing Contractor delay damages of \$17 000 per day apply. After 60 days after the date for practical completion, Managing Contractor delay damages of \$35 000 per day apply.

Viable options to mitigate delays are being assessed by the Managing Contractor and the RHH Redevelopment, with input from the design consultants, programmers and stakeholders where appropriate.

The RHH Redevelopment's programming consultant reviews proposed program changes to verify forecasts.

There are some limitations to the capacity of the Managing Contractor to accelerate works however. The high rise development on a constrained site presents limitations to the maximum resources that can be applied safely and effectively at any one time. The site is also located within a tertiary hospital where patient safety is paramount and patients require periods of rest for recovery.

On the basis of the project's current status, it is anticipated the RHH Redevelopment will be completed mid-2019. However, given the ongoing program review and resolution of associated commercial matters, further speculation on these issues may compromise the Government's legal rights under the contract.

For these reasons, Cabinet has been provided with clear advice in relation to the above and failure to comply with this advice may contribute to compromise of the Government's legal rights.

# Tasmanian Subcontractors

The Tasmanian Government and the RHH Redevelopment are committed to maximising the participation of Tasmanian businesses and workers in the project.

The advertising of works packages for K-Block has already commenced and an announcement of the outcomes will occur shortly.

The best way for local contractors to be part of the RHH Redevelopment is to submit for work packages as they are released by the Managing Contractor.

The RHH Redevelopment will continue to ensure that the Managing Contractor continues to apply the *Tasmanian Buy Local Policy* to procurements, including directly inviting at least two Tasmanian businesses to tender where local capacity exists.

Industry information sessions have been held and further sessions will be held as trade packages are progressively released for tender.

Interested businesses are encouraged to register their details with the Industry Capability Network (<https://gateway.icn.org.au/>), which is being used by the Managing Contractor to inform industry of tender opportunities. It also enables networking opportunities between businesses, which may be beneficial for Tasmanian businesses that may wish to form an alliance with others for additional capacity to complete large packages or to blend their local resources with management experience specifically in hospital construction.