

# Facts on K-Block

Firsts for the Royal Hobart Hospital



The Royal Hobart Hospital campus including K-Block.

## 1. Dedicated adolescents' unit

19-bed capacity dedicated adolescents' unit with two safe rooms for vulnerable young people.

## 2. Dual capability hyperbaric chamber

First in the southern hemisphere, the multi-place chamber has dual-capability to pressurise (hyperbaric) and depressurise (hypobaric).

## 3. Onsite helipad

Patients will get to treatment within a few minutes of landing on the K-Block helipad.

## 4. Digital operating theatres

New audio-visual equipment will bring high-resolution imaging information into theatres like x-rays, CTs etc.

## 5. Mobile CT scanner

Patients can have a CT scan without leaving the operating theatre with the first public mobile CT scanner for the Tasmanian Health Service and one of only eight in the country.

## 6. Birthing baths

Seven birthing baths have been installed in the maternity unit to support water immersion during labour and birthing, where clinically appropriate.

## 7. Central sterilising robot

Staff health and safety will improve with a robot that takes instruments to the steriliser, reducing repetitious lifting. The RHH will be the first Australian site to use the equipment.



Seven of K-Block's birthing suites include birthing baths.

## More K-Block Facts

### Size

K-Block is about 39 000 m<sup>2</sup> in size.

A typical floor plate is 3 000 m<sup>2</sup>.

K-Block has 10 floors for patient services with capacity for 315 beds when fully occupied, a loading dock, plantrooms, and a helipad with a lift lobby.

The move of inpatient services into K-Block will provide vacated space in existing buildings for the RHH to increase its bed capacity by 250 beds by 2024.

The top of K-Block's helipad is about 60 metres above street level, and with the plant room it's closer to 70 metres high (Wrest Point Casino is 73 metres high).

### Services

The ground floor patient arrivals and departure area includes reception, admissions, waiting area, transit lounge, cashier and a café.

Wards are arranged in clinical groups:

- mental health on levels 2 and 3
- women's, adolescents' and children's units on levels 6, 7 and 8
- general and orthopaedic surgery and neurosurgery on levels 8 and 9 and
- general and respiratory medicine on level 10.

There are seven more operating and procedure rooms in a new theatre precinct that extends into A, C and D-Blocks on level 4.

The operating theatres are supported by the central sterilising department on level 5 with its state-of-the-art loan equipment room, electronic instrument tracker and robot that will take instrument trays to the steriliser.





*The first patients to receive treatment in K-Block's hyperbaric chamber are briefed by staff.*

## Helipad

Critically injured and ill patients will get to treatment sooner with the \$10.5 million helipad.

Helicopters will predominantly land at the hospital rather than at the Cenotaph where a road ambulance is needed to transfer patients to the RHH.

One or two patient retrievals a day on average are anticipated.

It will take a few minutes only for the treating team to transfer a patient to the clinical area.

The helipad is 23 x 27 metres in size which can accommodate the range of helicopters used in aeromedical retrievals in Australia.

## Hyperbaric Chamber

Over 2 000 treatments a year will be provided for decompression illness and medical conditions like radiation injury and diabetic wounds at the \$11 million purpose-built hyperbaric facility on level 3 of K-Block.

The facility includes a 66-tonne, 14-metre long, purpose-built, multi-place hyperbaric chamber.

The chamber can treat up to 10 people simultaneously with hyperbaric oxygen.

It is the first for the southern hemisphere because it also has capability to depressurise (hypobaric).

## New Equipment

Over \$31 million of contracts for furniture, fitting and equipment have been procured including:

- \$4.1 million for digital operating theatres
- \$3 million for patient monitors and anaesthetic machines
- \$7.38 million for new angiography and cardiac catheterisation suites and maintenance costs
- \$500 000 thousand for neonatal and paediatric intensive care pendants
- \$3 million for central sterilising equipment and
- \$1.9 million for a mobile CT scanner.



The aeromedical retrieval team conducting a real-time, simulated transfer of a simulation mannequin from the helipad to the department of critical care medicine during commissioning of K-Block.

## Construction

5 500 m<sup>2</sup> of earth was excavated from the site to build K-Block.

6 000 m<sup>2</sup> of precast panels were used in the façade. The cladding is 100 per cent aluminium and contains no hydrocarbons. It passes the combustibility test requirements of the Building Code of Australia.

The tallest cranes in Hobart to date were used to reach a height of up to 120 metres. Together they completed 18 500 lifts of up to 15 tonne per lift.

Up to 500 workers were on site at peak construction.

## Environmental Initiatives

Energy efficiency initiatives will deliver more efficient water and power use and minimise carbon emissions including:

- high performing building façade that optimises natural light and reduces energy use
- double glazing of external windows
- extensive sub-metering allowing for monitoring and management of energy use
- high efficiency chillers
- natural gas boilers
- zoning of mechanical and electrical systems so they can be controlled independently.



Demolition works prior to K-Block construction.



## Internal Design

The interior colours of K-Block are inspired by the landscape: sky and water blues, landscape greens, Tasmanian flora and earth tones.

Patient areas line the perimeter of the building so they can benefit from the natural light optimised by the H-shape of the building.

A three-storey atrium introduces light and space into the ground floor patient admissions and departure areas.

Landscaped outdoor terraces can be found on the ground floor for the general public, on level 6 for the adolescents and children's units and on levels 2 and 3 for the mental health units.

A staff lounge on level 2 allows staff to take scheduled breaks away from their ward and without leaving K-Block.

In addition to indoor and outdoor recreational space, there are meeting rooms and offices for collaboration meetings.

## Wayfinding

Wayfinding is incorporated into the K-Block design with directory boards at reception and lift lobbies.

Signage clearly labels wards on each floor. Architectural features and colour is used in wall paint and floor vinyl to help guide the flow of movement along the corridors.

## External Design

The building's façade is designed to complement Hobart's natural and built environment and acknowledge aspects of the city's heritage.

The shadow of Hobart's iconic kunanyi/Mount Wellington is reflected in the facade design.

The façade's grid of panels is similar to the Rajah Quilt, hand sewn by female convicts on their voyage to Van Diemen's Land in 1841.



*Pedestrian Street from the Campbell Street entrance with views to external gardens to right and reception in front.*

For more information go to  
[www.rhhredevelopment.tas.gov.au](http://www.rhhredevelopment.tas.gov.au)