Health New Zealand
Te Whatu Ora

Detailed Business Case

Wellington Regional Hospital ED Refurbishment (Front of Whare)

Document control

Document information

File Name	Wellington Regional Hospital ED Refurbishment (Front of Whare)
Document Owner	Jamie Duncan, Group Director Operations, CCHV
Issue Date	9 October 2024

Document history

Version	Issue date	Changes
1.0	23/08/24	First draft, four cases
1.2	28/08/24	Second draft, four cases refined
2.0	30/08/24	Inclusive all five cases, QS costings for recommended option
For Gateway	5/9/24	Updated version for Gateway Review
For Jamie Duncan and Robyn Shearer for review	1/10/24	Changes made post Gateway Review
Final edits and SRO signoff	9/10/24	Final edits and signoff by SRO
Update Annex I	27/1/25	Update on progress of actions Gateway Review recommended
Update for recent work completed	7/2/25	Update to reflect seismic work completed in current ED building Dec 2024 and progress against Gateway recommendations

Document review

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Glossary

Term	Definition
2DHB	2 District Health Boards (merging of Capital & Coast and Hutt Valley District Health Boards – now Health New Zealand Capital, Coast & Hutt Valley
ADKAR	Prosci ADKAR Model – Awareness, Desire, Knowledge, Ability, Reinforcement.
ASB	Acute Services Building
AusHFG	Australasian Health Facility Guidelines
BAU	Behavioural Assessment Unit
CCHV	Health New Zealand Capital, Coast & Hutt Valley
CSP	Clinical Services Plan
CMU	Clinical Measurement Unit
CSB	Clinical Services Block (at Wellington Regional Hospital)
CSFs	Critical Success Factors
D&D	Data and Digital
DBC	Detailed Business Case
DHB	District Health Board (replaced by Health New Zealand districts)
DIA	Department of Internal Affairs
DNW	Did-not-wait
DPS	Digital Public Service (branch of the Department of Internal Affairs)
DSA	Detailed Seismic Assessment
ECI	Early Contractor Involvement
ED	Emergency Department / Te Pae Tiaki Wellington Emergency Department
ELT	Executive Leadership Team
EDOU	Emergency Department Observation Unit
EQC	Earthquake Commission
FDB	Functional Design Brief
FVSV	Family Violence and Sexual Violence
GETS	Government Electronic Tenders Service
GFA	Gross Floor Area
GM	General Manager
GWRC	Greater Wellington Regional Council
HCE	Health Capital Envelope
HPU	Health Planning Units
IBC	Indicative Business Case
ICT	Information & Communication Technology (also referred to as IT)
ICU	Intensive Care Unit
IL	Importance Level, followed by level 1-5 (for example, IL4)
ILM	Investment Logic Mapping
IMS	Investment Management System
IOC	Integrated Operations Centre
IIG	Health New Zealand Infrastructure and Investment Group
IQA	Independent Quality Assurance
IRC	International Recruitment Centre
MAPU	Medical Assessment and Planning Unit
MBIE	Ministry of Business, Innovation and Employment

Term	Definition
MoC	Model of Care
MOH	Ministry of Health
MOPD	Main Outpatient Department
MSP	Managing Successful Programmes (project management methodology)
NBS	National Building Standard
NZIC	NZ Infrastructure Commission
PCD	Preliminary Concept Design
PMP	Project Management Plan
PSHA	Probabilistic Seismic Hazard Assessment
QS	Quantity Surveyor (Capital Cost Consultant)
RFT	Request for Tender
RFX	Request for X. A generic acronym used to cover an assortment of tender types
RLB	Rider Levett Bucknall (Quantity Surveyor/Capital Cost Consultant)
RPA	Risk Profile Assessment
SAPU	Surgical Assessment and Planning Unit
SLS	Serviceability Limit State, followed by level (e.g. SLS2)
SME	Subject Matter Expert
SMO	Senior Medical Officer
SMP	Site Master Plan
SRDAG	Sub Regional Disability Advisory Group
SRO	Senior Responsible Owner
SPP	Strategy, Planning and Performance Directorate (Te Whatu Ora Capital, Coast & Hutt Valley).
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
WFA	Wellington Free Ambulance
WRH	Wellington Regional Hospital
W01	Wellington Regional Hospital Building W01, main hospital building, currently housing MAPU, security office, main atrium, outpatients and CMU.

Business Case Summary

The investment proposal

The Wellington Regional Hospital Emergency Department Refurbishment (Front of Whare) will provide new Emergency Department facilities that:

- Are fit for purpose, with expanded points of care (PoC) to address the current capacity deficit and contribute to improved performance against the government target of 95% of ED patients to be seen within 6 hours. Just 46% of Wellington ED patients are seen within 6 hours, with undersized infrastructure a large factor hindering improved performance.
- Are seismically resilient to Importance Level 4 (IL4) to meet industry standards. The current ED is in a building that recently had its rating raised to 34% of the New Building Standard (NBS) Importance Level 4[1]. The recommended rating is greater than or equal to 67% NBS IL4. Raising the rating further is not an option while the building is occupied.
- Will provide improved emergency patient care within the ground floor of the main hospital building (it is rated 70% NBS IL4). The new emergency department in the main hospital building is achieved through a series of moves of services and departments that are presently located in the identified area for the new ED. This realignment of services and departments is progressed through a complex programme of 14 distinct projects. In addition to freeing up space for the new ED, this programme of moves and relocations optimises the use of WRH facilities.

This Detailed Business Case:

- Identifies a long list of options to deliver the investment objectives, reduces these to a short list and assesses the short list against agreed criteria and risks to select a preferred option.
- Estimates the cost of delivering the preferred and assesses the level of uncertainty around those costings.
- Sets out the recommended approach to procurement and delivery of the preferred option.

The business case has been informed by the following key inputs completed to date:

- Indicative Business Case, approved by Joint Ministers of Health and Finance in May 2023
- Concept design for the preferred option
- Quantity Surveyor Costings for the preferred option. The QS costing recognised known risks at DBC stage and costed each of the 14 sub-projects to a level of detail corresponding to their design phase.
- Quantitative Risk Analysis (QRA)
- Market engagement, in line with the procurement plan, and selection of preferred supplier(s)
- Most procurement needed to deliver the project has been completed, with main contractors selected but final approval to initiate work is subject to this business case and funding being approved
- Enabling works package is designed, costed, and scheduled to start in late 2024, subject to approval being obtained
- A Gateway Review 2 (Delivery Strategy – Detailed Business Case) was completed in September 2024.

If this DBC was not approved, then there are no other unfunded commitments going forward, which would be binding on the Crown.

Recommendation

This Detailed business case seeks:

1. **Agreement** to the preferred option, and the proposed approach to procurement and delivery

[1] Recent remediation work has raised the rating from 15%

2. **Agreement** to submit this business case to Cabinet and to seek funding in Budget 2025 for this proposal

Next Steps

1. This Detailed Business Case seeks formal approval from Cabinet to:

- Agree to the proposed investment outlined in this business case
- Submit a Budget Bid for this proposed investment in Budget 2025
- Finalise the arrangements for implementation of the recommended option for the project, including:
  - Confirmation of additional funding for critical path enabling works (Level 11 CSB & Old Children's Hospital seismic works) to enable delivery as per the DBC programme.
  - Complete and engage contractors for the enabling works process
  - Continue design and consenting of all phases of works in line with programme requirements

The Implementation Business Cases are planned to be submitted for approval in stages (for the different construction projects required) from 2025 onwards.

Investment Summary

Project name	**Front of Whare**
Location of investment	Wellington Regional Hospital
Senior Responsible Owner (SRO)	Jamie Duncan, GDO, Capital Coast Hutt Valley
Project Director	Karyn Hathaway, Programme Director Hospital Network
Project Manager	Harriet Litten (HSS Service Transformation) Daniel Angus (Construction and Implementation)
Risk Profile Assessment (RPA)	Medium

Project benefits	
Investment type	☒ Facility ☐ Equipment ☐ Infrastructure ☒ Data and Digital ☐ Other (specify)
Project drivers	☒ Growth/capacity ☒ Replacement ☒ Quality of service delivery/service levels
Infrastructure Investment Plan	☒ Yes – In Top 10 priority investments ☐ No
Previous business cases and approvals	IBC – Minister of Health and Minister of Finance, May 2023

Whole-of-life cost (WOLC)	s 9(2)(b)(ii)	
Total capital cost		
Capital cost of project compared with expected IBC cost		
Proposed capital funding sources	☒ Health Capital Envelope s 9(2)(b)(ii) . $10m previously released. ☐ Baseline (insert amount) ☐ Other (specify source and insert amount)	
Project /one-off operating costs	s 9(2)(b)(ii)	
Funding	$10 million was released after the IBC was approved. A further $30 million was approved for enabling works to start in late 2024. It is proposed s 9(2)(b)(ii) will be provided from the Health Capital Envelope. A s 9(2)(b)(ii) , for the balance of the cost of the investment, will be sought in Budget 2025	
	Costings approved by Finance: [signature]	
Ongoing annual operating costs post-delivery – steady state (est)	s 9(2)(b)(ii) including depreciation (s 9(2)(b)(ii) excl. depreciation) in 2031/32 on a nominal basis.	
Proposed ongoing operating funding sources	☐ Baseline (insert amount) ☐ Other (specify source and insert amount)	**Approved by H&SS:** [signature]
Estimated completion of this project	Start: October 2024 End: The project is completed in stages, each stage delivers a completed facility and relocated services. The new ED is expected to be commissioned March 2029, the final project stage (refurbishment of old ED building) is expected to be commissioned in 2030.	

Contents

Health New Zealand
Te Whatu Ora

Executive summary: Wellington Regional Hospital Emergency Department Refurbishment (Front of Whare)

Investment Summary

1. This Detailed Business Case (DBC) seeks your approval to invest a further 9(2)(b)(ii) million in new Crown funding and allocate s 9(2)(b)(ii) from the Health Capital Envelope.

2. The total cost of the project is 9(2)(b)(ii) (inclusive of the $10 million previously provided, $30 million previously provided by the Minister of Health in 2024 for enabling works, and 9(2)(b)(ii) of funding available in the Health Capital Envelope, and 9(2)(b)(ii) in new Crown funding) to implement the Wellington Hospital ED Refurbishment Project (Front of Whare). The preferred investment in summary involves:

- relocation of the current ED into the main hospital building in an area presently occupied by other clinical departments and services.
- the relocation of the ED results in a complex programme of 14 sub projects that will reposition hospital functions across the wider campus to make most optimal use of the current hospital buildings and maximise patient care capacity
- repurposing the current ED as a 23-hour ward to increase bed capacity on the site and support outflow from the ED.

3. The preferred investment will increase ED points of care and beds elsewhere in the hospital:

Table 1: Increase in ED and inpatient beds delivered by this project

	Current Capacity	Preferred option	Increase
ED points of care	53	87	34
Inpatient beds in other areas of the hospital*	427	483	56

* Beds elsewhere in hospital includes all inpatient overnight beds – including ICU, Paediatrics, Neonatal intensive care, Maternity. It does not include mental health, ambulatory and day stay points of care. The additional 56 beds delivered by the project are ICU, MAPU, SAPU, inpatient and 23-hour ward beds

The need for the proposed investment

4. The Wellington Regional Hospital ED Refurbishment Project (the Project) addresses the current challenges with emergency care at Wellington Regional Hospital. These challenges are:

- The Emergency Department (ED) and acute assessment services are undersized, they lack the capacity to meet demand, and this is causing delayed care and patient harm;
- The ED layout is hindering further improvements to the model of care and creating access issues;
- The ED is in a building that, while safe to occupy, is rated at 15% New Building Standard (NBS)Importance Level 4 (IL4), which is significantly lower than the recommended rating – greater than or equal to 67% NBS IL4. The building is at medium to high risk of failure during and after a seismic disaster. While initial works to increase the IL rating to 34% and will be underway shortly, raising the IL rating above this will require the facility to be vacated, which is not possible in an operational ED.

The consequences if the investment does not proceed

5. Without progressing the Project, the hospital's ED is in an unsustainable situation and will continue to be unable to meet the health needs of the region. The ED is clinically and culturally unsafe, spaces are cramped, inadequately designed, fragmented and inefficient. Around 1/3 of patients are receiving treatment in a corridor. It is difficult to maintain consultant supervision and oversight of patients in five different areas.

6. The Recommended Option for the Project contributes critical infrastructure needed for the Wellington ED to achieve the 95% performance against the Shorter Stays in Emergency Department (SSED) target, which is a key government policy. Currently the Wellington ED achieves the SSED target for just 46% of attendees, and it is one of the worst performers against this target with undersized infrastructure a large factor hindering improved performance. The project will address this by delivering a new and expanded ED, new and expanded acute assessment facilities, an expansion of the Intensive Care Unit ("ICU") and additional adult inpatient beds, including reusing the old ED building to provide a ward for short stay patients for up to 23 hours duration.

7. The Wellington region will lack seismically appropriate acute and emergency care facilities. The ability to continue operations in a post-disaster environment is particularly relevant for an acute facility located in Wellington, where the continuity of services is critical not only to people in Wellington, but also the greater Wellington region.

The recommended preferred option

8. The Recommended Option is to relocate the ED to the ground floor of the main hospital building. To do so, there will first be a planned and efficient move of services and departments who currently occupy the identified space for the new ED, and a requirement for the sequential decanting and relocation of several clinical and administrative departments.

9. The proposed solution also involves repurposing the old ED as a 23-hour ward. The cost of bringing this up to a higher seismic rating, once it is vacated has been provided for in current budgets and is programmed to be spent shortly. This will enable the area to be used in the short to medium term to address some bed capacity constraints at the hospital.

10. The logistics of the Recommended Option are complex but well defined; the project plan sequences 14 distinct construction projects each refurbishing an existing building. The project will be delivered entirely by repurposing existing buildings. The project is estimated to take five years, but components will become operational before the project is completed out (i.e. Medical Assessment and Planning Unit (MAPU), Surgical Assessment and Planning Unit (SAPU) and Intensive Care Unit (ICU) will be commissioned in 2027, the new ED is expected to operational in 2029, but overall project completion is mid 2030).

Expected benefits

11. The proposed investment will deliver several benefits. The overall benefit is improved, safer patient care in the short term by addressing significant issues that arise from crowding in the department including from many patients receiving treatment in the corridor.

12. The project will contribute to improved SSED performance by delivering a new and expanded ED, new and expanded acute assessment facilities, an expansion of the ICU and additional adult inpatient beds (from reusing the existing ED facility as a 23-hour ward and freeing up inpatient beds in the main hospital building). This project provides an increase in ED capacity from 53 to 87 points of care, and an increase of 56 beds outside of the ED increasing the total hospital inpatient bed count from 427 beds to 483 beds.[2]

2 This total includes all inpatient overnight beds – including ICU, Paediatrics, Neonatal intensive care, Maternity

Table 2: Capacity increase delivered by the proposed investment

Capacity increase delivered by the proposed investment	
ED points of care	34
Inpatient beds	56
Outpatient treatment and consult rooms	36

13. The preferred option in this DBC is not a total solution to all of the WRH capacity constraints. It is an intermediate solution to address current safety issues and problems that impact on timely and safe patient care in the ED and acute assessment units. It is a good means to mitigate the problems in ED and SSED targets within the capital constraints that exist.

14. In the longer term, there remains an ongoing pressure to progress a more fulsome solution for the capacity needs of the WRH, including addressing the excess demand for beds over supply across the WRH campus. This project won't address this problem, and solving this issue is outside of the scope of this business case. However, this project does provide a partial solution to these longer term, more complex challenges through an affordable, immediate intervention to improve safety in the interim and enable the future development of the site. The proposed investment is not expected to constrain the options that may be developed to address these longer-term pressures that exist across the WRH.

15. The proposed new ED on the ground floor of the main hospital building also addresses the current non-compliance with seismic requirements as it is rated 70% NBS IL4. In addition, the proposed relocations of services and departments within existing buildings, including constructing the new ED in the main hospital building and reusing the current ED, provides the best optimal use of the wider WRH site, and at a lower cost than building an entirely new ED building.

Background and Work completed to date

16. This Detailed Business Case follows on from an Indicative Business Case that was approved by the Joint Ministers of Health and Finance in May 2023. Joint Ministers also approved the release of an initial $10 million of funding to allow design and initial enabling works to be progressed.

17. The initial funding tranche has enabled the project's critical path to be confirmed. The project now has fully mapped out the required sequence of service relocations and building works. Each of the building works needed to deliver this project is at detailed design stage, with the ED itself remaining at developed concept design stage, all costed by the quantity surveyor to support this detailed business case. Affected services and departments were included in the design process.

Strategic Case

18. The existing ED and acute services spaces at Wellington Regional Hospital are not fit-for-purpose and do not support the delivery of quality and equitable patient care:

a) Lack of capacity to meet demand and increasing patient complexity is causing delayed care and patient harm – the capacity of the existing ED facility is below current requirements (53 points of care compared with the demand for 72 points of care)[3] and this deficit is likely to be further exacerbated as forecasts show demand is expected to increase (83 points of care by 2037). Alongside this, wider hospital occupancy remains high, highlighting that investment in additional assessment unit beds, critical care beds, and general adult inpatient beds, alongside increased ED capacity, is critical for realising timely access and treatment for patients.

[3] A point of care is where clinicians deliver health services to the patient.

b) Facility layout is hindering further improvements to the model of care and creating access issues – the existing configuration of the ED and acute services spaces does not support contemporary models of care, which is impacting optimal patient flow, operational efficiency and the quality and sustainability of care. As a result, there is increasing unmet need and issues accessing equitable healthcare.

c) Ongoing use of a non-compliant facility is putting people at risk during and post a major seismic event – a Detailed Seismic Assessment revealed the existing ED did not meet operational continuity code requirements (SLS2) and rated the facility at 15% NBS IL4. This rating has recently increased to 34% following initial seismic strengthening undertaken in December 2024. The ED however will still be significantly below the recommended rating of greater than or equal to 67% NBS IL4. This, along with high risks to non-structural building elements, shows that the existing ED is at medium to high risk of failure to deliver care during and after disaster episodes. Increasing the IL rating further is only possible once the ED is vacated.

19. The proposed investment is aligned with Pae Ora (Healthy Futures) Act 2022 and the New Zealand Government Health Target: Shorter Stays in the Emergency Department. The project is also aligned with Achieving the Health Targets – High Level Implementation Plan July 2024 -June 2027 which was announced by the Minister on 12 September 2024. Action 1 of this implementation plan is to establish short stay units and discharge lounges.

20. The Wellington ED has consistently been one of the lowest performers nationally against the 6-hour shorter stays in emergency department performance measure. The Wellington ED meets this standard for 46% of all attendances, for 29% of those admitted, and for 54% for those not admitted. The reality of these statistics is that long waits, of over 6 hours, in the ED are the norm.

21. Not all people presenting to ED sit through the lengthy wait to receive care. There has been a 35% increase on the number not waiting for treatment since 2019. One in ten people presenting to the Wellington ED do not wait to be seen by a Clinician. A large number of patients presenting but not waiting for treatment creates clinical risk for each patient and adds load to the ED, as these patients are likely to represent later with higher acuity.

22. Due to overcrowding, one third of patients presenting to the Wellington ED are spending time in a corridor, rather than receiving treatment in a cubicle. This results in a poor healthcare environment and poor health outcomes for patients. This is unsafe and increases the risk of patients deteriorating in the department.

23. Patients in the corridor:

- experience a lack of privacy, dignity and are exposed to visually traumatic episodes
- results in an increase in medical errors and patient harm (10% increase in hospital mortality)
- lack access to a call bell, emergency suction/oxygen, and isolation for patients who may be at risk of spreading disease
- creates obstructions in the corridors (especially regarding fire safety and evacuation).

Economic Case

24. In a 2023 Indicative Business Case and in this Detailed Business Case, Health New Zealand Capital Coast and Hutt Valley (CCHV) has considered a range of investment options to meet future emergency care demand, create additional physical capacity, support new models of care, and enable implementation within the short to medium term.

Location of the Emergency Department

25. Both greenfields (away from the WRH site) and brownfields (on WRH campus) solutions for the ED location have been rigorously tested and considered as part of the IBC and DBC long list evaluations. Greenfieds options were not considered feasible due to the need for the regions tertiary ED to remain connected to critical tertiary services on the WRH campus. While brownfields construction can increase risk of unanticipated challenges in site or building condition leading to unplanned increase in scope and cost, this project has drawn on the extensive knowledge of the site and existing buildings at WRH as a result of other recent works; including the New Children's Hospital and the Copper Pipes Remediation project within the main hospital building.

26. Refurbishment and replacement of the existing ED has been explored, along with alternative locations within the WRH existing buildings and campus. There are several factors that have guided the determination of the preferred location:

- **Seismic refurbishment of the existing ED beyond some initial planned works that will increase to 34% is not viable while the facility is in use** – It is not possible to rectify seismic issues without ceasing operation or significantly reducing capacity to deliver current service activity in the existing ED while refurbishment is underway. While seismic remediation is planned to ensure it will be used as a 23 hour ward, this will be undertaken when the facility is vacated. However once the seismic issues are addressed there remains no ability to expand the capacity of the existing ED due to physical constraints and lack of adjacent available footprint.
- **The ground floor of the main hospital building is the only possible location to house the relocated and expanded ED** – Architects and Health Planners explored the refurbishment of other locations on the Wellington Regional Hospital site to accommodate the expanded ED. From this, the ground floor of the main hospital building was determined to be the only suitable location.
- **The optimal location for a new building is where the existing ED currently sits** – Master planning has identified the optimal location for a new building is where the existing ED currently sits. This is not feasible as it would require relocation or closure of the existing ED.
- **The need to ensure WRH medical procedures are not impacted from any construction**. The WRH is a working hospital that operates 24 hours a day, 7 days a week. Construction of the ED in its proposed location will not impact on the medical procedures that are carried out in WRH. The WRH has a good track record of undertaking refurbishments or builds in a working hospital environment as shown by the Copper Pipes replacement project throughout the hospital, and the HDU development, and the rooftop decant ward. The one area that will require careful consideration of impacts on hospital operations is the extra 4 beds that are being created in the ICU. We are confident that we will be able to ensure that this work can be undertaken without significant disruption or impacts on patients.

Short listed options

27. With the ground floor of the main hospital building the only practical location solution that exists while continuing to run an ED, there are three shortlisted options to deliver an ED on the ground floor of the main hospital building. These three options differ in the capacity that they create.

28. All short-listed options increase the seismic performance of the ED to >70% NBS IL4. All short-listed options involve a sequential move of services to house the relocated and expanded ED and to expand assessment and planning beds, critical care beds, short-stay beds and general adult beds.

- **Refurbishment with <u>minimal</u> capacity expansion to enable flow** – this results in an increase of points of care in ED (+34), MAPU (+2), Ambulatory/Outpatients (+36), ICU (+4), and additional in-patient beds (+18). This does not provide any additional SAPU capacity. **This option results in a total increase of 94 PoC.**
- **Refurbishment with <u>intermediate</u> capacity expansion to enable flow** – this results in an increase of points of care in ED (+34), MAPU (+2), ICU (+4), general adult beds (+14).

Ambulatory/Outpatients (+36) and SAPU (+14). **This option results in a total increase of 104 PoC.**

- **Refurbishment with maximum capacity expansion to enable flow** – this results in an increase of points of care in ED (+34), MAPU (+2), ICU (+4), general adult beds (+36). Ambulatory/Outpatients (+36) and SAPU (+14). **This option results in a total increase of 126 PoC.**

29. These options were considered for their ability to deliver the investment objectives, critical success factors and the benefits sought by the project. This assessment showed a clear outcome, as follows in the table below, the **recommended option is refurbishment with maximum capacity expansion to enable flow**, critically it provides an additional 36 in-patient beds (double that of the alternative options) making it the only option to provide sufficient capacity in each element of the system (ED, assessment and in-patient beds) to contribute to CCHV to moving from 46% (one of the worst performers) to 95% performance against the SSED health target.

Table 3: Summary of multi criteria analysis

Multi Criteria	Do Nothing Status Quo	Refurbishment with Minimum Capacity Expansion	Refurbishment with Intermediate Capacity Expansion	Refurbishment with Maximum Capacity Expansion (Recommended)
Investment Objectives Score	0	24	24	30
CSF Score	N/A	34.75	39.5	47.5
Benefits Assessment Score	0.2	2.65	3.6	5
Capital Cost	N/A	9(2)(b)(ii)		
Operating Cost from FY 2031/32 (Excl Depreciation, Capital Charge)	N/A			
Cost per Point of Care	N/A			
Recommended Option	**No**	**No**	**No**	**Yes**

The preferred option

30. The preferred option in the Detailed Business Case differs from that in the Indicative Business Case

31. While the Indicative Business Case advised that the current ED building should be demolished, updated seismic advice means that demolition is no longer recommended. It remains the case that it is not feasible to strengthen the building to the required IL4 standard, but some limited strengthening can enable the continued use of the building. Under the Recommended Option it will house the majority (22 of the 36) of the additional in-patent beds (in a new 23-hour ward) and some services relocated to move the ED into the main hospital building. s 9(2)(j) . In the interim period using the existing facility for other purposes provides an opportunity to help alleviate some of the capacity pressures within the WRH.

32. The minimum capacity option is the least cost option (10% less than the recommended option). The cost saving is achieved by providing the least capacity improvement, an increase of 94 total PoC, with only 18 of these additional inpatient beds and significantly less assessment unit capacity. The 94 additional PoC includes outpatient capacity and will be insufficient to support CCHV to meet the 95% SSED target. Until the in-patient bed deficit is rectified, the ED and assessment units will not be able to flow patients through the acute care system.

33. The recommended Option, refurbishment with maximum capacity expansion to enable flow, has the lowest cost at 9(2)(b)(ii) per PoC of the short-listed options. Whereas the minimum capacity option offers the least value for money, it has a cost per PoC of 9(2)(b)(ii) .

34. Preliminary work was done to establish the scope and feasibility of the minimum capacity option in order to assess its merits against the other options. Given it did not rank highly in the short-list, and to manage the delivery of this business case to time and resource constraints, its feasibility was not further tested. There are concerns about the feasibility of the minimum option, specifically these relate to the re-purposing of the Old Children's Hospital (OCH) to clinical inpatient use and the impact on the seismic strengthening plans (to IL2) and the required upgrade of mechanical, ventilation and other services and systems, of which the full cost is not fully understood. There are a number of other limitations presented with this option regarding the impact on other elements of the project. These are explored in more detail in the risk section of the economic case.

35. The intermediate capacity option[4] scored strongly in the assessments. This option delivers 104 additional PoC, at a cost of 9(2)(b)(ii) per PoC, but while it provides an increase in assessment unit capacity, just 14 of these are additional in-patient beds. It is the limited bed capacity that is the key negative of this option, compared to the recommended option.

Commercial Case

36. A Procurement Plan for the overall project was approved by Health New Zealand in August 2023. The project has organised its construction works into four discrete sub-projects, as follows:

Table 4: Front of Whare Sub-Projects

Sub-Project		Sub-Project Scope
1	Clinical Services Building (CSB) Level 11 fit out	Level 11 CSB is a vacant floor being partly used as a storage area. It will be refurbished into an office environment for relocated clinical and non-clinical staff.
2	Old Children's Hospital (OCH) seismic and refurbishment	Seismic Strengthening – targeted strengthening of walls, beams, floors, columns, and the roof. The work is designed so OCH will meet IL2 level. External Façade – improvement works to the roof and windows to improve the thermal performance, and general repair and maintenance to the precast concrete sunroofs. Fit Out – to refurbish it into an office environment for relocated clinical and non-clinical staff.
3	Construct the new Emergency Department (ED) in the main hospital building	CSB Level 4: Relocate and expand the Medical Assessment and Planning Unit (MAPU) WSB Level 4: Relocate and expand the Surgical Assessment and Planning Unit (SAPU) WRH Main Works: Construction of the new ED WRH: Relocation, Refurbishment Clinical Measurement Unit (CMU) / Out-patient department (OPD) Current ED: After the ED is relocated seismic and refurbishment works will be done. These works enable the ongoing use of this building to support the ED and other services.
4	Expand the Intensive Care Unit (ICU)	Expand the existing ICU into adjoining space. The adjoining space will have been vacated by the relocation of non-clinical functions into the refurbished OCH.

37. At the end of September 2024, when this Detailed Business Case was submitted, for the project:

- Most major procurement, including main contractor selection, under an early contractor involvement (ECI) procurement process, has been completed.
- Expanding the ICU is the only works for which a main contractor has not been identified. This sub-project is not critical path and will be designed and tendered to the market at a later stage.
- Contracts for construction works are dependent on the approval of this Detailed Business Case and so have not been signed, although the preferred suppliers have been identified.

38. A procurement exemption was approved by Health New Zealand to allow the direct appointment of Naylor Love Wellington Limited (Naylor Love) as the Main Contractor for the delivery of the ED part of the project (sub-project 3 in the table above). The rationale for the exemption request was:

4 This is the option preferred in the May 2023 Indicative Business Case

- Following an open competitive process in 2020, Naylor Love have been delivering the Copper Pipe Replacement works in the main hospital building. These have been delivered satisfactorily.
- The need to coordinate the remaining Copper Pipes replacement with the Wellington Hospital Emergency Department Refurbishment Project. Coordinating these works minimises potential delay risks, prevents risk of replacing newly commissioned pipe works and is more cost effective within the constrained WRH site.
- A direct appointment of Naylor Love eliminates potential issues associated with continuation of warranties/guarantees which could not be gained if a different contractor had been appointed.

Contractual spending and binding commitments to date

9(2)(b)(ii)

44. All the commitments listed above would be funded from within the $10 million funding allocation to the project that was made when the IBC was approved.

45. Contract engagement for the main construction works are dependent on the approval of this DBC and so have not been signed although the preferred supplier identified

46. If this DBC was not approved, then there are no other unfunded commitments going forward, which would be binding on the Crown.

Financial Case

47. The estimated total capital cost for the refurbishment in the Recommended Option has been prepared by Rider Levett Bucknall (RLB, Quantity Surveyor) and is s 9(2)(b)(ii) . This includes the $7.2m of costs incurred and committed in developing the project after the Indicative Business Case was approved in 2023, Table provides further detail.

s 9(2)(b)(ii)

Table 7: Summary of the proposed funding sources (nominal, note totals may not sum due to rounding).

Source	Amount ($000)	
	Capital	Operating
Health Capital Envelope	9(2)(b)(ii)	
Budget 2025		
Operating Baseline		
Total		

49. The expected WOLC of the investment is s 9(2)(b)(ii)

Management Case

50. The governance arrangements for the Wellington Hospital Emergency Department Refurbishment Project are mature, they have been operational since 2022. The project originated within the framework of the Capital and Coast Hutt Valley District's Hospital Network Programme (HNP). The HNP continues to

provide the governance framework for the project. Health New Zealand may adopt a standardised governance structure for major projects. If this occurs this project will adopt the new Health New Zealand governance structure.

51. After the approval of the Indicative Business Case in 2023, Capital Coast and Hutt Valley District stood up the project team. The project is being led by the Hospital Network Programme Director with the support of two dedicated Project Directors. The project has a range of staff across other key project management and analysis positions.

52. The logistics of the service relocations to deliver the project are complex but the construction works required are not. The project does not create any new built space and so it excludes new and complex building works, ground risk, seismic or building envelope risks that come with a new build.

53. The project will capture its assurance planning in an Assurance Plan, for the Implementation Business Case. The assurance plan will be guided by the Infracom Major Infrastructure Project Governance Guidance for all significant projects. This project was assessed as medium risk using the Treasury's Risk Profile Assessment tool and moderation process.

54. This project is subject to ongoing Gateway reviews. A Gateway 2 (delivery strategy) was completed in September 2024 and received positive feedback including a green – amber rating overall. The review commented:

55. "Overall, the Review team found that this project is positioned well for the next stage and demonstrates key features that are critical to project success including strong relationships between project partners and key stakeholders, and a mature understanding of project complexity and risks."

56. This business case will be updated to reflect the review team's advice and feedback when it is received.

57. The project team will ensure that the project designs meet Health New Zealand requirements and standards.

Next steps

58. This Detailed Business Case seeks formal approval from Cabinet to:

- Submit a Budget Bid for Budget 2025
- Finalise the arrangements for implementation of the recommended option for the project, including:
- Confirmation of additional funding for critical path enabling works (Level 11 CSB & Old Children's seismic works) to enable delivery as per the DBC programme.
- Complete and engage contractors for the enabling works process Continue design and consenting of all phases of works in line with programme requirements

The Strategic Case

59. The Strategic Case establishes a compelling case for change for the Wellington Regional Hospital Emergency Department Refurbishment (Front of Whare) project (The Project). It sets out the overall strategic context, evidences the current challenges and outlines the objectives sought from the Wellington Regional Hospital (WRH) as to how it will improve the care of patients and whānau through seismically appropriate acute and emergency care facilities, so they are assessed and treated faster, and ultimately go home sooner.

60. The project is grounded in equity, captured in the foundational statement agreed by the Front of Whare Steering Group in 2021:

- "We are committed to addressing inequities in our provision of acute healthcare services.
- These foundations give life to this commitment as the underpinnings of a future model of the care we aspire to deliver to our communities.
- These foundations will guide future investment, service and facility design, and recruitment planning for future acute care services at Wellington Regional Hospital."

61. HNZ has reassessed the strategic case and the case for change set out in the Indicative Business Case (IBC) and has identified changes, highlighted below, that must be carried forward into this Detailed Business Case (DBC).

Strategic Context

Central Region and Capital Coast and Hutt Valley District

62. HNZ Hospital & Specialist Services are provided through four regional hospital networks. This business case focuses on emergency care provided in the CCHV District of the Central Region. The Central Region encompasses the one million people living in Hawke's Bay, Whanganui, Wairarapa, Mid Central, and CCHV. The WRH within CCHV is the main tertiary service provider for the Central Region. In this capacity, services at WRH are required to be operational 24/7 every day of the year as well as during and after disaster events.

63. The CCHV district provides a range of specialist health services to a population of 489,400 people in the greater Wellington, Porirua, Kāpiti and Hutt Valley regions. Services are provided at three hospitals – Wellington Regional Hospital in Newtown, Hutt Valley Hospital, and Kenepuru Hospital in Porirua, as well as the Kāpiti Health Centre in Paraparaumu.

64. The population CCHV serves continues to evolve, which is increasing demand for services and changing the way in which these services are delivered to help ensure patients receive the right care, in the right location, by the right team:

- The population of CCHV is projected to grow by 8% by 2037, representing an additional 39,400 people that could potentially require access to emergency care;
- The population will be more ethnically and culturally diverse;
- The average age of the population will increase, further increasing the demand for age-related emergencies and more complex acute health events including dementia and delirium.

65. The district has a strong primary and community care system, with decreasing ED presentations at triage levels 4 and 5[5] indicative of a well-functioning urgent care system in the community. There are four Accident & Medical centers in the district, three with on-site radiology capability.

National Priorities for Infrastructure Investment

66. Throughout 2023 Health NZ undertook an intensive process to identify national priorities for investment in health infrastructure. This process was informed by senior clinical leadership, regional representatives, and infrastructure planners, and was ultimately signed off by the Health NZ Board in December 2023.

67. These priorities, set over ten years, are the basis for the Infrastructure Investment Plan which is currently under consideration by Ministers. Priorities for infrastructure investment incorporated the following considerations:

- Their importance within the approved National Clinical Services and Campus Plan. The NCSCP sets Health NZ's strategic direction for changes in models of care and service delivery models required to meet Government expectations for the provision of health care.
- Delivery of benefits committed to through projects planned and approved prior to the establishment of Health NZ
- The level of risk associated with the asset, using a risk framework applied consistently across all regions.
- The staging of investments to enable long term campus development (for example, investment in site infrastructure ahead of increases in capacity).
- The level of readiness for each investment, including the lead time required for clinical and infrastructure planning prior to commitments being sought.

68. Priorities are reflected in both the timing of budget submissions, along with internal resource allocation for projects in planning. For example, some high priority investments will not seek Budget commitments in the short term as planning is undertaken to prepare these for progression.

69. Prioritised investments are reviewed annually. Investments that sit within a budget year will be prioritised against one another to demonstrate absolute priorities within the budget process.

70. While the Investment Plan is yet to be approved by Cabinet, priorities for the Budget 2025 process identified through the development of the plan have been reaffirmed by Health NZ leadership. The Wellington Emergency Department Refurbishment is one of Health NZ's highest priorities for consideration in Budget 2025, consistent with the draft IIP under consideration by Ministers.

Wellington Regional Hospital within the NCSCP and IIP

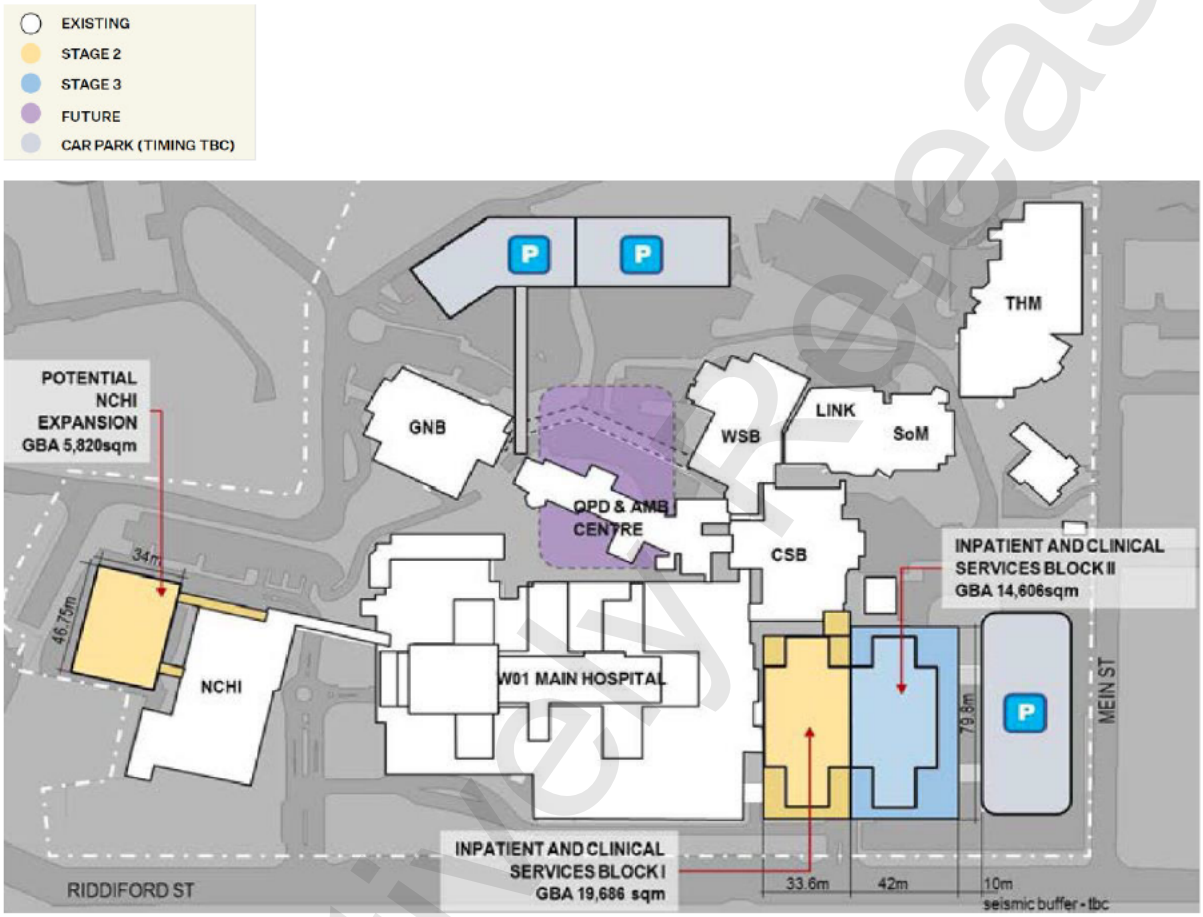
71. Under the District Health Board system, in 2021 Capital Coast and Hutt Valley DHBs led to the development of local infrastructure assessments and a master plan envelope report, identifying the infrastructure priorities for the two districts.

[5] The Australasian Triage Scale (ATS) is a clinical tool used to establish the maximum waiting time for medical assessment and treatment of a patient. The ATS utilises five categories from Category 1 – an immediately life-threatening condition that requires immediate simultaneous assessment and treatment – to Category 5 - a chronic or minor condition which can be assessed and treated within two hours. ATS 1. immediate; ATC 2. within 10 mins; ATS 3. within 30mins; ATS 4. within 60mins; ATS 5. within 120mins. https://acem.org.au/Content-Sources/Advancing-Emergency-Medicine/Better-Outcomes-for-Patients/Triage

72. The capacity and seismic condition of Wellington ED was the highest priority to be addressed, through the Wellington Regional Hospital Emergency Department Refurbishment project. This would support flow and emergency demand to 2037, with additional investments in operating theatres and bed capacity required by 2030 to meet demand.

73. Figure 1 below shows the subsequent developments the CCHV DHBs assumed would be progressed from 2037 to address major capacity deficits at Wellington Regional Hospital. The main proposals to note are two inpatient and clinical services tower blocks and an outpatients and ambulatory care centre.

Figure 1: Wellington Regional Hospital (WRH) development to meet flow and capacity issues



74. Additionally, moving the existing emergency department opens opportunities to develop the Wellington Regional Hospital site. The existing emergency department is a single-story building that sits centrally within the site. Eventually demolition of the building will be required to expand in-patient capacity within the Wellington metro area, and the services located in the building at that time will need to be relocated elsewhere.

75. The long-term planning for Wellington Regional Hospital has subsequently been incorporated into Health NZ's long term infrastructure plan. A key objective of the Infrastructure Investment Plan is to support staged long-term development of hospital campuses. Furthermore, the NCSCP recognises the historic in-patient bed deficit that has existed within the Wellington region and the need to address this with investment in in-patient capacity over the medium to long-term.

76. The Infrastructure Investment Plan includes significant investment towards in-patient capacity within Wellington Regional Hospital within the next ten years in three of the four funding scenarios presented to Ministers. The timing, scale and scope of this remains subject to decisions by Ministers. Relocating the ED is the first step to enable this.

77. Irrespective of the longer-term pressures around inpatient capacity, there is a need to address the immediate deficiencies in patient care that exist from the undersized and congested ED, the treatment of patients in corridors and the non-compliant seismic rating of the current ED.

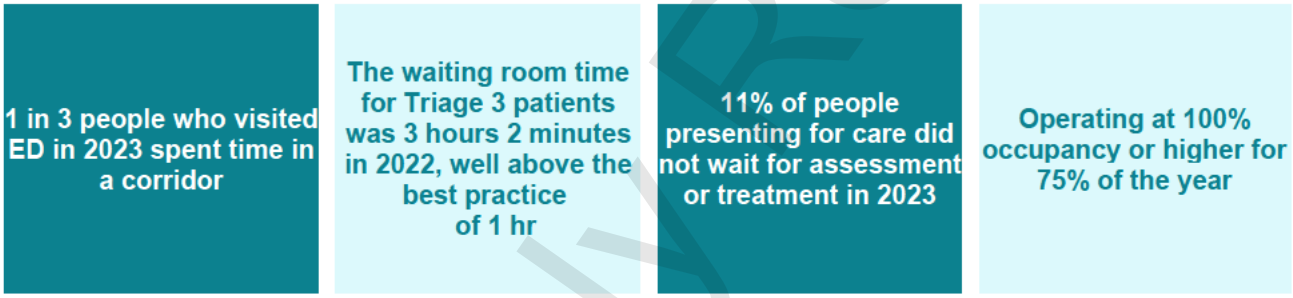
Delivering quality and equitable patient care

78. The current state of the Wellington Regional Hospital's emergency care system is highlighted by the patient experiences in the ED. Over 50% of people spend more than six hours in the ED. While in 2019 one in three people spent some of that time receiving care in an ED corridor, this has now increased to one in six people.

79. The Wellington ED has consistently been one of the lowest performers nationally against the 6-hour shorter stays in emergency department performance measure. The Wellington ED meets this standard for 46% of all attendances, for 29% of those admitted, and for 54% for those not admitted. The reality of these statistics is that long waits, of over 6 hours, in the ED are the norm.

80. Not all people presenting to ED sit through the lengthy wait to receive care. There has been a 35% increase on the number not waiting for treatment since 2019. One in ten people presenting to the Wellington ED do not wait to be seen by a Clinician and 13% of Māori who presented to the ED in 2023 did not wait to be seen.

Figure 2: Key challenges facing Wellington Regional Hospital ED



81. A large number of patients presenting but not waiting for treatment creates clinical risk for each patient and adds load to the ED as these patients are likely to re-present later with higher acuity. Some patients do leave and go to their GP, but many will return to ED hours or days later, and often sicker.

82. Due to overcrowding, one third of patients presenting to the Wellington ED are spending time in a corridor, rather than receiving treatment in a cubicle. This results in a poor healthcare environment and poor health outcomes for patients. This is unsafe and increases the risk of patients deteriorating in the department. Further, patients in the corridor:

- experience a lack privacy, dignity and are exposed to visually traumatic episodes
- results in an increase in medical errors and patient harm (10% increase in hospital mortality)
- lack access to a call bell, emergency suction/oxygen, and isolation for patients who may be at risk of spreading disease
- creates obstructions in the corridors (especially regarding fire safety and evacuation).
- adds to the general noise, busyness and distress in the ED to patients, visitors, family and staff.

83. 9(2)(g)(i) [redacted]

9(2)(g)(i)

Material Change Since the IBC: Government policy has evolved, Shorter Stays in Emergency Department (SSED)

84. As described in the Government Policy Statement on Health 2024-2027[6], the Government has identified five health targets for the publicly funded health sector in New Zealand with a focus on achieving timely access to quality health care. One of the five targets is shorter stays in emergency departments (SSED) which sets an expectation that 95% of patients are to be admitted, discharged, or transferred from an emergency department within six hours.

85. The WRH ED faces significant challenges in achieving the SSED target. Figure 3 shows that CCHV is one of the worst performing HNZ districts against this target.

[6] Minister of Health. 2024. Government Policy Statement on Health 2024 – 2027. Wellington: Ministry of Health.

Figure 3: Comparative SSED performance July/August 2024

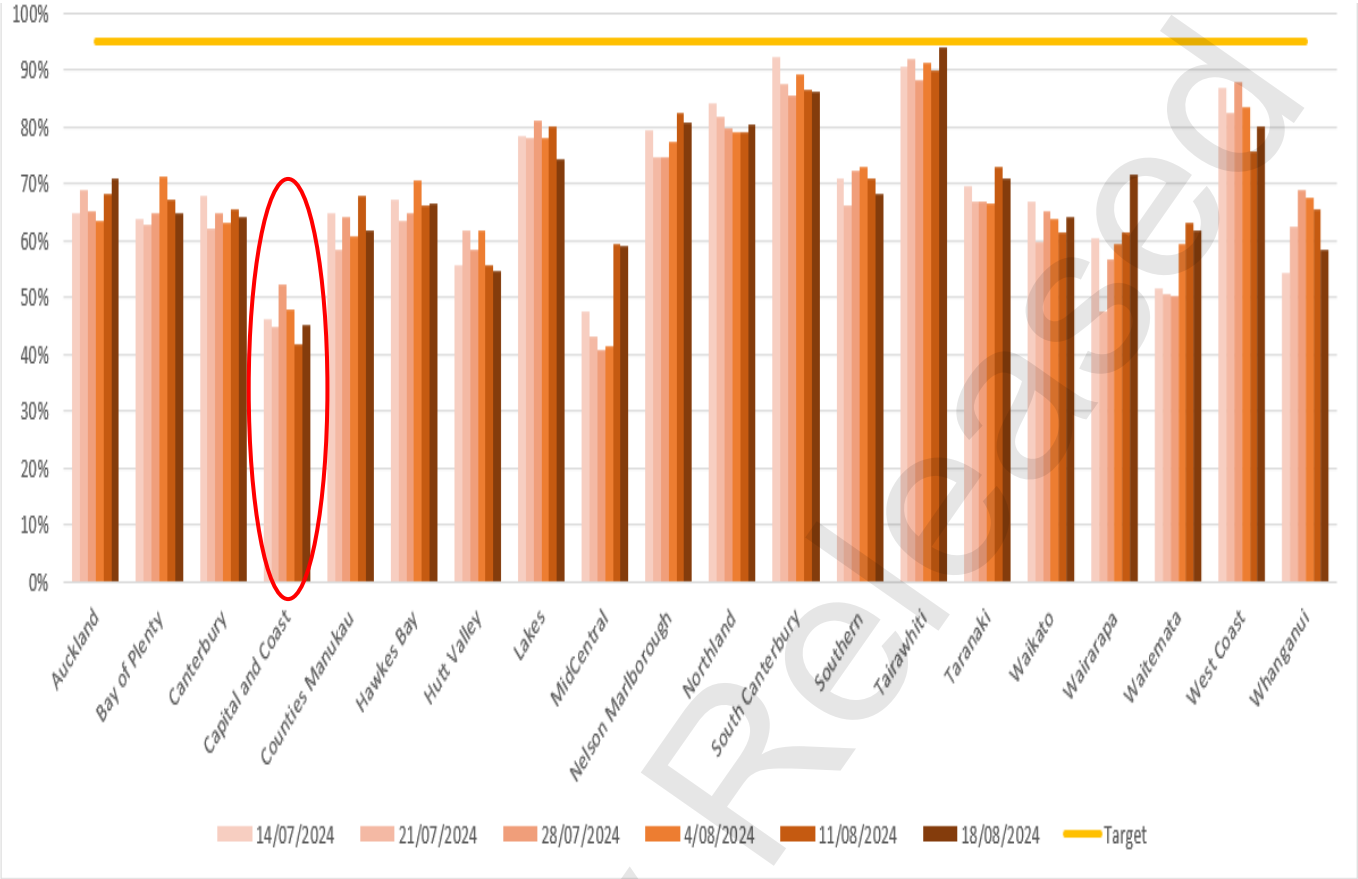
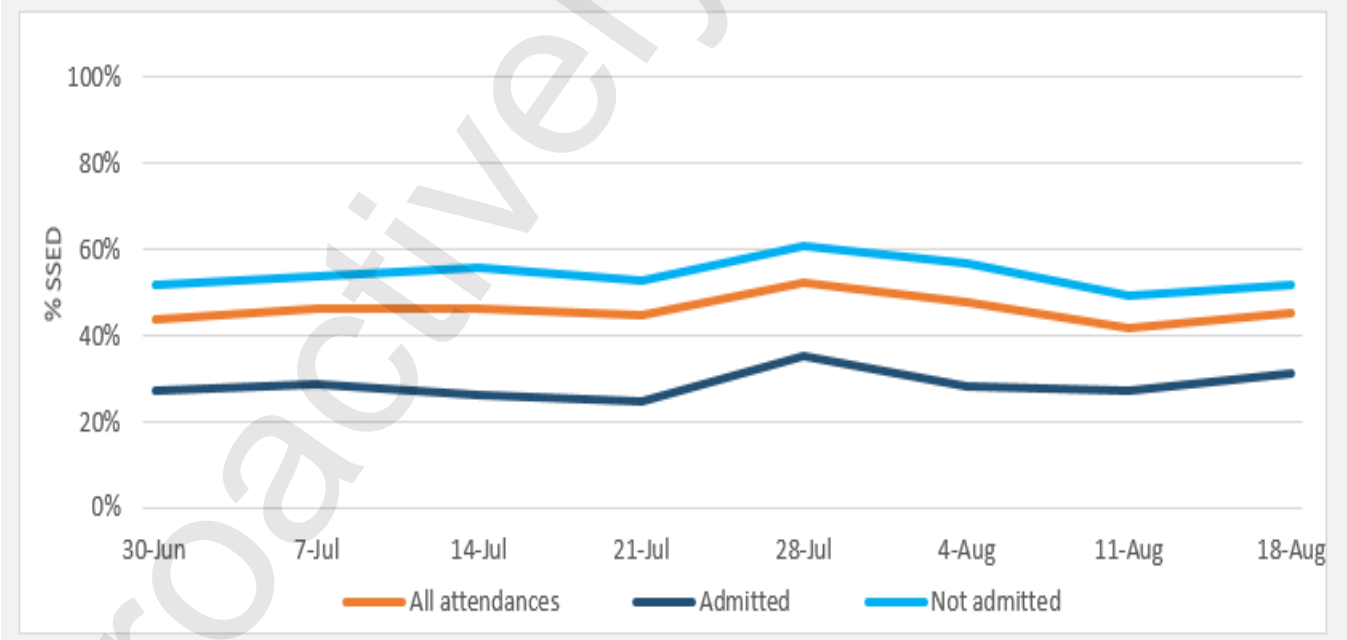


Figure 4: SSED performance by all, admitted and non-admitted patients WRH ED - July/August 2024



86. The government expects HNZ districts to achieve compliance with the six hour SSED target within the next five years. The project will not deliver additional ED capacity until 2029 and achieving 95% compliance with the six hour SSED target within the next five years will be challenging particularly for admitted patients.

87. While the undersized capacity of the Wellington ED is a factor, the ability to admit patients to inpatient beds at the Wellington Regional Hospital provides the greatest obstacle to improving flow and therefore reducing stays in the ED. Modelling for this DBC, presented in Table 7 below, shows that to achieve the required improvement by 2030, WRH will need an additional 82 general adult inpatient beds. The demand increase for beds is greater than the rate at which we are currently planning to deliver additional inpatient beds within the timeframe required and within our existing buildings.

88. Of the 94 beds planned to be added to the WRH site during this period (through this project and the HDU and Copper Pipes projects) 40 are General Adult Inpatient beds. The remaining 54 beds will support critical care and assessment unit/short stay capacity. This project proposes using the old ED to provide a 23 hour ward (it has 22 of the 54 additional beds), as this is a good enabler for the SSED targets. The 40 general adult beds will support admitted flow, the 54 beds will support critical care capacity and non-admitted flow.

89. An improvement in performance of SSED for non-admitted patients will be supported by the project's commission of expanded Assessment Units in 2027, the ability to implement more effective streaming models and a change to some patient flows, reducing presentations to the ED and admission to inpatient beds.

90. Delivery of the new expanded ED, along with the incremental increases in inpatient capacity and flow improvement initiatives implemented in the interim, will enable maintenance of performance against the SSED target form 2029.

Figure 5 General adult bed increase against required SSED performance to achieve 2030 target

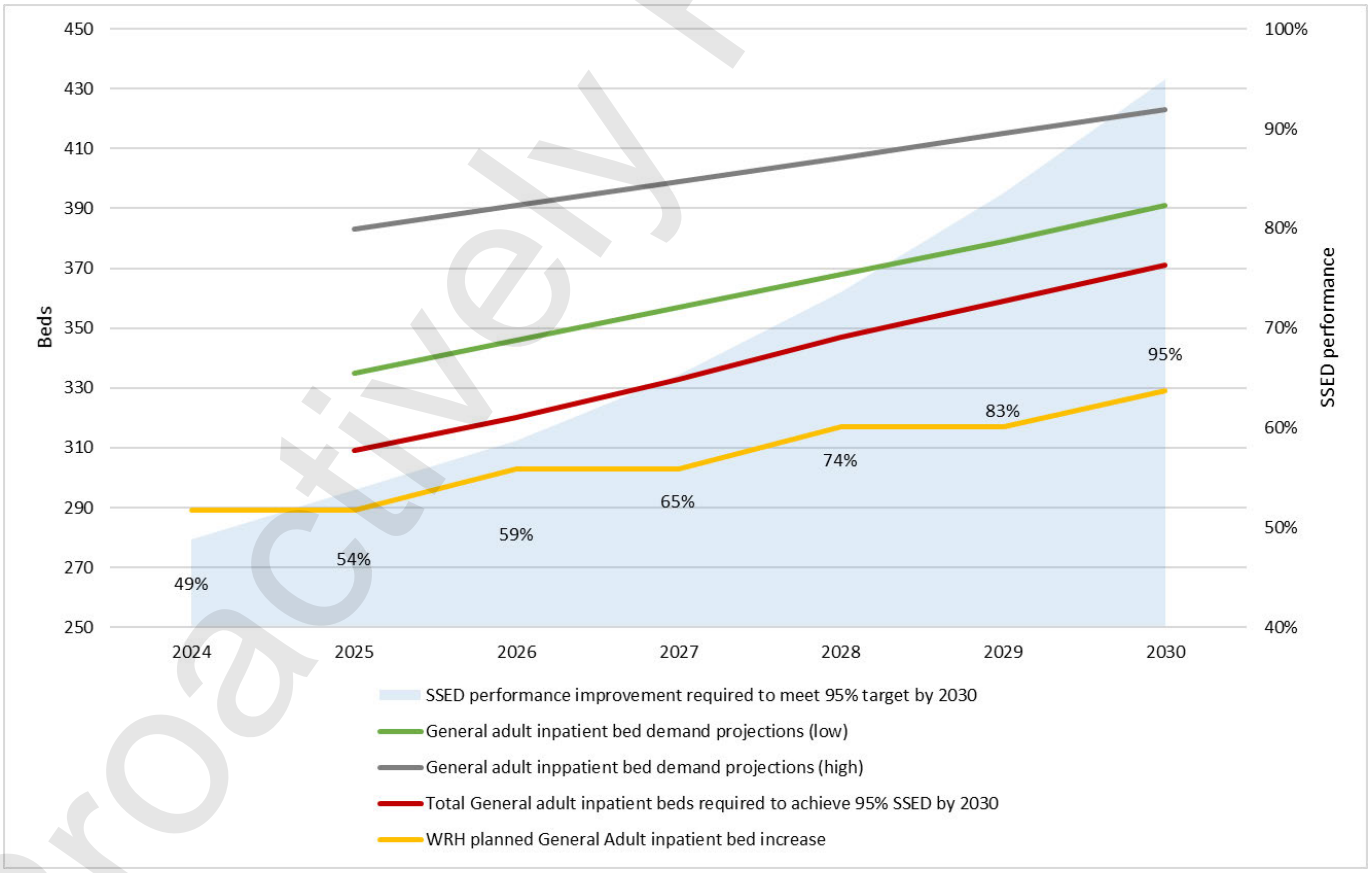


Table 8: the change needed to achieve 95% SSED compliance using 2022/23 as baseline year.

	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Total additional ED attendances	773	1,325	2,003	2,646	3,282	3,920
Additional compliance in ED attendances*	3,160	6,266	10,455	15,570	21,738	28,985
Additional Bed days required	6,414	10,227	14,539	19,019	23,000	27,041
% change required from baseline	*3%*	*5%*	*7%*	*10%*	*12%*	*14%*
Beds required	**20**	**31**	**44**	**58**	**70**	**82**

*Based on SSED compliance modelling

91. There is an interdependency between the SSED target and the elective treatment target (for patients to wait less than four months for planned surgery), with patients often re-presenting to the ED to try to find mechanisms for coping while they wait for treatment. Essentially, both targets require CCHV to have in-patient beds available, and together these targets increase the pressure on CCHV to address in-patient flow and bed capacity issues at WRH.

Material Change Since the IBC: In-Patient Bed Flow and Capacity

92. An in-depth Patient Flow Project and Review was commissioned in early 2024. This forms the basis of a proposal for the first phase of detailed reform and system change to provide improved performance across all wards within the district, which will lead to improvement in the Emergency Department performance at Wellington Hospital. A Patient Flow Council and Acute Flow Programme will manage initiatives to improve flow through the hospital system.

93. CCHV now understands how other projects at WRH could add bed capacity and optimise existing capacity. The creation of a 12 bed HDU as part of the national critical care expansion programme and the beds that will be released into the system at the conclusion of the Copper Pipes Remediation project will introduce 38 additional beds.[7] 9(2)(f)(iv)

Material Change Since the IBC – proposed use of current ED Building

94. The Preferred Option in the IBC called for the current ED building to be demolished at the end of the project to clear the site for a new acute services or podium building on the site. Re-use of the existing ED building is proposed in this DBC.

95. Since the IBC, factors have combined to create a case for using this building

- Remedial work to the building for interim seismic risk mitigation has been planned since the IBC. This is limited to roof truss members only and will achieve at least 67% NBS IL2 enabling the building to be used for functions that do not need to be in an IL4 facility.
- Using the building supports the new ED to achieve an optimal design, achieving the requirements of the AusHFG and Health Planning Unit
- The building is optimally located and has sufficient space to locate the Behavioural Assessment Unit (BAU) in the current Emergency Department Observation Unit (EDOU) building to support CCHV to better implement government initiatives aimed at improving care for mental health patients in the ED. It will provide a new location – which was not resolved in the IBC – for the Transit Lounge. The Transit Lounge will support improved hospital flow, developing discharge pathways, reducing inpatient bed demand and enabling acuity-appropriate care for patients leaving hospital.

[7] To be operational, these beds would require additional operating investment to be approved, and staff recruited

- The existing ED clinical treatment area can be reused as a non-ED facility to support additional 23-hour ward beds. This would improve out flow from the ED until additional inpatient capacity on the WRH site can be secured in the future.
- The Orthopaedic Clinic (Level 3, above the existing ED) can remain in place. The future location of this service was not resolved in the IBC and relocating it would increase the scope and cost of the project.

96. It makes sense to repurpose and continue to use the existing building without certainty as to when, or if, a new acute services or podium building would be constructed on the site of the current ED. A future expansion zone and connection of a new building would require temporary decanting of the current ED building.

97. Retaining the use of the existing ED Building has key benefits to the Project:

- Colocation of ED staff support and admin functions. Provision of staff amenities allows a separate space for staff rest and respite as well as areas for focused work when not 'on the floor'. The ability to retain and expand these in their existing location allows staff to be close at hand should an emergency arise, or extra support be required.
- Transit Lounge should ideally be located adjacent a main site entry/exit, with access to car parking (for ambulant pick-ups) and ambulance parking/drop off for inter hospital transfers, care home transfer and other activity that requires ambulance transportation. Thus, locating it in the existing ED Paediatric zone accommodates all the previously listed requirements and is adjacent to exiting locations which requires no changes to hospital wide patient flow or models of care for transit patients.

23-hour ward in the old ED Building

98. There is an opportunity to use some of the old ED building as a 23-hour ward (which would also increase hospital capacity by an additional 22 short stay beds)

99. Introducing a 23 hour ward would enable outflow from the ED, reducing bed block and supporting timely treatment and flow within the ED. It would provide an alternative pathway for patients with anticipated 0/1 day stays; one of the key areas of focus for improving flow.

100. Co-locating this 23-hour ward adjacent to the Transit Lounge, would allow the Transit lounge to return to its intended model improving patient flow, supporting timely discharge and transfer between facilities and ultimately providing improved access to acute beds. Refer Annex F for floor plans of these proposed spaces.

101. While an operating model for these short stay beds is still to be agreed, the use of 23 Hour Wards in other facilities provides an appropriate location for patients who are admitted with an agreed clinical treatment plan, requiring care with an absolute expectation of discharge within 23 hours.

102. A 23 Hour Ward supports high volume, low complexity patient cohorts (i.e. 0-1 day patients) to be admitted, treated and discharged, minimising pressure on other inpatient wards where patients may require extended length of stay, or have complex treatment needs. Use of a 23 Hour Ward (short stay inpatient unit) reduces patient length of stay, can reduce risk of hospital-acquired infections, increase patient satisfaction and see more efficient use of hospital beds.

103. The 23 Hour Ward would be managed separately from the Emergency Department and should be seen as distinct from ED Short Stay or ED Observation streams. Patients who present to the ED or are referred from Primary Care and Outpatients and require assessment or confirmation of a clinical treatment plan would be admitted to Medical and Surgical Assessment and Planning Units.

104. The impact of the retention of the ED building on future build opportunities is limited.

105. The ED Staff Zone is located to the extreme left-hand side of the building in the two-story portion that houses Orthopaedic Clinics above. This could be retained as part of a future podium expansion and/or new build and would only require partial decant to facilitate links/connections to an adjacent new build.

106. Transit Lounge will occupy a very limited amount of space in the existing ED building – limited to existing entry/waiting and paediatric zone. This function, while critical for the hospital, can be relocated/decanted temporarily to facilitate a podium expansion or new build. There are other onsite solutions for the moving of this service when and if a redevelopment in this zone is required.

107. The provision of 23-hour beds in this location may be a temporary measure whilst new models of care and services are implemented and until further capacity on the site can be secured. These would be provided on the basis they can be reallocated (decant ward or other sites) at such time that any site development in that location was required.

The Case for Change – the need for the proposed investment

Problem Definition

108. The problem definitions below are from the Front of Whare IBC. At a workshop on 7 May 2024, the Hospital Network Programme Board reviewed the IBC problem definitions and confirmed their validity.

109. CCHV has explored the current and expected operating environments to identify the specific challenges within the ED and WRH more broadly that are impacting the delivery of quality and equitable patient care. These challenges are as follows and further detailed below:

- Lack of capacity to meet demand and increasing patient complexity is causing delayed care and patient harm;
- Emergency Department layout is hindering further improvements to the model of care and creating access issues;
- Ongoing use of unsafe and non-compliant facility is putting people at risk during and post a major seismic event.

Lack of capacity to meet demand and increasing patient complexity is causing delayed care and patient harm

110. The role and responsibilities of the Wellington ED are similar to the Auckland, Middlemore, Waikato, Christchurch, and Dunedin departments. The IBC demonstrated that compared to these six peer hospitals, in 2022 Wellington was fifth in performance on the Shorter Stays in ED target and sixth in the rate of did not wait for care. Not waiting for care can often have significant implications with patients going home and then presenting to ambulance to hospital at a later stage with worsened medical problems. The Wellington ED performance in regard to these metrics has declined since the Front of Whare IBC was approved[8].

111. This is not a failure of the ED or the people who work in it; this is a system capacity issue. The CCHV workforce is delivering the best care they can, while working in trying circumstances: examples include increasing frequency of episodes of violence from patients and whānau, and increasing workforce turnover, in part due to the moral injury inflicted by the reality of providing care to patients in corridors where they cannot provide optimal care and compromises patient dignity.

112. The performance of CCHV is driven in part by capacity, and in 2024 the Wellington ED occupancy is at or above 90% on average every second day at 8am, six of seven days when measured at 4pm and at midnight.

113. Capacity demand modelling identified WRH ED requires a total of 83 points of care by 2037. The current capacity is 53 points of care, as outlined in Figure 5 below, and is expected to be challenged by the increasing presentation volume shown alongside.

8 Current SSED for WRH ED is 46%, down from 76% in 2019.

There has been no material change to ED Capacity or Demand Projections

114. The demand projections for ED points of care remain as established for the IBC. The methodology for determining the required ED points of care was reviewed and agreed by IIG prior to the IBC. Subsequently, HNZ has developed an agreed approach to modelling ED points of care used in other similar projects, presented in the Table below. Applying this approach to the WRH ED creates a projection that it needs 82 PoC by 2037. This projection aligns with the 83 PoC projected by the methodology used in the IBC, refer figure 5.

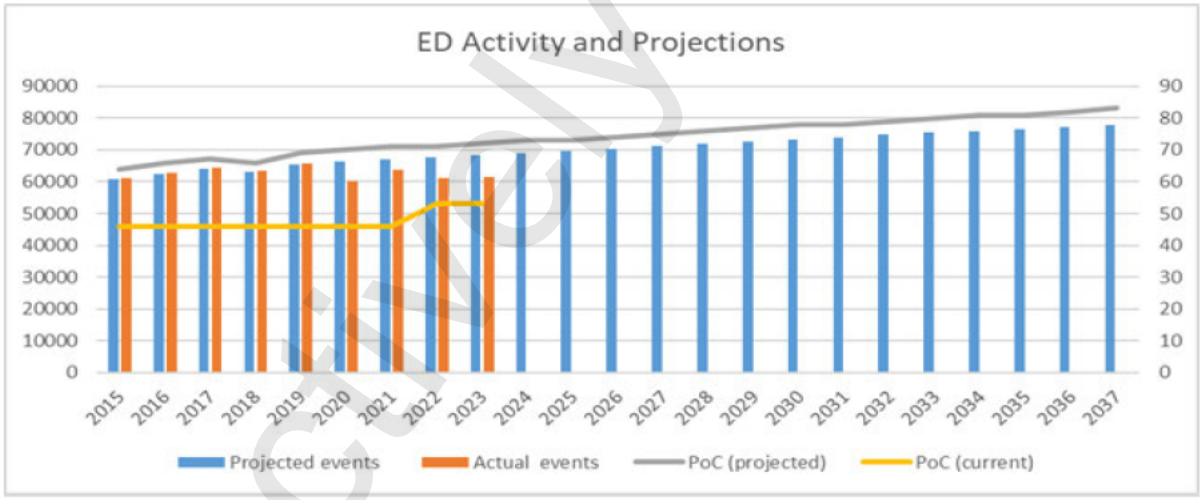
Table 9: HNZ Methodology for Modelling ED Points of Care

	Methodology	**PoC**
Resus bay	1 per 15,0000	5.2
Treatment bay	1 per 1500	51.8
Isolation room	1 per 10,000	7.8
Short stay	1 per 3 treatment bays at 85% occupancy	17.3
Total		**82**

*Based on 2037 Demand projection of 77685 ED presentations

115. Figure 5 below includes actual ED presentations for the period to the end of 2023. While figure 5 shows since the IBC was approved, there has been an increase of 7 points of care in the current ED with the addition of a minor care zone in a temporary building in an internal courtyard. This is not a material change to the strategic case as the ED still has too few PoC.

Figure 6: Front of Whare IBC forecast demand and supply at the Wellington Regional Hospital ED – presentations and points of care



116. The capacity and functionality challenges facing EDs in New Zealand reflect issues within the wider hospital system. For example, overcrowding and caring for patients in corridors is a direct result of high hospital occupancy and hence bed block, which is true at WRH. At the same time as ED occupancy was over 100% there is an inability to transfer admitted patients to a suitable ward space. We know that high hospital occupancy leads to an overcrowded ED. An increase in capacity across WRH is an absolute requirement to realise the full benefits of an appropriately sized ED.

Table 10: Inpatient bed capacity at Wellington Regional Hospital – current capacity and forecast demand

Category	Current capacity	Forecast capacity demand (low scenario)	
		2030	2037
General adult beds	289	391	442
Paediatric beds	40	55	55
Critical care beds	24	24	26
Neonatal beds	36	36	36
Maternity capacity	38	57	57
Total Inpatient bed capacity	**427**	**563**	**616**

117. To summarise Table 9, by 2037 WRH will need an additional 153 general adult beds, a 53% increase on current capacity. Investing in additional assessment and planning unit beds, critical care spaces, and general adult beds alongside increased ED capacity is critical for realising timely access and treatment for our communities.

Facility layout is hindering further improvements to the model of care and creating access issues

118. The current ED building contains disjointed clinical spaces, physically separated from one another. The minor care area with a design life of five years has been created in a standalone building located in a former internal courtyard, with link corridors joining it to the main ED space. The observation unit is also dislocated from the main clinical treatment area and creates difficulties in staffing and visibility (Figure 7). This layout isolates patients and staff, and does not support integrated safe working environments, and means the ED is unable to flex staff and resources across different spaces to respond to changes in demand. The capacity and layout of the department also leads to patients waiting for, and receiving care in the corridors, as represented in Figure 7, showing the congestion in the Wellington ED as a result.

9(2)(c)

Figure 8: Corridor congestion and care in Wellington ED

119. Efficiency of service delivery in the Emergency Department is impacted by several spatial and functional challenges. The internal connection to the main hospital is through a back corridor to the main building (W01) which connects to critical clinical dependencies such as the Operating Theatre, ICU and Inpatient Units through dedicated service lifts. However, the separation of the buildings and distance is still a challenge and adds time to the patient transportation including urgent cases.

120. Corridors blocked with patients, equipment and beds which impedes circulation and results in difficulty in moving patients on trolleys and beds throughout the department safely. Patients waiting in the corridors, with no ability to adjust lighting levels, access to natural light, visual or acoustic privacy or immediate access to amenities - although patient toilets are provided, they are not sufficient for the number of patient bays provided.

121. The sizing of patient care areas varies, with some not meeting AusHFG, which affects the efficient handling of acute and critical conditions. Circulation issues, such as corridor congestion due to improperly stored equipment, further complicate the movement of staff and patients, critical for timely medical response.

122. Additionally, storage space within the ED is often insufficient, leading to clutter and accessibility issues that affect the unit's operational responses. These storage inadequacies are particularly evident in areas designated for mass casualty equipment and emergency supplies, which are crucial for the unit's readiness and response capabilities.

123. The ED’s design and layout also influence its functionality, with poor separation of flows and inadequate access controls that hinder efficient patient care. For example, pathways to critical areas like paediatric and emergency department observation units are often narrower and congested, which restricts the movement of beds and essential equipment. These spatial configurations and the existing infrastructural limitations significantly impede the unit's ability to deliver services efficiently and effectively.

124. There are issues with corridor congestion, impacting efficient movement within the ED. This issue is exacerbated by equipment and beds frequently blocking the pathways, which could hinder swift medical responses during emergencies.

125. The ED struggles with limited access to dedicated spaces for family support and breastfeeding facilities. Improving integration and accessibility of these services could significantly enhance the holistic care environment, adhering to the principles of patient and whānau cantered care. There are insufficient workstations for staff, including the staff workstations that are shared.

Functional Assessment

126. IIG has recently undertaken a Facilities Diagnostic Assessment for the Central region, including Wellington Hospital campus. The facilities diagnostic approach assesses building and departmental performance using a standardised methodology, which provides a consistency in the evaluation of the region's health services asset portfolio. The assessment undertaken provides a capture of the current state with consideration to age, resilience, building condition and functionality.

127. The Wellington ED building was the lowest performer mostly due to a poor seismic rating of 15% NBS (now at 34% following recent works) and being separate from the main building which impacted functionality. [9]

Ongoing use of unsafe and non-compliant facility is putting people at risk during and post a major seismic event

128. The ED building structure is a base-isolated, two-storey building with a combination of concrete moment resisting frames, steel portal frames, and tension-only steel braced frames. The building was constructed in 1999 (the Emergency Department) and extended in 2004 (EDOU). The building is base isolated with lead rubber and slider bearings on top of reinforced concrete piles, across a predominantly flat site. The primary use of the building is as the emergency department for the hospital. The Orthopaedic Clinic is located on Level 3, above the ED administration area.

129. Informing the Front of Whare IBC, a draft DSA undertaken by Beca revealed the ED building does not meet operational continuity code requirements (SLS2) and rated the facility at 15% New NBS IL4, which is significantly lower than the recommended rating – greater than or equal to 67% NBS IL410. These, along with the high risks to critical non-structural building elements, highlight that the existing ED is at medium to high risk of failure to deliver care during and after a seismic disaster. The ability to continue operations in a post-disaster environment is particularly relevant for an acute facility located in Wellington, where the continuity of services is critical not only to people in Wellington, but also the greater Wellington region.

130. Having an overcrowded ED, with corridors occupied by stretchers, also heightens the challenges in evacuating people in the event of a fire, or earthquake. This is further exacerbated in a mass-casualty, or even high-occupancy scenario.

9(2)(g)(i)

Material Changes Since the IBC: Seismic Advice on the ED Building

133. The ED building is still assessed as seismically non-compliant, it does not meet the seismic building standards required (IL4 and SLS2) of emergency services.

9 Update: the seismic rating has now improved to 34% following works to address the weaknesses in late 2024. This work was undertaken while the ED was operational. To raise the level higher would require the ED to be vacated..

10 A Peer Review of the draft Detailed Seismic Assessment has been undertaken and a draft completed in March 2023 which identifies the areas of concern as:

- Roof truss to concrete frame connection is15%NBS (IL4),
- Steel tension-only braced frame is 50%NBS (IL4),
- Base isolation system is 50%NBS (IL4).

134. When the IBC was issued the draft DSA has been finalised, this resulted in the facility was rated at 15% New NBS IL4 (down from the 34% New NBS IL4 rating reported in the draft DSA which informed the IBC). The final DSA was informed by additional on-site investigations on roof connection details, with the findings resulting in the roof truss to concrete frame connections being rated at 15% NBS IL4.

135. Following the completion of the DSA, advice was sought by the HNZ Trusted Seismic Advisor, and a risk assessment of ongoing building occupancy carried out, with the findings outlined below presented to the HNZ Board.

136. The nature of the low rating connections and their context within the structure is such that structural failure is regarded as highly unlikely, even in a major earthquake. It is therefore considered that this localised issue does not impact on the operating of the ED, and that continued occupancy of the building is appropriate while a longer-term solution is developed.

137. The Trusted Seismic Advisor recommended that remedial works be carried out on the three low scoring roof elements within a two-year period. Following this recommendation a strengthening scheme was developed by Beca, and business case, funding and building consent approval for the works granted. This work was recently completed in December 2024 and IL rating is now at 34%.

138. The planned works to the three roof elements, although considered minor construction works in scale and complexity, will have a detrimental impact on ED operations, including the temporary closure of patient bed bays and access corridors. This will be managed through decanting appropriate patients into other inpatient areas in the hospital, the planning of these temporary flows is being progressed with the service.

139. Significant work would be required to increase the ED building to the recommended level of 67% NBS IL4 and SLS2 operational resilience. The scope of works would likely involve strengthening all roof connections across the entire roof plane, works to the seismic gap moat structure, and work to improve the seismic bracing of partition walls and building services. Completing the works in a timely and cost-effective manner would require the full decant of the ED building. Attempting the works whilst the building is in operation would be highly disruptive to ED operations and would inevitably reduce patient bed space capacity for an extended period of time.

140. To support project outcomes, the Project has identified alternative functions that could use the ED building once it has been vacated. Given the proposed function and the number of inpatient beds it is probable that the building can be down rated to NBS IL2. In the instance where the building is rated as IL2, the scope of works required to meet 67% NBS will reduce, due to the reduction in seismic demand. Investing to bring the current ED building up to 67% IL2, once it is vacated, is included within all short-listed options and cost estimates assessed in the economic case of this DBC.

141. The cost of the preferred option in this business case, includes the repurposing of the current ED as a 23-hour ward and Transit Lounge, at IL2 rating, and expansion of the ED support and administration areas (as outlined in Annex F).

Summary

142. Change for the communities and staff must underpin the solutions to the above issues. It is clear that equity of access and outcomes must be urgently addressed while also ensuring that infrastructure is fit for purpose.

143. In summary, analysis of the current and expected operating environments has identified the following key factors for the organisation – articulated as the following problem statements:

- Lack of capacity to meet demand and increasing patient complexity is causing delayed care and patient harm;

- Emergency Department layout is hindering further improvements to the model of care and creating access issues;
- Ongoing use of unsafe and non-compliant facility is putting people at risk during and post a major seismic event.

Contribution to Existing Strategies

144. The table below outlines how the investment proposed in this DBC aligns to key strategies and plans:

Table 11: Alignment of the Project with key plans and strategies

Strategy/Plan	Relevance to this project	Contribution of investment to existing strategies
Pae Ora (Healthy Futures) Act 2022	Section 7 of Pae Ora (Healthy Futures) Act 2022 (the Act) sets out importance of achieving equitable outcomes of the health care provided to all New Zealander's	The project is founded in equity and acknowledges the issues facing the WRH ED, and acute flow, disproportionately impact Māori, Pacific Peoples and Tāngata Whaikaha Disabled People.
Te Whatu Ora Statement of Intent 2022 – 2024	The Statement of Intent sets out intentions for action over the next two years to transition our system to meet the Pae Ora legislation's ambitions.	The project is to enhance emergency and acute hospital capacity and redesign models of care to enable timely equitable access to emergency and acute care.
Te Pae Tata Interim New Zealand Health Plan 2022	The proposal should align with the Government's expectations for Reform outlined in Te Pae Tata.	Investment in WRH ED and acute and emergency services contributes Te Pae Tata | Interim New Zealand Health Plan 2022. This investment will ensure the greater Wellington region has access to equitable, safe, resilient, and evidence-based emergency care, especially Māori, those from vulnerable communities, and disabled peoples.
New Zealand Government Health Target: Shorter stays in emergency departments - 95% of patients to be admitted, discharged or transferred from an emergency department within six hours.	CCHV ranks 20th out of 20 former DHBs for its performance against this target. In March and April 2024, 52% of all patients were admitted, discharged or transferred from the CCHV ED within six hours.	The investment proposed in this business case is a key part of the ED and hospital flow capacity changes required for CCHV to meet the SSED 6-hour target within the next five years.
United Nations Convention on the Rights of Persons with Disabilities (UNCRPD)	Under the UNCRPD, people with disabilities have the right to the enjoyment of the highest attainable standard of health without discrimination based on disability	The project supports CCHV district to improve its delivery of health services that are gender-sensitive, including health-related rehabilitation, have access to emergency and acute care services. The project considers Universal Design principles where appropriate within a refurbishment to improve the general accessibility of the built infrastructure and operational planning.
Health New Zealand draft Seismic Policy (2022	The CCHV ED facility requires improved seismic resiliency for, as an IL4 building, it does not attain either a 67%NBS (IL4) rating as a minimum and/or fully satisfy SLS2 (continued functionality)"11.	The project relocates the CCHV ED into a building that is fully IL4 and SLS2 compliant.
Civil Defence Emergency Management Act 2002	HNZ is legislatively mandated to ensure that hospitals and health services are ready to deliver functions to the best of their ability under the circumstances, during and after an emergency.	The project relocates the CCHV ED into a building that can deliver services to people in Wellington, and to the greater Wellington region, during disaster response and recovery.
Fire and Emergency New Zealand (Fire Safety, Evacuation Procedures, and Evacuation Schemes) Regulations 2018	HNZ is required to maintain means of escape from fire for a building	The proposed investment should mean that bed bound patients are no longer left in corridors. There will be improved access to and from the ED and for patients, staff and whanau to leave the ED in event of a fire

11 Te Whatu Ora – Health New Zealand. 2022. Seismic Policy. Wellington: Te Whatu Ora – Health New Zealand.

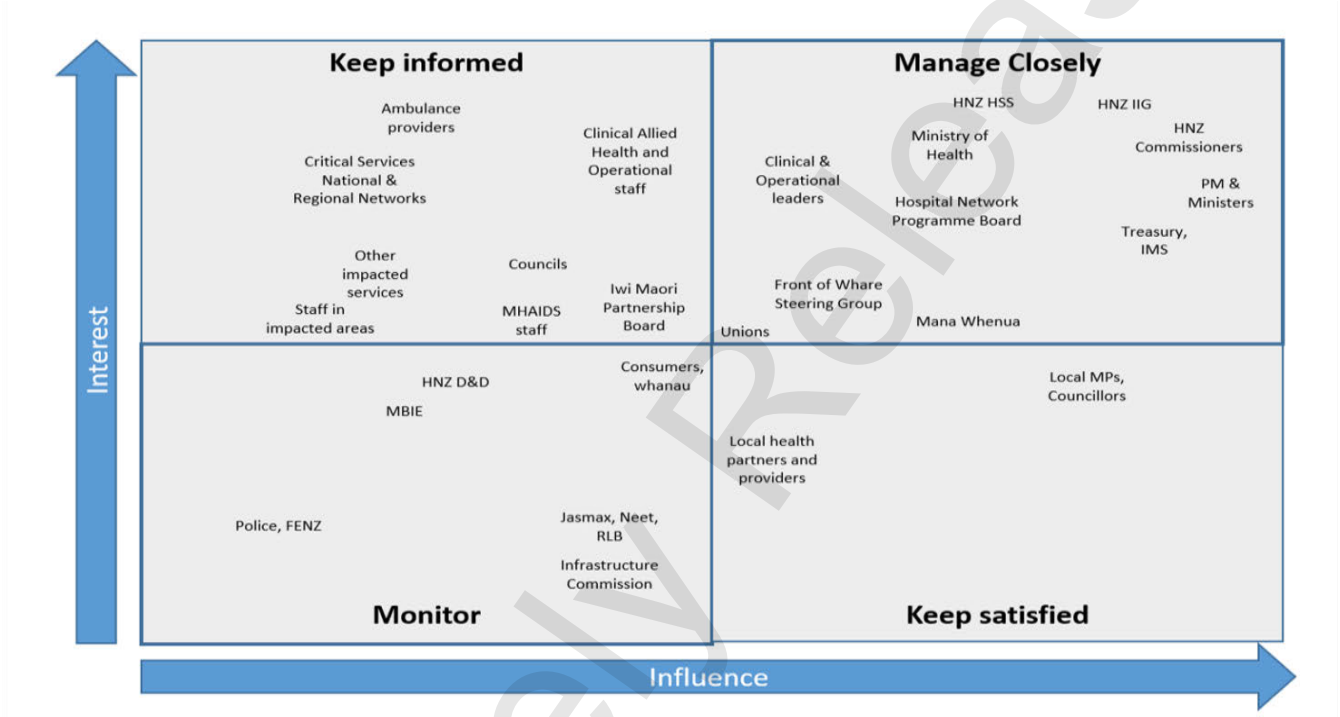
The design of the preferred option will also be guided by

- Australian Health Facility Guidance and NZ Design Guidance Note
- HNZ Fire Design Guidance
- HNZ Seismic Guidance (draft)
- HNZ Engineering Design Guidance (draft)

Stakeholder Engagement

145. There are multiple stakeholders with differing interests in the project as Figure 9 shows.

Figure 9: Project stakeholder matrix



146. Involving key stakeholders to the appropriate extent in the development of the IBC, DBC and delivery of the project has been key to drive awareness, understanding buy-in and supporting contribution.

147. To inform this DBC, the facility design and the development of contemporary and patient centred models of care, the project team including Hauora Māori, Pacific Health and Disability Equity Leads have engaged widely with staff and community stakeholders to gain insights on how the project can deliver more equitable outcomes and improved care for patients and whanau seeking care in the ED.

148. The project team note the internal focus of engagement over the past 18 months has focused on detailing requirements for each impacted service, developing appropriate service designs, and planning how these areas will be operationalised with contemporary models of care. Ongoing engagement with identified stakeholders is a priority for further development of the design and delivery of the Project.

149. The key stakeholders that have an interest in the expected outcomes or can influence the investment proposal have been identified in the Table below, with a full stakeholder engagement list provided in Annex D.

Table 12: Wellington Hospital ED Refurbishment stakeholder groups

Stakeholder group	Key stakeholders	Interest
External stakeholders	Government	Looking to realise equitable health outcomes and improved operational efficiencies
	Te Aka Whai Ora & Iwi-Māori Partnership Board	Te Tiriti partnership and oversight to ensure delivery of equitable health outcomes for Māori
	Providers / suppliers	Want to see improvements in the ease of interaction with the ED
	Patient, whānau and community groups	Want to be involved in the co-design and implementation to ensure delivery of better health outcomes for the various populations they represent
	Staff unions	Understanding, informing, and advocating for staff requirements and impacts as a result of the project.
	Associated organisations including Wellington Free Ambulance, NZ Blood, Awanui	Understanding, informing, and advocating for the requirements and impacts of associated and dependent services to the functioning of ED and wider hospital system.
Internal stakeholders	Te Whatu Ora executive and management at national, regional and district level	Key role in communicating the case for change and overseeing delivery of the Project
	Clinical staff	Understand the needed MoC and operational logistics given these individuals engage daily in service delivery
	Operational staff	Lead system design and delivery

Investment Objectives, Existing Arrangements & Business Needs

Investment Objectives

150. The investment objectives for the project are driven by the strategic intent of CCHV and relevant health guidelines/strategies. They are informed by the limitations of the current built environment and seek to directly address the Problem Definitions set out above.

151. For the IBC, the investment objectives were agreed during two facilitated ILM workshops with key stakeholders in November 2021 and are outlined below. For the DBC, at workshops on the 7th and 23rd May 2024, the Programme Board reviewed the IBC Investment Objectives and confirmed their continuing validity.

152. Problem statements:

- Lack of capacity to meet demand and increasing patient complexity is causing delayed care and patient harm
- Ongoing use of an unsafe and non-compliant facility is putting people at risk during and post a major seismic event
- Facility layout is hindering further improvements to models of care and creating access issues.

153. The key stakeholders identified and agreed the following key investment objectives:

- Investment objective one: WRH **ED capacity is sufficient to meet demand** for emergency and acute care
- Investment objective two: **Timeliness of care** for patients presenting to WRH ED and Assessment Units
- Investment objective three: Improved patient care and creation of a safer environment by **eliminating the need to treat patients in corridors**

- Investment objective four: **Improved patient and whānau satisfaction** from patients receiving care at WRH ED
- Investment objective five: WRH ED can maintain critical operations and keep patients and staff safe following a major natural disaster with **buildings that meet IL4 and SLS2 requirements**.

154. The full ILM is available in Annex C.

Existing arrangements & requirements

155. The existing arrangements and requirements to deliver the investment objectives are outlined in the Table below.

Table 13: Summary of the existing arrangements and business needs

Existing arrangements and business needs	Description
IO1: WRH **ED capacity is sufficient to meet demand** for emergency and acute care	
Existing arrangements	The current ED is facing significant demand pressures, with the current site providing 53 points of care.
Requirements	To respond to the population that is increasing in both volume and complexity, the capacity required in ED now is 72 points of care which is forecast to increase to 83 by 2037.
IO2: **Timeliness of care** for patients for patients presenting to WRH ED and Assessment Units	
Existing arrangements	Current waiting times prior to assessment and treatment are significantly worse than accepted standards and involve people waiting on trolleys in corridors. These wait times are not compliant with Australian Triage Standards. The average length of stay in the Acute Assessment Units, ED, and wards are also continuing to increase. This leads to suboptimal care and also results in complaints from patients and whānau which further contributes to increased stress levels of staff. There is also an increasing number of people who leave without receiving care.
Requirements	Additional physical space is required to enable equitable access and outcomes through a refreshed models of care and space which effectively and efficiently accommodates demand in ED and the wider hospital. This should include more sole occupant capacity to increase privacy and improve the ability to engage on sensitive matters such as family violence and sexual violence (FVSV).
IO3: Improved patient care and treatment, and creation of a safer environment by **eliminating the need to treat patients in corridors**	
Existing arrangements	Capacity constraints in the existing facility are causing corridor stays to be more common and prolonged, which limits the staff's ability to manage patients in a private and dignified environment. This contributes to increases in violent or aggressive incidents, and limits staff ability to de-escalate them.
Requirements	Corridor stays are events that should never happen. The ED and wider hospital acute flow areas require additional capacity and appropriately designed spaces that enable private and dignified patient care. This in turn de-escalates the risk of aggression and can contribute to worsened health outcomes for patients. Appropriate spaces will include increased space for whānau, low stimulus areas and improved visibility of patients.
IO4: **Improved patient and whānau satisfaction** from patient receiving care at WRH ED	
Existing arrangements	Wait times and delays in receiving care are increasing the number of did-not-wait events, where patients and their whānau leave the ED before assessment or treatment. This disproportionately affects Māori (13%) and Pacific people (7%). Additionally, although there is no did-no-wait event data for Tāngata Whaikaha Disabled People, complaints suggest that the number of events is also higher than average for this group.
Requirements	A refreshed emergency care and acute flow environment to deliver contemporary models of care that are designed and delivered to achieve equity of access and outcome. The care experience for whānau will be more positive, with people no longer waiting 12-18 spending many unnecessary hours in the ED Specifically, CCHV is seeking to achieve the objective of <3% did-not-wait events for all ethnicities and communities served.
IO5: WRH ED can maintain critical operations and keep patients and staff safe following a major natural disaster with **buildings that meet IL4 and SLS2 requirements**.	

Existing arrangements	The ED plays a critical role in the greater Wellington region and must continue to operate post-disaster. However, the current facility does not meet NBS IL4 and SLS2 requirements, putting ongoing service following a seismic event at risk.
Requirements	To provide confidence that the ED will function in a post-disaster environment, the building must meet IL4 and SLS2 requirements as stated in the Engineering Assessment Guidelines. This states an IL4 building should either attain a 67% National Building Standard (NBS) (IL4) rating as a minimum and/or fully satisfy SLS2 (continued functionality).

Business scope and key service requirements

156. The potential business scope and key service requirements were identified and assessed by stakeholders and are summarised below.

157. At a workshop on 7 May 2024, the Programme Board made two decisions on the scope for the DBC. Firstly, the Programme Board revisited and confirmed the validity of the scope statements in the IBC for ED Capacity, ED Service Resilience, and Hospital Flow and Capacity. The IBC approved the intermediate scope for these service requirements, as set out in Table 14: Front of Whare IBC potential business scope and key service requirements and the intermediate scope was validated by the Programme Board for this DBC.

Material Change since the IBC: Inclusion of Data and Digital Scope

158. Since the IBC, a Data and Digital project manager was appointed to define scope options. The project has undertaken engagement with clinical representatives, projects in other regions, the Emerging Technologies Group, and the regional Data and Digital team.

159. Data and Digital solutions hold significant opportunities for efficiencies and enable functional operationalising of a new facility. Improved communications and information sharing for staff could lead to more timely treatment of patients and streamlined workflows. Provision of digital information and wayfinding for patients equally could support reduced anxiety, reduced did-not-wait events, improved understanding of health care options and even ED admission avoidance. Engagement with staff across CCHV, including at a service level, shows very strong support for Data and Digital as an enabler of project benefits.

160. While the scope of this project is limited in the data and digital initiatives it can deliver, there are opportunities to include some specific digital initiatives that will support realisation of the benefits of this project and future service and network planning in line with the following planning principles:

- Virtual and digital healthcare models remove barriers to specialist healthcare
- Digital enablement supports capability and connection across the system

161. The proposed Data & Digital scope for this project includes the following new technologies: improved staff communications technology within ED, registration kiosks in ED, and digital signage (to display wait times and general public education materials).

Table 14: Front of Whare IBC potential business scope and key service requirements

Service Requirements (in decreasing order of relevance compared to the investment objectives)	Scope Assessment				
	Minimum Scope	Intermediate Scope	Maximum Scope	Out of Scope	Scope change from approved IBC
ED Capacity	Meet present day demand.	Meet projected demand to 15 years.	Meet projected demand to 2050, maintaining two existing regional EDs (WRH and Hutt Valley).	9(2)(f)(iv)	None – DBC is focused on the intermediate scope
ED Service Resilience	Achieve IL4 and SLS2 rated ED.	IL4 and SLS2 required to meet building code	Achieve IL4 and SLS2 rated ED as an isolated, independent building.		None – DBC is focused on the intermediate scope
Hospital Flow & Capacity	No change to capacity outside of ED	Increase capacity of assessment spaces, critical care beds and general adult beds	Meet projected demand for hospital capacity beds to 15 years.		None – DBC is focused on the intermediate scope
Data and Digital	Installation of networking to support existing end user devices in the refurbished areas. Video conferencing in the new meeting rooms. Procurement of end user devices to support the relocation and the increased facilities size	Improved staff communications technology. Kiosks for check in to ED and Outpatients. Digital signage (to display wait times and general public education materials)	Public facing portal to display wait times, provide information about alternative care options, link to Telehealth, capture patient information, perform initial triage, offer chatbot support		The IBC did not include a scope assessment for Data and Digital. The DBC will focus on intermediate scope for Data and Digital

Material Changes Since the IBC: Mandatory implementation of the Health Planning Unit

162. From July 1st, 2023, Health NZ mandated use of Australian Health Facility Guidelines (AusHFG) and area specific Health Planning Units (HPU); with deviations to be explicitly tracked and the rational articulated. This is a material change from the Concept Design presented in the Indicative Business Case, when the AusHFG were guidelines to be developed upon to meet the needs and innovation of a district. The ultimate

standardisation of health care facilities is beneficial, but implementation within a refurbishment project is complex. The spaces available for relocation of services, existing site infrastructure and capacity all limit the ability to design wholly to the Health Planning Unit. Deviations due to these constraints have been discussed with the IIG National Facility Design, Advisory and Assurance team, and the project context noted during design assurance processes.

163. Refurbishment of predetermined areas according to the AusHFG HPUs, specifically the relocation of the ED, means that the points of care that are achievable are limited, due to the HPU requirements for typologies and distributions of rooms including points of treatment. The ED will be designed in accordance with the Emergency Unit HPU and will incorporate elements of the Psychiatric Emergency Care Centre to address the requirement for a Behavioural Assessment Unit/Emergency Mental Health Patient Pathway.

164. To accommodate the HPU components, project architects (Jasmax) have established a revised concept design for the recommended option in this DBC. A comparison of the PoC delivered by the recommended option in this DBC are shown in Table the. The recommended option delivers an equivalent number of ED PoC to what the IBC Concept Design proposed.

165. The one major difference in PoC between the IBC and this DBC, as shown in Table , is the additional 22 inpatient beds. These are achievable by repurposing some of the current ED building, after the ED vacates it, into a 23 hour ward. In the IBC this building was to be demolished but updated seismic advice, and an approved limited strengthening project, means demolition is no longer necessary. Further, these additional beds are considered essential to mitigate the WRH bed capacity and acute flow challenges, without this the mitigation the realisation of the project benefits may be delayed or not achieved.

Table 15: PoC proposed in the IBC compared to PoC proposed in this DBC after applying mandatory AusHFG HPUs

Department	Current state	IBC	DBC recommended option
ED	53 patient bays, resus **Total 53**	62 patient bays, resus 22 triage, treatment, procedure, consult rooms **Total 84**	63 patient bays, resus 24 triage, treatment, procedure, consult rooms **Total 87**
ICU	24 beds	28 beds	28 beds
MAPU	24	30	26 Beds/Bays 3 Consult rooms
SAPU	14	34	23 Beds/Bays 5 Chairs
Impacted ambulatory services	72 consult/treatment	90 consult/treatment	108 consult/treatment
Inpatient beds	289	+12	+36
Total Additional PoC	**N/A**	**85**	**126**

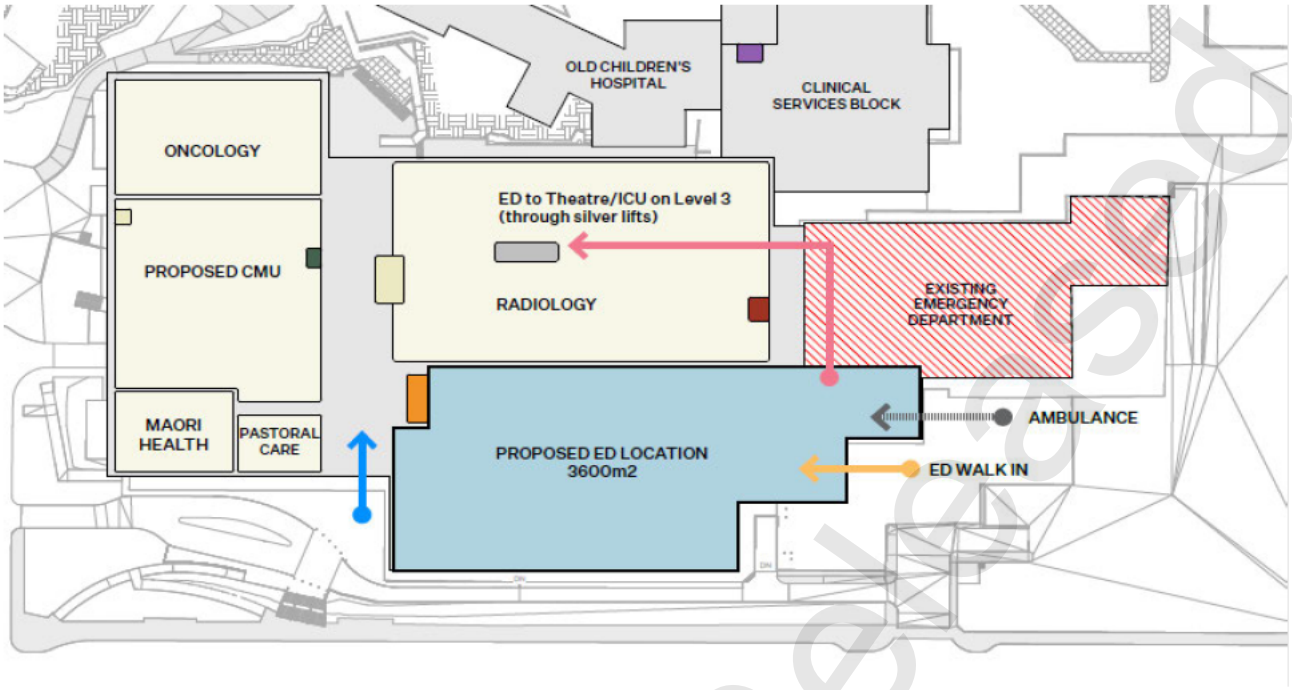
166. The proposed ED model is supported by the HPU, to improve patient flow through the ED by increasing treatment areas and quickly referring stable patients to the appropriate place for the rest of their care (e.g. MAPU, SAPU, wards or discharged).

Scope of IBC Preferred Option

167. This section details the construction scope required to implement the Preferred Option in the IBC.

168. Refurbishment of the ground floor of the main hospital building was determined to be the only viable option in the IBC. The IBC recommended a Rapid Refurbishment with expansion to enable flow to be undertaken to provide capacity across acute services, noting this option achieves change on the fastest timeline.

Figure 10: the key move of the ED from an adjacent building into the WRH building.



169. The Rapid Refurbishment recommended in the IBC involves a planned and efficient move of services to house the relocated and expanded ED and expanded acute services in a refurbished 3,600m2 on the ground floor of the W01 (main hospital) building.

170. As more detailed planning has been undertaken post IBC, the Project has identified implementation challenges related to some of the proposed enabling works. Alternative solutions were identified for the location of some impacted services and there is now a well-defined and robust pathway to achieve the same scope: the same service relocations and expansions and equivalent points of care.

171. To enable the planned and efficient move of services, the scope of the Rapid Refurbishment option calls for the following sequence of enabling works:

- Fit out of Level 11 CSB (a currently vacant floor) to create office and non-clinical space
- Seismic re-strengthening (to IL2) and refurbishment of the decommissioned OCH including fit out for clinical staff and ICU staff/administration relocation
- Consolidation of staff within GNB to support relocation of clinical spaces from W01
- Minor fit out works of GNB level 12 and 8 to allow staff relocations
- Refurbishment / fit out of GNB Level 6 into new Main Outpatients Department (MOPD)
- Refurbishment / fit out of GNB Level 7 into Neurology & Anesthetic Pre-Assessment
- Refurbishment / fit out of part of GNB Level 5 for Respiratory

172. Having created vacant space through the relocations described above, the project will then create the following new service spaces, all within the space vacated within existing buildings:

- Refurbishment of existing MOPD space in W01 into Cardiology and Immunology
- Expansion of the existing ICU in W01
- Creation of new EOC / IOC unit on Level 4 CSB
- Construction of new MAPU department on Level 4 CSB
- Construction of new SAPU department on level 4 WSB
- Refurbishment / new fit out of expanded ED into W01 (ex CMU, MAPU and Transit spaces)

- Refurbishment of portion of existing ED for use by Transit Lounge, Behavioral Assessment Unit, a 23-hour ward, and ED clinical staff.

Main benefits

173. To inform this DBC, at a workshop on 22 August 2024 the Programme Board reviewed the benefits listed in the IBC and confirmed that three of the four had continuing validity.

174. The benefit removed by the Programme Board was "Efficient and sustainable services and facilities". While it was relevant at IBC stage, when new building options were being considered, this benefit category is now considered irrelevant. Once the IBC was approved, the main focus of this project has been a rapid refurbishment of several buildings to enable the ED to be relocated and expanded, i.e. maximising reuse of existing buildings is in alignment with Health New Zealand sustainability goals.

175. The table below outlines the benefits, their weightings and the disbenefits identified in August 2024.

Table 16: Analysis of primary potential benefits and disbenefits

Benefit	Who benefits?	Direct or indirect?
Enable delivery of disaster-ready emergency service (30%)	Patients, whānau, staff	Direct
Improved health outcomes and equity (45%)	Patients, whānau, staff	Direct
Better experience for patients, whānau and staff (25%)	Patients, whānau	Direct
Disbenefits		
The separation of clinician offices, from direct and easy access to the clinical environment creates delays in clinical access to patients.		
The relocation of several services is required to enable the relocation of ED into the main hospital building (W01)		

Main risks

176. Risk is an uncertain event or circumstance that, if it occurs, has a negative effect on at least one project investment objective. The Risk Register established during the IBC development phase is a living document that has been, and will continue to be, updated to reflect the status of any risks of issues arising. The Project's Risk Register is attached as Annex E. The top eight risks in the Risk Register for the project are set out in the following table:

9(2)(g)(i)

9(2)(g)(i)

177. A Risk Management Strategy, and Risks and Issues Registers, have been developed and will be regularly and progressively updated as more detailed analysis is undertaken.

Economic Case

178. The Hospital Network Programme Board has reviewed the short-list options as set out in the Indicative Business Case (IBC) and identified that new feasible alternative short list options exist. After an economic assessment of its new short-listed options, the Board identified a new preferred way forward. The new preferred way forward is a variation on the option preferred in the IBC.

179. Compared to the preferred option in the IBC: the way forward preferred in this DBC will achieve more benefits. Critically, given CCHV is the second worst performing district in NZ on this measure, it provides the physical capacity required to support CCHV to maintain the 95% SSED health target. The new recommended option can be delivered for 9(2)(b)(ii)

Review of the IBC short-list

180. In a 2023 IBC, Health New Zealand Capital Coast and Hutt Valley (CCHV) considered a range of investment options to meet future emergency care demand, create additional physical capacity, support new models of care, and enable implementation within the short to medium term. Refurbishment and replacement of the existing ED was explored, and in doing so, it was found that:

- **Seismic refurbishment of the existing ED is not viable** – It is not possible to rectify seismic issues without ceasing operation or significantly reducing capacity to deliver service activity and there is no ability to expand the capacity of the existing ED due to physical constraints and lack of adjacent available footprint.
- **The ground floor of the main hospital building is the only possible location to house the relocated and expanded ED** – Architects and Health Planners explored the refurbishment of other locations on the Wellington Regional Hospital site to accommodate the expanded ED. From this, the ground floor of the main hospital building was determined to be the only suitable location.
- **The optimal location for a new building is where the existing ED currently sits** – Master planning has identified the optimal location for a new building is where the existing ED currently sits. This is not feasible as it would require relocation or closure of the existing ED.

181. The Front of Whare IBC presented 5 short listed options (the 'short-list'), as follows.

- *Option 1: Status quo ('Do nothing' – retained as a baseline comparator)*
- *Option 2:* Refurbish with minimal capacity expansion
- Option 3: Rapid refurbish with expansion to enable flow (the preferred way forward)
- *Option 4:* Consecutive refurbishment with expansion to enable flow
- *Option 5:* New Acute Services Building (ASB)

182. In the IBC, two of the short-listed options were not considered to be feasible. These were:

- The Status Quo. The ED building does not meet seismic standards and cannot be brought up to standard without the building being vacated. The ability to continue operations in a post-disaster environment is particularly relevant for an acute facility located in Wellington, where the continuity of services is critical not only to people in Wellington, but also the greater Wellington region.
- A New ASB. As the optimal location for a new ASB is where the existing ED currently sits, this option would require relocation or closure of the existing ED. This option is not shortlisted in this DBC as it is not a feasible solution for achieving the investment objectives.

183. The remaining IBC short listed three options (2, 3, 4 above) which differed in the timing and order of relocation of services, capacity expansion created, and time to completion. Each option would relocate the ED into the ground floor of the main hospital building, ensuring the ED has a seismic performance of >70% NBS IL4.

184. In determining the IBC preferred way forward, CCHV considered the most appropriate balance between delivering sufficient capacity and addressing its capacity deficits in a timely manner. With this in mind, the IBC recommended the option of rapid refurbishment with expansion to enable flow (option 3 above). This was preferred to refurbishment with minimal capacity expansion because it provides capacity across acute services and inpatient stay to improve overall hospital flow, and consecutive refurbishment with expansion to enable flow as it can be delivered 3 to 4 years earlier.

Detailed Business Case (DBC) Long List

185. In preparing this DBC, the Hospital Network Programme Board undertook a process to test and review the preferred option presented in the Front of Whare IBC. These options were tested against the investment objectives, and the strategic context including the Government Policy Statement on Health 2024-2027.

186. A long list of operational, refurbishment and brown-field new build options was assessed alongside the IBC preferred option. These were analysed for their challenges, merits, and ability to meet the identified benefits and investment objectives of the IBC. The long-list analysis aims to provide assurance that CCHV has considered all feasible alternatives (including non-property solutions) for meeting the investment objectives and that the preferred option offers better value for money than these alternatives.

187. The process to identify and assess the new long list took into account new information identified since the IBC was approved, in particular:

- The detailed planning undertaken since the IBC has generated in-depth information. All services to be relocated, their needs, all feasible relocation sites (and their constraints), and the trade-offs involved have all been fully developed.
- The opportunity exists to continue to use the existing ED building for non-emergency clinical functions after the ED vacates it. Demolition was appropriate in the IBC, given the understanding of the building's likely seismic performance. With the updated advice on seismic performance and an approved business case to strengthen some roof truss connections, while ED must still be relocated from the building, the building no longer needs to be demolished.[12]
- The changing strategic context. The WRH is consistently not meeting Government targets for treatment of patients. If this project did not proceed then this would leave CCHV and the wider Central Region, with unresolved and pressing ED and acute care capacity and flow issues over a long term. Yet, achieving maximum value for money from the project is also dependent upon addressing WRH capacity and flow issues in conjunction with, or soon after, the Wellington Hospital ED Refurbishment project.
- The original long list of presented in the IBC considered a range of options that included staying in place, moving to a range of locations within the WRH buildings, new buildings on the WRH site or other locations, and options to divert excess ED demand. At a facilitated options workshop held on 23 May 2024, the Programme Board and IIG partners identified 12 new long list options. In summary the new long list options are as follows:

[12] Initial seismic work was undertake in late 2024 to address the 3 connections that were driving the seismic rating to 15%. Advice from WRH is this work was completed in mid Jan 2025

Table 18: Long List Options Developed for the DBC

Option ID	Option Name	Option Description/Scope
Status Quo	Do Nothing	N/A
IBC preferred	ED relocated to front of the W01 building adjacent to Radiology and the main entrance	ED relocation and expansion into the main hospital building W01 MAPU/SAPU relocation and expansion ICU expansion Relocation of CMU and OPD, Transit Lounge Office relocations to OCH and CSB11 9(2)(i)
New Option 1	ED relocated to Atrium/OPD space	ED relocation, OPD relocation Decant of Whanau Care, Pacific Health, Chapel & Faith centre and Hospital Foundation 9(2)(i)
New Option 2a	New stand-alone ED, single storey, location of ambulance station	ED only. Earliest possible delivery Q4 2031. 9(2)(i)
New Option 2b	New stand-alone ED multi storey, location of ambulance station and Mein St entry	ED only. Earliest possible delivery Q2 2032. 9(2)(i)
New Option 2c	New stand-alone ED, single storey, located in carpark adjacent to Riddiford St	ED only. Earliest possible delivery Q3 2031. 9(2)(i)
New Option 3	Tranched enabling works programme (variation on IBC preferred option) To avoid doubt, the benefits of being able to begin enabling works in 2024 also apply to the IBC Preferred Option and Options 5 and 8)	Scope is as per IBC preferred option but with enabling works starting a year earlier (2024 rather than 2025). Assumes enabling works funding top up approved (funding of $7.1m required on top of the existing IBC approved $10m enabling works fund) by IIG under its delegations. Delivery complete Q2 2029. 9(2)(i)
New Option 4	Delay Detailed Business Case until there is a regional Clinical Service Plan (CSP) and a Site Master Plan (SMP)	Scope of the Project post CSP and SMP development is unknown. Delivery completion date unknown. Estimated capital cost; unknown.
New Option 5	ED relocated to W01 building as described in IBC preferred option plus use current ED to provide ED outflow capacity (variation on IBC preferred option)	Scope is as per IBC preferred option plus adding 22 (by using the current ED clinical space) for inpatient 23-hour ward beds. The use of this space for inpatient use beyond short stay would be restricted by the configuration and access to natural light. ED Delivery Q2 2029, Project complete Q3 2030. 9(2)(i)
New Option 6	Relocate ED to the ground floor of the Te Wao Nui building.	ED relocation to Te Wao Nui building. Decant of CHS outpatient, ambulatory and non-clinical spaces from Te Wao Nui building Delivery complete Q2 2030. 9(2)(i)
New Option 7	Address the ED seismic issue through contingency plans to decant ED post major earthquake to another building	Implement CCHV contingency plan. Costs and timing N/A This assumes that the current ED building would remain functional (so low/no risk to life) but its services would not be functional post major earthquake.

New Option 8	Use the Old Children's Hospital (OCH) for inpatient beds (variation on IBC preferred option) As part of the IBC preferred option, on which Option 8 is based, OCH will be seismically strengthened to IL2. IL2 will limit the future occupancy of this building. It is understood no more than 50 in-patient beds could be in OCH under IL2.	Scope is like the IBC preferred option but with a different use adopted for the OCH – inpatient beds rather than offices. This impacts on planned relocation of services and ability to relocate and expand the SAPU. Reconfiguration of OCH to meet current standards/guidelines would result in a less (10) beds/PoC compared to the IBC preferred option. Minimal increase in assessment unit capacity (MAPU 3 beds, SAPU no increase) Delivery complete Q2 2030. 9(2)(i)
New Option 9	De-scope some elements (variation on IBC preferred option)	SAPU and ICU expansion components could be de-scoped from the IBC preferred option without impacting the ED solution. Neither component is critical path for other relocations/expansions but does reduce inpatient capacity delivered Delivery complete Q2 2030. 9(2)(i)

188. Note the estimated capital cost for the IBC preferred option, option 3 and option 5 are based on the QS costings received in August 2024. The QS costed all the sub-projects involved in delivering the project to various levels of detail corresponding to their current phase of design. This costing by the QS recognised known risks as at DBC stage.

189. The costing of option 8 is a higher level estimate established in May 2024 to assist in evaluating this option. The design of this option and its costing have not been progressed since May 2024 and therefore its estimated cost must be read with a corresponding degree of cost uncertainty There are a number of known risks, these are detailed in the table assessing the risks for the short-listed options.

DBC Long List Assessment

Investment Objectives

190. Investment Objectives are clearly defined aims that describe what the investment intends to achieve. The Investment Objectives for this project were identified in the Strategic Case and have been used in the Economic Case to assess the long list options.

191. At a facilitated workshop on 26 June 2024, the Hospital Network Programme Board and IIG partners assessed each option against the Investment Objectives on a **Does Not Meet**, **Partially Meets**, or **Meets** basis. This assessment was supplemented by scoring the options using the following scale.

Does not met			Partially Meets (Partial)		Meets (Yes)	
0	1	2	3	4	5	6
Very Poor	**Poor**	**Below Average**	**Average**	**Above Average**	**Good**	**Very Good**

The results of the assessment of options against the Investment Objectives are summarised in the following table.

Table 19: Assessment against Investment Objectives

Investment Objective	Do Nothing	IBC Preferred	New Option 1	New Option 2a	New Option 2b	New Option 2c	New Option 3	New Option 4	New Option 5	New Option 6	New Option 7	New Option 8	New Option 9
ED capacity is sufficient to meet demand	0	6	0	6	6	3	6	0	6	0	0	6	6
Timeliness of care provision	0	3	0	3	3	0	3	0	6	0	0	3	3
Eliminate / reduce corridor patients and create a safer environment	0	3	0	3	3	0	3	0	6	0	0	3	3
Improved patient and whānau satisfaction	0	6	0	3	3	0	6	0	6	0	0	6	3
The ED buildings meet IL4 and SLS2	0	6	6	6	6	6	6	0	6	6	0	6	6
Total	**0**	**24**	**6**	**21**	**21**	**9**	**24**	**0**	**30**	**6**	**0**	**24**	**21**
Result	**Carry Forward**	**Carry Forward**	**Dismiss**	**Carry Forward**	**Carry Forward**	**Dismiss**	**Carry Forward**	**Dismiss**	**Carry Forward**	**Dismiss**	**Dismiss**	**Carry Forward**	**Carry Forward**

192. The assessment of the options against the investment objectives is summarised in the following table.

Table 20: Summary of Investment Objective Assessment

Option ID	Option Name	Investment Objective Assessment
Status Quo	Do Nothing	Does not meet any investment objectives.
IBC preferred	ED relocated to front of the W01 building adjacent to Radiology and the main entrance	Meets or partially meets all objectives. It partially meets the investment objectives of timeliness of care and eliminating corridor patients because without creating more inpatient beds within WRH, the project impact on SSED targets will be limited.
New Option 1	ED relocated to Atrium/OPD space	Met the investment objective for ED building being IL4 and SL2 but the available space is too small, resulting in no PoC increase in ED and construction would be too disruptive to hospital operations. This option could not lead to improved SSED performance.
New Option 2a	New stand-alone ED, single storey, location of ambulance station	Options 2a and 2b received an identical assessment. They would be IL4 and SLS2 compliant. They partially met the investment objectives of timeliness of care and eliminating corridor patients. But they do not create any inpatient beds within WRH and so are not able to support improved SSED performance. These options require a corridor link to Level 2 W01, clinical flows would be impacted with increased distance to critical services, and it would be difficult to separate patient/public/logistics flows to W01. For this reason, these options could only partially meet the objective of improving patient and whānau satisfaction.
New Option 2b	New stand-alone ED multi storey, location of ambulance station and Mein St entry	
New Option 2c	New stand-alone ED, single storey, located in carpark adjacent to Riddiford St	Assessed similarly to options 2a and 2b. Option 2c is differentiated from the other two new build options by its smaller size - the space available would be too small for it to provide the needed increase in PoC in ED – and its distance from W01 which made it too remote. 2c offers no support to improving SSED performance.
New Option 3	Tranched enabling works programme, starts October 2024 (variation on IBC preferred option)	Has the same PoC and benefits as the IBC preferred option, but started enabling works in October 2024 means the project is completed one year earlier (Q2 2029 vs Q2 2030 for the IBC preferred option).
New Option 4	Delay Detailed Business Case until there is a regional Clinical Service Plan and a Site Master Plan	This option did not meet any Investment Objective. A planning-based delay, estimated at 36 months, introduces uncertainty on timing, scope and SSED performance improvement. Assessors believed that delay (given scope, site and investment constraints), would be unlikely to produce plans that could not be accommodated within current service and site master plans established to date.
New Option 5	ED relocated to W01 building as described in IBC preferred option plus use current ED to provide ED outflow capacity (variation on IBC preferred option)	The only option that fully met all investment objectives. In retaining the existing ED to provide an outflow area and additional bed capacity, the project will deliver 36 additional beds, which in conjunction with other W01 projects would deliver a total of 94 additional beds for WRH, to support achieving the SSED target of 95%.
New Option 6	Relocate ED to the ground floor of the Te Wao Nui building.	This building is IL4 and SL2 compliant but the space available would be too small, it could not provide the needed increase in PoC in ED. This option would create considerable disruption to wider services. This option does not create the PoC in W01 needed for improved SSED performance.
New Option 7	Address the ED seismic issue through contingency plans to decant ED post major earthquake to another building	Fails against all investment objectives. To provide confidence that the ED will function in a post-disaster environment, the ED must be in a building that meets IL4 and SLS2 requirements. This option gives no support to improving SSED performance.
New Option 8	Use the Old Children's Hospital for inpatient beds (variation on IBC preferred option)	Reconfiguration of OCH to meet current standards/guidelines was still to be tested but the preliminary analysis showed this option could provide a third (10) less beds/PoC than the IBC preferred option and so it is less likely to support improved SSED performance. The proposed strengthening of OCH to IL2 puts limits on the use of OCH for in-patient beds.

New Option 9	De-scope some elements e.g. SAPU and ICU	This option would result in 32 less beds/PoC compared to the IBC preferred option. This option does not address acute flow as system and cannot support improved SSED performance

193. The IBC preferred option and options, 2a, 2b, 3, 5, 8 and 9 are the options that 'Meet' or 'Partially Meet' all Investment Objectives and thus have been progressed through to the CSF assessment. Note that option 5 is the only option that fully meets all the investment objectives.

Review of Critical Success Factors (CSFs)

194. CSFs are the elements essential for a project's successful delivery. They complement, but are distinct from, the investment objectives. In general terms, investment objectives describe what the investment intended to achieve, whereas CSFs describe how best to achieve it. Together, these form the framework for assessing whether each option delivers the elements critical to the Project's success.

195. The Programme Board and IIG partners reviewed the CSFs identified in the IBC at an options workshop on 26 June 2024. The Board agreed to change the CSFs identified in the IBC as follows:

1. Separate the nine items under the IBC's CSF 1 into three CSFs (Legislative Policy, Strategic Fit and Business Need), to allow a more nuanced assessment of the strategic fit and business needs
2. Align the "Potential achievability" CSF with current business case guidance. Now it includes an assessment of options for:
    a) Can be delivered in the proposed timeframe with the planned resources and support. Delivers non-negotiable (minimum) requirements within the shortest timeframe
    b) Can be delivered within the known site constraints.
    c) Staffing is realistically achievable to enable optimal utilisation of additional capacity as scheduled.
3. Weight the CSFs for a nuanced assessment of options. CSFs were not weighted in the IBC.

196. Incorporating changes made by stakeholders, the CSFs for this DBC are as follows:

Table 21: Wellington Hospital ED Refurbishment CSFs

CSF	Name	Description	Weighting
CSF 1	Strategic fit and business needs from the IBC (See split below)		
CSF 1a	Legislative/Policy	Meets section 7 of the Pae Ora (Health Futures) Act 2022 to improve equitable health outcomes, embed Te Tiriti, implement a population health approach, and ensure a sustainable and affordable health system. Aligns with the objectives of Te Pae Tata, which are focused on equity based and people-centred care, particularly for Māori, Pacific peoples, and Tāngata Whaikaha disabled people. Responds to the New Zealand Disability Strategy Achieves actions outlined in Disability Action Plan: improving access to quality healthcare and health outcomes.	5%

CSF 1b	Strategic fit	Alignment with Pae Ora (Healthy Futures) Act 2022 and the New Zealand Government Health Target: Shorter stays in emergency departments Aligns with the district masterplan and wider critical care network Meets the agreed investment objectives, related business needs and requirements Aligns with the district master planning to meet demand prior to the commissioning of new buildings	20%
CSF 1c	Business Needs	Meets the forecast demand for points of care out to 2040 Supports efficient connection to the other health facilities Minimises disruption to hospital services	25%
CSF 2	Potential value for money	Optimises value for money (i.e., the optimal mix of potential benefits, costs and risks).	20%
CSF 3	Supplier capacity and capability	Helps sustain and support the hospital workforce Allows for the integration of improved ICT services Supports and enables the intended MoC for the ED	15%
CSF 4	Potential affordability	Can be delivered using existing funding in the health capital envelope, including potential phasing to align with current available funding and future capital injections	5%
CSF 5	Potential achievability	Aligns with interdependencies in Copper Pipes Replacement Tranche 2, where relevant Can be delivered by potential suppliers. Can be delivered in the proposed timeframe (5-7 years) with the planned resources 9(2)(i) and support. Delivers non-negotiable (minimum) requirements within the shortest timeframe Can be delivered within the known site constraints. Staffing is realistically achievable to enable optimal utilisation of additional capacity as scheduled.	10%
Total			100%

DBC Long List Assessment: Critical Success Factors

197. The IBC preferred option and new options 2a, 2b, 3, 5, 8 and 9 were carried forward from the Investment Objective assessment. The Programme Board and IIG partners assessed these options against the CSFs at a facilitated workshop on 1 August 2024.

Table 22: Wellington Hospital ED Refurbishment CSFs scoring methodology

Very Poor	Poor	Below Average	Average	Above Average	Good	Very Good
0	1	2	3	4	5	6

Table 23: Wellington Hospital ED Refurbishment CSFs weighted scores

CSF	IBC preferred option	Option 1	Option 2a	Option 2b	Option 3 (Variation)	Option 5 (Variation)	Option 8 (Variation)	Option 9 (variation)
CSF 1a	1.5	0	1.5	1.5	1.5	1.5	1.5	1.5
CSF 1b	8	4	2	2	8	10	6	6
CSF 1c	10	2.5	7.5	7.5	10	12.5	7.5	5
CSF 2	8	3	4	4	9	10	8	6

CSF 3	6	3	6	6	6	7.5	5.25	4.5
CSF 4	2	2.75	2.5	2.5	2	2	2.5	2.5
CSF 5	4	4	4	3	4	4	4	4
Total Score	**39.5**	**19.25**	**27.5**	**26.5**	**40.5**	**47.5**	**34.75**	**29.5**
Rank	3	8	5	6	2	1	4	7
Short List	**Yes**	No	No	No	**Yes**	**Yes**	**Yes**	No

198. New option 3 ranked highly but it is not in the short list below. It became clear that it was not unique as it can be applied to each short-listed option. Also, IIG was to decide in August 2024 if it could fund option 3. When the DBC is presented to decision makers, option 3 will be underway or infeasible.

DBC Short Listed Options

199. With the exception of Do Nothing, the short-listed options are the IBC preferred option or a variation of it. To avoid confusion, the option numbering used in the long list is retained below, so the options short listed for economic assessment are as follows:

Table 24: Comparison of Short-Listed Options

	Do Nothing	**Minimum Capacity**	**Intermediate Capacity**	**Maximum Capacity**
	Status Quo	**New Option 8**	**As in IBC**	**Recommended Option 5**
Additional ED PoC	0	34	34	34
Additional MAPU PoC	0	2	2	2
Additional SAPU PoC	0	0	14	14
Additional ICU PoC	0	4	4	4
Additional In-Patient Beds PoC	0	18	14	36
Additional Outpatient/Ambulatory PoC/PoT	0	36	36	36
Total PoC	**59**	**94**	**104**	**126**
Impact on achieving SSED	All attendances 46%: Admitted 29%, Not admitted 54%	Does Not support achievement of 95%	Does Not support achievement of 95%	Supports achievement of 95%
Incremental Operating Cost	None	s 9(2)(b)(ii)		
Capital Cost	None			
Cost per m2	None			
Cost per PoC	None			
Description	N/A	As per IBC preferred option but changes the use of one level of the Old Children's Hospital to inpatient beds rather than non-clinical offices. Minimal increase (+2 poC) in assessment capacity (MAPU only).	ED relocated to front of the W01 building adjacent to Radiology and the main entrance. Several services relocated out of W01 to enable ED to be relocated. Expansion of ICU, MAPU, SAPU	IBC preferred plus uses the current ED building to provide inpatient 23-hour ward beds to support ED outflow.
Service Relocations	None	As per IBC preferred but SAPU relocation does not proceed, it remains in W01	ED moves to the W01 building. Relocated out of W01: CMU, MAPU, Main Outpatients Department, Security Orderlies, Transit Lounge, Reception, SAPU. Office relocations to OCH, CSB11	As per IBC preferred option
Project Completion	N/A	March 2030	March 2030	Q2 2030 / ED Open 2029

Economic assessment of the short list options

200. This section undertakes an economic analysis of the costs, benefits and risks of the short-list options identified in this DBC, as per the options identification and analysis in sections above. The intent is:

- to determine the preferred option likely to optimise the relative value
- to ensure that decision-makers are well-informed about the implications and trade-offs of using economic resources and have a consistent basis for assessing and ranking competing options.

201. The analysis includes:

- a multi-criteria analysis including monetary costs and non-financial benefits
- an assessment of risk and uncertainty.

This analysis informs the recommendation of a preferred option.

Assessment methodology

202. The assessment methodology used is a multi-criteria analysis that builds on the analysis completed in this DBC. The Hospital Network Programme Board prefer multi-criteria to a full cost-benefit analysis because most of the project's benefits are difficult to monetise in a consistent way.

203. No monetised benefits were identified in the Front of Whare IBC. For this DBC, investigations by the Project team, and work with IIG partners, confirmed there are no benefits that can be monetised in a consistent way. Investigations included working with IIG partners to identify if other relevant business cases have identified monetary benefits, this search yielded no useful comparators. Also, the Service Improvement & Innovation team at Counties Manukau District were asked to review the Front of Whare IBC and Benefits Profiles. The Counties Manukau team advised that no specific monetary benefits were likely to arise from the project.

204. The shortlisted options differ substantially in the benefits they deliver. The Hospital Network Programme Board believes the multi-criteria analysis below, which uses the benefits identified in the Front of Whare IBC provides a sufficiently robust value for money assessment.

Assumptions

205. For the purpose of the analysis the following assumptions have been made:

- Construction of enabling works started for CSB level 11, 6 Jan 2025 and will finish 18 July 2025
- In the OCH - Construction of enabling works started for started on 13 Jan 2025 (seismic strengthening) and will finish in May 2025. Refurbishment construction works will start on 29 Jan 2025 and will finish on 6 May 2026.
- Enabling works completed August 2025 (CSB Level 11), May 2026 (OCH) and services relocated.
- All main construction activity completed and benefits realisation from 1 April 2030
- Capacity demand modelling is as per the strategic case. WRH ED needs 83 PoC by 2037.
- ED attendance forecasts are as per the strategic case.

- The preferred performance standard is to complete care delivery within the six-hour SSED timeframe for all patients, and within three hours for high acuity patients.
- 94 in-patient beds[13] identified as being possible through this project, the HDU and Copper Pipes Projects, are added into the WRH system to support patient flow.
- Acute flow improvement initiatives are implemented from 2024 so that WRH flow is at an optimal level when the project delivers the new ED and acute care PoC.
- The do minimum scope for data and digital is assumed. This scope supports the functioning of the ED but will not support gains in staff productivity or model of care innovations.

Assessment period

206. Consistent with Treasury "Whole of life cycle" guidance[14] the assessment period for this project has been determined as 20yrs, being the operational life of the building.

Discount and inflation assumptions

207. The Public Sector Discount Rate[15] specified by the Treasury for projects of this type is 2% per annum. All costs and benefits are expressed in today's dollar terms.

Estimated costs

208. Capital charges, interest, and other financing costs are excluded from the analysis.

209. The following costs were estimated by:

- The capital costing was prepared by Rider Levett Bucknall (RLB, Quantity Surveyor)
- The operational costing was prepared by HNZ and approved by the Finance Lead

Taxation

210. All dollar figures are GST exclusive.

[13] The 94 is comprised of 34 beds from Front of Whare IBC preferred option (in MAPU, SAPU, ICU and W01) and 38 beds from other projects (Copper Pipes and HDU projects) and 22 beds if the current ED building is reused to provide ED outflow capacity (assessment, clinical decision unit or short stay beds).

14 https://www.treasury.govt.nz/sites/default/files/2015-07/lifecosts-guidance.pdf

15 Treasury Circular 2024/15: Updated Public Sector Discount Rates for Cost Benefit Analysis

Identification of Non-monetary benefits

211. The benefits being used by the Wellington Hospital ED Refurbishment Project are tabled below, as well as the baseline and target performance used to evaluate the short list options.

Table 25: Non-monetary benefits from the investment proposal

Benefit Criteria	Benefit Description	Measure	Baseline	Target
Enable delivery of disaster-ready emergency service	Percentage compliance with IL4 standards under the building code	Compliant with IL4 standards	15% - Non-compliant	>70% NBS IL4.
	Compliance with SLS2 under the building code	Compliant with SLS2 standards	Non-compliant	Compliance against SLS2 building code
Improved health outcomes and equity	Safe patient care	Reportable events in ED – health and safety, delays and errors in patient care	Safety/Security/Privacy: 46 Delays and errors in patient care: 203 Infection Control: 8	20% overall reduction in reportable events
	Patients in wrong place	Corridor events Children in adult ED space Adults in children ED space Waiting room delays	Corridor events: 34% Children in adult CTA: 29% Adults in children CTA: 0.86% Time to cubicle 80.1 minutes	No corridor events <5% children in adult areas 0% adults in children ED 25% reduction in time to cubicle
	Timeliness and streamlined clinical spaces	Time lost to avoidable delays – Radiology Time from CT request to test performed	Time from CT request to test performed: 124 minutes	Time from CT request to test performed: < 60 minutes
		Triage Compliance, percentage compliance with each triage group	Percentage compliance with ATS targets T1: 99.44% T2: 28.21% T3: 15.57% T4: 22.64% T5: 33.84%	Percentage compliance with ATS targets T1: 100% (immediately) T2: 80% (10 minutes) T3: 75% (30 minutes) T4: 70% (60 minutes) T5: 70% (120 minutes)
		Shorter Stays in ED performance	All attendances 46% Admitted 29% Not admitted 54%	SSED target of 95% maintained

		Acute assessment teams appropriate patients time lost to avoidable delays (stable T3,T4,T5) Percentage assessed within 60 minutes	42.7% assessed within 120 minutes 3.2% of T3-T5 directly referred patients to GM and GS make it to AAU in 96 minutes	80% assessed within 60 minutes
		Assessment unit length of stay, number of days in unit	Average length of stay MAPU: 2.6 days Average length of stay SAPU: 2.5 days	75% of observation events discharged within 24 hours 75% of assessment events discharged within 6 hours
Better experience for patients, whānau and staff)	Did not wait events,	Percentage of DNW events for Māori and Pacific peoples	Total: 10% Māori: 13% Pacifica: 7.91%	<3% across ethnicities
	Right place MAPU and SAPU	Percentage of patients streamlined directly MAPU and SAPU	Eligible patients seen in ED 3,905 that could be streamlined Streamlined directly to MAPU from community: 1,155 Streamlined directly to SAPU from community: 1,352 ED streamlined to MAPU: 44 ED streamlined to SAPU: 83	10% increase streamlined directly to MAPU and SAPU 90% of eligible patients streamline from ED to MAPU and SAPU

212. The Project's Benefits Management Plan is included in Annex C. The Project's Benefit Realisation Plan is scheduled to be completed in September 2024.

Disbenefits

213. The one disbenefit identified in the IBC has been reviewed and updated as below. One additional disbenefits has been identified, as follows.

Table 26: Updated disbenefit analysis

Disbenefits
IBC Disbenefit The separation of clinician offices, from direct and easy access to the clinical environment creates delays in clinical access to patients.
Additional Disbenefit: To relocate the ED into the main hospital building (W01) several services will need to relocate out of W01 into other buildings. Potential disbenefits include, dislocating clinical functions, creating wayfinding challenges for patients.

Assessment of non-monetary benefits

214. The non-monetary benefits for each short-list option were assessed by the Hospital Network Programme Board on 22 August 2024. The Board assessed each option for the contribution it could be expected to make to achieving the benefits measures being used in this DBC.

215. Workshop participants:

- Confirmed the use of 3 of the 4 benefit criteria identified in the IBC. Workshop participants directed that the benefit category "Efficient and sustainable services and facilities", which was listed in the IBC be removed. Relevant at the IBC stage as new building options were being considered, the category is not now relevant as the project's focus is on refurbishment options.
- Confirmed the weights assigned to each benefit criteria. These are set out in the table below.
- Scored each option out of 6 against each of the criteria.

The benefits criteria and weighting agreed by the Programme Board are as follows.

Table 27: Benefit criteria and weighting

Benefit criteria	Weighting
Enable delivery of disaster-ready emergency service	30%
Improved health outcomes and equity	45%
Better experience for patients, whānau and staff)	25%

216. The weighted scores for each short-listed option are as follows.

Table 28: Weighted Scoring of Options

Benefit Criteria	Weighting	Status Quo	Do Minimum (Option 8)	Intermediate (IBC Preferred Option)	Aspirational (Option 5)
Enable delivery of disaster-ready emergency service	30%	0.2	1.5	1.5	1.5
Improved health outcomes and equity	45%	0	0.9	1.35	2.25
Better experience for patients, whānau and staff)	25%	0	0.25	0.75	1.25
Total Scores	**100%**	**0.2**	**2.65**	**3.6**	**5**
Ranking		**4**	**3**	**2**	**1**

217. Except for the status quo, the shortlisted options have in common the relocation of the ED into the main hospital building (W01), which is an IL4 and SLS2 rated building. On this basis, for enabling delivery of disaster-ready emergency service, all options other than the status quo scored identically.

218. Performance on the other benefit measures reflects how each option meets identified needs. By 2037 WRH will need an additional 32 ED spaces a 63% increase on current capacity; and an additional 153 general adult beds, a 53% increase on current capacity. Both of these are central to enabling flow through ED and meeting the 95% SSED performance target All options except for the status quo:

- expand the ED from 53 to 87 points of care.
- add in-patient beds. But option 8 (minimum capacity expansion) adds only 24 in-patient and assessment beds, the IBC option (intermediate capacity expansion) adds 34 additional in-patient and assessment beds, and option 5 (maximum capacity expansion) creates 56 additional in-patient and assessment beds.

219. Because it delivers more in-patient beds, which are critical to improving hospital and ED performance, option 5 is the highest ranked option for both “Improved health outcomes and equity” and “Better experience for patients, whānau and staff”. The beds created by option 5 will support CCHV to meet the target that 95% of people presenting to ED should be admitted, discharged or transferred within six hours. Additional beds in the hospital system will also support improved performance against elective treatment targets.

220. CCHV ED is one of the worst performing EDs in HNZ against the SSED target. This is due in large part, to a lack of in-patient bed capacity. CCHV currently performs at 46%, with growing numbers of patients who do not wait and one third of ED patients spending time in a corridor.

Risk and uncertainty

Risk assessment

221. Each short-listed option is either the option preferred in the IBC (intermediate or a minor scope variation on it. The following tables describe the main risks to implementing each short-listed option.

9(2)(g)(i)

9(2)(g)(i)

9(2)(g)(i)

Quantitative Risk Analysis (QRA)

222. Rider Levett Bucknall (RLB) was engaged to provide a Business Case Estimate and Quantitative Risk Assessment for the ED Refurbishment Project at Wellington Regional Hospital. The overall estimate comprises numerous projects around the campus with staged completions to relocate various departments in order, to create space for the new Emergency Department within the main hospital building W01.

223. "To identify the project risks and their impacts, the Project team held a workshop with its consultants including the quantity surveyors, programmer, engineers and architects. The assessments were based on their experiences with other large health capital projects. For each risk, the group estimated a likelihood and a financial consequence. These included direct financial costs or delays, which were converted into impacts on escalation (i.e. a budget provision for future construction cost inflation). The results of the QRA are provided in Annex G and summarised below.

224. The results of the QRA are presented as p-values for a project budget, indicating the likelihood that the project can be delivered within that budget. For example, a project budget at P85 level indicates there is a 15 percent chance the project will go over budget given the likelihood and impact of the project risks. If the budget for the same project scope is raised or lowered it would decrease or increase the likelihood of the project going over budget. The budget components that change to meet different levels of risk appetite are the contingency and escalation.

225. The table below shows our quantity surveyor's cost estimates for the shortlist options compared with what the QRA found the budgets would need to be at the P50, P75, P85 and P90 levels. Following advice from our IIG partners, we have adopted the costs of each option at the P85 level."

9(2)(b)(ii)

Option Costs

Table 31: Option Costs

Cost Analysis Summary	Do Nothing Status Quo	Minimum Capacity (Option 8)	Intermediate Capacity (As per IBC)	Maximum Capacity (Recommended Option 5)
Appraisal period (years) [2024/25 – 2036/37]	20	20	20	20
Costs (Present Value)				
One-off costs		s 9(2)(b)(ii)		
Operating cost first year post project (excl. depreciation)				
Whole-of-life Costs over 20yrs.				

Note: We expect the new ED and the other facilities to have a useful life of 20 years.

Key constraints, dependencies and assumptions

226. This proposal is subject to the constraints, dependencies, and assumptions described below. Registers to manage these have been developed and are regularly reviewed and updated.

Table 32: Key constraints

Constraints		Description (incl. mitigation strategies)
C1	ED services must continue to be available on-site throughout construction	The closure of services in any refurbishment or construction option cannot happen.
C2	Other construction plans on the WRH Site	Other non-ED-related construction activities for the hospital site may limit the location of potential new ED infrastructure.
C3	Timing of funding	Timing of funding will limit the start date of the Project and the window available to manage project dependencies, which will impact the overall programme and impacts to clinical services.
C4	Construction market capacity and increasing costs.	The cost and timing of any infrastructure development are dependent on the construction capacity to commit to the Project.
C5	Capital funding	9(2)(i)
C6	Enabling Works Funding	A $10m enabling works fund 9(2)(i) was released in 2023. Detailed planning for the enabling works estimates their cost at $17.2m. The works cannot begin without a $7.2m top-up to the enabling works fund.
C7	Existing floor plan limitations	Structures of existing buildings will constrain relocation options and design choices (PoC and workplaces).
C8	ED needs functional connectivity to acute services	ED needs to be located with strong connectivity with key services, such as Radiology, ICU, Operating Theatres

Table 33: Key assumptions

Assumptions		Description (incl. mitigation strategies)
A1	Demand growth and population growth	The projected growth in demand due to population growth and demographic pressures is assumed to be accurate. The implications of this assumption and potential alternative scenarios will be tested in the DBC.
A2	Consents	The project assumes it can gain any required consents.

A3	Specialist Staffing recruitment	It is assumed that HNZ will be able to recruit to the additional emergency care staff positions that this project will create.
A4	Site Master plan alignment	The project assumes that the Site Master Planning conducted for the IBC aligns to the current HNZ planning methodologies
A5	Clinical Services Plan alignment	The project assumes that the clinical service planning conducted for the IBC aligns to the current HNZ planning methodologies

Table 34: Key dependencies

Dependencies		Description (incl. mitigation strategies)
D1	Timing of enabling works programmes / relocations to enable main ED works	Management of the Project structure, programme and risks will be key to delivery and to ensure the programme is not delayed. Refer to section below.
D2	Copper Pipe Replacement programme work phases and funding	Copper Pipes Replacement work has been delayed allowing coordination with the ED programme. Work stages i.e., new CMU location, cannot be commissioned and utilised until the Copper Pipe replacement works are completed.
D3	Incremental operating funding	To be operational, each of the additional PoC and inpatient beds provided by the project will need their incremental operating costs met by additional operational funding.
D4	Incremental addition of in-patient beds to support SSED	Modelling shows that it is 36 additional beds, which in conjunction with other W01 projects would deliver a total of 94 additional beds for WRH, to support achieving the SSED target of 95%.

Enabling Works Dependency

227. The programme dates in the Management Case are prepared on assumption the project gains early access to additional enabling works funding (decision expected September 2024).

228. Initial enabling works are required to allow staging and decanting of administrative and some clinical functions for the delivery of the project. This approach is critical to ensure that disruption to clinical services is kept to a minimum.

229. The IBC identified two initial enabling works as being required, and this DBC confirms that these are the only two required enabling works:

- CSB Level 11 fit out
- OCH seismic and refurbishment (to IL2)

230. When the IBC was approved, $10m of enabling works funding was approved. This funding was deemed essential to help support the project's critical path, including its interdependency with the WRH Copper Pipes Replacement project. This funding has supported design work to this point.

231. In June 2024, the project team submitted to IIG proposing an accelerated delivery programme, based on the potential to commence enabling works in 2024 - CSB level 11 fit out and the seismic works for OCH in January 2025. The proposed accelerated delivery programme has a significant positive effect on the overall Wellington Hospital ED Refurbishment programme, bringing completion of the new ED forward from July 2030 to Q2 2029. This offers significant time and cost benefits for the project.

232. To secure the benefits of the accelerated delivery programme, a further $7.2m of funds for enabling works has been requested from IIG. This funding will not fully fund these two enabling works, but it will fund them until June 2025 by which time a final decision on the funding requested in this DBC is expected to have occurred.

233. To complete these two enabling works projects, funding of $22.1m in the 2025/26 fiscal year needed to be obtained.[16] To address this $30 million from the Health Capital Envelope was approved by the Minister of Health. The scheduled completion dates for these works are August 2025 for CSB Level 11 and May 2026 for the OCH.

234. Not undertaking these enabling works now would forfeit significant time which could introduce cost risks related to the delay (e.g., increases in the cost of materials or labour). There is a low risk of spending on these enabling works being regrettable.

Identifying the preferred option

235. This section identifies the preferred option. The following table compiles the overall result of the analysis of options against the investment objectives, critical success factors and benefits.

Table 35: Short listed options analysed against Investment Objectives

Multi Criteria	Do Nothing Status Quo	Minimum Capacity (Option 8)	Intermediate Capacity (As per IBC)	Maximum Capacity (Option 5)
Investment Objectives Score	0	24	24	30
CSF Score	n/a	34.75	39.5	47.5
Benefits Assessment Score	0.2	2.65	3.6	5
Capital Cost		9(2)(i)		
Operating Cost	n/a			
Overall Rank	**4**	**3**	**2**	**1**

236. The status quo option is presented as a counterfactual but the analysis (against the investment objective or critical success factors and benefits) has shown it is not a viable option. If this project did does proceed this would leave CCHV and the wider Central Region, with unresolved and pressing ED capacity and acute care flow issues over a long term.

The intermediate capacity expansion option (as per the IBC)

237. The intermediate capacity expansion option is the option preferred in the IBC. This scored strongly in the assessments. This option delivers 104 additional PoC, but just 14 of these are additional in-patient beds. In addition to expanding the ED, this option expands the two assessment units (Surgical Assessment Unit and the Medical Assessment Unit) which supports direct streaming and referral models of care. However, the limited inpatient bed capacity provided by this option will hinder the timely discharge of patients from ED. This option has limited benefits compared to option 5.

The maximum capacity expansion option (Option 5 above)

238. Option 5 will deliver what the IBC preferred option delivers plus fits out space in the existing ED building to provide an additional 22 inpatient 23-hour ward beds. Option 5 is the top ranked option as it directly addresses WRH capacity and flow issues. This option gives the best support to the Wellington ED to lift its performance from its current level of 46% compliance against the SSED goal.

239. Maximum capacity expansion (Option 5 above) can be achieved through a relatively small increase in scope that adds significant benefit value. The benefit value comes from reusing an existing space to provide the minimum necessary additional/in-patient beds to support optimal hospital flow and outflow from the ED.

[16] $3.6m to complete CSB11 and $15.5m to complete OCH

241. Under each of the short-listed options, the old ED building receives a targeted strengthening of some roof trusses which enables it to be used to house services – a behavioural assessment unit included in the ED design and the Transit Lounge – relocated from W01. Option 5 only adds the fit out of otherwise unused space for 22 inpatient beds. CCHV has considered other uses for this space in the old ED building and the assessment is that 23-hour ward in-patient beds is the best use for this space. The area available, limitations in natural light and its expected IL rating means it is unable to meet the needs of other CCHV space constrained services.

242. It makes sense to repurpose and continue to use the existing ED building once the ED is relocated from it. At this point it is not known when or if a new acute services or podium building would be constructed on the site of the current ED, which is the best location on the campus for a new podium building. A future expansion zone and connection of a new building would require temporary decanting of the current ED building and has been considered by the health planning and design team.

The minimum capacity expansion option (Option 8 above)

243. Option 8 is the do minimum option. This option uses one level of the OCH for in-patient beds, rather than non-clinical offices as it is used in the other two short-listed options. Using one level of OCH in this manner enables Option 8 to offer a modest (4 bed) increase in in-patient beds compared to the intermediate capacity expansion option (the IBC preferred option) but this is substantially fewer than the 36 in-patient beds delivered by the maximum capacity expansion option.

244. Preliminary work was done to establish the scope and feasibility of the minimum capacity option in order to assess its merits against the other options. Given it did not rank highly in the short-list, and to manage the delivery of this business case to time and resource constraints, its feasibility was not further tested. There are concerns about the feasibility of the minimum option, specifically these relate to the re-purposing of the OCH to clinical inpatient use and the impact on the seismic strengthening plans and the required upgrade of mechanical, ventilation and other services and systems, of which the full cost is not fully understood. There are a number of other limitations presented with this option in regard to the impact on other elements of the project. These are explored in more detail in the risk section above.

245. Option 8 delivers fewer PoC (94 in total including outpatient capacity) because using OCH in this way prohibits the relocation and expansion of the Surgical Assessment Unit (14 beds), and it does not include the 22 additional beds created by the maximum capacity option.

246. Option 8 offers less benefits, it provides the least capacity improvement to support acute services flow and limits the option to relocate non-clinical functions of impacted services as planned to enable expansion of clinical areas in appropriate buildings. The clinical offices and administration functions displaced by other elements of the programme were expected to be accommodated within the OCH in the intermediate option. Without access to this space, there would likely be further service dislocation, including support spaces for the new MAPU, IOC, CMU and other impacted services. This option does not deliver the required inpatient beds to enable CCHV to meet the 95% SSED target.

247. Options 8 has a 10% cost saving over Option 5 but loses significant benefit value by not expanding inpatient and assessment beds to what is necessary to support optimal flow out of the ED. Option 8 does less to mitigate the drivers behind the poor performance of the ED. It will enlarge the ED, but there is minimal increase in MAPU capacity and no increase in SAPU. Until the in-patient bed deficit is rectified, the ED and assessment units will not be able to operate as designed to flow patients through the acute care system.

The preferred option

248. The Hospital Network Programme Board recommend **the maximum capacity expansion option (Option 5 above)**. Option 5 delivers the IBC preferred option plus the addition of 22 extra in-patient short-stay beds. The addition of these 22 beds is a critical enabler of the flow that is required through the Wellington Regional Hospital Emergency Department and Acute Care system.

249. CCHV is one of the worst performing HNZ districts against the 6-hour SSED performance target. This target is central to achieving the health outcome improvement objectives established at the outset of this project. The SSED target is both a key hospital operational performance metric and a target that the government places very high emphasis on. It is only option 5 that provides the physical capacity that supports the patient flow required for the Wellington ED to achieve and maintain 95% SSED performance.

250. 9(2)(i) The additional 22 inpatient beds are achievable by using unallocated space in the current ED building.

251. While the IBC advised that the current ED building should be demolished, updated seismic advice means that demolition is no longer recommended. After some strengthening of roof trusses, under each of the short-listed options (except for the status quo), the project will be using the old ED building to house services that were required to be relocated to move the ED into the main hospital building.

252. At the beginning of the Project, it was established that achieving maximum value for money from the project is dependent upon investments into WRH capacity and flow being planned in conjunction with, or soon after, the Project. Option 5 best supports this requirement.

253. Key floor plans for the Recommended Option, **the maximum capacity expansion option**, Option 5, are attached as Annex F. The full Design Report for the Recommended Option is available on request.

Commercial Case

254. This Commercial Case sets out the framework used to determine the implementation strategy and the preferred procurement delivery models. This case complies with Government Principles of Procurement, the Government Procurement Rules, 4th Edition, October 2019, and Te Whatu Ora Procurement Policy.

255. At DBC submission date, for the Project:

- Most major procurement required to implement the project has been completed.
- Expanding the existing ICU is the project's only construction component for which a construction supplier has not been identified.
- Contracts for enabling works have been awarded using existing project funding approval and HNZ delegated authorities.
- Contract engagement for the main construction works are dependent on the approval of this DBC and so have not been signed, although the preferred supplier has been selected.

Procurement context

256. The Project will be delivered over several stages, over five years. Components will become operational before the project is completed out (i.e. in March 2029 the new ED is expected to operational but overall project completion is mid-2030.

257. The following programme dates are prepared on assumption the project gains early access to enabling works funding (decision expected September 2024). If early access to enabling works funding is not granted, overall completion will move back one year to Q2 2031. The staged development approach is as follows:

- Construction work is completed in four buildings on the WRH campus (GNB, WSB, CSB, OCH) to re-purpose and refurbish existing spaces into new permanent locations for departmental (clinical and non-clinical) spaces currently located in W01.
- As the spaces in W01 are vacated they can then be re-configured into the new ED.
- As a final stage, the current ED building will be repurposed.

258. In more detail, the required sequence of works elements must be completed:

1. Fitout of Level 11 CSB to create office and clinical medical space
2. Seismic restrengthening and refurbishment of the OCH including fitout for clinical staff and ICU staff relocation
3. Consolidation of staff within GNB to support relocation of clinical spaces from W01
4. Minor fit out works of GNB level 12 and 8 to allow staff relocations
5. Refurbishment / fit out of GNB Level 6 into new Medical Out-Patient Department (MOPD)
6. Refurbishment / fit out of GNB Level 7 into Neurology & Anesthetic Pre-Assessment
7. Refurbishment / fit out of part of GNB Level 5 for Respiratory
8. Refurbishment of existing MOPD space in W01 into a Clinical Measurement Unit (CMU)
9. Expansion of the existing ICU in W01
10. Creation of new EOC / IOC unit on Level 4 CSB
11. Construction of new MAPU department on Level 4 CSB
12. Construction of new SAPU department on level 4 WSB

13. Refurbishment / new fit out of expanded ED into W01 ex CMU, MAPU and Transit spaces.
14. Refurbishment of portion of existing ED for use by Transit Lounge, Behavioral Assessment Unit, a 23-hour ward, and ED clinical staff

259. The Project has the inherent difficulties of an operational environment where the refurbishment of existing buildings must be completed within a functioning hospital facility. Construction will face significant health and safety, security and staging challenges with time and cost implications.

Scale and scope of services

260. A Procurement Plan for the Project was approved in August 2023. The table below summarises the services required to deliver the preferred option, and the procurement pathways approved in the Procurement Plan.

9(2)(b)(ii)

Procurement of consultant team

261. After approval of the IBC, to develop this DBC, CCHV commenced work on the detailed design of the recommended option and the initial enabling works. To support this work, acting under the approved Project Procurement Plan, CCHV made the following decisions to appoint a consultant team:

Table 37: Procurement of Consultant Team

Service	**Procurement Method**	**Supplier Appointed**
Lead Architects	Market tender process	Jasmax Limited
Architects	Market tender process	NEET Design Limited
Health Planner	Market tender process	Jasmax – Sandee Stanley
Quantity surveyors	Direct Source & Exemption	Rider Levett Bucknall (RLB)
Structural engineers	Market tender process	Silvester Clark Limited
Service Engineers	Market tender process	Aurecon, NDY
Electrical Engineers	Market tender process	Blackyard Engineering Limited
Fire Engineers	Mixed / Market tender process	Fire HQ, TMCO
Mechanical E Engineers	Market tender process	Aurecon, NDY
Project Managers	Direct source & Exemption	Kensway

262. CCHV has engaged an architect (Jasmax) as lead designer for all clinical phases of the works. The architect will provide coordination and be responsible for integrating into the overall design the requirements of the engineering services including but not limited to geotechnical, structural, HVAC, fire and electrical, and hydraulics.

263. CCHV appointed a second architect (NEET Design Limited) to manage the smaller scopes of work including Level 11 CSB and all office, non-clinical works as required.

264. A design management function is included within the architect's scope helping to establish and maintain design standards and ensure that all design work meets those standards. The design manager will help to establish effective communication channels between the design team, client, and sub-consultants.

265. Having a defined design management role will ensure that a single point of contact will serve to facilitate communication between the client and the design team. This arrangement will help to ensure that the lead designer remains focused on design tasks while the manager handles communication, and quality control.

Market analysis

266. HNZ CCHV conducted an early market engagement process in December 2022 via the New Zealand Government Electronic Tenders Service (GETS). The market was notified of the Future Procurement Opportunity and 42 suppliers subscribed to the notice. The Project Team conducted a formal market engagement using a multi-stage tender process (e.g., open ROI & then a closed RFT to an identified shortlist), to readily identify prospective tenderers and enable targeted engagement with these parties to occur.

267. The following key features of the national and/or local market context have been considered in developing the procurement strategy and plan:

- The New Zealand economy faces headwinds similar to those of other major economies. Inflation has surged against a backdrop of supply constraints initially stemmed from the COVID-19 pandemic, with fiscal and monetary policy stimulus driving stronger demand. Businesses and households are facing higher costs from the intensification of inflation pressures. Central banks have moved to withdraw monetary policy stimulus to rein in inflation pressures. Most major central banks, including the RBNZ, have increased their policy rate at a rapid pace to dampen demand back to levels more in line with constrained supply.
- Non-residential activity to peak in 2023. From 2023, the forecast was for a modest fall in activity to $10.7b at the end of the forecast period. Strong project intentions in the sector remain in the short term, as can be seen by Pacifecon's intentions data. In 2021, infrastructure represented one-fifth of total building and construction activity. By the end of the forecast period, infrastructure is forecast to become over one-quarter of total building and construction activity.

268. The potential implications of the above on the procurement were assessed as:

1. Construction activity is forecast to decrease steadily[17]

National construction activity is forecast to decrease steadily to about $41.7 billion in 2027, driven largely by the reduced strength of the residential sector.

Residential building activity is forecast to decrease from $30.6 billion in 2021 to $19.6 billion in 2027 while infrastructure activity is forecast to increase steadily to $11.5 billion over the same period.

Strategic impact; This may cause more larger contractors presently committed to the residential sector to pivot to more commercial builds to fill their workbooks = potentially resulting in increased competition or desire to enter the commercial construction market as a revenue stream.

[17] These four points were drawn from the National Construction Pipeline Report 2022 executive summary

2. Non-residential activity to peak in 2023

Non-residential activity is forecast to peak in 2023 at $11.1 billion, up from $10.2 billion in 2021. From 2023, a modest fall in activity to $10.7 billion at the end of the forecast period.

Commercial buildings dominate non-residential building work, contributing to 43% of the total number of projects, and 44% of total value.

Strategic impact; As fewer large scale commercial projects entering the market, more main contractors potentially will be more interested in engaging in Government projects

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4 Steady growth in infrastructure activity throughout the forecast period

In 2021, horizontal infrastructure represented one-fifth (20%) of total building and construction activity. By the end of the forecast period, RLB are forecasting infrastructure's share of total activity will increase to over one quarter (25%).

Strategic impact; Larger scale horizontal infrastructure projects will tend to attract higher international attention and potentially attract new entrants, construction method enhancements and delivery innovation into the NZ market.

Broader outcomes

269. The Project Team engaged with representatives from Ministry of Business, Innovation and Employment (MBIE) to progress planning regarding Broader Outcomes opportunities. This focussed on contractor relationships and initiatives that support the wider health and construction industries to be involved in the project and to provide positive experiences for the workforces that the project depends upon. The project Equity Leads were involved in this to support the work with contractors and suppliers moving forward.

270. Broader Outcomes were included in the contractor procurement processes and reviews. The Project Procurement Plan, approved by IIG in August 2023 defined the following Broader Outcomes areas as part of the procurement process and part of the selected supplier's delivery methodology and contracts administration.

271. The project has allocated no funding for the achievement of broader outcomes. The selected main contractors are committed to delivering broader outcomes because it is expected of them and not because they are being funded by this project to do so.

Table 38: Broader Procurement Outcomes

Engagement	Increase access for New Zealand businesses'	Construction sector skills and training	Improve conditions for workers	Reducing emissions and waste
Design Team	☐	☒	☒	☒
Client project consultants	☐	☒	☐	☒
Main Contractors	☐	☒	☒	☐

9(2)(b)(ii)

9(2)(b)(ii)

Procurement strategy

274. The project construction activity has been organized into discrete sub-projects, as set out in the Table below, each of which is subject to its own procurement plan and activity.

275. Procurement Plans for three of the four sub-projects have been approved by IIG HNZ. A procurement plan for the ICU expansion is yet to be developed, this sub-project is not critical path and can designed and tendered to the market at a later stage. All Procurement Plans are available on request.

Table 40: Wellington Hospital ED Refurbishment Sub-Projects

Sub-Project	Sub-Project Scope
CSB Level 11 fit out	Level 11 CSB is a vacant floor being partly used as a storage area. It is to be refurbished into an office environment for clinical and non-clinical staff. The fit-out design is intended to be an 'open plan' desk arrangement with some offices, meeting rooms, quiet rooms and break out spaces. This sub-project has its own procurement plan.
OCH seismic and refurbishment	Seismic Strengthening – targeted strengthening of walls, beams, floors, columns, and the roof. The work is designed so OCH will meet IL2 level. External Façade – improvement works to the roof and windows to improve the thermal performance, and general repair and maintenance to the precast concrete sunroofs. Fit Out Works for clinical staff and ICU non-clinical staff. This sub-project has its own procurement plan.
New ED	CSB Level 4: Relocate and expand the Medical Assessment and Planning Unit (MAPU) WSB Level 4: Relocate and expand the Surgical Assessment and Planning Unit (SAPU) WRH Main Works: Construction of the new ED WRH: Relocation, Refurbishment Clinical Measurement Unit (CMU) / Out-patient department (OPD) Current ED: Seismic and Refurbishment to enable its use for once the ED is relocated Procurement for this sub-project has been enabled by a procurement exemption approved by IIG. This exemption is documented in a following section.
ICU expansion	Expand the existing ICU into adjoining space which has been vacated by the relocation of non-clinical functions into the refurbished OCH.

Procurement delivery model assessment

276. The Project procurement plan documented that range of procurement delivery models were considered using a two-stage process, described as follows:

Stage 1 Assessment: Use of a Collaborative delivery model?

277. The Stage 1 assessment was used to identify if the project may best suit to a form of collaborative delivery model.

Table 41: Stage 1 Delivery Model Assessment

Should HNZ consider collaborative delivery models for this project **Tick only those that apply**	**Key Questions**	
	Health service disruption Is implementation of the project likely to result in severe or significant disruption to the operations and/or clinical services of an existing HNZ campus	☐
	Complexities and unknowns Are there expected to be material complexities or unknowns present in the design and delivery phases of the project?	☐
	Opportunity for innovation Does the project offer opportunities for significant innovation in design and delivery, including with respect to high-quality outputs, facilitating timely delivery and/or increasing efficiency?	☒
	Market capacity and capability Is the project expected to have challenges attracting suppliers (e.g., consultants, contractors and wider supply chain) with the capacity and capability required to deliver the project within the desired time frames?	☒
	External factors Are there external factors present that could have a material negative impact on the project's cost and/or timeframes?	☒
	Extended project duration Does the anticipated timeframe for the entire project (design, build & commission) extend past 3 years	☐

Stage 2 Assessment: Identification of the project delivery models

278. The stage 1 assessment recommended a collaborative delivery model, the Stage 2 assessment identified which collaborative delivery model(s) may be most suitable for a given project. The assessment focuses on inserting a consensus view of the project's characteristics, recognising that while there is no single best collaborative delivery model, some models are better suited to those parameters that influence a particular projects delivery. Each attribute is assessed on the extent to which their features could influence the successful delivery of the given project. Decisions are not a 'yes' or 'no' response as with Stage 1, rather require project teams to put their answer on a continuum from 'to a small extent', 'no impact' or otherwise 'to a large extent', with 'to a large extent' indicating a need for a higher level of collaboration.

Table 42: Stage 2 Delivery Model Assessment

Collaborative Attribute Explanation	**Result = 1 (To a small extent)**	**Result = 3 No impact**	**Result = 5 To a large extent**	**Result**
To what extent is flexibility required to accommodate changes to scope over the lifecycle of the project?	When changes over the lifecycle of the project can be accommodated within the existing cost and/or timeframes	Neither a negative nor positive impact is envisaged	When changes to scope and/or the addition of future phases/stages are expected to have a severe or significant impact on the project cost and/or timeframes	1
To what extent does the project's risk profile require HNZ to adjust its risk appetite and approach to allocating project risks?	When risks are better known and able to be effectively allocated to the party best placed to manage them		When project risks are unknown and cannot be fully assessed, priced, managed or transferred to the private sector	1
To what extent does the project require greater oversight and integration of the supply chain to manage supplier and interface risks?	When interface risks are known and expected to be able to be appropriately allocated and managed through contractual arrangements, such as design risk under a Design		When interface risks are not well understood and are expected to present challenges in terms of risk allocation and management, such as the supply of key inputs during volatile market conditions	2

	and Build procurement model			
To what extent is the project's location, in terms of both site-specific features and/or access to supply chains, likely to constrain delivery of the project?	When the location of a project is not likely to constrain delivery, such as delivering a project in a major urban area or a regional area in close proximity to a major urban area		When the location of a project is highly likely to constrain delivery, such as delivering in a more remote regional area or urban areas that have another major infrastructure investment(s) underway or complex operational interfaces	2
To what extent would use of traditional delivery models and/or contracting mechanisms impede contractor market appetite? i.e., if use of a fixed-price lump sum contract would limit contractor market appetite to participate	When traditional approaches are expected to result in a competitive bidding environment or limited supply chain participation is not related to use of traditional delivery models, such as lack of capacity or the wider pipeline of opportunities		When Te Whatu Ora's experience and market feedback indicates that use of traditional approaches would likely limit supply chain participation in procurement activities	1
To what extent would the project benefit from delivery as part of a wider HNZ programme?	When the project is not likely to benefit from delivery as part of a wider programme or where the project's timing and/or phasing does not support this		When the project is part of, or is suitable for delivery as part of, a wider Te Whatu Ora programme and therefore offers potential efficiency gains, innovations and/or longer-term contracting relationships	2
Aggregated Total				**15**

279. The aggregated responses to the Stage 2 questions indicated that the project delivery may benefit from greater collaboration throughout the project stages and/or phases e.g. planning, design and delivery. These additional collaboration outputs are required to be embedded into procurement process and progress monitored during each party's contract administration processes.

Table 43: Model Selection

Description	**Traditional with Collaborative clauses**	**ECI**	**ECE**	**Managing Contractor**	**Package D&B**	**Alliance IPD**
Model Scores	10	15	20		25	30
Delivery model Options Selected	☐	☐	☐	☐	☐	☐

Approach to Market

Procurement Exemption Granted for ED Main Works

280. After the early market engagement process was completed by CCHV, a procurement exemption process was initiated to request a direct appointment of Naylor Love Wellington Limited (Naylor Love) as the Main Contractor for the delivery of the ED part of the Project.

281. Following an open competitive RFT process in 2020, Naylor Love were appointed to deliver the Copper Pipe Replacement project. Naylor Love have been delivering the Copper Pipe Replacement physical works since March 2021 and the works have been delivered in a satisfactory manner.

282. The primary rationale for the direct appointment exemption request was that:

- the work required to establish the new ED site requires the establishment of multiple departmental staging sites. All staging sites (for sub-projects) are known to be directly impacted by the remaining Copper Pipe Replacement works.

- there is a need to coordinate the remaining Copper Pipes replacement and affected sub-projects. Coordinating these works will minimize potential future delay risks, prevent risk of duplication of works or the replacement of newly commissioned works and reduce the risk to the impacting site operations.
- a direct appointment of Naylor Love would eliminate potential issues associated with continuation of warranties/guarantees which could not be gained if a different contractor had been appointed for the ED Main Works.

283. The IIG Exemption Committee approved the requested procurement exemption on 1 December 2023. This has enabled CCHV to engage Naylor Love to be the Main Contractor for the delivery of the ED part of the Project.

284. The exemption covers the following scope of work:

- Staging: CSB Level 4 New MAPU
- Staging: WSB Level 4 New SAPU
- Main Works: New Emergency Department
- Staging: New CMU / OPD

Overview of Market Approach, Scope of Works

285. Procurement Plans for three of the four sub-projects have been approved by IIG HNZ. A procurement plan for the ICU expansion is yet to be developed, this sub-project is not critical path and can designed and tendered to the market at a later stage. All Procurement Plans are available on request.

286. To select main contractors for the project, CCHV has approached the market as follows:

- A procurement exemption, approved by the IIG Exemption Committee on 1 December 2023, enabled CCHV to select Naylor Love as the Main Contractor for the ED sub-project.
- A RFx (request for x) was issued on GETS on 28th November 2023 for the OCH sub-project
- A RFx (request for x) was issued on GETS on 11 April 2024 for the CSB Level 11 sub-project

Table 44: Market Approach, Rationale and Outcome

Sub-Project	Scope of Works	Approved Procurement Pathway	Rationale
New ED	CSB Level 4: Relocate and expand the Medical Assessment and Planning Unit (MAPU) WSB Level 4: Relocate and expand the Surgical Assessment and Planning Unit (SAPU) WRH Main Works: Construction of the new ED WRH: Relocation, Refurbishment Clinical Measurement Unit (CMU) / Out-patient department (OPD) Current ED: Seismic and Refurbishment to enable its use for once the ED is relocated	The IIG Exemption Committee exemption granted exemption on 1 December 2023 Exemption enables Naylor Love to be engaged as Main Building Contractor. Following an open competitive RFT process in 2020, Naylor Love were appointed to deliver the Copper Pipe Replacement project.	The exemption was sought on the basis of needing to coordinate the remaining Copper Pipe replacement and affected sub-projects together to minimise potential delay risks. Naylor Love's satisfactory performance implementing the Copper Pipe Replacement Project was noted in the exemption application.
CSB Level 11 fit out	Level 11 CSB is a vacant floor being partly used as a storage area. It is to be refurbished into an office environment for clinical and non-clinical staff. The fit-out design is intended to be an 'open plan' desk arrangement with	Phase 1 of this tender process is complete with two contractors selected to tender the full scope of works. Tenders closed in late August 2024.	The scope of works is simplistic in nature and isolated away from hospital clinical functions. The tender process will mitigate cost risk as market value for the works will be understood.

	some offices, meeting rooms, quiet rooms and break out spaces. This sub-project has its own procurement plan.		
OCH seismic and refurbishment	Seismic Strengthening – targeted strengthening of walls, beams, floors, columns, and the roof. External Façade – improvement works to the roof and windows to improve the thermal performance, and general repair and maintenance to the precast concrete sunroofs. Fit Out Works for clinical staff and ICU non-clinical staff. This sub-project has its own procurement plan.	A full market tender process has been completed with an ECI contract in place with Hawkins Construction Limited.	This collaborative process allows for design integration, innovation, and early discussions with suppliers. Benefits include greater opportunities to control cost escalation and supply constraints.
ICU expansion	Expand the existing ICU into adjoining space which has been vacated by the relocation of non-clinical functions into the refurbished OCH.	The approach to market is yet to be confirmed. While this scope of work is within the exemption granted to enable the direct appointment of Naylor Love, the project has the option of going to a tender process.	This sub-project can be designed and tendered to the market at a later stage using the tendering process set out below.

Probity management

287. Probity in the project procurement is being managed by:

- maintaining confidentiality throughout the procurement process
- ensuring the nominated contact person for the tender is the only person permitted to comment to outside parties about the evaluation process and outcome. The panel should not discuss the process with work colleagues or any other party
- ensuring that financial authority approval is gained before proceeding to tender
- ensuring everyone involved in the process signs a confidentiality agreement and declares any actual, potential or perceived conflict of interest
- identifying and effectively managing all conflicts of interest
- ensuring that all tender responses are opened at the same time
- numbering copies of suppliers' tenders and returning them to the evaluation chair once the tender process ends
- treating all suppliers equally and fairly
- providing each supplier with a debrief at the end of the tender process.

Key Milestones

OCH and CSB Level 11 sub-projects

288. The tables below set out the procurement milestones for the OCH and CSB Level 11 sub-projects.

Table 45: OCH Timeline

Task	Due date
Procurement Plan approved by Procurement Sponsor	24th Nov 2023
RFx approved by Procurement Owner	24th Nov 2023
RFx published on GETS	28th Nov 2023
Site Visit/ Project briefing session	Week 29th Jan 2024

Task	Due date
Deadline for Questions	2nd Feb 2024
Deadline for Answers (from the principal)	9th Feb 2024
RFx Close	22nd Feb 2024
Deadline for Responses	22nd Feb 2024 4pm
Evaluation Team meeting	7th March 2024
RFx Recommendation Report endorsed by Governance Group/Procurement Sponsor	14th March 2024
RFx Recommendation Report approved by DFA holder	20th March 2024
Contract negotiation/finalisation	End of March 2024
Contract approval (ECI)	April 2024
Contract awarded and Respondents advised of outcome (ECI)	April 2024
Contract signed by Contractor and DFA holder (ECI)	April 2024
Contract Award Notice published on GETS	May 2024
Estimated contract start date/commencement of contract works	January 2025
Debriefs completed	Mid 2024

Table 46: CSB Level 11 Timeline

Task	Due date
Procurement Plan approved by Procurement Sponsor	8th April 2024
RFx approved by Procurement Owner	8th April 2024
RFx published on GETS	11th April 2024
Site Visit/ Project briefing session	22nd April 2024
Deadline for Questions	30th April 2024
Deadline for Answers (from the principal)	2nd May 2024
RFx Close	9th May 2024
Deadline for Responses	9th May April 4pm
Evaluation Team meeting	20th May 2024
Tender process extended – 2 Contractors shortlisted	June 2024
Full Tender document packages released to contractors	11th July 2024
Tender process close	16th August 2024
Evaluation team meeting	3rd September 2024
RFx Recommendation Report endorsed by Governance Group/Procurement Sponsor	18th September 2024
RFx Recommendation Report approved by DFA holder	20th September 2024
Contract awarded and Respondents advised of outcome	24th September 2024
Contract signed by Contractor and DFA holder	11th October 2024
Contract Award Notice published on GETS	September 2024
Estimated contract start date/commencement of contract works	October 2024
Debriefs completed	June 2025

Tender evaluation method

289. In evaluating tenders for sub-projects, the evaluation team uses the weighted attribute evaluation model as this is HNZ's standard evaluation model. However, as per HNZ standard practice, suppliers' proposals were provided under the 2-envelope system. This allowed the ET to evaluate price and non-price sections separately before these were jointly considered under a" public value" analysis.

Tender preconditions

290. Each supplier tendering for a sub-project must meet all the following preconditions before its bid will be considered for evaluation:

Table 47: Supplier Preconditions

Preconditions	**Pass/Fail**
Complete Response All sections of the Response Forms have been completed.	Pass/Fail
Insurance Respondent confirms insurance cover for: Contract Works Public Liability (over $5m) Third Party Motor Vehicle Plant and Equipment Professional Indemnity Insurance (over $2m)	Pass/Fail
New Zealand Government Supplier Code of Conduct (CoC) Respondent agree to adhere to the New Zealand Government's Supplier Code of Conduct which outlines expectations of suppliers.	Pass/Fail
Legal Pre-conditions Confirm that there are no actions of insolvency proceedings (or bankruptcy, administration, statutory management, compulsory winding up or receivership) actual or threatened (including voluntary administration) against the Respondent, any of its directors, its owner or its parent. Confirm that neither the Respondent nor any director of the Respondent (if a company) is not the subject of any legal proceedings, investigation or the threat of investigation by any regulatory or investigative authority such as the Commerce Commission, Serious Fraud Office or the Financial Markets Authority.	Pass/Fail
Health and Safety (Prequalification) Organisation maintains accreditation to either Totika or SiteWise (Green or Gold) Pre-Qualification systems. AND/OR Organisation maintains a certified Health and Safety Management System. (NOTE: Certification means ISO 45001, AS 4801). A copy of the organisations Health & Safety Policy must be provided	Pass/Fail

Tender evaluation criteria and weighting

291. Having met all preconditions, supplier responses for a sub-project will be evaluated on their merits using the following qualitative evaluation criteria and weightings:

9(2)(b)(ii)

292. The Project tender evaluation team used the following rating scale to score the OCH and CSB Level 11 sub-project tender responses against each evaluation criterion:

Table 49: Scoring scale

Rating	Indicative features	Score
Excellent	Exceeds the criterion to provide substantial additional benefit and/or reduction of risk.	9-10
Good	Exceeds the criterion to provide some additional benefit and/or reduction of risk.	6-8
Acceptable	Meets the criterion.	5
Minor Deficiency	Does not meet the criterion due to minor deficiency or risk.	3-4
Major Deficiency	Does not meet the criterion due to major deficiency or risk.	1-2
Unacceptable	Does not comply, insufficient information provided or unacceptable deficiency or risk.	0

Due diligence

293. The due diligence requirements of the Project procurement are:

- reference checks against the Respondent's organisation and named personnel
- other checks against the Respondent (e.g. validity of proposal, financial, probity, legal)
- interviews, presentations and/or site visits
- inspected audited accounts for the last three financial years
- undertake a credit check
- Police vetting for all named personnel

Key procurement stakeholders

The management roles for the Project procurement are:

Table 50: Procurement Management Roles

s 9(2)(b)(ii)

Stakeholder communication

294. The procurement officer is responsible to managing all communications to both internal and external parties. They are required to provide update regular updates to all internal stakeholders and approval authorities for each step of the process including the outcomes of any processes as they progress.

295. The procurement officer is also responsible for seeking any endorsement to engage third parties.

296. For external parties, any and all interested parties communicate with the procurement team. This includes responding to approaches for involvement and structured responses in an official tender process IF outside utilisation of GETS. When a tender process is under the GETS process, responses are shared with all parties using the GETS portal providing equitable sharing of information.

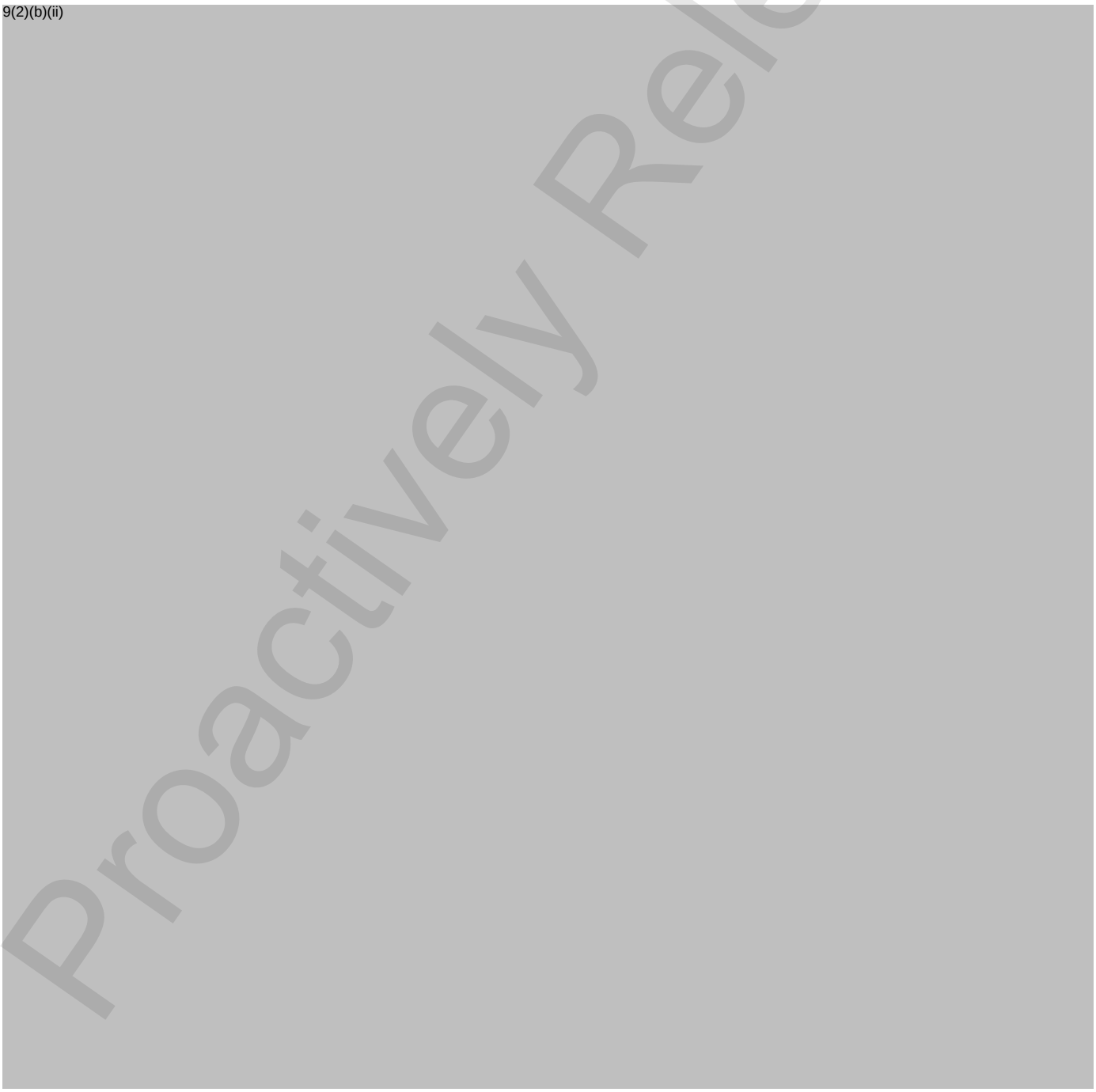
9(2)(b)(ii)

9(2)(b)(ii)

Risk allocation approach

298. In accordance with the Construction Sector Accord, the contractual arrangements should provide a fair balance of risk, with risk allocated to the party best placed to manage it. For this procurement the proposed risk allocation (subject to negotiation) is set out in Table below.

9(2)(b)(ii)



9(2)(b)(ii)

Contract management

299. A Project Management Plan (PMP) will document how both parties will administer and manage their specific contract and the relationship with HNZ and other contracted parties. The PMP will outline how HNZ will administer and manage the consultants and Main Contractor(s) engaged to ensure that project facilities are delivered on time, at agreed cost and to specified requirements.

300. Responsibility for managing delivery under a project contract, and supplier relationship management, will pass to Daniel Angus Project Implementation Director as each contract is signed.

301. There will be three PMPs, with the scope of each being as follows:

- OCH seismic strengthening and refurbishment
- CSB 11 refurbishment
- Remainder of the Wellington Hospital ED Refurbishment Project.

302. Each PMP will have individualised contract details, administrative details, risk allocations and key performance outputs defined. Each PMP will have defined procedural maps developed to define the management structure for:

- Progress claim processing (receipt, review, agreement and processing)
- Contract variation management (receipt, review, agreement and administration)

303. Variations to a contract will be based on detailed analysis, including of impact on benefits and timeframes, and approved by the SRO, in writing and signed by both parties. Variations involving an increase in price will only be made within the limit of delegated financial authority.

Payment mechanism

304. The proposed payment mechanisms for each of the project's key service streams are as follows:

Table 54: Payment mechanisms non construction services

Service	**Payment Mechanism**
Consultants	Progress payments based on agreed contract sum and certified by an external project manager. Payment claims based on agreed stage fees or rates of consultant services, verified by external PM and are made internally based on delegated authority within HNZ CCHV.
Technology	Progress payments based on agreed sum and certified by appointed ICT project manager
Fixtures, Fittings and Equipment	Payment made upon invoice receipt post product delivery and installation

Table 24: Payment mechanisms Construction Services

Wellington Hospital ED Refurbishment Sub-projects	Payment Mechanism
Main Works: Emergency Department (ED)	A standard payment model is to be used – refer below
OCH seismic strengthening and refurbishment	Early Contractor Involvement with ECI agreement and issue of Construction Contract with intention to work towards a lump sum contract, the project team may change the payment model depending on the design risk and the financial risk with the project.
CSB 11 refurbishment	A standard payment model is to be used on the agreement of a Construction Contract.

305. For construction services, the proposed payment mechanism is defined in the NZS3910 contract, and this administers the progress payments and the verifying of the agreed sum to be paid. The quantity surveyor is party to reviewing requested progress payment and the determination of the recommended payment, which is then certified for payment by the external engineer to the project. Payments made internally based on delegated authority within HNZ CCHV.

Financial Case

306. The total cost of the proposed investment is 9(2)(i) . It is proposed that this project is funded from the following sources:

- $10 million provided when Indicative Business Case was considered
- $30 million provided by the Minister of Health in 2024 for enabling works
- s 9(2)(b)(ii) of funding available in the Health Capital Envelope

9(2)(i)

Overall financial summary

308. The Financial Case determines the funding requirements of the preferred option and demonstrates that the preferred deal is affordable, considering all potential funding sources.

Table 55: Summary of the overall affordability of the preferred option

Item	Value ($000)
Capital costs ($000)	s 9(2)(b)(ii)
WOLC ($000)	
Assessment period (years) 2024/25 – 2043/44	
First full year incremental operational cost post capital works completion – excluding depreciation ($000)	
Depreciation charge (first full year)	
External revenue (first full year)	

Key assumptions

309. The Financial Case outlines cost, revenue and funding assumptions and estimates based on information from Costing Section, Business Intelligence & Analytics, Capital, Coast & Hutt Valley.

9(2)(i)

9(2)(i)

310. The assumed operational phasing in of services is as follows

Table 57: Operational phasing

Department	Commissioning date	Phasing
MAPU	March 2027	All beds resourced on commissioning
ICU	August 2027	Phased over 3 years (2027/28 2 beds, 2028/29 1 bed, 2029/30 1 bed)
SAPU	December 2027	Phased over 3 years (2027/28 50% of increase, 2028/29 25%, 2029/30 25%
ED	April 2029	Initial increase of 3 patient bays, then additional 1 patient bay per year to 2037
Old ED	May 2030	Reuse as 23-hour ward beds, Behavioural Assessment Unit, Transit Lounge

Indicative costs

Capital costs

311. The estimated capital cost of the recommended option is $243.6million. This estimate has been prepared by Rider Levett Bucknall Quantity Surveyors.

Table 58: Summary of capital costs (nominal, note totals may not sum due to rounding)

s 9(2)(b)(ii)

312. The following assumptions have been made in determining these initial estimates:

1. Construction programme timeframes (directly informs escalation modelling)
2. Current design documentation for 14 different work programs, staged between concept & detailed design)
3. Clinical Equipment, FF&E and ICT (Data and Digital) costs provide for new initiates only.
4. Design & Construction costs include the Project Management team. All other FTE project team members are allowed for within the 'Development and management costs' figure.
5. Variable contingency allowances included depending on stage of design, tendered sums. Design contingency allowed for where detailed design documentation is not yet complete.

9(2)(b)(ii)

Incremental operating costs

315. The operating costs below reflect additional incremental operating costs (relative to business as usual) as a result of the investment. 9(2)(i)

9(2)(i)

316. The following key assumptions have been made in determining these initial estimates:

- The Opex cost projections used are built upon an estimate of the specific ward or departments extra cost for each additional resourced bed or point of care.
- Operating costs are sourced from data submitted as part of Capital Coast's annual national costing submission at individual patient event level.
- The costs used are for the services provided to, and thereby the costs incurred by, all patients while they were in the relevant department. This reflects more than the costs charged to a departments cost centre e.g. includes all clinical staff, drug, blood, radiology, allied health, lab tests, and some overheads.
- From these costs certain items have then been excluded e.g. building depreciation and cost of capital which are covered separately in the financial case.
- This costing method follows the same approach as that employed for the IBC in 2022.

Table 61: Annual workforce requirements over current (nominal, note totals may not sum due to rounding)

s 9(2)(b)(ii)

Cashflow

317. Based on current estimates, the anticipated cash flows for the investment over its intended life span are set out below.

9(2)(b)(ii)

9(2)(i)

9(2)(i)

Funding sources

318. It is proposed that the additional funding required is sought from the sources outlined in the table below.

9(2)(i)

Broader outcomes

319. No funding allocation for the achievement of broader outcomes sought in this proposal. As detailed in the Commercial Case, the selected main contractors are committed to delivering broader outcomes, because it is expected of them and not because they are being funded by this project to do so.

The Management Case

Planning for successful delivery

320. The Project will be delivered over several stages over five years. Components will become operational before the project is completed out (i.e. in 2027 the new assessment units are commissioned as well as the ICU expansion, and in 2029 the new ED is expected to operational but overall project completion is mid 2030).

321. The following programme dates are prepared on assumption the project gains early access to enabling works funding (decision expected December 2024). If early access to enabling works funding is not granted, overall completion will move back one year to Q2 2031.

322. Benefits will begin to be realised before overall project completion as several clinical units must be relocated, and given expanded capacity, before the new ED can be constructed, as Table shows.

Table 66: Commissioning dates for new facilities

Department	Commissioning date	Phasing
MAPU	March 2027	All beds resourced on commissioning
ICU	August 2027	Phased over 3 years (2027/28 2 beds, 2028/29 1 bed, 2029/30 1 bed)
SAPU	December 2027	Phased over 3 years (2027/28 50% of increase, 2028/29 25%, 2029/30 25%
ED	April 2029	nitial increase of 3 patient bays, then additional 1 patient bay per year to 2037

323. The Management Case has been prepared during the development and maturation of HNZ operating models. Below is CCHV's intended approach based on current practice, as new operating models are implemented the approach will adjust accordingly.

324. The Wellington Hospital ED Refurbishment governance and management structures have been specifically designed to reinforce the following core governance principles:

- clarity of accountability
- timely and effective decision making
- separation of decision making from stakeholder engagement.

Project Definition

325. The logistics of the Project are complex, but the construction works required are not. The project will not create a single meter of new built space and so it excludes new and complex building works, ground risk, seismic or building envelope risks that come with a new build.

326. The Recommended Option is to relocate the ED to the ground floor of W01 (the IL4 main hospital building). To deliver this, there needs to be a planned and efficient move of services and departments that currently occupy the identified space for the new ED.

327. The project has planned how it can achieve an efficient move of services while keeping disruption to clinical services to a minimum. The project first must create new locations for several clinical and administrative departments. The project team has identified that a series of medium to small refurbishment projects on the WRH campus, all of which fit within existing building foot prints, can create the space needed for the required relocations.

328. The project plan calls for the following sequence of construction work:

1. Fit out of Level 11 CSB (a currently vacant floor) to create office and clinical medical space
2. Seismic re-strengthening and refurbishment of the decommissioned OCH including fit out for clinical staff and ICU staff relocation
3. Consolidation of staff within GNB to support relocation of clinical spaces from W01
4. Minor fit out works of GNB level 12 and 8 to allow staff relocations
5. Refurbishment / fit out of GNB Level 6 into new Medical Out-Patient Department (MOPD)
6. Refurbishment / fit out of GNB Level 7 into Neurology & Anesthetic Pre-Assessment
7. Refurbishment / fit out of part of GNB Level 5 for Respiratory

329. Having created vacant space through the relocations described above, the project will then be create the following new service spaces, all within the space vacated within existing buildings:

- Refurbishment of existing MOPD space in W01 into a Clinical Measurement Unit (CMU)
- Expansion of the existing ICU in W01
- Creation of new EOC / IOC unit on Level 4 CSB
- Construction of new MAPU department on Level 4 CSB
- Construction of new SAPU department on level 4 WSB
- Refurbishment / new fit out of expanded ED into W01 ex CMU, MAPU and Transit spaces.
- Refurbishment of portion of existing ED for use by Transit Lounge, Behavioural Assessment Unit, a 23-hour ward, and ED clinical staff

330. Integrated into the project plan are also:

a. Ensuring revised Models of Care (MoC) are aligned to new clinical spaces
b. Identification of Data & Digital scope opportunities, including basic requirements and future initiatives that would support outcomes.
c. Change management support for the implementation of revised MoC
d. Change management support for the relocation of clinical and administrative departments
e. Identification of personnel implications, and the strategies for addressing them, and
f. Interdependencies with the:
    i. Copper Pipe Replacement works
    ii. Data and Digital investment identified to support project outcomes
    iii. Identified opportunities for CCHV to add in-patient beds
g. Alignment with:
    i. CCHV acute care flow programme
    ii. Hospital Network Programme
    iii. CCHV Patient Flow Council and acute flow work
    iv. CCHV HSS Leadership Team
    v. Wider service delivery initiatives including Data & Digital Innovations.
    vi. National Acute Flow Programme

Project management arrangements

331. The HNP is the broader programme framework within CCHV that the Project sits within. The HNP uses the MSP methodology. The project is utilising HNP frameworks and strategic documents i.e., Hospital Network Programme Risk Management Framework and Change Management Strategy. The HNP team and Programme Director will support the Project Directors (Hospital & Specialist Services - HSS, Infrastructure Investment Group - IIG) and Project team (including lead Project Manager Data & Digital) to address the management of the project, including project elements, managing change, realising benefits and risk management.

332. A Hospital Network Programme Director was appointed in January 2024. The two Project Directors (HSS, IIG) were confirmed at the same time. A lead Project Manager for Data & Digital, 2.5 FTE HSS Project Managers, one Business Analyst and two IIG Project Managers have been appointed.

333. The Hauora Māori and Pacific Health Equity Leads have been appointed by the Programme to support the project, but the Disability Equity Lead role is vacant due to recruitment holds in 2024. Other roles identified in earlier project planning that have been unable to be filled include:

- Dedicated Change Manager
- Communications and Engagement Lead (currently utilising district communications resource).

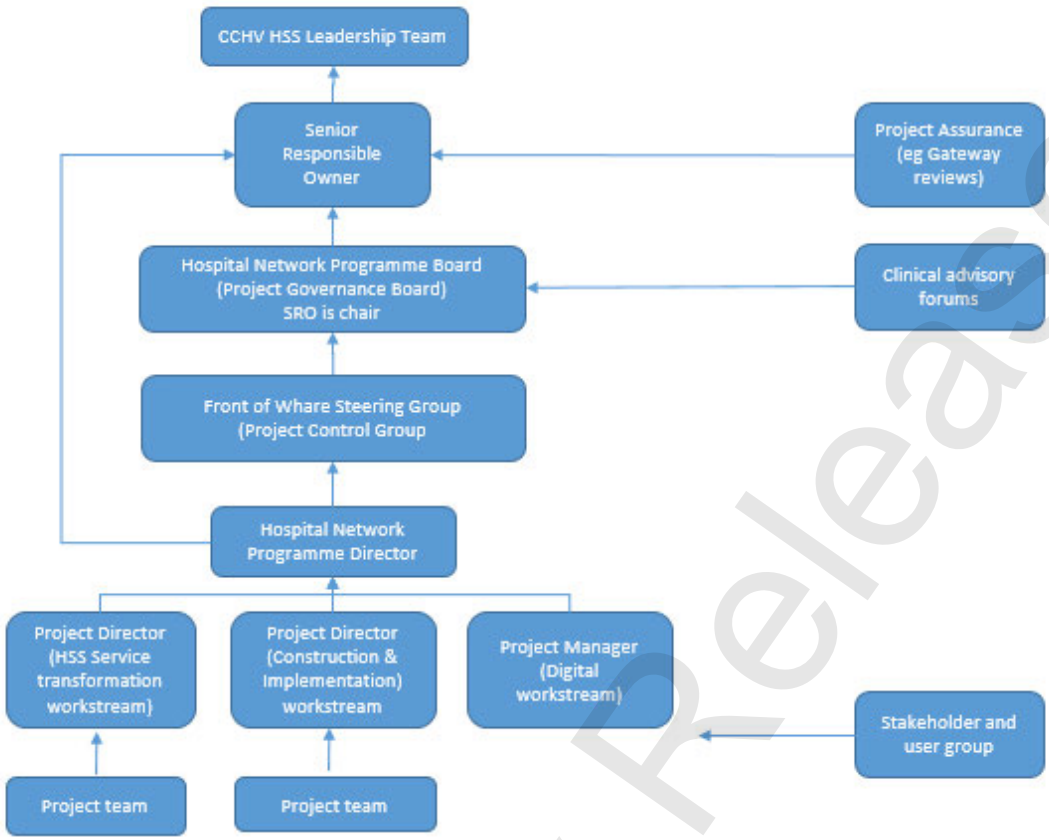
The Project team is managing the Wellington Hospital ED Refurbishment Project Management Plan, including the following:

- project organisation and structure
- project start-up activities
- monitoring and control
- risk management
- health and safety management
- delegated authorities
- quality management
- communication management
- change management
- performance management
- project transition
- stakeholder management and communication plans
- post project evaluation strategy and plan.

Project governance arrangements

334. The governance structure and reporting arrangements that are currently in place for the Project are shown in Figure 11. The roles and responsibilities of key parties are summarised below at a high-level and are detailed in the PMP.

335. Figure 11: Current governance structure and reporting arrangements for the Project



CCHV Hospital Network Programme Board

336. The HNP Board provides executive governance for the Project and is also responsible for the governance of HNP work streams delivered in parallel. Table 63 sets out the HNP Board's membership.

337. The HNP Board acts as an equivalent to a Project Governance Board but also has oversight of other major projects and programmes of work underway across CCHV.

Table 67: Membership of the Programme Board

Role	Programme Board function	Name
Group Director Operations Hospital & Specialist Services	Chair & SRO	Jamie Duncan
Chief Medical Officer	Member	Andre Cromhout
Chief Financial Officer	Member	Judith Parkinson
Regional Chief Legal Council	Member	Roger Parlairet
HSS Group Manager representative	Member	Kaye Hudson
CCHV IIG Director	Member	Darrell Chin
Hospital Network Programme Director	Member	Karyn Hathaway

338. The Programme Board provides active executive representation and engagement through its monthly meetings. Within its delegated authority, the Board is responsible for the overall approach, key phases, milestones and financials for the Project. The Board is responsible for high level risks and issues (per the Programme Risk Management Framework) and owns several benefits for the Project.

339. The Programme Board receives a monthly overview of progress from the Steering Group.

Front of Whare Steering Group

340. The Steering Group reports to the Programme Board and is made up of CCHV senior personnel and IIG representatives, as shown in Table. This group is equivalent to a Project Control Group.

341. The Steering Group, supported by the Programme and Project Directors, is managing performance across the whole Project and acting as an important link for information to flow from the Programme Board to individual Project teams. The Steering Group receive monthly reports during the design, construction and commissioning phases. The report will include updates from each Project Manager with timelines, risks and progress against key deliverables.

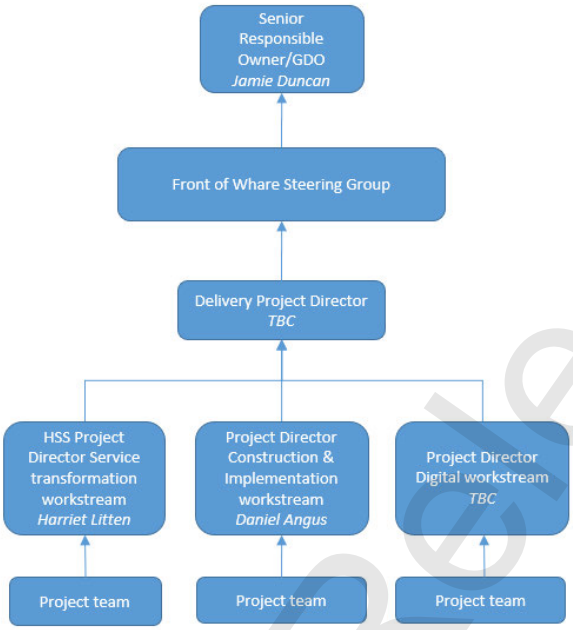
342. The Steering Group meets monthly or as needed. The Steering Group has a delegated authority that is set out in its terms of reference (TOR), which was revised to refresh the group membership following HNZ restructures and agreed by the Steering Group on 2 November 2023.

Table 68: Front of Whare Steering Group endorsed 2 November 2023.

Role	**Steering Group function**
Clinical Director Hospital Operations	Co-Chair – clinical (medical, nursing & allied health) Clinical Leader Front of Whare
Regional Director Māori Health (previously Te Aka Whai Ora)	Co-Chair – Te Tiriti partnership and Equity
Consumer Advisory Group Representatives	Members (x2) - consumer engagement
General Manager (GM) Hospital Operations	Member – provider arm/hospital flow
Director of Nursing Acute Patient Flow	Member - clinical (medical, nursing & allied health),
Director Allied Professions, Acute Care, Women's & Children's Health	Member - clinical (medical, nursing & allied health),
GM Operational Finance	Member – investment management process advice, finance advice
CCHV IIG Director	Member – building / facilities / IIG
General Manager Disability	Member – equity, Disabled Peoples representation
Regional Director, Central – Pacific Health	Member – equity and Pacific Peoples representation
Hospital Network Programme Director	Member – ensuring compliance with hospital network and master site plan
Principal Advisor, Infrastructure and Investment Group (IIG)	Member – HNZ National Office alignment and support
Project Director HSS	Attendee
Project Director IIG	Attendee
Communications	Attendee – representative from regional Communications team
Project Manager Data & Digital	Attendee - as required to support D&D discussions.

343. As the project moves into the delivery phase, the organsiation will transition to a more simplified delivery structure. However, the complexity of delivering this project while continuing to deliver critical health services alongside construction will require an integrated approach. The proposed governance structure is presented in Figure 12.

Figure 12: Proposed governance structure for the delivery phase of the project



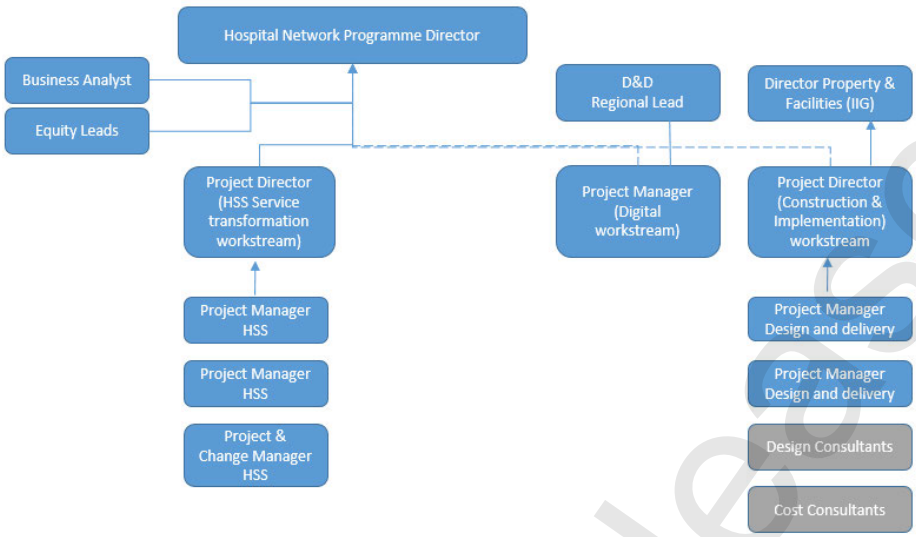
Clinical Governance

344. Clinical advice and oversight of the project is included at a number of points in the project structure. Clinical leadership from impacted services have provided advice and input into the design and model of care user groups for each sub-project. Clinical and professional leads are represented on the Front of Whare Steering Group. The CCHV Clinical Board and the Clinical Directors forum provide advice to the Hospital Network Programme Board.

345. Each of these levels of clinical oversight focuses on ensuring the project is delivering a clinical environment and services that are able to provide high-quality, safe patient care and supports risk management by identifying and providing expert advice on the treatment of clinical risks.

Project roles and responsibilities

Figure 13: Current project organisation chart



346. The key Project roles and who holds them are as follows:

Table 69: Wellington Hospital ED Refurbishment key roles

Role	Overview	Person
Senior Responsible Officer (SRO)	The SRO is an individual senior leader with overall accountability for ensuring that the project is delivered to schedule, meets its objectives, delivers the projected outcomes, and realises the required benefits within the approved budget. The SRO reports directly to the Chief Executive or their delegate.	Jamie Duncan (GDO CCHV)
Programme Director	Accountable to the SRO, the Programme Director leads the project delivery on behalf of the SRO and is responsible for establishing project organisation and overseeing project management, including delegation to the Project Directors. The Programme Director ensures that the project is focused throughout its life on achieving its objectives and delivery products that will achieve the forecasted benefits.	Karyn Hathaway
Project Directors	The Project Directors reports to the Programme Director and have the authority to run the Project on a day-to-day basis within a delegated authority laid out by the Programme Director.	Harriet Litten (HSS Service Transformation) Daniel Angus (Construction and Implementation)

9(2)(b)(ii)

[redacted]

9(2)(b)(ii)

9(2)(g)(i)

Project approvals, schedule and milestones

Business Case Approvals

352. The Front of Whare IBC was approved by the joint Ministers of Health and Finance in May 2023. The IBC approval included ministerial authorisation for up to $10m to be invested, ahead of the development of the DBC, into enabling works. In Month 2024, acting under its delegated authority, IIG approved an increase to the Project enabling works funding (bringing total funding authorised to $17.2m). The management of the enabling works is detailed further below.

The expected approval pathway and timeframe for the approval of this DBC is as follows in the table below.

Table 71: DBC Approvals Pathway (TBC)

Key Milestone	Start Date	End Date
Infrastructure Commission Consultation	1/08/24	1/10/24
Gateway Review	22/07/24	1/10/24

IIG and Central Government Agencies Consultation	1/08/24	1/11/24
CCHV Programme Board Approval	22/08/24	2/10/24
HNZ (ELT, CIC, HNZ Commissioner) Approval	01/10/24	01/11/24
Joint Ministers Health and Finance Consultation and Approval	01/11/24	30/11/24
Cabinet Approval	1/12/24	31/12/24

Project Construction Programme Milestones

353. The Project construction programme is managed through four discrete construction projects. The project team has developed a master programme integrating the sub-projects' design, consenting and construction phases. With final completion expected in Q2 2030, construction works for the Project are estimated to take approximately circa five years. The four sub-projects are as follows:

Table 72: Wellington Hospital ED Refurbishment Sub-Projects

Sub-Project	**Sub-Project Scope**
CSB Level 11 fit out	Level 11 CSB is a vacant floor being partly used as a storage area. It is to be refurbished into an office environment for clinical and non-clinical staff. The fit-out design is intended to be an 'open plan' desk arrangement with some offices, meeting rooms, quiet rooms and break out spaces. This sub-project has its own procurement plan.
OCH seismic and refurbishment	Seismic Strengthening – targeted strengthening of walls, beams, floors, columns, and the roof. The work is designed so OCH will meet IL2 level. External Façade – improvement works to the roof and windows to improve the thermal performance, and general repair and maintenance to the precast concrete sunroofs. Fit Out Works for clinical staff and ICU non-clinical staff. This sub-project has its own procurement plan.
New ED	CSB Level 4: Relocate and expand the Medical Assessment and Planning Unit (MAPU) WSB Level 4: Relocate and expand the Surgical Assessment and Planning Unit (SAPU) WRH Main Works: Construction of the new ED WRH: Relocation, Refurbishment Clinical Measurement Unit (CMU) / Out-patient department (OPD) Procurement for this sub-project has been enabled by a procurement exemption approved by IIG. This exemption is documented in a following section.
ICU expansion	Expand the existing ICU into adjoining space vacated by relocating non-clinical functions into a refurbished OCH.

354. Key milestones for each four sub-project is presented in the following tables.

Table 73: Wellington Hospital ED Refurbishment Sub-Project 1: CSB Level 11 Milestones

Key Milestone	**Start Date**	**End Date**
Construction Process CSB Level 11		
Detailed Design CSB Level 11 Completed	25/09/23	28/03/24
Market Pricing (Fixed price tender, stage 2 Procurement)	11/07/24	29/08/24
Building Consent Obtained		11th June 2024
Contract Instruction issued		November 2024 subject to DBC or Enabling work funding approval
Refurbishment Construction Works	6/1/25	18/07/25

Table 74: Wellington Hospital ED Refurbishment Sub-Project 2: OCH Seismic and Refurbishment Milestones

Key Milestones Construction Process OCH	Start Date	End Date
Detailed Design OCH Completed	15/07/24	15/12/24
Market Pricing from Hawkins (contracted ECI)	22/02/24	28/05/24
Building Consent Obtained		End November 2024
Contract Signed		Mid Jan 2025
Seismic Strengthening Construction Works	13/01/25	May 2025
Refurbishment Construction Works	29/01/25	6/05/26

355. The works in GNB in the table below are all critical path enabling projects that relocate clinical specialties from the future ED, decanting them into new locations and enabling the relocation of the MOPD.

Table 75: GNB Construction Work Milestones

Key Milestones GNB Refurbishment Works	Start Date	End Date
Detailed Design Completed		28/01/26
Contractor Pricing		28/04/25
Final Building Consent Obtained		28/01/26
Contract instruction issued		08/05/25
Minor fit out works of GNB level 12 and 8 to allow staff relocations	8/04/24	1/08/25
Refurbishment / fit out of GNB Level 6 into new Medical Out-Patient Department (MOPD)	31/07/25	9/04/26
Refurbishment / fit out of GNB Level 7 into Neurology & Anaesthetic Pre-Assessment	11/08/25	15/06/26
Refurbishment / fit out of part of GNB Level 5 for Respiratory & Endocrine / Diabetes	12/11/25	30/06/26

9(2)(i)

Table 76: Wellington Hospital ED Refurbishment Sub-Project 4: ICU Expansion

s 9(2)(b)(ii)

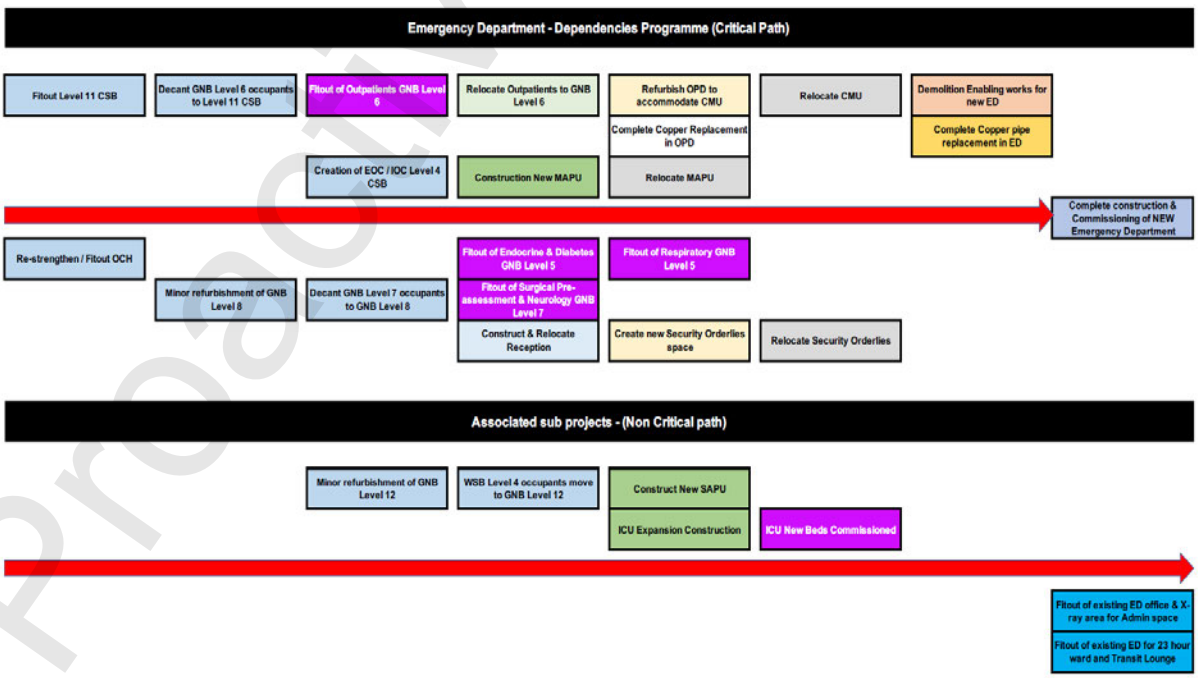
Table 3: Wellington Hospital ED Refurbishment Sub-Project 3: ED Main Works Milestones

s 9(2)(b)(ii)

Critical Path and Dependency management

357. The Wellington Hospital ED Refurbishment critical path and dependencies with sub-projects is summarized in the diagram below:

Figure 112: critical path and dependencies



Copper Pipes Replacement Project

358. Copper Pipes remediation project is a key interdependency of the Wellington Hospital ED Refurbishment Programme. The management of all affected sub projects within the Project is critical to avoiding both programme and financial impacts for both programmes of works. Both programmes with be managed by the same Project Director allowing for a single master programme which will enable all sub-projects to be coordinated to minimise the risk of delay, duplication of works and the impact on site operations.

9(2)(f)(iv)

Data and Digital investment

359. The Data and Digital (D&D) component of the project is a key dependency to improving patient experience, to delivering changes in models of care and advancing modern, technology enabled solutions for the ED and other acute services. While the digital solutions and innovations this project can deliver are limited, there are opportunities outside the scope of this project that would further enable improved communication, patient data management, more efficient use of operational resources and patient access to information to support ED avoidance where appropriate.

9(2)(f)(iv)

Identified opportunities for CCHV to add in-patient beds, and improve flow

361. Flow improvement initiatives, and incremental hospital capacity increases are key interdependencies to realise the benefits of this project and improved SSED performance. Changes to models of care, patient pathways and ways of working as part of the acute flow programme of work will be aligned with those planned as part of this project. It is anticipated that improvements initiated through the acute flow programme will be implemented before this project is completed and will support earlier progress towards improved SSED performance and hospital flow in the interim. The programme lead for the acute flow work programme is a key project sponsor and member of the steering group for this project and will work with the Project Director HSS Service Transformation to manage this key dependency.

362. It is well recognised by the CCHV Hospital Network Programme Board and district HSS Leadership that a focus on flow improvement initiatives and increasing bed stock within the district is critical to managing the clinical risk of overcrowding within the ED until this project and subsequent investments can be delivered. Capital and operational investment is required to achieve these incremental increases and work to deliver the additional beds is planned across a number of IIG and HSS projects. The

CCHV Hospital Network Programme Board has oversight of these, and the interdependencies, at a district level.

Change management planning

363. The Wellington Hospital ED Refurbishment project is one work stream under the wider HNP. The HNP manages the engagement, design and planning for how and where people will access hospital and clinical services across the CCHV district now and into the future.

364. The reach of this project is wide across WRH given the number of clinical and non-clinical service relocations required to move the ED into the W01 building, the flow on opportunities for changes in clinical Models of Care and the opportunity to make better use of digital and virtual care tools. There are Project Directors in place for each of these three key areas.

365. The Wellington Hospital ED Refurbishment Change Management Plan outlines how the project will prepare, manage and sustain outcomes for the successful delivery of the project. Change Management activities are underway with multiple mechanisms in place for stakeholder engagement to prepare the organisation and staff for change.

People

366. The project will bring substantial change to a section of the workforce. Areas that have been identified as high-interest areas for staff change management include:

- Disruption and change associated with construction period and physical moves of services.
- Disruption and change associated with physical moves of workspaces, including where workspace is separated from clinical areas, or where workspaces are decanted/moved more than once during the programme.
- Changes associated with workspace model changes, including shifting to more flexible, open-plan work environments, hot desks and shared amenities.
- Change associated with model of care changes, including training requirements, personnel impacts, and changes in relationships between services.

367. Affected staff and their representatives will be involved in continuous dialogue. Change management planning for the Project focuses on ensuring personnel from all impacted areas are engaged with and supported throughout the change process. People change management activities currently include:

- Having a clear link between the programme/project and the organisation's key strategic priorities, including agreed measures of success. This is being achieved through benefit mapping and links to Pae Ora (Healthy Strategies) and Te Pae Tata (Health Plan).
- Clear Senior Management, Leadership and Ownership. This is being achieved through Senior Management representation on the Programme Board and Steering Committee with accountability evidenced through meeting minutes an actions.
- Stakeholder involvement and engagement. This is being achieved through communication plan actions, regular design user groups, regular all staff updates, a dedicated Intranet page, attention at service team meetings and a dedicated email mailbox for communication.

Process

368. Changes in the way services are delivered are critical to the success of the Project. The project is working alongside the following clinical teams to develop revised models of care: ED (seen as having the biggest opportunity for a change in the delivery of care), MAPU, SAPU and ICU.

369. In the development of the models of care, the aim is to describe the optimal patient journey into, and through each clinical service and on to inpatient services. The goal is to support patients and their whanau to see the right clinician in the best environment in the shortest time possible.

Technology

370. Within the project, the Data & Digital work stream works closely alongside the Hospital Operations and Building Implementation work streams to ensure a collaborative, joined up approach. Technology will support change by enabling the model of care defined by the programme in the refurbished facilities and providing technology solutions as approved via the Detailed Business Case.

9(2)(g)(i)

9(2)(g)(i)

Workforce planning

375. The Project will implement a carefully planned and holistic approach to workforce planning for expanded services. The total workforce will increase in stages to reach an additional 208 staff by 2030/31 (as shown earlier in Table 57

376. This increase in staff will require support from national and regional recruitment and human relations teams and investment in advertising and in-person engagement strategies. CCHV has experience and success in workforce planning and delivery. The district has recently led the National Critical Care Recruitment Strategy, managing extensive domestic and international recruitment into the critical care sector across New Zealand. This recruitment strategy has been reported against over its duration, and the learnings of this successful strategy are available to support workforce planning and recruitment approaches for the project as the nature and timing of future workforce requirements are confirmed.

377. In addition to recruitment of additional staff, we anticipate the new ED facility will aid in the retention of existing staff. At present the present crowded facility, and constraints around the treatment areas for intoxicated and/or some patients in mental health distress can make be a point of frustration for existing staff. The new facility will greatly diminish these concerns and also aid retention of staff and the improve the attractiveness of the department for recruitment.

Benefits management planning

378. In preparing this DBC, the Hospital Network Programme Board reviewed the four benefit categories, and their measures proposed in the IBC and adopted a revised Benefits Management Plan. The Board concluded that the four benefit categories proposed in the IBC were valid and robust but revised several of the benefit measures that sit under these benefit categories. The benefit measures are now more focused on the measuring the effect of the facility capacity changes being delivered by the Project. For example, changes to the benefit measures include:

- Adding the government's SSED target, and its sub targets for CCHV
- Removing measures that are determined by staffing matters that are out of scope for the project.

379. These changes are identified in the Benefits Management Plan attached as Annex C. The Project's Benefit Realisation Plan is scheduled to be completed in September 2024.

380. This project will:

- report back to Cabinet within 12 months after the in-service date on the actual level of benefits achieved compared with those approved in this DBC

- provide information to Treasury at agreed intervals on the actual level of benefits achieved compared with those identified in this DBC.

Risk management planning

381. The risk management strategy and plan for dealing with the management of risk is as follows:

- Identify and evaluate risks at project stage initiation and throughout the project
- Plan and resource for risk mitigation actions
- Identify and select a suitable person to manage each risk
- Regularly report key risks to the Steering Group and Programme Board
- Escalate risks as soon as apparent that they require immediate action to resolve
- Monitor and report on the impacts, probability, and status of each significant risk
- Agree mitigation actions and escalate, as necessary.

Risk register

382. The Risk Register established during the IBC development phase is a living document that has been, and will continue to be, updated continually to reflect the current status of any risks of issues arising. The register lists all risks identified in this and earlier business cases and documents actions taken to mitigate them and includes current status information. The Project's Risk Register is attached as Annex E. The top five risks in the risk register for the project are set out in the following table.

9(2)(g)(i)

9(2)(g)(i)

Assurance arrangements

Business Case

383. This investment proposal has been assessed as medium risk using the Treasury's Risk Profile Assessment[18] tool and moderation process.

384. Based on this assessment, and consistent with IIG's protocols, the Infrastructure Commission has received and commented on drafts of this DBC business cases. This business case reflects the Infrastructure Commission's advice and feedback.

Gateway Reviews

385. The project is subject to ongoing Gateway reviews. A Gateway 2 (Delivery strategy) has been undertaken on the project as part of the development of this Detailed Business Case. This business case reflects the review team's advice and feedback.

386. The project received a green- amber rating. The Gateway Review Recommendations and Action Plan are attached in Annex I.

Design Assurance

387. Design Assurance processes have been established by the IIG Health Facility Planning team. The purpose of this assurance is to monitor and enforce standardisation across public health facilities. Assurance is provided against the Australian Health Facility Guidelines (AusHFGs) and the Health Planning Units (HPUs). There is also consideration given to the process of user engagement, development of Models of Care, Functional Design Briefs and Schedules of Accommodation.

388. The Project team have engaged with IIG Health Facility Planning and Design Assurance representatives to ensure that the project designs meet the requirements. The designs for the refurbishments of Grace Neill Block for relocation of MOPD and CMU have undergone "desktop reviews", given their refurbishment nature, and have received positive feedback from the Design Assurance team. The designs for MAPU, SAPU, ICU and ED will also progress through Design Assurance, as fulsome reviews as their scope of works is greater and meets the required thresholds.

Infrastructure Investment Group Assurance Plan

389. The Project have received the template for the IIG Assurance Plan to capture assurance planning for the remainder of the project. This will be required for the IIG Project Assurance Framework in development and will also support engagement with Infracom Major Infrastructure Project Governance.

18 https://treasury.govt.nz/information-and-services/state-sector-leadership/investment-management/think-investment-possibilities/risk-profile-assessment

Post project evaluation planning

390. These reviews would take place within six months of conclusion of each Wellington Hospital ED Refurbishment sub-project. The evaluation would confirm the extent to which deliverables have been complete and would reconcile the project budget and timelines to plan. This review would also consider lessons learned and would identify the extent to which the expected benefits have been realised at that point. Any key learning areas arising from the implementation process would be incorporated into later implementation plans.

391. A post-implementation benefit realisation review is planned to occur 10 months after the in-service date on the actual level of benefits achieved compared with those approved in this DBC.

Annexes

The following are annexed:

392. Annex A: Letter of Confirmation (Placeholder)

393. Annex B: Reference Documentation

394. Annex C: Investment Logic Map and Benefits Management Plan

395. Annex D: Key Stakeholder's roles, interests and engagement to date

396. Annex E: Risk register

397. Annex F: Floor plans; ED, SAPU, MAPU, ICU

398. Annex G: Quantitative Risk Analysis (QRA) - noting that this will be completed before the end of September 2024

399. Annex H: Programme

Annex A: Chief Executive's Letter

25 October 2024

To whom it may concern

Detailed Business Case: Wellington Emergency Department Refurbishment

Health New Zealand | Te Whatu Ora is proposing a major strategic initiative to meet future emergency department needs and requirements for the Wellington Regional Hospital.

This Detailed Business Case investigates value for money options to deliver the Wellington Emergency Department Refurbishment and recommends a preferred option for investment.

I confirm that:

1. I have been actively involved in the development of the attached investment proposal through its various stages;
2. I accept the strategic aims and investment objectives of the investment proposal, and its functional content, size and services;
3. the cost and benefits estimates of the proposal are sound and based on best available information;
4. the financial costs of the proposal can be contained within the agreed and available budget;
5. Health NZ has the ability to pay for the services at the specified price level;
6. suitable contingency arrangements are in place to address any current or unforeseen affordability pressures.

This letter fulfils the requirements of the current Better Business Cases guidance. Should either these requirements or the key assumptions on which this case is based change significantly, revalidation of this letter of support will be sought.

Yours sincerely

Fepulea'i Margie Apa
Chief Executive | Tumu Whakarae
Health New Zealand | Te Whatu Ora

Annex B: Reference Documentation

400. The following is a list of related reference documentation that is available on request:

Document Title	Author	Date
	Relevant to IBC Stage	
Gateway Review Report Review 0/1	Treasury	February 2023
Front of Whare Indicative Business Case	Capital Coast and Hutt Valley District Health Board	March 2023
Executive Leadership Team Paper: Wellington Regional Hospital Front of Whare	Director – Capital Investment, IIG	March 2023
Government announces significant expansion of Wellington Regional Hospital ED	Minister of Health	10 June 2023
	Relevant to DBC Stage	
Financial Models	Capital Coast and Hutt Valley District Finance Team	August 2024
Quantity Surveyor Costings DBC Recommended Option	RLB, Quantity Surveyor	August 2024
Design Report DBC Recommended Option	Jasmax Architects	August 2024
Change Management Plan	Project Team	August 2024
Communication Plan	Project Team	August 2024
Detailed Construction Elements Programme DBC Recommended Option	Kensway Consultants/Project Team	August 2024
Options briefing pack	Project Team, Jasmax Architects, RLB	April 2024

Annex C: Investment Logic Map and Benefits Management Plan

401. The drivers for change from the investment logic mapping workshop and the benefits management plan, which provided the starting point for the economic case, are below.

Figure 14. Investment Logic Map

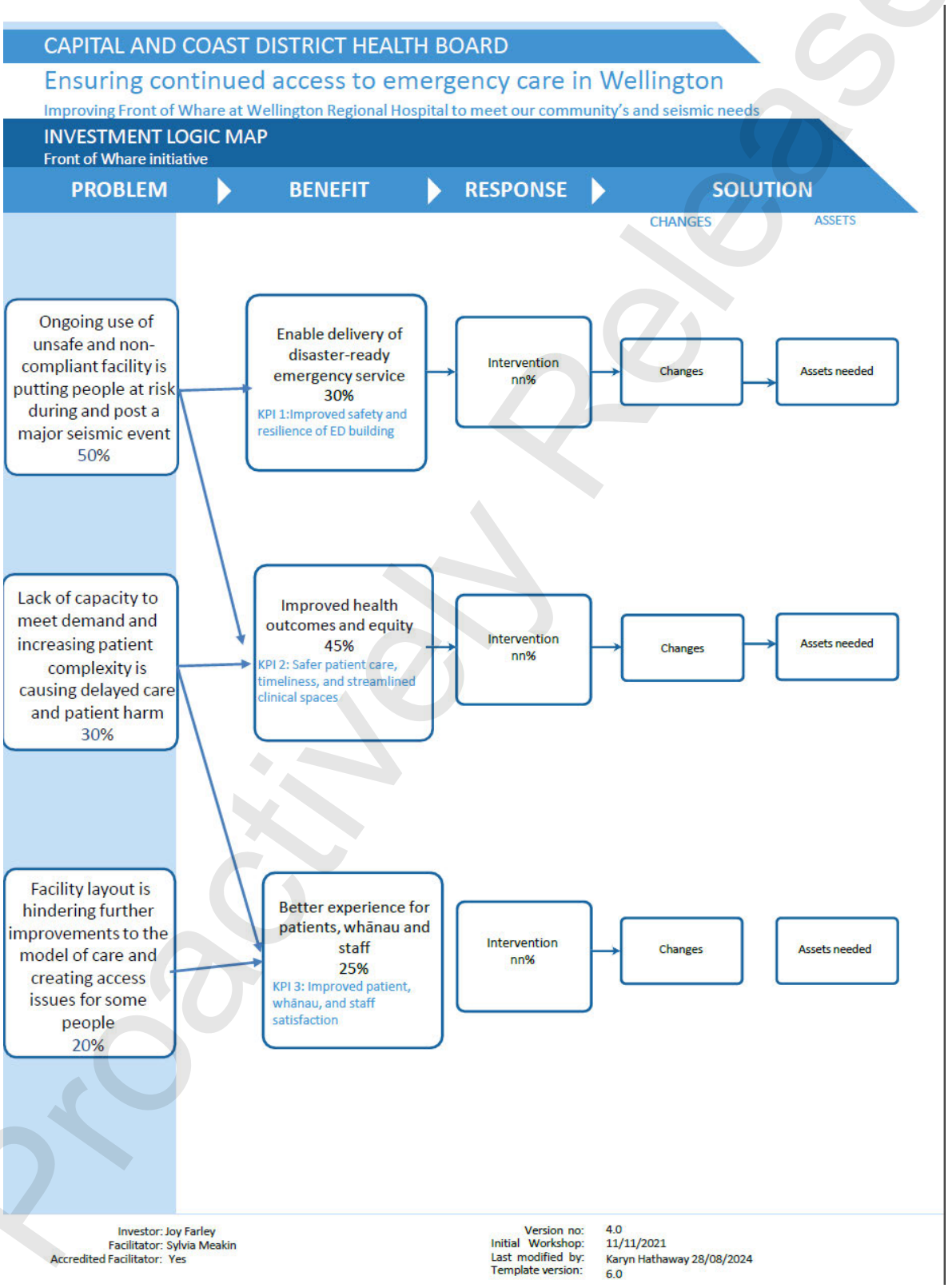
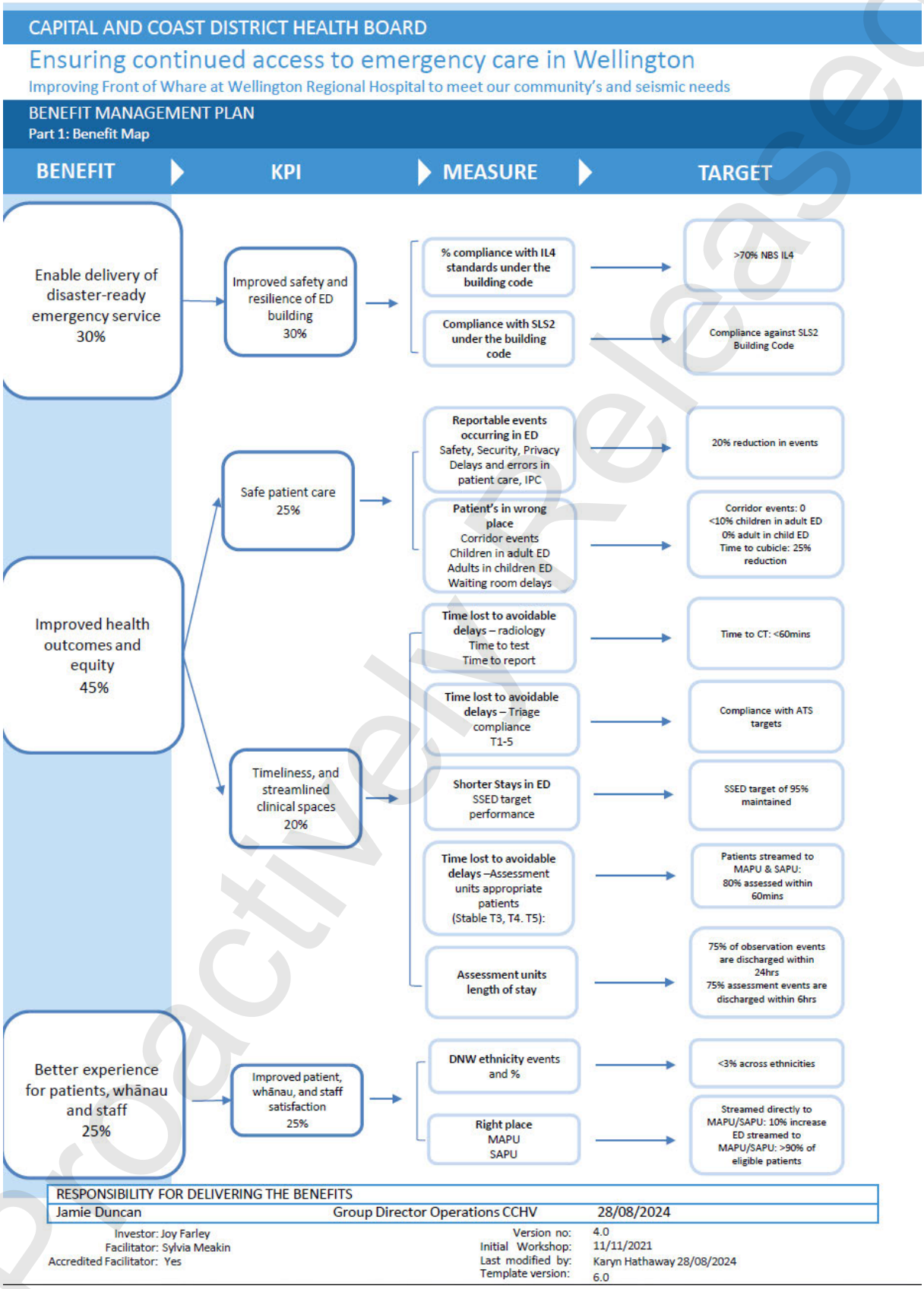


Figure 15. Benefit management plan



Annex D: Key Stakeholder's roles, interests and engagement to date

EXTERNAL	Role or influence	Level of Influence	Level of interest project	Engagement to date
Jasmax	**Partner**, strategic assessment of options , leading the design process to facilitate the incorporation of departmental requirements within the building design.	High	High	Weekly project meetings, all user groups, regular design email correspondence,
HNZ Infrastructure and Investment Group (IIG)	**Partner, decision maker** at national level, supporting project. Guidance to naivgate investment pathway. Key role in communicating the case for change and overseeing delivery of the Project	High	High	Representatives on Project Steering Group. Direct engagement/partnership at local level and strong connections between project and regional/national IIG teams. Ongoing engagement between the district and national teams, to ensure the national team has a full understanding of the proposal as it develops. Coordinating the facility planning and design from a technical perspective.
HNZ Data & Digital (D&D)	**Business partner**	Low	Low	D&D workstream lead holding recent engagement through workshops and identifying D&D structure
Prime Minister, Minister of Finance, Minister of Health	**Decision makers at National level**, with an interest in New Zealand Health Infrastructure, Costings and budget, Health of Aotearoa. Want to realise return on investment.	High	High	HNZ Commissioner / IIG Investment Team
Treasury IMS, Vote Health team	**Decision makers at National level**, managing infrastructure and health budgets. Can assist and provide guidance in the development of the Business Cases.	High	High	Programme Director, SRO engagement.
Infrastructure Commission (InfraCom)	**Key advisor to government** on infrastructure. This advisory role includes developing a 30-year infrastructure strategy, an infrastructure pipeline, and advice and support for major project procurement.	Moderate	Moderate	The project provided background information on the need for investment, the preffered option, and the proposed procurement approach. Business case review and advice. Programme Director, SRO, IIG engagement.
Health NZ Commissioners	**Decision makers at National level**, with an interest in New Zealand Health Infrastructure, Costings and budget, Health of Aotearoa. Want to realise return on investment.	High	High	Robyn Shearer (Deputy CE), Jamie Duncan (SRO/GDO)
Manatū Hauora/Ministry of Health	**Performance Support.** Relationship manager	Moderate	High	The project has briefed the MoH infrastructure team on plans and progress ahead of DBC review. Programme DIrector, SRO engagement.
MP s across Te Whanganui	**Representative and Advocate for the local community.** Support is important to gain community trust. Will want information to front-foot any local complaints/letters they receive regarding healthcare.	Low	High	Julie-Ann Genter (Rongotai MP) aware of project. Further engagement planned.
Wellington City Council, Mayors, Wellington Regional Council	**Representative and Advocate for the local community**. Support is important to gain community trust. Interfacing with neighbourhood and district planning. Want to know impact of Front of Whare on local infrastucture and transport projects, especially in Newtown.	Moderate	High	Limited to date. Further engament planned - Programme DIrector, SRO, IIG engagement.
Iwi-Māori Partnership Boards	**Decision makers at National level**, with an interest in Māori health outcomes. Te Tiriti partnership and oversight to ensure delivery of equitable health outcomes for Māori. Want to understand how we are incorporating te ao Māori into our designs and may want to be consulted. Opportunity to bless new spaces through Tikanga.	Low	High	The IMPB was involved at the project intiaition stage and review of the IBC. More recently updated on progress and potential for partnership on whanau engagement activites. Programme DIrector, SRO engagement - met 16/08/2024
Mana Whenua / Ahikā (Te Āti Awa)	We respect and enable tangata whenua to articulate and lead change toward their health aspirations.	Moderate	Moderate	Ongoing engagement with Hauora Māori Equity Lead. Engagement with Jasmax to develop site cultural narrative and design response. Cultural values, cultural narrative, Tikanga applied within the local cultural context.
Mana Whenua, Ngati Toa	We respect and enable tangata whenua to articulate and lead change toward their health aspirations.	Low	Moderate	Aware of project and work. Further enagaement planned.
Unions	**Advocate** for the welfare and working conditions of staff. Want to understand how staff conditions will improve through proposed change (e.g increased safety, reduced incidents)	Moderate	High	Early enagement with unions at outset of project. Briefing for NZNO on planned changes to the ED. Further engagement required in next phase of work. People and Comms input to support.
Local Health Partners and Providers, PHOs, NGOs	**Health Providers/Advocates** - want to know the impact on them during development and implementation.	Low	Moderate	Primarly through Equity Lead roles engagement in the community.
Wellington Free Ambulance / CAARL paramedics	**Enabler/Provider** - want to understand and input on egress and new process for drop off at ED.	Low	High	Further engagement required in next phase of work. Primarly impacted by ED design and model of care development.
Police, Fire & Emergency NZ	**Consumer** - Want to know about changes to access points, egress, layout, and anything else that impacts their operations.	Low	Low	Further engagement required in next phase of work. Primarly impacted by ED design and model of care development. FENZ involvement in design for all areas.

Media	**Advocate** - Role in holding goverment and organisations to account, spending accountable to the public/taxpayer and local ratepayer. Want to report on current service issues/patient and staff stories.	Moderate	High	Comms team to support. Further engagement required following confirmation of next steps (i.e. funding, approval of DBC).
Consumers, family, whānau and hospital visitors – currently using services	**Consumer of health services** - Want to contribute to the planning of the ED expansion and to know impacts of change to ED. Want to know that quality of planned or emergency care will not be minimised or disrupted during implementation.	Moderate	High	Engagement in early phases of project. Further engagement required in next phase of work. Two consumer representatives included in the project steering group throughout.
Māori, Pacific people and Tangata whaikaha Disabled People	**Consumers of health services** - Want opportunities to be involved in the planning process , to be partners in the design process in order to have their needs met (Cultural, spiritual, language, vision, hearing, cognitive/learning, mobility and accessibility). Want to be heard and to input into detailed design and have more trust in local health services and to ensure they reflect the needs of Te Matau a Māui communities, incorporating principles founded on Māori cultural values that enhance Mana Whenua presence, visibility and participation in the design of the our ED.	Moderate	High	Equity Lead roles. Enagement through services and consumer pathways. Further community engagement required in next phase of work.

INTERNAL	Role or influence	Level of Influence	Level of interest project	Engagement to date
Te Whatu Ora Leadership	**Decision Makers at a District and Regional level on hospital operations**, strategic projects, issues and policy.	High	Moderate	Ongoing engagement to provide updates to the Regional Director as the project has progressed, and to incorporate direction/guidance from HSS in the planning. Ongoing information escalated/provided. Reviewed and endorsed project IBC.
Hospital Network Programme Board	**Governance,** decision makers at local level**.** Approve progression of HRP and interim works. Guide, endorse, and communicate internally as necessary.	High	High	The Board has provided direction on key decisions, including the approval for the changes to enabling works, and strategic context as part of DBC process. Monthly meetings since December 2023.
Front of Whare Steering Group	**Governance,** decision makers at local level**.** Approve progression of HRP and interim works. Guide, endorse, and communicate internally as necessary.	High	High	Monthly meetings since December 2023,
Organisational leaders **Clinical Leads, People leadership, Equity Leads**	**Provide patient care, lead and communicate** - Input and offer expertise on the ED requirements, preferred option and detailed design. Know where to access information on the project and interact with project team/liaisons. Know how to support and communicate project messages with staff.	Moderate	High	Through regular user groups, Steering Group and Programme Board
ED clinical, allied health and operational staff	**Provide patient care**, Know where to access information on the project and interact with project team/liaisons.	Moderate	High	5 Fortnightly User Groups since December 2023, weekly post user group feedback meetings, adhoc design issue catch-ups, design stage reviews. ED team engaged in the planning and design of the proposed department. Will extend this to planning of additional resources (FTE) and FF&E required to support the expansion as design progresses.
Staff in impacted services **(MAPU, SAPU, Ambulatory)**	**Provide patient care**, Know where to access information on the project and interact with project team/liaisons.	Low	Moderate	Regular user groups since December 2023.
Other impacted services **Security, Radiology, Pharmacy, Allied Health, Awanui Labs, Non-Clinical Support Services, Infection Prevention Control (IPC), PAS, Cultural and Spiritual Care services**	**Provide patient care**, Know where to access information on the project and interact with project team/liaisons.	Low	Moderate	The project has held preliminary meetings with the services, to provide an over view of the approach and design across all components of the project to identify any early issues or concerns that the services have. User Group Attendance, post user group feedack/design queries
Corporate staff (i.e. Business Partners D&D, Finance)	**Enablers, Communicators** - Know where to access information on the project and interact with project team/liaisons. Want to know how Front of Whare impacts their stakeholders, projects and areas of focus, especially from an equity and ICT perspective.	Low	Low	Challenging engagement during period of significant change for corporate staff. Strong engagement required for D&D and Finance in particular given turnover/change in these areas.
Wider Wellington Hospital workforce	**Provide treatment, care and operational support across Wellington Hospital** - Input and offer expertise on the design. Know where to access information on the project and interact with project team/liaisons.	Low	Low	Ongoing engagement and comms required. Project team have strong relationships across the workforce. Some areas still requiring further engagement for awareness.

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