Jersey Future Hospital Project

Outline Business Case

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2. Introduction

General

2.1. The need to replace Jersey General Hospital remains a pressing strategic priority for the States of Jersey and a key objective for the Health and Social Services Department.

2.2. This was articulated clearly within the States Report and Proposition P.82/2012: "Health and Social Services - A New Way Forward" and which formed the basis of the “Jersey General Hospital - Strategic Outline Case” received and approved by States of Jersey in 2013.

2.3. This Outline Business Case (OBC) sets out the appraisal work that has subsequently been undertaken since to test the options available to the Health and Social Services Department in meeting the challenge of implementing the transformational expectations of P.82/2012.

2.4. It continues to follow the format of the UK Treasury Five Case model (2013) with appropriate adjustment where needed to reflect jurisdictional differences between the UK and the States of Jersey. It comprises the following sections:

The Strategic Case	Delivered in three parts (A-C) this sets out the overall context for the project and updates the position established within the Strategic Outline Case (SOC) to reflect further project development and to ensure that the project continues to deliver against the Hospitals business needs. This section makes the Case for Change and sets out the key issues to be addressed by the project;
The Economic Case	Sets out the process followed in economically evaluating the agreed Options and confirms the Option that delivers the greatest value for money in the way that it addresses the project investment Objectives;
The Commercial Case	Sets out the nature of the delivery process and confirms the specific contractual and procurement arrangements to be put in place to deliver the Preferred Option. From the Commercial Case onwards the Preferred Option will be is referred the Preferred Scheme;
The Finance Case	Sets out the financial position of the Preferred Scheme relative to the Project Constraints and the current hospitals revenue profile;
The Management Case	Details how the delivery of the Preferred Scheme will be managed and sets out specific project control arrangements for the required Enabling Works, transition and for hospital management during construction

2.5. The Strategic Case sets out the strategic context and the case for change for the project.

2.6. In doing so it acknowledges the approval of the Strategic Outline Case (SOC) in 2013 and reflects on its conclusions updating these where necessary to reflect emerging information including:

- Any changes in strategic direction emerging since endorsement of Health and Social Services Proposition P.82/2012: Health and Social Services - A New Way Forward;
- The Acute Service Strategy and work to redefine patient care pathways emerging from it;
- Continued work on services integration particularly in developing seamless service planning across the acute hospital and out of hospital care;
- Updated population modelling to provide a better understanding of gross future population and forecast changes in age group demographics;
- Updated hospital operational policies developed to embrace future clinical change and emerging from the hospital engagement within the design process;
- Completion of additional site appraisals that concluded in States Assembly endorsement of the existing hospital site as the preferred site for any Future Hospital;
- A review of capital delivery costs to ensure that pricing reflects contemporary information on hospital design and construction costs;
- A stakeholder review of the benefits of each Option in arriving at a Preferred Option; and
- Planning officer engagement and the formal submission of an Outline Planning application for the project.

2.7. The Preferred Option established through this process proposes to construct the Future Hospital adjacent to the existing hospital on a part of the hospital site cleared for this purpose and additional land acquired on Kensington Place.

2.8. The Preferred Option also proposes the redevelopment of Westaway Court to support the efficient operation of the hospitals ambulatory care facilities and to provide a pathology services, linked to the hospital via vacuum tube, to mitigate risks of construction adjacent to vibration sensitive equipment in the existing pathology department.

2.9. Together, these facilities provide a General Hospital that is fit for purpose, planned with the medium / long term in mind and, when combined with the residual site has the necessary resilience to manage future change in demand and expectation.

3. The Strategic Case

Part A – Strategic Context

3.1. This section sets out the high-level social, technological, and economic factors that collectively influence the project. Collectively they provide a unique context for the project, its objectives, and the way it would need to be delivered.

The Island's Healthcare System - overview

3.2. In broad terms, the Island's healthcare system reflects that of the UK. Primary care is delivered though a range of community based services and a network General Practitioners (GP's) with acute secondary care being delivered through the Island's only General Hospital located in St Helier.

3.3. Patients with more complex clinical needs, beyond those that can be dealt with at the General Hospital, are provided for at off-Island locations, usually being the UK NHS. These arrangements are managed by the General Hospital as part of its care for each patient.

3.4. The Island has an active private healthcare sector operating both within the hospital and at other locations on the Island. This reflects a significant interest in private provision with many Islanders understood to carry private healthcare insurance.

3.5. Contrary to the UK, GP services are not free at the point of delivery and this potentially contributes to increased hospital attendance for emergency treatment or for follow up appointments.

Healthcare delivery

3.6. While the Health and Social Services Department is the principal provider of health care on Jersey it does so in the context of a wider primary care system provided by independent GPs, dentists, pharmacists, and optometrists, a comprehensive network of voluntary and community organisations and independent sector providers of health and social care.

3.7. Jersey General Hospital and the wider Health and Social Services Department of which it forms a part are a significant employer on the Island. The Department comprises a broad range of key functions covering the delivery and governance expected within any modern, comprehensive General Hospital.

3.8. Services are structured to operate through 6 key groups as indicated overleaf:

Figure 1: Corporate Director Structure 2017

3.9. The hospital is a significant employer on the Island with a currently established workforce of some 1,900 Full Time Equivalent staff (FTE) and a combined hospital and ambulance service budget of £126m per annum.

Health and wellbeing

General Health

3.10. In 2015, 80% of respondents rated their health to be 'good' or 'very good'. Life expectancy at birth between 2013 and 2015 was 81.1 years for men and 85.3 years for women is similar to the other Channel Islands and is higher than England and Wales.

3.11. For life expectancy at age 65, women can expect that on average to live an additional 23 years if they have reached 65 and men 20 years.

3.12. Jersey ranks in the top 10% of countries in the world for life expectancy and 85% of Islanders rate their health as good or better.

Morbidity and disability

3.13. On average, there are 977 malignant cancers diagnosed each year in Jersey (2010-2014). Non-melanoma skin cancer (NMSC) accounts for around 39% of the annual mean count, with the three most commonly registered cancers after NMSC being prostate, breast and lung cancer. The age-standardised rate for head and neck cancer, hepatobiliary cancer, lung cancer, malignant melanoma, prostate cancer and paediatric cancers in Jersey was higher than in the South West of England and England as a whole. However, death rates are largely similar to those in England.

3.14. It is estimated approximately 13% of the population suffer from hypertension compared to 20% in the UK. Similarly, obesity levels on Jersey at 8% are lower than the estimated 20% of UK population.

3.15. 20% of Jersey residents reported having a longstanding illness, disability, or infirmity that lasted at least 12 months. This proportion varied significantly between age groups. 49% of individuals above 65 years reported a longstanding issue, which fell to just 7% for individuals aged 35-44 years.

Mental health

3.16. The Short Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) was included in the Jersey Annual Social Survey in 2013. A score of 7 represents poor mental health and a score of 35 represents the most mentally healthy a person could feel. The average mean score for Jersey in 2013 was 26, representing generally good mental health. In the 2015, Health and Life Opportunities Survey respondents were asked questions about their satisfaction towards different aspects of their life. 6% responded they were dissatisfied with their life and 35% felt anxious. Between 2013 and 2015 there were approximately 450 discharges from hospital coded as self-harm, comprising around 380 individuals. 57% of these admissions were female, and 33% were under 20 years old.

Infant and child health

3.17. In 2015, the crude birth rate was 10.0 live births per 1000 population, which is a decline from previous years. The stillbirth rate in Jersey has also decreased over time to a rate of 2.1/1000 births. Between 2013 and 2015, the infant mortality rate was 1.3 per 1000 births, lower than the average rate for England and across the 28 EU countries. From 2013-2015 there were approximately 10 deaths of residents aged 1-17 years. In Jersey, an average of approximately 4000 children under five attended Emergency Department (ED) each year.

3.18. In the ‘Picture of Health Jersey 2014’ survey, 52% of respondents aged 12-13 years old and 20% aged 14-15 had never drank alcohol. Jersey has a rate of 20 per 100,000 population aged under 18 annually admitted to hospital with an alcohol-specific condition. Between 2013 and 2015, there were approximately 400 hospital admissions of 15-23-year olds with a diagnosis related to substance misuse.

3.19. In the 'Picture of Health Jersey 2015' survey, over 90% of respondents aged 10-13 years and 65% aged 14-15 had never smoked. The survey found that one in ten young people were exposed to second hand smoke in their home. Less than 1% of respondents under 14 years had taken drugs.

3.20. Between 2013 and 2015, 22% of children aged 4-5 were overweight or obese. This rose to 32% for children between 10 and 11 years old. Approximately 22% of children reported being physically active for an hour a day in a 2014 survey. This was higher in males (27%) than females (16%).

Lifestyle

3.21. In 2015, 12% of adults smoked daily, compared with 19% in 2005. 10% of respondents to the Jersey Annual Social Survey in 2014 said they never drank alcohol. 45% of 16 to 34-year-old drinkers responded that they drink five or more units when they usually drank; exceeding recommended daily limits. One in five crimes reported between 2013 and 2014 had alcohol involvement and in 2012, almost 500 incidents of domestic violence involved alcohol.

3.22. The population has relatively low levels of ethnic diversity. 46.4% of individuals identify as 'White Jersey' and 32.7% identify as 'White British'. 8.2% of residents were born in Portugal/Madeira. 3.3% of residents are Polish whilst 7.1% of residents are Irish, French and Other White compared with 19% in 2005 (2013 - UK 19%)

Population and demand

3.23. Published data indicates that the Islands population has grown steadily since 2006 now standing at 104,200. A copy of the full Jersey population projections (2016) can be found in Appendix 3.

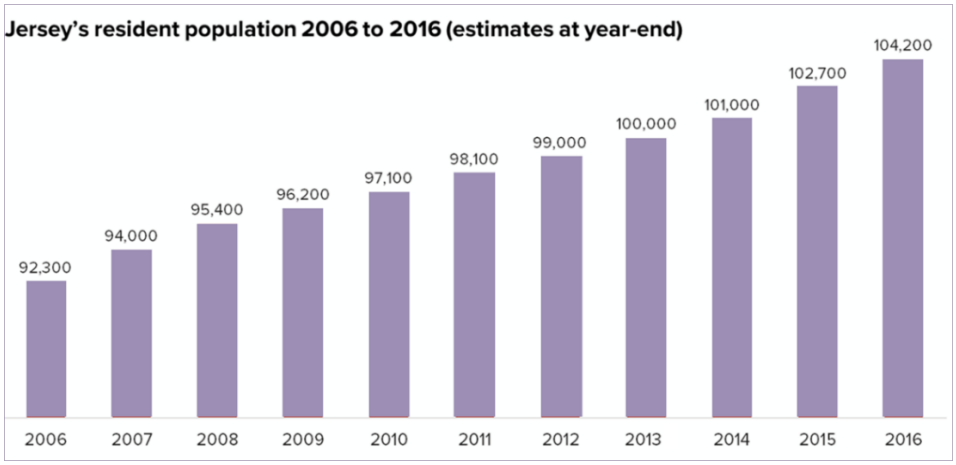

Figure 2: Population Growth Data (Source: States of Jersey Statistics Unit)

3.24. Net inward migration is a key contributor to this growth and is expected to continue to have an impact in future years.

3.25. As inward migration is sensitive to a range of on and off-Island factors, several potential future population growth scenarios have been published by the States of Jersey Statistics Unit. These are set out below.

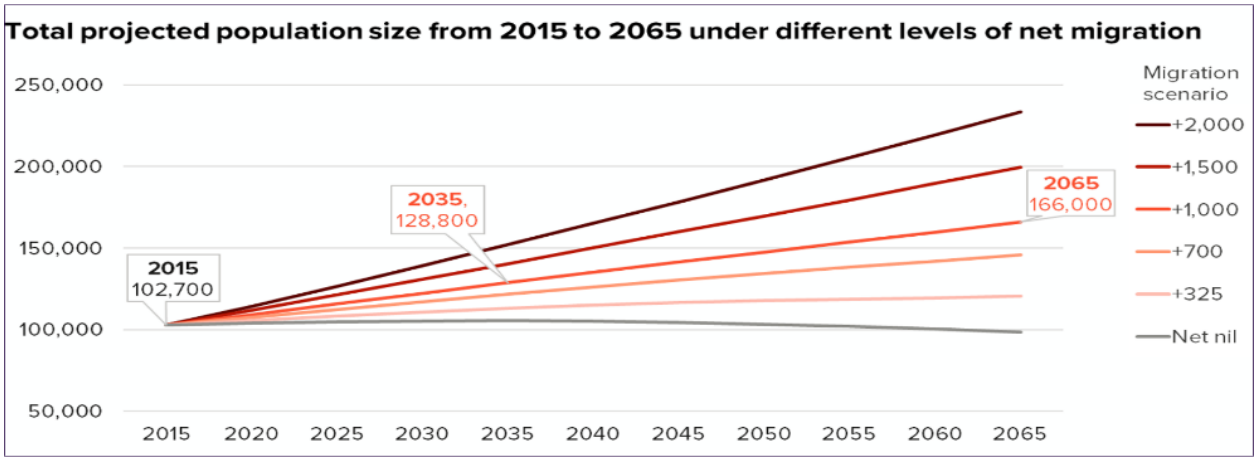

Figure 3: Population Growth data. Source: States of Jersey Statistics Unit

3.26. This indicates that, under a net inward migration scenario of +1000 per annum, the hospital will need to meet the needs of 115,700 inhabitants by 2025 and 128,800 inhabitants by 2035.

3.27. Given these possibilities, the Chief Minister's Office advised that a +700 was the most appropriate central scenario to use in developing forecasts of future demand, as it was consistent with the Social Security Department's planning assumptions. As future population numbers cannot be predicted with certainty this business case additionally reviews the sensitivity of demand assumptions and cost models for population growth of +300, +1000, and +1,500 net inward migration scenarios. These are included as appropriate in the Economic and Finance Cases. As set out below the make-up of the population in terms of age is a major determinant of need for hospital services and the increased demand driven by an aging population is largely unaffected by changes in the scale of migration.

Demographic change within overall population growth

3.28. Alongside the general population growth noted above, material changes have, and are forecast to continue to occur within the age distribution of the resident population.

3.29. It is recognised that the older the individual the greater their healthcare requirements tend to be and older patients require extended lengths of stay in hospital compared to patients under 65yrs of age.

3.30. The age distribution data set out below indicates than an increase over time is expected in over 65-year-old population up to 2035 and beyond.

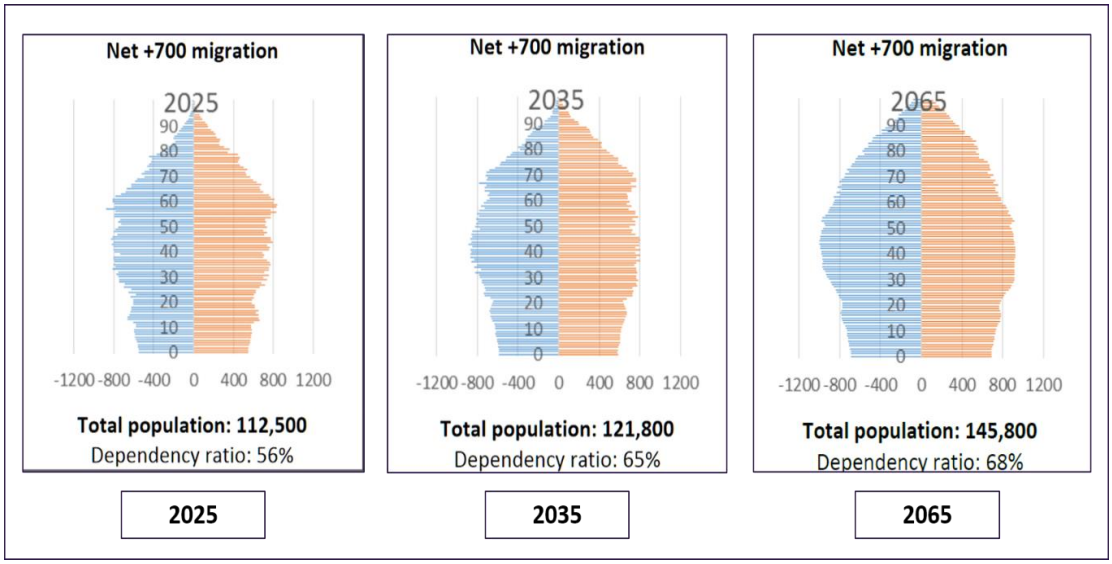

Figure 4: Growth charts

Impact of population change on hospital demand

3.31. Planning for the impact of population and demographic change is critical to the size and functional composition of the Future Hospital.

3.32. Extensive demand modelling has been completed to reflect these impacts both in the accommodation required within the hospital and specifically in the in-patient beds required across all specialties. Sensitivity analysis has been carried out to assess the scale of demand under different population change scenarios

3.33. The comprehensive modelling outcomes included in Appendix 4, sets out the in-patient beds required each year to meet the demand anticipated due to demographic change at the recommended + 700 net inward migration level. This depicts the forecast demand against the current bed capacity and how each option responds to this is covered in the Economic Case.

		Forecast														
Bed type	**Type**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	Demand	165.2	168.7	172.4	176.0	179.8	183.0	186.3	190.5	195.3	199.5	205.5	262.2	316.1	346.3	367.1
	Capacity	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0
	Surplus/(deficit)	*(17.2)*	*(20.7)*	*(24.4)*	*(28.0)*	*(31.8)*	*(35.0)*	*(38.3)*	*(42.5)*	*(47.3)*	*(51.5)*	*(57.5)*	*(114.2)*	*(168.1)*	*(198.3)*	*(219.1)*
Rehab/reablement*	Capacity	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
	Variance	***5.8***	***2.3***	***(1.4)***	***(5.0)***	***(8.8)***	***(12.0)***	***(15.3)***	***(19.5)***	***(24.3)***	***(28.5)***	***(34.5)***	***(91.2)***	***(145.1)***	***(175.3)***	***(196.1)***
Private beds	Demand	10.5	10.7	10.8	11.0	11.2	11.3	11.5	11.6	11.8	12.0	12.2	14.1	15.7	16.8	17.7
	Capacity	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	Surplus/(deficit)	*13.5*	*13.3*	*13.2*	*13.0*	*12.8*	*12.7*	*12.5*	*12.4*	*12.2*	*12.0*	*11.8*	*9.9*	*8.3*	*7.2*	*6.3*
Other specialty beds	Demand	33.8	34.2	34.5	34.9	35.3	35.6	35.9	36.3	36.6	37.0	37.4	41.2	45.5	48.6	51.0
	Capacity	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
	Surplus/(deficit)	*7.2*	*6.8*	*6.5*	*6.1*	*5.7*	*5.4*	*5.1*	*4.7*	*4.4*	*4.0*	*3.6*	*(0.2)*	*(4.5)*	*(7.6)*	*(10.0)*

Figure 5: Demand and Capacity Forecast 2016-2065 at +700 net inward migration

3.34. Whilst rehabilitation and reablement are shown as 23 beds, Samares Ward has 27 but 4 are not opened due to staffing constraints.

Use of 'Off-Island' services

3.35. Increased bed pressure brought about by changes in demand will also result in an increase in the use of off Island services as the hospital works to balance day-to-day activity.

3.36. In 2016 there were 1606 patients referred to the UK for investigation, consultation, or treatment. There were also 274 Jersey Emergency Transport Service Charter Flights (i.e. emergency transfers to the UK). The size of this, 'virtual capacity' i.e. in-patient beds, operating theatre sessions, workforce and some out-patient and ambulatory capacity not physically provided on-Island in the current and future General Hospital reflects a clinical choice where patient safety and clinical outcomes determine the number and types of patients who receive treatment off-Island.

3.37. Without a successful redesign of health and social care as set out in P.82/2012 including the provision of a Future Hospital, off-Island provision will also need to reflect operational responses to the increasing lack of capacity and, in time, capability to meet the acute healthcare needs of Islanders.

3.38. The numbers and relative proportion of Islanders needing care off-Island will grow, with a consequent disproportionate growth in the cost and clinical risk in providing this treatment in this way.

3.39. Alternative strategies will help in a modest way. For example, current General Hospital patients benefit from specialist skills provided by visiting Consultants.

3.40. This approach is only effective if the conditions of such patients allow them to be, 'batched' e.g. types of spinal surgery. It provides little comfort for Islanders requiring emergency or complex acute medical care.

3.41. The appointment of new surgeons since 2012 has led to the repatriation of significant numbers of patients who are able to undergo procedures on-Island that previously would have been provided off-Island.

3.42. This trend in repatriation, where safe and affordable to do so, forms a key plank of the Acute Service Strategy. This additional pressure on surgical beds is placing a premium on the need for a more efficient use of scheduled and unscheduled care ward beds.

The effect of 'Island conditions'

3.43. Jersey is experiencing challenges that are common within most developed health and social care systems. Demographic change, technological development and the need for ever greater levels of skill within its workforce are common features to be managed alongside service affordability.

3.44. Jersey's relative geographical isolation has for many years defined the Island's approach to this challenge, despite adopting conventional divisions between primary and secondary care Island conditions have a significant effect on how these are delivered.

3.45. There are opportunities to work with Guernsey that are already being taken up. However, the absence of alternative acute facilities on the Island or neighbouring health organisations to provide both resilience and capacity has resulted in more substantial 'on-Island' acute and emergency care capability than would be otherwise expected to support a similar population in larger European and UK health systems.

3.46. This is not surprising nor is it unusual. The same tendency is equally common in other developed island jurisdictions and can realistically be taken as the benchmark for modern island health provision.

3.47. However, acute services of this nature cannot be provided in isolation. Their functioning relies upon their ongoing integration with other supporting diagnostic and treatment capabilities and which collectively are recognised as a forming a 'General Hospital'.

3.48. This 'General Hospital' principle is equally important within the wider heath system in that to be effective, it must support the integrated operation of multi-agency teams from across health, social care, Primary Care, Voluntary and Community Sectors in supporting service users and carers.

3.49. The minimum scale and content of the hospital is therefore defined largely by clinical need, user expectation and the overall resilience requirements needed ensure safety and clinical viability. It will therefore undoubtedly need to:

- Deliver acute care 24 hours, 7 days a week;
- Provide emergency care for adults and children;
- Provide emergency and elective surgery capabilities;
- Provide maternity and obstetrics services; and
- Provide outpatients, diagnostics and clinical support services;

3.50. The 'General Hospital' standard of care has become the norm in Jersey and forms what is now the realistic minimum expectation of Islanders.

3.51. This is also reflected in the Island's Health and Social Care policies that note preservation and development of the General Hospital principle as being pivotal to meeting the needs of future generations.

3.52. 'Health and Social Services: A New Way forward (P.82/2012)' specifically recognises this and, alongside wider healthcare system reforms, includes a requirement for plans for a new hospital to be urgently brought forward.

3.53. The acute General Hospital sits within a much broader health system encompassing community services, Mental Health, GP led, and other Primary care services. These mirror those of other health economies but have subtle differences where some primary care is not free at the point of use.

3.54. As a result, the population's use of the hospital, as their first port of call is potentially greater than would be seen in for example, the UK and introduces a further layer of demand for General Hospital services.

Workforce

3.55. The Island context presents unique challenges for the Health and Social Services Department in terms of its ability to attract and retain sufficient numbers of skilled staff. The lack of availability of people with the appropriate skills at registered and professional levels within the indigenous population leads to a heavy reliance on off-Island recruitment from the UK and other locations.

3.56. Jersey has specific issues in this regard such as the cost of living that at one level can act as a barrier to attracting the skilled professionals required.

3.57. At support worker level, the Health and Social Services Department experiences high levels of competition from other sectors, and other health and social care employers on the Island. Off-Island recruitment of these grades is also subject to greater restriction and, taken alongside other difficulties in reskilling, moving people from the support worker level to registered practitioner level is challenging.

3.58. The age profile of the Health and Social Services Department workforce is an area of concern as there are large proportions of the workforce eligible to take retirement in the medium term and early succession planning or role redefinition is necessary to manage this effectively.

3.59. Specific hospital functions continue to experience high vacancy rates due to general supply shortages. In these cases, solutions will likely lie in local training, re-skilling or role changes within the existing workforce to attract new workers and retain existing workers. The workforce impacts of delivering a new hospital have been estimated and are set out in the Finance Case.

3.60. The Health and Social Services Department has acknowledged that changes to the structure and skills set of its workforce will be required in future to meet these challenges and the Future Hospital delivered alongside other transformational and out of hospital changes noted within P.82/2012 will provide an important opportunity to facilitate this change.

3.61. Preparation of a Strategic Level Workforce Plan has already commenced and a specialist workforce advisor has been engaged to take forward the detailed planning required. This will be completed alongside the OBC approvals process with the confirmed Workforce Plan informing the Full Business Case (FBC). The Workforce Strategy is provided in Appendix 8.

The Existing Estate

3.62. Jersey General Hospital is a significant facility of some 38,863m2 located in the heart of St Helier. It is located on a heavily developed town centre site of some 1.85Ha with blocks extending up to eight storeys high.

3.63. As has been the case within many other UK hospitals, it has inadvertently suffered over time from piecemeal redevelopment and refurbishment that now hampers its function and operational effectiveness. It also includes listed accommodation that further limits its clinical effectiveness and remodelling opportunity.

3.64. The majority of the current clinical facilities date from the 1960's, 70's and 80's and as a result exhibit serious levels of dilapidation. Significant elements of building structure and engineering services are now well beyond their useful economic life and need urgent replacement.

3.65. Concerned over the extent of dilapidation and functional obsolescence, and to ensure that it adopted a responsible approach to premises management the hospital commissioned a specialist report that considered the extent of deficiency against current UK NHS premises standards.

3.66. It considered the use, condition and compliance of the facilities against the following six key aspects:

Survey Facet 1-3	Approach
Facet 1 – Physical Condition	Reviewing building fabric and engineering services;
Facet 2 - Statutory Compliance Audit	Reviewing Fire, health and safety and other legislation;
Facet 3 - Space Utilisation Audit	Examining the intensity of use of the hospitals spaces and functional areas;

Survey Facet 4-6	Approach
Facet 4 - Functional Suitability Review	Reviewing the internal space relationships, availability, and appropriateness of support facilities and their location.
Facet 5 - Quality Audit	Considering spatial amenity, comfort and design appropriateness and quality;
Facet 6 - Environmental Management review	Considering the overall efficiency of the property, with energy being a critical factor.

Figure 6: Six-Facet Survey. Areas of review

3.67. Completed in 2015 the summary findings of this six-facet survey are set out below with the full survey outcome is included at Appendix 6. The survey confirms the following:

- Much of the hospitals external fabric and engineering services are at or have exceeded their design life;
- Some aspects of statutory deficiency are difficult to address due the physical construction of the buildings or where only reconstruction would address the issues;
- Many areas of the hospital exhibit poor functional suitability and are classified as below that which would be considered as acceptable against UK NHS standards (D);
- Due to their age, many of the operational spaces do not meet current standards restricting both the effectiveness and safety and have poor positional relationships with other functions within the hospital; and
- Some building areas are of poor quality in terms of their effectiveness as working environments and as spaces for modern healthcare.

Building Block	Year of Build	Physical Condition	Functional Suitability	Space	Quality	Fire, Health and Safety Requirements		Energy
						Overall Fire Assessment	Overall Health and Safety Assessment	
Blk A Parade Building	1987	C	D	F	C	C	C	C
Blk B 1960 Wing Building	1960	C	C	F	C	C	C	C
Blk C Granite Building & Gatehouse	1860	C	D	O	C	C	B	C
Blk D Peter Crill House Building	1950	C	B	F	C	B(C)	B(C)	C
Blk E Gwyneth Huelin Wing Building	1979	C	C	F	C	C	C	C
Blk F Pathology/Pharmacy/ Kitchen	1983	C	D	O	D	C	C	C
Blk G Engineering Building	1980	C	C	O	D	C	B(C)	D

Figure 7: Extract from the 2015 Six Facet Survey

3.68. In response to the survey's findings, the hospital has adopted the following two-stage strategy to managing its risk.

- To commit capital to addressing those issues of greatest concern where this is practical to do so; and
- In anticipation of a decision to develop a new hospital within P.82/2012, to actively monitor the status of the building fabric and key infrastructure and to make selective and prioritised capital investment only when evidence suggests an imminent failure that would present an unacceptable safety or operational risk;

3.69. The poor condition of the existing hospital is also of broader concern as:

- Its condition and configuration is not in keeping with modern healthcare and is unlikely to be consistent with the contemporary expectations of the Island's population;
- As a strategic asset, the hospital's poor condition and potentially more limited capability due to spatial constraints is likely to form a disincentive or barrier to the Island's efforts to recruit key individuals to work and live on the Island; and
- Adopting a 'watch and wait' estates strategy can only be a very time limited approach as the likelihood of catastrophic failure or major statutory breech will only increase.

Policy Overview and Investment Objectives

3.70. The Green Paper – "Caring for Each Other, Caring for Ourselves (May 2011)" developed through broad consultation with Island stakeholders clearly recorded how future health and social care should be based on the following strategic principles:

- **'Safe'** - While many health interventions involve inherent levels of risk, that patients and service users should not be exposed to an undue level of risk;
- **'Sustainable'** - that services should be organised in a way that is not vulnerable to change in the short term; and
- '**Affordable'** - that the model of services represents value for money relative to other potential models.

3.71. Reflecting on these 'principles' P.82/2012 clearly set the direction for future health and social care provision, these were confirmed within the SOC and are still fully applicable today setting principles that are embedded within the project:

- To deliver a new hospital, built to modern standards, within the next 10 years, the hospital will continue to be integral to the health and social care system, and will be supported by that system. The workforce will be skilled, motivated, modernised and supported by IT and a fit-for-purpose estate - with services developed in the right priority order to meet the needs of Islanders;
- Integrated working with non-hospital organisations and settings will be supported by clinical leadership, particularly within community settings; for example, by developing nurse-led services, consultant-led outreach services and, potentially, GP-led hospital based services where there is clinical evidence to support these models;
- Demand for unplanned care will be more appropriate, through a combination of service and behavioural changes, facilitated by funding for GP appointments for key patient groups, triage and streaming appropriate, minor attendances to a co-located GP service;
- Core in-patient services will be prioritised and sustained, in order to support emergency provision. As such, Islanders will continue to be cared for on-Island where this is clinically appropriate, and the range of services will expand where this is clinically viable;
- Clinical support services will remain central to the delivery of high quality, patient-centred healthcare. At least 70% of clinical decisions are made on the basis of test results, and the hospital of the future will place an increasing emphasis on its entire range of diagnostic services to support rapid diagnosis and assessment, treatment and longer-term care management;
- Hospital resources will be used effectively and efficiently, providing excellent, integrated care; length of stay will continue to reduce, with discharge planning improving and an increase in alternatives to hospital care available to relieve the pressure on beds; and

- Income for the hospital will be optimised to ensure that the right balance of publicly funded and privately funded care continues to be delivered.

3.72. The Strategic Outline Case (SOC) was received by the States in May 2013 and was followed by receipt of a further Addendum in October 2013.

3.73. Since that time, other policy developments have taken place. However, these have largely been associated with the continuing implementation of P.82/2012 being the common basis of the current Future Hospital Project.

3.74. To ensure that the project continued to reflect the States strategic requirements, a review of was completed in June 2017. This considered the policy position at SOC and looked to establish any directional change that needed to be reflected in the basis for the Future Hospital Project.

3.75. The documents below were reviewed. The full policy review is included in Appendix 5:

Policy / Publication reviewed
Imagine Jersey 2035 (2008)
Island Plan 2011
St Helier Development and Regeneration Strategy (2008)
Strategic Plan 2015-2018 (2015)
P.82/2012 Health and Social Services: A New Way Forward and its amendment
The States of Jersey Hospital Pre-Feasibility Spatial Assessment Brief (2013)
Acute Service Strategy 2015-2024 (2016)
Health and Social Services Department Business Plan (2017)
A Mental Health Strategy for Jersey 2016-2020 (2015)
Out of Hospital and Long-Term Conditions OBC 2016
The Digital Framework Policy (2017)
A Sustainable Primary Care Strategy for Jersey 2015-16 (2016)
Jersey Carer's Strategy (2017)
HSSD Informatics Strategy 2013-2018 (2013)
Disability Strategy for Jersey (2017)
Future Jersey 2017-2037 (2017)

Figure 8: List of Policies reviewed

3.76. The review confirmed that:

- Improving health and wellbeing within the Island's population is a common priority in several policy areas including The Jersey Strategic Plan 2015-2018 (adopted 30th April 2015) and the Island Plan 2011. It is also an implicit point of focus within the Health and Social Services Department Business Plan 2017;
- Delivering and supporting economic improvement is a common feature in most policy areas and reciprocated in broader terms by the commitments to delivering Value for Money within the Health and Social Services Department Business Plan 2017; and
- The acknowledgment of service integration as a vehicle for improvement was noted in the Acute Service Strategy 2015-2024, the Health and Social Services Department Business Plan 2017 and more broadly in the Island Plan;

3.77. The review concluded that specific elements included within the current strategic principles should be drawn out to given them greater emphasis within the overall project and acknowledge the wider potential impact that building a new hospital would have within the wider healthcare system and on the Island generally.

3.78. The project's current three Strategic Principles of '**Safe**', '**Sustainable**', and '**Affordable**' were therefore extended to include the following:

- **Integrated** – to recognise that high levels of service and workforce integration both within the hospital and across the health and social care system would be needed in future to meet patients' expectations and to maintain operational effectiveness;
- **Person Centred** – reflecting the need to adopt a more 'patient care pathway' approach to planning hospital and out of hospital services, improving patient experience and service effectiveness; and
- **Socio-economic** – recognising that as a major Island development the project should have a net positive socio-economic impact on the island.

3.79. These additional Strategic Principles are complementary to the 'vision' framed above by the Green Paper principles and, the direction set by P.82/2012.

3.80. As such, the project's Investment Objectives established within the SOC remain valid and continue to inform the development of the project.

Objective 1:	Create a hospital which is capable of sustaining future demand and ensures ease of access for the Island's population
Objective 2:	Optimise the estate to be as efficient and effective as possible
Objective 3:	Improve the quality and effectiveness of the hospital in providing care to the population, particularly where current services require complete replacement
Objective 4:	Support the workforce to be able to perform to the best of their abilities

Health system transformation

3.81. P.82/2012 “A New Way Forwards for Health and Social Care” has resulted an extensive network of new and enhanced services in the community (see ‘Sun Ray’ Diagram Figure 9). As part of this, a broader range of organisations are delivering significant and increasing elements of service, and many stakeholders being involved in developing strategies (e.g. for Mental Health, Primary Care and ‘Out of Hospital’ services). Appendix 34 sets out the details of the Acute Service Strategy Implementation Group Terms of Reference.

3.82. P.82/2012 was reviewed by a Ministerial Oversight Group Expert Panel, comprised Sir David Henshaw (Chair of Alder Hey Hospital and previous Local Authority Chief Executive), Professor Patrick Geoghegan OBE (Chief Executive of South Essex Partnership Trust), Andrew Williamson CBE (Chair of Cornwall and Isles of Scilly Primary Care Trust and previous Director of Social Services, Dr Clare Gerarda, Lady Wessely MBE (previous President of the Royal College of General Practitioners) and John Appleby (Chief Economist at The Kings Fund). The Panel endorsed P.82/2012 and recommended that:

- The provision of a new hospital is pursued as quickly as possible and the implications of the two-site approach be assessed in terms of risk and mitigations identified and applied;
- The States continue with a new model of health and social care. The original analysis was robust and the consultation taken since has confirmed that there is widespread support for pursuing this new model; and
- The management capacity driving system reform should be considered and supplemented where necessary by encouraging greater involvement from clinicians, interim or external support.

3.83. The focus on integration and system reform be continued and deepened using GPs as a mainstay in the system;

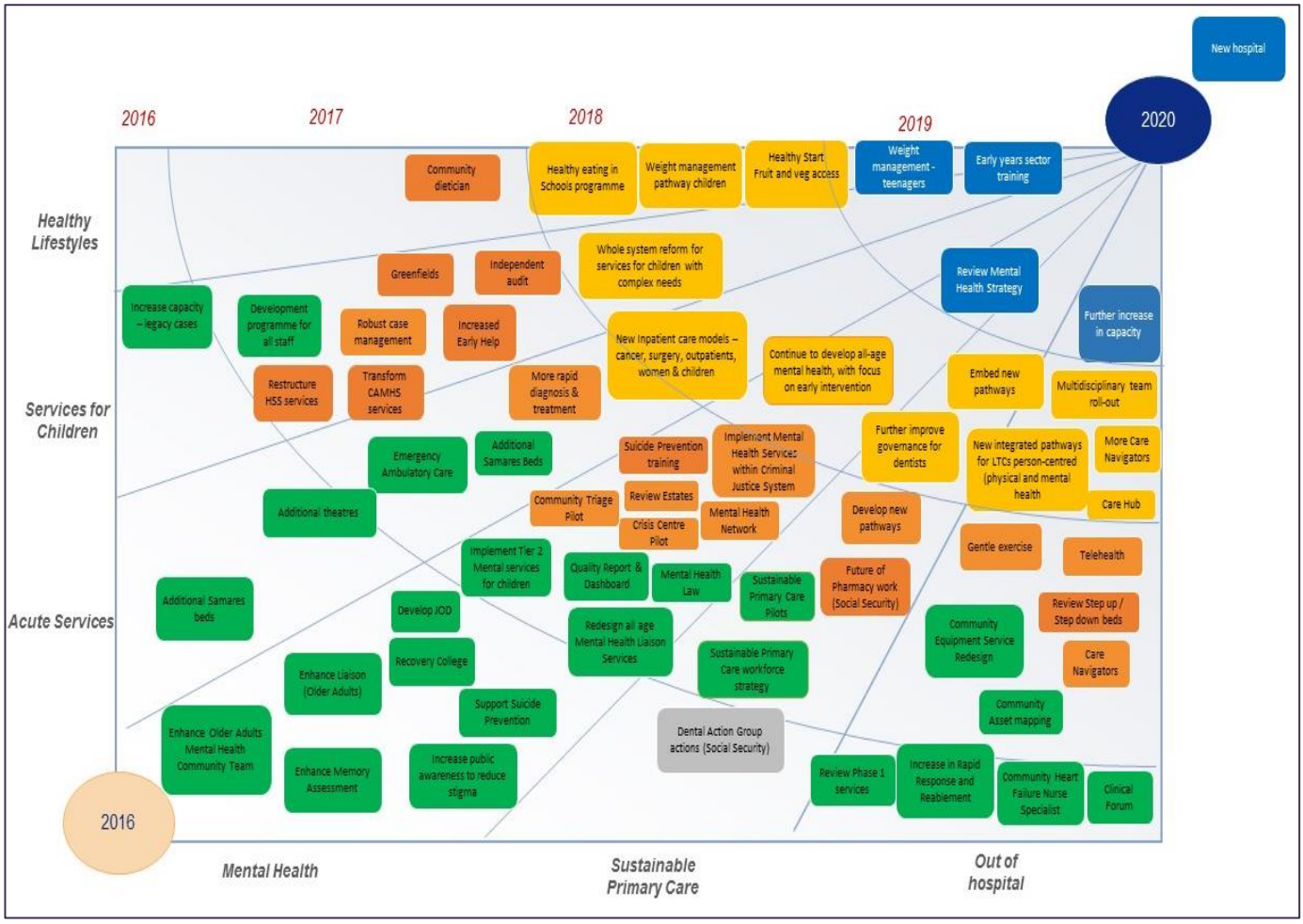

Figure 9: Sun Ray Diagram

3.84. As at 30 June 2017, the services required within Phase 1 have been delivered being:

- 23 services being the majority of the phase 1 services are now live; and
- 1 service will be considered later, as part of the development of Out of Hospital services (Expert Patients).

3.85. These have influenced acute services by, for example:

- Providing ‘shared care’ in a GP practice care (rather than in hospital) for women in the antenatal period, during birth and for 10-14 days following birth;
- Proactive case finding and responding quickly to request for alcohol liaison in the hospital, particularly from the Emergency Department and Emergency Admission Unit, to ensure an individual’s needs are met and they are signposted or referred to the appropriate non-hospital service;

- Supporting older adults with complex and high risk mental health needs including depression and psychotic illness, and people with dementia, to remain in their own homes and to manage their condition more effectively in order to avoid hospital admission;
- Providing hospital staff with training, support and guidance regarding any mental health issue for over 65's. This includes advice on the diagnosis of people with suspected organic and functional mental health problems, and on managing behaviours that challenge in order to promote early discharge;
- Supporting GPs to maintain older adults with mild to moderate functional and organic mental health needs in their own homes;
- Providing integrated long-term conditions care in the community, particularly for individuals with respiratory and cardiac issues;
- Investing in the Oxygen Therapy and Diagnostic Respiratory Service;
- Developing Rapid Access clinics in the hospital for Heart Failure, Atrial Fibrillation and Chest pain;
- Delivering Pulmonary Rehabilitation programmes, to improve lung function and reduce the risk of exacerbation and an ED attendance and/or emergency admission;
- Rapid response to avoid a hospital admission or facilitate discharge;
- Reablement, to provide individuals with skills to remain independent at home;
- Step up and Step-down care, to reduce hospital length of stay or avoid a hospital admission; and
- Community end of life care, to offer choice and reduce the number of Islanders who die in hospital.

3.86. Phase 2 anticipates the introduction of a further range of services with the following progress having already been made:

- 4 services have been implemented being - Recovery College, Suicide Prevention Training, Mental Health Quality Report, Clinical Forum;
- 5 are in the final stages of detailed planning being - Mental Health Network, Crisis Centre, Community Triage, Criminal Justice Pathway and Ambulatory Emergency Care model, and
- 5 are ongoing being -Increasing Mental Health awareness, Children's services, and Samares.

3.87. In addition to providing improved services for Islanders these improvements will also ease pressure on the hospital by:

- Providing the right care, at the right time, delivered by the right person within multidisciplinary team(s);

- Improving access via a single entry into to the right level of care;
- Supporting our most vulnerable in the Community, targeting the hard to reach;
- Building resilience by working with individuals, so that they share responsibility for their care;
- Treating people with respect and dignity, always being open and honest;
- Providing choice, and working with individuals to develop their care plan;
- Supporting individuals to maintain their independence;
- Focusing on achieving agreed outcomes, for patients, the service and the whole system;
- Delivering person-centred care through a single holistic assessment;
- Proactively identifying needs, diagnosing early and treating appropriately;
- Responding promptly in a crisis;
- Supporting families and carers, improving their experience and quality of life;
- Increasing confidence and control – for both patients / service users and carers, through effective self-management programmes;
- Working closely with Voluntary and Community Sector organisations;
- Becoming an advocate for the service user / carer by acting in their best interest; and
- Working on prevention of ill health, focusing on health, wellbeing, and healthy lifestyle choice.

3.88. A number of work programmes are being progressed in 2017-19 in order to improve patient flow within the health and social care system; this will have a significant impact on the hospital in terms of both integrated pathways and transfers of care and in terms of acute capacity. Work which interacts with the future Hospital includes:

- Understanding the whole population's health using needs assessment (Joint Strategic Needs Assessment) to support predictive modelling for future disease and condition management;
- Avoiding hospital admission, and transferring care appropriately to primary and Community settings;
- Developing a single point of access through a Care Hub, supported by Care Navigators who will support individuals to identify their needs and access care;
- Multi-disciplinary teams to deliver integrated care, aligned to groups or clusters or GP practices supported by the wider primary and Community services;
- A Clinical Forum, to support wider engagement for pathway development;
- Escalation policy;
- Enabling transfers policy;
- Estimated discharge date on admission to hospital for every patient;

- Bed capacity and community capacity dashboard;
- Multi-disciplinary teams to support the needs of complex patients;
- Discharge standards that include all day discharging;
- Social care, therapy and nursing assessments scheduled after admission to prevent delays;
- Pharmacy capacity to respond to discharge packages (72 hour medicine management);
- Risk assessments that prevent unnecessary hosting of patients and encourage mobility;
- Staff who are appropriately trained in undertaking holistic assessments;
- Robust Long Term Conditions nursing assessment undertaken by suitably trained nurses;
- Risk assessments that allow patients to be 'discharged to assess';
- Delayed transfers of care (DTOC) recorded from day 1 after medically declared fit;
- Review of community equipment;
- Review of hospital social work capacity;
- Referral processes and standards; and
- Review of community consumables e.g. dressings.

3.89. In order to provide a sustainable model of care in Jersey, the Island will need to undergo significant transformational change and reform. Care professionals, politicians and the public alike must support this. This will only be possible by working in true partnership with services users to develop the future models of care that they both want and need, by understanding and shaping public expectation. It will also require professionals to respond differently, embrace new ways of working to reduce the gap between hospital and Community service. This will be achieved through greater integration with the voluntary sector and local communities, and a whole Island approach to the ownership of care.

Project Requirement and Constraints

3.90. The Strategic Outline Case (SOC) confirmed the refurbishment of the existing hospital in its current location supported by some new-build extension as the preferred way forward.

3.91. However, subsequent site appraisals demonstrated the weakness of this Option when compared with other new build solutions and in terms of its delivery within an active General Hospital.

3.92. The detailed site appraisal process concluded in September 2016 and concluded that, in the context of site development risk and impact upon the Island, the most appropriate location for the hospital was on balance its current location.

3.93. The Council of Ministers subsequently considered the Site Appraisal report in September 2016 and the current hospital site confirmed as the preferred location should construction of a new hospital be concluded as the OBC Preferred Option.

3.94. Following their review, Council of Ministers also confirmed that any such development must meet specific project expectations and must be delivered within a series of key Project Constraints as set out below.

Constraints	
1	That the safe operation of the hospital will be maintained throughout
2	That the hospital will be located on the Jersey General Hospital site
3	That additional properties on Kensington Place will be acquired
4	That the hospital will be operational within 7-8 years
5	That the hospital will be delivered at a comparable cost to new build site options
6	That some flexibility in Planning Policy will be tested
7	Some operational compromise will be accepted to support the spatial constraints
8	A high quality new build hospital will be delivered
9	That there will be support for the release of adequate on-site area
10	That the hospital will be delivered in one main construction phase

Figure 10: Confirmed project approval requirements and constraints

Contextual Conclusions

3.95. Current States policy and P.82/2012 in particular, noted the need for system-wide reform in the way that the Island approaches the delivery of health and social care in future. This position remains robust but in acute hospital terms must be considered in the context of the pressures set out above being:

- That the demand driven by the aging demographic population is forecast to exceed hospital bed capacity by 2018. In addition, other services will be under similar pressures. The physical size and spatial planning limitations of the current hospital limit the extent to which this can be managed;
- That there is a need and an opportunity to ease pressure by managing long term conditions in the over 65 age group differently;
- That the condition of the estate is such that the risk posed by poor condition, dilapidation and statutory default will be high over this period and may not in any event be tolerable;
- That both of the above are barriers to bringing about health and social care transformation either due to the facilities inability to accommodate the service changes needed or, through its contribution as an impediment to staff recruitment;

- That continuing in the current manner over a long time-period increases the risk of growing attrition amongst registered and professional staff in favour of working in more appropriate facilities elsewhere;
- A further increase in population will exacerbate the above; and
- Some opportunity to address some of the demand pressure through improved productivity and other forms of intervention are possible but are limited by the physical capability of the current hospital building.

Part B – The Case for Change

Inability to function safely

3.96. With clinical accommodation dating from as early as the 1960's, the current hospital comprises a disparate collection of buildings developed over a long time to different health policies, operational practices and construction standards.

3.97. As a result, facilities are in poor condition with the worst areas of building and engineering infrastructure presenting daily operational difficulty.

3.98. Some aspects of the hospital are in such poor condition that the risk of catastrophic failure is high. In these cases, the scale of such a failure would severely limit the hospitals ability to manage its way through any emerging crisis resulting in a significant risk of building closure and health service interruption.

3.99. A detailed 'six-facet' review undertaken by specialist consultants in 2015, confirmed that, despite significant capital investment, the decline had continued now to a point where full refurbishment or complete infrastructure would now be required.

3.100. Faced with this, the hospitals estates team identified the major areas of concern and implemented a tactical backlog investment plan to address the most serious and technically correctable issues. However, this recognised and relied upon the intention to develop a new hospital and therefore targeted investment to key areas of the poorest condition or of imminent failure only whilst implementing increased monitoring of the hospitals overall condition. Consequently, significant dilapidation remains.

3.101. The figure below summarises some aspects emerging from the six-facet report and confirms the extent of corrective work needed and which could not be delivered in an active General Hospital.

Estate Element	Condition
Fire Code Compliance	There is currently no means of horizontal evacuation for patients possible above the 3rd Floor level of the Parade Block. Investment in sprinkler systems, fire escape lifts and improved fire safety compartmentalisation would severely reduce the functionality of this block given that it was not initially designed to accommodate them. Correcting fire safety would therefore result in a net space reduction. Additional fire compartmentation works have been commissioned in ward locations that do not impair on the space or ward activity.

Estate Element	Condition
Fire Alarm Systems	The Fire Alarm and Detection System was obsolete and failing. A critical system this has now been replaced during 2016/17. Requiring full engagement of designers, users, contractors and Estates over a 2-year period, with fire detection coverage being maintained throughout, requiring excessive management resources and communication at all times.
Water System Compliance	The aged design of the current hot and cold-water systems provides a risk of contamination by Legionella and Pseudomonas aeruginosa. Insufficient water flow through pipework due to change of use/models of care within wards/departments, and temperature controlled water faucets mean that Legionella avoidance will become increasingly challenging. Intensive management controls and continuous investment in remedial works and ongoing system disinfection is completed to reduce risk. However, evidence in other hospitals of fatalities caused by Legionella indicates that system replacement is a high priority but again, could not be achieved without significant disruption to the operational hospital.
Electrical systems and emergency power	Significant elements of the hospitals electrical distribution system are dilapidated and fail to meet current hospital standards. Emergency generators date from the 1960's and switchgear, transformers and electrical infrastructure installed in the 1970's are well beyond their 30-year life expectancy. New generators have been installed within the existing grounds of the General Hospital connected to the existing electrical infrastructure. The electrical Infrastructure has been adapted to suit however it not possible without extensive electrical outages and decants to make it compliant.
Medical Gas Supply	The medical gases infrastructure, plant and manifold rooms do not all meet current NHS Health Technical (HTM 02-01) Standards. The provision of medical gases to some departments is also below current minimum standards with the Maternity Unit having no piped Entonox and the Renal Unit having no piped oxygen or vacuum. Site wide infrastructure is weak with missing elements plant and pipework needed to meet the level of supply security expected in a modern hospital. The use of cylinder-based supplies is therefore high but poor site configuration and the lack of facilities results in inappropriate storage and poor manual handling practices.

Estate Element	Condition
Mains Drainage	The current foul drainage systems vary in age, material and design. In many cases they were not designed to meet their current loading and, combined with their poor internal condition, are leading to increased blockages and overflow within the hospital. Previous Incidents have required partial ward/department shut downs, requiring deep cleaning and decontamination to IP&C standards and/or the contaminated equipment/furnishings and flooring replacement.
Air Handling and Ventilation	Specialist healthcare air handling and extract units providing 24-hour conditioned air for the hospital are corroded, failing mechanically, and obsolete. Failure of systems that filter air to Ultra clean standards or provide positive pressures will result in ward and department closure.
Energy Centre	The current Energy Centre requires major works to replace new boilers, chimney, primary heating system ancillary plant items, Building Management System and pipework hangers. As the primary heating and hot water source for the hospital, this centre presents a significant single point of failure risk.
Asbestos	There is significant asbestos within the current hospital following its historical use to thermally insulate steam, and other hot water pipework. Its presence makes building maintenance and refurbishment extremely difficult with its specialist removal having to be managed during any building change.

Figure 11: Six Facet Building Condition Survey

Population change

3.102. An increase in population invariably results in demand growth within the health and social care system and is often felt most immediately within the acute Hospital.

3.103. Population growth has continued as forecast within the SOC. However, the rate of increase in recent years is greater than expected.

3.104. A change in age distribution is the most significant component of this growth. The number of Islanders aged over 65 and, more prominently, those aged over 85 being on average the heaviest users of Island healthcare, are set to grow more quickly than other age groups. (See Strategic context population data)

3.105. Demand modelling based on the above growth forecast indicates that demand for in-patient beds within the current hospital will outstrip capacity by 2018.

		Forecast														
Bed type	**Type**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	Demand	165.2	168.7	172.4	176.0	179.8	183.0	186.3	190.5	195.3	199.5	205.5	262.2	316.1	346.3	367.1
	Capacity	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0
	Surplus/(deficit)	*(17.2)*	*(20.7)*	*(24.4)*	*(28.0)*	*(31.8)*	*(35.0)*	*(38.3)*	*(42.5)*	*(47.3)*	*(51.5)*	*(57.5)*	*(114.2)*	*(168.1)*	*(198.3)*	*(219.1)*
Rehab/reablement*	Capacity	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
	Variance	***5.8***	***2.3***	*(1.4)*	*(5.0)*	*(8.8)*	*(12.0)*	*(15.3)*	*(19.5)*	*(24.3)*	*(28.5)*	*(34.5)*	*(91.2)*	*(145.1)*	*(175.3)*	*(196.1)*
Private beds	Demand	10.5	10.7	10.8	11.0	11.2	11.3	11.5	11.6	11.8	12.0	12.2	14.1	15.7	16.8	17.7
	Capacity	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	Surplus/(deficit)	*13.5*	*13.3*	*13.2*	*13.0*	*12.8*	*12.7*	*12.5*	*12.4*	*12.2*	*12.0*	*11.8*	*9.9*	*8.3*	*7.2*	*6.3*
Other specialty beds	Demand	33.8	34.2	34.5	34.9	35.3	35.6	35.9	36.3	36.6	37.0	37.4	41.2	45.5	48.6	51.0
	Capacity	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
	Surplus/(deficit)	*7.2*	*6.8*	*6.5*	*6.1*	*5.7*	*5.4*	*5.1*	*4.7*	*4.4*	*4.0*	*3.6*	*(0.2)*	*(4.5)*	*(7.6)*	*(10.0)*

Figure 12: Demand and Capacity Forecast 2016-2065 at +700 net inward migration

3.106. Recognising this, and as part of the OBC Options design process, the hospital completed a detailed benchmarking comparison of its current performance against selected mainland and Island peer hospitals adjudged to be comparable to its current scale and capacity. These were:

Peer Group Hospitals			
1	Weston Area Health NHS Trust	**8**	Tameside Hospital NHS Foundation Trust
2	East Cheshire NHS Trust	**9**	South Warwickshire NHS Foundation Trust
3	South Tyneside NHS Foundation Trust	**10**	West Suffolk Hospitals NHS Trust
4	Yeovil District Hospital NHS Foundation Trust	**11**	Southport And Ormskirk Hospital NHS Trust
5	Hereford Hospitals NHS Trust	**12**	Noble Hospital, Isle of Man
6	Harrogate And District NHS Foundation Trust	**13**	Queen Elizabeth Hospital, Guernsey
7	Northern Devon Healthcare NHS Trust	**14**	Queen Mary Hospital, Isle of Wight

Figure 13: Peer Benchmark hospitals

3.107. From this, 10 specialties, which in total constitute approximately 80% of Jersey General Hospital activity (and associated budget) were selected for detailed benchmarking.

3.108. The current productivity of each of these specialties was assessed relative to the benchmark organisation with respect to:

- Operating theatres usage;
- In-patient bed usage; and
- Outpatient activity.

3.109. Clinical teams were actively engaged in the validation of benchmarked data so that the process could benefit from their input and, subject to recognising local Island factors, to use the data to identify opportunities to improve productivity.

3.110. Conclusions from this benchmarking work formed the basis of the demand and capacity modelling informing:

- The spatial requirements of the Future Hospital - being a key driver of the project capital requirement;
- The workforce requirement to meet new ways of working and the demand for future services – being a key driver of the Hospitals revenue requirement; and
- To begin to dissolve further the organisational, cultural, and sometimes physical boundaries between hospital and community services.

3.111. These aspects informed the brief for the development of the proposed OBC Options with the extent to which each of these could support agreed changes termed as 'Interventions' being measured through the Economic Appraisal process.

3.112. In adopting this approach, it is immediately clear that Options based on retaining the existing hospital provide little scope for adopting the 'Interventions' needed to improve hospital productivity or to adopt the operational change needed to support the P.82/2012 transformation expectations.

Poor functional Suitability and space utilisation

3.113. The Strategic Outline Case (SOC) approved by the States Assembly in 2013 summarised how it was inappropriate to continue to provide clinical services in the existing hospital given that it fails to meet current building and operational standards nor can it safely and effectively cater for the projected clinical demand.

3.114. The following areas of concern were also highlighted and are even more prominent today leading to increasing levels of operational risk, actual in-service failure and elevated operational cost:

- That the existing provision of functional types, sizes and relationships of rooms do not meet current UK healthcare design guidance, space standards and current best working practices;
- That the existing provision of the numbers of beds available and the provision of single bedroom accommodation does not meet current emergency demand, nor projected future daily demands whilst operating at recognised best practice occupancy rates;

- That the constraints imposed by a hospital comprising a disparate collection of buildings and associated building services' infrastructure of varying vintages from the 1860's to the present day, lead to inefficiencies in linking the various clinical services throughout the hospital and restrict the opportunities for adapting the existing facilities to meet current and future demands; and
- That the alteration and refurbishment of the existing buildings will never, as a consequence of the inherent condition and compromises in space and clinical adjacencies, allow the same level of benefits to be secured as would be possible in the development of a replacement hospital.

3.115. The specialist consultant review of building condition procured in 2015 confirmed that:

- The hospital is cramped in many areas and lacking spaces of a standard expected in modern healthcare facilities;
- that spatial improvement was impractical due to building structure and arrangement and that the spatial expansion needed could not be achieved within the existing hospitals arrangement; and
- That the relationship of some rooms and functions to each other was poor and again could not be corrected within the current hospital form.

3.116. Despite significant elements of urgent capital investment, the condition of the hospital has continued to deteriorate since its poor state was noted within the Strategic Outline Case in 2013.

3.117. Alongside this, the hospital has had to contend with increasing activity driven by population change and a general increase in the expectations of Islanders. As a result, the pressure on the hospital has never been higher with aspects of poor condition and spatial organisation hampering performance.

3.118. The following headline issues identified within the SOC remain of concern:

- Inefficient and aging design – poor clinical adjacencies;
- Poor space standards – compromising effective care delivery;
- Lack of flexibility;
- Poor separation of clinical and non-clinical flows;
- Poor gender separation;
- Lack of privacy and dignity;
- Poor supporting mechanical and engineering infrastructure;

- Poor fire compartmentalisation to allow progressive horizontal evacuation; and
- Escalating maintenance costs, as mechanical and electrical plant reaches the end of its useful life.

3.119. These spatial dilapidation difficulties cannot be addressed through piecemeal replacement of building elements and a complete redesign of the hospital will be required to meet the current future acute clinical needs of the population.

3.120. In the absence of this, pressure will continue to grow and the hospital's overall contribution to the P.82/2012 transformational expectations will be hindered.

Supporting the wider health transformation process

3.121. In recognising the need for change, P.82/2012 defined a clear direction for the Island's future Health and Social Services. Based on transformation rather than modest adjustment, the approach looks to fundamentally reform health and social care provision in ways that not only meets future need but also does so in ways that maximise choice and meets the expectations of a prosperous, modern Island society.

3.122. P.82/2012 is broadly based requiring system-wide change. Despite being a cornerstone in this strategy, the hospital must also be fully integrated within other transformational initiatives such that it facilitates their delivery and contributes to the overall effectiveness of the health and social care system.

3.123. The current hospital is not a good enabler of change, lacking the infrastructure, space, and utility to allow staff to adopt new ways of working or to take up the practices needed to support out of hospital changes.

3.124. Consequently, the current hospital often inadvertently inhibits change, not through a lack of desire or effort amongst those involved but through inflexible and inadequate accommodation restricting the extent to which care pathway changes and other performance improvements can be made.

3.125. The Acute Service Strategy anticipates changes in care delivery in three key areas:

- Attendance avoidance;
- Admission prevention; and
- Expedited discharge.

The services and levels of care available out of hospital are critical to delivering these changes.

3.126. The Out of Hospital system plans to support Islanders by:

- Providing the right care, at the right time, delivered by the right person within multidisciplinary team(s);
- Improving access via a single entry into to the right level of care;
- Supporting the most vulnerable in the Community, targeting those that are hard to reach;
- Building resilience by working with individuals, so that they share responsibility for their care;
- Treating people with respect and dignity, always being open and honest;
- Providing choice, and working with individuals to develop their care plan;
- Supporting individuals to maintain their independence;
- Focusing on achieving agreed outcomes, for patients, the service and the whole system;
- Delivering person-centred care through a single holistic assessment;
- Proactively identifying needs, diagnosing early and treating appropriately;
- Responding promptly in a crisis;
- Supporting families and carers, improving their experience and quality of life;
- Increasing confidence and control – for both patients / service users and carers, through effective self-management programmes;
- Working closely with Voluntary and Community Sector organisations;
- Becoming an advocate for the service user / carer by acting in their best interest; and
- Working on prevention of ill health, focusing on health, wellbeing, and healthy lifestyle choice.

3.127. A number of work programmes are already underway to care for patients in the most appropriate setting for their need and to improve flows around the health and social care system. This will have a significant benefit generally but will influence specifically on the hospital both in terms of the seamless integrated pathways between care providers and in terms of releasing acute capacity in the hospital. Some of this work includes:

- **Hospital Attendance Avoidance:**
  - Developing a single point of care hub to appropriately access services for patients;
  - Palliative care expansion;
  - Step up service;

  - Developing ambulance practitioners;
  - Community pharmacy pilots; and
  - Specialist outreach nurses.
- **Hospital Admission Prevention:**
  - Rapid response team;
  - Step down service;
  - Ambulatory Emergency Care; and
  - Rapid diagnostics.
- **Expedited Discharge:**
  - Nurse led discharge;
  - 'red day / green day' ward model;
  - Rehabilitation and reablement service;
  - Daily ward rounds;
  - Day of surgery and 23-hour surgery models;
  - Multi-disciplinary discharge programme; and
  - Enhanced in-patient therapist pilot.

3.128. These transformational changes will require significant support from care professionals, to respond differently, embrace new ways of working, and to further reduce the cultural and sometimes physical boundaries between hospital and Community service. This will not be fully possible within the current hospital due to its physical, functional, and spatial constraints.

Benefits Realisation and Interventions

3.129. The Future Hospital will lead to a number of benefits typically seen in any new general hospital of broadly comparable design and content. These are set out in the Generic Benefits Realisation Table in Appendix 32 and illustrate the broadly-based improvement possible through new facilities and the enhanced working practices that they can support

3.130. The Future Hospital size has been subjected to more detailed demand and capacity modelling. The benefits, considered in this OBC as 'Interventions', inform both the capacity needed in the Future Hospital (in-patient beds, operating theatres and out-patient clinics) and the programme of change needed to realise these benefits. These are set out in the Modelled Benefits Realisation Table also included in Appendix 32.

Case for Change Conclusions

3.131. Work completed to prepare the Strategic Outline Case (SOC), subsequent Site Location Appraisals and this OBC have provided for a well-informed understanding of the socio-economic and physical conditions to be addressed by the Future Hospital Project on the existing General Hospital site.

3.132. As a result, and notwithstanding the hospitals wider contribution to P.82/2012 transformation, the following clear conclusions can be drawn as to the hospital's future options:

(A) - In-patient bed capacity within the hospital:

- The Strategic Outline Case (SOC), accepted by the States in 2013, set out the population growth expectations informing the hospital's in-patient bed capacity requirement. This used a net inward migration rate of +350 per annum;
- Data from the States of Jersey Statistics Unit, records that population growth has exceeded the 2013 position of +350 inward migration running at over 1,000 per annum on average for the last 3 years. The Chief Minister's Office advised that using a scenario of +700 inward migration based population growth forecast would be reasonable to estimate future demand for health and social care services;
- Future changes in the age distribution of the population will continue to challenge the hospital and the broader health and social care system with the increase in the over 65-year old group considered to be particularly significant as this group tends to be greater users of the health system; and
- The changing scale and structure of the population means that the existing hospital will be exposed to much greater demand pressure than that anticipated in the White Paper 'Caring for Each other, Caring for Ourselves' and the SOC position accepted by the States. Current capacity modelling shows that even after introducing performance improvements to reduce bed requirements there will be insufficient in-patient beds in the current hospital to meet overall demand beyond 2018.

(B) - Hospital physical condition:

- A 'Six-Facet Estate Survey', completed in 2015 by a highly regarded property specialist, confirmed further deterioration in building condition compared to earlier conditions surveys; and
- The aged physical structure of the hospital does not lend itself to the extent of work involved in replacing key systems. Replacement work in one part of the hospital would therefore present risk of disruption in other parts, as systems are broken apart and reconnected therefore requiring shutting down of wards, theatres on an on-going basis.

(C) Hospital functional suitability and space:

- The 2015 'Six-Facet Estate Survey', also reaffirmed the SOC's conclusion that many of the functional types, sizes and relationships of rooms within the hospital do not meet current UK healthcare design guidance, space standards and current best working practices;
- The functional relationships between departments remains poor leading to operational inefficiency and an inability to adapt service delivery to meet future demand; and
- The CR004 Site Appraisal submitted in 2016 demonstrated that, a 'full refurbishment' could not adequately address the current hospital's condition and spatial deficiencies nor could it now meet the cost and timescale constraints imposed by Council of Ministers. Lesser 'Do Nothing' or minimal refurbishment options would be even less adequate.

3.133. As a consequence of the above, lesser options being '**Option 1 – 'Do Nothing' and 'Option 2 – 'Do Minimum'** are not viable in that they cannot deliver the project's expectations and will therefore only be reflected within the economic appraisal for comparison purposes.

Part C – Confirmed Investment Objectives and Constraints

Introduction

3.134. The Strategic Outline Case (SOC) confirmed that the guiding principles of 'Safe, Sustainable and Affordable' set out of The Green Paper, "Caring for Each Other, Caring for Ourselves (May 2011)", should form the basis of the project's Investment Objectives.

3.135. A further review of policies completed in June 2017 was considered at two Stakeholder Workshops held on the 28th June 2017 and the 5th July 2017.

3.136. These were attended by representatives drawn from across the project team, external parties and the project's Advisors and concluded that specific elements included within the current strategic principles should be drawn out to given them greater emphasis within the overall project. These are summarised in the figure below along with the SOC Investment Objectives and Project Constraints introduced by the Council of Ministers collectively form the OBC Project Objectives

OBC Strategic Objectives	Objectives
SOC Investment Objectives	
Objective 1:	Create a hospital which is capable of sustaining future demand and ensures ease of access for the Island's population
Objective 2:	Optimise the estate to be as efficient and effective as possible
Objective 3:	Improve the quality and effectiveness of the hospital in providing care to the population, particularly where current services require complete replacement
Objective 4:	Support the workforce to be able to perform to the best of their abilities
OBC Strategic Objectives	
1	**Safe** - To ensure that services can be delivered in a Safe manner for service users and staff
2	**Sustainable** – To ensure that the hospital supports the delivery of sustainable healthcare in all aspects of delivery
3	**Affordable** – To ensure that health provision remains affordable
4	**Integrated** - To deliver facilities that work toward and support an Integrated health care mode**l**
5	**Person Centred** - To place service users and staff at the centre of service planning
6	To secure positive **socio-economic and environmental** impacts

Project Constraints	
1	That the safe operation of the hospital will be maintained throughout
2	That the hospital will be located on the Jersey General Hospital site
3	That additional properties on Kensington Place will be acquired
4	That the hospital will be operational within 7-8 years
5	That the hospital will be delivered at a comparable cost to new build site options
6	That some flexibility in Planning Policy will be tested
7	Some operational compromise will be accepted to support the spatial constraints
8	A high quality new build hospital will be delivered
9	That there will be support for the release of adequate on-site area
10	That the hospital will be delivered in one main construction phase

Figure 14: OBC Project Objectives

Design Vision

3.137. The principles of good hospital design have already been embedded in briefing and have been informed by the regular design reviews undertaken by the Project Board, external advisors, an independent advisor from Design Quality Indicator (DQI), the Jersey Architecture Commission, and clinical staff.

3.138. An experienced and appropriately skilled Design Champion is appointed to support the project board whose challenge has assisted these reviews and whose advice has been provided to the project board and external advisors throughout the design process.

3.139. The design vision has implicitly informed option development and reflects an appropriate balance between the desire to create landmark facilities, which will be an asset to the local community and will support local regeneration, and the need to control both capital expenditure and the Island's exposure to future revenue costs.

3.140. The design should nonetheless be enduring in both the statement it makes and the flexibility it includes in the way that it will continue to meet the diverse needs of the population it serves with pride.

3.141. To date, the Option design has worked to create amenity value both inside and outside the new hospital and to deliver a Future Hospital that meets the needs of the people of Jersey, with enhanced public realm, new pedestrian networks and a scale and massing that respects the heritage and character of St Helier.

3.142. This has been driven through the following principles which will continue to inform the Preferred Option design:

- Inspiring – the very best of modern architecture;
- Delightful;
- Healing;
- Well proportioned;
- Welcoming;
- Safe and non-threatening;
- Confidence inspiring;
- Uncluttered;
- All staff and patient areas with natural light, and be clean without being clinical;
- Well integrated into its setting and locality;
- Maintain separation between clinical and public circulation;
- Integrate comprehensive and careful chosen art within the design, in public, patient, staff and technical areas;
- Adopt friendly signage and navigation system; and
- Be able to accommodate future vectors of change in healthcare and society.

3.143. The design vision will reflect:

- A special place at the heart of the community of Jersey;
- Accessibility for all at all times;
- Comprehensive teamwork;
- Links to the natural environment;
- A strong identity for Jersey and obvious civic pride;
- The availability of a fine quality of life; and
- Privacy and dignity for all who come, including families.

4. The Economic Case

Introduction

4.1. This Economic Case details the economic appraisal of four development options for the Jersey Future Hospital on the existing and expanded Jersey General Hospital site. It sets the context for the determination of these options as the 'relevant Options' and considers the economic costs and benefits of each to arrive at a Preferred Option.

4.2. The Strategic Case has set out the States of Jersey future health and social care ambitions and confirmed the longstanding conclusion that the current hospital was, and is not, fit for purpose in meeting these ambitions.

4.3. Recognising this, the States of Jersey has completed an exhaustive range of studies into the most practical location for the new hospital and associated development options which, in terms of this Outline Business Case, has involved two distinct stages:

- Firstly, a comprehensive identification and appraisal of potential sites for the project and, following approval of the Preferred Site by the States of Jersey in November 2016, and
- Secondly, the identification and appraisal of hospital development options on this Preferred Site.

4.4. The latter is the focus of this business case. However, given that the two stages are inextricably linked, sufficient detail of the first stage, site locations' options appraisal is presented here to demonstrate robustness and to set a context for the second stage appraisal of the development options on the preferred site.

Context and the identification of the Current Options

4.5. The renewal and maintenance of its acute and general hospital services has long been a key priority for the States of Jersey and it remains a cornerstone of the Health and Social Services Department's modernisation agenda. This is because:

- The overall condition of the Hospital continues to deteriorate rapidly leading to increased maintenance spend and an increasing risk of catastrophic failure;
- The general arrangement of buildings at the current Hospital is problematic and the age and condition of key buildings means that best practice standards in many areas cannot be implemented; and
- Modern healthcare processes and efficiency improvements are impractical to adopt within the outdated buildings.

4.6. A report commissioned by the States of Jersey from KPMG in 2011 'A Proposed New System for Health and Social Services' made it clear amongst other things that the current hospital was no longer fit for purpose and that replacement would be required by 2020.

4.7. Drawing on this report and others, the States of Jersey developed its Health Transformation Strategy, as detailed in P.82/2012 'Health and Social Services - A New Way Forward', that was approved by the States Assembly in 2012.

4.8. The Transformation Strategy sets out a vision of an integrated care model and a programme of change needed to meet the challenges facing the Island's Health and Social services. The provision of an acute general hospital which is fit for purpose, capable of sustaining the acute care provision requirements for the population and which complements the integrated care strategy is seen as an enabler for the Strategy within P.82/2012, making it clear that a new hospital would be required by 2024.

Site identification and longlist testing

4.9. Building upon the KPMG report and the Health Transformation Strategy a working party of officers from across the States of Jersey technical departments was established to compile a list of potential sites for evaluation of their suitability to accommodate a new hospital.

4.10. The list identified all significant sites that might be available in the next 3-5 years including existing healthcare sites, green field and brown field sites.

4.11. From the initial list, the Working Group identified 10 sites that, based on the height and massing of the current hospital, were considered to have the capacity to accommodate a new hospital to current NHS spatial standards.

4.12. A further, more detailed pre-feasibility Spatial Assessment study of the 10 shortlisted sites was then undertaken by W S Atkins between 2012 and 2013 as part of the development of the Strategic Outline Case[1].

4.13. Based on the assessed capability of a site to meet the need for a single phase new build hospital, with the ability to accommodate NHS space and design standards (apart from the General Hospital site option which was based on a phased redevelopment replacement of the existing buildings on the site but with the retention of the all or part

[1] W S Atkins 2013 - 'The States of Jersey Hospital Pre-Feasibility Spatial Assessment Project – Jersey General Hospital Strategic Outline Case' May 2013 & 'Refined Concept Addendum to the Strategic Outline case' October 2013.

of the existing listed Granite Building), the Atkins spatial assessment study identified 3 potential site options.

4.14. One of these was rejected by the Ministerial Oversight Group resulting in the three options being: (1) Warwick Farm, (2) Zephyrus/ Crossland/ Aquasplash/ Cineworld and (3) the existing hospital site.

4.15. These were then taken forward for more detailed cost benefit assessment using indicative costings. The analysis indicated that the existing general hospital ranked highest.

4.16. Given that none of the 3 shortlisted sites were without issue, the Ministerial Oversight Group requested consideration of further sites. A revised long list of options was subject to cost benefit analysis on the same basis as the initial shortlist.

4.17. However, no further sites were found to out-perform the original short-list. Appendix 2.11 of the SOC sets out the detail of the analysis in full.

4.18. Further consideration by the Ministerial Oversight Group led to the removal of Warwick Farm from the shortlist on the basis that re-zoning greenfield land for development did not fit with current planning policy.

4.19. This left two shortlisted options being (1) Zephyrus/ Crossland/ Aquasplash/ Cineworld and (2) the existing hospital site.

4.20. With regard to the existing site, there was concern over the implied height of the new hospital and following a review by Planning Officers, planning massing guidance was released which introduced a limit to building height along The Parade, Newgate Street and Gloucester Street.

4.21. In response to this guidance, the existing hospital development site was reviewed to potentially include acquisition of adjacent properties that would reduce the overall height of the proposed building. Following further consideration of the 2 remaining shortlisted options, the Ministerial Oversight Group confirmed that the Zephyrus/ Crossland/ Aquasplash/ Cineworld site should not be considered further given the financial penalty of relocation costs.

4.22. The Ministerial Oversight Group confirmed this site option should be replaced with an alternative ‘Waterfront’ option configuration replacing the Aquasplash and Cineworld sites with Les Jardins de la Mer.

4.23. The development and evaluation of these subsequent site configuration options identified a lower cost new build 'Waterfront Option' and a massing and height guidance compliant redevelopment of the existing general hospital.

4.24. Based on the same benefit and risk criteria as the pre-feasibility spatial assessment study, a further review of these options confirmed the Waterfront Option as the best-ranking option.

4.25. However, the site evaluation did not take account of the potential loss of income to the States from future commercial development of the Waterfront or the potential economic impact of a hospital development on this central business district location and the existing Esplanade Quarter Masterplan.

4.26. An Economic Impact Assessment was undertaken by the States of Jersey Economist of the potential impact that indicated the financial effect could be significant. Consequently, the Ministerial Oversight Group confirmed that there should be no further consideration given to any Waterfront site option. With the decision to not progress further with the Warwick Farm and all Waterfront site options, the phased redevelopment of the new hospital on the existing and expanded site was therefore confirmed as the Preferred Option.

4.27. A parallel review of hospital funding options and of overall affordability was undertaken by the States of Jersey Treasury and Resources Department to develop both a funding envelope for the project and a funding strategy to pay for it.

4.28. Following review of the Pre-Feasibility Study and Strategic Outline Case and the proposed funding strategy by the Ministerial Oversight Group on 18th June 2013, the Group subsequently instructed the preparation of a further 'refined proposal' to develop a solution based upon:

- The findings and recommendations of the Pre-Feasibility Strategic Outline Case; and
- A solution that could also be delivered within the funds available.

4.29. This Refined Concept Addendum to the Strategic Outline Case was completed by WS Atkins by October 2013; informed by a Design Champion led co-ordination and clinical engagement process. The outcome of the Refined Concept proposed, an alternative, 'dual site' option as a Preferred Option; involving the renewal of some services at the existing Jersey General Hospital and the relocation of other services to new facilities to be constructed at Overdale.

4.30. On the 17th September 2014, the Ministerial Oversight Group considered the outcome of the Health, Social Services and Housing Scrutiny Panel's (HSSH) Review of the Transformation of Health Services (SR.10/2014) Report.

4.31. The Ministerial Oversight Group concluded that in view of the scale of the Future Hospital project, a stand-alone Report and Proposition on the Future Hospital was in the best interests of transparent and open Government. Reflecting this steer, the Jersey Future Hospital Project Board, at special meetings attended by the Chief Executive Officer of the States of Jersey on 25th September and 22nd October 2014, subsequently determined that a further Site Validation Exercise should be undertaken to specifically address Recommendation 12 of SR.10/2014.

4.32. The Ministerial Oversight Group subsequently considered the following options:

- Option A - 100% new build hospital at Overdale Hospital and adjacent land;
- Option B - 100% new build hospital on the current General Hospital site and adjacent land;
- Option C - 100% new-build hospital on the best performing alternative site identified during the Pre-feasibility being site 14C "the Waterfront"; and
- Option D - Retention of the 'Refined Concept Dual Site Option' as a benchmark of the minimum investment necessary to achieve acceptable benefits in safety, sustainability and affordability – i.e. the "Do Minimum".

4.33. In accepting Recommendation 12 of SR.10/2014, Gleeds were commissioned to review the four options, publishing a report in April 2015.

4.34. This concluded that the Waterfront option scored significantly better than all other options and continued to do so under several levels of sensitivity testing. Full details are included within CRO04 Report.

4.35. The Future Hospital Project Board, following the direction of the Ministerial Oversight Group, subsequently requested a further review to consider an additional site, being a 100% new build option on People's Park, alongside the four options reviewed within the CRO04 report.

4.36. This was completed in September 2015. The CR021 Site Appraisal Report concluded that the People's Park (Option E) scored significantly better than all other options and, achieved the best value in terms of Net Present Value combined with the expected benefits (NPV/Weighted Benefit Point (WBP)),

4.37. However, given its historic value, there was considerable objection to the potential redevelopment of People's Park and the Health and Social Services Minister subsequently confirmed its removal as a potential option for the Jersey Future Hospital.

4.38. During a period of reflection on the project's objectives and on how best to develop a consensus as to a preferred site for the new hospital, the Jersey Future Hospital Project Board sought to look more closely at the possibility of redeveloping the existing site, and specifically, at the extent to which project conditions / constraints would need to be modified to support such an approach.

4.39. To inform this deliberation, a further review was undertaken and a report produced in October 2016, which assessed the 'Proof of Concept' of redeveloping the existing hospital site, whilst still adhering to the Project Board's minimum delivery expectations. This new option was labelled 'Option F'.

4.40. The review of Option F concluded that:

- If augmented by acquisitions in Kensington Place, the new hospital could technically be built on the extended existing site within 8 years, whilst providing no loss of service in that period, with some services relocated off the existing site on a temporary and permanent basis;
- The New Hospital can be delivered within the Project Board's expectations;
- The cost of option F is greater than Option D – Waterfront. However, it is significantly better than that of all other options involving the redevelopment existing hospital site;
- The benefits scores associated with Option F, understandably fall short of those achieved by the previously recommended Option E – People's Park. However, they are broadly comparable with those of the nearest scoring alternative site being Option D – The Waterfront;
- Option F presents slightly more risk than the Waterfront Option but markedly less risk than that of all the other remaining options. This is largely due to the increased risk associated with construction of a new hospital adjacent to a fully functional hospital, rather than any specific long term operating concern; and
- Both Option F and Option D generally perform and are relatively insensitive to a change in weighted risk and benefit scores.

4.41. A lack of political alignment subsequently ruled out the two better scoring Option D and Option E alternatives. However, noting that compromises in expectations would be needed, the Project Board confirmed that political alignment had been secured supporting Option F i.e. the existing site with some boundary property acquisitions as the preferred site for the new hospital.

The Project Board also confirmed that any development on this 'Preferred Site' would need to meet the following revised conditions (Appendix 7 sets out the project constraints set by the Jersey Future Hospital Project Board):

- The safe operation of the hospital will be maintained throughout;
- The hospital will be located on the Jersey General Hospital site;
- Additional properties on Kensington Place will be acquired;
- The hospital will be operation in 7-8 years;
- The hospital will be delivered at a comparable cost to new build site options- a sum of £466 was established as the ceiling for the capital cost for the project budget plan;
- Some flexibility in Planning Policy will be tested;
- Some operational compromise will be accepted to support the spatial constraints;
- A high quality new build hospital will be delivered;
- There will be support for release of adequate on-site area; and
- The hospital will be delivered in one main construction phase.

Development options at the Preferred Site

4.42. As set out in the project's recently submitted Outline Planning Application (OPA) (in Appendix 14) careful analysis of existing hospital clinical services taking into account acquisition of additional properties identified a potential development plot within which a new hospital could be constructed and meet the Project's Board minimum project criteria outlined above.

4.43. Delivery of the clinical services required for the hospital, taking account of demographic growth and anticipated development of healthcare delivery, results in a need for some 49,000m2 of new development.

4.44. Applying this quantum of functional content to the available development site results in a minimum mass of development of approximately 20m in height (equivalent to 5 storeys). Further analysis of streetscape, context and the need to introduce adequate daylight and view into the depth of the building, to address staff and patient needs, results in a proposed development envelope of approximately 43m high, 49m wide and 140m long which equates to a building of up to 9 storeys linking Gloucester Street and Kensington Place.

4.45. The need for the current hospital to remain largely in place during any development, combined with the limited development plot area and confirmed design principles, establishes relatively fixed design parameters with regard to hospital massing and height.

4.46. A variety of on site development options were therefore considered, for example lower development heights based on a larger footprint, however analysis showed this could not be achieved without ignoring the core project principles relating to programme, cost and disruption to an unacceptable degree.

Critical Success Factors

4.47. A set of Critical Success Factors (CSF) were developed through discussion with the client team, giving consideration to the project strategic objectives, the minimum project objectives and relevant policies to inform the option shortlisting process. This ensured only those options considered to demonstrate the required characteristics are taken forward to Stage 2 detailed assessment.

4.48. The Critical Success Factors (CSF) have been categorised using The UK HM Treasury framework as follows;

- Business Need;
- Benefits optimisation;
- Strategic fit;
- Deliverability; and
- Affordability.

Strategic Objectives		
1	Safe	
2	Sustainable	
3	Affordable	
Critical Success Factors		
Business Need		
CSF-1	Does the option offer the prospect of being able to deliver services safely in future	Safe
CSF-2	Does the option offer the prospect of being flexible in responding to low patient volumes across a broad spectrum of	Sustainable

	services	
CSF-3	Does the option offer the prospect of developing facilities within which staff can deliver consistently high-quality care	safe
CSF-4	Does the option offer the prospect of providing safe and effective care during the redevelopment of the hospital	safe
CSF-5	Does the option offer the prospect of good functionality with minimal operational compromise	safe
CSF-6	Does the option offer the flexibility to accommodate future change in service need and delivery	Sustainable
CSF-7	Does the option offer prospect of retaining and attracting staff of high calibre	Sustainable
CSF-8	Does the option offer the prospect of being operationally cost effective in use	Sustainable
CSF-9	Does the option offer the prospect of good value for money including the whole life cost	Affordable
CSF-10	How well does the option support minimising the cost of delivering healthcare	Sustainable
Benefits' optimisation		
CSF-11	How well does the option offer the prospect of delivering value for money i.e. effective, efficient and economic general hospital services	Sustainable
CSF-12	How well does the option minimise risks associated with delivering general hospital services	safe
Strategic fit		
CSF-13	Does the option positively contribute to Health Policy and Strategy, particularly Transformation Strategy	Sustainable
CSF-14	Does the option contribute positively to the wider economic policy	Affordable
CSF-15	Does the option contribute positively to civic pride and wider social needs	Sustainable
CSF-16	Does the option contribute positively to the built environment by safeguarding and building upon heritage assets	Sustainable
Deliverability		
CSF-17	How likely is the option to be delivered in view of the scale of change and organisational capacity	
CSF-18	How likely is the option to be delivered in view of supply side interest and capacity to provide services	
CSF-19	Does the option have the potential to deliver a new hospital by 2024	
CSF-20	Does the option limit the extent to which it would breach current planning expectations	
Affordability		
CSF-21	Does the capital expenditure requirements of the option offer the prospect of being funded given Treasury budget allocation	Affordable
CSF-22	Does the revenue expenditure requirements of the option offer the prospect of being funded given budget allocation	Affordable
CSF-23	How well does the option contribute to establishing funding streams & developing funding models that incentivise care and co-operation?	Affordable

Figure 15: Critical Success Factors

Long list of on-site development options

4.49. Following confirmation of the Critical Success Factors, a long list of on-site development options was identified through extensive discussion with the client team.

4.50. This sought to include all feasible options, whilst recognising the substantial analysis to establish the possible massing and height options for a new build development that could meet the minimum project criteria and associated design principles.

4.51. As noted earlier, potential on-site development options were limited to those considered to be deliverable within the 43m high, 49m wide and 140m long envelope, and for relocation of services to an upgraded and extended Westaway Court.

4.52. A long-list of on-site development options was subsequently developed and reviewed against the Project Objectives by a panel comprising the client team, technical advisor staff and a wider stakeholder group, comparable to that drawn together to complete earlier site option appraisals.

4.53. The long list of options included 'Do Nothing' and 'Do Minimum' Options to clearly understand the extent that either could offer solutions to the critical success factors.

4.54. It also included options that considered the demolition of the residual buildings on the existing general hospital site and options for refurbishment and new build of Westaway Court alongside the new build hospital, within the determined development envelope set out above. Full details of the approach and outcome is provided in Appendix 10.

4.55. In May 2017, the Project Board considered the conclusions of this exercise and confirmed that the following four Options should be shortlisted for detailed review within the Outline Business Case:

- Option 1 Do Nothing;
- Option 2 Do Minimum;
- Option 3 A 'new build' hospital on the current site and refurbishment of Westaway Court; and
- Option 4 A 'new build' hospital on the current site and a 'new build' at Westaway Court.

Summary of the short-listed options

Option 1 – Do Nothing

Figure 16: Existing Jersey General Hospital Location and Context

Overview

4.56. As indicated in the Case for Change, the 'Do Nothing' option is not viable in the short to medium term, and is therefore included to serve as a baseline assessment of the costs to be incurred in continuing to operate in the current manner.

4.57. It sets out the forecast costs for which no additional quantitative benefits will arise and provides a comparative basis only for other options.

4.58. In this respect, the 'Do Nothing' option reflects the hospital's current operation and represents the effect of making no capital investment spend, other than that already planned in response to meet:

- Statutory and regulatory deficiencies in terms of health and safety and other general regulatory standards including critical aspects of healthcare compliance;
- General estate and infrastructure dilapidation including implementation of the full range of costed recommendations set out within the Six Facet study completed in 2015. (currently this is being managed under a watch and wait strategy);
- Relocation of the catering unit off the existing site; and
- Limited replacement of equipment.

4.59. Importantly, in representing the status quo, this option does not address the functional and spatial deficiencies of the existing hospital, or deliver any improvement in operational performance by improving the adjacency of critical hospital functions.

4.60. This option does not provide any additional capacity to deal with future increases in demand, or to meet growing service diversity following clinical and technological changes over coming years. Indeed, there is a loss of bed capacity due to the need for on-going refurbishment works.

4.61. The option is also unable to effectively support the wider transformational expectations of P.82/2012, with many of the patient pathway changes required being undeliverable within the current hospital's configuration

4.62. The option does not address future expectations amongst patients. It continues to rely on mixed wards in all cases and offers no scope to create single bedrooms without a further loss of internal space. In being no larger than current bed provision, creating single bedrooms within ward areas would simply deliver less beds.

4.63. Aside from this, the structure of the buildings and associated infrastructure would not lend themselves to this level of repurposing and it is likely that the scale of change needed would require buildings to be fully demolished and reconstructed on different / larger footprints.

4.64. In summary, the functioning of the hospital remains the same with:

- No expansion of capacity in any clinical specialty to meet forecast demand increase;
- A reduction on current bed numbers due to on-going refurbishment programme;
- No change to the current clinical adjacencies;
- No improvement on single bedroom provision;
- No improvement to patient relative's space;
- No demolition or new space provision; and
- Relocation of the catering unit off site.

4.65. Under this Option anticipated activity growth driven by population change is managed by;

- The implementation of service reorganisation Interventions will be minimal and will lead to patients being treated in clinically inappropriate non-hospital settings;
- Future demand will be increasingly managed off-Island. Beyond 2020 increasing numbers of patients being sent off-Island for health services due to demand exceeding on-Island capacity; and
- The adult ward beds of Option 1 have their capacity exceeded by demand in 2017.

		Forecast														
Bed type	**Type**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	Demand	165.2	168.7	171.2	173.4	176.0	177.1	177.8	179.3	180.4	179.2	178.5	227.8	274.6	300.8	318.9
	Capacity	148.0	142.0	134.0	120.0	120.0	120.0	142.0	142.0	142.0	142.0	142.0	120.0	120.0	120.0	120.0
	Surplus/(deficit)	*(17.2)*	*(26.7)*	*(37.2)*	*(53.4)*	*(56.0)*	*(57.1)*	*(35.8)*	*(37.3)*	*(38.4)*	*(37.2)*	*(36.5)*	*(107.8)*	*(154.6)*	*(180.8)*	*(198.9)*
Rehab/reablement*	Capacity	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
	Variance	*9.8*	*0.3*	*(10.2)*	*(26.4)*	*(29.0)*	*(30.1)*	*(8.8)*	*(10.3)*	*(11.4)*	*(10.2)*	*(9.5)*	*(80.8)*	*(127.6)*	*(153.8)*	*(171.9)*
Private beds	Demand	10.5	10.7	10.8	10.8	10.9	10.9	10.9	10.9	10.9	10.7	10.5	12.3	13.6	14.5	15.4
	Capacity	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	Surplus/(deficit)	*13.5*	*13.3*	*13.2*	*13.2*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.3*	*13.5*	*11.7*	*10.4*	*9.5*	*8.6*
Other specialty beds	Demand	33.8	34.2	34.0	33.9	33.9	33.5	33.0	32.0	31.1	30.1	29.1	32.3	36.0	38.6	40.5
	Capacity	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
	Surplus/(deficit)	*7.2*	*6.8*	*7.0*	*7.1*	*7.1*	*7.5*	*8.0*	*9.0*	*9.9*	*10.9*	*11.9*	*8.7*	*5.0*	*2.4*	*0.5*

Figure 17: Demand and Capacity Forecast 2016-2065 at +700 net inward migration

Benefits appraisal

4.66. The qualitative Benefits Appraisal completed by project stakeholders concluded that this option could not meet the expectations of the project objectives and could not offer a sustainable approach to meeting future demand.

4.67. The option also scored poorly in terms of patient amenity and its impact on staff recruitment and retention and in terms of the buildings being a limiting factor on operational performance improvement.

Capital Costs

4.68. As indicated earlier, the capital costs of this option reflect current planned levels of asset and equipment replacement expenditure along with a notional single scheme to implement the condition and safety compliance recommendations only of the 'Six Facet survey' and the cost of creating a catering unit off site.

4.69. To provide a comparative basis only, costs are based on delivering the six facet compliance recommendations over a notional 2018 – 2023 works period.

Option 1 Do Nothing	£M (discounted)	£M (Capital Cost Comparison)
Capital Costs		
Capital & on cost (incl. fees)	75.6	75.6
Land acquisition (incl. fees)	0.0	0.0
Non-Works Costs	0.0	0.0
Equipment	0.0	0.0
Contingency	0.0	0.0
Optimism Bias	0.0	0.0
Decant and Migration	0.0	0.0
Inflation differential	13.6	24.0
Total - Capital Costs	**89.2**	**99.6**
Enabling Schemes Capital		
Creation of Catering CPU	4.9	4.9
Relocation of medical secretaries / consultants	0.0	0.0
Transfer of Clinics 1 - vacated catering dept.	0.0	0.0
Construction of temporary Clinic Block	0.0	0.0
Med recs and car park	0.0	0.0
Relocation of corporate functions	0.0	0.0
Transfer of Clinics 1 - remodelling of Westaway Court	0.0	0.0
Remodel - First Floor parade, Granite and 1960 wings	0.0	0.0
Re-siting of critical plant and systems	0.0	0.0
Transfer of Staff accommodation	0.0	0.0
Additional Works		
Multi-storey car park	0.0	0.0
Post occupation Granite Block refurbishment	0.0	0.0
Inflation differential on enabling schemes and additional works	0.0	0.0
Total - enabling schemes and additional works	**4.9**	**4.9**
Total Capital	**94.1**	**104.8**

Figure 18: Option 1 Capital Costs

Revenue Costs

4.70. Option revenue costs have been developed from an understanding of the modelled impact of demographic change on the hospital's activity levels over the transition period and the 60 years thereafter, to equate to the assumed economic asset life of a new hospital building. This approach enables a better comparison of all the options.

Option 1 Do Nothing	£M (discounted)
Lifecycle	
Main Build	130.3
Enabling Schemes	4.5
Equipment (incl. MRI/ PACS)	233.2
Total - Lifecycle	**367.9**
Clinical Services	
Pay	19,253.2
Non-Pay	29,428.4
Off-Island Healthcare	20,590.5
Removal of 3% inflation	(52,280.7)
Overheads	3,278.2
Income	(2,331.9)
Total - Clinical Services	**17,937.7**
Non-Clinical Services (hard and soft FM)	**819.5**
Transitional Costs	**20.8**
On going Lease Costs	**10.1**
Old Hospital Management	**0.0**
Bond Issue	**0.7**
Post Project Evaluation Provision	**0.0**
Total Revenue	**19,156.7**

Figure 19: Option 1 Revenue Costs

Option 2 – Do Minimum

Figure 20: Existing Jersey General Hospital Location and Context

Overview

4.71. The 'Do Minimum' Option has been developed to reflect what can be reasonably achieved, to improve hospital conditions, within what is a spatially constrained operational site.

4.72. The site and building structure conditions limit the improvements that can be made with little opportunity to improve either functional performance, or to make spatial improvements through a piecemeal development approach.

4.73. As a result, in addition to addressing the statutory backlog maintenance, refurbishment has been limited to ward upgrades to address the elements affecting patients most directly, such as general ward infrastructure replacements, dilapidation repairs and general redecoration.

4.74. No spatial improvement has been possible and no improvement has been made to the general arrangement of the hospital, with the poor functional arrangements between critical departments remaining.

4.75. In summary, the works are therefore limited to:

- Statutory and regulatory deficiencies in terms of health and safety and other general regulatory standards including critical aspects of healthcare compliance;

- General estate and infrastructure dilapidation including implementation of the full range of costed recommendations set out within the Six Facet study completed in 2015. (currently this is being managed under a watch and wait strategy);
- The construction of a decant ward block to support a rolling programme of ward refurbishments to address general infrastructure failure, building dilapidation and decoration only; and
- The adult ward beds of Option 2 have their capacity exceeded by demand in 2017.

		Forecast														
Bed type	**Type**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	Demand	165.2	168.7	170.2	171.0	172.2	172.0	171.3	171.4	170.9	168.0	164.7	210.6	254.3	278.6	295.4
	Capacity	148.0	142.0	142.0	142.0	142.0	144.0	128.0	118.0	116.0	116.0	116.0	116.0	116.0	116.0	116.0
	Surplus/(deficit)	*(17.2)*	*(26.7)*	*(28.2)*	*(29.0)*	*(30.2)*	*(28.0)*	*(43.3)*	*(53.4)*	*(54.9)*	*(52.0)*	*(48.7)*	*(94.6)*	*(138.3)*	*(162.6)*	*(179.4)*
Rehab/reablement*	Capacity	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
	Variance	*9.8*	*0.3*	*(1.2)*	*(2.0)*	*(3.2)*	*(1.0)*	*(16.3)*	*(26.4)*	*(27.9)*	*(25.0)*	*(21.7)*	*(67.6)*	*(111.3)*	*(135.6)*	*(152.4)*
Private beds	Demand	10.5	10.7	10.7	10.6	10.5	10.4	10.3	10.2	10.1	9.9	9.6	11.2	12.5	13.4	14.1
	Capacity	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	Surplus/(deficit)	*13.5*	*13.3*	*13.3*	*13.4*	*13.5*	*13.6*	*13.7*	*13.8*	*13.9*	*14.1*	*14.4*	*12.8*	*11.5*	*10.6*	*9.9*
Other specialty beds	Demand	33.8	34.2	34.1	33.1	32.2	31.0	29.7	28.9	28.1	27.3	26.7	29.8	33.3	35.7	37.5
	Capacity	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
	Surplus/(deficit)	*7.2*	*6.8*	*6.9*	*7.9*	*8.8*	*10.0*	*11.3*	*12.1*	*12.9*	*13.7*	*14.3*	*11.2*	*7.7*	*5.3*	*3.5*

Figure 21: Demand and Capacity Forecast 2016-2065 at +700 net inward migration

4.76. As in the 'Do Nothing' option, this option does not address the functional and spatial deficiencies of the existing hospital, nor does it deliver any improvement in operational performance by improving the adjacency of critical hospital functions.

4.77. This option does not provide any additional capacity to deal with future demographic changes, or to meet growing service diversity following clinical and technological changes over coming years.

4.78. The option fails to deliver the project objectives, despite the provision of a new decant ward to support ongoing ward refurbishment and the relocation of the catering unit off site, as there is:

- No expansion of capacity in any clinical specialty to meet forecast demand increase;
- No change to the current clinical adjacencies;
- No improvement on single bedroom provision;

- No improvement to patient relative's space; and
- No demolition or new space provision.

4.79. Under this Option, changes in demand are addressed through:

4.80. Implementation of some service reorganisation Interventions that lead to patients being treated in a non-hospital setting in Jersey. The service re-organisation has a similar impact to that under Option 1 and the implementation of some service reorganisation Interventions will be possible and will lead to some productivity improvement.

4.81. As with Option 1, future demand will be increasingly managed off-Island. Beyond 2026, increasing numbers of patients will be sent off-Island for health services, due to demand exceeding on-Island capacity, even though some performance improvements have been made.

Benefits appraisal

4.82. Given that there is limited scope for functional or spatial improvement within the existing hospital, the qualitative benefits delivered by this option are comparable to those of Option 1 'Do Nothing'.

4.83. The qualitative Benefits Appraisal completed by project stakeholders concluded that this option could not meet the expectations of the project objectives and could not offer a sustainable approach to meeting future demand.

4.84. The option also scored poorly in terms of patient amenity, its impact on staff recruitment and retention, and in terms of the buildings limiting factor on operational performance improvement.

Capital Costs

4.85. As set out above, this option includes works to address the condition and safety compliance recommendations only of the 'Six Facet survey' and additional works to undertake minimal ward refurbishment, over a ten-year period. A temporary ward facility has been included to support this; enabling patients to be accommodated during each ward refurbishment period.

4.86. Costs are based on delivering the six facet compliance recommendations, over a notional 2018 – 2023 works period, and a temporary ward facility with the main ward refurbishment occurring thereafter.

Option 2 Do Minimum	£M (discounted)	£M (Capital Cost Comparison)
Capital Costs		
Capital & on cost (incl. fees)	75.6	75.6
Land acquisition (incl. fees)	0.0	0.0
Non- Works Costs	0.0	0.0
Equipment	0.0	0.0
Contingency	0.0	0.0
Optimism Bias	0.0	0.0
Decant and Migration	0.0	0.0
Inflation differential	13.6	24.0
Total - Capital Costs	**89.2**	**99.6**
Enabling Schemes Capital		
Creation of Catering CPU	4.9	4.9
Relocation of medical secretaries / consultants	0.0	0.0
Transfer of Clinics 1 - vacated catering dept.	0.0	0.0
Construction of temporary Ward Block	11.7	11.7
Med recs and car park	0.0	0.0
Relocation of corporate functions	0.0	0.0
Transfer of Clinics 1 - remodelling of Westaway Court	0.0	0.0
Remodel - First Floor parade, Granite and 1960 wings	0.0	0.0
Re-siting of critical plant and systems	0.0	0.0
Transfer of Staff accommodation	0.0	0.0
Additional Works		
Multi-storey car park	0.0	0.0
Post occupation Granite Block refurbishment	0.0	0.0
Inflation differential on enabling schemes and additional works	(0.7)	0.3
Total - enabling schemes and additional works	**15.8**	**16.9**
Total Capital	**105.1**	**116.5**

Figure 22: Option 2 Capital Costs

4.87. In providing a comparative basis only costs are based on delivering the six facet compliance recommendations over a notional 2018 – 2023 works period.

Revenue Costs

4.88. Option revenue costs are developed consistently with Option 1 and a summary is provided below. Full details of estimated annual profile included in Appendix 13.

Option 2 Do Minimum	£M (discounted)
Lifecycle	
Main Build	140.4
Enabling Schemes	4.6
Equipment (incl. MRI/ PACS)	233.2
Total - Lifecycle	**378.2**
Clinical Services	
Pay	19,096.3
Non-Pay	29,248.3
Off-Island Healthcare	19,630.2
Removal of 3% inflation	(51,422.1)
Overheads	3,278.2
Income	(2,331.9)
Total - Clinical Services	**17,499**
Non-Clinical Services (hard and soft FM)	**819.5**
Transitional Costs	**20.8**
On going Lease Costs	**10.1**
Old Hospital Management	**0**
Bond Issue	**0.7**
Post Project Evaluation Provision	**0**
Total Revenue	**18,728.3**

Figure 23: Option 2 Revenue Costs

Option 3 – A 'new build' hospital on the current site and refurbishment of Westaway Court

Figure 24: Jersey Future Hospital Location and Context

Overview

4.89. This option provides an outline of how the Health and Social Services Department's Acute Service Strategy and healthcare demand would be met using the existing and expanded hospital site and Westaway Court. By doing so, it defines the 'preferred way forward' in terms of clinical and operational approach but not necessarily the Preferred Option in terms of its ability to meet the full range of strategic and operational objectives.

4.90. This option involves the following key elements;

- New build construction of the main hospital on a cleared part of the existing site, augmented by the acquisition and demolition of properties on Kensington Place, to increase the available construction footprint; and
- The refurbishment of Westaway Court to allow several key outpatient functions to be located there delivering part of the ambulatory care hub.

4.91. This option would also involve;

4.92. **Enabling Schemes:** the delivery of a number of enabling schemes is needed to allow for the building of the Future Hospital on the existing augmented site alongside the functioning of the existing hospital. The enabling schemes include amongst other activity, the permanent relocation of the catering unit and medical records off the existing site, the building of a temporary clinic block on the existing site and the relocation of other functions off site on a temporary basis.

4.93. **Granite Block**: External changes to the Granite Block (Grade I listed Building) to include removal of glass atrium and modern extensions at the rear of the building. The forecourt of the Granite Block would be opened up as public realm to include patient drop-off. Changes to the forecourt to create new public realm and a drop-off area serving the Future Hospital. The interior of the Granite Block will be refurbished to provided Training and Development, Consultants Offices, Medical Secretaries accommodation, and support services offices.

4.94. **Patriotic Street Car park:** Addition of two half decks to provide car parking and provision of an overhead link bridge over Newgate Street to connect the Future Hospital to the car park.

4.95. **Public realm:** New and upgraded public realm to include pedestrian routes leading to the hospital including:

- North-south from Kensington Place to Gloucester Street ;
- A link from the Parade to the main front entrance of the hospital;
- Footbridge leading from Patriotic Street Car-park to hospital building; and
- Link between Newgate Street and Kensington Place;

4.96. **Employment floor space:** New additional retail, café and restaurant space

4.97. In sum this option provides:

- A new Acute General Hospital and adjoining Service Block;
- An ability to offer 100% single in-patient rooms;
- An environment suitable for modern day operating practices;
- A high-quality working environment;
- For patient safety aspects and clinical capabilities;
- Future flexibility and wider development opportunity using the residual site; and
- A means to meet all health and safety regulations.

4.98. Under this Option:

- Greater levels of service reorganisation Interventions will be possible supporting performance improvement and wider transformation;
- Greater bed capacity will be provided enabling future healthcare demand to be met on-Island for the foreseeable future;
- The adult ward bed capacity of Option 3 is not exceeded by demand until beyond 2046, with flexible usage of the private ward and other specialty beds, possible due to the 100% single bedroom design, this capacity would be extended beyond 2056; and
- Flexible facilities will be delivered easing the extent to which future change due to technological development and clinical practice development can be accommodated.
- The enabling phase programme for Option 3 is extended to manage the complex and sensitive refurbishment of the Maternity and Pathology departments within the existing hospital.
- Due to available space constraints within the existing Westaway Court Building Option 3 creates sub optimal clinical adjacencies within the Ambulatory Care and Outpatients departments

		Forecast														
Bed type	**Type**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	Demand	165.2	168.7	169.2	168.3	167.7	165.7	162.9	160.8	157.7	143.1	136.8	175.4	212.4	233.0	247.0
	Capacity	148.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	212.0	212.0	212.0	212.0	212.0	212.0
	Surplus/(deficit)	*(17.2)*	*(26.7)*	*(27.2)*	*(26.3)*	*(25.7)*	*(23.7)*	*(20.9)*	*(18.8)*	*(15.7)*	*68.9*	*75.2*	*36.6*	*(0.4)*	*(21.0)*	*(35.0)*
Rehab/reablement*	Capacity	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	-	-	-	-	-	-
	Variance	*9.8*	*0.3*	*(0.2)*	*0.7*	*1.3*	*3.3*	*6.1*	*8.2*	*11.3*	*68.9*	*75.2*	*36.6*	*(0.4)*	*(21.0)*	*(35.0)*
Private beds	Demand	10.5	10.7	10.6	10.3	10.1	9.7	9.5	9.3	9.1	8.8	8.4	10.0	11.2	12.0	12.7
	Capacity	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
	Surplus/(deficit)	*11.5*	*11.3*	*11.4*	*11.7*	*11.9*	*12.3*	*12.5*	*12.7*	*12.9*	*13.2*	*13.6*	*12.0*	*10.8*	*10.0*	*9.3*
Other specialty beds	Demand	33.8	34.2	34.1	33.1	32.3	31.0	29.8	29.1	28.4	27.8	27.3	30.4	34.0	36.4	38.3
	Capacity	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	39.0	39.0	39.0	39.0	39.0	39.0
	Surplus/(deficit)	*7.2*	*6.8*	*6.9*	*7.9*	*8.7*	*10.0*	*11.2*	*11.9*	*12.6*	*11.2*	*11.7*	*8.6*	*5.0*	*2.6*	*0.7*

Figure 25: Demand and Capacity Forecast 2016-2065 at +700 net inward migration

Benefits Appraisal

4.99. The qualitative Benefits Appraisal completed by project stakeholders concluded that this option delivered well against the project objectives and offered a sustainable approach to meeting future demand.

The option also performs well in terms of patient amenity and its impact on staff recruitment and retention but had some limitations within its functional relationships.

Capital Costs

4.100. This option involves the construction of a new hospital on the existing and augmented Jersey General Hospital site. As indicated above, it also includes costs of Enabling Schemes designed to release the space in the existing hospital to allow the site footprint to be released, including significantly refurbished facilities at Westaway Court.

4.101. Full asset lifecycle costs (building and equipment) have been included, based on UK BCIS profiles to ensure that an appropriate level of periodic asset element replacement is carried out over the build phase of the Future Hospital on the main site (the transition period) and the 60 years thereafter, equating to the assumed economic asset life of the Future Hospital building once operational.

4.102. Capital costs include the cost of land acquisition, demolition of the buildings and for undertaking a range of enabling schemes designed to release specific existing hospital buildings in readiness for Future Hospital construction

4.103. All costs have been developed using best practice UK Health Premises Cost Guide (HPCG) pricing with an appropriate 'location factor' applied to reflect the pricing differential of delivering works in the Channel Islands over and above that within UK regions.

Option 3 - A 'new build' hospital on the current site and refurbishment of Westaway Court	£M (discounted)	£M (Capital Cost Comparison)
Capital Costs		
Capital & on cost (incl. fees)	256.9	256.9
Land acquisition (incl. fees)	10.5	10.5
Non- Works Costs	6.3	6.3
Equipment	18.7	18.7
Contingency	20.7	20.7
Optimism Bias	41.1	41.1
Decant and Migration	3.0	3.0
Inflation differential	1.6	53.7
Total - Capital Costs	**358.8**	**410.9**
Enabling Schemes Capital		
Creation of Catering CPU	4.9	4.9
Relocation of medical secretaries / consultants	0.0	0.0
Transfer of Clinics 1 - vacated catering dept.	3.7	3.7
Construction of temporary Clinic Block	11.7	11.7
Med recs and car park	0.9	0.9
Relocation of corporate functions	6.4	6.4
Transfer of Clinics 1 - remodelling of Westaway Court	12.2	12.2
Remodel - First Floor parade, Granite and 1960 wings	7.5	7.5
Re-siting of critical plant and systems	2.9	2.9
Transfer of Staff accommodation	1.4	1.4
Additional Works		
Multi-storey car park	3.3	3.3
Post occupation Granite Block refurbishment	5.7	5.7
Inflation differential on enabling schemes and additional works	(2.7)	2.8
Total - enabling schemes and additional works	**57.9**	**63.4**
Total Capital	**416.7**	**474.3**

Figure 26: Option 3 Capital Costs

Revenue Costs

4.104. Option revenue costs have been developed from detailed activity demand modelling to reflect both overall population growth and anticipated demographic changes within the population age distribution.

4.105. Revenue costs reflect the implementation of an increased level of Interventions over that possible in Options 1 and 2. A high-level summary of the revenue cost is set out below. The full profile of costs is provided in Appendix 13

Option 3 - A 'new build' hospital on the current site and refurbishment of Westaway Court	£M (discounted)
Lifecycle	
Main Build	140.4
Enabling Schemes	20.3
Equipment (incl. MRI/ PACS)	265.2
Total - Lifecycle	**425.9**
Clinical Services	
Pay	20,419.8
Non-Pay	29,900.3
Off-Island Healthcare	3,928.9
Removal of 3% inflation	(41,051.9)
Overheads	3,278.2
Income	(2,331.9)
Total - Clinical Services	**14,143.4**
Non-Clinical Services (hard and soft FM)	**1,054.9**
Transitional Costs	**17.9**
On going Lease Costs	**67.5**
Old Hospital Management (to 5yrs post occupation)	**1.3**
Bond Issue	**2.5**
Post Project Evaluation Provision	**0.1**
Total Revenue	**15,713.6**

Figure 27: Option 3 Revenue Costs

Option 4 - A 'new build' hospital on the current site and a 'new build' at Westaway Court

Figure 28: Jersey Future Hospital Location and Context

Overview

4.106. As with Option 3 this Option reflects the new build construction of the main hospital on a cleared part of the existing site augmented by the acquisition and demolition of properties on Kensington Place to increase the available construction footprint.

4.107. This option, however, differs significantly from Option 3 in that it proposes the complete demolition of Westaway Court and the construction of a be-spoke new build facility with its functional content refined to improve clinical support for the ambulatory care patients using the facility, improved clinical adjacencies and space to permanently house the pathology service (with a vacuum tube link to the Future Hospital) to mitigate against delays and risks caused by construction adjacent to the vibration sensitive equipment in the existing pathology department.

4.108. A new build approach provides the greatest flexibility in achieving optimal functional relationships and thereby increasing accessibility for patients to a range of treatments and co-located specialist staff than would be possible under other options.

4.109. Under this option, Pain and Diabetes services will be located at Westaway Court along with the Pathology Service connected to the new General Hospital by a physical vacuum tube and digital reporting links.

4.110. This option would also involve;

- The delivery of a number of additional enabling schemes to allow for the building of the Future Hospital on the existing augmented site alongside the functioning of the existing hospital;
- External changes to the Granite Block (Grade I listed Building) to include removal of glass atrium and modern extensions at the rear of the building. The forecourt of the Granite Block would be opened up as public realm to include patient drop-off. Changes to the forecourt to create new public realm and a drop-off area for the Future Hospital. The interior of the Granite Block will be refurbished to provided Training and Development, Consultants Offices, Medical Secretaries accommodation and support services offices;
- Patriotic Street Car-park - Addition of two half decks to provide car parking and provision of link bridge over Newgate Street to link to Future Hospital;
- Creation of new public realm- to include pedestrian routes leading to the hospital including North-south from Kensington Place to Gloucester Street and a link from the Parade to the main front entrance of the Future Hospital;
- Footbridge leading from Patriotic Street Car-park to hospital building; and a link between Newgate Street and Kensington Place; and
- New and increased employment floor space- retail, café and restaurant space.

4.111. As such this option provides:

- A new Acute General Hospital and adjoining Service Block;
- An ability to offer 100% single in-patient rooms;
- An environment suitable for modern day operating practices;
- A high-quality working environment;
- For patient safety aspects and clinical capabilities;
- Future flexibility and wider development opportunity using the residual site meets all health and safety regulations; and
- The creation of a new build be-spoke centre to forming part of the ambulatory care pathway.

4.112. Under this Option:

- The highest levels of service reorganisation Interventions will be possible providing significant support for ongoing performance improvement and the wider P’82/2012 transformation programme;

- Greater opportunities for partnership working across the whole Health and Social Care system and the corresponding benefits to health and welling being are offered in this option
- Greater bed capacity will be provided enabling future healthcare demand to be met on-Island for the near future;
- The adult ward bed capacity of Option 4 is not exceeded by demand until beyond 2046, with flexible usage of the private ward and other specialty beds, possible due to the 100% single bedroom design, this capacity would be extended beyond 2056; and
- Flexible facilities will be delivered easing the extent to which future change due to technological development and clinical practice development can be accommodated.
- The enabling phase programme for Option 4 is prolonged to encompass the increased size of Westaway Court, to include Pathology, but this reduces the coordination risk of carrying out refurbishment works in the existing Maternity department.
- The bespoke new build Westaway Court replacement is able to accommodate the appropriate mix of Ambulatory Case and Outpatients departments to retain the best clinical adjacencies

		Forecast														
Bed type	**Type**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	Demand	165.2	168.7	169.2	168.3	167.7	165.7	162.9	160.8	157.7	143.1	136.8	175.4	212.4	233.0	247.0
	Capacity	148.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	212.0	212.0	212.0	212.0	212.0	212.0
	Surplus/(deficit)	*(17.2)*	*(26.7)*	*(27.2)*	*(26.3)*	*(25.7)*	*(23.7)*	*(20.9)*	*(18.8)*	*(15.7)*	*68.9*	*75.2*	*36.6*	*(0.4)*	*(21.0)*	*(35.0)*
Rehab/reablement*	Capacity	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	-	-	-	-	-	-
	Variance	*9.8*	*0.3*	*(0.2)*	*0.7*	*1.3*	*3.3*	*6.1*	*8.2*	*11.3*	*68.9*	*75.2*	*36.6*	*(0.4)*	*(21.0)*	*(35.0)*
Private beds	Demand	10.5	10.7	10.6	10.3	10.1	9.7	9.5	9.3	9.1	8.8	8.4	10.0	11.2	12.0	12.7
	Capacity	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
	Surplus/(deficit)	*11.5*	*11.3*	*11.4*	*11.7*	*11.9*	*12.3*	*12.5*	*12.7*	*12.9*	*13.2*	*13.6*	*12.0*	*10.8*	*10.0*	*9.3*
Other specialty beds	Demand	33.8	34.2	34.1	33.1	32.3	31.0	29.8	29.1	28.4	27.8	27.3	30.4	34.0	36.4	38.3
	Capacity	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	39.0	39.0	39.0	39.0	39.0	39.0
	Surplus/(deficit)	*7.2*	*6.8*	*6.9*	*7.9*	*8.7*	*10.0*	*11.2*	*11.9*	*12.6*	*11.2*	*11.7*	*8.6*	*5.0*	*2.6*	*0.7*

Figure 29: Demand and Capacity Forecast 2016-2065 at +700 net inward migration

Benefits Appraisal

4.113. The qualitative Benefits Appraisal completed by project stakeholders concluded that this option delivered the most effectively against the project objectives and offered the most sustainable approach to meeting future demand.

4.114. The option also rated best in terms of patient amenity and its impact on staff recruitment and retention and was considered to have the most effective functional relationships of all options.

Capital Costs

4.115. This option involves the construction of a new hospital on the existing site and the construction of new facilities located at Westaway Court. As indicated above, it also includes the costs of Enabling Schemes designed to release the space in the existing hospital to allow the site footprint to be released.

4.116. Full asset lifecycle costs have been included based on UK BCIS profiles to ensure that an appropriate level of periodic asset element replacement is carried out over the 60 years term of the economic evaluation.

4.117. The project includes the cost of land acquisition, demolition and for undertaking the enabling schemes designed to release specific existing hospital buildings in readiness for the Future Hospital construction

4.118. All costs have been developed using best practice UK Health Premises Cost Guide (HPCG) pricing with an appropriate ‘location factor’ applied to reflect the pricing differential of delivering works in the Channel Islands over and above that within UK regions.

Option 4 - A 'new build' hospital on the current site and a 'new build' at Westaway Court	£M (discounted)	£M (Capital Cost Comparison)
Capital Costs		
Capital & on cost (incl. fees)	236.6	236.6
Land acquisition (incl. fees)	10.5	10.5
Non- Works Costs	6.2	6.2
Equipment	18.7	18.7
Contingency	19.5	19.5
Optimism Bias	38.2	38.2
Decant and Migration	3.0	3.0
Inflation	1.6	53.1
Total - Capital Costs	**334.0**	**385.5**
Enabling Schemes Capital		
Creation of Catering CPU	4.9	4.9
Relocation of medical secretaries / consultants	0.0	0.0
Transfer of Clinics 1 - vacated catering dept.	3.7	3.7
Construction of temporary Clinic Block	11.7	11.7
Med recs and car park	0.9	0.9
Relocation of corporate functions	6.4	6.4
Transfer of Clinics 1 - remodelling of Westaway Court	27.8	27.8
Remodel - First Floor parade, Granite and 1960 wings	7.5	7.5
Re-siting of critical plant and systems	2.9	2.9
Transfer of Staff accommodation	1.4	1.4
Additional Works		
Multi-storey car park	3.3	3.3
Post occupation Granite Block refurbishment	5.7	5.7
Inflation differential on enabling schemes and additional works	(2.4)	**4.2**
Total - Enabling Schemes and Additional Works	**73.7**	80.4
Total Capital	**407.8**	**465.9**

Figure 30: Option 4 Capital Costs

Revenue Costs

4.119. Option revenue costs have been developed from detailed activity demand modelling to reflect both overall population growth and anticipated demographic changes within the population age distribution.

4.120. Revenue costs also reflect the implementation of the greatest level of Interventions over that possible in earlier options due to the configuration and relationships that can be achieved within new facilities.

4.121. A summary of the revenue cost is set out below.

Option 4 - A 'new build' hospital on the current site and a 'new build' at Westaway Court	£M (discounted)
Lifecycle	
Main Build	128.3
Enabling Schemes	29.1
Equipment (incl. MRI/ PACS)	265.2
Total - Lifecycle	**422.6**
Clinical Services	
Pay	20,228.8
Non-Pay	29,692.9
Off-Island Healthcare	3,928.9
Removal of 3% inflation	-(40,752.3)
Overheads	3,278.2
Income	-(2,331.9)
Total - Clinical Services	**14,044.6**
Non-Clinical Services (hard and soft FM)	**1,054.9**
Transitional Costs	**17.9**
Ongoing Lease Costs	**67.5**
Old Hospital Management (to 5yrs post occupation)	**1.3**
Bond Issue	**2.5**
Post Project Evaluation Provision	**0.1**
Total Revenue	**15,611.4**

Figure 31: Option 4 Revenue Costs

Economic Appraisal

Introduction

4.122. This section sets out the appraisal process followed in establishing the relative merits of each of the four Options set out earlier and identifies the Option considered to offer the best value in meeting the project investment objectives.

4.123. It summarises the economic costs and benefits considered to relate to each Option and evaluates them based upon the principles of the UK Treasury Green Book, and Generic Economic Model (GEM) Investment Appraisal Guidance.

4.124. The four options approved for economic appraisal include two five case model Mandatory Options being the 'Do Nothing' and 'Do Minimum Option.

4.125. However, as neither of these mandatory Options meet the capacity and functionality required within the project Objectives they are not viable in the short, medium or long term. Their inclusion is therefore based on meeting UK Treasury Guidance only and to provide a reference point against which the remaining Options can be considered.

4.126. The Options are:

- Option 1 Do Nothing;
- Option 2 Do Minimum;
- Option 3 A 'new build' hospital on the current site and refurbishment of Westaway Court; and
- Option 4 A 'new build' hospital on the current site and a 'new build' at Westaway Court.

Non-financial benefits appraisal

Methodology

4.127. Estimating the benefits following from each Option focuses on undertaking a comparative assessment of each option against predetermined Benefit Criteria and a weighting and scoring approach.

4.128. The SOC established a set of strategic objectives for the project based on relevant policy documents prevailing at that time. However, since that time, a number of additional policies have been developed which relate directly to the project and are therefore material to its outcome.

4.129. These include the Acute Service Strategy, published in July 2016 and others such as the 'Digital Health Strategy, published in 2016 which relates more broadly to wider transformation activities being implemented under P.82/2012.

4.130. Equally, the scale, nature and location of the investment proposed by the project is greater than anticipated in the Strategic Outline Case (SOC) and, as such, the socio-economic impact of the project merits recognition within its overall outcome.

4.131. The Strategic Case sets out how a further policy review, completed in July 2017, concluded that, whilst the initial three Strategic Objectives of 'Safe', 'Sustainable' and 'Affordable' remain valid. Given that the evaluation had now moved to site design

solutions, it was now appropriate for other aspects embedded within these Objectives to be explicitly tested.

4.132. The Strategic Case confirmed that the Options should therefore be tested against the following range of Objectives:

Investment Objective	Objectives	Strategic Outline Case (SOC)	Outline Business Case (OBC)
1	**Safe** - To ensure that services can be delivered in a Safe manner for service users and staff	✓	✓
2	**Sustainable** – To ensure that the hospital supports the delivery of sustainable healthcare in all aspects of delivery	✓	✓
3	**Affordable** – To ensure that health provision remains affordable	✓	✓
4	**Integrated** - To deliver facilities that work toward and support an Integrated health care model		✓
5	**Person Centred** - To place service users and staff at the centre of service planning		✓
6	To secure positive **socio-economic and environmental** impacts		✓

Figure 32: Investment Objectives

4.133. To enable a better-informed assessment of each shortlisted option in terms of its performance against the strategic objectives, a more granular set of criteria were developed. These benefit criteria were reviewed during the second Stakeholder Workshop on the 5th July 2017.

4.134. Stakeholders concluded that whilst some of the criteria used to assess the preferred site location for the Future Hospital remained relevant to the assessment of on-site development options, a large number were less useful in assisting in this process. Full details of the Project Objectives Workshop are set out in Appendix 11.

4.135. A revised set of Benefit Criteria and Weights were therefore developed to assist the assessment of the on-site development options for the Future Hospital.

4.136. The second stakeholder workshop attendees also considered the need for revised weightings for the strategic objectives and the weightings for the benefit criteria associated with each strategic objective. The revised benefit criteria and the weightings for these and the expanded set of strategic objectives are set out below:

1.0	**Safe**	To ensure that services can be delivered in a safe manner for service users and staff	**40.00%**
1.1	To provide facilities that are fit for purpose meeting all regulatory and legislative standards		8.00%
1.2	To provide facilities that support efficient and effective clinical processes through maximising advantages of clinical adjacencies		7.20%
1.3	To provide facilities that support efficient and effective clinical processes through maximising the advantages of standardised operating, treatment and support services spaces		5.60%
1.4	To provide facilities designed to meet the specific health and well-being needs of the wide range of service users		5.60%
1.5	To provide physical environments that contribute to health and wellbeing for service users and their families		2.80%
1.6	To provide a workplace environment that supports and enables staff to deliver a high-quality service		2.80%
1.7	Facilities that can provide 24/7 immediate and urgent care		8.00%
2.0	**Sustainable**	To ensure that the hospital supports the delivery of sustainable healthcare in all aspects of delivery	**20.00%**
2.1	To provide facilities that are sufficiently flexible so that they are capable of meeting existing and future acute service demand		4.00%
2.2	To provide facilities that are capable of responding to changing standards of clinical practice		3.60%
2.3	To provide high quality facilities that attract and retain high calibre staff of all grades		2.80%
2.4	To provide an environment that supports and upgrades staff skills		1.40%
2.5	To create high quality facilities that attracts private patients from within and external to Jersey		2.80%
2.6	To provide facilities that support treatment of long term conditions and high levels of co-morbidity		4.00%
2.7	To provide facilities with internal architecture that supports health and well being		1.40%
3.0	**Integrated**	To deliver facilities that work toward and support an integrated health care model	**15.00%**
3.1	Does the hospital support the development of Integrated care pathways between different teams including off-Island providers		7.50%
3.2	Does the Option enable an integrated IT solution to be adopted that can secure the added clinical capability available through telemedicine & other similar developments		4.50%

3.3	Does the Option support the development of an integrated workforce within the hospital working in pathways and across the different parts of the health and social care economy (e.g. GPs working in hospital, hospital-employed nurses and AHPs working in community / surgeries)		3.00%
4.0	**Person centred**	To place service users and staff at the centre of service planning	**20.00%**
4.1	Provide facilities that enable a case management approach to service user care		2.00%
4.2	Provide facilities that enable multi-disciplinary team working		2.00%
4.3	To provide physical environments that support privacy and dignity and a positive service user experience		8.00%
4.4	Provide facilities that support service users and their families and carers		2.00%
4.5	Provide facilities that meet Islanders' expectations regarding the provision of a wide range of health services; reducing the need to travel off-Island		6.00%
5.0	**Positive socio-economic impact**	To secure positive socio-economic and environmental impacts	**5.00%**
5.1	To contribute to protecting and enhancing the built environment of St Helier		1.00%
5.2	To provide facilities that establish the hospital as a 'special place', acting as a community hub and informal as well as formal meeting place for Islanders and visitors		1.00%
5.3	Provide facilities that are low carbon generating		1.00%
5.4	To provide facilities that in their delivery and operation support the creation of sustainable employment for local people in building and maintaining the hospital through skills development and skills transfer		1.00%
5.5	To provide an acute hospital service infrastructure that acts as an attractor to highly skilled staff needed to support key sectors of the Jersey economy.		1.00%

Figure 33: Weighted Benefit Criteria

Evaluation arrangements

4.137. In contrast to the high-level appraisal undertaken for the selection of the Preferred Site, the evaluation of the shortlisted on site hospital development options require the engagement of a wider stakeholder group to comprehensively consider and score each option.

4.138. The shortlisted options were therefore considered by an evaluation group with representatives from the Health and Social Services Department, primary care, out of

hospital services groups and, the wider community. To avoid the effects of unconscious bias in the evaluation process, the evaluators selected were wholly independent of those involved in setting the benefit criteria and weights.

4.139. To add technical expertise to support evaluators in arriving at option scores, the evaluation workshop was led by the lead advisor with subject matter experts (SMEs) drawn from the client team and advisors. The SME's role solely being to be available to support evaluators by responding to questions relating to the understanding of the benefit criteria or option content. Full details of the Benefits Appraisal Methodology and Appraiser briefing notes are set out in Appendix 12.

Non-Financial Appraisal Findings

4.140. The results from the non-financial benefits appraisal workshop in terms of the raw and weighted total scores for each option and the respective rankings for each option are set out below:

Benefits Appraisal								
Results	**Unweighted Results**				**Weighted Results**			
	Options				**Options**			
	1	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Score	39	47	105	117	1.44	1.72	3.88	4.36
Score %	29%	35%	78%	87%	29%	34%	78%	87%
Rank	4th	3rd	2nd	**1st**	4th	3rd	2nd	**1st**
Differential score % from best performing option	(67%)	(60%)	(10%)	**0%**	(70%)	(61%)	(11%)	**0%**

Figure 34: Benefit Appraisal Scoring and Ranking

4.141. From the above, it can be concluded that:

- Option 4 is the highest-ranking option both in terms of raw (unweighted) and weighted scores;
- There is a significant and material differential of over 10% between the highest-ranking Option 4 and the next nearest ranking Option 3; and
- Options 1 and 2 score poorly, achieving just 29% and 34% (weighted) of the total possible score reflecting that neither Option is considered by stakeholders to deliver substantially or meaningfully on the project's strategic and operational objectives.

4.142. A more detailed analysis of the non-financial benefits appraisal results is set out below and indicates how the above findings reflect an overall weakness in the capabilities of Options 1 and 2 to meet the project's objectives, compared to the investment options and in particular to Option 4:

- For each of the strategic criteria Options 3 and 4 score substantially higher than Options 1 and 2, for weighted and unweighted scores;
- Option 4 also scores more highly than Option 3 across all strategic criteria again for weighted and unweighted scores;
- The degree of difference is negligible between Option 3 and Option 4 with regard to the person centred and socio-economic impacts but is significantly greater with regard to the objectives of delivering facilities to support a sustainable and safe model of care. In this respect Option 4 is the most flexible solution;
- Option 4 scores markedly higher than Option 3 with regard to the 'Safe' criteria. This is important given that safety and sustainability are considered the most important strategic objectives and is reflected in their accounting for 40%, and 20% of the allocated weightings respectively; and
- Options 1 and 2 score very poorly with regard to these important strategic objectives again reflecting the fact that Option 1 is included for comparative purposes only, with Option 2 similarly providing an inadequate number of beds to meet existing and increasing demand, inefficient clinical adjacencies and an unattractive poor quality operating environment for staff, patients and visitors.

Benefits Appraisal									
Results		Unweighted Results				Weighted Results			
		Options				Options			
Criteria	Weight	1	2	3	4	1	2	3	4
Safe	40%	10	13	26	30	0.62	0.78	1.47	1.71
Ranking		4	3	2	1	4	3	2	1
Sustainable	20%	11	14	29	32	0.27	0.36	0.80	0.89
Ranking		4	3	2	1	4	3	2	1
Integrated	15%	6	6	11	13	0.27	0.27	0.54	0.65
Ranking		4	3	2	1	4	3	2	1
Person Centred	20%	6	7	22	23	0.22	0.24	0.9	0.92
Ranking		4	3	2	1	4	3	2	1
Socio-econ	5%	6	7	17	19	0.06	0.07	0.17	0.19
Ranking		4	3	2	1	4	3	2	1

Figure 35: Detailed Benefit Appraisal Scoring and Ranking

Quantification and monetisation of benefits

4.143. The quantification and monetisation of health and other benefits, such as employment and gross value added, will be undertaken as part of the Full Business Case (FBC) to verify that the Preferred Option continues to offer Value for Money, when compared with the Do Nothing /or Do Minimum Options.

4.144. These findings will be used to support the refinement of benefits as new clinical practices become agreed and will inform the detail of Benefits Realisation Plan at FBC.

4.145. The assumption underlying the quantum, timing, and quality of patient treatments is common across all options; only the delivery location and cost is assumed to change reflecting respective option capacity. It is realistic therefore to assume that the cost benefit ratio for Option 4 will be higher than for all other options. That is, it is the most cost effective. It can therefore be taken that:

- There is greater potential under Option 4 to deliver cost avoidance through Interventions compared to Option 3;
- That Options 3 and 4 provide significantly greater on-Island capacity than options 1 and 2; and
- On-Island treatment can be provided at a much lower cost per patient than off Island care.

Cash and non-cash releasing benefits estimation

4.146. The potential of each option to deliver cost savings is included in the estimated revenue costs for each option set out above. The benefit is realised through the extent to which each option supports the implementation of Interventions.

4.147. Given their spatial difference and the opportunity to deliver better and more effective functional relationships within the new build solutions Options 3 and 4 offer significantly more potential for implementing Interventions than Options 1 and 2.

4.148. The scale of benefits realised from each intervention for each option, is not separately identified as part of this analysis, as they do not represent cost savings that can be realised given expected demographic changes. The efficiency and service reconfiguration savings are needed to meet the expected increased costs driven by demographic changes and therefore they effectively represent cost avoidance estimates.

4.149. The cost avoidance sums (undiscounted) delivered by each option are as follows;

- Option 1: £463.8 million;
- Option 2: £671.8 million;
- Option 3: £989.9 million;
- Option 4: £1,081 million.

The assumptions underpinning the estimated cost avoidance deliverable by each option is set out in Appendix 13.

Distributional effects

4.150. A key objective of the Future Hospital project is to raise the quality and access to hospital services for the population as a whole.

4.151. In adopting new hospital design principles, Options 3 and 4 will have a positive impact on particular societal groups as follows:

- **Age** – Options 3 and 4 proposals are targeted at improving access and will improve treatment in particular for older people. Option 4delivers this particularly effectively as Westaway Court is replaced with a new build facility;
- **Gender:** Options 3 and 4 include a separate women and children's unit is which again will positively improve the experience of women and children in accessing treatment; and
- **Community groups:** In Options 3 and 4, the design of the new main hospital is proposed to include space for use by broader health related groups and out of hospital service providers. This will improve engagement and will constructively support the integration of services around patient needs. Indeed, the design aims for the entrance area in particular to be a social space where Islanders meet regardless of their current health needs.

4.152. With regard to other identifiable societal groups such as race, socio-economic group, or sexual orientation, it is not expected that any of these groups will be relatively, or in absolute terms, disadvantaged by the new hospital.

4.153. Rather all these groups will benefit by the provision of increased capacity, a more externally, and internally accessible building that encourages access and use for a wide range of activity, including health related matters.

Qualitative Risk Appraisal

4.154. A qualitative risk assessment was undertaken for the shortlisted options by the same evaluation group that undertook the non-financial benefits appraisal, that is, with representatives from the Health and Social Services Department, primary care, out of hospital groups and the wider community.

4.155. As in the case of benefits, evaluators were supported by subject matter experts (SMEs) drawn from the client team and advisors.

4.156. However, the different nature of the Options meant that developing risk criteria that would meaningfully apply across all options would be difficult. As such, despite this difficulty, the Strategic Outline Case risk criteria were again used and included risks associated with:

- Planning and Environment and Transport and Access;
- Services Infrastructure;
- Clinical and non-clinical support ;
- Staff and patient issues; and
- Construction and Development Opportunity Cost.

4.157. As expected, the evaluation group noted that some of the criteria were difficult to assess, from a non-technical perspective, for some options.

4.158. The figure below sets out the results in terms of the raw and weighted risk scores for each option and their respective rankings.

Non-financial Risk Appraisal								
	Unweighted Results				Weighted Results			
	Options				Options			
	1	2	3	4	1	2	3	4
Score	218	221	178	103	16.49	19.29	73.47	49.9
Score %	36%	37%	30%	17%	9%	10%	38%	26%
Rank	3	4	2	1	1	2	4	3
Differential score % compared to best performing option	(112%)	(115%)	(73%)	0%	(67%)	(61%)	(47%)	0%

Figure 36: Risk Appraisal Scoring and Ranking

4.159. From the above it can be concluded that:

- In terms of raw scores Options 1 and 2 are considered to present the highest risk, followed by Option 3. Option 4 with a total score of 103 is considered to present the least risk; and
- In terms of weighted scores Options 1 and 2 are again considered to present the highest risk, however Option 3 is considered to present less risk than option 4.

4.160. A more detailed analysis of the qualitative appraisal results is set out below and illustrates how the different nature of each Option allows them to be ranked differently according to each risk criteria.

4.161. However, it is clear that:

- For the risks considered most important, as reflected in the highest weights allocated to them being, clinical and non-clinical support and staff and patient issues, Option 4 scores particularly well in weighted and unweighted terms both in an absolute and comparative manner.

Risk Appraisal									
Results		Unweighted Results				Weighted Results			
		Options				Options			
Criteria	Weight	1	2	3	4	1	2	3	4
Planning & environment	3.6	0	3	53	38	0	2.8	48.8	34.4
Transport and Access	16.7	2	2	15	15	0.87	0.87	1.08	1.08
Services Infrastructure	10.46	0	0	4	3	0	0	0.11	0.10
Clinical & non-clinical support	28.8	69	74	45	8	4.97	5.33	3.24	0.58
Staff and Patient issues	40.8	145	140	12	6	9.84	9.48	0.82	0.41
Construction	16.1	2	2	40	24	0.81	0.81	19.39	12.9
Development Opportunity	4.8%	0	0	9	25	0	0	0.43	0.43

Figure 37: Risk Appraisal Detailed Scoring

4.162. Whilst this qualitative risk assessment provides a view of project risk delivery, greater certainty and confidence has been established through a full-quantified risk appraisal that has been completed for viable Options 3 and 4 and which has directly informed the allowance included in each case for Contingency and Optimism Bias.

4.163. A similar approach has not been possible for Options 1 and 2 as neither Option supports a viable scheme for which quantified risk could be identified and costed. However, in being Options within the existing operational hospital it is highly probable that significantly higher levels of risk would be recorded resulting in greater allocation for contingency and optimism bias than noted for Options 3 and 4.

Methodology

4.164. This section provides an economic cost appraisal of the four shortlisted options described in above. The economic appraisal focuses on estimating the net present value of future costs, in keeping with Her Majesty's Treasury (HMT) Green Book guidance. An assumptions log has been kept to record key decisions regarding the assumptions underpinning the costs and benefits for all options and can be found in Appendix 1.

4.165. The economic costs for each option have been quantified on a whole life cost basis using a number of key assumptions and principles as follows;

- The economic life of the Future Hospital is estimated at 60 years;
- The appraisal period for all options is 68 years, recognising the transitional period during which the existing hospital is in operation along with a number of enabling schemes until the Future Hospital opens;
- All costs are at a constant price basis. The base price is 2016/2017;
- Construction and on costs are discounted at States of Jersey discount rate rather than UK Treasury rate;
- Revenue costs are discounted at item specific rates;
- The economic appraisal focuses on expected *future* real *resource* costs for the States of Jersey; therefore, it excludes;
    - transfer payments such as capital charges, sales tax;
    - general inflation;
    - depreciation;
    - loan interest charges; and
    - capital charges;
- The costs do include historic costs for visibility purposes; and
- The cost of property acquisitions is included. Valuation reports are included in Appendix 33.

4.166. The capital and revenue costs identified fall into key categories with in each case, the sources, and high-level assumptions underlying their estimation, being set out in full in Appendix 13.

4.167. The net present value of the capital and revenue costs for each option is set out below and indicates that Option 4 offers the lowest Net Present Value compared to other Options. Full details of the Generic Economic Model data for all options are set out in Appendix 26 and Appendix 27.

Options NPV Costs and Ranking	Option 1	Option 2	Option 3	Option 4
	£M	£M	£M	£M
Capital NPV (incl. lifecycle)	219.2	230.7	500.3	499.3
Revenue	**5,877.9**	**5,706.2**	**4,944.8**	**4,916.4**
Transitional costs	**18.1**	**18.1**	**16.3**	**16.3**
Total NPV	**6,115**	**5,955**	**5,461**	**5,432**
Option ranking	4	3	2	1

Figure 38: Option NPVs

Value for Money Assessment

4.168. In making value based decisions HM Treasury Guidance recognises the value and usefulness of monetising qualitative scores to establish a clearer basis for understanding the relationship between project cost and the evaluated benefits / risks.

4.169. This is achieved by using the Net Present Values (NPV) and the Weighted Benefit Scores resulting from the non-financial benefits appraisal to calculate a NPV per Weighted Benefit Point. The lower the cost per benefit point, the more cost effective is the option. This analysis of the cost and benefit associated with each option is set out below:

Options VFM Test	Option 1	Option 2	Option 3	Option 4
	£M	£M	£M	£M
Option NPV	**6,115**	**5,955**	**5,461**	**5,432**
Option Benefit Points	1.44	1.72	3.88	4.36
NPV cost per Weighted Benefit Point	4,252	3,458	1,406	1,247
Ranking	4	3	2	1
NPV Differential from best Option	(12.6%)	(9.6%)	(0.5%)	-

Figure 39: Options NPVs and Weighted Benefits

4.170. The results of the economic appraisal indicate that:

- Option 4 has the lowest cost per Weighted Benefit Point at £1,247m;
- Option 3 has the next lowest cost at £1,406 per benefit point; and
- Options 1 and 2 outcomes reflect extremely poor value for money scores which is indicative of their lack of viability.

Sensitivity analysis in relation to the benefits appraisal

4.171. Whilst there is significant difference between Options 1 and 2 and Option 4, the least and best performing options it is useful to test the sensitivity of the ranking of Option 4 and Option 3 as the top and next best performing options.

4.172. The results of the sensitivity analysis is shown below and indicate the scale of change needed in the cost or performance of Options to achieve the results of the best performing Option. The tests reflect:

- **Test 1** - the improvement needed in the Net Present Value (NPV) of Options 1,2 and 3 to give a NPV per benefit point equal to Option 4; and
- **Test 2** - the improvement needed in the weighted benefit scores of Options 1, 2 and 3 to give a NPV per benefit point equal to Option 4.

Inter- Options Sensitivity Test	Option 1	Option 2	Option 3	Option 4
	£M	£M	£M	£M
Option NPV	**6,115**	**5,955**	**5,461**	**5,432**
NPV per Weighted Benefit Point	4,252	3,458	1,406	1,247
Test 1 - NPV reduction required to match NPV per Weighted Benefit Point of best performing option	71%	64%	11%	-
Test 2 – Benefit Score improvement to match NPV per Weighted Benefit Point of best performing option	241%	177%	13%	-

Figure 40: Option Sensitivity Outcomes

4.173. The analysis shows that;

- Keeping **weighted benefit constant**, the Net Present Value of options 1 and 2 would have to improve by some 71% and 64% respectively to match the Net Present Value per benefit point of Option 4; for Option 3 the NPV would have to improve by 11%; and
- Keeping **NPV constant**, this would require an increase of almost 250% for Option 1 and an increase of over 150% for Option 2. For Option 3 to match Option 4 an increase of 13% would be needed in the weighted benefit score, for the net present value per benefit score to equate with Option 4.

4.174. In addition to the within option specific sensitivity tests for options 3 and 4 further sensitivity testing of additional external factors has been completed to verify the robustness of Option 4 across all options as the best performing option in terms of NPV per Weighted Benefit Point. These are summarised below:

Considered Sensitivities		Option 1	Option 2	Option 3	Option 4	Option 4 Still Best?
		£M	£M	£M	£M	
NPV (£M)		**6,115**	**5,955**	**5,461**	**5,432**	
Weighted Benefit Score		1.44	1.72	3.88	4.36	
NPV / Weighted Benefit Point		4,252	3,458	1,406	1,247	
Population growth is less than central scenario of +700 per annum at +325 per annum	NPV	5,694	5,570	5,183	5,155	yes
	NPV/ WBP	3,959	3,234	1,334	1,184	yes

Population growth is higher than central scenario of +700 per annum at +1,000 per annum	NPV	6,453	6,267	5,713	5,682	yes
	NPV/ WBP	4,488	3,640	1,471	1,305	yes
Population growth is higher than central scenario of +700 per annum at +1,500 per annum	NPV	6,977	6,791	6,163	6,129	yes
	NPV/ WBP	4,852	3,944	1,587	1,407	yes
Cost increase of 10% on main hospital scheme	NPV	6,123	5,963	5,491	5,460	yes
	NPV/ WBP	4,258	3,463	1,414	1,254	yes
Cost increase of 10% on the Enabling Schemes	NPV	6,116	5,956	5,467	5,439	yes
	NPV/ WBP	4,253	3,459	1,407	1,249	yes
1-year delay main scheme (options 3 and 4 only)	NPV	-	-	5,474	5,444	yes
	NPV/ WBP	-	-	1,409	1,250	yes
2-year delay main scheme (options 3 and 4 only)	NPV	-	-	5,486	5,455	yes
	NPV /WBP	-	-	1,412	1,253	yes
2-year delay to main scheme and ES (option 4 only)	NPV	-	-		5,460	yes
	NPV /WBP	-	-		1,254	yes

Figure 41: Outcomes – Single and Combined Parameters

4.175. The sensitivity analysis shows that if the population growth is +325 net inward migration scenario i.e. lower than the central scenario of +700 inward migration then the NPV of options 1 and 2 will reduce substantially to £5,694m and £5,570m respectively. This is due to the lower levels of off-Island care that would be needed due to reduced demand.

4.176. However, even at this relatively low level, the net present value of option 4 remains lower at £5,155m than that for options 1 and 2.

4.177. With regard to potential out-turns of the inward migration scenarios of +1,000 and +1,500 the performance of Option 3 and 4 significantly improve relative to Options 1 and 2. Again, this is due to the lack of bed capacity within existing hospital and its general capacity to deal increases in demand due to changes in scale and structure of the population demographics.

4.178. The sensitivity analyses with regard to cost increases and delays of 1 to 2 years, shows that whilst the present value of Options 3 and 4 would increase as a result of either of these events, the NPV per Weighted Benefit Point for both options still exceeds that for Option 1 - Do Nothing and for Option 2 - Do Minimum.

4.179. Regardless of the changing parameters, programme delay, cost increases, and/or upward or downward population estimates, Option 4 continues to be the best performing Option under all sensitivity scenarios presented. Full details of the VFM assessment and sensitivity analysis is set out in Appendix 28.

Conclusion

4.180. The above analysis indicates that Option 4 is the best performing Option and should be confirmed as the Preferred Option due to its lower NPV, its lower net present value per benefit score and as it has the lowest unweighted risk score.

4.181. The analysis indicates that Option 4 performance is not particularly sensitive to changes in cost increases, programme delays, population growth assumptions, or benefit appraisal score movements.

The Preferred Option now referred to as The Preferred Scheme

4.182. Following the identification of the Preferred Option in this Economic Case, subsequent Cases in this OBC necessarily focus on assessing the deliverability and affordability of this Option. To avoid confusion with previous Jersey Future Hospital site location appraisals, the term 'Preferred Scheme' rather than Preferred Option will be used in the assessment of Option 4 in the Commercial, Finance, and Management Cases that follow.

5. The Commercial Case

Introduction

5.1. Implementation of the Preferred Scheme will be a significant exercise for the States of Jersey and the project team.

5.2. Being the single largest construction project ever undertaken by the States of Jersey, its scale and the complexity of an acute General Hospital involves significant inherent delivery risk.

5.3. The hospital's impact within wider P.82/2012 transformation programmes also means that the project will have a much broader impact within both the Health and Social Services Department generally and on the local construction economy.

5.4. Consequently, the project will be delivered by a combination of on and off-Island resources. This will create certain logistical challenges while also creating added risk associated with transporting the construction team and other delivery resources onto the Island.

5.5. The impact of this project will also be felt across the Jersey construction economy due to the amount of resource it is likely to draw upon. This will require careful management of existing capital build programmes from States of Jersey to ensure best value for money is obtained across its whole investment portfolio.

5.6. The purpose of the commercial case is to set out the planned approach the States of Jersey will be taking to ensure a successful delivery of the Future Hospital project. This will include making sure there is a competitive market, a commercially beneficial procurement that achieves best value for money and a process that pulls together the commercial strands of the project to allow for timely and effective decision making.

Team Establishment

5.7. The Future Hospital Project Team is comprised of consultants managed and procured by the States of Jersey's Agreement with Gleeds Management Services. The Agreement covers a fixed fee for the conclusion of RIBA stage 2 design services, the conclusion of the outline business case, the development, and presentation of the outline planning application and the procurement of the main contractor for the Future Hospital works. The Gleeds Management Services Team consists of Gleeds Cost Management, Gleeds Advisory, Gleeds Health and Safety, HASSELL Architects, Arup Engineering, MJ Medical, and Rowney Sharman.

Site Assembly arrangements and overall plan

5.8. Numerous options regarding site selection and site configuration have been assessed and a formal decision has been taken to re-provide the Jersey General Hospital on the existing site and adjoining properties acquired to support it.

5.9. The site for the Future Hospital will therefore be created by clearing a portion of the existing hospital site and augmenting it with key property acquisitions.

5.10. This single site approach allows the Future Hospital to be built in one phase of construction that retains attractiveness to the construction market and allows safe ongoing operation of the existing hospital on the remainder of the Jersey General Hospital site, due to the absence of alternative hospital provision on Jersey.

5.11. When the design team were evaluating the land area required for the construction site it had to consider a range of factors including clinical adjacencies, NHS standards of provision and local planning policy. A balance across all these areas was required that still delivered the objectives and benefits identified for the Future Hospital.

5.12. Establishing this site construction requires implementation of a programme of enabling schemes (ES) to transfer existing activities within the current hospital buildings to an alternative location.

5.13. Having established a detailed understanding of the location of all clinical services on the site, it was possible to begin to consider which services are critical and which present a lower clinical risk to transfer them to an alternative site. Peter Crill House and Gwyneth Huelin Block contain lower clinical risk activities and are located adjacent to each other, so have been identified for removal to create the Future Hospital construction site.

5.14. A plan of the construction site can be found below and is supported by a further series of site assembly arrangement plans in Appendix 31.

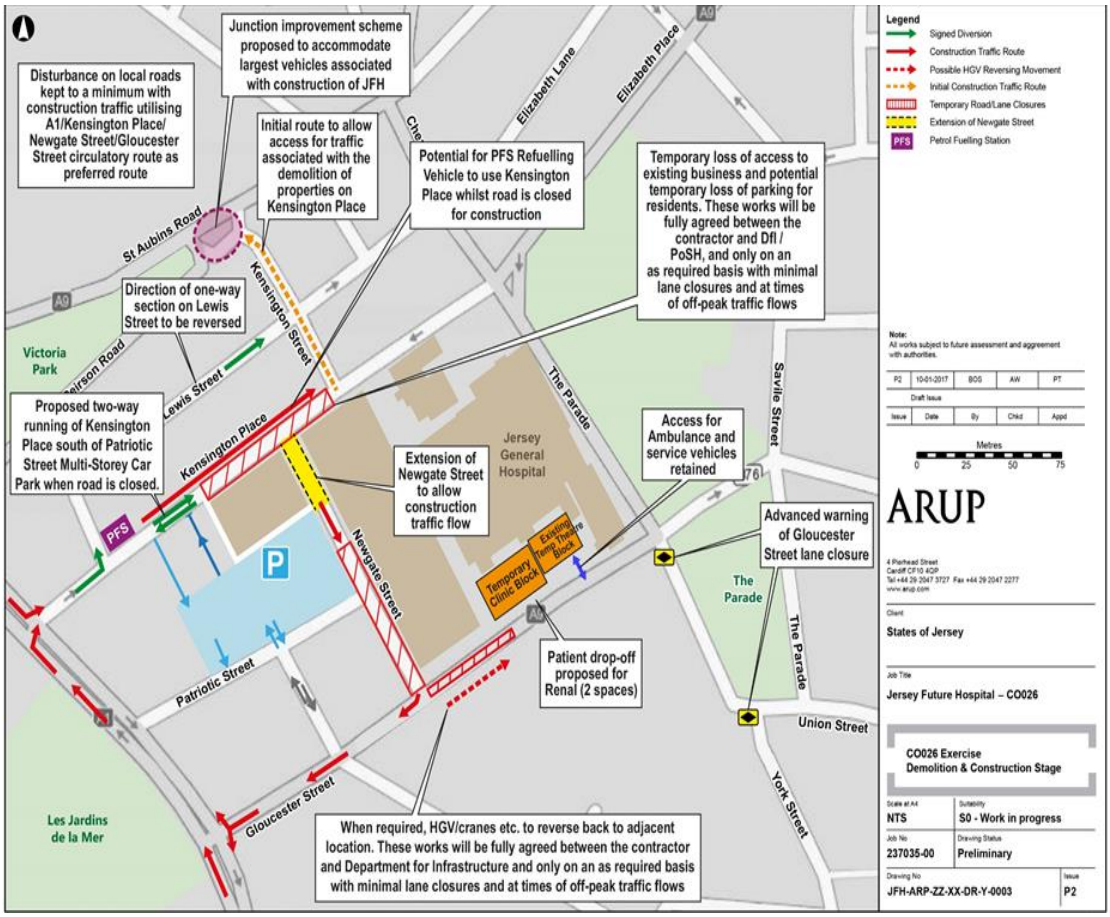

Figure 42: Overall Site Assembly Plan for the Hospital

5.15. However, the land area created by the removal of these two buildings was not sufficient to build the size of hospital required, so further land had to be acquired from neighbouring properties on Kensington Place.

5.16. This has resulted in a new development area up to 50,000sq.m with an envelope of approximately 43m high (plus a 4m flue zone) x 49 wide x 140m long, which equates to a building of up to 9 storeys linking Gloucester Street and Kensington Place.

5.17. The figure below defines the components that make up the site for the Future Hospital:

Schedule of components within the site	Footprint area m2
Part of Jersey General Hospital Site – Peter Crill House, Gwyneth Huelin Wing, underground carpark and associated curtilage	13,475
The Original Hospital Building (the Granite Block - forecourt and Entrance Lodge)	5,587

Schedule of components within the site	m2
Revere Hotel, including Doran's Bistro	3,232
Stafford Hotel	4,396
36-40 Kensington Place	2,292
44 Kensington Place	360

Figure 43: Site Footprint

5.18. Once the ES and acquisitions schemes have been completed, both areas will need to be demolished to create the space to build the Future Hospital. The demolition of the buildings will need to be carefully considered to ensure the rest of the site can continue functioning as normal, while minimising the disruption and disturbances.

5.19. The new Westaway Court building is part of the solution for the Jersey Future Hospital project and will provide complimentary services to those provided in the main hospital.

5.20. Upon completion of the development, the Granite Block will be retained to serve the new build hospital providing accommodation for, administration and training departments. The residual site will be retained for future use by the Health and Social Services Department and subject to the development of an Estates Strategy following the approval of the Future Hospital project.

Project Sequencing

5.21. The Jersey Future Hospital project can be broken down into development stages where some are directly related to the construction of the Future Hospital while others, as already identified, are enabling or pre-requisite works to allow the Future Hospital to be built. These key phases will be outlined in more detail within the commercial case but it is important to understand the impact each phase has on the overall programme. A copy of the full programme can be found in Appendix 23.

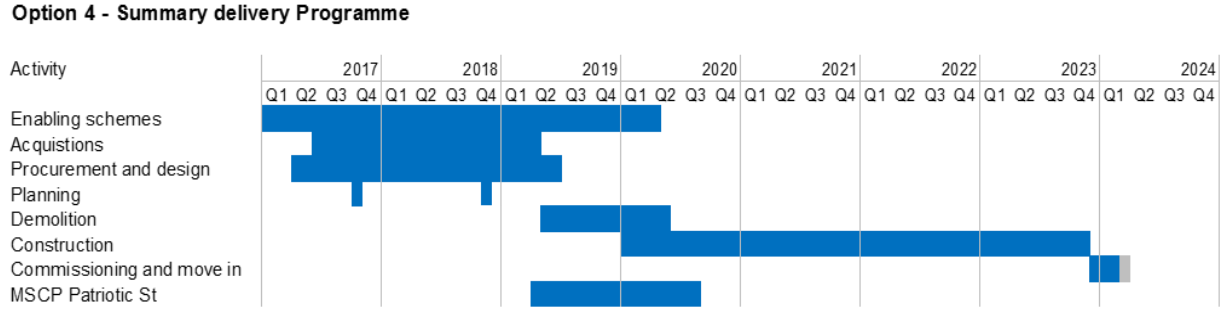

Figure 44: Summary Delivery Programme

5.22. The commissioning programme is complex and will require specialist input due to its technical nature. Post commissioning, a period for transfer activities is required by the Health and Social Services Department to ensure the hospital is ready for use.

5.23. The construction of two additional half decks of hospital parking to the Patriotic Street car park is a separate project but is linked to the overall programme.

5.24. Post completion there is a requirement to return the administrative functions to the Granite Block and this work can only begin once the Future Hospital is operational and there is no longer any transitional use for the building. This work can only be completed after the completion of the Future Hospital and transitional arrangements will remain in place for patient drop off and administration, training and development offices.

Enabling Schemes

5.25. The enabling schemes that are required to form the site for construction of the new Future Hospital, are divided into two categories, and are summarised below. Fuller details can be found in Appendix 15.

- permanent relocations - where the transferred asset or function will continue to operate alongside the completed Future Hospital;

- temporary relocations - where the transferred asset or function will be repatriated back into a part of the Future Hospital on its completion;

Permanent Enabling Schemes

- The demolition and new build of a permanent facility on the site of Westaway Court (ES7) for the creation of a new outpatient's facility that is used as a temporary decant facility for the replacement of outpatients services from Gwyneth Huelin (Dermatology will return to the Future Hospital), a permanent provision of services from Gwyneth Huelin (Physiotherapy), a permanent provision of the Pathology Lab, and the repatriation of services from Overdale Hospital (Diabetes, Pain, Rheumatology and Neurology Services)

- The creation of a permanent medical records store and archive in the basement of the Westmount building at Overdale hospital (ES5); used as an ongoing medical records hub until the implementation of the Electronic Patient Record in 2024 from when it will form a medical records archive facility.

- The creation of a permanent Centralised Production Unit for hospital catering (ES1); this scheme clears part of the area of the interim hospital for use as outpatient's facilities in the temporary state (ES3)
- Transfer of staff accommodation and key worker housing to Andium Homes (ES9) will be undertaken on a permanent basis, these new facilities will provide housing for staff currently situated in Westaway Court and Peter Crill House.

Temporary Enabling Schemes

- The construction of a temporary clinic block (ES4) and the reorganisation of space on the ground and first floor of the Parade, Granite and 1960's wings (ES3/ES8) allows for the temporary relocation of outpatient facilities that require to remain on site, due to their clinical adjacencies with the hospital. These services will be subsequently provided in the Future Hospital.

- A transfer to a leased building will undertake the relocation of corporate offices, training and development and medical secretaries and consultants (ES6), this facility will be within St Helier and a short distance from the interim hospital. The refurbishment of the Granite Block will allow these services to be repatriated where appropriate.

5.26. The enabling schemes are integral to the full project programme and form part of the critical path. The schemes need to be completed and operational before the construction site can be cleared. The enabling schemes have been identified as follows:

Reference	Enabling scheme	Start date	End date
ES1	Creation of Catering CPU	Dec 2017	July 2018
ES4	Construction of Temporary Clinic Block	June 2018	Dec 2018
ES5	Transfer of Medical Records to Westmount Basement	Jan 2018	July 2018
ES6	Corporate Services and Education Centre relocation	Jan 2018	Jun 2018
ES7	Transfer of Clinics to Westaway Court	Jan 2018	Apr 2020
ES8 & ES3	Reorganisation / refurbishment of first floor Parade, Granite & 1960 wings and transfer of clinics	Jan 2018	Feb 2019
ES9	Re-siting of critical Plant and Systems	Jan 2018	Feb 2019
ES10	Transfer of Staff accommodation to Andium Homes	Dec 2017	Dec 2018

Figure 45: Enabling Schemes Start and Completion Dates

5.27. ES7 has been identified as on the critical path of the project programme. It has been prioritised for delivery to ensure it can be completed without delaying the programme. There is some float within the other ES works but any significant delays could result in them also becoming part of the critical path.

Acquisition Requirements

5.28. The States of Jersey have commissioned BNP Paribas to undertake independent market valuations of the freehold properties. Although these valuation reports fall outside the scope of the 2014 edition of the RICS Valuation - Professional Standards, (the "Red Book") effective 6 January 2014, however they did follow the principles wherever practical.

5.29. The approach the States of Jersey will take will be to attempt to buy the properties via an open market route however if this is not achievable then consideration will be given to use compulsory purchase powers available under Article 8 of the 2002 Planning law.

5.30. The BNP Paribas market valuations reports will form the basis of any negotiations with landowners to ensure an effective acquisition of the properties. Demolition of the properties and establishment of the construction site would not be able to begin until all acquisitions have been completed and all properties have been vacated.

5.31. The States of Jersey will ensure that the most appropriate and efficient strategy of acquiring the properties is undertaken to prevent delays and additional costs being incurred. Any delays with completion of the acquisitions could result in a delay in the programme for the Future Hospital. The indirect costs attributed to a delay in the programme are likely to be far greater than those directly attributed to the acquisitions and could even put the project at risk.

Main Hospital

5.32. The development of the Future Hospital will need to be fit for purpose and meet the objectives of the Health and Social Services Department and States of Jersey as identified in the Project Brief.

5.33. A design team has been established to provide this expertise throughout the project lifecycle. The design development of the hospital will follow the industry established RIBA Plan of Work 2013 stages of development. The project is currently substantially through Stage 2 – Concept Design and work is continuing to complete this in line with the project programme.

5.34. The main hospital will be built to comply with Hospital Building Note (HBN) and HTM requirements with no substantive derogations other than the target to reduce the floor

area by 15% where safe and sustainable to do so. Any further derogations from the standards will need to be signed off by the Project Board. A copy of RIBA Stage 1 Overview is included in Appendix 37 that details the design brief and includes an initial schedule of accommodation that is continuously refined during the design process.

5.35. The RIBA stage 2 programme reaches conclusion in December 2017, this is a series of programmed engagements with the Clinical Stakeholders to gain approval of the design. The iterative process maximises stakeholder input whilst ensuring that design evolution can be delivered within the cost, time and quality aspirations of the States of Jersey.

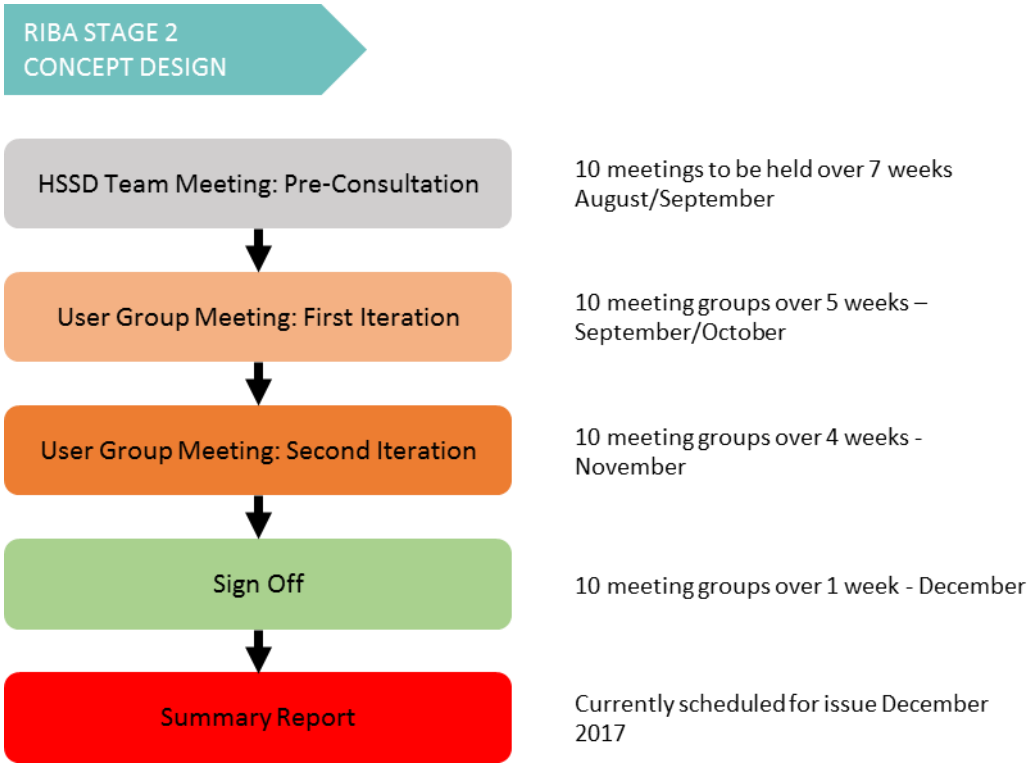

Figure 46: RIBA Stage 2 Outline Programme

5.36. The outline planning application for the scheme was submitted in June 2017 based on RIBA Stage 1 design information. It is anticipated that this will result in a number of reserved matters and/or conditions. Resolution of these reserved matters/conditions will be a duty that the appointed contractor will work alongside the existing design team to resolve during the Pre Contract Services Agreement (PCSA) period and subsequent construction stage. A copy of the Design and Access Statement submitted with the Outline Planning Application can be found in Appendix 38, which details the contribution and impact of the Future Hospital on the potential future townscape in terms of visual impact and accessibility.

5.37. The contractor will work with the design team during RIBA Stage 3 and take over responsibility for the design at the conclusion of RIBA Stage 3 upon entering into the main contract. The detailed planning application will be prepared utilising RIBA Stage 3 design information and is due for submission at the end of 2018.

5.38. RIBA Stage 4 – Technical Design is integral to the success of the complex construction therefore, it has been a key consideration from the outset and will continue to be integral throughout the design process. MJ Medical specialises in supporting the design of medical facilities and has been part of the design team to provide appropriate expertise.

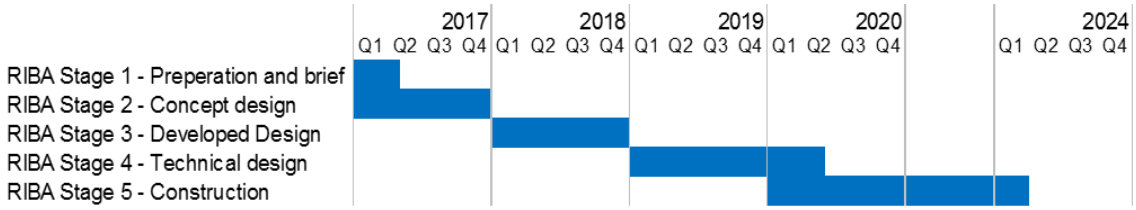

Figure 47: Timetable for RIBA Stage Development of Main Hospital

Procurement approach

5.39. A procurement strategy has been produced to govern the selection of a contractor for all contracts involved in the delivery of the Future Hospital.

5.40. When assessing the appropriate procurement strategy to utilise, consideration has been given to the specific procurement environment of Jersey. This has created parameters that are unique to Jersey and this project.

5.41. It has been identified by the States of Jersey that the delivery of goods and services needs to be through on-Island partners wherever it is feasible and appropriate to do so. The construction industry on Jersey has a limited capacity and lacks the design and construction specialism for a project of this size and scope. Therefore, a partnership between on and off-Island providers will be necessary.

5.42. The Jersey Future Hospital project will have a direct impact on the construction economy of Jersey and may even have an adverse impact on other projects across the Island. It will be important to manage the States of Jersey construction portfolio to ensure all public funded projects are achieving best value and appropriately using public funds.

5.43. These parameters will shape the procurement strategy for each scheme and although Jersey is outside of the EU, and has its own procurement processes, compliance with EU Directives has encouraged best practice in the procurement of contracts.

Enabling Schemes

5.44. Each of the enabling schemes is being treated as a separate contract due to a number of factors. The technical challenges of each scheme are different and by separating out the contracts ensure that the contractors with the required expertise can be utilised on the contracts that best suits them.

5.45. The scale and timing of the works required have been assessed and they have been identified as appropriate for local delivery. This approach will offer best value for money while utilising the on-Island resource as these smaller packages of work can be delivered more cost effectively and at lower risk than an off-Island contractor will.

5.46. Each individual enabling scheme will have a specific scope of works, contract, and procurement procedure dependent on their specific circumstances. These have all been developed with managing risk and obtaining best value for money as key assessment criteria when determining which approach to adopt. To ensure this is delivered effectively, a procurement strategy for each ES scheme will be developed outlining the approach to be taken. The procurement strategies that have been complete for the enabling schemes to date can be viewed in Appendix 20.

Main Hospital

5.47. Considering the size and complexity of the development and the intention to minimise the risk exposure on States of Jersey, there will be one single contract for the main hospital works. In delivering this single contract, it is imperative to be cognisant of the effective operation of the new hospital following handover. A priority objective of the contract scope is ensuring the effective transition from construction to operation that will include resource and training to address any defects and necessary training of the Future Hospital team.

5.48. Following a review with technical advisors and the requirement of the need to ensure a smooth transition from construction to operation, the States of Jersey will adopt principles of Soft Landings[2] (SL) and embrace Building Services Research and Information Association (BSRIA) and Government Soft Landings (GSL) methodologies by acceptance of the best practice principles contained within this strategies

5.49. The SL strategy and scope will be developed via workshop processes, deliverables, and output requirements articulated as a result. Best practice will be followed, to

[2] NBS Definition - UK Government Soft Landings (GSL) is a strategy designed to make an easy transition from the construction to occupation phases of a project with the overriding aim of realising optimal operational performance.

guarantee SL is considered in design, delivery and training, ultimately ensuring seamless transition to handover and operation.

5.50. The Jersey Future Hospital Soft Landings strategy will identify specific targets for measurement including hard and soft measures that will be developed during the course of the PCSA with input from the contractor as required. These targets will be integrated as part of the wider sustainability function and a Building Research Establishment Environmental Assessment Model (BREEAM) target of “Excellent”.

5.51. With regards to the resourcing of the Client’s team responsible for operating the Future Hospital, this is a matter that can be addressed in advance of handover when there will be a better understanding of the Client’s resources available to maintain the Future Hospital at the time. This will inform whether there is a requirement to procure a Facilities Management contract, which would be separate from the construction works contract.

Equipment Strategy

5.52. As the design progresses through the development process, there will be a focus on integrating the equipment into the design and the Equipment Strategy will continue to evolve and develop within the constraints of the agreed approach defined in the strategy. This will be an informed process relating to information received from the Jersey Future Hospital project team and the developing design. An Equipment Strategy has been developed and can be found in Appendix 21.

5.53. It is acknowledged that the equipment requirements will become more precisely defined as the scheme progresses manifesting in the further development of the Room Data. In the event that the design team or construction team develop innovative proposals in relationship to room function or particular items of equipment, the Activity Data Base (ADB) coding and Equipment Responsibility Matrix (ERM) classification will be agreed prior to incorporation into the design or construction proposals. A comprehensive review of existing assets against an agreed assessment criterion will be undertaken by the hospital engineering team to determine asset transfer suitability.

5.54. An Equipment Committee (EC), chaired by a senior officer from the Health and Social Services Department, is established as a working strand of the overall Project structure. This Group will be tasked with working alongside the existing hospital equipment programme to further develop the project Equipment Strategy and the commissioning of the identified equipment.

5.55. The Jersey Future Hospital project team will approach the equipment provision as a mixed economy to ensure that it obtains best value from the available procurement options. This mixed economy means considering options such as capital expenditure,

inclusion within the bulk/standardised procurement, managed equipment services, lease purchase, and charitable donations where relevant.

5.56. The Jersey Future Hospital project team have also determined certain key principles with which it wishes the construction team to comply with in their responses on equipment provision. Details of these can be found in the Equipment Strategy.

5.57. At this stage, it is assumed that the scheme will include the provision of some items of medical and non-medical equipment by the contractor, but the scope of this provision will need to be subject to regular review up to the award of contract. The procurement of equipment will be in line with existing States of Jersey procurement policies and procedures.

Design responsibility

5.58. The design team, of Hassel and Arup, will novate to the appointed contractor to ensure continuity. The wording of the novation agreement, to be included within the Invitation to Tender (ITT), will stipulate that the liability for the entire design be transferred to the contractor and in doing so achieve a single point of responsibility for design and construction. GMS' Project Management, Cost Management and Health and Safety services (including the role of Health and Safety Project Coordinator) would not be novated nor would the services of the Healthcare Planner, MJM.

5.59. To ensure the States of Jersey retain design expertise within its project team, a team of Technical Advisors will need to be employed to assist throughout the design and construction phases. As the tender process encourages the contractor to bring innovation and buildability in to the design, the team of technical advisors will be required to review and check design iterations on behalf of the States of Jersey. This design advice would continue through the detailed design stage to include design contributions from specialist trade sub-contractors and into the post contract period to support any design changes from agreed scope change.

5.60. Consideration has been given as to who could provide this advice. These roles will include, but are not limited to, project and programme Management, cost management, health and safety advice, architectural, building services, structural engineering, highways engineering, medical planning, and acoustic engineering expertise.

5.61. Quality management will be carried out through a Design Quality Indicator (DQI) external assessor initially for stages 1-3 of the design quality indicator. After Stage 3, the formal role of Technical Supervisor will be subject to the States of Jersey's agreed Technical Advise procurement.

5.62. The use of DQI and BREEAM (Building Research Establishment Environmental Assessment Model) will be rigorously adopted, reviewed, and updated during the design development and business case preparation stages in order to achieve quality and a sustainable design solution. The completed DQI Stage 1 briefing and the BREEAM pre-assessment can be found in Appendices 18 and 17 respectively.

Procurement Process

5.63. The Jersey Future Hospital will comply with States of Jersey procurement requirements.

5.64. The Jersey Future Hospital project will, in accordance with the Detailed Procurement Strategy, undertake a Restricted Process procurement route to ensure the financial standing and technical capability of the main contractors. A copy of the full Procurement Strategy can be found in Appendix 19.

5.65. Due to the challenges the project presents, a two-stage tender process provides significant benefits in mitigating risk, buildability, and design innovation.

5.66. The Two-stage tendering has been adopted for a number of reasons, including:

- achieving early appointment of the main contractor ahead of the completion of design, and potentially a quicker start on site;
- Securing the involvement of a contractor for pre-contract services on a competitive basis, to obtain input on buildability, sequencing and sub-contractor selection;
- Retaining greater client involvement in the pre-selection and appointment of subcontractors;
- Motivating the design and construction team to drive out cost and to drive in value; and
- Transferring a greater degree of design and construction risk to the contractor.

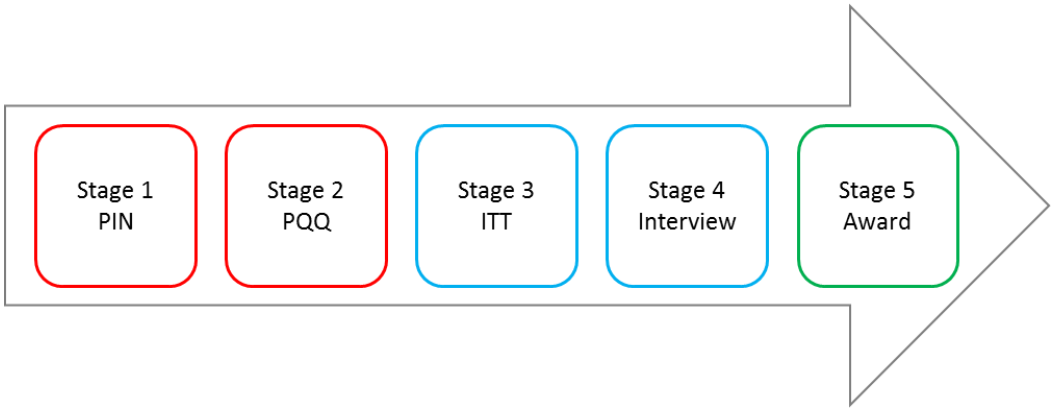

Figure 48: Procurement Process

5.67. Due to the complexity of the design and operating capabilities of a Future Hospital, approximately 40% of the contract sum will be attributed to the mechanical and electrical (M&E) services installation for which buildability and innovation advice is necessary from our appointed contractor team. Therefore, the first-stage tender will seek the procurement of the main contractor and their preferred M&E services sub-contractor such that expert advice across all elements of the design is available from RIBA Stage 3.

5.68. In line with the procurement timetable, set out in the figure below, the Pre-Qualification Questionnaire (PQQ) has been completed, with an assessment undertaken in line with the appraisal process. Following this detailed assessment, the project is proceeding into the ITT stage.

Deliverable	Date
Prior Information Notice	30th June 2017
PQQ issue	5th July 2017
Latest date for receipt of PQQ applications (the 'Deadline')	2nd August 2017
Approval of shortlist (notify applicants)	8th September 2017
Launch of ITT	9th October 2017
ITT latest date for receipt of tenders	1st December 2017
Conduct interviews	w/c 8th January 2018
Notify results of tender evaluation	23rd January 2018
PCSA contractor appointed	23rd January 2018
PCSA commences	1st February 2018

Figure 49: ITT Timetable

Selection Criteria

5.69. The selection criteria have been formulated by giving due consideration to the Core Objectives of the procurement strategy, which brings a focus on tenderers having to demonstrate a capability of delivering a complex construction project in a remote location, involving an appropriate level of on-Island resources and ensuring a high-quality facility is delivered.

5.70. The first selection criteria were based upon the results of the pre-qualification questionnaire and included selection criteria relating to the following themes.

PQQ Evaluation Theme	Evaluation Approach
Company Information	PASS / FAIL
Declarations and Conflicts of Interest	PASS / FAIL
Insurances	PASS / FAIL
Financial Status and Legitimacy	PASS / FAIL
Health and Safety	PASS / FAIL & SCORED
Health and Safety Procedure	SCORED
Experience and Capability	SCORED
Quality Management	SCORED
Environmental Management	SCORED

Figure 50: PQQ Evaluation Criteria

5.71. The PQQ process identified companies that demonstrated their experience and track record of delivering works of a similar scale and complexity as well as meet other due diligence criteria. The PQQ process was open to all applicants and will be conducted on the Channel Islands Tender Portal.

5.72. The PQQ process identified the potential Mechanical and Electrical delivery partners of each applicant enabling due diligence to be carried out on this key element of the supply-chain during this early stage of the procurement process.

5.73. The first-stage tender will comprise the Instructions to Tenderers (including the scoring matrix), Pricing Information, and Qualitative Questions, the Pre-Construction Services Agreement, the design brief, specifications, drawings and other project related information deemed relevant at this stage for the contractors to submit a comprehensive response.

5.74. The first-stage competition will be based on deliverables including a construction programme and method statement, detailed preliminaries pricing, and overheads and profit. The first-stage will include lump sums for pre-construction services, design fees, risk margins for work that will not be tendered in the second-stage.

5.75. This approach will achieve an early appointment of a Contractor to a lump-sum contract. For the first-stage, the objective is to competitively appoint, based on limited information, a preferred Contractor for further negotiation to conclude the Target Cost.

5.76. At this point the intention is that the ITT will include selection criteria relating to the following themes:

ITT Evaluation Theme	Evaluation Approach
Health and Safety	Scored
Island Interface and use of Supply-Chain	Scored
PCSA Resource, Management and Delivery	Scored
Main Contract Resource, Management and Delivery	Scored

Figure 51: ITT Selection Criteria

5.77. Following the ITT evaluation, each tenderer will be invited to an interview to answer a series of predefined questions to assess their ability to deliver the contract to meet the procurement strategy objectives.

5.78. Careful consideration has been given to ensure the most appropriate tender evaluation scoring ratios factoring in current levels of detailed design information available, the relative importance of each element while maximising the innovation, buildability, and value for money.

5.79. The ITT scoring ratios will be.

Quality – 60%	Price – 40%
Written response – 40%	Preliminaries – 10%
Interview – 20%	Overheads and profit – 25%
	Pre-construction services – 5%

Figure 52: ITT Scoring Ratios

Pre Contract Services Agreement

5.80. During the PCSA stage, the contractor is required to undertake procurement activities in order to establish the target cost, this will be mapped out within a New Engineering Contract (NEC) “Accepted Programme” for the PCSA Deliverables that is issued for Acceptance under the PCSA Contract. To ensure consistency of procurement approach across the works contract, the contractor will be required to produce works package Bills of Quantities; this would be a deliverable written into the PCSA.

5.81. The establishment of the project cost during the PCSA and throughout the contractor’s appointment will not be limited to ‘lowest cost wins’. By employing this approach, it will remain consistent in procuring best value, rather than selecting lowest cost, throughout the supply chain. In respect of sub-contract tendering, whilst all sub-contract tenders are issued and returned through the contractor’s portal, access to the portal must be provided to the GMS and States of Jersey team so the sub-contract tendering process is transparent.

5.82. Finally, from a contractual perspective, the PCSA will include a clause that stipulates that States of Jersey have no obligation to enter into a works contract following completion of the services set out in the PCSA.

Commissioning

5.83. Due to the relative complexity of a hospital’s mechanical and electrical (M&E) services and the importance of making sure they operate as they are designed to, it is imperative that these systems are robustly commissioned. Therefore, an independent commissioning company will be appointed from RIBA Stage 3, whose role will be to initially advise the designers on the ability of the design to be commissioned and to then carry out the witnessing of the testing and commissioning of the hospital’s M&E systems.

5.84. The testing and commissioning of the services will remain with the installation sub-contractor rather than the independent commissioning company i.e. this will be a witnessing role rather than a hands-on commissioning role, to ensure a single point of responsibility. This role will be tendered to competent commissioning companies with a record of accomplishment in commissioning large, complex buildings to ensure that States of Jersey is receiving best value.

Contract Type

5.85. The Future Hospital project is a high value project with a high-risk profile, due to various local factors and design complexity, with a strong emphasis to deliver the works contract within budget. Additional project objectives identified were to maximise

buildability and innovation in to the design, facilitated by early contractor engagement through a two-stage tender approach.

5.86. Soft market testing was conducted with potential contractors to seek their views on a preferential contract route, Joint Contracts Tribunal (JCT) Design and Build or ECC, and the contractors were comfortable with either option being used on this project. A full options appraisal for the contract strategy was undertaken, including the objective to establish a collaborative high performing team culture, has led the project team to propose a NEC 3 ECC Option C - Target Cost contract.

5.87. A Target Cost contract strategy recognises that the quantification of risks on a large complex project is not straightforward and therefore would provide the contractual mechanism for equitably managing the risk and distributing the savings associated with contractor innovation whilst meeting the client's objective, through the provision of a Guaranteed Maximum Price, of achieving cost certainty.

5.88. It is the intention for contractor and subcontractor's contracts to be back to back to incentivise cost savings and risk sharing throughout the supply chain. With regards to the Client's and Contractor's share percentages and share ranges, the tenderers will be requested to make their own proposals as part of the ITT, which would then be scored as part of the Qualitative submission. In addition, legal advice on the proposed pain/gain share model is being sought from Shepherd & Wedderburn.

5.89. It is proposed to use the 5-Zone Model for managing the share percentages of the target cost contract. The model will be tested with proposed fee percentages through the independent client commercial advisor (EY), for pain/gain and agreed percentages over and below the target cost agreed to set the upper and lower limits of the zones.

5.90. During the PCSA period, challenge to contractor pricing will be through parallel costing and or end checks for packages. To bolster this cost review process, a Technical Advisor may be appointed to ensure that consideration is given to the proposed contractors specification and buildability change proposals.

Proposed contract lengths

5.91. The following contract lengths will be considered:

- Enabling Works Construction – 2 years (2018 to 2020);
- Preconstruction Services Agreement – 2 years (2018-2019);
- Works Contract – 6 years (2019 to 2024);

- Post Contract Evaluation and Management Period – 3 years (2024 to 2027); and
- Granite Block Construction, Post Contract Evaluation and Management – 2 years (2024 to 2026).

Proposed key contractual clauses

5.92. The proposed NEC3 contract will be amended with a series of Z clauses that have been provided by the legal advisor, reviewed by the States of Jersey, and approved for inclusion in the contract.

5.93. This schedule of additional conditions of contract is attached in Appendix 35. This defines the Secondary Option Z (additional conditions of contract) and amends the NEC3 Engineering and Construction Contract April 2013 (the "NEC3"). In the event of any ambiguity between the provisions of this schedule of additional conditions of contract and the other provisions of the un-amended NEC3 standard form, the provisions of this schedule of additional conditions of contract shall prevail and take precedence over the NEC3 standard form provisions.

Cost Management Strategy and Market Intelligence

5.94. The Project Team have adopted a Cost Management Strategy that reflects best practice guidance, using UK standard benchmarks and cost data to create Works Costs, local and UK data to benchmark Location Factor and Inflation Costs and Contingencies that reflect the current project risk profiles.

Works Costs

5.95. The Works cost has been based upon the Health Premises Cost Guide and measured on-costs and have been benchmarked against a number of major hospital construction projects. As the Stage 2 design continues to develop, the cost plan is being regularly updated to reflect the emerging design.

5.96. The works costs include both the main hospital and relocation projects. Costs are based upon a measure of the works to be undertaken with rates applied and adjusted for the design development agreed to date. Further details on the methodology and capital cost forms can be found in Appendices 24 and 25.

5.97. The cost estimates for Option 3 and 4 of the OBC have been generated from the Outline Planning Application information, combined with the status of design for all relocation projects.

5.98. The cost plan is being used as a tool to manage the project scope and design to remain within the current project budget. As design development and scope have evolved, value management sessions have been held to address this and align the project to the available budget.

5.99. Value management workshops have also been held for the relocation projects.

Location Factor

5.100. The factor applied (24% uplift to the base rates) has been reviewed (in line with the quarterly review); Appendix 24 report details how this figure has been derived.

Equipment Costs

5.101. A 15% allowance for equipment was established and has been fixed as a lump sum budget. This allowance has been benchmarked against existing hospital projects and will be detailed in subsequent phases of the design, as the detailed room plans are created in RIBA stage 3, alongside the evolution of the Equipment Strategy. Equipment will be transferred from the existing hospital to bridge any gap that emerges.

Contingency

5.102. The contingency allowance remains intact and has not been drawn down at this stage. Contingency is expressed in two locations within the cost estimate; construction risks are held within the works cost budget and client contingency is held separately from the works cost.

Inflation

5.103. In order to monitor any movement in inflation we are reviewing inflation forecasts on a quarterly basis to gauge the markets perception of future tender price inflation movement. Our last review was based upon the Building Cost Information Service (BCIS) Tender Price Indices (TPI) for July 2017, the findings of which are incorporated in the current cost plan and within the OBC.

5.104. Application of the July 2017 BCIS Indices resulted in minimal movement from the BCIS forecasts previously applied. We will continue to monitor inflation forecasts from both the BCIS and the wider market and report upon findings.

Management of Design and Cost Integration

5.105. Regular cost review of the iterative design process and ongoing benchmarking, into and beyond stage 2, provides budget and value management information for the Project Team and Project Board to manage the delivery of the Future Hospital within its cost, time, and qualitative constraints. The involvement and engagement of clinical

stakeholders in the evolution of the design maximises the value from their input at this project stage.

Market Intelligence

5.106. Market Engagement and Research has been undertaken through a soft market testing process with nineteen potential bidders for the main hospital scheme. This interface followed a prior issue of an Overview Briefing to the bidders on the scheme, comprising the scheme's type and size, proposed contract type and an overview of the delivery programme.

5.107. The potential bidders approached were identified as being competent and capable of delivering the Future Hospital project based on prior projects completed of a similar type and scale. Of the contractors that were contacted, eight positively responded to the engagement process.

5.108. Market capacity to deliver was appraised in respect of the Island's resources in conjunction with an off-Island supplier resourcing solution. Research undertaken suggests that the current on-Island construction market is buoyant at present in terms of both local main contractors and therefore their onward sub-contract supply-chain.

5.109. The off-Island supplier capacity is able to support delivery of a remote scheme and bidders in this regard raised no concerns. The risk for remote delivery is focused on delays caused by the weather and how this may influence the transport of materials. This indicates that bonded storage is required as a mitigation.

5.110. After the appointment under the PCSA, the contractor will be required to perform a health check on the budget against the proposed design.

Construction approach

5.111. A project of this size and nature will create substantial challenges and the project team will develop mitigation plans which include:

- All parties are required to manage the contract proactively and work in collaboration with the States of Jersey, Contractor, the Supervisor (when appointed), and the Services Director as stated within the Conditions of Contract and in a spirit of mutual trust and co-operation;
- The Island location of the construction site will require the contractor to consider the logistical challenges and added risk of delays caused by poor weather on deliveries. To mitigate against this, it is proposed that a bonded storage will be created close to the construction site to keep the project on schedule;

- Given the sensitive nature of the location of the construction works, a considered approach to construction will be required to minimise the impact of excessive noise, traffic, dust creation, and vibration;
- Relevant legislation will need to be complied with during the construction phase to ensure these negative impacts are reduced as practicably possible. This includes the Statutory Nuisances (Jersey) Law 1999, which covers a wide range of public nuisances and provides guidance on how noise may be controlled;
- As required by the Planning and Building (Jersey) Law 2002, a Construction Environment Management Plan (CEMP) is required, detailing specifically how environmental impacts such as noise and vibration will be monitored and controlled during the construction phase;
- The contractor will be required to operate in accordance with the guidance provided in the States of Jersey Environmental Health Best Practice Guide on Noise Control on Construction and Demolition Sites (2015);
- An assessment has been undertaken to consider the effects on the surrounding environment, including the premises around the site and remaining hospital buildings, of noise and vibration associated with the demolition, construction and operation of the hospital; and
- The assessment approach was discussed and communicated with the States of Jersey Environmental Health Officer (EHO) to agree scope and methodology while taking into account of the key policies, guidance, and legislation.

5.112. While evaluating the impact of noise and vibration the assessment made using several assumptions in relation to the adherence to best industry practice and utilising information from previous similar previous projects. The summary of the assessment was;

Potential Effect	Significance -- pre - mitigation	Mitigation	Significance -Post mitigation	Comments
Traffic noise	Significant	Construction vehicles mainly accessing the site between the hours of 0800-1800 Monday to Friday and 0800-1300 Saturday. Disturbance from construction vehicles to residents will be mitigated and minimised through	Significant	Properties located on Lewis Street are likely to be impacted during demolition and construction due to diversions, however there are likely to be no health impacts.

		implementation of the CEMP		
Demolition and construction noise	Significant	Planning of demolition in order to provide screening from remaining structures. Noise barriers to reduce levels at the hospital buildings. Positioning of/screening/enclosures for generators or pumps. Agreements between JFH and the contractor about working hours, construction and mitigation methods. CEMP to outline best practice.	Not significant	Significance criteria may be exceeded at NSR D (Hospital Lab Block) and F (Kensington Place) for short periods. Mitigation to reduce noise levels as to not cause likely health impacts.
Demolition and Construction vibration	Not significant	CEMP to outline best practice. Liaison with nearby residents to reduce the impact of perceptible vibration.	Not significant	NSRs F (Kensington Place) and G (Kensington Place) have the potential for vibration to be perceptible for short periods.

Figure 53: Noise and Vibration Impact Assessment and Mitigation

5.113. Particular consideration would be given to the careful selection of plant, construction methods, and programming to minimise the noise impact. Equipment would be sited as far from sensitive areas or as close to any acoustic screen located between the activities as reasonably practicable. Site-specific measures would also be employed where reasonably practicable and will be detailed within the CEMP.

5.114. In relation to vibration, best practicable means (BPM) would include review of groundwork processes and the time of day of operation depending on the sensitivity of the neighbouring buildings. This would be coordinated as part of the liaison exercise.

5.115. During construction, road closures are proposed along Newgate Street and part of Kensington Place between the junctions with Kensington Street and the exit to Patriotic Street Multi Storey Car Park (MSCP). Mitigation measures will need to be agreed and implemented to allow traffic to continue to flow around the construction site and minimise impact.

5.116. There will be different approaches during the construction phases to mitigate the impact of noise, dust creation, and vibrations. Each phase will create different issues and will require well-considered solutions. Matters may arise daily and so daily

meetings are essential coupled with a clear line of authority and effective communication channels.

5.117. To address these issues, a number of counter-measures will be deployed, broken into the following categories;

- Active measures, such as designed solutions to minimise the impact of work on site;
- Passive measures, such as the selection of supply chain partners with a demonstrated track record and the installation of noise barriers; and
- Engagement measures, such as ongoing and purposeful stakeholder engagement and planning of work times to minimise impact.

Required services

5.118. This is for a construction contract only and all services required to support the maintenance of the Interim Hospital and management of the Future Hospital, post-handover, will continue to be provided by the Health and Social Services Department and Jersey Property Holdings.

Risk Transfer

5.119. The management of risks is fundamental to the successful delivery of the project and this will be covered in more detail within the management case. Through this process, a project risk register has been developed with financial costs assigned as mitigation. Where known, these costs have been included as contingency and where they are not quantifiable, they have factored into the optimism bias. The contingency and optimism bias is covered in more detail within the Finance Case.

5.120. The general principle is that risks should be passed to ‘the party best able to manage them’, subject to value for money. The purpose of the contracting strategy is to strike the balance between risk allocation and contractor incentivisation.

5.121. The Accepted Programme, which sits at the heart of the ECC, draws upon the relevant risks that will be reflected in terms of Time Risk Allowance to ensure a co-ordinated set of project controls documentation is in place throughout the contract.

5.122. This allocation of risk will be tested with the appointed contractor during the PCSA period in association with Target Cost setting. Those risks that are considered best shared between the client and contractor would comprise the risk contingency.

5.123. An initial assessment of risks and allocation of responsibility between client and contractor has been undertaken and a summary of this can be found in the figure below;

Risk Category	Potential allocation		
	Public	Private	Shared
1. Design risk	✓		✓
2. Construction and development risk			✓
3. Transition and implementation risk			✓
4. Availability and performance risk			✓
5. Operating risk	✓		
6. Variability of revenue risks	✓		
7. Termination risks	✓		
8. Technology and obsolescence risks			✓
9. Control risks	✓		
10. Residual value risks	✓		
11. Financing risks	✓		
12. Legislative risks	✓		
13. Other project risks	✓		

Figure 54: Risk Transfer Matrix

6. The Finance Case

Introduction

6.1. This finance case sets out the whole life financial costs associated with the delivery of Option 4 - the Preferred Scheme, as described in the Economic Case.

6.2. It also sets out the whole life financial costs associated with the delivery of Option 1, the 'Do Nothing' option as described in the Economic Case. As stated in the economic case Option 1 is included as a baseline and is not a viable option to meet the strategic and operational objectives of the Health and Social Services Department for the hospital in the short, medium, or long term. The presentation of Option 1 costs here is to give visibility to the service delivery costs that are forecast in the scenario of a Do Nothing / business as usual approach.

6.3. The Finance Case differs from the Economic Case in that it deals with the financial cost of the project to the States of Jersey. This includes addressing matters such as cash flows associated with interest payable on loans and includes inflation rather than setting out only the resource costs that, in keeping with UK HMT Guidance, is the sole focus of the Economic Case.

6.4. The purpose of this Finance Case is therefore to set out the detail of the project cash costs, namely; the nature, scale, profile and the cost drivers associated with implementing the Preferred Scheme over the whole life of the project, and as noted above it also sets out the detail regarding the cost of not implementing the Preferred Scheme by drawing a comparison with the 'Do Nothing' option over the same period.

6.5. In the UK the OBC would ordinarily be used to demonstrate affordability and seek approval for associated capital and revenue spend. Due to jurisdictional difference between the States of Jersey and the UK this OBC is not seeking revenue or capital funding approval for the estimated Future Hospital costs as set out in this Finance Case. This is due to:

- The capital funding costs being the subject of a separate Report and Proposition prepared by the Treasury and Resources Minister. This will seek approval to the detail of the approach recommended. The Report and Proposition will set out the funding options considered and will provide justification and evidence for the recommended way forward; and
- Revenue funding can only be approved through the States of Jersey's Medium Term Financial Planning (MTFP) process. The current MTFP runs to 2019 with growth approved on an annual basis.

Affordability Assessment

6.6. This OBC whilst not seeking approval to capital and revenue expenditure does seek to set out the cost elements of service delivery resulting from the operation of the existing Jersey General Hospital in the remaining years of MTFP2 and future MTFP periods and costs driven by demographic change and/or the construction and operation of the Future Hospital. This is because cognisance needs to be taken that in approving the delivery of the Future Hospital as described in the preferred scheme in this business case, these on-going revenue costs will drive and inform additional expenditure requirements for the remaining years of MTFP2, and MTFP bids in future years, in a scale and profile similar to that set out in this finance case.

6.7. As future-funding bids as noted above will be informed by the capital and revenue costs set out in this finance case, a high-level assessment of affordability has been undertaken at a States of Jersey level. In assessing affordability, the following capital and revenue costs are considered:

- Capital affordability
  - The current estimated capital cost against the £466 million envelope approved in P110/2016 for a new build hospital; and
  - Financing charges associated with the funding of the forecast capital cost.
- Revenue affordability
  - Future Hospital clinical and non-clinical costs; and
  - Building and equipment lifecycle costs.

Strategic Outline Case Update

6.8. The Strategic Outline Case (SOC) noted that the procurement route for the Future Hospital had not been accepted at that stage and that the accounting treatment for many costs would be determined by the procurement route.

6.9. As set out in the commercial case, the procurement route has now been agreed as a design and build contract derivative. Further discussions with Jersey Property Holdings will take place to determine the accounting treatment of the new assets at a departmental level.

Reconciliation of P.110/2016 approved capital cost plans

6.10. This section sets out the reconciliation of P.110/2016 approved capital cost plans and the estimated current capital cost plan.

6.11. In November 2016, the States approved the current existing and extended Jersey General Hospital site as the preferred site option subject to this Outline Business Case being approved. P.110/2016 approved in principle a capital cost for the Jersey Future Hospital of £466 million inclusive of optimism bias and contingency.

6.12. This Finance Case provides a comparison of the capital cost plan scope and estimates approved in P.110/2016 and the current comparable cost estimate to provide full visibility on areas where the original cost estimates have changed and an explanation of why this is the case.

Income

6.13. The forecast income with regard to private patient treatments because of implementation of the Preferred Scheme is shown.

6.14. The proposed funding strategy for the capital cost element of the Future Hospital is likely to include raising of a bond. As the bond needs to be in place prior to being drawn down to fund the capital works, there will be, for a period, interest accruing on the bond whilst it is being held by States of Jersey Treasury and Resources Department.

Out of Hospital costs

6.15. The successful delivery of the Future Hospital as set out in the Strategic Case is dependent in part on an increase in out of hospital services to provide some services displaced from the hospital setting as required by P.82/2012.

6.16. The States of Jersey has allocated P.82/2012 funding to the end of MTFP2 period (2019) for amongst other things the following:

- Transforming the acute hospital service, of which the Future Hospital is a key component; and
- Transforming out of hospital services. The capital and revenue costs associated with the implementation of these services as part of P.82/2012 Transformation Strategy will be drawn down based on separate but related business cases. (As a separate area of responsibility and funding therefore are out of scope for this Business Case).

The Preferred Scheme - capital cost, funding and financing

6.17. The capital cost of the Future Hospital is currently estimated at £465.9M. This cost reflects:

- The design and construction costs associated with a new build main hospital and a new build support facility at Westaway Court;
- Enabling whole system transformation in Health and Social care benefiting the health of the population;
- The acquisition of additional properties to augment the current hospital site and a number of enabling schemes to release space to enable the Future Hospital to be built on the existing and extended site;
- Provisions for spend on equipment and non-works costs such as planning application costs and off-site transport improvements; and
- Allowances for risk, contingency, and optimism bias appropriate to the design stage of the project.

6.18. A full explanation of the approach, assumptions, and evidence for estimation of each cost line is provided in Appendix 13.

6.19. The full breakdown of the estimated costs for the main hospital and the enabling schemes- including Westaway Court and other relocation projects are set out below. Key features of the capital cost assumptions include:

- A Jersey location cost uplift factor of 24% on UK cost indices;
- Standard construction costs indices;
- Inflation rates applied in line with BCIS Q2 2017 forecasts; and
- Optimism Bias is applied to main hospital scheme costs only.

6.20. The Enabling Schemes are expected to be delivered by local Jersey based contractors. Cost estimates for these reflect known local market conditions and market testing. This has enabled Optimism Bias to be fully mitigated with costs reflecting risk and contingency remaining.

6.21. Capitalisation of revenue costs associated with the enabling schemes until they finish or until Future Hospital opening whichever is the sooner

Cost description	Current Estimate £m
Feasibility Costs	
(i)Departmental Works Costs	113,300,366
(ii) Site specific Works Costs (on costs)	51,191,254
Location factor adjustment	39,477,989
Works Cost Total	**203,969,609**
Consultant and design Team Fees	35,627,519

Cost description	Current Estimate £m
Site Specific Non-Works Costs	
Land	10,486,800
Other	4,505,000
% for art	1,019,848
Off-site transport improvements	664,020
Equipment Costs (Group 2, 3& 4)	18,650,035
Project Cost Total	**274,922,832**
Contingency (Planning Contingency)	
Design Development risks (incl within HPCG)	
Construction risk and employer change and other risk	19,244,598
Sub total	**294,167,430**
Optimism Bias	38,241,766
Sub total	332,409,196
Inflation	53,083,713
Main Hospital Forecast Outturn Cost	
Enabling Schemes works cost	76,180,322
Inflation on enabling schemes' works' costs	4,189,642
Main hospital Forecast Outturn Cost	**385,492,908**
Enabling Schemes works outturn costs	**80,369,964**
Forecast Total Outturn Cost	**465,862,872**

Figure 55: Preferred Scheme Capital Cost

Capital funding sources and financing

6.22. The capital cost funding proposal is being developed by the Treasury and Resources Minister and will be set out in detail in a separate Report and Proposition.

6.23. Three potential sources of finance are being considered:

- Consolidated Fund – internal funds of £23.6M already set aside to support the project;
- Bond – a Bond issued on the Bond Market by the States of Jersey Treasury and Resources Department to fund between £250-275M of the Project Costs;

  (For the purposes of this OBC a £275 million bond issue is assumed raising £265million cash with a full £275million repaid in 2057 to allow for a fixed point comparison); and
- Strategic Reserve – the balancing number will be drawn down from the States of Jersey Strategic Reserve. For the purposes of this OBC a sum of £177M is therefore assumed.

6.24. The funding sources and their perceived contribution to the project are set out below along with an indication of the MTFP period in which it is expected each will be drawn down.

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Consolidated Fund	23.6	0.0	0.0	0.0	0.0	**23.6**
Bond	90.8	174.2	0.0	0.0	0.0	**265.0**
Strategic Reserve	0.0	168.8	8.5	0.0	0.0	**177.3**
Total	**114.4**	**343.0**	**8.5**	**0.0**	**0.0**	**465.9**

Figure 56: Funding Sources and Drawdown Profile

6.25. The gross and net financing costs associated with each funding source is set out in the figure below and combines the funding drawdown and associated finance charges and bond interest earned to provide a gross and net capital funding and financing cost.

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Bond Raising Charge	2.5	0.0	0.0	0.0	0.0	**2.5**
Weighted Average Cost of borrowing (Bond, Consolidated Fund and Strategic Reserve)	20.3	49.6	62.9	63.0	409.2	**605.0**
Interest earned on bond	(3.7)	(1.0)	0.0	0.0	0.0	**(4.7)**
Net Cost	19,1	48.6	62.9	63.0	409.2	**602.8**

Figure 57: Gross and Net Project Financing Charges

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Consolidated fund drawdown	23.6	0.0	0.0	0.0	0.0	**23.6**
Strategic reserve drawdown	0.0	168.8	8.5	0.0	0.0	**177.3**
Bond repayment	0.0	0.0	0.0	0.0	275	**275**
Bond Raising Charge	2.5	0.0	0.0	0.0	0.0	**2.5**

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
WAC Cost of borrowing	20.3	49.6	62.9	63	409.2	**605.0**
Interest earned on bond	(3.7)	(1.0)	0.0	0.0	0.0	**(4.7)**
Net funding and finance expenditure	42.7	217.4	71.4	63.0	684.2	**1078.7**

Figure 58: Project Gross and Net Capital Expenditure

6.26. Including the elements of the project financed by the Consolidated Fund and the initial Strategic Reserve Funds (which are not assumed to be repaid), the total net project funding and financing cost is estimated at £1,078.7 million including interest earned on the bond sum held before drawdown.

6.27. The cost of financing charges set out above are based on

- An estimated £2.5m cost of raising the bond (this is based on the quantum of the bond raised);
- a weighted average cost of capital (WACC) for all 3 sources of funding and reflects the following assumptions for each source;
  - That the consolidated fund has no opportunity cost associated with its use;
  - The £275 million bond attracts a loan charge of 2.5% per annum until it is repaid in project year 40 (i.e. 2057); and
  - The strategic reserve funding has an ongoing opportunity cost of 5% representing foregone earnings associated with its use.

6.28. As set out above, the key characteristics of the Preferred Scheme is a 100% new build hospital on the existing and extended general hospital site supported facility at Westaway Court site with a number of other Enabling Schemes focussed on relocating functions off the current General Hospital site. The residual buildings on the existing Jersey General Hospital site, the 1980s and 1960s Blocks, are expected to remain for the short term.

6.29. A number of the functions decanted during the build period will be permanently relocated outside of the hospital, for which new lease arrangements will have to be entered into. This applies to:

- The Catering Production Unit (CPU); and
- The relocation of staff accommodation from Westaway Court.

Others such as Hospital Management and Training will be temporarily relocated requiring short-term accommodation leases to be entered into.

6.30. The Future Hospital will be some 30% larger than the existing hospital in area. The increased size and more efficient configurations provides for greater alignment of models of care and service re-organisation within the hospital and with out of hospital providers. This will, enable the treatment of significantly more patients than currently is the case.

6.31. The Future Hospital will also have an increase in the quantum of equipment particularly in relation to scanning and imaging to reflect the longer-term need. The nature of the equipment will be fit for purpose and aligned the IT Strategy.

6.32. The revenue cost profile for the Preferred Scheme for the Jersey Future Hospital has been assessed based on a financial model prepared by the project's financial advisers. A summary of the approach is set out below.

- Establishing a baseline of costs using a breakdown of 2015/16 operational costs;
- Establishing a baseline of activity using historic data;
- Establishing existing and Future Hospital areas;
- Establishing forecast demand and capacity ratios;
- Revenue Cost drivers are derived from an assessment of the resources needed to meet the forecast future demand following activity modelling;
- The cost profile has been estimated for 69 years, reflecting transition arrangements until the Future Hospital opens in 2024 and for the expected 60-year asset life of the Future Hospital thereafter;
- No depreciation charge has been included; and
- Given the long-term nature of the whole life costs, costs are shown including inflation. Inflation rates have been applied to individual revenue cost components based on empirical evidence. These are detailed in the Financial Model Appendix referred to above.

6.33. The figures below set out the buildings and equipment lifecycle maintenance, pay and non-pay and Facilities Management (FM) costs associated with the delivery of hospital services during the transition period until the Future Hospital opens and thereafter to 2084. The figures also show other costs associated with the delivery of services such as the investment needed to address the existing backlog of maintenance work, to ensure the existing hospital meets statutory requirements during the transition phase.

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
JFH Buildings' Lifecycle Maintenance	0.0	0.0	0.1	5.5	449.8	**455.3**
Equipment Maintenance and replacement	12.1	14.2	8.2	18.4	669.8	**722.7**
MRI and CT Scanner and RICS/PACS	4.7	0.0	4.3	15.0	285.2	**309.2**
Enabling Scheme Lifecycle	0.0	0.5	2.9	3.4	86.3	**93.1**
Total lifecycle	**16.8**	**14.7**	**15.4**	**42.3**	**1,491.1**	**1,580.3**
Equivalent Annual Cost	4.2	3.7	3.9	10.2	18.8	9.8

Figure 59: Buildings and Equipment Lifecycle Costs

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Pay	297.2	349.3	391.4	453.5	18,737.4	**20,228.8**
Non-pay	180.9	219.1	265.0	325.4	33,577.6	**34,568.1**
Total	**478.2**	**568.4**	**656.4**	**778.9**	**52,315.0**	**54,796.9**
Equivalent annual cost	119.1	141.7	163.6	194.0	500.2	271.1

Figure 60: Clinical Services

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Estates	30.5	34.3	49.8	56.1	1,906.7	**2,077.4**
Housekeeping	12.8	14.3	20.8	23.5	797.1	**868.5**
Energy & Utilities	6.2	6.9	12.1	13.6	462.0	**500.8**
Total	**49.5**	**55.5**	**82.7**	**93.1**	**3,165.8**	**3,446.6**
Equivalent annual cost	12.3	13.8	20.6	23.2	39.8	24.6

Figure 61: Hard and Soft FM

6.34. The analysis shows that there is a significant cost associated with providing hospital services in the transition phase and once the Future Hospital is open. With regard to the functioning of the buildings, the scale of change in costs in future years are notable in relation to:

- Buildings and equipment lifecycle;

- Energy and utilities;
- Housekeeping; and
- Estates.

Buildings and equipment lifecycle

6.35. **New Build**: To maintain the fabric of the buildings of the main hospital and the new support facility at Westaway Court in a high-quality fit for purpose condition will require a planned programme of maintenance and replacement of assets (often referred to as lifecycle investment) throughout the life of the hospital.

6.36. Applying BCIS rates indicates that this should be in the region of £455m for the assumed 60-year buildings' asset life.

6.37. Over significant periods contained in previous MTFP bids, the decision not to invest the sums necessary to maintain the hospital in a high-quality condition has led to the fabric of the building deteriorating substantially and has led to the existing sizeable backlog of maintenance that is needed to meet statutory standards.

6.38. **Refurbished and leased premises** - in addition to the lifecycle costs associated with the new build there are also lifecycle costs associated with the refurbished Granite Block and Westmount which will be the permanent location for Hospital Administration functions, Education, Training and Medical Records respectively.

6.39. The Future Hospital, Westaway Court, the Granite Block, and Westmount are all in the ownership of Jersey Property Holdings, the future scale, and timing of this planned maintenance and replacement in building fabric (lifecycle investment) can reflect States of Jersey overall spending priorities.

6.40. However, failure to invest in this asset maintenance and replacement (lifecycle) requirement in a timely fashion and on the scale required, means that the buildings will deteriorate over time and become less efficient and fit for purpose.

6.41. The investment in lifecycle maintenance of assets owned by the States of Jersey can be adjusted to reflect spending priorities; however, the relocation of the Catering Production Unit outside of the Future Hospital requires the entering into of new leases on a full repairing and insuring basis. Whilst the profile and scale of these lease costs lifecycle maintenance requirements are estimates, the quantum and timing of this spend is less able to 'flexed' to meet States of Jersey overall spending priorities given these are contractual agreements with third parties.

6.42. **Equipment-** the equipment replacement costs for the Future Hospital is estimated at £723m over the life of the project.

6.43. As is the case with the bulk of the new and refurbished buildings' estimated lifecycle maintenance costs this equipment replacement spend is not a contractual commitment and the level and timing can be flexed to reflect States of Jersey wide spending priorities.

6.44. The recent spend on lifecycle is not easily identifiable from records as items have been funded from different departmental budgets. Undoubtedly the future estimates for lifecycle represent a significant uplift on historic spend equating in total to an estimated future equivalent annual cost £10million per annum.

6.45. As noted above, lifecycle maintenance spend for building and equipment assets within the ownership and control of the States of Jersey can be flexed to meet overall spending priorities, whilst liability for such spend for those assets owned by third parties but leased by the States of Jersey cannot. The latter is estimated at approximately £1million, equating to one tenth of the estimated annual lifecycle maintenance cost. Although no contractual commitments will exist for the remaining lifecycle maintenance of assets owned by the States of Jersey, failure to maintain these assets will result in a deteriorating building over time, which will not deliver the high functionality and high-quality environment expected by staff, patients, and relatives.

6.46. **Energy and utilities -** As noted above the Future Hospital is some 30% larger than the existing hospital and will necessarily therefore use a greater level of utilities than the existing hospital. The costs are estimated to increase from £6.2m in MTFP2 to some £12million in MTFP4. This indicates cost increase could be in the region of £800,000 per annum. Whilst the States of Jersey have some investment level and timing freedom in undertaking lifecycle maintenance for buildings and equipment within its ownership, there is little flexibility with regard to meeting expenditure on utilities without a strategic decision being taken to reducing hospital functionality on a day-to-day basis.

6.47. **Housekeeping** - The figure above reflects that as with utilities consumption, the cost of housekeeping is also expected to increase due to hospital size and capacity. The analysis indicates that housekeeping will increase from an expected spend of £12.8 million in MTFP2 (2016-2019) to just under £21million in MTFP4 (2024-2027) i.e. upon opening of the Future Hospital. Again, there is little flexibility in decision making regarding the funding of these costs. Not meeting these costs on an on-going basis would significantly affect the ability of the hospital to function.

6.48. **Estates** - The analysis indicates that Estates cost, (equipment and building day-to-day management) would increase substantially from spend in MTFP2 of £31million to spend in MTFP4 of £50million. This reflects an estimated current spend of £7million per annum to an estimated £9million per annum; an increase of some £2m per annum between MTFP2 and MTFP4. Again, as with Housekeeping and Utilities, there is little flexibility to not meet these costs without a strategic decision to reduce the functionality of the Future Hospital.

6.49. Taken together as set out above, the increase in Estates, Housekeeping and Energy & Utilities cost between MTFP period 2 and MTFP period 4 is some £33million. This reflects annual equivalent cost of £12.3million in period MTFP2 and £20.6million in MTFP4 giving an equivalent annual cost increase of £8.3million. As noted above these are cost increases which will need to be met if the hospital is to fully function on a day-to-day basis.

Additional off-site lease costs, backlog maintenance other costs

6.50. In addition to the increased cost of operating and maintaining the hospital in a fit for purpose and fully functioning condition, additional short term and on-going lease charges will be required to be met on an annual basis due to the relocation of functions away from the main hospital on a temporary and permanent basis.

6.51. The current backlog of statutory maintenance will also need to be addressed, due to the need to keep the existing hospital fully functional, whilst the Future Hospital is being built. As noted above, part of the old hospital buildings no longer needed once the Future Hospital is built will be left in situ until a future use is determined. The on-going costs of maintaining these residual buildings on the hospital site will need to be met in this period, which is assumed to be for 5 years post the opening of the Future Hospital on the current site. The cost of demolishing these buildings is not included as part of the project but rather is assumed to be taken into account in future uses for the land and buildings as appropriate.

6.52. The costs associated with these temporary and permanent changes to the hospital functioning are set out below:

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Off-site lease costs – Total	**1.6**	**5.4**	**5.7**	**5.9**	**201.2**	**219.8**
Equivalent annual costs	0.4	1.4	1.4	1.5	2.5	1.6
Statutory backlog and Other Project Costs - Total	**11.9**	**7.5**	**1.4**	**0.4**	**0.0**	**21.2**
Equivalent annual costs	3.0	1.9	0.4	0.1	0.0	1.1
Total costs	**13.5**	**13.0**	**7.1**	**6.3**	**201.2**	**241.0**
Total equivalent annual costs	**3.3**	**3.3**	**1.8**	**1.6**	**2.5**	**2.6**

Figure 62: Off-Site Lease Costs and Other Project Costs

6.53. The key assumptions driving the costs are:

- The estimated annual charge of new accommodation for staff displaced from Westaway Court to make room for the new facility at some £700,000 per annum;
- The cost of permanently locating medical records at Westmount and the relocation of the catering unit to an off-site location- each at an annual cost of £200,000;
- Hospital Administration and Training services will be relocated back to the main hospital in 2025, and
- The scale of the backlog maintenance needed to address statutory requirements (other project costs in the figure above).

6.54. The statutory backlog expenditure is an expenditure that can, to some extent, be re-profiled to meet need and affordability. However, this is limited given its short time horizon is driven by the need to keep the existing hospital functioning during the new build phase. As noted above, there is little freedom to re-profile expenditure or manage expenditure when leases with third parties have been entered into.

6.55. These lease costs can be seen as additional costs. These costs will add in the region of £6million to annual revenue costs on an ongoing basis associated with the Future Hospital.

6.56. As with running costs associated with the hospital buildings and equipment, the increased hospital capacity will require additional staff to manage these and treat patients. The greater level of treatment necessarily requires greater spend on drugs and associated medical supplies; these are estimated to grow to £265million in MTFP 4 from £180 million in MTFP2 an increase of £84million. Taken together these give a pay and non- pay (clinical service) cost increase between MTFP2 and MTFP4 of £176 million. This equates to an annual average cost increase of £44million between these financial planning periods. A full Workforce Strategy is being developed to ensure that the workforce needs of the Future Hospital can be met in the most cost-effective manner.

Affordability Assessment

6.57. A UK Green Book compliant OBC must contain a clear statement of capital and revenue affordability for the procuring authority. For the purposes of this business case, the procuring authority is considered the States of Jersey.

6.58. Affordability in this Finance Case is assessed in the following way for capital and revenue costs:

- **Capital affordability** –
  - The Jersey Future Hospital capital cost against the £466 million envelope set in P110/2016; and
  - Financing charges (included here to aid visibility albeit the financing cost is a revenue cost).

- **Revenue affordability** –
  - Future Hospital operating costs; and
  - Ongoing lifecycle cost.

6.59. This business case assumes that the capital cost of £465.9 million is funded via the following:

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Consolidated Fund	23.6	0.0	0.0	0.0	0.0	**23.6**
Bond	90.8	174.2	0.0	0.0	0.0	**265.0**
Strategic Reserve	0.0	168.8	8.5	0.0	0.0	**177.3**
Total	**114.4**	**343.0**	**8.5**	**0.0**	**0.0**	**465.9**

Figure 63: Capital Expenditure Funding Drawdown

6.60. P.110/2016 set a cost envelope of £466million for the capital cost of the Future Hospital. As shown below, the estimated current capital cost is £465.9million and is therefore within the allocated cost envelope.

6.61. In falling within the funding envelope set by P110/2016, it can reasonably be considered that the capital expenditure meets the affordability test.

6.62. The capital cost of £465.9million is expected to be met as set out in the figure above through a combination of the States of Jersey's Consolidated Fund, Bond Financing, and the Strategic Reserve Fund. The bond financing and Strategic Reserve attract finance charges and an interest foregone opportunity cost respectively. As set out above using a weighted cost of capital of 3.3% for these funds and including bond financing charges and bond repayment gives a funding and financing charge of £1,083.4 million gross of estimated interest earned on the bond, equating to a net cost of £1,078.7 million.

6.63. The Treasury and Resources Department has confirmed the estimated funding from the consolidated fund at £23.6m as being available as it was allocated in a previous budget.

6.64. Market testing has indicated a bond of the order of magnitude indicated can be raised at the interest rate indicated.

6.65. The Strategic Reserve Policy as confirmed in P.133/2006 stated that 'the Strategic Reserve is a permanent reserve, where the capital value is to be used in exceptional circumstances to insulate the Island's economy from severe structural decline such as the sudden collapse of a major Island industry or from major natural disaster'

6.66. P122/2013 approved the Strategic Reserve Investment Fund balance as £651,216,000 as at 31st December 2012 as the capital value of the Fund and that for future years the capital value is maintained in real terms by increasing the capital value in line with increases in Jersey Retail Price Index (RPI) (Y).

6.67. The States of Jersey Treasury and Resources Minister will set out in the Funding Strategy Report and Proposition that the amount of the Strategic Reserve needed to provide the balance of funding for the Future Hospital can be met within the requirement of P.122/2013

- Revenue Affordability -
  - Affordability is assessed in the following ways:
    - Future Hospital operating costs; and
    - Ongoing lifecycle cost profile.

Revenue affordability – Future Hospital operating costs

6.68. The Future Hospital clinical, non-clinical and other costs have been calculated based on a detailed set of assumptions as set out in Appendix 13 and include:

- Agreed P.82/2012 funding;
- +700 inward migration growth per annum;
- Clinical Interventions designed to release capacity in the Future Hospital; and
- Increased footprint of the Future Hospital site.

6.69. The growth in clinical and non-clinical hospital operating costs over 5 MTFP periods and the whole life of the project is set out in the below:

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028-2031 £m	MTFP6+ 2032-2084 £m	**Total £m**
Lifecycle	16.8	14.7	15.4	42.3	1,491.1	**1,580.3**
Clinical and non-clinical costs	478.2	568.4	656.4	778.9	52,315.0	**54,796.9**
Hard and soft FM	49.5	55.5	82.7	93.1	3,165.8	**3,446.6**
Offsite lease costs	1.6	5.4	5.7	5.9	201.2	**219.8**
Additional project costs	11.9	7.5	1.4	0.4	0.0	**21.2**
Total	**557.9**	**651.6**	**761.6**	**920.6**	**57,173.0**	**60,064.7**

Figure 64: Revenue Cost Summary

Analysis of Cost Movements

6.70. The analysis below sets out the anticipated cost movements and revenue consequences of the Preferred Scheme for the following two MTFP periods:

- FY16 to FY24 (the year of the new hospital opening); and
- FY16 to FY27 (the end of MTFP5).

6.71. Based on historic MTFP funding approaches it is assumed that clinical and non-clinical growth based growth will continue to be funded on the same basis and are therefore categorised as 'funded'. It is therefore reasonable to consider these costs as being affordable.

6.72. The analysis also shows those costs which are not considered to be 'funded' and will need to be addressed through the next rounds of the States of Jersey Medium Term Financial Planning process. These include;

- 'Unfunded' growth driven costs; and
- 'Unfunded' costs driven by the operation of the new hospital.

Analysis of Cost Movements FY16 – FY24

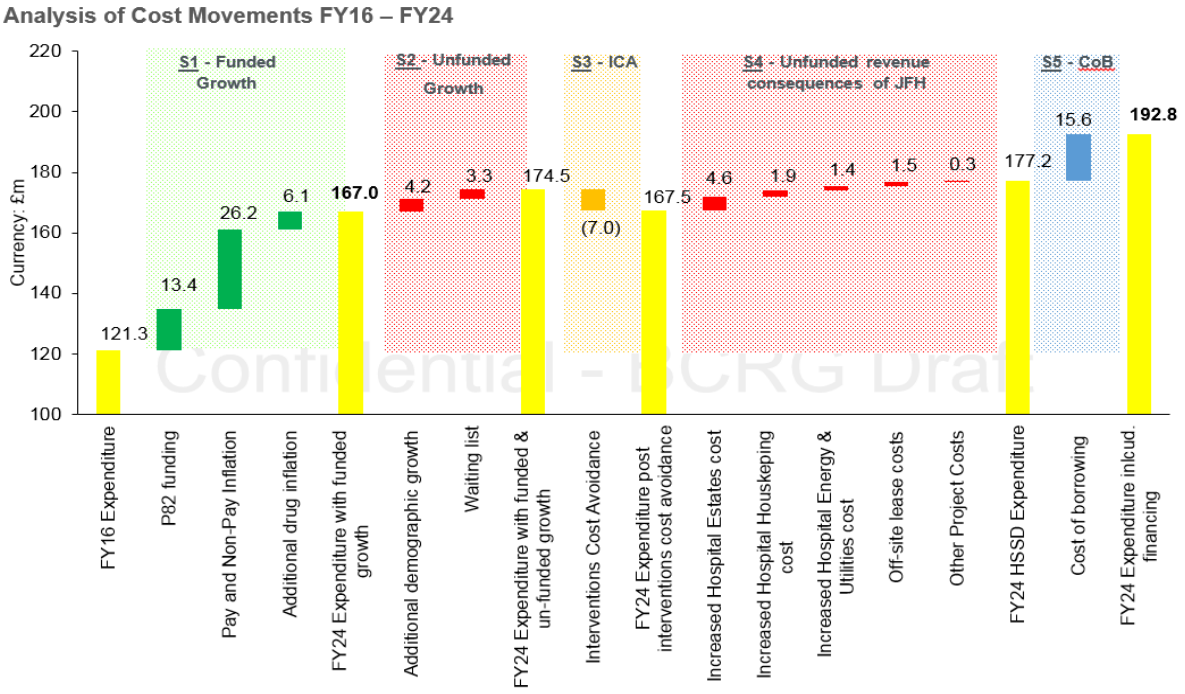

Figure 65: Revenue Changes between 2-16 and 2024

Analysis of Cost Movements FY16 – FY27

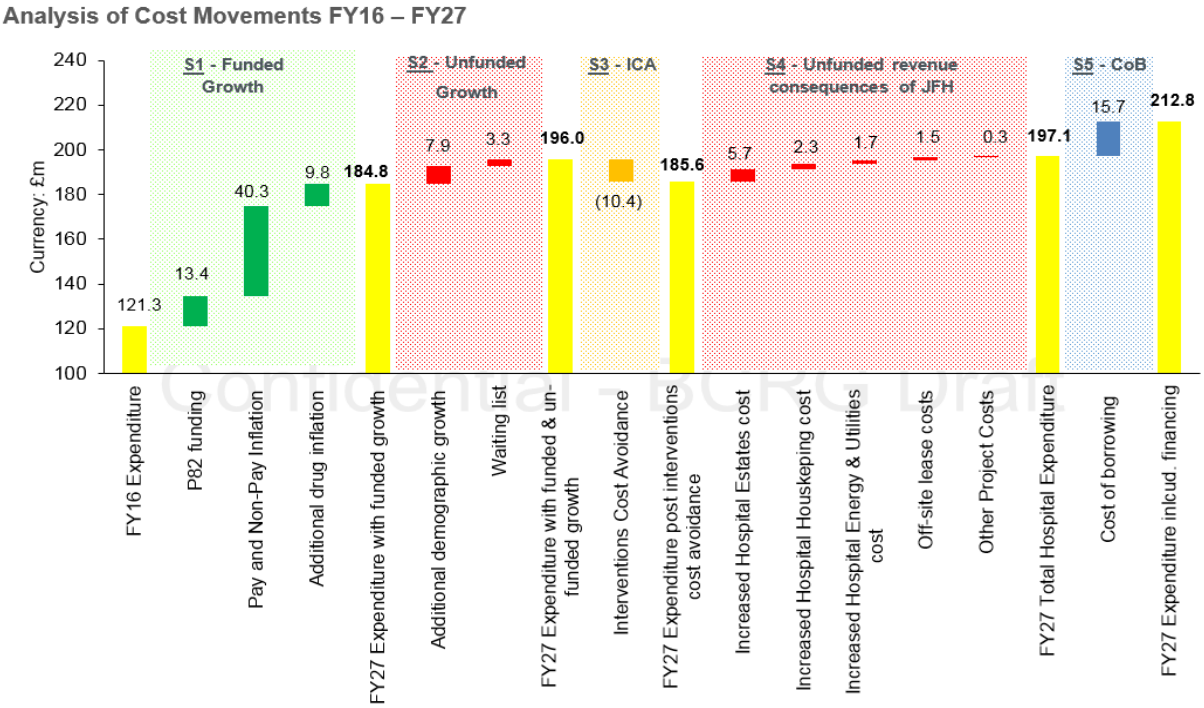

Figure 66: Revenue Cost Changes between 2016 and 2027

6.73. The analysis shows that;

Funded costs:

- Cost increases set out in this section are not driven by the Jersey Future Hospital Project (i.e. all of the cost increases will occur regardless of the decision to build a Future Hospital). These costs include:
  - **P.82/2012 funding** – secured funding from the P.82/2012 proposition that is recognised transformation growth funding which has been approved by the States of Jersey up to 2019 as part of the current MTFP with annual approval;
  - **Pay and non-pay inflation** – annual inflation assumed to be funded via the MTFP and annual approval process; and
  - **Additional drug inflation** – funded via existing 2% growth mechanisms within the MTFP and annual approval process.

Unfunded growth

- The Jersey Future Hospital Project (i.e. all of the cost increases will occur regardless of the decision to build a Future Hospital) does also not drive cost increases set out in this section but unlike other sections, the costs are not considered to have funding coverage and cannot therefore be considered yet to be affordable. These costs include;
  - Additional demographic growth – unfunded due to the reduction in P.82/2012 funding; and.
  - Waiting list – unfunded clearing of the existing hospital waiting list.

Interventions cost avoidance

- Cost avoidance sums set out in this section are a direct consequence of the decision to build a Future Hospital. They occur because of the clinical Interventions as set out in the management case. A small number of these Interventions could be delivered without the Future Hospital but the beneficial impact would be considerably lower. Full details of the Interventions are set out in Appendix 9.

Future revenue costs

- The costs set out in this section are a direct consequence of the decision to build a Future Hospital and are not reflected in previous States of Jersey debates or existing funding strategies. They include
  - Increased hospital estates costs – driven by the increase in the Future Hospital internal floor area;

- Increased hospital housekeeping costs – driven by the increase in the Future Hospital internal floor area;
- Increased hospital energy & utilities costs – driven by the increase in the Future Hospital internal floor area; and
- Off-site lease costs – on-going lease costs as a result of:
  - The relocation of the catering unit;
  - Relocation of hospital management and training (to 2025 only); and
  - Relocation of staff accommodation from Westaway Court and Peter Crill House.

Other project costs

- The cost of mothballing and maintaining the 1960s and 1980s blocks for five years (to 2028) following opening of the Future Hospital; and
- A one off £0.1m charge for post project evaluation in 2025.

Lifecycle affordability

- Additional lifecycle costs have been excluded from the analysis above due to the uneven nature of the lifecycle profile and the fact that very little lifecycle has been incurred by the end of the MTFP4 period; and
- As set out above, the business case following best practice includes an assumption that the current Jersey General Hospital and Future Hospital and enabling schemes are maintained via a planned programme of asset maintenance and replacement during the build phase of the Future Hospital and for a period of 60 years following the opening of the Future Hospital. Whilst this type of cost has not historically been fully funded for the existing hospital site, which has contributed to the decline of the existing hospital estate; to maintain the Future Hospital and enabling schemes to an appropriate standard, sufficient funding needs to be committed on the scale and profile set out. Failure to invest these sums in a timely manner will lead to the deterioration of the building and its fitness for purpose on a daily basis.

Baseline Position: Option 1

6.74. In the scenario of a decision being taken not to invest in the Preferred Scheme but to carry on a ‘business as usual’ (the Do-Nothing option), the capital and revenue costs going forward could also be significant given the forecast demographic changes, in particular the expected increase in the older population as a proportion of the total population. As noted in the Strategic Case section of the OBC older people tend to be more intensive users of health and hospital services.

6.75. As set out in the Economic Case, it is assumed that the business as usual / Do Nothing option would, in relation to capital expenditure, reflect no capital investment in additional buildings but rather would reflect lifecycle requirements already planned, in response to the need to meet;

- Statutory and regulatory deficiencies met in terms of building and healthcare standards within 10 years and maintenance thereafter;
- Estate dilapidation and hospital spatial, functional technical obsolescence addressed to a limited extent;
- Limited equipment investment and replacement on an on-going basis; and
- Relocation of the catering unit off the existing site and maintenance of the accommodation in line with the lease terms.

6.76. With regard to revenue expenditure, the business as usual/Do Nothing scenario would mean continuing with current operations and meeting increased demand by limited service re-organisation including;

- Displacement of some hospital services to on-Island out of hospital community settings;
- Efficiencies within the hospital operating practices; and
- Significant displacement of patient treatment to off-Island providers.

The figures below set out the revenue and capital costs associated with the Option 1 ‘Do Nothing’’ option.

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Main Hospital Lifecycle	0.0	0.0	3.9	8.3	439.1	**451.2**
Equipment Maintenance and replacement	12.1	14.2	16.2	18.4	669.8	**730.7**
MRI and CT Scanner and RICS/PACS	4.7	0.0	4.3	6.9	134.3	**150.2**
Enabling Scheme Lifecycle	0.0	0.1	0.4	0.3	13.5	**14.3**
Total lifecycle	**16.8**	**14.3**	**24.8**	**33.8**	**1,256.7**	**1,346.4**
Equivalent Annual Cost	4.2	3.6	6.3	8.4	16.0	8.9

Figure 67: Option 1 Buildings and Equipment Lifecycle Costs

6.77. The 60 year Lifecycle Programme for this option (and option 2) commences in 2025, when the majority of the capital programme has been completed. Therefore, in this option Lifecycle is shown as zero in MTFP2 and MTFP3. The equivalent lifecycle costs during the period 2016-2024 are shown as a transitional statutory maintenance works that are shown under a separate cost line.

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Pay	295.4	353.1	409.6	464.6	17,730.6	**19,253.2**
Non- pay	137.7	170.8	211.7	262.0	29,592.4	**30,374.6**
Off-Island Healthcare	49.6	67.0	73.6	181.6	20,218.7	**20,590.5**
Total	**482.7**	**590.9**	**694.9**	**908.2**	**67,541.7**	**70,218.4**
Equivalent annual cost	120.1	147.3	173.1	225.8	665.0	334.9

Figure 68: Option 1 Clinical Costs (including off-Island healthcare costs)

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Estates	30.5	34.3	38.6	43.4	1,475.1	**1,621.9**
Housekeeping	12.8	14.3	16.1	18.1	616.7	**678.0**
Energy & Utilities	6.2	6.9	7.8	8.8	297.7	**327.3**
Total	**49.5**	**55.5**	**62.5**	**70.3**	**2,389.5**	**2,627.2**
Equivalent annual cost	12.3	13.8	15.6	17.5	30.1	19.8

Figure 69: Option 1 Hard and Soft FM Costs

6.78. The analysis notably shows that;

- Clinical services costs: these costs increase substantially over time from £482.7million in MTFP2 to £694.9 million in MTFP4 and then £908million in MTFP5. The substantial cost of off-Island healthcare at £49.6million in MTFP2 rising to £73.6million in MTFP4 and then £181.6million in MTFP5 drives this increase in overall estimated cost growth for clinical services. This reflects the lack of capacity to meet increasing demand, even in the short term, but more importantly, the inability of the existing hospital to meet the demand driven by forecast change in Island demographics. Due to the need to keep the hospital functioning and systemic inefficiencies of the existing configuration, adjacencies and relationships the other clinical services, costs increase over time at a similar profile to the new build costs; and
- Building lifecycle maintenance- a substantial cost is estimated to keep the existing Jersey General Hospital operational to 2084. Given its existing poor

condition increasing spend would be needed. As noted in the strategic and economic cases, Option 1 - Do Nothing has been included purely as a baseline comparator and not because it is a viable option even in the short to medium term.

Additional off-site lease costs

6.79. On-going lease charges will be required to be met on an annual basis due to the relocation of the Catering Production Unit away from the main hospital on a permanent basis.

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Off-site lease costs – Total	**0.3**	**0.7**	**0.8**	**0.9**	**30.4**	**33.0**
Equivalent annual costs	0.1	0.2	0.2	0.2	0.4	**0.2**
Other Project Costs - Total	**5.8**	**0.0**	**0.0**	**0.0**	**0.0**	**5.8**
Equivalent annual costs	1.5	0.0	0.0	0.0	0.0	**0.4**
Total costs	**6.0**	**0.7**	**0.8**	**0.9**	**30.4**	**38.8**
Total equivalent annual costs	**1.6**	**0.2**	**0.2**	**0.2**	**0.4**	**0.6**

Figure 70: Option 1 Off-Site Lease Costs and Other Project Costs

Comparison of the Preferred Scheme and the 'Do Nothing' option

6.80. The difference in the cost for Preferred Scheme and Option 1 are shown in the figures below:

Preferred Scheme	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Lifecycle	16.8	14.7	15.4	42.3	1,491.1	**1,580.3**
Clinical Costs	478.2	568.4	656.4	778.9	52,315.0	**54,796.9**
FM Costs	49.5	55.5	82.7	93.1	3,165.8	**3,446.6**
Off Site Lease Costs	1.6	5.4	5.7	5.9	201.2	**219.8**
Other Project Costs	11.9	7.5	1.4	0.4	0.0	**21.2**
Total revenue	***557.9***	***651.6***	***761.6***	***920.6***	***57,173.0***	***60,064.7***
Capital funding	23.6	168.8	8.5	0.0	275	**475.9**
Capital Financing	19.1	48.6	62.9	63.0	409.2	**602.8**
Total capital funding and financing	***42.7***	***217.4***	***71.4***	***63.0***	***684.2***	***1078.7***
Total Capital and Revenue costs	600.6	869.0	833.0	983.6	57,857.2	61,143.4

Figure 71: Option 4 Capital and Revenue Costs

Option 1 costs	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Lifecycle	16.8	14.3	24.8	33.8	1,256.7	1,346.4
Clinical Costs	482.7	590.9	694.9	908.2	67,541.7	70,218.4
FM Costs	49.5	55.5	62.5	70.3	2,389.5	2,627.2
Off Site Lease Costs	0.3	0.7	0.8	0.9	30.4	33.0
Other Project Costs	5.8	0.0	0.0	0.0	0.0	5.8
Total revenue	***555.1***	***661.4***	***783.0***	***1013.2***	***71,218.2***	***74,230.8***
Capital Funding	23.6	0.0	0.0	0.0	84.1	**107.7**
Cost of borrowing	4.2	7.6	8.2	8.4	54.7	83
Total capital	***27.8***	***7.6***	***8.2***	***8.4***	***138.8***	***190.7***
Total	**582.8**	**668.9**	**791.2**	**1,021.6**	**71,357.0**	**74,421.6**

Figure 72: Option 1 Capital and Revenue Costs

Comparison in MTFP Periods: Option 1 and the Preferred Scheme

	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Option 1	582.9	668.9	791.2	1,021.6	71,357.0	**74,421.6**
The Preferred Scheme	600.6	869.0	833.0	983.6	57,857.2	**61,143.4**
Difference	**(17.8)**	**(200.1)**	**(41.8)**	**38.0**	**13,499.8**	**13,278.2**

Figure 73: Option 1 and 4 Total Cost Comparison

6.81. The cost estimation and analysis shows that, over the whole life of the project, the Preferred Scheme has just under £13.3 billion lower cost than Option 1. In the transition years i.e. to 2023, the Preferred Scheme requires more expenditure given the need to operate the existing hospital whilst building the Future Hospital and the associated capital expenditure financing charge. In the first MTFP period following the operational Future Hospital i.e. MTFP5, the Preferred Scheme presents an opportunity for saving in the region of £38million over the business as usual Option 1 - Do Nothing option. This increases in subsequent MTFP periods; in all MTFP periods after MTFP4, the Preferred Scheme represents a substantial cost saving over the 'do nothing' option baseline assessment. The savings over the whole life of the project including the transition phase and the 60 years after the hospital is opened equates to an estimated cost saving in excess of £13 billion because of implementing the Preferred Scheme.

Interventions

6.82. As set out in the SOC and the Strategic Case part of this OBC, the size and associated capital and revenue costs of the Future Hospital would be significantly higher if the service transformation objectives and associated actions set out in P.82/2012 are not achieved.

6.83. States of Jersey Health and Social Services Department to identify operational practices that could be implemented and that align with and deliver P.82/2012 objectives have undertaken a substantial benefits review exercise. These include displacement to more appropriate out of hospital settings and in hospital practices to improve efficiency. The Interventions do not result in cash releasing savings that can be realised, as they are reallocated to address other cost growth drivers such as demographic change, thus they can be seen as substantial cost avoidance measures.

6.84. The cost avoided because of the Interventions is estimated at £1,080 million over the project period to 2084. The explanation of the benefits process and details of the Interventions are set out in the Management Case of this OBC.

Workforce impacts

6.85. The Future Hospital proposed under the Preferred Scheme is larger than the existing Jersey General Hospital and as a result will be able to meet the forecast increased demand for treatments for a number of decades after the new hospital opens. This increase in treatment for more patients will necessarily require an increase in the number of staff at all grades over time as shown in the figure below.

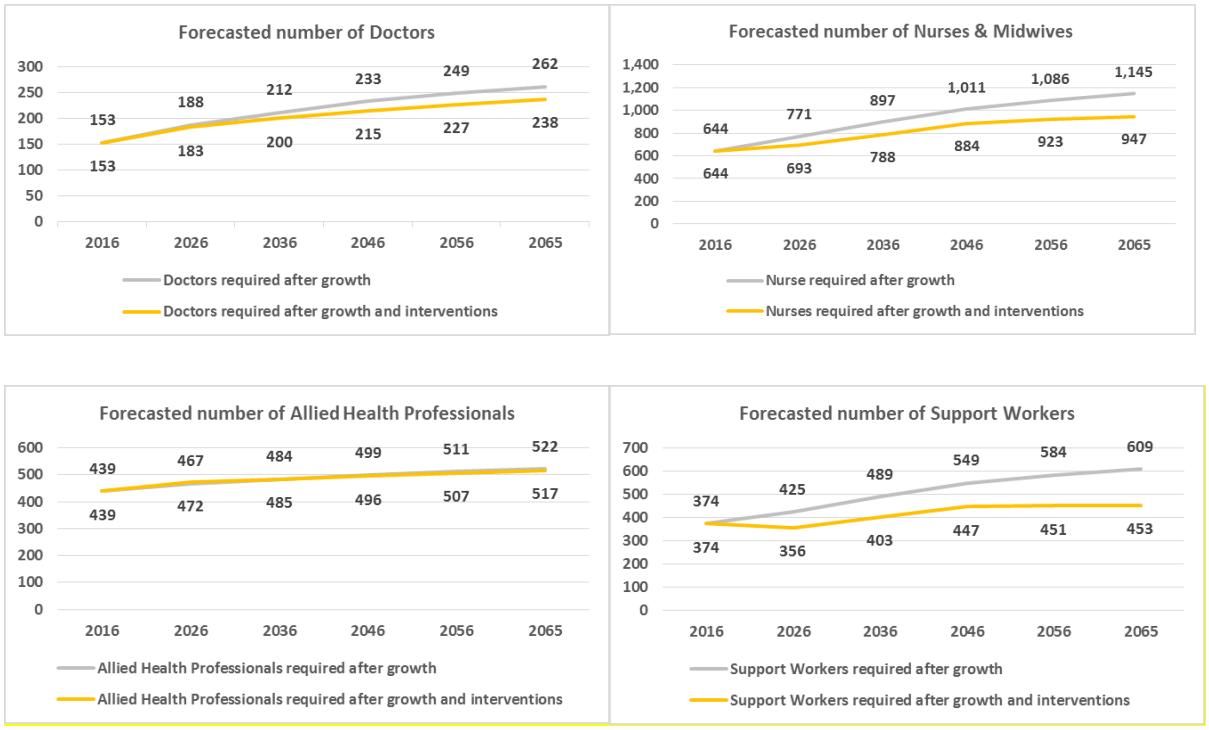

Figure 74: Workforce Requirements Forecast by Grade of Staff

6.86. The figure below sets out the forecast number of doctors, nurses, midwives, allied health professionals, and support workers required to meet the forecast demand over time for the central population scenario of +700 net inward migration and the associated changes in staffing numbers compared to the 2016 position.

Forecast full time equivalents		Forecast including Interventions					
Staff Type	Migration	2016	2026	2036	2046	2056	2065
Doctors	**700**	153.2	182.9	200.2	215.4	227.1	237.6
Change on 2016 levels			29.7	47	62.2	73.9	84.4
Nurses & midwives	**700**	643.8	692.9	788.5	884.5	922.5	947.4
Change on 2016 levels			49.1	144.7	240.7	278.7	303.6

Allied Health Professionals	**700**	438.9	472.3	484.6	496.0	507.0	517.0
Change on 2016 levels			33.4	45.7	57.1	68.1	78.1
Support workers	**700**	374.0	356.0	403.1	447.3	450.6	453.4
Change on 2016 levels			(18)	29.1	73.3	76.6	79.4
Total FTE		**1,609.9**	***1,704.1***	***1,876.4***	***2,043.2***	***2,107.2***	***2,155.4***
FTE Increase on 2016 (excl support workers)			*112.2*	*237.4*	*360*	*420.7*	*466.1*
Net FTE increase on 2016			94.2	266.5	433.3	497.3	545.5
Percentage change on 2016			*5.8*	*16.6*	*26.9*	*30.8*	*33.9*

Figure 75: Workforce Change Analysis 2016-2065

6.87. The figure shows that between 2016 and 2026 some 30 new doctors, 50 new nurses, midwives, and 33 additional allied health professionals will be required to provide the increase in services required during the transition and in the first few years of the new hospital being fully functional. This forecast includes additional staff required to address the existing waiting list. In total an additional 112.2 FTE staff will be needed to meet the forecast demand.

6.88. The analysis shows that, as demand increases beyond 2026 further increases in FTE numbers will be required; at 2036, the total increase on 2016 will be some 266 staff. A further 167 FTE will be required by 2046. The rate of increase decreases after 2046 due to the hospital reaching in-patient bed capacity levels, albeit some increase in staff numbers is needed to meet the increase in demand for other treatments such as radiology and outpatients.

6.89. The workforce numbers in the figure above reflect the impacts of delivering the cost avoidance Interventions. Without the ability to deliver these Interventions in full, as is possible only in the Preferred Scheme, the requirement for additional staff would be much greater; for example, in 2026 with Interventions FTE staff numbers are forecast to be 1,704 compared to 1,850 without the ability to deliver all the Interventions. The differential in staff requirement in the 'with and without Interventions' scenarios increases in all subsequent years. The detail of the staff requirement for all grades in the absence of delivering the Interventions is shown in the figure below.

Forecast Full Time Equivalents		Forecast Excluding Interventions					
Staff type	**Migration**	**2016**	**2026**	**2036**	**2046**	**2056**	**2065**
Doctors	**700**	153.2	187.9	212.2	233.0	248.6	261.7
Nurses &Midwives	**700**	643.8	770.7	897.5	1,010.8	1,085.6	1,144.6
Allied Health Professionals	**700**	438.9	467.3	484.4	499.0	511.2	521.9
Support Workers	**700**	374.0	424.7	488.6	549.2	584.3	609.3
Total FTE		***1609.9***	***1850.6***	***2082.7***	***2,292***	***2,429.7***	***2,537.5***
Net increase on 2016			240.7	472.8	682.1	819.8	927.6
Percentage change on 2106			14.9	29.4	42.4	50.9	57.6

Figure 76: Workforce Change Analysis 2016-2065 with Interventions Excluded

6.90. Preparation of a Strategic Level Workforce Plan has already commenced and a specialist workforce advisor has been engaged to take forward the detailed planning required. This will be completed alongside the OBC approvals process with the confirmed Workforce Plan informing the Full Business Case (FBC).

6.91. The Workforce Plan under development to inform the FBC will build on the strategic workforce plans developed by Skills for Health during 2016, and workforce planning undertaken within business as usual activity by individual services/departments within HSSD. This will include validation of the workforce impact of each of the agreed Interventions, alongside incorporation of the relevant sensitivities to each workforce demographic, including geographical isolation and population policy, difficulty in accessing trainees for service provision (e.g. medics in training), and the impact of the high level of anticipated retirements

Population forecast and sensitivity analysis

6.92. The size of the Future Hospital is driven by the forecast demand for treatment. As set out in the Strategic Case, a central scenario of a +700 net inward migration scenario has been used to forecast demand and assess the costs and benefits of different options to meet this. The demand requirement arising from this population change is set out in the demand and capacity analysis below.

6.93. Recognising that the forecast is however, a forecast; sensitivity analysis in terms of changes in costs and benefits as set out in the Economic Case has shown that the Preferred Scheme is relatively insensitive to significant variations in these parameters.

		Forecast														
Bed type	**Type**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	Demand	165.2	168.7	172.4	176.0	179.8	183.0	186.3	190.5	195.3	199.5	205.5	262.2	316.1	346.3	367.1
	Capacity	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0
	Surplus/(deficit)	*(17.2)*	*(20.7)*	*(24.4)*	*(28.0)*	*(31.8)*	*(35.0)*	*(38.3)*	*(42.5)*	*(47.3)*	*(51.5)*	*(57.5)*	*(114.2)*	*(168.1)*	*(198.3)*	*(219.1)*
Rehab/reablement[a]	Capacity	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
	Variance	***5.8***	***2.3***	*(1.4)*	*(5.0)*	*(8.8)*	*(12.0)*	*(15.3)*	*(19.5)*	*(24.3)*	*(28.5)*	*(34.5)*	*(91.2)*	*(145.1)*	*(175.3)*	*(196.1)*
Private beds	Demand	10.5	10.7	10.8	11.0	11.2	11.3	11.5	11.6	11.8	12.0	12.2	14.1	15.7	16.8	17.7
	Capacity	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	Surplus/(deficit)	*13.5*	*13.3*	*13.2*	*13.0*	*12.8*	*12.7*	*12.5*	*12.4*	*12.2*	*12.0*	*11.8*	*9.9*	*8.3*	*7.2*	*6.3*
Other specialty beds	Demand	33.8	34.2	34.5	34.9	35.3	35.6	35.9	36.3	36.6	37.0	37.4	41.2	45.5	48.6	51.0
	Capacity	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
	Surplus/(deficit)	*7.2*	*6.8*	*6.5*	*6.1*	*5.7*	*5.4*	*5.1*	*4.7*	*4.4*	*4.0*	*3.6*	*(0.2)*	*(4.5)*	*(7.6)*	*(10.0)*

Figure 77: Demand and Capacity Forecast 2016-2065 at +700 net inward migration

6.94. Demand and capacity sensitivity analysis has also been undertaken in relation to variations in the population as set out in the figure below. The scenarios used reflect the population scenarios produced by the States of Jersey Statistical Unit. The analysis shows that if the population forecast is less than the central +700 inward migration scenario, for example it is +325 the new hospital will have capacity to meet demand until 2056, a full 10 years more than if the +700 scenario is realised. If, however, the population change is +1,000 or even +1,500 the new hospital capacity will be reached some years before 2046. As is currently the case the potential exists to use private beds and other specialty beds to meet adult in-patient demand if this is considered a priority.

Inpatient bed surplus/(deficit)		**Forecast**														
Bed pool	**Migration**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	**325**	9.8	0.5	0.3	1.4	2.2	4.4	7.3	9.6	12.9	70.4	76.9	40.4	6.9	(7.8)	(13.9)
(inc Samares capacity)	**700**	9.8	0.3	(0.2)	0.7	1.3	3.3	6.1	8.2	11.3	68.9	75.2	36.6	(0.4)	(21.0)	(35.0)
	1000	9.8	0.0	(0.6)	0.1	0.6	2.4	5.1	7.0	10.1	67.6	74.0	33.5	(6.3)	(31.5)	(51.9)
	1500	9.8	(0.3)	(1.3)	(0.8)	(0.6)	1.0	3.4	5.2	8.0	65.6	71.8	28.5	(16.0)	(48.9)	(79.8)
Private beds	**325**	11.5	11.3	11.5	11.8	12.0	12.4	12.6	12.8	13.0	13.3	13.7	12.4	11.5	11.1	10.9
	700	11.5	11.3	11.4	11.7	11.9	12.3	12.5	12.7	12.9	13.2	13.6	12.0	10.8	10.0	9.3
	1000	11.5	11.3	11.4	11.6	11.9	12.2	12.4	12.6	12.8	13.0	13.4	11.7	10.3	9.1	8.1
	1500	11.5	11.2	11.3	11.5	11.7	12.0	12.2	12.4	12.5	12.8	13.2	11.1	9.4	7.7	6.1
Other specialty beds	**325**	7.2	6.9	7.1	8.3	9.2	10.5	11.8	12.6	13.4	12.1	12.7	10.6	8.2	7.0	6.5
	700	7.2	6.8	6.9	7.9	8.7	10.0	11.2	11.9	12.6	11.2	11.7	8.6	5.0	2.6	0.7
	1000	7.2	6.7	6.7	7.6	8.4	9.6	10.7	11.4	12.0	10.5	11.0	7.0	2.5	(1.0)	(3.9)
	1500	7.2	6.6	6.4	7.2	7.8	8.8	9.9	10.4	11.0	9.4	9.8	4.4	(1.6)	(6.8)	(11.5)

Figure 78: Population Sensitivity Testing – Demand and Capacity Analysis

6.95. A significant cost of treatment relates to the need for staff to directly and indirectly deliver treatment. The workforce requirement will change in relation to demand, and over time, recruitment and staffing can be flexed to reflect these changes. The figure

below identifies the forecasted number of doctors, nurses, midwives, civil servants and manual workers for the central scenario of +700 net inward migration. The figure also shows the variance from this scenario for the +325, +1000, and +1500 net inward migration scenarios.

6.96. The figure below shows that in the event of the population change being lower than the central scenario then additional staff increases will still be needed, albeit lower. In a scenario of population change based on +1,000 and +1,500 net inward migration, an increased number of staff would be needed to meet the associated increase in demand. For Doctors the increase in 2036 for a +1,000 and +1,500 scenario over a +700 net inward migration scenario would be 7.5 and 20.5 FTE respectively; for nurses and midwives this would be an increase of 28.8 and 76.5 respectively with smaller additional staff increases for civil servants and manual workers.

Forecast Full Time Equivalents		Forecast Including Interventions					
Staff type	**Migration**	**2016**	**2026**	**2036**	**2046**	**2056**	**2065**
Doctors	**325**	0.0	(4.0)	(9.4)	(15.5)	(22.5)	(30.0)
	700	153.2	182.9	200.2	215.4	227.1	237.6
	1000	0.0	3.2	7.5	12.8	19.0	26.2
	1500	0.0	8.5	20.5	35.0	51.6	70.0
Nurses & midwives	**325**	0.0	(14.1)	(34.8)	(59.9)	(64.6)	(82.4)
	700	643.8	692.9	788.5	884.5	922.5	947.4
	1000	0.0	11.7	28.8	48.0	49.0	94.2
	1500	0.0	31.9	76.5	115.6	160.4	217.6
Civil servants	**325**	0.0	(2.9)	(7.5)	(13.0)	(20.1)	(27.2)
	700	438.9	472.3	484.6	496.0	507.0	517.0
	1000	0.0	2.3	5.9	11.3	17.0	22.3
	1500	0.0	6.1	16.2	30.5	44.9	58.8
Manual workers	**325**	0.0	(3.2)	(7.4)	(12.6)	(7.1)	(9.2)
	700	374.0	356.0	403.1	447.3	450.6	453.4
	1000	0.0	2.6	5.8	4.0	5.7	7.3
	1500	0.0	6.8	15.5	10.6	15.1	19.5

Figure 79: Population Sensitivity Testing – Workforce Impacts

Comparison of capital cost plan approved in P.110/2016 and OBC

6.97. The figure below sets out the estimated project capital cost plan presented in P.110/2016 and the current capital cost plan on the same basis. A high-level explanation of the reason for the change in estimated cost is also provided for each cost element.

Cost description	P.110/2016 £m	OBC/current £m	Change	Comment
Feasibility Costs				
(i)Departmental Works Costs	124,333,568	113,300,366	(11,033,202)	Reduction to main hospital area Value Management items identified
(ii) Site specific Works Costs (on costs)	47,444,003	51,191,254	3,747,251	Design development has informed the abnormal cost allowances
Sub total	**171,777,571**	**164,491,620**	**(7,285,951)**	
Location factor adjustment	41,226,617	39,477,989	(1,748,628)	Continues to be applied at 24%
Works Cost Total	**213,004,188**	**203,969,609**	**(9,034,579)**	
Consultant and design Team Fees	31,950,628	35,627,519	3,676,891	Additional client fees identified and included at OBC stage
Site Specific Non-Works Costs				
Land	9,527,500	10,486,800	959,300	Land valuation has been refreshed by client's advisors
Other	4,505,000	4,505,000	0	Unchanged
% for art	1,065,021	1,019,848	(45,173)	% driven
Off-site transport improvements	322,400	664,020	341,620	Additional highways works identified by design team
Equipment Costs (Group 2, 3& 4)	18,650,035	18,650,035	0	Unchanged
Project Cost Total	**279,024,773**	**274,922,832**	**(4,101,941)**	
Contingency (Planning Contingency)				
Design Development risks (incl within HPGC)				
Construction risk and employer change and other risk	33,482,973	19,244,598	(14,238,375)	Previously applied at 12% within CR025. Now 5% of this allowance is included in Item 1 above (Departmental Works Cost) to account for design development. 7% allowance included here.
Sub total	**312,507,745**	**294,167,430**	**(18,340,316)**	

Cost description	P.110/2016 £m	OBC/current £m	Change	Comment
Optimism Bias	40,626,007	38,241,766	(2,384,241)	Reduction to 12% captured in the Value Management items included above.
Sub total	353,133,752	332,409,196		
Inflation	68,751,739	53,083,713	(15,668,026)	BCIS TPI applied (post Brexit this has shown a decline)
Main hospital Forecast Outturn Cost	**421,885,491**	**385,492,908**	**(36,392,583)**	

Figure 80: Comparison of Capital Cost Plan Approved in P.110/2016 and OBC – Main Hospital

Relocation Works

Cost description	P.110/2016	OBC/current cost	Difference	Comments
Relocation works cost	39,932,327	76,180,322	36,247,995	The explanation for the change in estimate for each ES is set out below
ES1 Area increased				
ES3 &8 merged and scope of works increased				
ES4 additional floor added				
ES6 lease and fit out costs advised- above previous allowances				
ES7 scope and area increased				
ES9 design development detailing plant relocation work required				
ES10 The Limes refurbishment added into scope				
Pneumatic tube link works extended				
Multi Storey Car Park added into scope				
Inflation on relocation works costs	**4,092,597**	4,189,642	97,045	BCIS TPI applied (post Brexit this has shown a decline)
Relocation works outturn Costs	**44,024,924**	**80,369,964**	**36,345,040**	

Figure 81: Comparison of Capital Cost Plan Approved in P.110/2016 and OBC – Relocation Works

Cost description	P.110/2016	OBC/current cost	Difference
Main hospital Forecast Outturn Cost	**421,885,491**	**385,492,908**	**(36,392,583)**
Relocation works outturn Costs	**44,024,924**	**80,369,964**	**36,345,040**
Forecast Total Outturn Cost	**465,910,416**	**465,862,872**	**(47,543)**

Figure 82: Capital Cost Plan Main Hospital and Relocation Works

6.98. There are some significant movements within the overall total; including a doubling of the cost of the enabling schemes, reflecting the proposed new build of Westaway Court and the location of the Pathology department within Westaway Court.

6.99. The estimated cost of the main hospital has decreased by a proportionate amount reflecting the reduced size of the hospital given the grouping of specialist provision within Westaway Court and reductions in risk and inflation cost assumptions.

Contingency, Risk and Optimism Bias

6.100. The levels of Contingency and Optimism Bias included within project costs is set out in the Economic Case and has been derived through the application of best practice techniques to establish appropriate allowances.

6.101. In the case of **Contingency** – the project Risk Register managed by the Technical Advisor and reviewed periodically by the, Project Team and the Project Board has been the subject several risk pricing and ranking workshops to arrive at a relative mitigation cost. Using further estimation of probable occurrence, these have been used to inform the level of project contingency as opposed to simply including a Health Premises Cost Guide allowance.

6.102. In the case of **Optimism Bias** – HM Treasury Green Book guidance has been followed with the standard 'Mott Macdonald' model being used to define the level of uncertainty remaining within the project. The most recent review of the model took place within the project team and, based on the level of project detail now in place, enabled the allowance to be reduced from its previous 13% to 12%. Further information about the Optimism Bias calculation can be viewed in Appendix 29.

Optimism Bias Governance

6.103. To maintain transparency between contingency and optimism bias specific expenditure arrangements will be developed to separate those with Authority over each provision. Established at a principles level only so far, the arrangement will reflect the following:

- A level of contingency will be included in the contract to reflect the potential contractors' responsibility for key risk identified in the Risk register. This will be confirmed during the appointment process;
- A further level of contingency will be held within the project team to cover specific risks that are to be shared with the contractor or remain with the Contracting Authority where this is adjudged to offer best value;
- Both of these funds will be covered by the project contingency allowance or the works cost pricing directly; and
- The Optimism Bias allowance will be held by the States of Jersey and only accessed based on approved applications made to the Authorising Officer when confirmed.

Conclusions

6.104. This Finance Case has set out the whole life financial costs associated with the delivery of the Preferred Scheme, and the whole life financial costs associated with the delivery of Option 1 - Do Nothing. This is provided only to give visibility to the service delivery costs that are forecast in the scenario of a 'do nothing/business as usual' approach, albeit this has been demonstrated to be a non-viable option in even the short to medium term. Full explanation has been provided to enable visibility of all costs, their likely timing, source of funding and affordability.

Capital costs: expenditure, funding, and affordability

6.105. The analysis has shown that the current capital cost estimate at £465,881,896 falls within the envelope set in P110/2016 of £466 million.

6.106. Given the current cost estimates are below the P110/2016 capital constraint, the capital costs can reasonably be deemed 'affordable'. The funding and financing costs for this sum will be the subject of a separate Report and Proposition that will be prepared and submitted by the States of Jersey Treasury and Resources Minister. This will be based on the financing structure and profile of drawdown involving funding from the Consolidated Fund, Bond Financing and The States of Jersey Strategic Reserve and a weighted cost of capital on the basis the estimated funding and financing charge for the £465.9 million capital expenditure is £577.1 million.

6.107. This structure and profile used is not necessarily reflective of the detail of the States of Jersey Treasury and Resources Department funding proposal to be set out in its Report and Proposition. The funding and financing exposition provided is to aid visibility of the full range of costs associated with implementing the project and is therefore provided for information only.

Revenue costs: expenditure, funding, and affordability

6.108. The cost estimation and analysis for revenue costs for the Preferred Scheme show substantial increases in future MTFP periods. Importantly the analysis shows these are driven by costs both related and *unrelated* to the delivery of the Future Hospital Preferred Scheme.

6.109. Hard and Soft Facilities Management Costs (estates, housekeeping, and energy and utilities) largely reflect increases in costs due to the size and therefore the capacity of the Future Hospital to meet the demand for more treatments. Off-site lease costs due to the relocation of functions from the existing main General Hospital site and Westaway Court on a permanent basis are also additional costs very largely driven by the provision of a Future Hospital. This is also true for clinical services costs, with care of more patients requiring more staff, drugs, and medical supplies although it should be noted that elements of clinical services such as drugs and medical staff pay are also driven by above average inflationary forecasts based on empirical evidence.

6.110. The capital expenditure for the Future Hospital and support facility at Westaway Court represent a significant investment for the States of Jersey in the health wellbeing of Islanders and the Island's infrastructure. To maintain the buildings and equipment in a high-quality 'fit for purpose' condition a change in approach to asset management is needed, from ad hoc reactive responses, to a planned programme of asset maintenance (known as life cycle maintenance). The costs estimation shows a substantial spend requirement from MTFP5 onwards for lifecycle costs. Whilst these could be considered additional costs as a result of the delivering the Future Hospital, it is at least in part the failure to invest in such lifecycle maintenance that has led to the deterioration of the existing hospital buildings and their very poor condition, as set out in the Strategic Case, and has led to the need for a new build hospital.

6.111. Future MTFP funding bids will reflect to a large extent the profile and quantum of the estimated revenue. With regard to the end of MTFP4 (2027) analysis indicates that a number of these costs such as those related to clinical services can be considered to be funded based on historic approaches to funding these cost items, others such as those related to demographic changes can also be considered to be partially funded. However, a significant element of the estimated future costs, both related to the Future Hospital and unrelated to the Future Hospital, cannot at this stage be considered to be funded.

6.112. Whilst there is flexibility for the States of Jersey in relation to committing expenditure in the timeframe and quantum is estimated for future years for some elements of these costs such as lifecycle maintenance, for the majority of them there is little flexibility with regard to timing and scale of spend needed. Indeed, a lack of investment in lifecycle costs will lead to deterioration of the hospital and impact on the quality of the staff, patient, and visitor experience.

6.113. The sums needed to operate the Future Hospital are substantial and increasing. However as noted above, a number are unrelated to the delivery of a new build hospital. Compared to the Option 1 - Do Nothing 'business as usual approach', the revenue costs of implementing the Preferred Scheme would save the States of Jersey in the region of £14 billion between 2016 and 2084. This reflects the assumption that a number of costs are unrelated to the delivery of a Future Hospital and would be incurred in any future delivery scenario, as well as reflecting the increasing cost of off-Island healthcare assumed to be incurred due to the lack of capacity in the existing hospital to meet demand driven by changing demographics, even in the short term. The comparative revenue cost saving also reflects the series of Interventions that can only be delivered in full in a Preferred Scheme context; this accounts for approximately £1 billion of this saving over the lifetime of the Future Hospital. Not implementing the Future Hospital would mean that the majority of these service re-organisation and other Intervention savings could not be delivered.

6.114. Including the capital cost and associated financing of the Future Hospital shows that the total cost saving in the Preferred Scheme compared with the Option 1 - Do Nothing option reduces to £13 billion. The net saving begins to be realised in MTFP5, the first full MTFP period following the opening of the Future Hospital.

6.115. Approval of the Preferred Scheme as described in the Economic Case will require significant capital and revenue funding in the years ahead if it is to deliver the full range of health, social and economic benefits set out.

6.116. A summary of the financial cost of the Preferred Scheme over its economic appraisal term is set out below. In addition to the initial capital investment to be funded, the summary notes that significant annual investment would also be required to maintain the asset such that its condition is preserved throughout its economic life.

Option 4 costs	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Revenue						
Lifecycle	16.8	14.7	15.4	42.3	1,491.1	**1,580.3**
Clinical Costs	478.2	568.4	656.4	778.9	52,315.0	**54,796.9**
FM Costs	49.5	55.5	82.7	93.1	3,165.8	**3,446.6**
Off Site Lease Costs	1.6	5.4	5.7	5.9	201.2	**219.8**
Other Project Costs	11.9	7.5	1.4	0.4	0.0	**21.2**
Total revenue	***557.9***	***651.6***	***761.6***	***920.6***	***57,173.0***	***60,064.7***
Capital						
Capital Funding	23.6	168.8	8.5	0.0	275.0	**475.9**

Option 4 costs	MTFP2 2016-2019 £m	MTFP3 2020-2023 £m	MTFP4 2024-2027 £m	MTFP5 2028- 2031 £m	MTFP6+ 2032- 2084 £m	Total £m
Cost of borrowing (Net)	19.1	48.6	62.9	63.0	409.2	**602.8**
Total Capital	42.7	217.4	71.4	63.0	684.2	1,078.7
Total Cost	600.6	869.0	833.0	983.6	57,857.2	61,143.4

Figure 83: Capital and Revenue Costs

7. The Management Case

Introduction

7.1. The States of Jersey recognise the importance of effective programme and project management in the delivery of capital schemes and already has a well-developed governance system to support this.

7.2. However, the scale and complexity of the Future Hospital's construction combined with the transformational changes planned both within and 'out of hospital' requires these to be strengthened through the adoption of additional management strategies.

7.3. Key areas of focus within these strategies will be:

- Maintaining the safe operation of the interim hospital throughout the process;
- Delivering a range of Enabling Schemes (ES) to make agreed areas of the existing hospital available to the project;
- Acquiring the additional properties to supplement the site;
- Managing a demolition programme to assemble the Future Hospital site from the above;
- Construction of the Future Hospital in close proximity to the existing operational hospital;
- Adoption of appropriate Governance Controls at each stage of the project; and
- Continuing with the levels of stakeholder engagement achieved to date throughout the remainder of the project.

7.4. Team structures introduced during early stages of the project have continued to develop as the above have become clear and will continue to do so as the project moves into its Procurement and Implementation stage.

7.5. Full details of the management approach to be adopted across the project are set out in the Draft Project Execution Plan included in Appendix 22 and summarised below:

Project Management Arrangements

Project and Programme Management Office (PMO)

7.6. The Project will be supported by the development of a complimentary Project and Programme Management Office (PMO) of appropriately experienced and qualified individuals.

7.7. This approach will ensure that the Future Hospital project is coordinated with the wider activities of the P.82/2012 Transformation Programme.

7.8. Sharing common monitoring arrangements in this way across the P.82/2012 programme will deliver reporting economies and will establish a common assurance and reporting process across the programme.

7.9. In their independent monitoring capacities, the PMO's will provide:

- Streamlining reporting by adopting common reporting standards for all change projects;
- Project level assurance for the Future Hospital project and other P.82/2012 change projects;
- Programme-wide assurance for P.82/2012 governance confirming project status and driving co-ordination of programme expectations as they relate to each project; and
- The PMO's have the responsibility for coordinating the demands of the Future Hospital on the Service Transformation Delivery, the interrelationships between the Transformation Plans delivered within the hospital, and the hospitals dependency on Transformation Plans delivered outside the Hospital.

7.10. The PMO's report to the Transition Steering Group and the Future Hospital Project Board as indicated below:

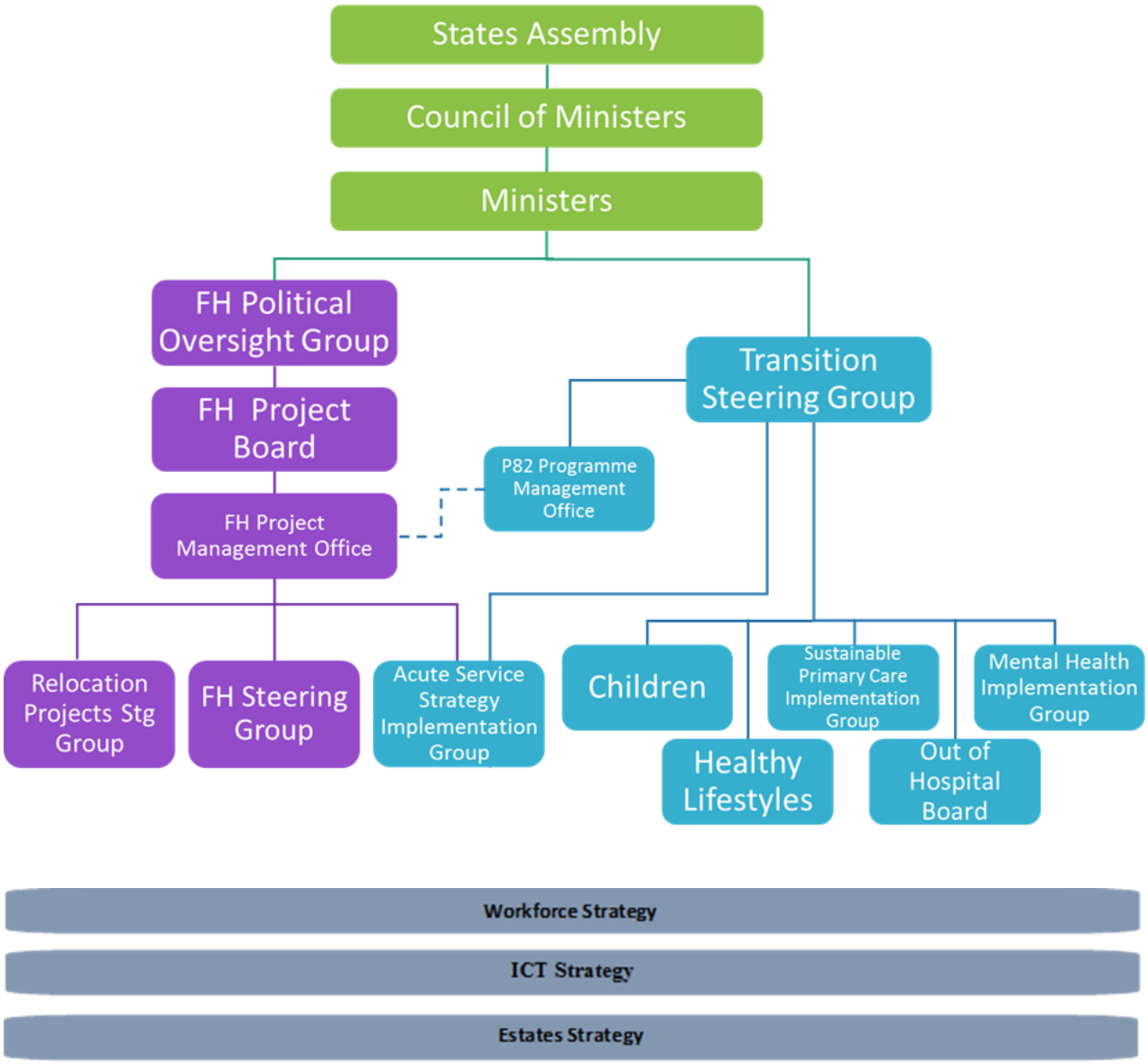

Figure 84: PMO Arrangements

Project Reporting Structure

7.11. Key team roles established in line with Office of Government Commerce (OGC) guidance and are set out in the organogram below.

Project Governance Arrangements

7.12. To ensure full transparency and accountability, a governance structure has been developed that links the delivery of the Future Hospital to the States Assembly as 'The Investment Decision Maker'. This is set out diagrammatically below:

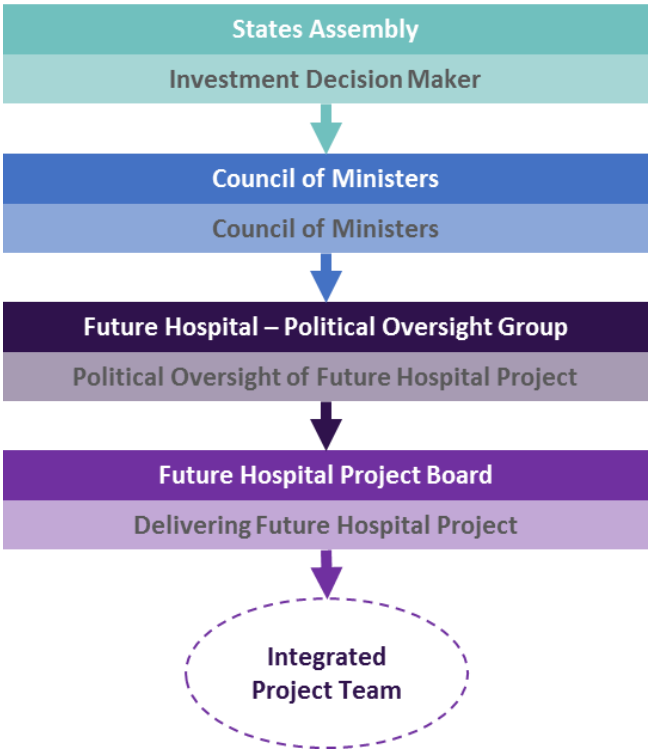

Figure 85: Future Hospital Governance Arrangement

7.13. At the core of this structure is the Political Oversight Group (POG), the composition of which is shown below:

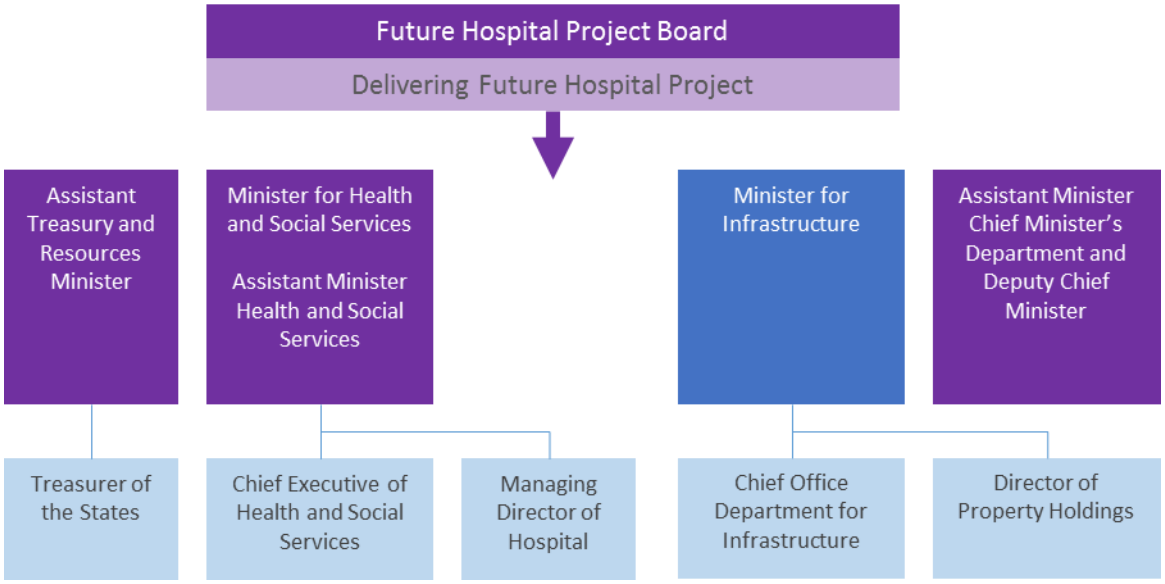

Figure 86: Project Interface Arrangements with POG

Key Roles and Responsibilities

The Senior Responsible Officers (SRO)

7.14. The Hospital project implements a key component of the States healthcare reforms Policy P.82/2012: Health and Social Services: A new way forward. (P.82/2012). Its coordination with other healthcare initiatives is therefore important and is recognised within the projects overall governance.

7.15. The Chief Officer of the Department of Infrastructure will continue to act as the Senior Responsible Officer (SRO) throughout the procurement and delivery phase of the project. As a senior member of the States delivery team the SRO provides direction and leadership and will be accountable for ensuring that the project maintains its focus on its agreed business objectives and confirmed benefits and ensures that risk continues to be effectively managed.

7.16. The Chief Executive Officer for Health and Social Services will continue as a Project Board member for the project and, as the SRO for the wider P.82/2012 programme, will maintain full visibility of the Future Hospital project within this programme.

7.17. This arrangement has been designed to embed the hospital project seamlessly within the overall P.82/2012 programme such that its delivery can complement other active health developments with management harmonised where appropriate and necessary.

7.18. Specific interface arrangements have been established to support this as set out diagrammatically below. This illustrates how strategic programme level interface and coordination can take place both at an SRO level and in day-to-day delivery terms at a project level.

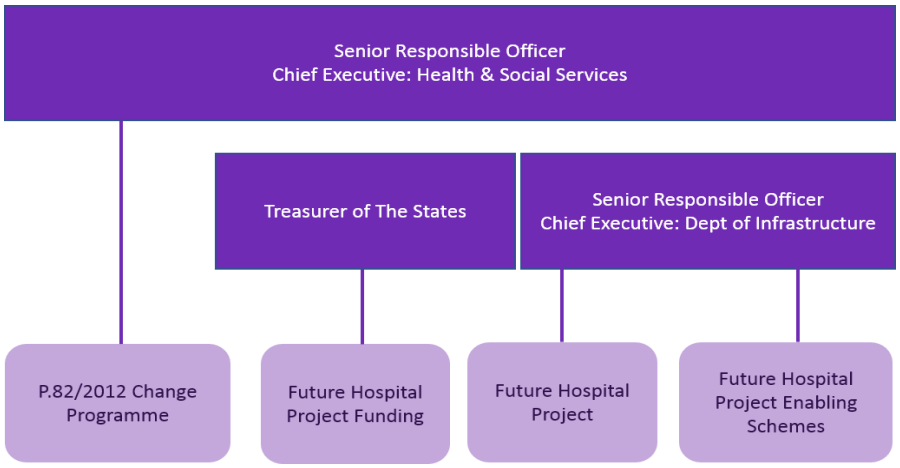

Figure 87: Senior Responsible Owner Arrangements

7.19. These arrangements are also supported by P.82/2012 programme-wide planning effected through the PMO function outlined above.

7.20. The high level of commitment to the Future Hospital Project from States of Jersey is reflected both in the Project Board membership (Chief Executive of Health and Social Services, Chief Officer of Department of Infrastructure and the Treasurer) and in the committed resource of a full time Director for the Health Brief, supported by input from the Hospital Managing Director, Clinical Advisors and consultant body.

The Project Directors

7.21. The Project Director is responsible for day-to-day decision making on behalf of the SRO and setting high standards for delivery of the project.

7.22. A Director of the Future Hospital Project will be appointed to fulfil the Project Director Delivery role, working alongside the existing Project Director for the Health Brief. Interim arrangements are in place until funding is approved and a substantive appointment can be made.

The Clinical Advisors

7.23. Clinical Advisors from within the existing clinical body and, where required, specialists from external bodies, have been appointed to the Future Hospital team to support and advise the Project Directors in achieving the best possible brief, design and delivery approach to the Future Hospital

Programme Leads

7.24. Working to the Project Directors, Programme Leads ensure that

- Delivery objectives are met;
- Issue and change management processes are managed in line with policy;
- Project standards are maintained; and
- The project plans and budgets are managed effectively.

7.25. Given the scale of the project, a team of Project Managers is in place to exercise the above control within various areas of the project. Project Managers will interact across the project to ensure that the required performance is maintained. They will engage with the Core Team to coordinate their activity and to record progress. The Project Managers will report to the Programme Leads and in turn the relevant Programme Management Boards.

7.26. The project management budget included within the Outline Business Case budget is approximately £4.1m based upon the current cost predications and benchmarked against similar sized schemes. Contingencies are applied in line with the project cost estimate and this value is included within the total project fee budget forming part of the capital cost breakdown within the OBC.

Core Team

7.27. The Core Management Team effects the day-to-day management control of the project. It comprises individuals with appropriate and complementary professional, technical or specialist skills who, under the direction of the Project Director and Programme Leads, are responsible for carrying out the work detailed in the Project Plan. (See OGC Toolkit: Project Team for more information)

7.28. These duties will include:

- Planning and delivering the overall process;
- Developing and maintaining project plans;
- Co-ordinating working groups and evaluation teams as required;
- Monitoring progress and reporting to Programme Board(s), Project Board and other governance committees;
- Managing issues and risks as they arise in line with the issue/risk management policy and escalating those above threshold;
- Managing project advisors, ensuring that their contribution is well understood and that the Trust obtains best advice and value;
- Managing risks in line with project risk management strategy; and
- Ensuring effective development and delivery of the Engagement and Communications Plan

7.29. The composition of the Core Team will necessarily flex throughout the procurement and delivery phase to reflect the projects needs over time. However, as a minimum it will comprise of the following key members:

- Lead Partner / Director;
- Senior Partner(s) / Director(s) of Specialist Advisors;
- Services Partner / Director;
- Lead Designer;
- Lead Building Services Designer;
- Senior Project Planner;

- Senior Cost Manager;
- Health and Safety Project Co-ordinator / Controller;
- Acute Service Planning Lead / Clinical Planner;
- Information Technology Lead;
- Equipment Lead;
- Interventions Delivery Manager;
- Information and Quality Manager;
- Risk and Value Manager; and
- Document Controller.

7.30. The resource demands of the Future Hospital project will vary over time but current full time committed resources included three full time Programme Leads, five full time project managers, and thirty to forty core team members.

7.31. A summary of the project management structure is included in the figure below:

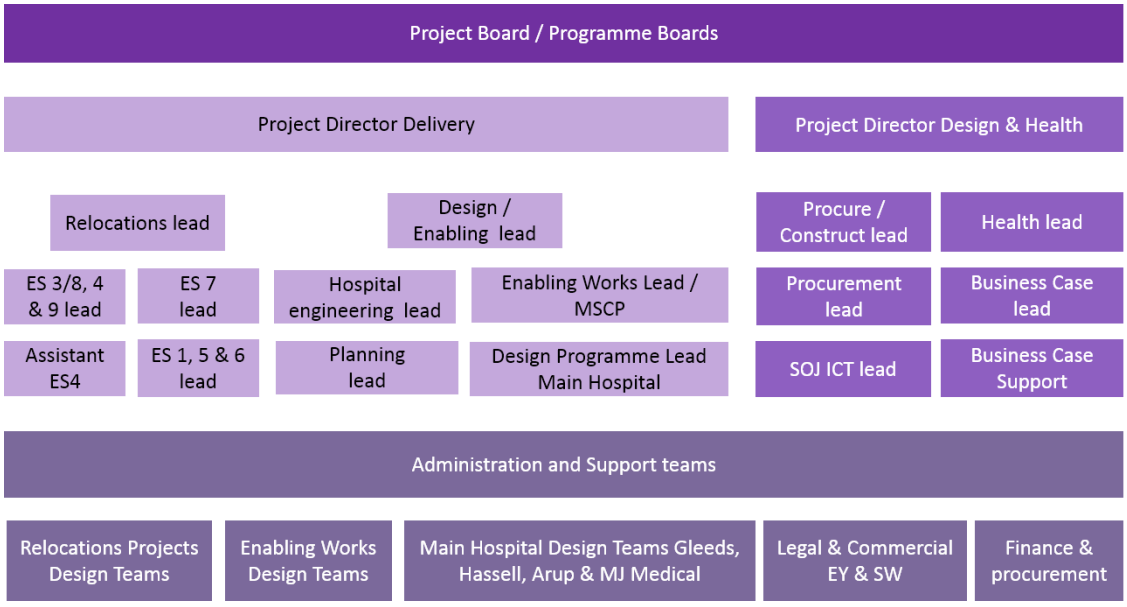

Figure 88: Project Governance

User Groups

7.32. To support the successful briefing and control of the design process, a series of user groups is being established that will be able to both comment, steer, and sign off hospital design and to link this design process to the wider change programme.

7.33. The groups will have sufficient time and competence to maintain design sign-off in line with programme and ensure that designs are efficient, practical and in line with latest best practice.

7.34. To support these groups, the Health Planner and Programme Leads and their teams will:

- Provide core training and development in the art of hospital design processes and approach;
- Facilitate visits and interactions with other hospital sites and teams;
- Steer comments and act as 'interpreter' with the design delivery team; and
- Ensure teams are aware of latest guidance, research, and best practice.

7.35. The key team groups will be:

- Wards and in-patient services;
- Technical departments including pathology, theatres, day-case and imaging;
- Ambulatory services including outpatients and therapies; and
- Facilities management including catering, distribution, and cleaning.

7.36. A programme of design development has already been prepared by the delivery team and shared with the user groups. This will be extended to include broader staff and public stakeholder engagement as the design process develops as set out in the stakeholder engagement strategy in Appendix 36. A copy of the stakeholder engagement report for phase 1 - site selection, can be found in Appendix 16.

Knowledge transfer

7.37. The core team reporting to the Programme Leads will develop a plan to arrange skills transfer from the delivery team to the user groups and vice versa, facilitated by the Project Director for the Health Brief.

7.38. The Future Hospital Project has adopted the principles of 'soft landings' and the delivery contractor will be responsible for ensuring that this is embedded in the project during the design, construction, handover, and post-handover periods.

Summary Project Plan

7.39. A detailed Programme for delivery of the main hospital construction is attached in Appendix 23. This will be further refined during the procurement phase on approval of the OBC. It includes the key milestones for the project delivery including approvals.

7.40. The programme currently meets the project timeframe constraints imposed by Council of Ministers and is summarised in the Milestone Schedule set out below:

Milestone Detail	Date
Full Business Case	Sept 18
Property acquisitions	Dec 18
Enabling Schemes completion date	May 19
Westaway Court completion date	Apr 20
Completion of demolition	Sept 20
MSCP Patriotic St	Aug 20
Main Hospital Planned Completion Date	Nov 23
Occupation of Main Hospital	Mar 24
Granite Block refurbishment	Mar 25
Post Project Evaluation Stage 3	May 26

Figure 89: Programme Milestone Schedule

Contract Management Plan

7.41. The Detailed Procurement Strategy advises the adoption on an NEC form of contract (option C is recommended) the NEC (version 3 with Z clauses appropriate for States of Jersey usage as indicated in the commercial case above) offers a robust, tried and tested approach to contract management. Setting out within its framework, the procedures and measures required to deliver a successful contract.

Use of special advisers

7.42. Consistent with Treasury Guidance, Special Advisers have been used to different degrees throughout the development phase of the project to ensure that the delivery team is supported with expertise commensurate with the needs of the project.

7.43. Project Advisors have been appointed on Terms that will enable their advice to continue to support the delivery team throughout the procurement and delivery phase.

7.44. Advisor input through the remaining phases of the project will be coordinated through the Core Management Team. This will ensure that their resource is used in a timely and cost-effective manner and that the remaining detail needed to execute the project is appropriately developed.

7.45. The Special Advisors are:

Specialist Area	Advisor
Project & Programme Management / Technical Advice coordination	Gleeds Management Services / Rowney Sharman
Business Case Advice & Development	Gleeds Management Services / Gleeds Advisory
Cost Planning, Quantity Surveying and Lifecycle	Gleeds Management Services / Gleeds Cost Management
Design and Build advice	Gleeds Management Services
Health and Safety Advice	Gleeds Management Services / Gleeds Health and Safety
Architecture	HASSELL Architects
Engineering: mechanical, electrical, civils, structural and specialist	ARUP
Transport, Infrastructure and Environmental	ARUP
Specialist Fire Code Advice	ARUP
ICT Specialist Advice	ARUP
Health Planning & Equipment Planning	MJ Medical
Capacity Planning and Growth Forecasting	EY
Valuation and Acquisitions	BNP Paribas
Town Planning	HASSELL Architects / KE Planning
Finance	EY
Assurance	EY
Legal	Sheppard & Wedderburn

Figure 90: Special Advisors

Arrangements for benefits realisation

7.46. The hospital is committed to realising significant benefit from the Future Hospital and intends to direct significant clinical and management resource to achieving this.

7.47. It is however recognised that this effort may need to be sustained over an extended period to deliver the more difficult benefits. As such, the process will be led by responsible Directors to develop the momentum needed and to ensure that benefits are delivered in full and in a timely manner.

7.48. A Benefits Realisation Plan has already been prepared and has captured benefits emerging from two distinct routes:

- The qualitative benefits resulting from the enhanced capability and functionality delivered by the Future Hospital; and
- Wider qualitative and productivity benefits emerging from an agreed 'Interventions programme'. This has been developed to introduce new ways of working both within the Future Hospital, the way in which hospital services work in conjunction with out of hospital services and across the whole of the Health and Social Services Department.

7.49. The Plan also identifies:

- A description of the benefit;
- The indicator(s) used to measure the benefit and details of when measurement will be made;
- Who will have lead responsibility for ensuring the delivery of the benefit;
- Assumptions made about action to be taken to ensure the benefit is realised; and
- The projected timescale for realisation of the benefit.

7.50. A copy of the Benefits Realisation Plan is contained in Appendix 32.

7.51. In the case of Interventions many will need to be implemented within the existing hospital to:

- allow sufficient time for revised working arrangements to be introduced and to become established such that they are robust by the time the Future Hospital is ready; and
- To supplement the Hospital's ability to deal with the increasing demand in the years leading up to the opening of the Future Hospital (see Strategic Case Growth forecast).

7.52. Given the range of benefits to be delivered and in some cases the complex service adjustments to be made in their delivery each benefit and Intervention has been assigned to a specific Delivery Manager.

7.53. On approval of the OBC, Delivery Managers will be responsible for developing implementation plans for each Intervention such that the resource required for their delivery is clear.

7.54. Benefits and Intervention plans will be monitored by the PMO to provide independent reporting on the extent of delivery and there the effectiveness of the programme.

7.55. Benefits realisation will be managed by the programme lead for the Acute Service Strategy Implementation Group. Given the extent of interaction needed with current hospital this should ease the interface / change management activity required.

7.56. The programme lead for the Acute Service Strategy Implementation Group will be responsible for completing a formal Post Implementation Review within 12 months of the declared realisation date set out by Delivery Managers. This will verify if the expected benefits have been both delivered and sustained.

Outline arrangements for risk management

7.57. The risk management procedure adopted by States of Jersey follows guidance outlined in the draft Project Execution Plan is supported by the external advisors to States of Jersey and approved by the Project Board.

7.58. A project Risk Register was established at the beginning of the project and has been both maintained and developed through each subsequent project stage. The register operates on industry standard principles by recording:

- A description of each risk and the scope of its potential impact upon the project scored in the range 1 – 5 with 5 representing the greatest impact;
- A summary review of the probability of each risk occurring scored in the range 1 – 5 with 5 representing the highest probability; and
- Risk management / mitigation arrangements to minimise the probability and / or impact in each case scored in the range 1 – 4 with 5 representing the highest level of possible mitigation.

7.59. To assist judgment of the relative effects of each risk boundaries have been established for each score graduation as set out below:

Likelihood				
Almost certain	Likely	Moderate	Unlikely	Rare
5	4	3	2	1
Over 80% likely to happen or has happened on a regular basis over the last 12 months	61 - 80% likely to happen or has happened at least once or twice in the last 12 months	41 - 60% likely to happen or has happened once or twice in the last 24 months	21 - 40% likely to happen or has happened once or twice in the last 5 years	Up to 20% likely to happen or hasn't happened over last 5 years

Figure 91: Likelihood Score Range and Boundaries

Impact						
RISK		Financial	Quality / Scope			Time
Score	Impact	Resources / Cost / Budget / Benefits	Reputation	Continuity	Regulatory	Time
5	Catastrophic	Greater than £10 million	National media attention	Complete disruption of the service	Breakdown in relationship with regulator affecting funding	12 + weeks
4	Major	£1 million to £10 million	National press attention	Widespread problems in business operation	Breach of regulation or legislation with severe costs/ fines	6 - 12 weeks
3	Moderate	£100,000 to £1 Million	Local press attention	Significant problems in specific areas of service delivery	Breach of legislation or code resulting in fine or rebuke by Court or Regulator	4 - 5 weeks
2	Minor	£10,000 to £100,000	Internal matter	Minor problems in specific areas of service delivery	Minor Breach of legislation or code resulting in no compensation or loss	2 - 3 weeks
1	Insignificant	Less than £10,000	Individual grievances	Minor departmental and/or systems problems	Breach of legislation or code resulting in no compensation or loss	0 - 1 week

Figure 92: Impact Score Range and Boundaries

Management Effectiveness	
Scored 1 - 4	Existing and planned Mitigations will have
1	Negligible / no impact
2	Limited 50% effectiveness
3	Sizeable 65% effectiveness
4	Significant impact 75% Effectiveness
on the risk likelihood and or consequence.	

Figure 93: Management and Mitigation Effectiveness Score Range and Boundaries

7.60. Risk management workshops have been held during the Outline Business Case (OBC) development stages, facilitated by Gleeds Management Services (GMS). The Project Risk Register is held by the dedicated Risk Manager under the control of the Services Director and will be reviewed and updated regularly.

7.61. A full risk register has been developed on this basis to provide a comprehensive list of all risks to the project. Each risk has been categorised and assigned an impact, likelihood, and management effectiveness score that has been utilised to develop an overall residual risk score. The Risk Register is a live document and will evolve during the course of the procurement and indeed over the course of the project.

7.62. Each risk has been allocated to each organisation and an individual who will be responsible for managing the risk. A mitigation plan has been developed to prevent the risks from escalating into issues.

7.63. All risks have been priced to establish a sum to be assigned to either the contingency budget or the optimism bias calculation. These sums have been included in the overall costings for the project. The full risk register is provided in Appendix 30, with a

summary of the current highest risks tabulated below, the full risk register defines the management ownership of each risk

Owner	Risk Description	Mitigation
States of Jersey	Electoral /political executive or scrutiny changes cause change to brief or briefing requirement. Additional Narrative from OBC Risk Workshop: Effects of changes in elected ministerial positions causing fundamental changes to the scope and purpose of the scheme	An assurance review is required Oct 2017. Experienced Project Board and support of the current Health Minister and Infrastructure Minister prior to purdah. Ministerial and Council of Minister briefings. Draft concludes September for October submission, OBC in November.
States of Jersey	Changing funding strategy and further delay in decision making impact of scheme redesign (abortive design cost and loss of market interest/confidence) - reduction to project funding results in delay to implementation of phases.	POG Ministerial representation, senior and effective Project Board. Linked to Special Fund. Budget based on 2015 and MTFP 2016.
States of Jersey	Insufficient funding from Strategic Reserve prioritised to afford Future Hospital solution and phasing. Alternative to Bond funding.	Experienced Treasury Team. Affordability analysis as part of OBC (Deliverable 8) completing Dec 2017. Likelihood reduced as ability to part fund the proposed Bond structure.
States of Jersey	Securing P.82/2012 Finance risk (HIGH RISK) associated with the annual £5m step increase in healthcare demand.	Experienced Treasury Team. Affordability analysis as part of OBC (Deliverable 8) completing Dec 2017. Likelihood reduced as ability to part fund the proposed Bond structure.
States of Jersey	Insufficient Project Team resource results in Project Delay or failure.	Experienced project team, Tri Department support, Advisor Contract requirements. Secure agreement from accountable officers (Finance and HR Directors) that in-house capacity and capability will be supported. Secure agreement that funding will be available to fund Technical Advisors, to undertake the work. Appointment of interim positions to support this
States of Jersey	Insufficient transitional capacity care results in increased pressure on planned capacity or under sizing of general hospital.	Experienced HSSD Team, metrics for effectiveness developed. Community, Mental Health and Sustainable Primary Care Strategies being implemented. Although metrics exist, UK experience indicates proposed Interventions are unlikely to have sufficient effect to address as hoped.

Owner	Risk Description	Mitigation
		Out of hospital team to provide assurance to board that capacity will be sufficient to resource the hospital (RW to expedite). EY modelling outputs has informed Capacity Modelling.
GMS	Contractor to have an insurance policy in place to cover any damage to the incumbent hospital buildings and other surrounding buildings during the works.	GMS to arrange for all works insurances to be priced as part of the tendering process.
GMS	Failure of scheme to achieve approval of OBC and/or FBC upon the basis of an external expert opinion	Scrutiny panel adopting similar external advisors as previous review and T&R minister supported by professional team.
States of Jersey	Inability to attract suitably qualified and experienced clinical/medical experts required to deliver the anticipated service needs. Population policy, licenses, key worker housing	Interim and Future Hospital improvements present excellent opportunity to sell positions to incoming medical staff.
States of Jersey	Inability to achieve the healthcare transformation which would be enabled by the scheme or that the scheme requires to enable it.	Approval of Clinical Briefs required urgently.
States of Jersey	Additional requirements stipulated by Planning Condition or Reserved matter add cost or time or affect safety or sustainability.	Regular communication with Planning Officers. Planning Inquiry anticipated which would review conditions. Lead Advisor on Planning and Infrastructure in post. Support of TTSD in EIA process. Experienced Technical (planning) advisor appointment.
States of Jersey	Existing Hospital Continuity Risk (to run prior to new-build completion 2025 including Granite Block as ES 11) - failure in general hospital facility or services, prior to new-build / replacement results in delay or cost. Recent leaks within 1960's block confirm risk to healthcare continuity. Backlog maintenance cost. Possible accelerated works by main contractor.	Liaison between JPH and HSSD engineering, facility management and maintenance. Optimised phasing supported by experienced technical advisors. Funding for watch and wait backlog maintenance items to be provided to de-risk. Backlog maintenance cost. Possible accelerated works by main contractor.
States of Jersey	Failure to receive or expend investment in Workforce Strategy Plan in relation to General Hospital.	Workforce revenue modelling for NPV. HSSD Human Resource Team and Public-Sector Reform Support.

Owner	Risk Description	Mitigation
	Coordination issues between Workforce Strategy and hospital development have occurred and issue being addressed by client department leadership.	Workforce elements under Client Department review following delayed delivery. Acute Workforce Training and Organisational Development Strategy Plan.
GMS	Site selection process challenged, results in delay and reduced general hospital capacity due to inflation.	Strategic Outline Case site assessment. Stakeholder workshops. Experienced Advisor Appointment, EIA, OBC and FBC.

Figure 94: Key Risk Extract from Risk Register

7.64. Risk workshops involving all members of the Core Team, Directors, and members of the Project Board have been undertaken regularly throughout the project to ensure that risks have been actively managed and mitigated through good planning and design.

7.65. In the period prior to the development of the OBC process the risks were reviewed at regular design team meetings (on a weekly basis), a full review was undertaken on a quarterly basis led by the Project Director for Delivery and a risk update was presented to each Project Board.

7.66. The risk register has been reviewed prior to incorporation in the OBC at a formal workshop on the 17th August 2017 and presented for Project Board approval on the 5th September 2017.

7.67. The Risk register will continue to be maintained throughout the procurement and delivery phase. In each case, a nominated Project Manager will be assigned as the owner of each risk and allocated the responsibility of ensuring that the agreed mitigation defined in the Risk register is fully implemented.

7.68. The out of hospital PMO and the Programme Leads will regularly monitor risk and mitigation management activity and will report progress within it project assurance arrangements.

Delivering the Acute Service Strategy operational change

7.69. Prior to and during the construction period the hospital will have commenced a detailed change management programme to:

- Develop and implement a programme to introduce the operational and wider transformational changes set out in the Interventions Plan. Given that some these will have informed the design of the Future Hospital, the supporting

changes to operational practice will need to be introduced during the operation of the existing hospital in readiness for occupation of the Future Hospital;

- Develop a programme to manage delivery of the Benefits set out in the Benefits Realisation Plan. Again, some of these will rely on design elements within the Future Hospital and will therefore need to be managed through Design User Groups; and
- Work with other stakeholders and wider transformation teams to plan and implement wider change across health providers.

7.70. This degree of change is significant both in its scale and in its difficulty in being delivered alongside and occasionally within the delivery of the Future Hospital.

7.71. Strong, well-resourced arrangements based on delivering the Acute Strategy have been formed to ensure that the required activity well managed via the Acute Service Strategy Implementation Group.

Acute Service Strategy Implementation Group

7.72. The following principles have been adopted:

- The Acute Service Strategy Implementation Group has as its brief the oversight and implementation of Acute Service transformation in Jersey, to ensure they are safe, sustainable, affordable, integrated, and delivered in partnership, in accordance with P.82/2012;
- The implementation of redesigned services (with operational, workforce, financial and clinical governance responsibilities) remains with the Clinical Directors and Divisional Leads; and
- The Acute Service Strategy Implementation Group provides guidance and advice through the existing General Hospital and wider Health and Social Services Department governance structures. It will add value by identifying synergies between P.82/2012 work streams, presenting these opportunities to Clinical Directors and Divisional Leads, and helping to consider and clarify wider system risks to safe, sustainable and affordable acute service delivery in the years ahead.

7.73. The group will be led by the Hospitals Managing Director and supported by a Programme Lead for Future Hospital Transformation that is currently funded and with active recruitment under way (Aug 2017) and Work-stream leads assigned the following responsibilities:

The Project Director will:

- Provide leadership to the Project;
- Monitor ongoing project adherence to agreed objectives;

- Ensure that any changes to scope do not have adverse effects on project direction;
- Report progress to the Transition Plan Steering Group and to the Future Hospital Board;
- Communicate with and brief the Project Board about Project developments, seeking their involvement throughout the project as appropriate;
- Consider policy matters that arise; resolve these where possible and escalate these to the Transition Steering Group where necessary;
- Chair Acute Service Implementation Group meetings;
- Provide direction to Work-stream Leads on wider strategy and impact on work streams;
- Advise on new and existing stakeholder sensitivities and ensure the right people are being involved;
- Ensure that resources required to progress the Project are identified and managed in accordance with Health and Social Services Department procedure;
- Provide direction to the Communications Officer;
- Monitor progress through regular review; and
- Control the budget and authorise expenditure.

The Programme Lead for the Acute Service Strategy Implementation Group will:

- Prepare documentation for the whole programme, including the Programme plan, the Critical path programme, the Risks and Issues Log and the Communications and engagement plan;
- Produce periodic and highlight reporting;
- Monitor the achievement of progress against plan;
- Identify risk and mitigation actions, and escalate as appropriate;
- Lead the programme stakeholder engagement and communications;
- Provide regular reports to the hospital's Managing Director;
- Prepare reports for the Transition Plan Steering Group; and
- Provide regular communication with key stakeholders.

Work stream Leads will:

- Ensure that they or their named Deputy attend each Acute Service Strategy Implementation Group (ASSIG) to ensure consistency and momentum;

- Communicate with their constituents to keep stakeholders updated with progress and to raise emerging issues in a timely way;
- Lead their work stream effectively, involving relevant stakeholders and establishing key milestones and deliverables;
- Planning and completing actions and activities and making progress in accordance with agreed timescales;
- Delivering on the agreed work stream or pilot objectives;
- Identifying areas where external expert advice may be required, and procuring the required expertise within budget;
- Managing any external experts, to ensure they deliver to time, budget and quality; and
- Report to the Project Manager and to the ASSIG on Progress, Risks and issues delays and lessons learnt.

Outline arrangements for Post Project Evaluation

7.74. Post Project Evaluation will be undertaken to examine the extent to which the project has materially delivered against its expected benefits and the overall projects objectives.

7.75. The process will be based on the requirements of the Capital Investment Manual (CIM) and the evaluation principles set out in the 'Magenta Book' but will recognise the existing evaluation methods that are in place within States of Jersey.

7.76. The evaluation will take place in line with the soft landings programme developed by the Future Hospital team in conjunction with the delivery contractor.

7.77. Post Project Evaluation will be completed in four distinct stages:

- Stage One - preparation of the PPE Plan – completed as part of the initial engagement process and pre-contract services agreement with the delivery contractor and assured by the soft landings champions and the Project Board. This will for part of the Full Business Case;
- Stage Two – a 'completion review' carried out during the commissioning for the Future Hospital;
- Stage Three - an initial full evaluation completed during the post occupation phase to assess if the project has met its service outcomes, objectives and whether benefits are being realised. This period is important in allowing sufficient time for acclimatisation and for steady state operations to be reached; and
- Stage Four - a follow up review to assess long-term service concluded at the end of the soft landings process; two to three years after the facility has opened.

7.78. Resource will be committed from the Hospital's Management Team to coordinate each review with Evaluation Teams being appointed from outside the organisation to facilitate objective assessment should they be required. This would be funded from the Health and Social Services Department management budget.

Contingency plans

7.79. The delivery of the Future Hospital and the management of the Interim Hospital in the run up to construction and during construction both sit on the States of Jersey corporate risk register. Significant system wide impacts would be felt if either of these programmes failed.

7.80. The key points of failure would rest around three areas; significant delay to the Future Hospital delivery or failure of the Interim Hospital during the design and construction period or demand over-coming capacity of the Interim Hospital.

7.81. Should any of these risks materialise maintenance of business would include for example;

- Greater level of delivery of Hospital Services off-Island;
- Increased waiting lists for elective surgery;
- Acceleration of the Future Hospital programme; and
- Provision of temporary accommodation for Hospital Services.

7.82. The cost implications of such activity are not held within the project.

7.83. It is clear from the detail above that the Project Board has established robust arrangements for delivering the Preferred Scheme Including:

- Arrangements for the Future Hospital's design to be fully informed by the hospitals user groups ensuring that those with vested interests have an active voice in its delivery;
- Mechanisms to ensure that the safe operation of the existing hospital is never compromised during constructions;
- A robust yet flexible approach to benefits realisation that includes a commitment to productivity and performance enhancing change over and above the benefits inherently associated with new facilities;
- Clear resourcing of both the delivery team and those responsible for wider integrated transformational work; and
- Comprehensive governance across the P.82/2012 programme driving integration across projects which ensuring delivery independence for each project including the Future Hospital.

7.84. In conclusion, these arrangements, combined with the ongoing support of the project team, Project Board and the SRO provide the necessary support framework required for the safe, effective delivery of the new facilities.

8. List of Appendices

Appendix number	Title
1	OBC Assumptions Log
2	Hyperlink list scheduling links to other published material
3	Jersey population projections - 2016 release
4	EY Demand and Capacity Modelling Methodology and Outcomes
5	Review of policies
6	Six Facet Survey 2015 - Project Board summary
7	Project Board constraints paper & minutes
8	Strategic Workforce Plan
9	EY - Interventions modelling report
10	Options shortlisting methodology and outcomes
11	Project Objectives Workshop outcome
12	Benefits Appraisal Methodology & Appraiser briefing notes
13	Revenue cost estimating methodology
14	Site development and building evolution
15	Summary Enabling Projects
16	Stakeholder Engagement Report – Phase 1 Site Selection
17	BREEAM Pre-Assessment
18	DQI process and outcomes
19	Detailed Procurement Strategy – Main Hospital
20	Detailed Procurement Strategy – Enabling Schemes
21	Equipment Strategy
22	Draft Project Execution Plan
23	Construction Programme and Phasing
24	Capital Cost estimating methodology
25	Capital cost OB forms and HPCG estimate – Commercially Sensitive
26	GEM feed model – All options
27	GEM model report
28	NPV VFM Assessment & Sensitivity report
29	Optimism Bias model & methodology
30	Risk Register

31	Site Assembly Plans
32	Benefits and Interventions Realisation Plan
33	Property Acquisition Valuation reports – Commercially Sensitive
34	Terms of Reference – Acute Service Strategy Implementation Group
35	Contract Clauses - NEC3
36	Stakeholder Engagement Strategy
37	RIBA Stage 1 Overview
38	Design and Access Statement - Outline Planning Application

9. Glossary of Terms

Abbreviation	Full title
AHP	Allied Health Professionals
All-in TPI	All-in Tender Price Index published by BCIS
ASS	Acute Service Strategy
ASSIG	Acute Service Strategy Implementation Group
BCIS	Building Cost Information Service of the RICS
BCRG	Business Case Review Group
BIM	Building Information Modelling
BNP Paribas	Contracting Authority's Property Valuation Advisors
BREEAM	Building Research Establishment Environmental Assessment Model
Brief	Feasibility Site Option Appraisal Brief 'FH – 1.6 – Change Order 004 – Variation to Options Appraisal – 20141230'
BSRIA	Building Services Research and Information Association
Capex	Capital expenditure(s)
CDM	Construction Design & Management Regulations 2007
CDU	Clinical Decision Unit
CEMP	Construction Environment Management Plan
Chief Minister's Office	Chief Minister's Office of the States of Jersey
CIM	Capital Investment Manual
COM	The Council of Ministers of the States of Jersey
Contracting Authority	The States of Jersey
CPI	Consumer Price Index
CPU	Catering Production Unit
CSF	Critical Success Factors
CT	Computed Tomography
DOH	UK Government Department of Health
DQI	Design Quality Indicator
DTOC	Delayed Transfers of Care
EAC	Equivalent Annual Cost
EAU	Emergency Assessment Unit
EC	Equipment Committee
ECC	Engineering and Construction Contract
ED	Emergency Department
EHO	Environmental Health Officer for the States of Jersey

EIA	Environmental Impact Assessment
EPI	Equipment Price Index
ERM	Equipment Responsibility Matrix
ES	Enabling Schemes for the Jersey Future Hospital
EY	The Contracting Authority's Financial Advisor
FAE	Functional Area Estimate
FBC	Full Business Case
Financial Advisor	One part of the ICA Team
FM	Facilities Management
FTE	Full Time Equivalent
GBCI	General Building Cost Index published by the BCIS
GEM	Generic Economic Modelling
GIFA	Gross Internal Floor Area
GMS	Gleeds Management Services
GP	General Practitioner
GSL	Government Soft Landings
HBN	Health Building Note
HMT	Her Majesty's Treasury
HPCG	Healthcare Premises Cost Guide
HR	Human Resources
HSSD	The Health and Social Services Department of the States of Jersey
HTM	Health Technical Memorandum
ICA	The team of Independent Client Advisors
ICT	Information and Communication Technology
IP&C	Infection Prevention and Control
ITT	The Invitation to Tender Document
JCT	Joint Contracts Tribunal
JCT Minor Works	Joint Contracts Tribunal Minor Works contract
JFH	Jersey Future Hospital
JGH	Jersey General Hospital
JPH	Jersey Property Holdings Ltd
KPIs	Key Performance Indicators
KPMG	Consultant Health Policy Advisor the States of Jersey
LCC	Life Cycle Cost
Legal Advisor	The legal entity that enters into the Contract with the Contracting Authority to provide the legal and commercial advisory and consultancy services. One part of the ICA Team.
LOD	The Law Officer's Department of the States of Jersey
LPA	Local Planning Authority
M&E	Mechanical and Electrical services
MEAT	Most Economically Advantageous Tender
MIPS	Median Index Pricing Study
MJM	MJ Medical Health Planners
MOG	The Ministerial Oversight Group of the States of Jersey

MRI/PACS	Magnetic Resonance Imaging/ Picture Archiving and Communication System
MSCP	Multi Storey Car Park
MTFP	Medium Term Financial Planning
NEC	New Engineering Contract
NHS	National Health Service
NMSC	Non-melanoma skin cancer
NPV	Net present value
NSR	Noise Sensitive Receptor
OBC	Outline Business Case
OGC	Office of Government Commerce
ONS	United Kingdom Office for National Statistics
OPA	Outline Planning Application
OPD	Outpatients Department
Opex	Operating expenditure
Optimism Bias	Empirically determined adjustment to redress the tendency toward overly optimistic project appraisal
PCSA	Pre-Construction Services Agreement
PMO	Project Management Office
POG	Political Oversight Group
PPE	Post Project Evaluation
PQQ	Pre-Qualification Questionnaire
Preferred Option	In the Stage 1 appraisal the Preferred Option refers to the Preferred Site location for the Jersey Future Hospital
Preferred Scheme	In the stage 2 appraisal the Preferred Option refers to the Preferred development scheme for the Jersey Future Hospital
Procurement	The process of obtaining a tender
Project	The Future Hospital Project
Project Board	The Board of the Project, assembled quorate
Project Director	The sponsor of the project, who reports to the Chairperson of the Project Board
Project Team	Those operational staff assembled by the Contracting Authority to manage the delivery of the Project
PUBSEC	Public Sector Tender Price Index published by the BCIS
QA	Quality Assurance
QRA	Quantified Risk Analysis
Refined Concept	The Dual Site refined concept Addendum to the Strategic Outline Case, as prepared by WS Atkins October 2013
RIBA	Royal Institute of British Architects
RICS	Royal Institution of Chartered Surveyors
RPI (Y)	Retail Price Index - underlying inflation measure which excludes mortgage interest payments and indirect taxes
RPIJ	Retail Price Index Jevons
SL	Soft Landings
SMART	Specific Measurable Achievable Realistic Time Related

SME	Subject Matter Experts
SOC	Strategic Outline Case, as prepared by WS Atkins May 2013
SOJ	States of Jersey
SOJDC	States of Jersey Development Company
SR	Scrutiny Report
SRO	Senior Responsible Officer
Stakeholders	The organisations or departments of the Contracting Authority that have an interest in the successful delivery of the Services
States Assembly	The elected officials of the States Assembly
States Member	A member of the States Assembly
Strategic Brief	The strategic brief of the project, as contained in the Services Information
Supply-Chain Procurement Strategy	The procurement strategy developed by the Contracting Authority (with support from the ICA Team)
TPI	Tender Price Indices
TTSD	Transport and Technical Services Department of the States of Jersey
WACC	Weighted Average Cost of Capital
WEMWBS	Short Warwick Edinburgh Mental Wellbeing Scale