

JERSEY FUTURE HOSPITAL CO021 – SITE OPTION REPORT

APPENDIX 28 DATA BOOK

QUALITY ASSURANCE

Sign off: Terry Langdon

Position: Director





CHANGE REQUEST NR. 21 – DATA BOOK

Main Body Report

Location	Subject	Source materials
4.1	Introduction	FH 1.6 Change Order 004 – Variation to Options Appraisal - 20141230
4	Reaffirmation of previously rejected sites	Strategic Outline Case prepared by WS Atkins
		 Appendices to Strategic Outline Case prepared by WS Atkins
		 Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
		 Appendices to Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
		 2b-CoM-150429-R&P-Hospital Site Outcome-Board Issue - NPV
4	Site Options	FH 1.6 Change Order 004 – Variation to Options Appraisal – 20141230
		FH 1.4 – Revised Site Long Listing Brief – 20150729 - 2
5	Appraisal Methodology	UK Treasury Green Book Guidance
		UK DoH Health Building Notes
		UK DoH Health Technical Memoranda
		 Clinical Engagement data developed under CO003 by MJ Medical
		EY Modelling data, provided in final iteration 10.04.15, included in Appendix 9
		UK Department of Health Healthcare Premises Cost Guides, 2 nd Edition
		UK Treasury recommended Generic Economic Model (GEM)
		Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
		Appendices to Strategic Outline Case Refined Concept Addendum prepared by WS Atkins





RICS Code of Measurement: A Guide for Property Professionals
BCIS PUBSEC (Tender Price Index of Public Sector Building Non Housing)
 Site valuation data provided by BNP Paribas 23.03.15 and updated site valuation data provided by BNP Paribas 30.04.15
 BCIS published location adjustment for Jersey (not Channel Islands) published 1Q15
Skills Review of Jersey's Construction Sector dated September 14 published by Jersey Construction Council
Committee of Inquiry into Building Costs dated September 02 published by the States of Jersey
Gleeds in-house R&D material
Priced Bills of Quantities for elemental analysis for Jersey Contracts
UK Office for National Statistics – Construction statistics median earnings 2013
UK recent trade advertisements for construction posts
Benefit criteria: 'Appendix 1 to R Report'
Risk criteria: 'Appendix 1 to R Report'
HM Treasury Green Book Guidance (Optimism Bias)
 Mott Macdonald template for calculating Optimism Bias (as amended by Gleeds)
Consultations with stakeholders including: Jersey Fire Service (meeting record 18.02.15) Planning Authority (minutes of planning
meetings 23.01.15 and 26.02.15)
 Comments of Independent Evaluators attending Benefits and Risk Workshop 26.03.15





		 Programme assumptions based on UK healthcare and Jersey specific experience Data provided in respect of current Bank of Canada build by Dandara for programme and m² delivery per month
6	Option A – Dual Site	Please refer to Appendices 3 – 23 and 29 below
7	Option B - Overdale	Please refer to Appendices 3 – 23 and 29 below
8	Option C – General Hospital	Please refer to Appendices 3 – 23 and 29 below
9	Option D - Waterfront	Please refer to Appendices 3 – 23 and 29 below
10	Option E – People's Park	Please refer to Appendices 3 – 23 and 29 below
11	Conclusions	 CO021 GEM Feed v8 ISSUED CO021 Benefits v6 Moderated 300915 with answers





CHANGE REQUEST NR. 21 – DATA BOOK

Appendices

Location	Subject	Source materials
Appendix 1	Brief	 FH 1.6 Change Order 004 – Variation to Options Appraisal – 20141230 FH 1.4 – Revised Site Long Listing Brief –
		20150729 - 2
Appendix 2	Verification of previous site deselection	Strategic Outline Case prepared by WS Atkins
		 Appendices to Strategic Outline Case prepared by WS Atkins
		 Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
		 Appendices to Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
		 2b-CoM-150429-R&P-Hospital Site Outcome-Board Issue - NPV
Appendix 3	Site Boundary 'Red Line Plans'	Red line drawings prepared by Hassell based on:
		Digimap Jersey digital mapping data
		Ordnance Survey data
Appendix 4	Site Appraisal Plans	Site analysis drawing prepared by Hassell based on:
		Digimap Jersey digital mapping data
		Primary research of sites
		Infrastructure site analysis drawings prepared by Arup based on:
		Services and utilities data provided by SOJ
		'Main LV Distribution Network' drawing – J250101-E/001 Revision P2 prepared by Henderson Green in respect of electrical schematic at Jersey General Hospital
		 Water supply and mains water layout data provided by Jersey Water





Location	Subject	Source materials
Appendix 5	Local Infrastructure / Transport Plans	Transport assessment drawings prepared by Arup based on:
	·	Primary review of accessibility
		Digital mapping data for St Helier
		Technical Note TN-TRA-001/5 prepared by Arup based on:
		 General Hospital Travel Plan prepared by Halcrow, March 2005
		 Esplanade Masterplan, States of Jersey, March 2011
		 Primary review of accessibility, taking account of the range of transport modes to be accommodated
		Traffic Survey
Appendix 6	Civil Engineering Technical Note	Technical Note TN-CIV-001/4 prepared by Arup and Rothwells based on:
		Email dated 11.02.15 from Steve Bohea Transport and Technical Services
		 Drawing 'Jersey General Hospital, Overdale & Field 1551, St Helier' drawn by TTS Records 11/02/2015
		 Drawing 'JGH – Existing Site, Gloucester Street & The Parade, St Helier' drawn by TTS Records 11/02/2015
		 Drawing 'Jersey General Hospital Waterfront & Jardin de la Mer, St Helier' drawn by TTS Records 11/02/2015
		Option D Waterfront Site 'Proposed Site Plan' prepared by Hassell
Appendix 6	Electrical Technical Note	Technical Note TN-E-001-5 prepared by Arup based on:
		 Lighting Guide 2 (LG2): Hospitals and Healthcare Buildings
		 Application submitted to Jersey Electric Company 28.01.15 requesting maximum





Location	Subject	Source materials
		supplies for each site, for all-electric and conventional options
		Cost information provided by JEC 13.02.15
		 Follow up information provided by JEC 03.03.15
		 Application submitted to Jersey Telecom 30.01.15 requesting new communications supplies
		Cost information provided by JT 27.02.15
Appendix 6	Geotechnics Technical Note	Technical Note TN-GEO-001 prepared by Arup based on:
		 Ground investigation records for Overdale site
		 Desk study of Overdale site prepared by Arup October 2014
		Desk study of General Hospital site
		 Data from February 2014 ground investigation at Waterfront site
Appendix 6	Mechanical Technical Note	Technical Note TN-M-001-5 prepared by Arup based on:
		Fire Hazard Classification
		 Medical Gases Health Technical Memorandum 02-01
		 BS 9990:2015 Non automatic fire-fighting systems in buildings - Code of practice
		 Jersey Water site pipework distribution layout for Jersey General Hospital
		 Jersey Water site pipework distribution layout for Overdale
		 Costs for incoming mains water supply for all options provided by Jersey Water
		 Jersey Gas site pipework distribution layout for Jersey General Hospital
		 Costs for incoming gas supply for all options provided by Jersey Gas





Location	Subject	Source materials
		Jersey Gas tariff information provided by email 11.02.15
		 Average fuel oil cost per litre (supplied by PDJ Ltd) based on December 2014 price
Appendix 6	MEP Technical Note	Technical Note TN-MEP-001 prepared by Arup based on:
		 Historical plant space information from similar sized healthcare projects
		 BSRIA Rules of Thumb – Guidelines for Building Services 5th Edition (BG9/2011)
		 Calculations based on estimated system capacity loads
		 Manufacturer physical plant and equipment sizes
		Plant and equipment space guidance information
		Maintenance and access space required as advised by manufacturers
Appendix 6	Structures Technical Note	Technical Note TN-STR-001 prepared by Arup based on:
		 Available geotechnical information for all sites, including Historical ground investigations undertaken at Overdale in 1997 and 2001 Historical ground investigations undertaken at Jersey General Hospital in 1973, 1979 and 2014 Trial pits undertaken as part of drainage construction works at Waterfront site in 2014
		 BS 8002: 1994 Code of Practice for earth retaining structures
		Health Technical Memorandum 08-01 Acoustic Design Requirements
Appendix 6	Tidal Impact Report	Technical Note TN-TI-001 prepared by Arup based on:





Location	Subject	Source materials
Location	Cabject	Digital Terrain Map provided by States of Jersey
		Drawings of coastal wall structures obtained from States of Jersey TTS in 2011
		 EurOtop 'Wave overtopping of Sea Defences and Related Structures: Assessment Manual'
		 Image from BBC Jersey news website showing overtopped discharge down Victoria Avenue, March 2008
		 HR Wallingford 'Jersey Coastal Management Study 1991'
Appendix 7	Town Planning Assessment	KE Planning assessment of planning issues based on:
		 Primary research into site options
		 Discussions with Planning Department 23 January 2015 and 26 February 2015
		St Helier Design Guidance 2013
		Policy SC04
		 Jersey Waterfront 2006 Supplementary Planning Guidance
		Tall Buildings policy
		Revised Island Plan 2011
		Waterfront Masterplan
		 Response from Planning Authority April 2015
		 Discussions with Planning Department 4 August 2015
		 Response from Planning Authority 30 September 2015
Appendix 8	Functional Area	UK DoH Health Building Notes
	Estimates	UK DoH Health Technical Memoranda
		 Clinical Engagement data developed under CO003 by MJ Medical





Location	Subject	Source materials
Location	Gubject	 UK Department of Health Healthcare Premises Cost Guides, 2nd Edition Strategic Outline Case Refined Concept Addendum prepared by WS Atkins Appendices to Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
Appendix 9	States of Jersey Relevant Activity Data	3nr iterations of modelling data generated by EY, the latest of which issued to MJ Medical 10.04.15
Appendix 10	Health Planning and Stacking Diagrams	 Drawings prepared by Hassell based on: Historical information from similar sized healthcare projects Functional Area Estimate v.18 Dual Site CO021 Functional Area Estimate v.03 Single Site Strategic Outline Case Refined Concept Addendum prepared by WS Atkins Appendices to Strategic Outline Case Refined Concept Addendum prepared by WS Atkins Clinical Engagement data developed under CO003 by MJ Medical Responses to design commentary provided by SOJ Feedback from meetings with Planning Authority 23.01.15 and 26.02.15
Appendix 11	Site Massing Proposals	 Drawings prepared by Hassell based on: Historical information from similar sized healthcare projects Functional Area Estimate v.18 Dual Site CO021 Functional Area Estimate v.03 Single Site Strategic Outline Case Refined Concept Addendum prepared by WS Atkins





Location	Subject	Source materials
Location	Subject	Appendices to Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
		Clinical Engagement data developed under CO003 by MJ Medical
		 Responses to design commentary provided by SOJ
		 Feedback from meetings with Planning Authority 23.01.15 and 26.02.15
Appendix 12	Proposed Site	Drawings prepared by Arup based on:
	engineering plans	 Application submitted to Jersey Electric Company 28.01.15 requesting maximum supplies for each site, for all-electric and conventional options
		Cost information provided by JEC 13.02.15
		 Follow up information provided by JEC 03.03.15
		 Application submitted to Jersey Telecom 30.01.15 requesting new communications supplies
		 Cost information provided by JT 27.02.15
		Fire Hazard Classification
		 Medical Gases Health Technical Memorandum 02-01
		BS 9990:2015 Non automatic fire-fighting systems in buildings - Code of practice
		 Jersey Water site pipework distribution layout for Jersey General Hospital
		 Jersey Water site pipework distribution layout for Overdale
		 Jersey Gas site pipework distribution layout for Jersey General Hospital
		Historical plant space information from similar sized healthcare projects
		BSRIA Rules of Thumb – Guidelines for Building Services 5th Edition (BG9/2011)





Location	Subject	Source materials
Location	Subject	Calculations based on estimated system capacity loads
		Manufacturer physical plant and equipment sizes
		Plant and equipment space guidance information
		Maintenance and access space required as advised by manufacturers
		 Historical drawings and data provided by SOJ
Appendix 13	Proposed Construction Programmes	Construction programmes prepared by Gleeds Management Services based on:
		 Programme assumptions based on UK healthcare and Jersey specific experience
		 Data provided in respect of current Bank of Canada build by Dandara for programme and m² delivery per month
		 Data provided in respect of Welsh healthcare projects: Specialist Critical Care Centre, Cwmbran and Ysbyty Ystrad Fawr
		 Data provided by Sir Robert McAlpine in respect of on-island experience on Jersey for programme and m² delivery per month
Appendix 14	Proposed Construction	Drawings prepared by Hassell based on:
	Phasing	Massing and stacking drawings
		 Responses to design commentary provided by SOJ
		 Phasing assumptions based on UK healthcare specific experience
		Gleeds Management Services' programmes for Options A, B, C, D and E dated 25.09.15
Appendix 15	Capital cost pricing	Strategic Outline Case prepared by WS Atkins
		 Appendices to Strategic Outline Case prepared by WS Atkins





Location	Subject	Source materials
		Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
		 Appendices to Strategic Outline Case Refined Concept Addendum prepared by WS Atkins
		UK Department of Health Healthcare Premises Cost Guides, 2 nd Edition
		RICS Code of Measurement: A Guide for Property Professionals
		BCIS PUBSEC (Tender Price Index of Public Sector Building Non Housing)
		BCIS Building Height Index
		BREEAM 2008 guidance
		BRE report titled 'Delivering Sustainable Buildings – Savings and Payback' published 2014 for Community Health Buildings
		HM Treasury Green Book Guidance (Optimism Bias)
Appendix 16	Inflation Methodology	 BCIS All-in Tender Price Index All-in TPI BCIS PUBSEC (Tender Price Index of Public Sector Building Non Housing) BCIS General Building Cost Index (GBCI) MIPS index (median index pricing study) UK Consumer Price Index (CPI) UK Retail Price Index Jevons (RPIJ) UK Department of Health Healthcare Premises Cost Guides, 2nd Edition
Appendix 17	Location Factor estimate	 BCIS published location adjustment for Jersey (not Channel Islands) published 1Q15 Skills Review of Jersey's Construction Sector dated September 14 published by Jersey Construction Council





Location	Subject	Source materials
		Committee of Inquiry into Building Costs dated September 02 published by the States of Jersey
		Gleeds in-house R&D material
		 Priced Bills of Quantities for elemental analysis for Jersey Contracts
		UK Office for National Statistics – Construction statistics median earnings 2013
		 UK recent trade advertisements for construction posts
		 UK Department of Health Healthcare Premises Cost Guides, 2nd Edition
Appendix 18	Optimism Bias methodology and outcomes	HM Treasury Green Book Guidance (Optimism Bias)
		 Mott Macdonald template for calculating Optimism Bias (as amended by Gleeds)
		 Consultations with stakeholders including: Jersey Fire Service (meeting record 18.02.15) Planning Authority (minutes of planning meetings 23.01.15 and 26.02.15)
		 Comments of Independent Evaluators attending Benefits and Risk Workshop 26.03.15
		 Consultations with stakeholders regarding Park sites including: Jersey Fire Services (Meeting 11.08.15), Parish of St Helier (Meeting 04.08.15) and Planning Authority (Meeting 04.08.15)
		 Comments of Independent Evaluators attending Benefits and Risk Workshop 22.09.15
Appendix 19	Investment Summary	CO021 GEM Feed v8 ISSUED
Appendix 20	Site Valuations	BNP Paribas valuation information provided 23.03.15





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FUTURE HOSPITAL PROJECT

Location	Subject	Source materials
		 Updated BNP Paribas valuation information provided 30.04.15 Additional BNP Paribas valuation information dated 130313
Appendix 21	Site Reuse proposals	Drawings prepared by Hassell based on: • Assessment of site release of Overdale and General Hospital sites
Appendix 22	Benefits and Risk Analysis	 Benefit criteria: 'Appendix 1 to R Report' Risk criteria: 'Appendix 1 to R Report' CO021 Benefits v6 Moderated 300915 with answers
Appendix 23	Residual Risk Registers	Technical Advisor assessment of residual option risks
Appendix 24	EY Assurance Outcomes	 EY Assurance Log v.3 EY interim report on Site Options Appraisal Implementation 10.04.15
Appendix 25	Design Champion report	 Assurance letter received 24.04.15 Assurance letter received 05.09.15 regarding Option E People's Park Consolidated evaluation of Options A – E dated 24.09.15
Appendix 26	HSSD Consultation	Assurance letter and details of Clinical Engagement consultees, received 24.04.15
Appendix 27	Other assurances	
Appendix 28	Databook	Site Option Report and Appendices prepared by Technical Advisor
Appendix 29	Schedule of Enquiries	Correspondence, meeting records and data sourced from: The Parish of St Helier Jersey Water Jersey Electricity Company Jersey Gas JT global (ICT provider)





Location	Subject	Source materials
		States of Jersey Building Services
		 Transport and Technical Services Department (Transport and Drainage Authority)
		 Planning and Environment Department (Planning Authority and Environment Regulator)
		 Jersey Fire and Rescue Services
		Jersey Ambulance Service
		Jersey Development Company
Appendix 30	Development log	Technical Advisor responses to SOJ comments on Site Option Report
		 Technical Advisor responses to SOJ comments on programme
		 Technical Advisor responses to SOJ comments on design and engineering
		 Technical Advisor responses to planning comments
		 Technical Advisor responses to SOJ comments on costs
Appendix 31	Future Flexibility	Based on Appendices 10 and 11
Appendix 32	Discounted variants	Material prepared by Hassell