

Hywel Dda University Health Board

A Healthier Mid and West Wales

Programme Business Case

Selection of Sites

For

The Urgent & Planned Care Hospital

Site Development Comparative Costs

July 2022

SUMMARY

It should be noted that the costs included within the Summary below are not the Anticipated Total costs for the site development. They represent comparator costs only to distinguish between the sites.

Site	Cost £	Percentage Differential
Site 7	26,864,500	34.7%
Site 12	19,942,500	0%
Site 17	20,690,250	3.7%
Site C	28,239,500	41.6%
Site J	24,473,500	22.7%

Item	Site 7 £	Site 12 £	Site 17 £	Site C £	Site J £
Land Purchase	2,862,000	3,930,000	3,630,000	3,516,000	2,280,000
Site Conditions	8,027,500	1,870,000	830,000	8,260,000	1,255,000
Site Topography	3,850,000	3,550,000	5,500,000	7,250,000	4,600,000
Site Drainage	3,975,000	2,912,500	2,686,250	3,087,500	3,707,500
Incoming Services	6,165,000	2,650,000	4,654,000	3,131,000	7,011,000
Off-Site Highway Works	1,985,000	5,030,000	3,390,000	2,995,000	5,620,000
Total	26,864,500	19,942,500	20,690,250	28,239,500	24,473,500

SITE 7

SUMMARY

Item	Cost £
Land Purchase	2,862,000
Site Conditions	8,027,500
Site Topography/Area	3,850,000
Site Drainage	3,975,000
Incoming Services	6,165,000
Off-Site Highway Works	1,985,000
SITE 7 TOTAL TO SUMMARY COMPARISON	26,864,500

Land

Item		Cost Drivers	Cost £
Land			
	a. Purchase Cost	49 acres; residential value to existing site buildings	2,400,000
	b. Additional land requirement - Essential	0 acres. Area identified as essential to site development. (Risks to identify other site area/acquisition issues)	312,000
	c. Additional land - Preferable	Additional land from train station	150,000
To Site 7 Summary			2,862,000

Site Conditions

Item		Cost Drivers	Cost £
Ground Conditions			
	a. Geology	Level of rock stratum	50,000
	b. Water table	Impact of water table levels	875,000
	c. Contamination	Potential ground contamination, presence of invasive plant species and radon gas	722,500
Environmental Constraints			
	a. Site ecology	Potential affect of presence of bats	20,000
	b. Agricultural classification	Impact if high quality agricultural land	0
	c. Listed buildings	Impact of listed buildings in locality	0
	d. Impact of noise	Impact of higher levels of background noise, primarily traffic	0

	e. Archeology	Likelihood of archeological discoveries	60,000
Existing Services			
	a. Divert 11kVA	Presence of existing services requiring diversion	100,000
	b. Works to other services	Presence of existing services requiring diversion	0
	c. Divert existing high pressure gas main	Presence of existing services requiring diversion	6,000,000
Demolitions			
	a. Demolition of existing buildings	Buildings on site requiring demolition	200,000
To Site 7 Summary			8,027,500

Site Topography/Area

Item		Cost Drivers	Cost £
Site Terracing			
	a. Bulk earth movement	Impact of site topography	2,250,000
	b. Retaining walls	Impact of site topography	600,000
Impact on Site Development			
	a. Building footprint	Impact of site topography	0
	b. External works layouts	Impact of site topography	1,000,000
Site Area			
	a. Overall site area	Oversize site requires additional landscaping works	0
To Site 7 Summary			3,850,000

Site Drainage

Item		Cost Drivers	Cost £
On-Site Foul Drainage			
	a. Pumping station	Upgrade existing pumping station	50,000
	b. On site primary foul drainage runs	Drainage to boundary of site	375,000
Off-Site Foul Drainage			
	a. Treatment of phosphates	Contribution to DCWW to mitigate phosphates discharges	1,000,000
	b. Upgrade requirements of drainage infrastructure	Adequacy of existing drainage infrastructure	2,500,000
	c. Upgrade works to existing pumping station	Adequacy of existing pumping stations	0
Surface water drainage			
	a. Attenuation ponds	Disposal of surface water; effect of ground conditions	0
	b. Connections into existing watercourses	Presence of water courses to allow surface water discharge	50,000
To Site 7 Summary			3,975,000

Incoming Services

Item		Cost Drivers	Cost £
Incoming Mains Services			
	a. HV supply	Capacity of local infrastructure	4,965,000
	b. Water supply	Capacity of local infrastructure	850,000
	c. Fibre and telecoms supply	No high-speed supply available.	0
	d. 5G telecoms supply	Rollout of 5G along A40	0
	e. Infrastructure charges/ capping existing mains water supply	Capacity of local infrastructure/ position of existing mains	350,000
To Site 7 Summary			6,165,000

Off-Site Highway Works

Item		Cost Drivers	Cost £
Site Access			
	a. Main entrance road	Design requirements for new access	1,000,000
	b. Secondary access route	Design requirements for new access	250,000
Active Travel			
	a. Active travel works	Works to improve access to the site	465,000
Existing Highways			
	a. Upgrade bus service infrastructure	Upgrade bus stops	10,000
	b. Improvements and safety measures to adjoining roads	Included in town centre calming works	0
	c. Town centre wayfinding signage	Directional signage to new hospital	10,000
	d. Town centre traffic calming	Traffic and pedestrian safety measures	250,000
To Site 7 Summary			1,985,000

SITE 12

SUMMARY

Item	Cost £
Land Purchase	3,930,000
Site Conditions	1,870,000
Site Topography/Area	3,550,000
Site Drainage	2,912,500
Incoming Services	2,650,000
Off-Site Highway Works	5,030,000
SITE 12 TOTAL TO SUMMARY COMPARISON	19,942,500

Land

Item		Cost Drivers	Cost £
Land			
	a. Purchase Cost	52.5 acres; residential value for The Beeches	3,810,000
	b. Additional land requirement - Essential	0 acres. Area identified as essential to site development. (Risks to identify other site area/acquisition issues)	120,000
	c. Additional land - Preferable		0
To Site 12 Summary			3,930,000

Site Conditions

Item		Cost Drivers	Cost £
Ground Conditions			
	a. Geology	Level of rock stratum	35,000
	b. Water table	Impact of water table levels	875,000
	c. Contamination	Potential ground contamination, presence of invasive plant species and radon gas	400,000
Environmental Constraints			
	a. Site ecology	Potential effect of presence of bats	50,000
	b. Agricultural classification	Impact if high quality agricultural land	0
	c. Listed buildings	Impact of listed buildings in locality	0
	d. Impact of noise	Impact of higher levels of background noise, primarily traffic	100,000

	e. Archaeology	Likelihood of archaeological discoveries	60,000
Existing Services			
	a. Divert 11kVA	Presence of existing services requiring diversion	100,000
	b. Works to other services	Presence of existing services requiring diversion	0
	c. Divert existing high pressure gas main	Presence of existing services requiring diversion	0
Demolitions			
	a. Demolition of existing buildings	Buildings on site requiring demolition	75,000
To Site 12 Summary			7,870,000

Site Topography/Area

Item		Cost Drivers	Cost £
Site Terracing			
	a. Bulk earth movement	Impact of site topography	2,000,000
	b. Retaining walls	Impact of site topography	300,000
Impact on Site Development			
	a. Building footprint	Impact of site topography	0
	b. External works layouts	Impact of site topography	1,250,000
Site Area			
	a. Overall site area	Oversize site requires additional landscaping works	0
To Site 12 Summary			3,550,000

Site Drainage

Item		Cost Drivers	Cost £
On-Site Foul Drainage			
	a. Pumping station	New pumping station	100,000
	b. On site primary foul drainage runs	Drainage to boundary of site	262,500
Off-Site Foul Drainage			
	a. Treatment of phosphates	Requirement to mitigate phosphates discharges; included as additional land purchase	0
	b. Upgrade requirements of drainage infrastructure	Adequacy of existing drainage infrastructure	2,500,000
	c. Upgrade works to existing pumping station	Adequacy of existing pumping stations	0
Surface water drainage			
	a. Attenuation ponds	Disposal of surface water; effect of ground conditions	0
	b. Connections into existing watercourses	Presence of water courses to allow surface water discharge	50,000
To Site 12 Summary			2,912,500

Incoming Services

Item		Cost Drivers	Cost £
Incoming Mains Services			
	a. HV supply	Capacity of local infrastructure	1,480,000
	b. Water supply	Capacity of local infrastructure	800,000
	c. Fibre and telecoms supply	No high-speed supply available.	0
	d. 5G telecoms supply	Rollout of 5G along A40	0
	e. Infrastructure charges/ capping existing mains water supply	Capacity of local infrastructure/ position of existing mains	350,000
	f. Diversion/removal of existing services	Existing services on line building development	20,000
To Site 12 Summary			2,650,000

Off-Site Highway Works

Item		Cost Drivers	Cost £
Site Access			
	a. Main entrance road	Design requirements for new access	4,000,000
	b. Secondary access route	Design requirements for new access	300,000
Active Travel			
	a. Active travel works	Works to improve access to the site	460,000
Existing Highways			
	a. Upgrade bus service infrastructure	Upgrade bus stops	10,000
	b. Improvements and safety measures to adjoining roads	Included in town centre calming works	0
	c. Town centre wayfinding signage	Directional signage to new hospital	10,000
	d. Town centre traffic calming	Traffic and pedestrian safety measures	250,000
To Site 12 Summary			5,030,000

SITE 17

SUMMARY

Item	Cost £
Land Purchase	3,630,000
Site Conditions	830,000
Site Topography/Area	5,500,000
Site Drainage	2,686,250
Incoming Services	4,654,000
Off-Site Highway Works	3,390,000
SITE 17 TOTAL TO SUMMARY COMPARISON	20,690,250

Land

Item		Cost Drivers	Cost £
Land			
	a. Purchase Cost	39.5 acres	3,360,000
	b. Additional land requirement - Essential	0 acres. Area identified as essential to site development. (Risks to identify other site area/acquisition issues)	120,000
	c. Additional land - Preferable	6.3 acres to optimise development	150,000
To Site 17 Summary			3,630,000

Site Conditions

Item		Cost Drivers	Cost £
Ground Conditions			
	a. Geology	Level of rock stratum	0
	b. Water table	Impact of water table levels	190,000
	c. Contamination	Potential ground contamination, presence of invasive plant species and radon gas	225,000
Environmental Constraints			
	a. Site ecology	Potential effect of presence of bats	5,000
	b. Agricultural classification	Impact if high quality agricultural land	0
	c. Listed buildings	Impact of listed buildings in locality	0
	d. Impact of noise	Impact of higher levels of background noise, primarily traffic	250,000
	e. Archaeology	Likelihood of archaeological discoveries	60,000

Existing Services			
	a. Divert 11kVA	Presence of existing services requiring diversion	100,000
	b. Works to other services	Presence of existing services requiring diversion	0
	c. Divert existing high pressure gas main	Presence of existing services requiring diversion	0
Demolitions			
	a. Demolition of existing buildings		0
To Site 17 Summary			830,000

Site Topography/Area

Item		Cost Drivers	Cost £
Site Terracing			
	a. Bulk earth movement	Impact of site topography	3,750,000
	b. Retaining walls	Impact of site topography	750,000
Impact on Site Development			
	a. Building footprint	Impact of site topography	0
	b. External works layouts	Impact of site topography	1,000,000
Site Area			
	a. Overall site area	Oversize site requires additional landscaping works	0
To Site 17 Summary			5,500,000

Site Drainage

Item		Cost Drivers	Cost £
On-Site Foul Drainage			
	a. Pumping station	Not required	0
	b. On site primary foul drainage runs	Drainage to boundary of site	86,250
Off-Site Foul Drainage			
	a. Treatment of phosphates	Requirement to mitigate phosphates discharges	0
	b. Upgrade requirements of drainage infrastructure	Adequacy of existing drainage infrastructure	2,500,000
	c. Upgrade works to existing pumping station	Adequacy of existing pumping stations	0
Surface water drainage			
	a. Attenuation ponds	Disposal of surface water; effect of ground conditions	0
	b. Connections into existing watercourses	Presence of water courses to allow surface water discharge	100,000
To Site 17 Summary			2,686,250

Incoming Services

Item		Cost Drivers	Cost £
Incoming Mains Services			
	a. HV supply	Capacity of local infrastructure	3,964,000
	b. Water supply	Capacity of local infrastructure	340,000
	c. Fibre and telecoms supply	No high-speed supply available.	0
	d. 5G telecoms supply	Rollout of 5G along A40	0
	e. Infrastructure charges/ capping existing mains water supply	Capacity of local infrastructure/ position of existing mains	350,000
To Site 17 Summary			4,654,000

Off-Site Highway Works

Item		Cost Drivers	Cost £
Site Access			
	a. Main entrance road	Design requirements for new access	1,500,000
	b. Secondary access route	Design requirements for new access	200,000
	c. Upgrade works to A40 roundabout and Langynin junction	Management of traffic volumes	1,000,000
Active Travel			
	a. Active travel works	Works to improve access to the site	650,000
Existing Highways			
	a. Upgrade bus service infrastructure	Upgrade bus stops	10,000
	b. Improvements and safety measures to adjoining roads	Included in town centre calming works	20,000
	c. Town centre wayfinding signage	Directional signage to new hospital	10,000
	d. Town centre traffic calming	Traffic and pedestrian safety measures	0
To Site 17 Summary			3,390,000

SITE C

SUMMARY

Item	Cost £
Land Purchase	3,516,000
Site Conditions	8,260,000
Site Topography/Area	7,250,000
Site Drainage	3,087,500
Incoming Services	3,131,000
Off-Site Highway Works	2,995,000
SITE C TOTAL TO SUMMARY COMPARISON	28,239,500

Land

Item		Cost Drivers	Cost £
Land			
	a. Purchase Cost	158 acres	2,856,000
	b. Additional land requirement - Essential	0 acres. Area identified as essential to site development. (Risks to identify other site area/acquisition issues)	660,000
	c. Additional land - Preferable		0
To Site C Summary			3,516,000

Site Conditions

Item		Cost Drivers	Cost £
Ground Conditions			
	a. Geology	Level of rock stratum	50,000
	b. Water table	Impact of water table levels; includes flood risk	1,000,000
	c. Contamination	Potential ground contamination, presence of invasive plant species and radon gas	210,000
Environmental Constraints			
	a. Site ecology	Potential effect of presence of bats	50,000
	b. Agricultural classification	Impact if high quality agricultural land	0
	c. Listed buildings	Impact of listed buildings in locality	0
	d. Impact of noise	Impact of higher levels of background noise, primarily traffic	0
	e. Archaeology	Likelihood of archaeological discoveries	0

Existing Services			
	a. Divert 11kVA	Presence of existing services requiring diversion	100,000
	b. Works to 33kVA supply	Presence of existing services requiring diversion	200,000
	c. Divert existing high pressure gas main	Presence of existing services requiring diversion	6,000,000
	d. Diversion of other site services	Existing water main	150,000
Demolitions			
	a. Demolition of existing buildings	Buildings on site requiring demolition	500,000
To Site C Summary			8,260,000

Site Topography/Area

Item		Cost Drivers	Cost £
Site Terracing			
	a. Bulk earth movement	Impact of site topography	3,750,000
	b. Retaining walls	Impact of site topography	500,000
Impact on Site Development			
	a. Building footprint	Impact of site topography	0
	b. External works layouts	Impact of site topography	1,000,000
Site Area			
	c. Overall site area	Oversize site requires additional landscaping works	2,000,000
To Site C Summary			7,250,000

Site Drainage

Item		Cost Drivers	Cost £
On-Site Foul Drainage			
	a. Pumping station	New pumping station	100,000
	b. On site primary foul drainage runs	Drainage to boundary of site	412,500
Off-Site Foul Drainage			
	a. Treatment of phosphates	Requirement to mitigate phosphates discharges	0
	b. Upgrade requirements of drainage infrastructure	Adequacy of existing drainage infrastructure	2,500,000
	c. Upgrade works to existing pumping station	Adequacy of existing pumping stations	0
Surface water drainage			
	a. Attenuation ponds	Disposal of surface water; effect of ground conditions	0
	b. Connections into existing watercourses	Presence of water courses to allow surface water discharge	75,000
To Site C Summary			3,087,500

Incoming Services

Item		Cost Drivers	Cost £
Incoming Mains Services			
	a. HV supply	Capacity of local infrastructure	2,231,000
	b. Water supply	Capacity of local infrastructure	550,000
	c. Fibre and telecoms supply	No high-speed supply available.	0
	d. 5G telecoms supply	Rollout of 5G along A40	0
	e. Infrastructure charges/ capping existing mains water supply	Capacity of local infrastructure/ position of existing mains	350,000
To Site C Summary			3,131,000

Off-Site Highway Works

Item		Cost Drivers	Cost £
Site Access			
	a. Main entrance road	Design requirements for new access	2,090,000
	b. Secondary access route	Design requirements for new access, including stopping up existing road	275,000
Active Travel			
	a. Active travel works	Works to improve access to the site	360,000
Existing Highways			
	a. Upgrade bus service infrastructure	Upgrade bus stops	10,000
	b. Improvements and safety measures to adjoining roads	Included in town centre calming works	0
	c. Town centre wayfinding signage	Directional signage to new hospital	10,000
	d. Town centre traffic calming	Traffic and pedestrian safety measures	250,000
To Site C Summary			2,995,000

SITE J

SUMMARY

Item	Cost £
Land Purchase	2,280,000
Site Conditions	1,255,000
Site Topography/Area	4,600,000
Site Drainage	3,707,500
Incoming Services	7,011,000
Off-Site Highway Works	5,620,000
SITE J TOTAL TO SUMMARY COMPARISON	24,473,500

Land

Item		Cost Drivers	Cost £
Land			
	a. Purchase Cost	78 acres	1,560,000
	b. Additional land requirement - Essential	0 acres. Area identified as essential to site development. (Risks to identify other site area/acquisition issues)	120,000
	c. Additional land - Preferable	17.5 acres	600,000
To Site J Summary			2,280,000

Site Conditions

Item		Cost Drivers	Cost £
Ground Conditions			
	a. Geology	Level of rock stratum	0
	b. Water table	Impact of water table levels	575,000
	c. Contamination	Potential ground contamination, presence of invasive plant species and radon gas	220,000
Environmental Constraints			
	a. Site ecology	Potential effect of presence of bats	40,000
	b. Agricultural classification	Impact if high quality agricultural land	0
	c. Listed buildings	Impact of listed buildings in locality	0
	d. Impact of noise	Impact of higher levels of background noise, primarily traffic	100,000
	e. Archaeology	Likelihood of archaeological discoveries	0

Existing Services			
	a. Divert 11kVA	Presence of existing services requiring diversion	100,000
	b. Works to existing services	Presence of existing services requiring diversion	20,000
	c. Divert existing high pressure gas main	Presence of existing services requiring diversion	0
Demolitions			
	a. Demolition of existing buildings	Buildings on site requiring demolition	200,000
To Site J Summary			1,255,000

Site Topography/Area

Item		Cost Drivers	Cost £
Site Terracing			
	a. Bulk earth movement	Impact of site topography	2,250,000
	b. Retaining walls	Impact of site topography	450,000
Impact on Site Development			
	a. Building footprint	Impact of site topography	0
	b. External works layouts	Impact of site topography	1,000,000
Site Area			
	a. Overall site area	Oversize site requires additional landscaping works	900,000
To Site J Summary			4,600,000

Site Drainage

Item		Cost Drivers	Cost £
On-Site Foul Drainage			
	a. Pumping station	New pumping station	100,000
	b. On site primary foul drainage runs	Drainage to boundary of site	1,012,500
Off-Site Foul Drainage			
	a. Treatment of phosphates	Requirement to mitigate phosphates discharges	0
	b. Upgrade requirements of drainage infrastructure	Adequacy of existing drainage infrastructure	2,500,000
	c. Upgrade works to existing pumping station	Adequacy of existing pumping stations	0
Surface water drainage			
	a. Attenuation ponds	Disposal of surface water; effect of ground conditions	0
	b. Connections into existing watercourses	Presence of water courses to allow surface water discharge and works to railway culvert	95,000
To Site J Summary			3,707,500

Incoming Services

Item		Cost Drivers	Cost £
Incoming Mains Services			
	a. HV supply	Capacity of local infrastructure	6,291,000
	b. Water supply	Capacity of local infrastructure	370,000
	c. Fibre and telecoms supply	No high-speed supply available.	0
	d. 5G telecoms supply	Rollout of 5G along A40	0
	e. Infrastructure charges/ capping existing mains water supply	Capacity of local infrastructure/ position of existing mains	350,000
To Site J Summary			7,011,000

Off-Site Highway Works

Item		Cost Drivers	Cost £
Site Access			
	a. Main entrance road	Design requirements for new access	4,000,000
	b. Localised widening on A40	Widening works to active travel to allow emergency vehicles to pass	360,000
Active Travel			
	a. Active travel works	Works to improve access to the site	1,000,000
Existing Highways			
	a. Upgrade bus service infrastructure	Upgrade bus stops	0
	b. Improvements and safety measures to adjoining roads	Included in town centre calming works	0
	c. Town centre wayfinding signage	Directional signage to new hospital	10,000
	d. Town centre traffic calming	Traffic and pedestrian safety measures	250,000
To Site J Summary			5,620,000