

2.3 Site Considerations

Phasing Considerations

The area available to build the new hospital is defined by the need for the existing hospital to remain operational.

The proposal for the comprehensive redevelopment of the site is intended to make optimal use of the existing site to provide modern facilities by maintaining an operational hospital on the site throughout the construction period.

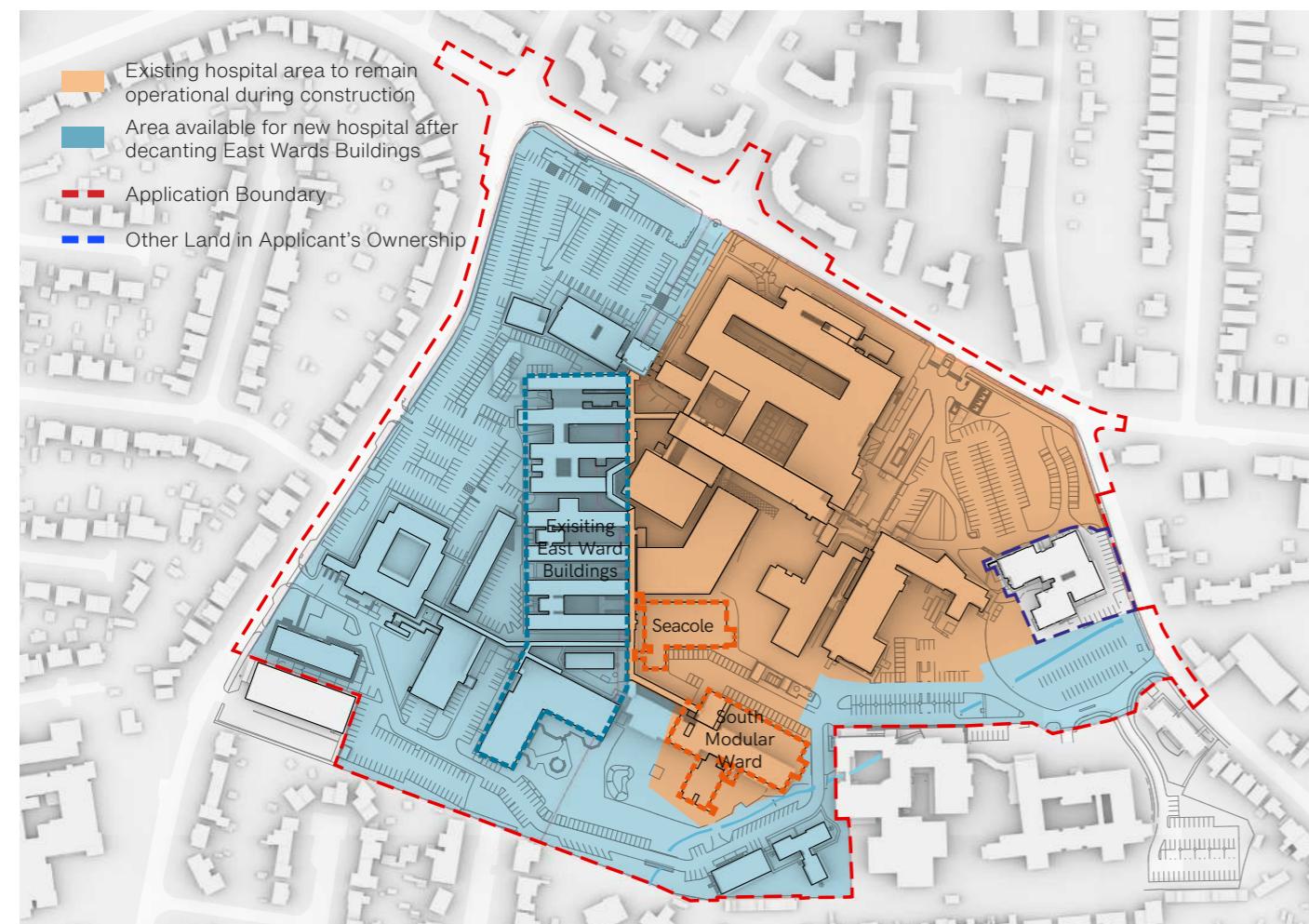
Decant requirements. In order to make space for the area required for a new hospital, the ward buildings on the west part of the site will be replaced by two new three storey ward buildings, referred on Figure below as Ward Building South and Seacole.

Parking. There is currently the provision of 1,087 parking spaces; 698 staff and 389

for public/visitors. It should be noted that as Hillingdon Hospital is currently undergoing major hospital redevelopment programme, a number of spaces have reduced due to building works.

Of these 1,087 spaces, 658 parking spaces need to be re provided as they are situated on the western part of the site where the new Hospital will be built.

For further details on site phasing refer to Part 4 of this document.



Phasing considerations

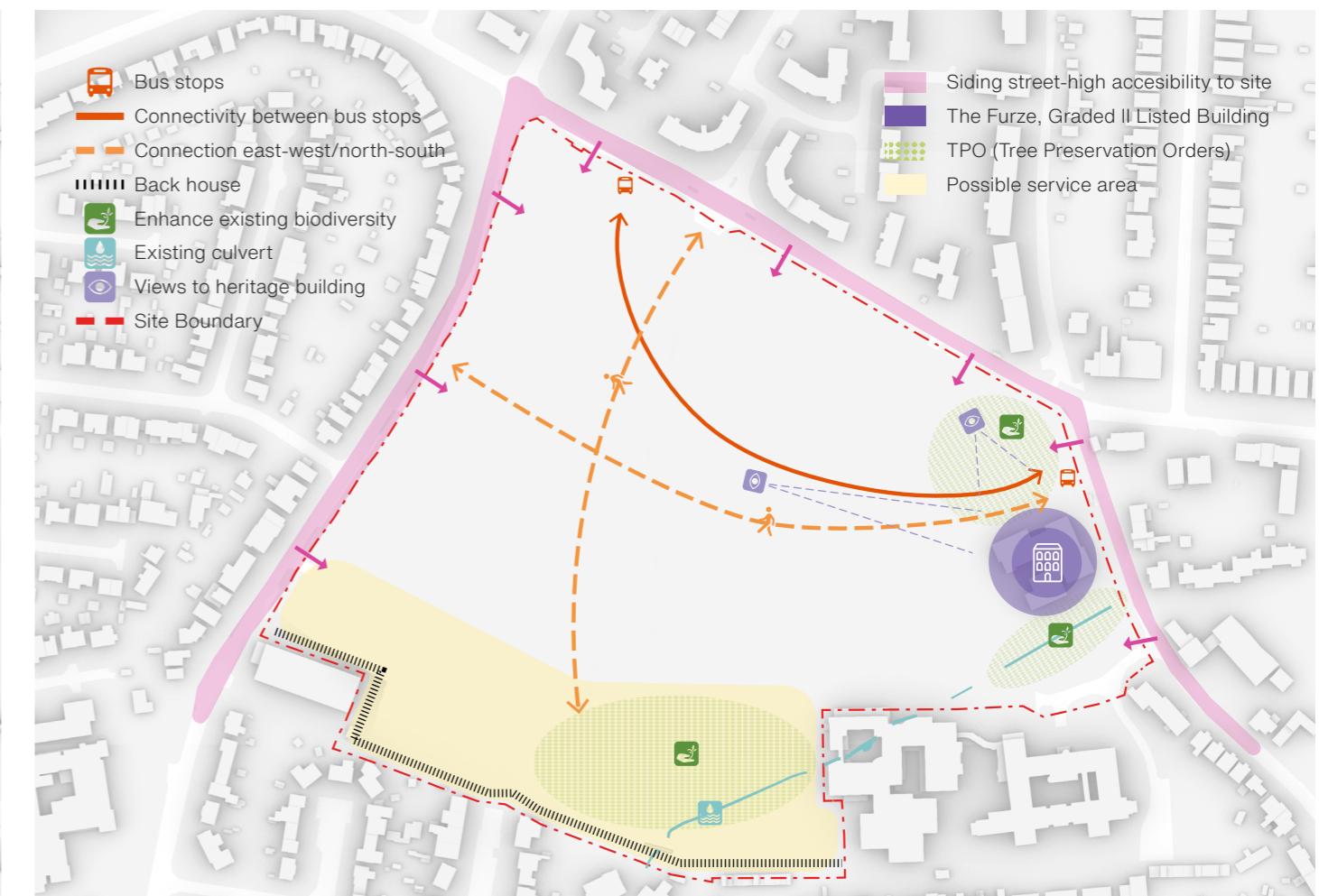
Site Opportunities

Revalue and enhance the existing Graded II Listed Building (The Furze) located on the eastern side of the site adjacent to Colham Green Road. Allow direct views towards The Furze and treat it as a focal point in the proposal.

Proximity to public transport. The two bus stops located on the north and east side of the site allow to have more accessibility and connectivity with the surrounding context.

Possibility to create a connection east-west and north-south through the site. It promotes further permeability in the area.

Plot is surrounded by siding streets on the west, north and east side of the site giving it higher accessibility and possibilities within the site's layout.



Opportunities

The existing back house conditions at the south of the site and the existing east-west connection allow the possibility of concentrating all the service areas there. It liberates the other three frontages of the site to have a more flexible layout.

Existing TPOs and culvert offer the opportunity to interact with green spaces and create a connection with the proposed masterplan.

2.4 History

The Hillingdon Hospital site is dominated by the tower and podium elements completed in 1967. Whilst these elements retain some of the cohesion behind their original design intent, the site as a whole tells the story of the partial implementation of a replacement programme that has never been satisfactorily concluded, with the most obvious evidence being the continued use of the temporary ward accommodation built during World War II.

Brief History

A 250 year history can be traced showing the important role that Hillingdon Hospital has played in the provision of health services to the population of North West London. The outbreak of World War II brought a stop to plans to build a permanent replacement for Hillingdon Hospital. However, the onset of war brought a rapid extension of the existing facilities with the erection of temporary hatted annexe wards by the Emergency Medical Service. In June 1940 it was reported that "300 extra beds under the Government emergency scheme for wartime casualties are to be provided" and it was further reported in 1941 that 400 beds were completed.

After the end of WWII, under the management of the North West Regional Health Board established by the recently established National Health Service, a new three phase plan was established which would see the redevelopment of Hillingdon Hospital, creating a modern district general hospital of 834 beds with the latest diagnostic and treatment facilities.

The Hillingdon Hospital Estate as we see it today is seen in the context of the delivery of the first Phase of this plan - the Maternity Hospital, 5th July 1969 and Main Hospital (tower and podium elements) January 10th 1967. Described at the time as one of the finest new hospital developments in the country the opening of what was intended a phase one of a three phase development was, according to the chairman of the Regional

Board, "a great occasion". The second phase of three phases which would have seen the replacement of the temporary ward accommodation hastily constructed in the war years was planned for 1970 but was not implemented. New building stock has been added to the site since this time, leaving 'the annex corridor' and 'annex wards' in place.

Proposals were developed to a detailed level in the mid-2000s on a PFI procurement model to redevelop the whole hospital in a single phase new build (with enabling works, and end stage demolition and external works). This proposal was stopped before the project reached the competitive ITN stages on the grounds that the unitary charge was estimated to be at a level which could not be sustained by the Trusts turnover. The fallout from this process led to a serious infrastructure underinvestment on the Estate through that period with the result that significant investment is now required to update building services plant and building fabric.



Aerial View



The original Tower and Podium



EMS wards built in 1941



Maternity Building 1960s



The Furze 1960s

2.5 Existing Site Overview

Overview

The area of this Campus development is approximately 9.6 hectares and is composed by Hillingdon Hospital's buildings, Hillingdon Ambulance Station, Busy Bees Nursery and The Furze (Graded II Listed Building). The Woodlands Centre and The Riverside Centre are to be considered part of the Campus, but excluded from the Site.

Natural environment

There are two Tree Preservation Order (TPO) within the site: one south of The Furze and the second is west of the Woodlands Centre. A culvert runs west-east crossing both TPO's and being canalised under the service road and partially under the Woodlands Centre.

Accessibility

The hospital has a defined boundary mostly

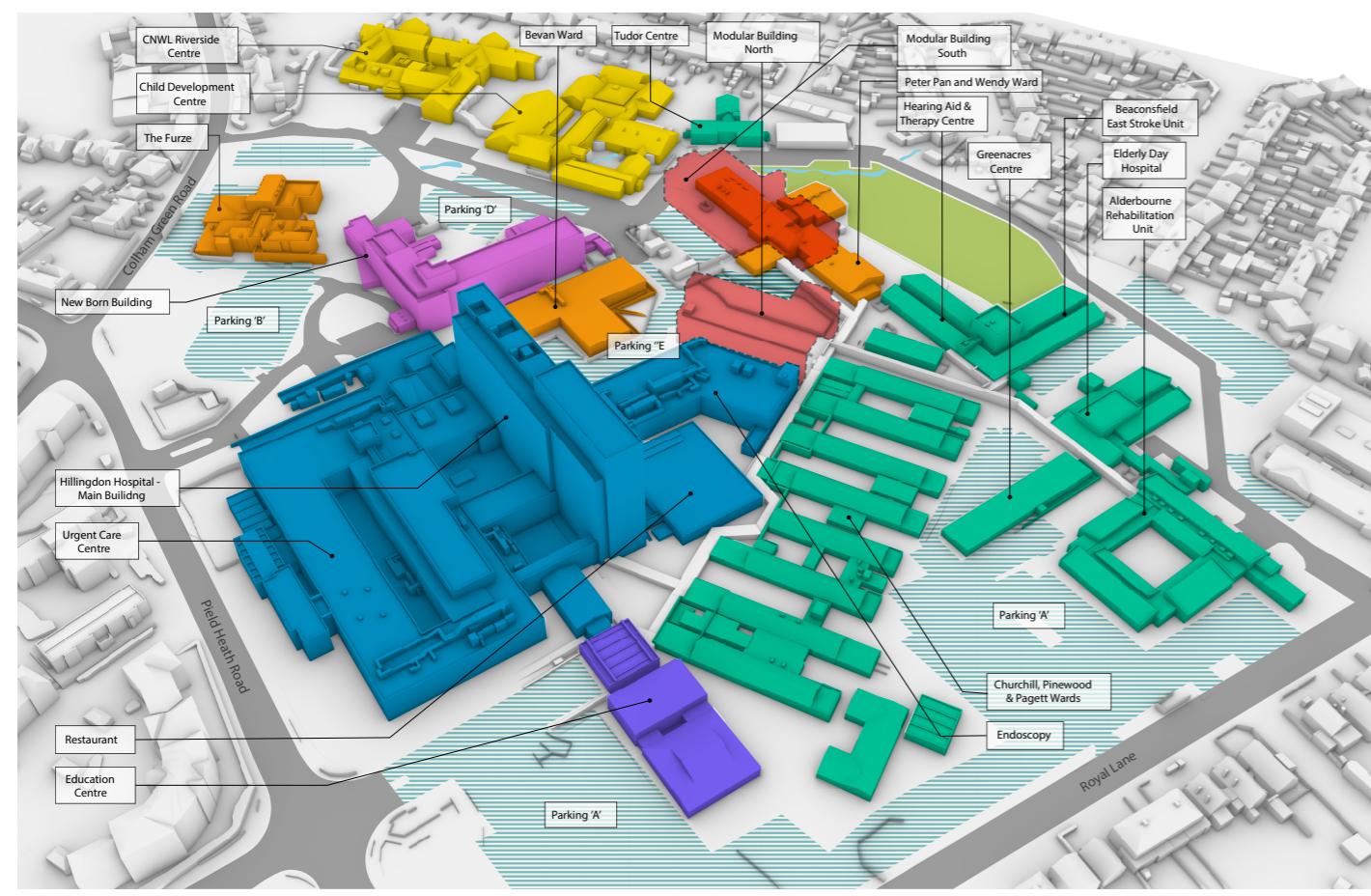
because security is a significant issue which discourages general access.

Hillingdon Hospital can be accessed by vehicles and pedestrians/cyclists from vehicle entrance A (main) and entrance B (accident and emergency) on Pield Heath Road, entrance C on Royal Lane, and entrance D located on Colham Green Road.

Entrance B on the Pield Heath Road is the only access for Ambulances.

Most of the deliveries access through Entrance D on Colham Green Road.

Cycle access is only through the vehicular traffic road path. There are secured parking spaces for staff, and unsecured parking shed for visitors accounting approx. 70 spaces.



Bird Eye view - Existing condition



Hospital Tower Block



Main Hospital Access



Katherine and Bevan Wards



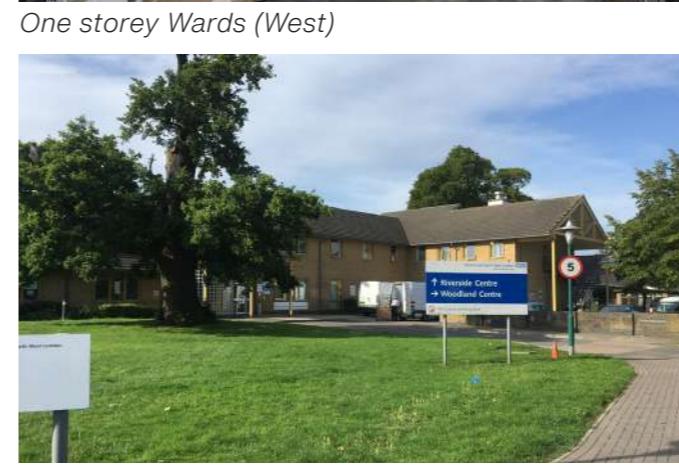
The Furze - Grade II listed building



One storey Wards (West)



Tudor Centre



Riverside Centre



Peter Pan and Wendy Ward (demolished)

2.6 Existing Hospital and New Temporary Ward Buildings



2.7 Estate Condition and Surveys

The Trust has commissioned a series of technical reports and surveys relating to their Estate. We have undertaken a review of that information and its contents are being used as the basis for technical assessments and recommendations for future action.

Six Facet Survey

The six facet survey forms the “core” estates information required by NHS Estate CODE. Historically this has always been regarded as the “minimum data set” of information necessary on which to base intelligent decisions about the future of an estate.

The Oakleaf six facet survey undertaken in February 2017 is the baseline survey information used in this study.

The six facets themselves are:

- Facet 1** Physical Condition
- Facet 2** Statutory Compliance
- Facet 3** Space Utilisation Audit
- Facet 4** Functional Suitability Review
- Facet 5** Quality Audit
- Facet 6** Environmental Management

Each building that is part of the estates is assessed against the six facets and provided with an overall grade: A Good, B Satisfactory, C Poor, D Bad.

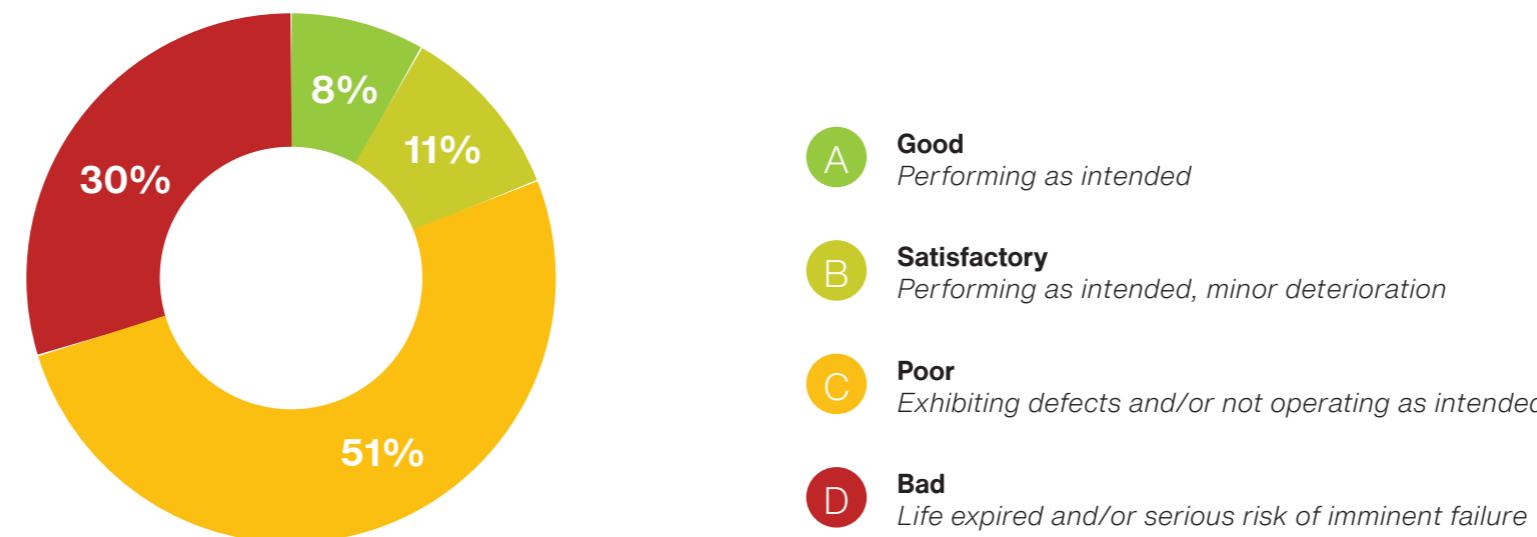
Estate Condition Overview

Much of the Hillingdon Hospital site is currently not fit for purpose.

Services are scattered across the site, many in old and inappropriate facilities. The tower and podium accommodate the main critical care service departments. The tower block wards are sub optimal in terms of ward size and configuration and although they provide single-sex facilities, the style and lack of bed space compromises patient dignity and privacy.

A number of acute wards are significantly below current requirements. The sickest medical patients are still accommodated in temporary 1940s prefabricated wards at times of maximum demand.

Investment is required to bring the site to current standards both of clinical care and building performance with operational buildings being safe, fit for purpose, and compliant with statutory legislation.



HH - Breakdown of Overall Grades based on GIA

81% of the Estate by building area is category C or D being poor or bad

Summary findings from Oakleaf 2017 Four Facet Survey

The majority of the Estate is rated at Condition C (Poor) or D (Bad) across all aspects of the Facets. Within these there are examples of individual buildings that are in a particularly poor condition as identified in detail within the main six facet report.

The original design of the buildings means that it is difficult for the buildings to comply with modern requirements, and this is particularly so when considering the Quality Facet for such items as Privacy and Dignity, Children's Facilities, and the Internal Environment.

The following pages summarise the findings of the Oakleaf 2017 report.

Hillingdon Hospital Key Issues

- Failure of ventilation systems to theatres, ITU and A&E resuscitation
- Water leaks in patient areas
- Inability to maintain a habitable environmental especially in the winter
- Sewerage overflows
- Lifts failing
- Water contamination including a growth of Legionella and Pseudomonas bacteria necessitating urgent action
- Asbestos contamination mainly within engineering plant areas and ducts
- Means of warning and escape
- Internal fire spread including compartmentation
- External fire spread
- Temporary building built in 1941 are still in use
- Incremental development has led to fragmented services across the site

2.8 Six Facet Summary - Hillingdon Hospital

The Hillingdon Hospitals NHS
NHS Foundation Trust

Hillingdon Hospital	Gross Floor Area	54,936m ²	Backlog Summary	£s	Site Location & Description
Pield Heath Road	Net Usable Area	43,949m ²	Low Risk	£484,516	Hillingdon Hospital is a relatively compact site built to a low level with the exception of the Tower Block which is over 8 useable floors. There are a number of single storey contemporary buildings still in use from World War 2 however the majority of buildings are of reinforced concrete construction ranging from the late 1850 to 2014.
Uxbridge	Building Year	1850 - 2014	Moderate Risk	£3,986,405	
UB8 3NN	Total Backlog	£84,320,681	Significant Risk	£30,187,520	
	Total Budget	£16,913,370	High Risk	£49,662,240	
Survey Date	February 2017	Total Cost (Exc. On Costs)	£101,234,051	Risk Adj Backlog	



Condition Backlog Maintenance Works
Total remedial work required for the BUILDING, M&E, STATUTORY & FIRE Elements:

Building	£22,353,521
M&E	£35,376,100
Statutory Compliance	£24,879,320
Fire Safety	£1,711,740
Backlog Total Cost	£84,320,681

Condition Future Planned Costs for Future Maintenance Works (5 years)
Total remedial work likely to be required within a 5 year period for the BUILDING, M&E, STATUTORY & FIRE Elements:

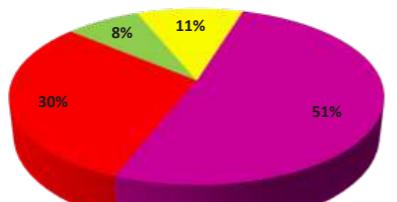
Building	£4,908,570
M&E	£11,827,800
Statutory Compliance	£150,000
Fire Safety	£27,000
Future Planned Total Cost	£16,913,370

Combined Total Costs **£101,234,051**

Combined Total Costs (Including On Costs) **£155,900,438**

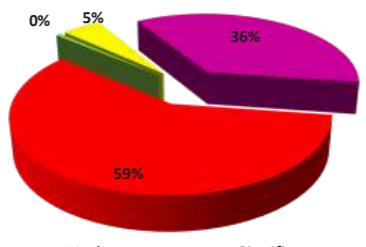
The On-costs include for Fees (12%), VAT (20%), Builder Preliminaries (12%) & Optimism Bias Contingencies (10%).

Breakdown of Overall Grades based on GIA



- A - Good. Performing as intended.
- B - Satisfactory. Performing as intended, minor deterioration.
- C - Poor. Exhibiting defects and/or not operating as intended.
- D - Bad. Life expired and/or serious risk of imminent failure.

Condition Backlog Costs by Risk



- Low
- Moderate
- Significant
- High

Costs					Facet Grades									
Block Code	Block Name	GIA	Backlog Costs (2017)	Budget Costs (2018-2022)	Total Cost	Total Cost (Inc On-Costs)	Facet 1 Condition Grade	Facet 2 Function Grade	Facet 3 Space Utilisation	Facet 3 Clinical Space %	Facet 3 Non Clinical Space %	Facet 4 Quality Grade	Facet 5 Statutory Compliance Grade	Overall Grade
000	Site/External Grounds	NA	£6,838,250	£414,000	£7,252,250	£11,168,465	B	NA	NA	NA	NA	NA	NA	B
001	Alderbourne Unit	1,323	£563,741	£201,635	£765,376	£1,178,679	B	C	Underused	50	50	C	C	C
002	Geriatric Day Hospital	770	£384,084	£63,882	£447,966	£689,867	B	C	Underused	70	30	C	C	B
003	Beaconsfield	1,629	£636,620	£263,601	£900,221	£1,386,341	B	B	Fully Used	80	20	B	B	B
004	Paediatric Wards	1,400	£910,591	£377,198	£1,287,789	£1,983,195	D	C	Fully Used	80	20	C	C	D
005	Quebec Ward	350	£335,834	£53,416	£389,250	£599,444	D	D	Underused	90	10	D	C	D
006	Pinewood Ward	431	£412,327	£98,448	£510,776	£786,594	D	D	Underused	90	10	D	C	D
007	Osterley Ward	401	£380,788	£37,850	£418,638	£644,703	D	D	Fully Used	90	10	D	C	D
008	Churchill Ward	443	£399,408	£29,208	£428,616	£660,068	D	D	Fully Used	90	10	D	C	D
009	Middlesex Ward	298	£417,090	£9,580	£426,670	£657,072	D	D	Underused	80	20	D	C	D
010	Lister Ward	432	£465,986	£20,335	£486,322	£748,935	D	D	Fully Used	90	10	D	C	D
011	Pagett Ward	1,110	£460,778	£90,580	£551,358	£849,091	D	D	Fully Used	90	10	D	C	D
012	Diabeticare Unit	Inc Pagett	£423,871	£53,937	£477,808	£735,824	D	D	Fully Used	90	10	D	C	D
015	Pathology Office	115	£7,100	£3,212	£10,312	£15,880	C	B	Fully Used	0	100	B	B	B
017	Research Unit	282	£276,676	£51,458	£328,133	£505,325	D	D	Empty	0	100	D	C	D
018	Annex Wards Corridor	500	£719,600	£20,600	£740,200	£1,139,908	D	C	Fully Used	0	100	B	C	D
019	Tudor Centre	641	£211,870	£60,888	£272,758	£420,047	B	B	Fully Used	30	70	B	C	B
020	Generator/Oxygen Block	100	£88,000	£2,000	£90,000	£138,600	B	B	NA	NA	NA	B	C	B
021	High Voltage Switch Gear and Plant Room	210	£12,600	£0	£12,600	£19,404	B	B	NA	NA	NA	B	C	B
022	Nightingale Centre (AMU)	3,204	£202,090	£110,112	£312,202	£480,791	A	B	Fully Used	70	30	B	A	A
023	Catering Centre/Restaurant	Inc Podium	£0	£0	£0	£0	B	B	Fully Used	0	100	B	C	B
024	Sewage Pump	293	£12,000	£400	£12,400	£19,096	B	B	NA	NA	NA	B	C	B
025	Tower Block High Rise	7,385	£19,266,450	£2,425,616	£21,692,066	£33,405,781	D	C	Fully Used	70	30	C	C	D
027	Main Building Low Rise (Podium)	19,810	£17,314,750	£9,189,725	£26,504,475	£40,816,892	C	C	Fully Used	60	40	C	C	C
031	Surface Water Pumping Station	100	£0	£0	£0	£0	B	B	NA	NA	NA	B	C	B
032	Maternity Building	5,066	£2,614,278	£2,300,289	£4,914,567	£7,568,433	C	C	Fully Used	75	25	C	C	C
034	Bevan Unit	1,048	£63,764	£29,336	£93,099	£143,373	A	B	Fully Used	90	10	B	A	A
035	The Furze	1,947	£1,125,780	£340,090	£1,465,870	£2,257,440	C	C	Fully Used	10	90	C	C	C
039	Medical Gas Bottle Store	50	£3,000	£0	£3,000	£4,620	B	B	NA	NA	NA	B	C	B
040	Generator 6 for Plant Room A	50	£2,026,650	£0	£2,026,650	£3,121,041	B	B	NA	NA	NA	B	C	B
053	Old Crèche	321	£120,376	£26,738	£147,114	£226,556	B	C	Underused	0	100	B	C	B
060	Main Boilerhouse	1,000	£25,486,150	£26,500	£25,512,650	£39,289,481	C	D	NA	NA	NA	C	C	D
062	Estates Offices	649	£305,994	£24,382	£330,375	£508,778	C	D	Fully Used	0	100	C	C	D
062A	Estates Workshops	1,000	£620,052	£21,000	£641,052	£987,220	C	D	Fully Used	0	100	C	C	D
062B	Redevelopment Office	100	£31,849	£20,100	£51,949	£80,002	B	D	Fully Used	0	100	C	C	B
062C	External Stores	70	£25,800	£0	£25,800	£39,732	C	D	Underused	0	100	C	C	D
066	Water Tower	500	£30,000	£0	£30,000	£46,200	C	D	NA	NA	NA	C	C	D
068	Standby Generator House	50	£31,300	£0	£31,300	£48,202	C	D	NA	NA	NA	C	C	D
069	Main Gas Intake	50	£10,000	£0	£10,000	£15,400	C	D	NA	NA	NA	C	C	D
070	Incinerator	200	£612,000	£70,000	£682,000	£1,050,280	C	D	NA	NA	NA	C	C	D
072	Greenacres	481	£59,574	£138,568	£198,142	£305,139	B	B	Fully Used	30	70	B	C	B
073	Adult Audiology	178	£20,810	£35,050	£55,860	£86,025	B	B	Fully Used	80	20	B	C	B
077	Post Graduate Medical Centre	949	£392,800	£303,637	£696,437	£1,072,513	B	B	Fully Used	0	100	B	C	B
	TOTAL	54,936	£84,320,681	£16,913,370	£101,234,051	£155,900,438	-	-	-	-	-	-	-	-

Building	Building Volume m ³	Total Energy GJ	Energy Result GJ/100m ³	Energy Rating
Whole Site	137340	55546	40.44	A

Environmental Key:	A - 35-55	B - 56-65
	C - 66-75	D - 76-100

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