Estates Strategy Update – Nov 2018
Progress and Direction of Travel
4 February 2019
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<tr>
<th><strong>Meeting Date:</strong></th>
<th>Report for the board meeting on the 4th of February 2019</th>
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<tr>
<td><strong>Title:</strong></td>
<td>Estates Strategy Update – Nov 2018</td>
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<td>Progress and Direction of Travel</td>
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<tr>
<td><strong>Executive Summary:</strong></td>
<td>This document aims to detail the progress made in achieving the objectives defined in the original 2009 Estates Strategy building on those successes and explains the current strategy for development over the coming period.</td>
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<td>It documents the background and changes made to different sites including those made to Cannock Chase Hospital. It details how the planned development of the built estate and infrastructure at both Cannock Chase Hospital, West Park and in the community will continue to support and respond to the clinical services requirements.</td>
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<td><strong>Action Requested:</strong></td>
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<td><strong>For the attention of the Board</strong></td>
<td>The purpose of this report is to provide an estates strategy update and progress of travel with regards to current and future plans of the estate linking back to the original Estates Strategy of 2009.</td>
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<td><strong>Assure</strong></td>
<td>• The contents of the report are in-line with the 5-year plan. This document has been discussed at F&amp;P and has been received at TMC.</td>
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<td><strong>Links to Trust Strategic Objectives</strong></td>
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<td>1. Create a culture of compassion, safety and quality</td>
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<td>2. Proactively seek opportunities to develop our services</td>
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<td>3. To have an effective and well integrated local health and care system that operates efficiently</td>
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<td>4. Attract, retain and develop our staff, and improve employee engagement</td>
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<td>5. Maintain financial health – Appropriate investment to patient services</td>
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<td><strong>Resource Implications:</strong></td>
<td>Capital: 5-Year Capital Plan</td>
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<td>Funding Source: Trust and central funding where applicable</td>
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<td><strong>Report Data Caveats</strong></td>
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CQC Domains

Safe: patients, staff and the public are protected from abuse and avoidable harm.
Effective: care, treatment and support achieves good outcomes, helping people maintain quality of life and is based on the best available evidence.
Responsive: services are organised so that they meet people’s needs.
Well-led: the leadership, management and governance of the organisation make sure it’s providing high-quality care that’s based around individual needs, that it encourages learning and innovation, and that it promotes an open and fair culture.

Equality and Diversity Impact
The Estates Strategy will implement guidance where appropriate to protect equality and diversity in the build environment.

Risks: BAF/ TRR

BAF - SR11: Condition of the existing Estate - Quality and flexibility
Current risk score: 12

Risk: Appetite
None

Public or Private:
Public

Other formal bodies involved:
TMC
F&P

References
N/A

NHS Constitution:
In determining this matter, the Board should have regard to the Core principles contained in the Constitution of:
- Equality of treatment and access to services
- High standards of excellence and professionalism
- Service user preferences
- Cross community working
- Best Value
- Accountability through local influence and scrutiny

Report Details

1 The national and local healthcare environment has changed significantly since the original ‘Estate Strategy 2009/10 to 2018/19’ document was approved by The Trust in November 2009.

The Estate Strategy was a comprehensive overview of The Trust, its history, composition, condition and aspirations and adopted the traditional approach of questioning; where we are now and where we want to be and how we get there. The document articulated a strategy which was to respond to the service and development priorities identified by The Trust. The Strategy which was developed purely for the New Cross Hospital site encompassed the built estate, asset management, ICT, medical equipment statutory standards and environmental management. Chief amongst these was the adoption of a Master Plan for long term development at the New Cross site.

In 2009 The Trust delivered services from primarily a single site. Following introduction of the ‘Transforming Community Services programme (TCS) in 2011, The Trust now provides services to the community from some 15 off-site leased properties and four wholly-owned community properties as well as from West Park Hospital. The Trust’s operations and estate grew further in November 2014 with the acquisition of Cannock Chase Hospital as part of the transfer to services and facilities form Mid Staffordshire Foundation Trust.

The recent introduction of Vertical Integration will further add to the Trust’s direct involvement with community services and potentially extend the built estate. The Trust operations now out of 9 Vertical Integration Sites.

Appendices

1 Estates Strategy Update November 2018
Estates Strategy Update
Progress and Direction of Travel

November 2018 - Update
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Introduction

The national and local healthcare environment continues to change significantly since the original ‘Estate Strategy 2009/10 to 2018/19’ document was approved and adopted by the Trust in 2009.

The Estate Strategy was a comprehensive overview of the Trust, its history, composition, condition and aspirations and adopted the traditional approach of questioning where we are now, where we want to be and how do we get there. The document articulated a strategy which was to respond to the service and development priorities identified by the Trust at the time of its inception. The Strategy, which was developed purely for the New Cross Hospital site, encompassed the built estate, asset management, ICT, medical equipment, statutory standards, and environmental management. Chief amongst these was the adoption of a Master Plan for long-term development of the New Cross site. However, the development of the master plan in practice has been limited. Continued development at New Cross Hospital will be based on a site wide ‘Development Control Plan’ which identifies the condition of the estate and development options, while reflecting the service strategy and direction.

In 2009 the Trust delivered services from primarily a single site. Following introduction of Transforming Community Services (TCS) programme in 2011, The Trust now provides services to the community from some 15 off-site leased properties and four wholly-owned Community properties as well as from West Park Hospital. In addition The Trust also operates out of 9 Vertical Integration GP properties. The Trust continues to operate out of Cannock Chase Hospital acute site as well as New Cross hospital, which is by far the largest site in terms of area.

This document is an update on the progress of the Estates Strategy since last updated in December 2016 when the objectives defined in the original 2009 Estate Strategy where reviewed. Additionally, the document also describes the changes made to Cannock Chase Hospital and details how the planned development of the built estate and infrastructure at both Cannock Chase Hospital and in the Community and Vertical Integration will continue to support and respond to the clinical services’ requirements.
**New Cross Hospital**

**Background and Site Master Plan**

The original ‘Estate Strategy 2009/10 to 2018/19’ document identified several deficiencies with the existing Estate and described how the New Cross Hospital site layout had developed over a long period of time in a piecemeal fashion resulting in a site comprised of buildings of many ages, styles and conditions. It also noted its disjointed character with standalone buildings connected by long ramped corridors.

This confusing layout created pockets of under-utilised spaces between and within buildings - a number of which were at that time of sub-standard condition and not fit for purpose - with poor clinical adjacency resulting in patients, staff and visitors having to cover substantial travel distances in moving from one department to another. Way-finding around the site was identified as difficult because of the lack of focal buildings, main entrance and signage.

In response to the challenges presented by the New Cross Hospital site, a Site Master Plan was produced for its long-term development. This formed the basis of a Hybrid Planning Application which was approved by Wolverhampton City Council in 2010 along with Agreed Conditions and a Section 106 Agreement. The Site Master Plan proposed the development of the New Cross Hospital site in four Stages, the principal new-build components being;

- **Stage 1** - the Catering CPU, Integrated Pathology Building and a new Emergency Centre;
- **Stage 2** - a centrally located Inpatient Centre (built in 2 phases);
- **Stage 3** - an Ambulatory Centre close to the entrance to the site;
- **Stage 4** - the Women and Children’s Centre on the west side of the site.

The proposed final Stage 4 outcome is shown below:

In addition to the new Catering CPU, Emergency Centre, Pathology Building and east side Multi-Storey Car Park, this depicted a much reduced site footprint, with land to the west and northeast having been disposed for residential development.

A new Women and Children Centre is shown located to the west of the site and the Inpatient Accommodation in the centre.

Two further Multi-Storey Car Parks are shown along the western boundary, the more southerly of the two being integrated with a proposed Midland Metro station.

To have achieved this proposed layout there
will have been demolition of Wrekin House, the Women’s Unit and all of the buildings along the west side and in the northeast corner of the site.

Following the realisation that PFI funding would not be available it became apparent that the rapid development of the Master Plan would not be feasible. The Trust however took the view that the objectives around the Master Plan were sound. The Trust has therefore adopted the approach of developing the master plan to follow current needs.

**Where Are We Now?**

**Building Reconfiguration and Refurbishment**

Delivery of Stage 1 of the Master Plan has successfully proceeded and, with the opening of the recently completed Urgent and Emergency Care Centre (UECC), is now complete. The UECC, which incorporates state of the art facilities on three floors, accommodates the co-located Emergency Department, an Urgent Care Centre, a 49-bed Acute Medical Unit and the Clinical Decisions Unit plus areas of empty shell space for future expansion.

The Catering Production Unit (CPU) was the first major project to be delivered as part of Stage 1 of the Master Plan and was completed in 2010. The CPU, which has the capacity to produce 6,000 cook-chill meals daily, currently supplies patients at New Cross, Cannock Chase, West Park and at Princess Royal in Telford. Refurbished Regen Kitchens were created in many wards in New Cross and at Cannock to accommodate the trolley-regeneration of the chilled food from the CPU.

The second major project to be delivered as part of Stage 1 of the Master Plan was in 2013 this being the Integrated Pathology Building. This brought together, into a single high-tech building with automated analysers, the four separate pathology disciplines which had previously been widely dispersed across the site in four buildings which were no longer fit for purpose.

Whilst following the strategy of the Master Plan, the estate at New Cross has also been developed, configured and adapted to meet the challenges of emerging and changing clinical needs. Accordingly, development not originally envisaged in the Master Plan has been carried out and some buildings destined for demolition have instead been refurbished and retained to provide accommodation for delivery of other services.

The graphics below show the proposed Stage 1 of the Master Plan and the Current Site Layout.
The purple shaded buildings on the graphic are those that were planned for delivery under Phase 1.

Shaded in green is the proposed new 620 bay Multi-Storey Car Park (MSCP) on the southern boundary of the site in addition to that already constructed on the eastern boundary of the site. Neither were planned for delivery until Stage 3 of the Master Plan. Other projects included the Stroke Ward Refurbishment funded through STP. The replacement of the Incinerator has now commenced and due to finish in FY 18/19. Also the construction of the third Linac and addition of surface car parking adjacent to Wrekin house. A new Pathology Extension is being designed and is planned for construction during the FY 19/20 housing Black Country consolidated Pathology services.

Others previously constructed not on the original masterplan include Clinical Illustration relocated into the Centre of Site, the modular-build Medical Ward C41 installed behind the Beynon Centre as part of the reconfiguration of services in relation to Mid Staffs NHSFT and the CKD Unit (Chronic Kidney Disease – Renal) at the north end of the Centre of Site. Also shown is the former Histopathology laboratory converted into the new Pharmacy and the Modular Extension to the old A&E which will form part of a reconfigured outpatients.

Two additional Theatres and a Recovery Area were also added, as has an extension to the Endoscopy Suite in Beynon. The former School of Nursing has been refurbished to provide co-located, modern, open-plan offices for Corporate Services which facilitated demolition of their previously unsuitable accommodation to create space for the Integrated Pathology Building.
Constant improvement has transformed the Women's Unit, which now has a new Transitional Care Ward, MLU and Neonatal Ward and refurbished Delivery Suite, Wards and Theatres. The high-tech Simulation Ward with lifelike mannequins constructed in the WMI provides totally immersive training opportunities for medical students and staff at RWT. The former Board of Governors building has been reconfigured and refurbished to provide modern offices. Three Linac replacement have now been completed, the first of these in 2015 and most recent in 2018. A further Linac replacement remains due in 2019.

Throughout this period of planned transition from the deficiencies identified in 2009, the estate has when necessary been able to respond very quickly to some rapidly changing clinical needs and has also absorbed the increase in clinical activity that has taken place during this time. Activity at New Cross, when measured by the numbers of both regular and emergency admissions, has increased by some 40% since 2009. The internal volume of the built estate has remained notionally static throughout this period indicating constantly increasing efficiencies in space utilisation.

This efficiency in space utilisation has been achieved by incorporating into the programme of a rolling programme of ward refurbishment and general upgrades to many staff and patient areas thus ensuring that every accessible space is constantly available and suitable for occupation.

Additionally, in 2013 and in response to an immediate need to create additional cost effective admin space, the vacated Haematology Laboratory was refurbished into a space-efficient prototype ‘Agile Working’ area to be used by the newly integrated Health and Social Care Team. Since then, this space has successfully provided 36 workstations, privacy booths, a touchdown area and meeting spaces which are booked online by the more than 70 allocated individuals who occupy and use the facilities only as and when needed. The space required for agile working is substantially smaller than would be required if a desk were allocated to each individual. Further agile working spaces are being considered.

Investment in new buildings, major refurbishment and continuing backlog maintenance has greatly enhanced the quality and fitness-for-purpose of the estate. The previously confused layout of the estate has been rationalised. Patients and visitors have benefited from the implementation of a new Wayfinding system and clear Signage.

A new and imposing Focal-Point Main Entrance combining access to the UECC and to other departments has been constructed at the east side of the hospital and, within this entrance, the East Side café now provides a meeting point with refreshments to staff and visitors in a pleasant environment.

**Building Services Infrastructure Upgrade**

With the distribution systems and infrastructure unseen and buried below ground or in the fabric of buildings the consistent delivery of dependable building services is generally only appreciated when they fail or when disruptive replacement and maintenance is required.
Therefore, in parallel with the construction and refurbishment of buildings to meet the requirements of clinical delivery, there has been a rolling programme to upgrade the building services infrastructure across the New Cross site to ensure that critical systems have resilience and that systems are safe, comply with statutory standards and are HTM compliant.

The existing Energy Generation Strategy was assessed and challenged by external consultants Couch Perry & Wilkes in 2009 and again by Capita Symonds in 2013 with both recommending that the current site philosophies of energy generation and distribution infrastructure based around steam should be retained. Although the aging steam infrastructure still has remaining usable life, the resilience and cost benefits of converting to a centralised low pressure hot water system have been considered but not yet proven, particularly given the potential disruption that such a conversion would entail. The efficiency of the steam system has however been enhanced by the provision of additional Steam Traps and Condensate Receivers to partially overcome the inherent technical disadvantages arising from the boiler house being located at the high end of the sloping hospital site rather than at the lower end.

The Trust benefits in two significant ways from the Incinerator which it owns and operates on site – by burning waste which would otherwise be sent offsite to landfill or for incineration and, by virtue of the installed waste heat steam boiler, from the capture of both combustion energy and a percentage of the waste heat generated from burning the waste itself.

The incinerator is a key part of the overall energy and sustainability strategy, reducing the cost and carbon footprint of waste disposal for New Cross and the community properties which it also serves and, in so doing, reduces the energy demand and carbon dioxide emissions of the central boiler plant. A planned preventative maintenance programme, and regular replacement of the refractory lining has ensured the continued operation of the incinerator but it is now reaching the end of its serviceable life. A new incinerator is planned for completion in 2019 and which is connected to the CHP enhancing the power generating capacity on site.

To further reduce cost and the site’s carbon footprint, a Combined Heat and Power (CHP) plant was installed in 2014. The CHP engine, which uses natural gas as a primary fuel source, effectively recovers the heat produced as a by-product of the electrical generation process. In addition to powering the generator which produces 65% of all of the site’s electricity, waste heat recovered from the engine also provides some 40% of all of the hot water and steam services to the hospital. The CHP reduces the amount of fossil fuel needed to produce heat and power, thereby lowering utilities costs and significantly cutting down on carbon emissions. Plant Rooms in both Building 64 and Deanesly have also been upgraded with replacement plant and the introduction of Plate Heat Exchangers to replace the older, less efficient calorifiers. The completion of the incinerator project will further enhance CHP power generation on site.
To ensure continuing supply of safe water to the hospital, much of the water storage and delivery pipework has been replaced and the Water Treatment Plant for the whole site has been upgraded. Water purification systems have been enhanced by the provision in many buildings of localised Chlorine Dioxide Dosing equipment to protect against growth and distribution of pathogenic microorganisms.

Electrical supplies around the site have been enhanced by upgrading or replacing obsolete or aging plant and equipment. Equipment to upgrade the Uninterruptable Power Supply (UPS) has been installed in the Heart & Lung Building, a new UPS/IPS in Beynon and a new Substation and Generator House now supports the UECC and adjacent buildings.

Wherever possible and cost effective, energy efficiency and sustainability have been incorporated into new projects, building services upgrades and backlog maintenance.

Sustainability has been supported by the installation of energy efficient LED Lighting with Smart Controls to regulate the levels of lighting according to the availability of ambient light and the proximity of people, the fitting of energy saving Inverter Drives to pumps and fans, and the installation of Solar Thermal and Photovoltaic (PV) panels on the roofs of the Pathology Building and the UECC. LED lighting continues to be used on new schemes and where possible in replaced existing non LED lighting on minor schemes.

Further energy and carbon savings, are being achieved from Heat Pumps installed in the cooling system of the Pathology Building and the UECC to make use of the heat generated by the cooling plant which would otherwise be wasted. A new Data Hub was also constructed beside the Deanesly Centre now houses the IT Server which was formerly located in Coniston House. This is cooled with Eco Coolers rather than by air conditioners.

Rapid and reliable transfer of samples from point of care testing in clinical areas to Pathology is now supported by the automated Pneumatic Tube System which was installed in 2012 to replace the then obsolete and unreliable system. The new installation added another eight send-and-receive stations to the existing twenty-two, thereby connecting areas previously not serviced by the system, and introduced chipped carriers which, when placed into the stations, are automatically routed to Pathology and returned to their home station without any input required by staff. The installation of additional tubes and the relocation of the new motors, fans and transfer station into the Tugway by Pathology dramatically reduced travel time for the carriers and, in turn, permitted a doubling of the number of carriers sent every day.

**Car Parks and Grounds**

Car parking on site changed most notably when the East Multi-Storey Car Park (MSCP) was opened to staff in early 2014 and ANPR technology was introduced. To simplify wayfinding, avoid confusion and offer best access to clinical departments, patient and visitor car parking areas have remained mostly unaltered and in broadly unchanged locations. At-grade car parking for staff however has been added when buildings have been demolished or, of
necessity, been reduced when vacant plots have been built upon; measures to mitigate major disruption to parking are therefore incorporated into the planning and execution of construction projects. Access to the North Car Park has been changed to reduce the queuing and congestion on the approach from Prestwood Road in the peak morning period and the elimination of entry barriers and card readers at all staff car parks after introduction of ANPR has reduced delays. The number of visitor blue badge parking places has been increased to 77, and for staff the number of blue badge spaces is 37. Within the MSCP there are three electric hook-up points installed to encourage the use of electric or hybrid energy vehicles. An additional 70 parking bays have also been constructed adjacent to Wrekin house via reconfiguration and extension of parking. A further 620 bay MSCP is proposed off Wolverhampton Road on the Southern boundary of the site.

Improvements to roads and footpaths have been undertaken when and where required; resurfacing and improvements to the layout of the junctions by the UECC, the Boiler House and at the South Entrance have been carried out. Lighting along the perimeter road has upgraded in order to provide both safe levels of lighting and energy savings.

**Where Are We Going?**

**Site Plan**

The Master Plan for New Cross aimed to gradually transform the existing hospital site into a modern, fit-for-purpose hospital that resonates the Trust’s objectives of delivering high quality and effective patient care and was intended to be delivered in four discrete stages but without a specific timeline, delivery being driven by competing needs and constrained by available funding.

Stage 1 of the Plan has been achieved and. However Stage 2 of the plan has not commenced. While Stage 2 onwards remain in the current service plans, it may take more time to achieve than first anticipated. As a result, the construction of the first phase of Inpatient Accommodation in the Centre of Site is included in the current 5-year development plan.

Much needed additional parking space will be provided by a proposed MSCP in the southeast corner of the site, construction of which is planned planned in 2019.

Stage 2, also suggested the planned construction of a new and more compact Energy Centre beside the Catering CPU, together with the demolition of the Corporate Services Centre and old Accommodation blocks on the east of the site in order to free up land for disposal.

The planned demolition of the Ashes and Chestnut buildings, the Corporate Services Centre and Hollybush House has also been deferred and these buildings will continue to provide upgraded and reconfigured accommodation for admin and non-clinical activities.

The remaining two phases of the Master Plan were more radical than those nearing completion and suggested consolidating the site by demolition of all buildings to the west of
Building 56 (Radiology) and to the South of the Building 80 (Deanesly). The creation of vacant space on the western boundary would then have permitted the disposal of land for third party development. This element has also been deferred as it is not yet clear if this land may be required for the future long term development of new facilities.

A new Women and Children’s Centre is proposed in the Master Plan to be constructed on the west side of the hospital, together with an Ambulatory Centre on the south, which would link together. Linking these two proposed buildings to the remainder of those on site was intended to have further de-cluttered the site, provided a sense of place and space and improved access by reducing vertical challenges and creating shorter travel distances. The cost of this, however, being the demolition of large parts of the estate and discarding facilities such as the existing Women’s Unit in which the Trust has already heavily invested and which are now fit for purpose and with lengthy remaining life, is no longer considered to be justified given the scale of the improvements already achieved and the changed circumstances in which the Trust now operates.

The immediate objectives of the Master plan – “to maximise the use of existing ‘quality’ buildings; to provide an integrated Emergency Centre that maximises linkages with the existing Heart & Lung Centre, and; to provide new Inpatient accommodation that addresses the NHS Plan in respect of Consumerism and overcomes current inadequacies” - will have been realised after completion of Stage 2.

It is appropriate therefore to now review the ambitious long-term aims of the original Master Plan which, predating the acquisition of Cannock Chase Hospital and Community Properties, described a vision for the future of New Cross Hospital but would still require expenditure of more than £250m to achieve. It is unlikely that this could be committed to in a period shorter than the next 10-15 years. In the short-term, completion of the crucial elements of Phase 2 is planned for delivery within the existing 5-Year Capital Programme which includes projects as described below:

**Shell Space in UECC (2018-2019)**

Within the recently completed UECC building three ‘shell’ spaces were left to accommodate future expansion. The smallest of these has now been converted to the Bereavement Unit. The ultimate use to which the other two spaces will be put has not yet been finalised but will be focused on clinical use.

**Pathology Extension (2019-2020)**

A new Pathology Extension is being designed and is planned for completion during the FY 19/20 housing Black Country consolidated Pathology services. The extension will be constructed adjacent to the Deansley entrance and will house a number of centralised services based on a hub-and-spoke model with services working jointly with Walsall, Dudley and Sandwell and West Birmingham trusts.
**Linear Accelerator (Linac) Treatment Bunker (2019)**
To maintain the high quality of Radiotherapy treatment at New Cross, and to mitigate against the approaching obsolescence of the existing equipment, the Construction of a further new Linear Accelerator treatment bunker to commence in 2019. This will house a new Linac and permit a rolling programme of replacement of the existing four Linacs by 2020 without disruption to the clinical services. Three Linacs have now been completed with the fourth due to commence in 2019.

**Block 14 Reconfiguration for Outpatient Clinics (2019 – 2020)**
The A&E department relocated from the ground floor in Block 14 to the UECC in November 2015, leaving behind some 1,800m² of vacant clinical space. This provision of generic clinic rooms within the vacated space will be the first stage in the rationalisation of outpatient facilities across the site and will also permit decant into the space vacated by Rheumatology after that department moves into the new clinic rooms, thereby enabling demolition of Wrekin House.

Studies have shown that the utilisation of clinic rooms in traditional outpatients departments is low and that the provision of ‘clustered’ generic clinic rooms can provide efficiencies leading to better room availability and benefits to staff and patients.

**Wrekin House (2019-2020)**
Wrekin House has been identified for demolition for a number of years. In order for its demolition removal of Medical Records and relocation of Physiotherapy is necessary. Due to the relatively better comparative condition of the building in comparison to other building stock at New Cross, a study is underway to establish the viability of converting it into a back office facility. This proposal will have a significant impact on the site master plan which will need to be adjusted to suit.

**Multi Storey Car Park (2019 -20)**
A second 620 capacity MSCP is planned to commence in April 2019 on the south east corner of the site. Access and egress to the car park will be directly off Wolverhampton Road therefore reducing congestion within the New Cross site.

**Fire Compliance Projects (2016-21)**
Upgrading of Fire Protection in several key buildings is planned as is substantial investment in Backlog Maintenance to ensure that the older, more established elements of the estate continue to be fit for purpose. Following the Grenfell Fire and review of fire cladding, replacement of all cladding on the Heart and Lung building will commence in 2018 due for completion in 2019.

**New Inpatient Block**
Phase 2 of the Master Plan was primarily concerned with rationalisation of the bed base and proposed a new Inpatient Facility located in the Centre of Site. A feasibility study has commenced to determine the opportunities to develop an Inpatient block with a number of potential site options being explored.
**Agile Working**

The Carter Review into Operational Productivity and Performance sets specific benchmark percentages for non-clinical space and for unoccupied or under-utilised space within the hospital by April 2017. These parameters have been consistently driven down by recent developments of the estate and will continue to be during the next five years.

The Review set a benchmark for rationalisation of corporate and administrative functions to ensure their costs do not exceed 7% of income by April 2018. To support this rationalisation, and drive down the cost of space used for administration, the built estate at New Cross and beyond is being improved through the Agile Working programme for development of well-designed working environments in which administration space is allocated to activities thereby enabling work to be carried out more flexibly and cost-effectively.

Further investment in the provision of Agile Working areas is planned and projects are already underway to implement software to enable self-booking by users of meeting rooms and clinic rooms. Implementing this booking and check-in system will combat under-utilisation of these rooms and will generate greater availability and cost savings.

**Infrastructure**

A number of major electrical infrastructure projects are currently underway including the enhancement of essential supply power around the site and improved generator capacity. These projects will extend into FY 19/20. There will be ongoing capital expenditure during the next five years on backlog maintenance, replacement of aging equipment and for the installation of new building services within wards and theatres as each of these is refurbished. The problematic section of steam main between McHale and the WMI and Chestnuts is being replaced by a high-efficiency hot water system which will be attached to the CHP.

**Generator Capacity Planning and Electrical Infrastructure 2018-2020**

Two major schemes are being considered to increase generator capacity throughout the site, these are namely the Deansley and North West Sector generators. Increased energy demands resulting from radiology including Linac has necessitated increase in backup power supply. Similarly backup energy demands of theatre blocks centre have required increased capacity in the North West sector due to do the age of the existing generator which requires replacing.

**Sustainability**

Sustainable development is being supported by the adherence to RWT Building Services Standards and guidelines which maximise where possible the incorporation of energy efficient technology and equipment into all construction and refurbishment projects.

A study is being undertaken to establish the viability of introducing a steam driven turbine into the steam main to produce electricity with which to supplement the site supply. This would reduce utility costs and, particularly, would reduce the carbon footprint. Additionally, the reduction in steam pressure caused by the action of the turbine would benefit the
longevity of the steam main. Other opportunities such as ground source heat pumps, additional PV panels, wind turbines and biomass boilers will continue to be considered as standalone projects or in conjunction with new builds but, whilst providing some carbon reduction, the return on investment has in the past not been considered economically viable.

**Long Term**
Longer term planning will continue to evolve as emerging priorities in acute care are identified and clinical strategies formulated to respond, however, accommodation at New Cross is now at a premium with nearly full utilisation whilst some community facilities are potentially under-utilised. There is a drive for better collaboration and coordination of clinical services across local health economies, delivering more care services within community settings to better meet the clinical needs and enhance patient experience. Vertical Integration will add to the Trust’s direct involvement with community services.

**Community Properties**

**Background**

As part of the TCS Programme the Trust acquired a number of properties in 2013 that were previously owned by the PCT. In addition the Trust also took responsibility for a number of leasehold properties where Community Services were being delivered.

The properties that transferred to the Trust were Warstones Health Centre, Pendeford Health Centre, Primrose Lane Medical Centre and Pond Lane together with West Park Hospital. The majority of the other properties that were previously owned and managed by the PCT were transferred to NHS Properties Limited.

**Where Are We Now?**

The three health centres now owned by RWT all have GP surgeries located in them and provide a rental income and Pendeford also has a pharmacy attached. In addition to community services being directly provided by the Trust, external providers such as Black Country Partnership, Connect Health and Age Concern also use these buildings.

Physical condition surveys carried out as part of the pre-transfer due diligence did not identify any major issues other than the requirement for some general maintenance and local redecoration. Utilisation of these buildings runs on average at around 83% but, with some clinical spaces currently being used by RWT staff for admin, more could be achieved. A lack of sufficient utility rooms has also been identified by Adult Community Services.
In addition to the three properties owned by RWT, the Trust also provides services from 12 other properties in which space is leased from NHS Property Services, LiftCo, Wolverhampton City Council, and in the case of St John’s House, Bentley Bridge Logistics Centre and Unit 1, Planetary Industrial Estate, from a commercial landlord. Utilisation of these properties is varied. Lease costs are lowest for the NHS Property Services owned buildings but there is movement towards increases as and when commercial rents are introduced. Lease costs are highest in the properties owned by LiftCo, which are managed by Community Health Partnerships (CHP), the Gem Children’s Centre and the Phoenix Walk-In Centre.

The Trust also utilises clinical space in a number of neighbouring Trust sites on a sessional basis in order to deliver services to the local communities.

**Where Are We Going?**

Rationalisation to maximise utilisation is a priority. This is particularly important given imminent increases in the cost to the Trust. The charges for NHS Property Services Properties are set to rise when new arrangements are introduced as part of the Lease Regularisation Programme and rents for clinical properties are to be set at market rates.

The effective delivery of community services at the point of need is the guiding principle and it has been noted that, in some instances, community properties which could provide identical services are located in close proximity and this has led to underutilisation. Where there is no need for this excess of properties from which to run the services, rationalisation is being proposed. In particular, properties which support delivery of clinical services, and which are being used primarily for admin or storage, are proposed to be disposed of with the services being relocated to the nearest alternative. Wherever possible and appropriate, services will be centred in the Trust owned properties and utilisation of buildings will be maximised.

Where space is necessarily being used for admin purposes it is proposed to introduce agile and flexible working environments with, where appropriate, a desk booking system. Locating these in Trust owned properties, together with a booking system for clinic and meeting rooms, will create more efficient use of space, greater utilisation, the ability to appropriately charge external users for the space used and a reduction in the cost of rentals.

The community services are in a state of flux with some properties being considered for closure by their owners and individual services being relocated by the City Council. The Trust will continue to work closely with the CCG and Public Health to ensure that plans are aligned and that high quality community services are provided in the most cost effective manner.

Following the Trust restructure which has created Division 3, a Community Transformation Project is due to commence in 2018/19 which will be the first large scale review of
community services since TCS. The estate is intrinsically linked to this and the first Community Estates Strategy will be produced alongside this clinical strategy.

There is also a city-wide review into the creating of mixed use hubs in the Bilston, Bushbury/Low Hill and the City Centre this is a joint project between Wolverhampton CCG, Public Health, City of Wolverhampton Council, RWT and Black Country Partnership FT.

**West Park Hospital**

**Background**

West Park Hospital accommodates the delivery of a mix of services including physiotherapy, speech and language therapy, hearing services, occupational health, care of the elderly, and neuro rehabilitation together with inpatient wards for stroke and neuro rehabilitation. Responsibility for delivery of the services transferred to the Trust under the TCS Programme and the hospital buildings became the property of the Trust in 2014.

**Where Are We Now?**

The hospital site consists of seven separate single and two storey clinical buildings, mostly built in the 1960s, interconnected by a covered hospital street walkway which extends to the newer Main Building, opened in 1982, which houses the Outpatients Department and Inpatient Wards over two floors.

There are additionally two large Grade II Listed two storey Victorian residential properties on the site, most recently used as office accommodation, and eight terraced and semi-detached houses formerly used as staff residences. There is a small complex of Estates buildings which house the twin dual-fuel boilers, the oil tanks and the medical gases as well as workshops and storage for maintenance and horticultural equipment.

The function of the hospital has undergone several changes during its lifetime and the accommodation provided for the current services, but not originally designed for them, is in some instances less than optimal. The Main Building, some 35 years old, housing the Outpatients Department and Rehabilitation Wards is functionally suitable but space is now too small to adequately meet current demand. The lack of available decant space into which patients could be temporarily relocated restricts the manner in which maintenance can be carried out and compromises planning for necessary refurbishment.

The Restaurant has closed since the RVS shut down operation of their café, and the Kitchens, originally sized to provide for the needs of the whole hospital, now only prepare breakfast for inpatients since the introduction of cook-chill meals which are prepared at New Cross and delivered to West Park for regeneration on the wards. The Physiotherapy block which includes a large gymnasium – which is in addition to that provided in Outpatients – is fully utilised.

The ground floor of the original Marson Ward now accommodates, in three discrete areas, the District Nurses, the Healthy Lifestyles team and separately, on the opposite side of the
Hospital Street corridor, a large meeting room for general use. Above the District Nurses, the first floor of the Marson Ward building is used as the base for the Community Intermediate Care Team. On either side of the hospital street corridor leading towards the ground floor Neuro Rehabilitation Ward – which, similarly to the wards in the Main Building, is fully occupied and lacks decant space - are consulting rooms, offices and an Occupational Therapy Workshop. A large staff rest/meeting room opens into a hot-desking area for visiting and peripatetic staff. The single storey Hearing Services building, not linked to the main hospital street and accessed externally, houses admin space and a number of audiology booths. These booths are old and fall short of the standards expected of modern facilities.

The two listed Victorian buildings, Leasowes and Cleveland House, previously used as office accommodation, currently stand empty and are in need of light refurbishment. Behind one of these buildings is the small Weeping Chapel which is also protected under the listing.

**Where Are We Going?**

Many of the services delivered in the Community properties owned or leased by the Trust, and in clients’ homes, are managed and supported by teams working out of West Park Hospital. The hospital not only provides the hub from which the many of the satellite health centres are supported but also replicates most of the services they deliver. Much of the estate is therefore utilised as home-base accommodation for clinical teams and for their admin support.

The adaption of clinical space for non-clinical activities developed historically when the changing needs of the hospital left some of the clinical space redundant and therefore available. This, however, has resulted in some inefficient use of space.

It is apparent that substantial expenditure is required to refurbish and adapt West Park for the future. As such, work has begun to explore potential options regarding future provision of services for West Park.

**Cannock Chase Hospital**

**Background**

Cannock Chase Hospital, which was opened in 1991, was acquired by the Trust in November 2014 upon disaggregation of the Mid Staffs Foundation Trust. The Acquisition Business Case identified that urgent reconfiguration and refurbishment works would be required before planned clinical services could be delivered effectively. An ambitious programme of upgrades to buildings and services infrastructure was therefore developed and the first phase scheduled for the end of 2015 and was completed in March 2018 when level three reconfiguration works was completed.

It was determined that, in order for elective orthopaedic surgery to be centred at Cannock, two additional operating theatres are required. These were constructed by end of 2016 to
supplement the existing five requiring a series of enabling works projects. Additionally, the Endoscopy service which had been using one of the existing theatres was relocated into a new Endoscopy Suite constructed within the previously vacated Littleton ward.

At the time of the takeover of the estate at Cannock, much of the building’s spaces and facilities were suboptimal. Services infrastructure was found to be approaching the end of its anticipated serviceable life. Whilst they had apparently been well maintained during the early years, lack of investment and resources in recent years had led to lack of preventative maintenance and deferred repair and replacement.

The lack of investment in maintenance had resulted in the shortening of the remaining life of the equipment and the deferred repair and replacement programme had resulted in major systems reaching the end of their useful life. A rolling programme of replacement and backlog maintenance was therefore planned to rectify this situation and ensure continued safe delivery of clinical services. This plan continues to this day.

**Where Are We Now?**

**Building Reconfiguration and Refurbishment**

A series of interlinked enabling projects and departmental relocations has achieved the objectives set out within the first phase of reconfiguration identified in the Acquisition Business Case.

The Dermatology Treatment Unit was moved into a purpose built location on Level 1 which enabled the release of Littleton ward for construction of a 900m2 Endoscopy Suite which in turn released Theatre 5 for additional surgical procedures in February 2015. Bedrooms for On-Call Doctors were completed.

Before construction of the two additional Theatres could commence, its staff were relocated into accommodation on Level 1 refurbished after vacation by tenants. Additionally, the Central Catering Facility, which needed to be reduced to less than half of its former size, was reconfigured and refurbished to facilitate the change from food preparation to processing of cook-chill products delivered daily from the CPU at New Cross. New Regen Kitchens on the inpatient wards were also included as part of the overall Refurbishment of Hilton Main and Fairoak Wards.

A new Rheumatology Department, including an expanded day-case facility, was constructed on Level 1 to co-locate the previously dispersed teams and free up space on Hollybank Ward on Level 3 for its conversion to a 16-bed surgical ward. As part of this reconfiguration of Level 3 for surgical inpatients, a 4-bed Surgical Enhanced Care Unit has also been completed.

Other relocations and refurbishments include provision for Point of Care Testing, and enhanced facilities for Phlebotomy, for Occupational Health and for Medical Physics. The Chapel and Multi-Faith Prayer Room have also benefited from refurbishment. New
Wayfinding and Signage has been installed to match that at New Cross and public areas have been repainted. The three Lifts, which would all have reached the end of their design life in 2016, were replaced to ensure continued unrestricted access to people with impaired mobility. Externally, car parking has been improved by the provision of additional Staff Parking behind the building. The following is a breakdown of the changes by level all complete by March 2018.

**Level 1**

Refurbishment of the Renal Unit and the Breast Screening Unit on Level 1 completed.

**Level 3**

Following on from the completion of the two new Theatres, 6 and 7, reconfiguration of Level 3 continued with the provision of a Daycase Ward and Recovery areas. This extends across the two wards, Lea Hall and Hollybank, on the east side of the building, linked by a walkway to the new theatres. Included in the new unit will be a 16-bed ward, 14 consulting rooms, a minor procedures room, a treatment room and a 10-bed recovery ward.

Works were recently completed to further optimise the building – the current status is as shown below.
Hollybank and Lea Hall RE-configuration
– (Theatres/Pre-Op/Daycase)

Radiology Department- Due to Commence in 19/20

Breast Screening Unit

Renal Unit
**Building Services Infrastructure Upgrade**

During the lifetime of the building it had gone through several reconfigurations and changes of use and many of the formerly clinical spaces had fallen into disuse. As a consequence, some systems necessary for delivery of high quality clinical care had fallen into disrepair or had been isolated. It was determined that the anticipated demands of the new facilities that were now to be provided would exceed in some instances the output capacity of the existing plant and distribution network. Additionally, the resilience of some critical systems did not meet operational safety requirements as failure of a single item could cause major disruption to clinical services. The electrical supply system to the hospital lacked resilience and, due to its configuration, maintenance of some elements was impossible without completely shutting down the supply to whole sections of the hospital. This had previously resulted in the provision of some 20 stand-by temporary generators around the hospital to maintain critical services. Replacement of the CHP maybe required in the near future due to end of life.

As a priority, therefore, and to match the reconfiguration of the building, a programme of upgrades to building services was initiated to provide resilience and, where possible, spare capacity for future growth. The existing large air handling unit (AHU9) that supplied multiple wards on Levels 2 and 3 was replaced to provide sufficient air volumes to ventilate the new Endoscopy Suite to HTM standard. Additionally, a supplementary AHU was therefore installed directly outside the Endoscopy Suite. Similarly, AHU5 which supplied the whole of the Davy Unit at the south end of Level 1 was not capable of ventilating the new Rheumatology Department to HTM standard. Like AHU9, this unit was beyond economical refurbishment and upgrade and was therefore replaced with a larger unit. To meet current standards a dedicated AHU was also installed to ventilate the two new Theatres together with a chiller to provide cooling. Existing air handling plant was upgraded to service the new Catering Facility. Additionally a dedicated AHU was installed to ventilate Hollybank and Lea Hall.

Medical gas distribution pipework had been cut back when no longer needed in previous years and was, where still existing, of too small a size to supply the new Rheumatology Department on Level 1. The whole distribution network has now been replaced with appropriately sized, HTM compliant pipework. Thermostatic mixing valves have been replaced throughout the hospital to mitigate against the possibility of scalding. Access Control and Critical Alarms have also been linked to New Cross control.

**Where Are We Going?**

**Building, Level 2**

Rationalisation of Outpatients facilities and the Therapies department in the south block of Level 2 will be considered in 2019-2020 of the 5 year programme. To support safe clinical activity in the planned new facilities, further upgrading of the building services is continuing. This is planned to commence with upgrading the Radiology Department. Other projects planned include roof maintenance works.
Infrastructure
Works to replace the LV panels has started as has the preparation for the replacement of both of the transformers. These units, which are currently stand-alone and provide no resilience should one fail, will be replaced by interlinked transformers which will guarantee continuing supply in the event of failure.

The single VIE which stores liquid oxygen is being supplemented by a second unit to both increase working capacity and provide resilience.

Further works planned, but not yet started, include the addition of a second generator to guarantee 100% backup of all the hospital’s electrical services in the event of a mains power failure and the replacement of much of the substandard electrical sub-mains distribution system. Other schemes anticipated are CHP replacement and further air handling unit replacement.

Long Term
The hospital still has 16% of its floor area leased to tenants, not all of whose activities actively complement those of the Trust. As these tenancies expire, and spaces are vacated, further opportunities will be presented for development – such as, for example, introduction of Primary Care Services.
References:

1. Estate Strategy 2009/10 to 2018/19 - RWT
3. Estates Strategy Update Jan 2017 - RWT
4. Cannock Acquisition Business Case - RWT
5. Condition and Legislative Compliances Survey, Cannock Chase Hospital – Stewart Associates