Healthcare Estate for Innovation

Peter Ward
King’s Health Partners

- One of the largest Academic Health Science Centres in Europe
- Teach over 30,000 students
- Employ over 40,000 staff
- Treat over 4.5m patients a year
- Shared vision for campus development
The next 70 years

Excellent transport links & connectivity

Vibrant local cultural and heritage amenities

Strong and proven scientific and healthcare community

Care and translation Campus, eg UCSF Mission Bay

Healthcare, teaching & translation Hub Eg MaRS, Toronto

Life science innovation district, eg MIT Boston

KING'S HEALTH PARTNERS
Occupier / Developer / Investor alignment

Source: JLL
Thank you

peter.ward@kcl.ac.uk
Knowledge Clusters
How the Strategy works

Building to maximum site capacity provides commercial opportunity

Site Development Potential (Shell & Core)

GSTT Clinical need

Commercial Opportunity

Efficiency in use of clinical space releases more commercial opportunity

Commercial income contributes to affordability

£
3 Business case model

- Building Design: 60-100 years
- Change in use: 30 years, 30 years
- Refurbishment: 15 years, 15 years, 15 years
- Business Model: 5, 5, 5, 5, 5, 5
- Technology: 

Guy’s and St Thomas’ NHS Foundation Trust
The Adaptable Estate Specification seeks to develop a ‘design guideline’ for a generic Shell & Core approach to building developments that suits bespoke fit-out for different space typologies – healthcare, research, teaching and commercial - that can adapt over time.”
## Typologies

<table>
<thead>
<tr>
<th>Type</th>
<th>Accommodation</th>
<th>Ceiling Height Requirement</th>
<th>Typical Floor Height Zone</th>
<th>Typical Plan Depths</th>
<th>Typical Grids</th>
<th>Bed Lift Requirement</th>
<th>Service Zone Category Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>2.7m</td>
<td>3.6m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOW 800mm</td>
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<tr>
<td>Commercial Offices</td>
<td>2.75m</td>
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<tr>
<td>Consulting Rooms Clinical Offices</td>
<td>2.7m</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>MEDIUM 1200mm</td>
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<tr>
<td>Inpatient Wards</td>
<td>2.7m</td>
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<tr>
<td>Support Accommodation Cat 1 Lab</td>
<td>2.7m</td>
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<tr>
<td>Diagnostics</td>
<td>3m</td>
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<td></td>
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<td></td>
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<td>HIGH/TECHNICAL 1500mm</td>
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<tr>
<td>Cat 2 &amp; 3 Lab</td>
<td>3m</td>
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<tr>
<td>Critical Care Theatres Emergency</td>
<td>3m</td>
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<tr>
<td>Specialist Equipment Containment Labs</td>
<td>bespoke</td>
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<td></td>
<td>VERYHIGH</td>
</tr>
</tbody>
</table>
Use Typologies – Stacking

1. Technical: Mixed Use
   Fully adaptable
   Connected Buildings

2. Technical + Medium
   Zoned adaptability
   Connected Buildings

3. Technical + Research & Commercial Offices
   Connected Buildings

4. Research + Commercial Offices
   Standalone Buildings

5. Commercial Offices
   Standalone Buildings

High Cost

Low Cost

Guy's and St Thomas'
NHS Foundation Trust
Connected - Vertical Zoning Strategy
Fixed and Flexible Elements

**FIXED PARAMETERS**
- Shell & Core
  - Structure
  - Building Core & Lts.
  - MEP
  - Fire
  - Toilet Strategy
- Site & Operations
  - Development Zoning
  - Clinical Zoning
  - Connectivity
  - FM Strategy
  - Access
  - Public Realm

**FLEXIBLE PARAMETERS**
- Use & Fit-Out
  - Use
  - Tenant Requirements
- Structure
  - depth of plan & floorplate size
  - structural grid
  - floor heights
  - floor loading
  - soft & hard structural zones
  - floor recesses
- Services
  - plant room locations
  - services distribution
  - service ceiling zones
  - drainage strategy
  - toilet strategy

**QUALITATIVE PARAMETERS: Look and Feel**
- community
- activity
- access to nature

**Circulation**
- core location & lifts
- means of escape
- segregation of flows
- vertical & horizontal connectivity

**Site & Operations**
- public realm & entrance
  - development zoning
  - FM Distribution
- access
Performance

1. General requirements
2. Building Structure
3. Building Core
4. Building Cladding
5. Lifts
6. Toilets & Drainage
7. Life Safety
8. Mechanical & Electrical
9. FM Enablement
In conjunction with the specific performance requirements there will also need to be considerations of design quality. Areas of specific focus will be;

- Building & Facade
- Entrance & Communal Areas,
- Landscaping,
- Internal Environmental quality
Adaptable Estate - Benefits
Thank you
Rupert.Corbett@gsttdev.co.uk