

4

Design Strategy

4.2

Building Organisation

4.2.4

Laboratory Layout Principles

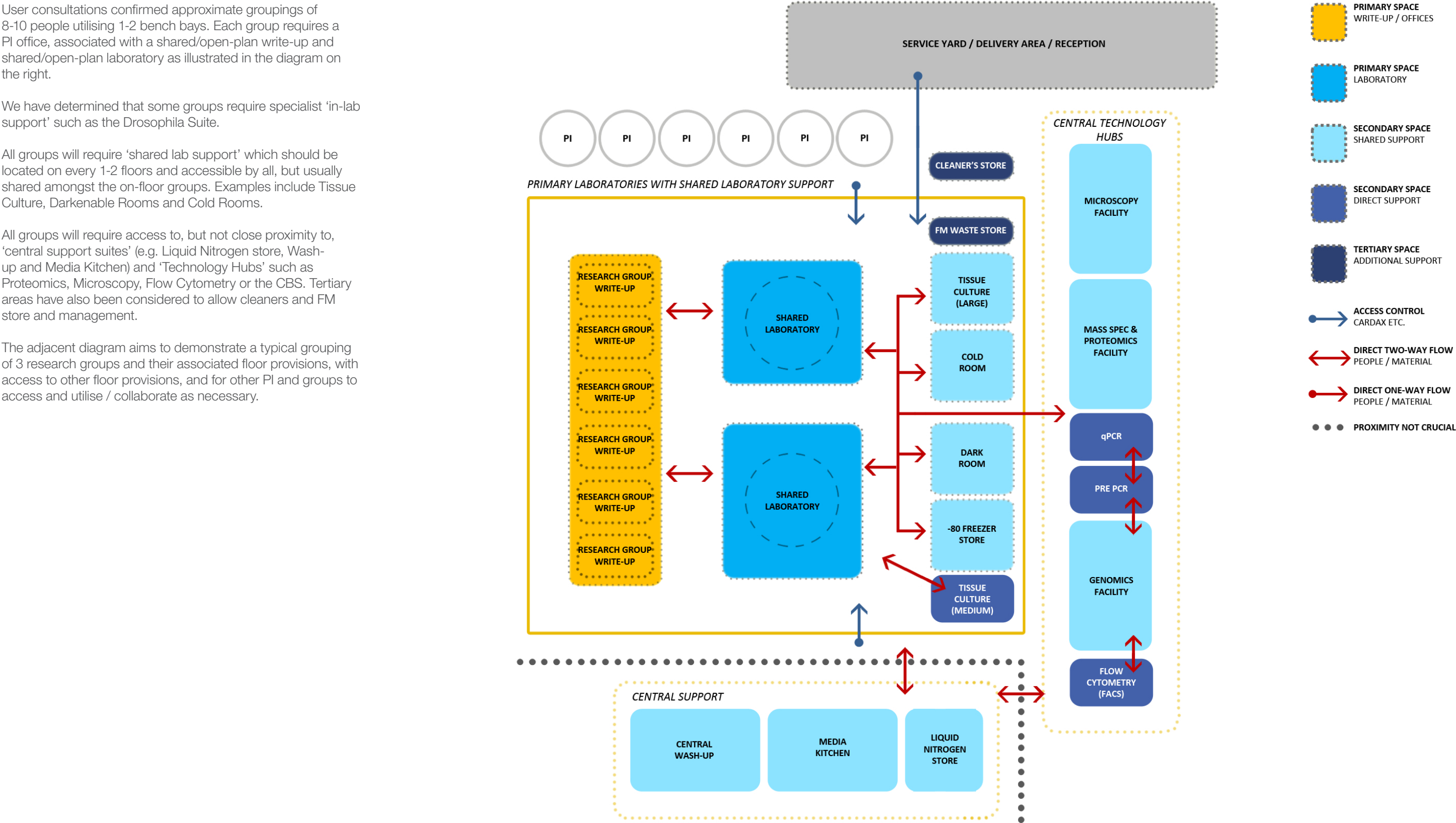
User consultations confirmed approximate groupings of 8-10 people utilising 1-2 bench bays. Each group requires a PI office, associated with a shared/open-plan write-up and shared/open-plan laboratory as illustrated in the diagram on the right.

We have determined that some groups require specialist ‘in-lab support’ such as the Drosophila Suite.

All groups will require ‘shared lab support’ which should be located on every 1-2 floors and accessible by all, but usually shared amongst the on-floor groups. Examples include Tissue Culture, Darkenable Rooms and Cold Rooms.

All groups will require access to, but not close proximity to, ‘central support suites’ (e.g. Liquid Nitrogen store, Wash-up and Media Kitchen) and ‘Technology Hubs’ such as Proteomics, Microscopy, Flow Cytometry or the CBS. Tertiary areas have also been considered to allow cleaners and FM store and management.

The adjacent diagram aims to demonstrate a typical grouping of 3 research groups and their associated floor provisions, with access to other floor provisions, and for other PI and groups to access and utilise / collaborate as necessary.



4 Design Strategy

4.3 Design Approach

4.3.1 Design Assumptions

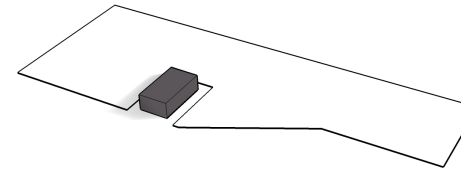
As with any emerging building project, the design and the brief are intrinsically linked. In some instances the design has informed the brief and visa versa. Below is listed some of the key considerations and assumptions that have been made whilst developing the design. These are to be monitored and reviewed as the concept design develops through RIBA Stage 2.

Key Considerations:

- Project budget of £75M, construction budget of £50M
- Space factors were interrogated by the design team and endorsed/ confirmed by the Building Working Group. A key example of this is increasing the researcher laboratory space factor from 4sqm to 5sqm.
- Dedicated user consultation sessions were held in order to best understand technical requirements/ group adjacencies and overall building layout opinions.
- Provision for a rooftop social/ flexible engagement space in all options.

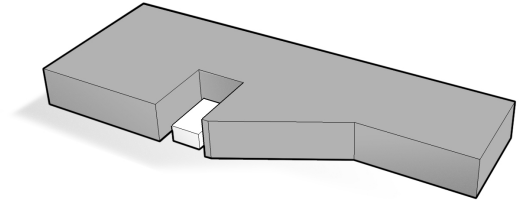
Key Assumptions:

- Retention of the existing substation on site. All current proposals assume that the building is to work around the existing substation with a further LMS dedicated substation being located elsewhere on the ground floor.
- No basement
- All CBS facilities are to be located on the ground floor. Whilst the CBS brief is still in development, the design team have assumed that the CBS will occupy the remaining area of the ground floor that is not taken up by loading areas/ storage/ entrance/ substations and ground floor critical plant. This is resulting in a reduced CBS area when compared to the initial brief.
- In-vitro imaging is to be located on the first floor. Depending on the exact equipment vibration sensitivity requirements and levels of structural movement, this may require a bespoke structural solution to isolate the imaging suites.
- No provision for future expansion



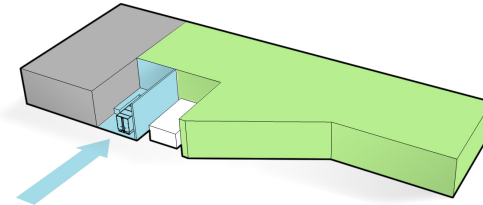
Site & Substation:

The existing substation forms a key constraint to the available footprint and design of the building



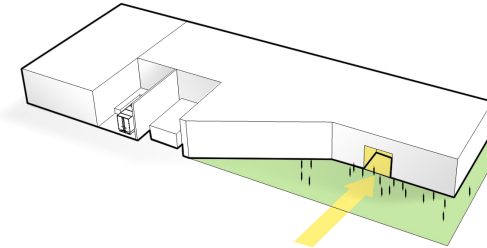
Maximising the Ground Floor:

Several programmes would benefit from being on the ground floor. These must be considered in the design approach



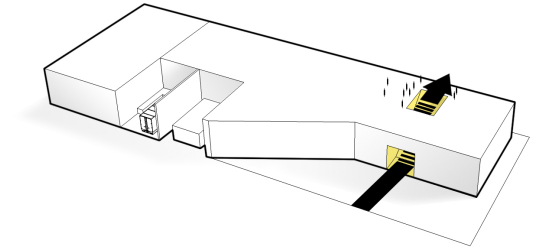
CBS & Deliveries:

Deliveries, waste storage, plant, CBS and sensitive imaging equipment to be housed on the ground floor



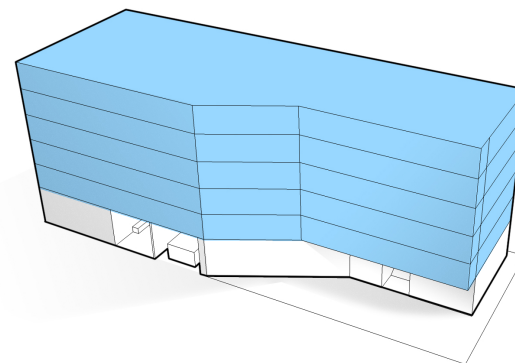
Place Making & Entrance:

Opportunity to enhance public realm between Wolfson & LMS to create a destination on the campus



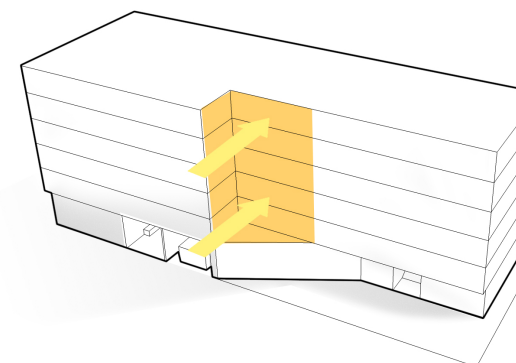
The New Ground Floor:

With the congested ground floor it is key to elevate visitors to the first floor reception area



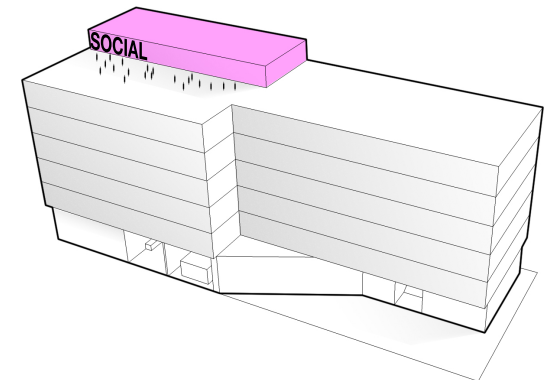
Extruding the Typical Floors

Science floors sit above the functional plinth.



Articulating the Form:

Cantilevers and rationalising the footprint creates a more architecturally sympathetic form



Social Space:

A top floor social space maximises the amazing views out over the school playing fields to The City skyline beyond