



Designing Student Residences for Higher Education in a Post COVID-19 World

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Approach

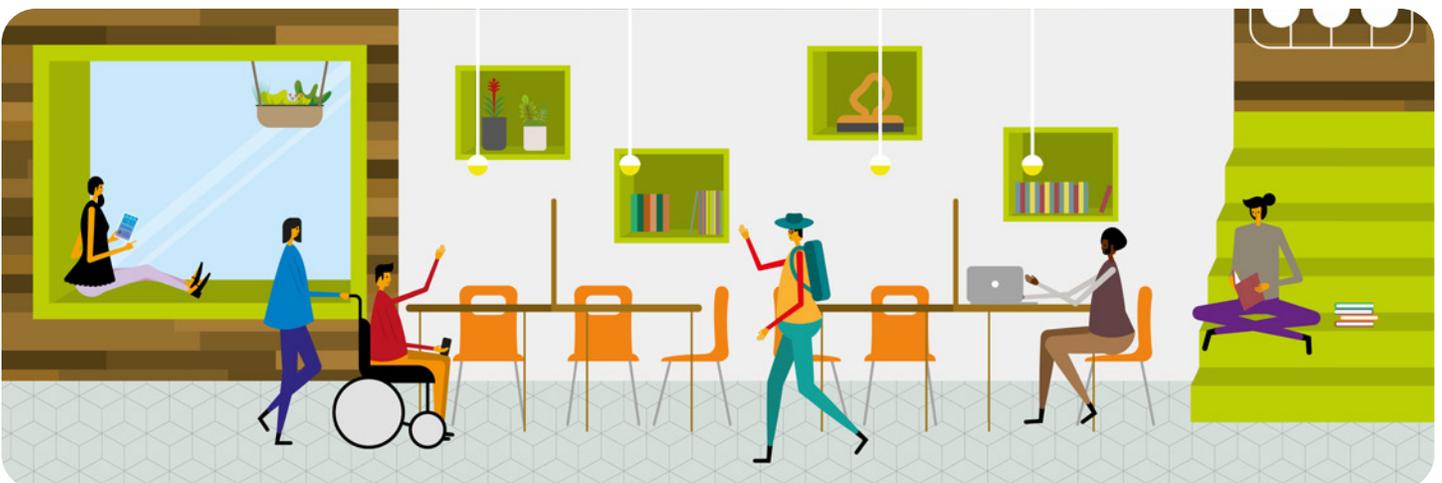
Over the past decade campus life has definitively evolved alongside the emergence of the 24/7 living-learning spectrum for students. Simply put, living and learning intersect and occur simultaneously. The built environment is being challenged to effectively respond to foster 21st century student life. No longer viewed as places to sleep and do laundry, the value of student residences as being integral to the student experience – and even becoming an effective tool for attracting and retaining students – is allowing student residences to be actively woven into the fabric of campus life.

At the advent of the current crisis, campuses across the world shut down and student residences were vacated, with a caveat: after initial confusion, stories emerged about stranded students who, unable to travel to their homes, have been granted permission to continue in residence. If we have learned anything from our current situation, it is that we cannot predict the future. What we can do though, is create a framework for nimble, resilient, forward-thinking student residence projects with vibrant live-learn environments, which are adaptable to change.

It is no doubt that COVID-19 will impact enrollments for Fall 2020, both domestic and international, and future semesters. What this means for a Student Housing Project set to open in a couple of years is hard to imagine. Or is it?

We will learn a lot more in the coming months and years about the impact of this crisis, but we have been able to organize our thoughts into four (4) areas for future trends and preparedness:

1. Student and Stakeholder Engagement
2. Macro – Campus Level
3. Meso – Residence Level
4. Micro – Floor Level





Engagement in the Times of Social Distancing

The impact of full or partial social distancing is foremost going to be felt in the process of site-specific and place-centric design itself. Participatory design and approvals processes, although differing from place to place, usually involve a series of touchpoints with various stakeholders – campus planners, faculty, subject matter experts, city departments, city councils, public agencies, interest groups, neighborhood associations, and the public at large – which we collectively label as stakeholder or public engagement.

Now that those events – from simple meetings to multi-day charrettes – have been canceled, postponed or moved behind closed doors, the obvious question is: How will this impact the collaborative design and project review process, assuming that we still want to harness stakeholder input before project approvals? The obvious (and simple) answer to this question is: Use technology. In general, we agree, but there are things to consider as you dig deeper.

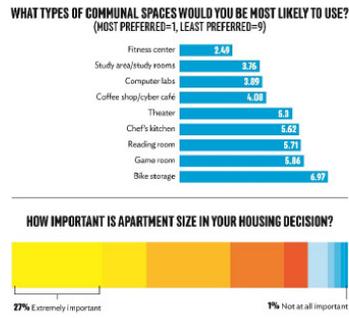
We start by applying the **90-9-1 rule**, in that the number of people participating in an engagement process can be expanded tenfold by making available simple, engaging and intuitive online engagement tools. These tools allow a small number of physical ‘creators’ to be augmented by virtual ‘contributors’, reaching out to the ‘silent majority’ and balancing the extreme or skewed input of in-person events.

We have identified ten types of stakeholder engagement activities or events that can be described through a matrix that pairs the lens of a two-dimensional interaction type viz-a-viz audience size. Each of the ten activities is a candidate to be ‘translated’ into a virtual format and to be combined with existing technological applications that work best for that environment.

1. Meetings
2. Workshops
3. Breakout Groups
4. Ideation
5. Site Visits
6. Presentation
7. Public Hearings
8. Open Houses
9. Public Events – Intercept Engagement
10. Press Conferences



Traditional engagement through walkthroughs and on-campus collaborative workshops for qualitative project development



Digital App enabled engagement for wider feedback and prioritization

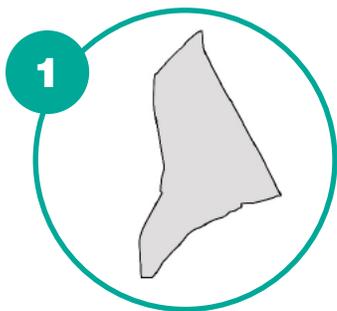


Off-campus studio engagement via charrettes for design refinement

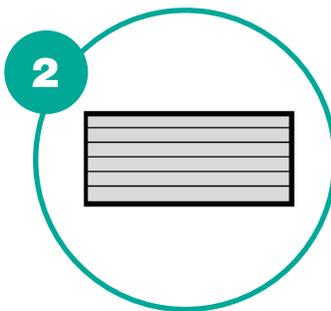
IBI Group has produced a detailed paper on these ten types of engagement and how we can continue to engage with any higher education and public institutions if social distancing measures continue indefinitely.

In summary: Our world is changing fast and physical engagement, for all the benefits it provides, is cut out of the equation for the foreseeable future. Technology, well utilized and attuned to the specific engagement need, can be leveraged immediately to do most of what we do now in a face-to-face setting. The platforms exist; it is up to us to leverage them the best we can.

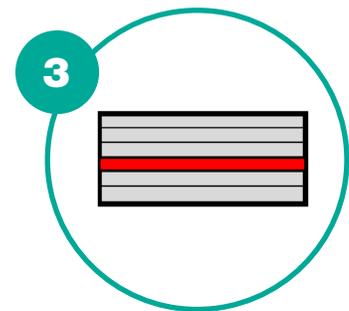
In the following pages, we discuss the design impacts on three different levels:



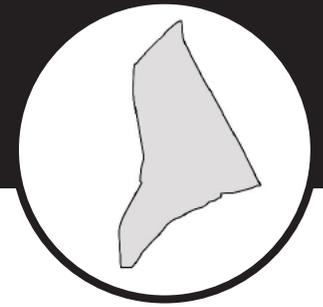
Campus Level



Residence Level



Floor/House Level



Social Distancing is a misnomer; it should really be called “Physical Distancing”. Physical Distancing is required to contain the spread of the virus, whereas social interactions (virtually or at a safe physical distance) are even more important to continue supporting learning, fostering collaborations and community, and maintaining relationships, mental health and well-being.

1. Extend the learning continuum to student residences at various scales and configurations to support individuals and small-group interactions, as well as experiential learning for single persons and groups.
2. Design to promote virtual community engagement and combating isolation and loneliness at a campus level – even during unexpected emergencies – will be an important aspect moving forward.
3. Campus placemaking that can flex to adapt to individual enjoyment and small gatherings in addition to supporting a broader community, will be an important aspect of design.
4. Provide an appropriate mix of spaces that can enable safety and self-sufficiency for those students who remain in residence during times of emergency.
5. Facilitate physical and visual access to green spaces, biomimicry, and enhancing naturalistic features to contribute to overall human health and well-being.
6. Explore strategies and design options to provide easy access to food (food farms on roofs or on a nearby open space associated to the building) would be another important issue to consider.



Left: **Being together while physical distancing** – University of Massachusetts Dartmouth, IBI Placemaking
Right: **Student Common Space** – Cornell University, College of Human Ecology



The Great Lawn – University of Rochester, NY, IBI Placemaking



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As an immediate outcome of COVID-19, when international and out-of-state/province students reconsider their options, the competition for local students will increase even more.

RES
RES
RES
RESSTUDY MAKER
SPACE LOUNGE
FITNESS CAFE GREEN
DINING LAUNDRY SPACE

*Distributed or Clustered
Social Spaces*

DINING
STUDY MAKER
GREEN SPACE
RES
GREEN SPACE
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RESFITNESS CAFE GREEN
DINING LAUNDRY SPACE

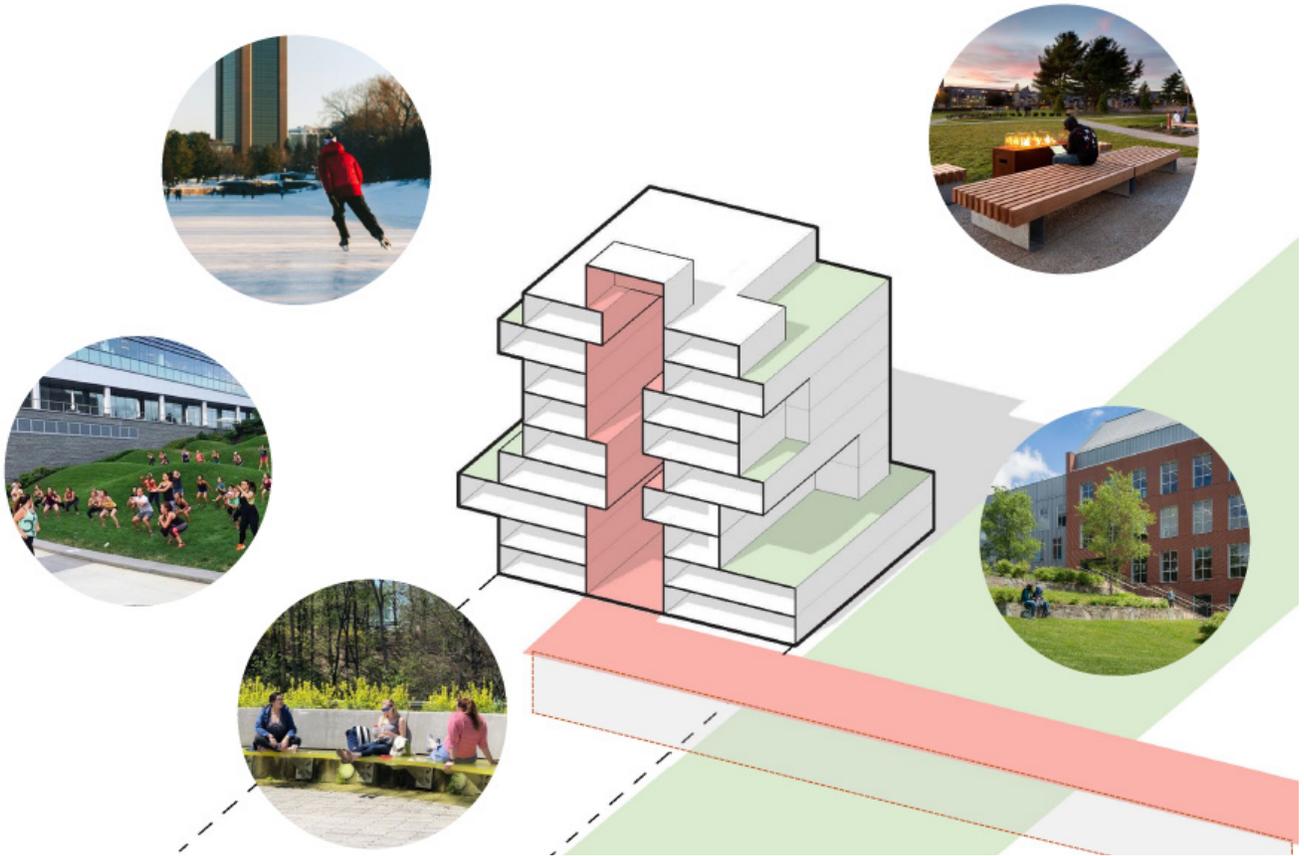
Education will be a Local Endeavour

While this would appear to be an overstatement, it is not far-fetched to conclude that what local and regional schools have to offer – relative seclusion, proximity to family and social support networks – may be in vogue again. Students and parents may have a compelling reason to prefer the regional school a town away instead of the big brand schools across the country. Furthermore, the future sustenance and growth of the internationalization of campuses, which has a direct impact on student residences, is certainly in flux.

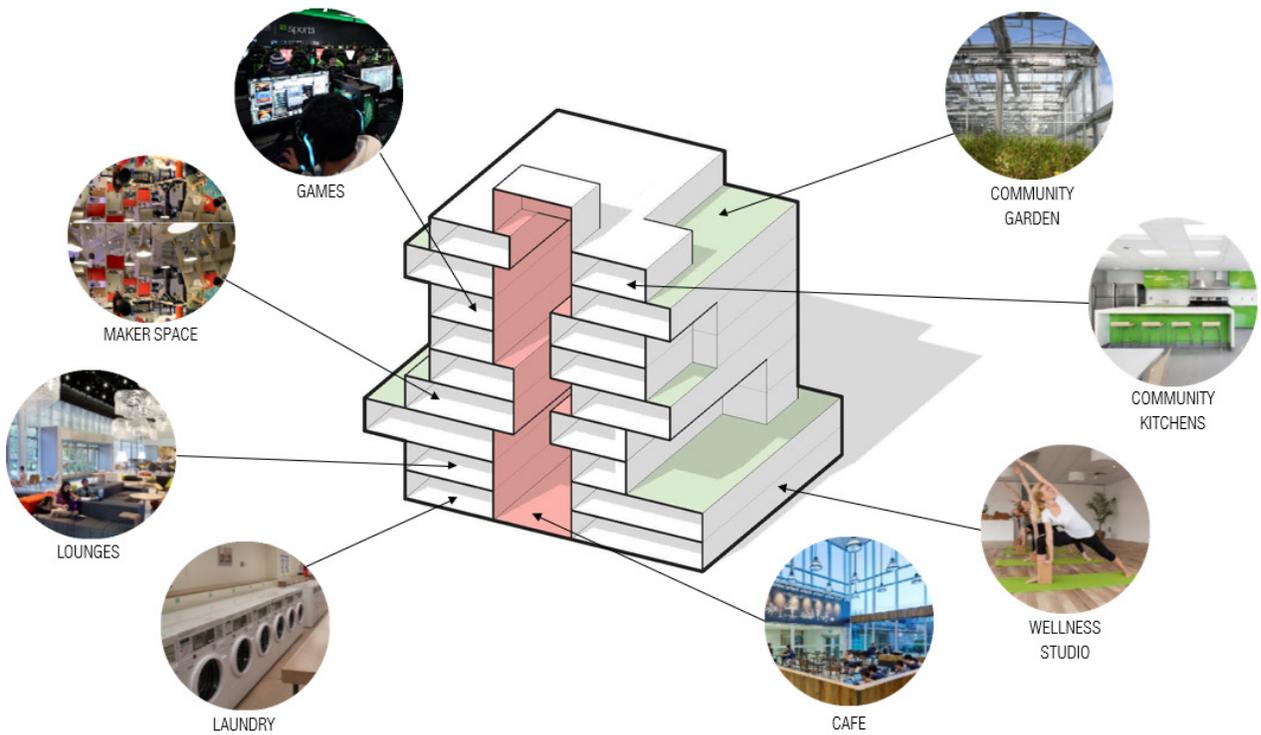
The facilities that higher education institutions offer and their improved design features will become even more important in student attraction and retention.

Some factors with an increasing impact on building design are:

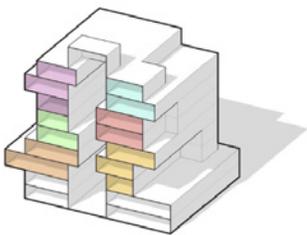
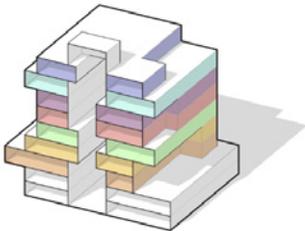
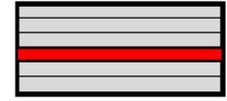
1. Defining active outdoor destinations within and adjacent to the building;
2. Framing the building as a social ecosystem and a hierarchy of socio-spatial engagement;
3. Shaping clustered and distributed social spaces;
4. Fostering learning outside the classroom for both academic and life skills; and
5. Embedding strategies and design elements that enable the separation and engagement of spaces – from the public to the private – in a manner that is agile and adaptable to changing function and circumstance.



Defining active outdoor destinations



Building as a Social Ecosystem



Horizontal or Stacked communities?

Supporting Distance Learning and Evaluation

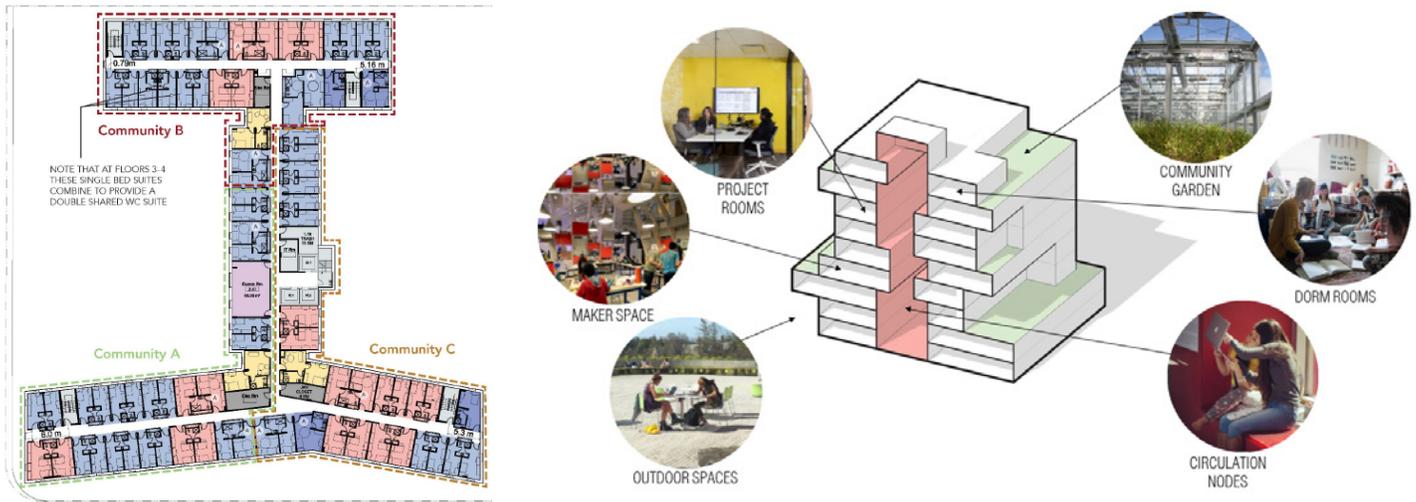
To reduce the spread of coronavirus, many universities have suspended on-campus activities like lectures, hands-on instructions and evaluations. Digital learning has been extended to all possible classes; simulation exercises previously set for distance education are being engaged; and in some cases, there are even arrangements for experiential learning to be facilitated for singular learners in isolated learning spaces. Exams and thesis defenses may be postponed or held in different formats, in an attempt to minimize the delay and award of degrees. The degree to which future isolated students in residence can seamlessly participate in similar emergency formats is an important discussion for future design projects.

Meeting the Need for Emergency Hospitals and Residences for Essential Workers or Shelters for the Homeless

It is already common practice for student residences to flex into conference facilities over the summer term, and the design considerations frequently layered into student residences for such short-term uses makes them a natural choice for being turned into temporary residences for essential workers or the homeless. In addition, future design considerations may require them to adapt to being emergency hospitals. The United Kingdom has had to create 10,000 additional beds in Emergency Hospitals, and the US Army Corps of Engineers (USACE) has created its own Alternate Care Site (ACS) program. This has several streams, including the Hotel to Healthcare Concept (H2HC).

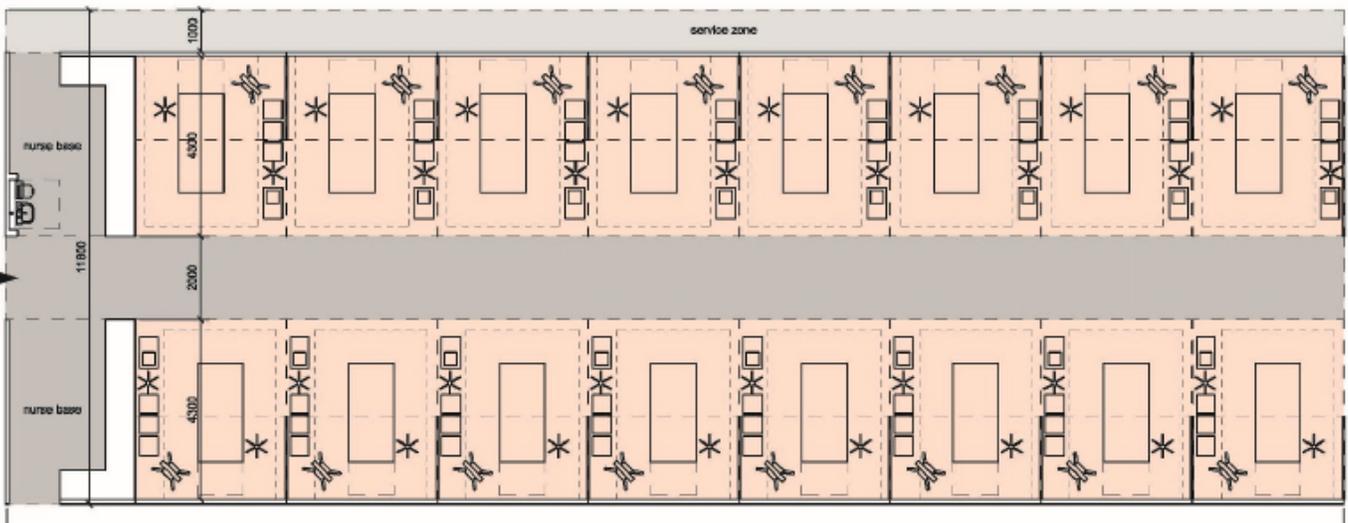
Factors having an increasing impact on floor design are:

1. **Design for Indoor Air quality (top-of-the-line fresh air ventilation)** – Present considerations for student wellness require us to re-examine fresh air changes in student residences. With respect to functioning as temporary healthcare facilities, a rough estimate would be to design redundancies that will allow them to operate at three times better than Code for ACH.
2. **Unit Mix** – Communal washrooms/shared/independent – This will be an important factor to discuss since communal washrooms could compromise the containment of future virus spreads or other emergency responses.
3. **Adaptability** – We believe Student Residences will fall into the H2HC category mentioned above, and in the future need to remain adaptable to Emergency Health Shelters.
4. **Food Access** – Explore options to provide easy access to food (food farm on roofs or on a nearby open space associated to the building).



What is the Unit Mix?

No face-to-face teaching or exams will mean increased academic programming in Student Housing projects.



Programs like the USACE H2HC program suggest that Student Housing Projects like Hotels will have to be geared towards addressing future pandemic and emergency shelter needs.

The above graphic shows a typical 16-bed ward that IBI Group's Healthcare team has developed for Emergency Hospitals in the UK and US. This level of thinking is required to create a resilient campus solution for any Higher Education institution.



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