

A strategy to face the impact of Covid-19 and technology disruption on higher education in the 2020-2025 lustrum

6 – 8 July 2021

Teaching and Learning Conference 2021

Teaching in the Spotlight: What is the Future for HE Curricula?

Hosted on the Advance HE virtual conference platform

London South Bank University
Division of Civil and Building Services Engineering
School of Built Environment
103 Borough Road, London SE1 0AA



Dr Hector U. Levatti



Mr Simon Leung



Dr Ivana Kraincanic



Dr David McGovern

“AdvanceHE

EST 1892
LSBU



Dr Hector U. Levatti

BEng (Hons) MSc PhD FHEA

Senior Lecturer

Course Director for BEng (Hons) Civil Engineering

levattiH@lsbu.ac.uk



Mr Simon Leung

BEng (Hons) MSc DIC MRes CEng MIStructE MICE MIEI

Senior Lecturer in Structural Design

Course Director for BEng Civil Engineering Apprenticeship

LeungS2@lsbu.ac.uk

Division of Civil & Building Services Engineering

School of Built Environment and Architecture

London South Bank University

103 Borough Road, London SE1 0AA

Content

- Introduction
- Technology Disruption
- How to promote resilience and creativity?

Learning Outcomes

Delegates will be able to:

- Learn to work **collaboratively** as Higher Education professionals;
- Demonstrate **resilience, adaptability** and **creativity**;
- Improve student **online engagement** and **pedagogy** using an **inclusive** and **effective** learning environment.

Introduction

London South Bank University
Division of Civil and Building Services Engineering
School of Built Environment
103 Borough Road, London SE1 0AA

“AdvanceHE

EST 1892

LSBU

Identify the problem

We found that the main problems in education are:

- Improve or keep the engagement
- Have an effective feedback and communication
- Constant and accelerated changes because of technology



Internal



External

Concepts that need to be understood

- Technology disruption and Covid-19 pandemic
- Change in the education paradigm
- Student engagement strategies
- Feedback and communication

Technology Disruption

London South Bank University
Division of Civil and Building Services Engineering
School of Built Environment
103 Borough Road, London SE1 0AA

“AdvanceHE

EST 1892

LSBU

Technology Disruption

This work was motivated by Covid-19 pandemic and the need of shaping the future of higher education under technology disruption.

- Covid-19 pandemic is not the problem. The problem is the **technology disruption** and **global problems** like the climate change.
- We need to answer **fundamental questions** like:
- For **us**, what is the main role of academics?
- For **students**, what is the professional profile that is fit for the future?

We hope to contribute with this work to shape the future of education in the Civil Engineering field and others.

Tools that can help



‘What a year it has been lecturing
on screen.’



Panopto™



EST 1892
LSBU

Soft Skills and Competencies

Top 10 skills for 2025 advised by the world economic forum.

- Analytical thinking and innovation.
- Active learning and learning strategies.
- Complex problem-solving.
- Critical thinking and analysis.
- Creativity, originality, and initiative.
- Leadership and social influence.
- Technology use, monitoring, and control.
- Technology design and programming.
- Resilience, stress tolerance and flexibility.
- Reasoning, problem-solving and ideation.

Source: <https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-how-long-it-takes-to-learn-them/>

Top 10 skills for 21st Century advised by Work Channel Professional Recruitment

- Motivation
- Collaboration
- Adaptability
- Global Citizenship
- Digital Literacy
- Communication
- Empathy
- Curiosity
- Open to new ideas
- It is not what you know but who you know

Source: <https://work-channel.com/top-10-skills-successful-21st-century-worker/>

What do academics need to face their future profession?

- Continuous education (our world is dynamic)
- Flexibility
- Adaptability
- Resilience

How to teach a module with engagement?

- Continuous **summative assessment** to achieve engagement (balance)
- Use the proper tools (e.g. MS Teams to survive the Covid-19 pandemic)

Remember: Technology provides tools, no more, no less



Source: <https://medium.com/@raihamalik/effective-communication-5321d663ee5a>

What are the issues with feedback and communication?

- Continuing communication (balance not to overwhelm students)
- Feedback is not unidirectional but bidirectional, it is communication



Source: <https://www.poynter.org/reporting-editing/2019/cohort4/>

How to promote resilience and creativity?

London South Bank University
Division of Civil and Building Services Engineering
School of Built Environment
103 Borough Road, London SE1 0AA

“AdvanceHE | EST 1892 **LSBU**



Lecturers

Learners



Group Work

- Setup as private channels
- Provide a platform to share files, weekly meetings
- Annotations, brainstorm ideas
- Live meetings are recorded
- Weekly actionable tasks
- Motivation, guidance and teamwork
- Management & organisation



Activity

Chat

Teams

Calendar

Calls

Files

Apps

Help

Search

London South Bank University

Teams

Group Design Project A (BEA_6_424)

General

Breakout - (DR 4.00pm) Group 3

Breakout - (DR 4.25pm) Group 6

Breakout - (DR 4.50pm) Group 9

Breakout - (DR 5.15pm) Group 12

Breakout - (DR 5.40pm) Group 15

Breakout - (SL 4.00pm) Group 1

Breakout - (SL 4.25pm) Group 4

Breakout - (SL 4.50pm) Group 7

Breakout - (SL 5.15pm) Group 10

Breakout - (SL 5.40pm) Group 13

Breakout - (SV 4.00pm) Group 2

Breakout - (SV 4.25pm) Group 5

Breakout - (SV 4.50pm) Group 8

Breakout - (SV 5.15pm) Group 11

Breakout - (SV 5.40pm) Group 14

S1 WK02 (27.09.2020) - GDP Session

S1 WK03 (06.10.2020) - GDP Session

S1 WK04 (13.10.2020) - WSP Webinar 1

S1 WK05 (20.10.2020) - GDP Session

S2 WK01 (26.01.2021) - Preparation

S2 WK02 (02.02.2021) - Preparation

S2 WK03 (09.02.2021) - GDP Session

S2 WK04 (16.02.2021) - GDP Session

S2 WK05 (23.02.2021) - WSP Webinar 3

S2 WK06 (02.03.2021) - GDP Session

S2 WK07 (09.03.2021) - GDP Session

S2 WK07 (10.03.2021) - WSP Webinar

S2 WK08 (16.03.2021) - GDP Session

S2 WK09 (23.03.2021) - GDP Session

Join or create a team

Breakout - (SL 4.25pm) Group 4

Posts

Files

+ New

↑ Upload

Copy link

Download

+ Add cloud storage

Open in SharePoint

All Documents

Breakout - Group 4

	Name	Modified	Modified By
	01 Design Brief	September 29, 2020	Lomas, Karl 2
	02 Minutes of Meetings	September 29, 2020	Lomas, Karl 2
	03 Preliminary Sketches	October 6, 2020	Pescodd, Mark Dav...
	04 Miscellaneous	October 20, 2020	O'malley, Sean 2
	05 Revit	November 10, 2020	King, James Andre...
	06 Calculations	November 17, 2020	O'malley, Sean 2
	07 Programme & costs	November 17, 2020	Lomas, Karl 2
	08 Concrete Specification	March 9	O'malley, Sean 2
	09 Fire Durability Disproportionate collapse	March 9	Pescodd, Mark Dav...
	10 FINAL SUBMISSION	March 16	Pescodd, Mark Dav...
	11 Method Statement	March 23	Lomas, Karl 2
	PRESENTATION	April 12	Pescodd, Mark Dav...
	Sustainability Report	March 30	Pearce, Lyndon Ja...
	BEA_6_424 Peer Review Assessment.pdf	September 29, 2020	Pearce, Lyndon Ja...
	CIRIA C580 Embedded retaining walls - Gui...	February 16	Leung, Simon 2
	Concrete Centre_Thermal Mass.pdf	October 27, 2020	Pearce, Lyndon Ja...
	Flooring_121119_low.pdf	November 16, 2020	Pearce, Lyndon Ja...
	Group Design Project- Group 4 Coursework...	December 6, 2020	Pescodd, Mark Dav...

Activity

Chat

Teams

Calendar

Calls

Files

...

Apps

Help

LSBU-BEA6242-Group 4 - Meeting ...

Search

London South Bank University

FileHomeInsertLayoutReferencesReviewViewHelpOpen in Desktop AppTell me what you want to doEditing

Immersive ReaderZoom100%100%RulerNavigationHeader & FooterFootnotesEndnotesPage Ends

Division of Building Services and Civil Engineering
School of the Built Environment and Architecture
London South Bank University
103 Borough Road
London, SE1 0AA

BEA_6_424 Group Design Project

MEETING MINUTES

Group No.	4	Present	Apologies
Meeting Date	16/03/2021		
Time	16:00		
Venue	MS Teams		
Chair	Karl Lomas		
Minutes by	Karl Lomas		
Minutes Issued	16.03.21		

ITEMS	ACTION	DATE
1. Comments on Previous Meeting Minutes		
1.1 – None	Note	
2. Clients Brief and Queries		
2.1 – SL confirmed columns and shear walls can continue to ground floor slab level. Transfer level does not have to be considered.	Note	N/A
2.2 – SL confirmed that steel structures are possible but would then be ineligible for the concrete society competition.	Note	N/A
2.3 – JK / LP & MP asked about BREEAM detail. SL confirmed to only include elements to be considered by a structural engineer e.g., recycled material.	Note	N/A
2.4 – Submission date changed to 29 th March	Note	N/A
3. Design Issues, Progress & Actions		

BEng (Hons) Civil Engineering, Final Year | Courtesy to Group 4

5 pages781 wordsEnglishText Predictions: On100%Give Feedback to Microsoft

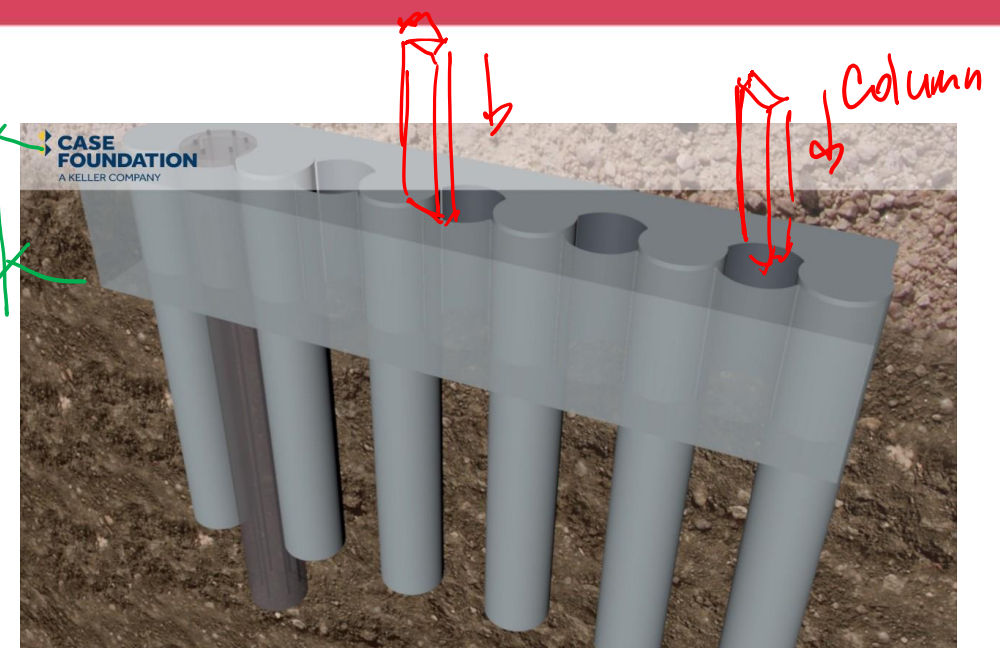
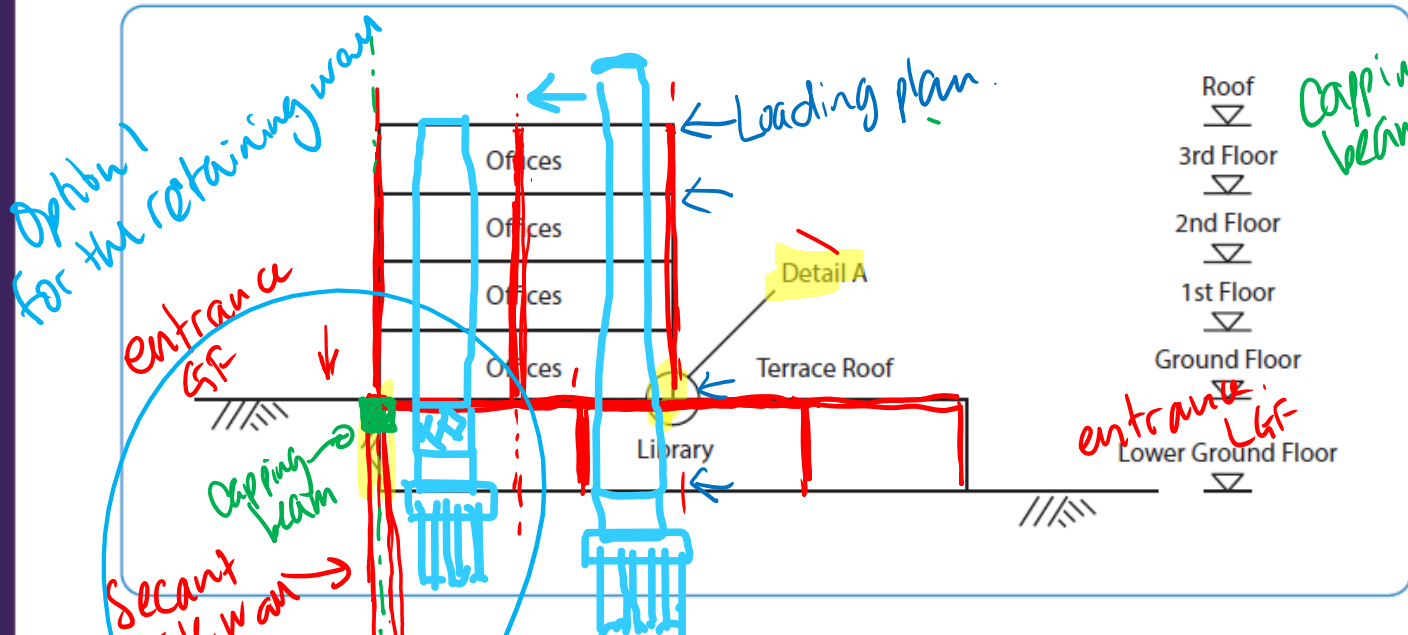


Figure 2: Section A-A

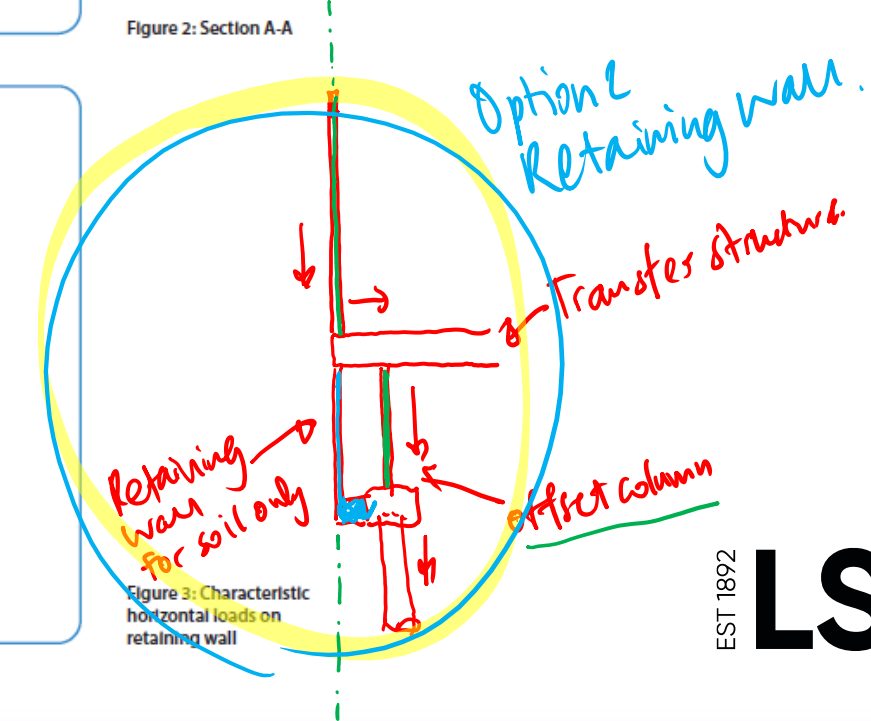
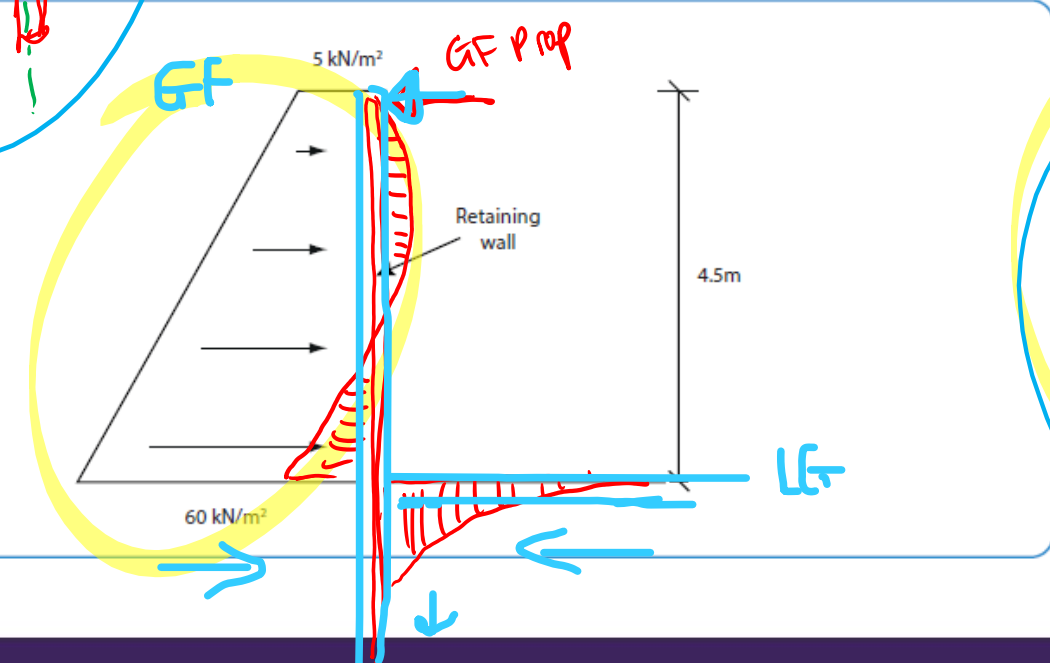
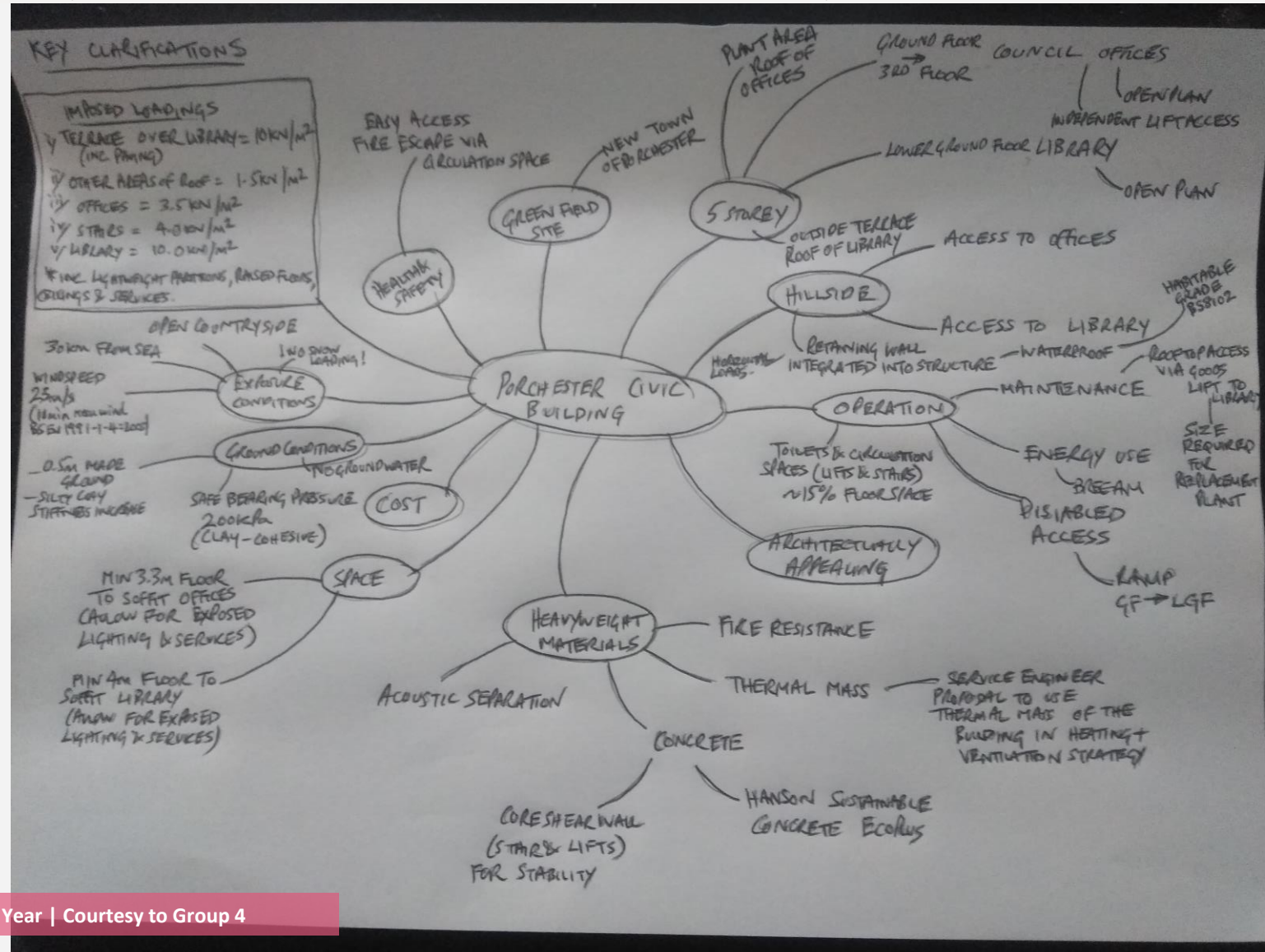
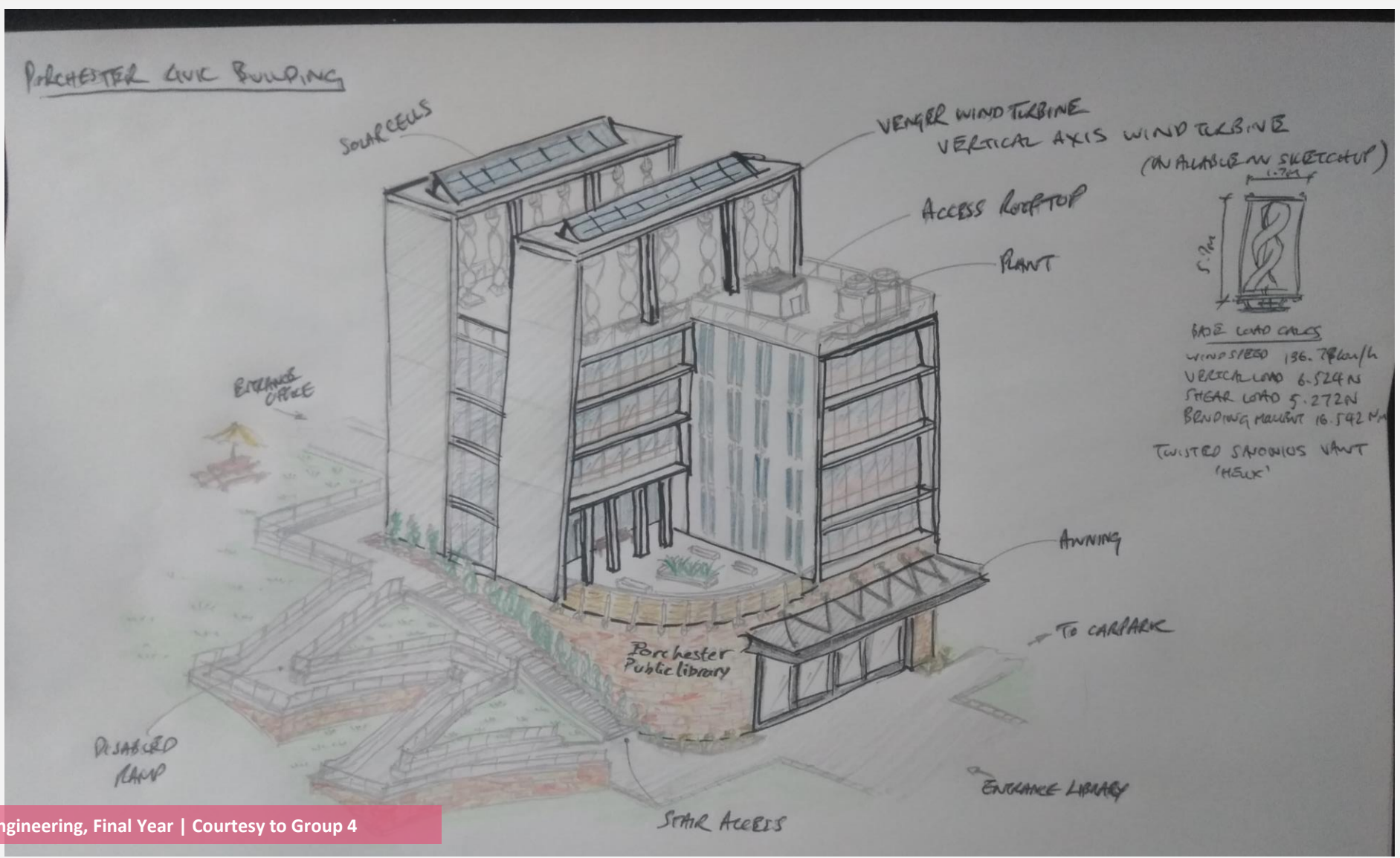
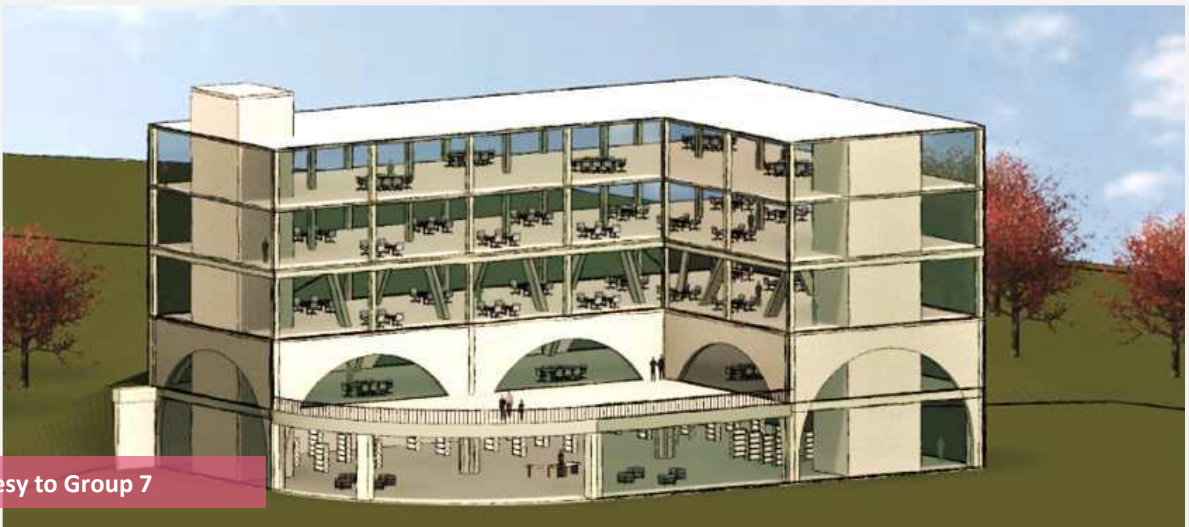
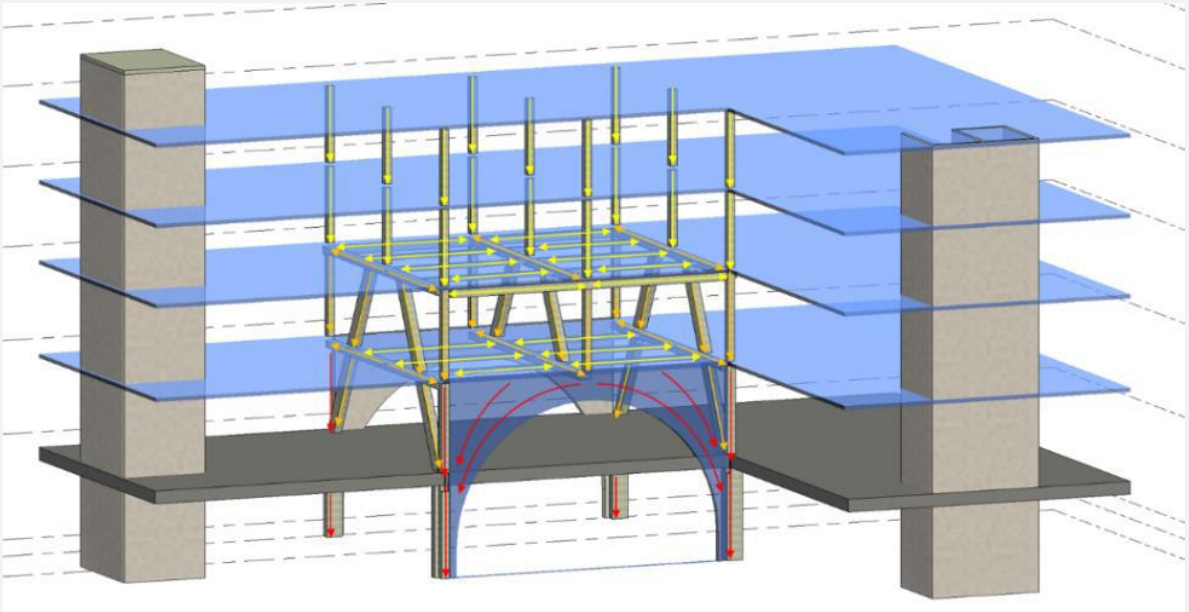


Figure 3: Characteristic horizontal loads on retaining wall







BEng (Hons) Civil Engineering, Final Year | Courtesy to Group 7



PROJECT ACHIEVEMENTS

- ✓ EFFICIENCY
- ✓ ELEGANT DESIGN

Key Summary

- We need to **teach**, **study**, and **learn** faster than ever.
- The most important is to learn how to **learn effectively** and develop **flexibility**, **adaptability**, **resilience** but as well develop **creativity** and **critical** thinking (and more).
- We must take advantage of systems like **Moodle**, **MS Teams**, **Panopto** and others to be more efficient or at least effective when teaching.
- Understand that **problems** can be resolved in many ways and using different tools.
- In universities, the main issue is **engagement**, which relates to **student satisfaction**, **retention**, **progression**, and **assessment**.
- Feedback is **bidirectional** from academics to students and from students to academics. Feedback is **communication** and communication is key to success.

Any Questions?



Dr Hector U. Levatti



Mr Simon Leung



Dr Hector U. Levatti



Dr David McGovern

London South Bank University
Division of Civil and Building Services Engineering
School of Built Environment
103 Borough Road, London SE1 0AA

“AdvanceHE

EST 1892 **LSBU**