



# CEE 220B Design Project of the Sustainable Building

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# Outlines

- My Design Objectives
- Location
- Work through in my model
- Key features of my building
- Reflections



**Atlassian's new headquarters**

# My Design Objectives

- 1 Energy Efficiency
- 2 Reduce Water Use
- 3 Cost Reduction

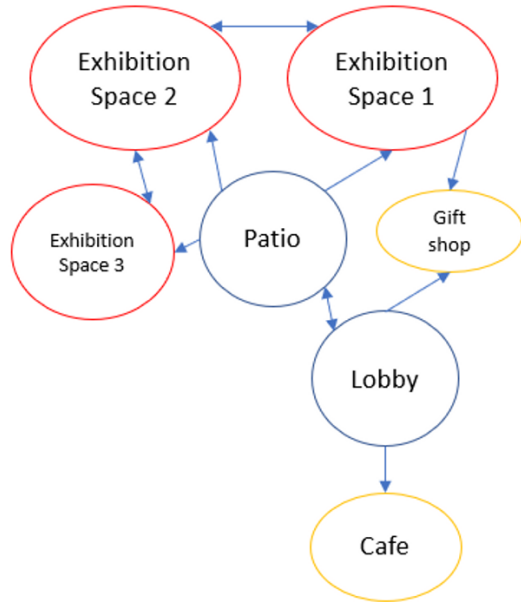
# Location – Dish Hill

- Mild Climate
- Educational Atmosphere
- Superb View
- Paved access roads for hiking

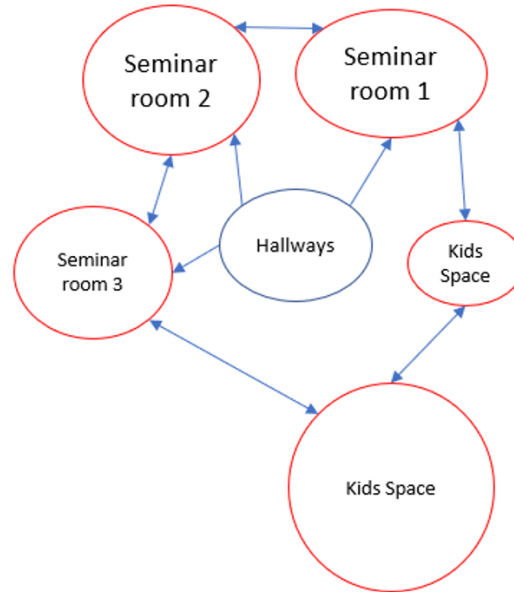


# Demo

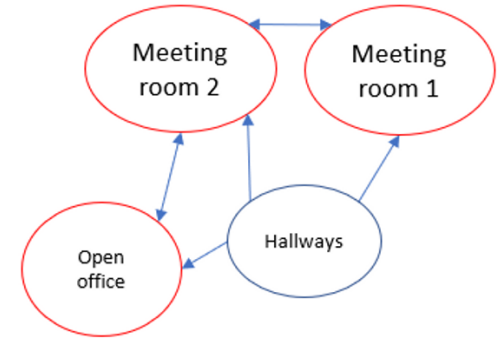
Basement



Level 1

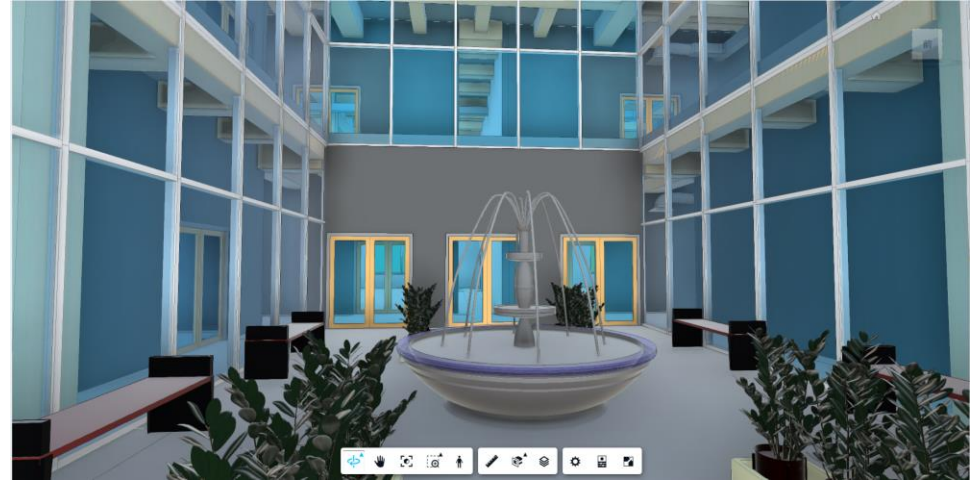
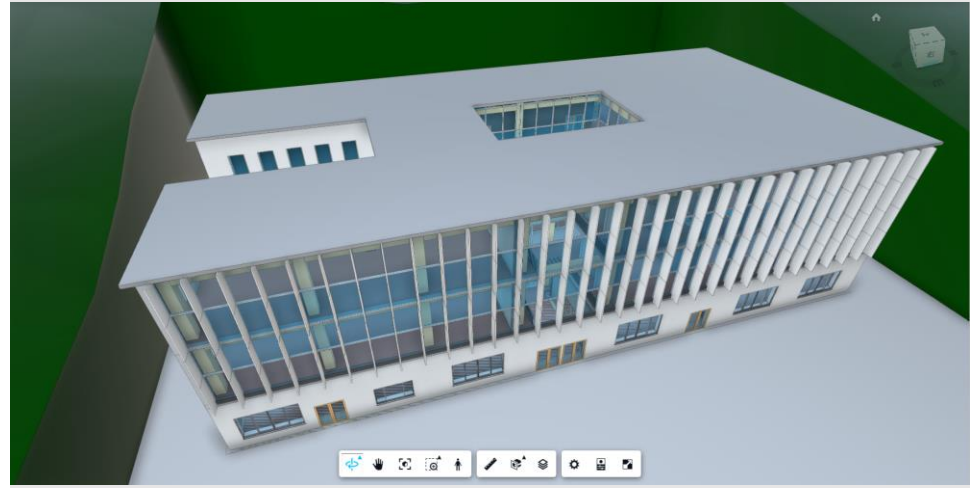


Level 2



# Key feature – Courtyard

- Courtyard located at the center of the building
- Daylight utilization
- Curtain walls
- Fountain with rainwater
- Vegetation



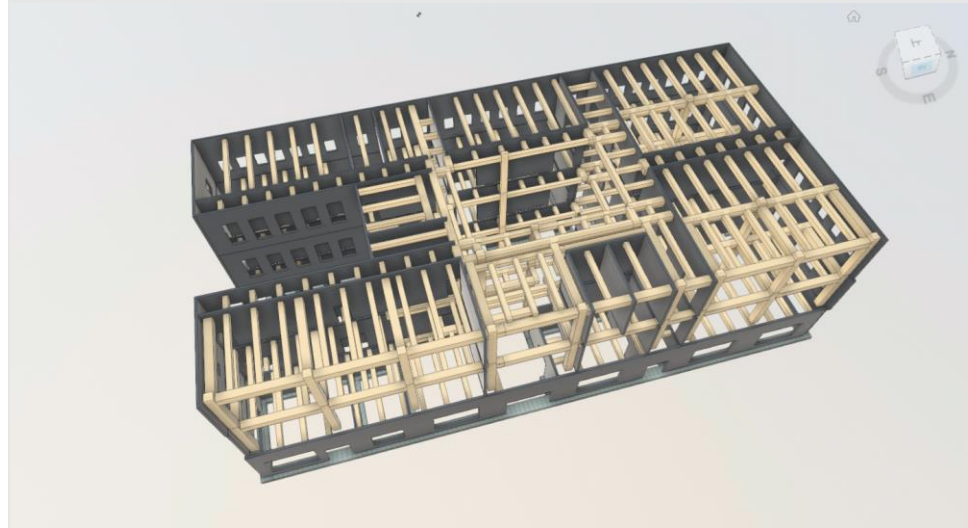
# Key feature – Sunshade Fins

- Panoramic view faced to the downhill
- Curtain wall with sunshade fins
- Sunlight control on the East side



# Key feature – Mass Timber Structure

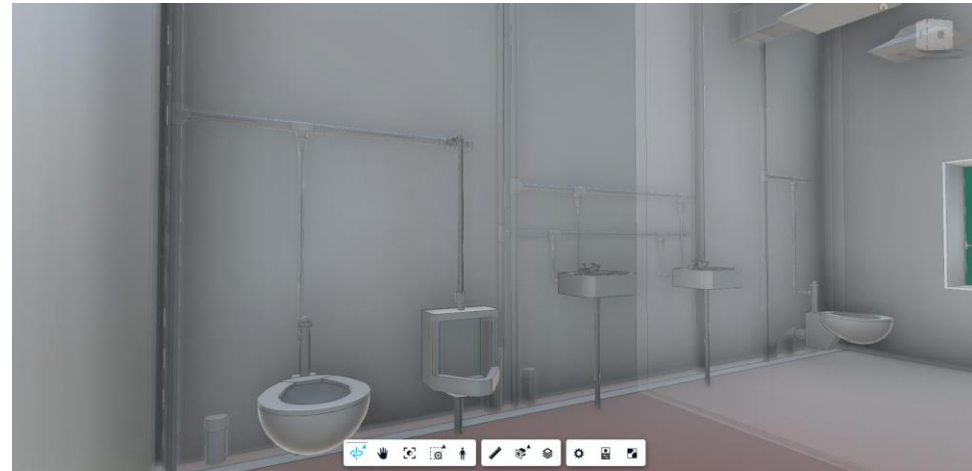
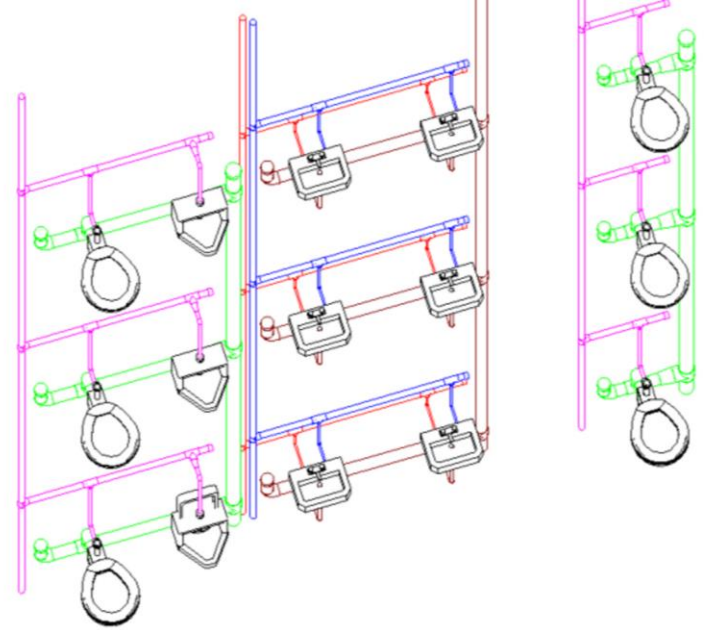
- Mass Timber for maximizing sustainable materials
- Structure walls for large spaces with minimizing the number of columns
- Big columns and beams faced to the main façade for appealing to visitors





# Key feature – Greywater system

- Greywater system for the toilets
- Water consumption and cost saving
- Rainwater utilization for the fountain and vegetation



# Reflections

- Incorporating as much information as possible in the early design phase
- Iterations of coordinating multiple design plans are required to improve accuracy of models
- In an actual project, effective collaboration of the stakeholders is the key to achieve the high-performance building