

Tell the world: We are more than Scan-to-BIM

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Associate Professor, Dept. of Infrastructure Eng.

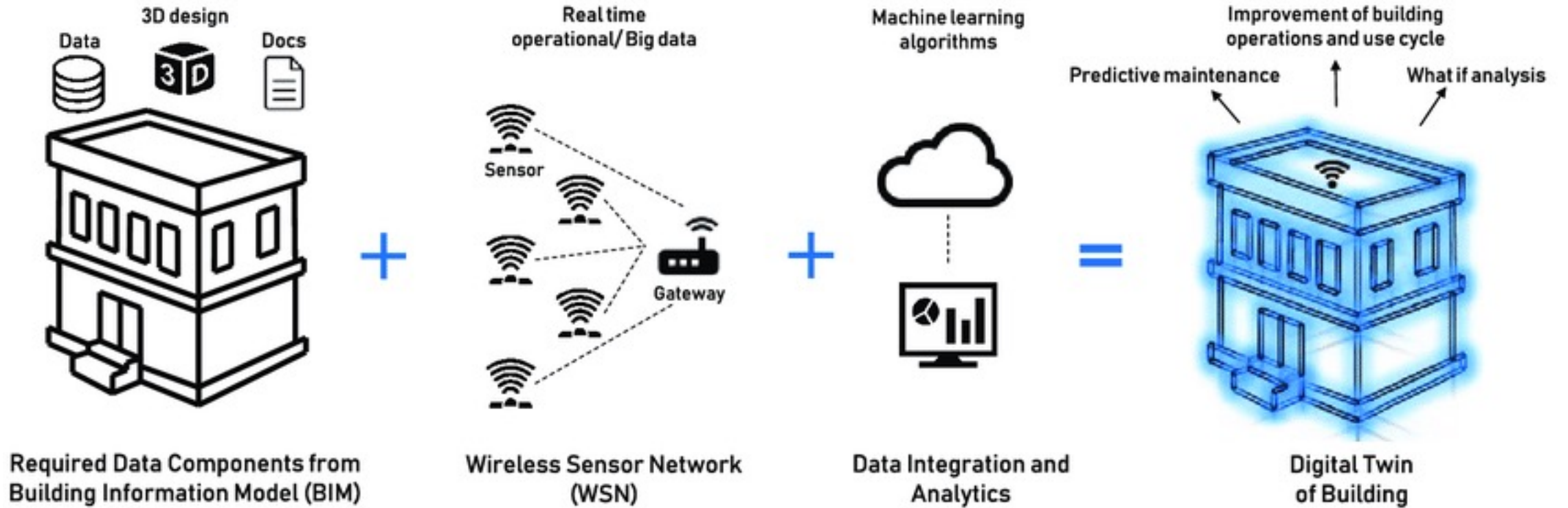
Associate Director, Centre for SDIs and Land Administration





A DIGITAL TWIN

A digital twin of building



BIM as a process

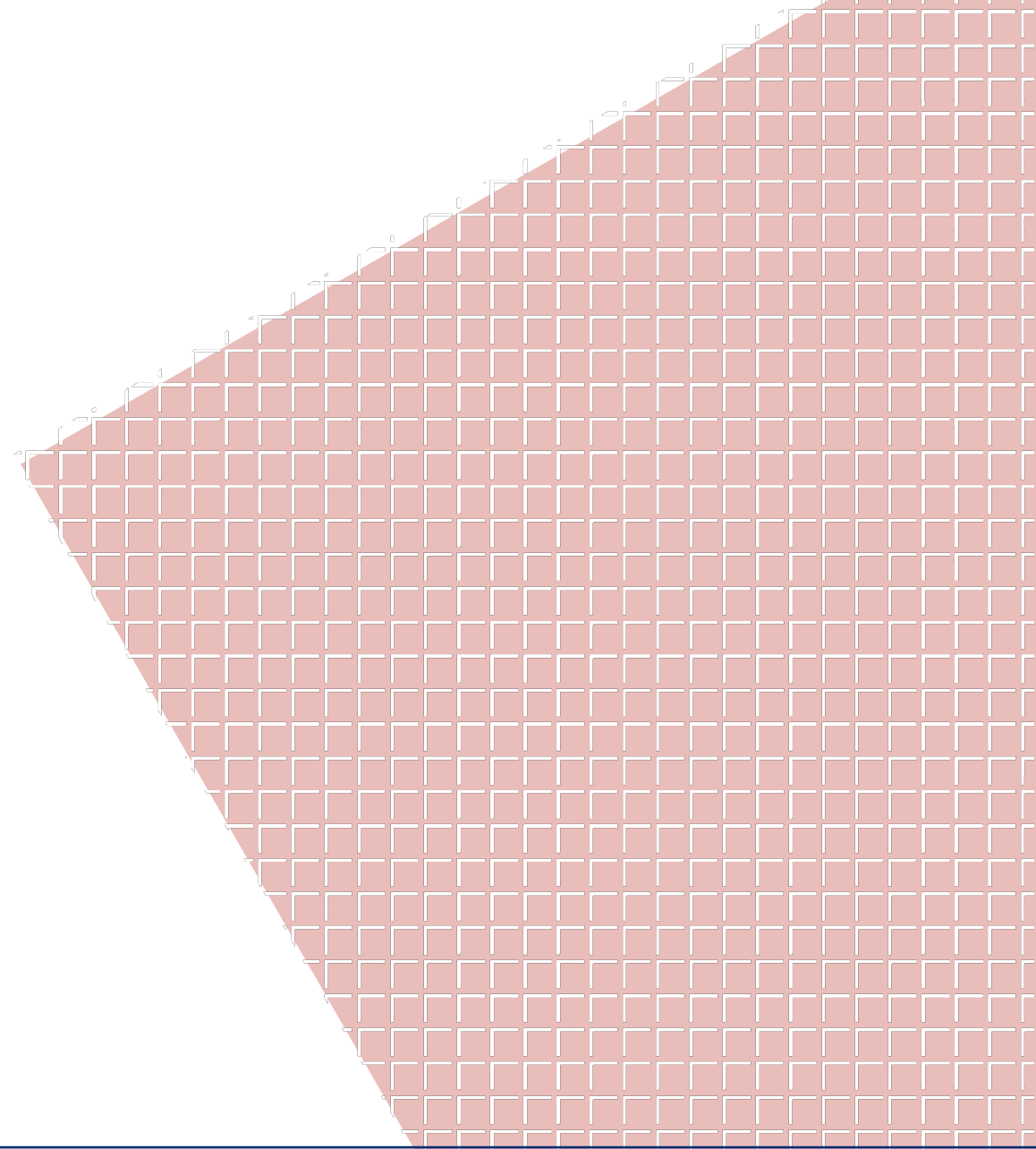


BIM as data

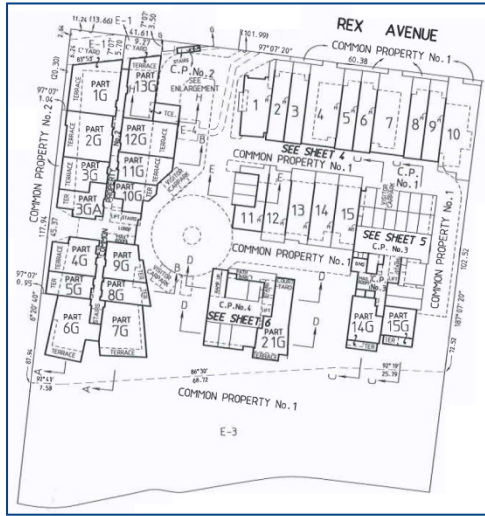




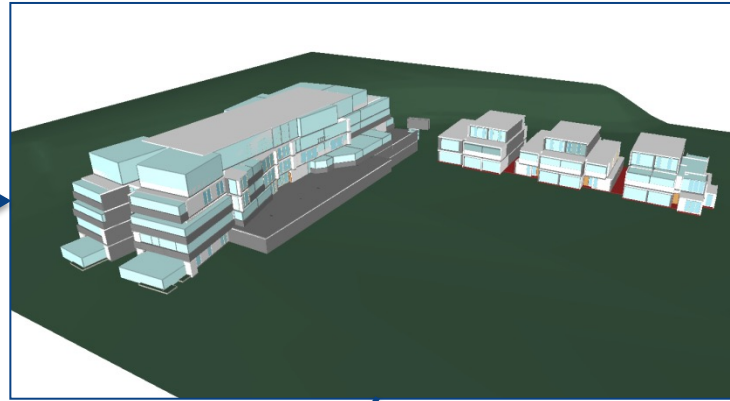
BIM for Land Administration



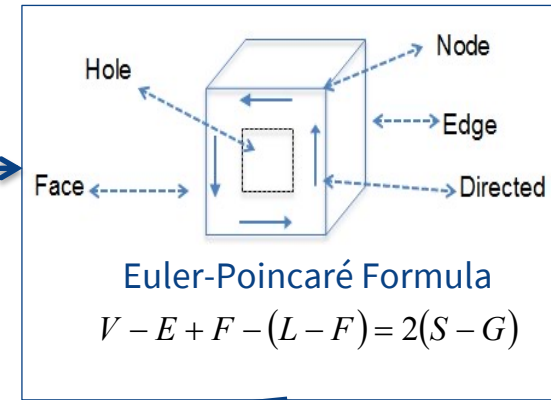
Subdivision Plan



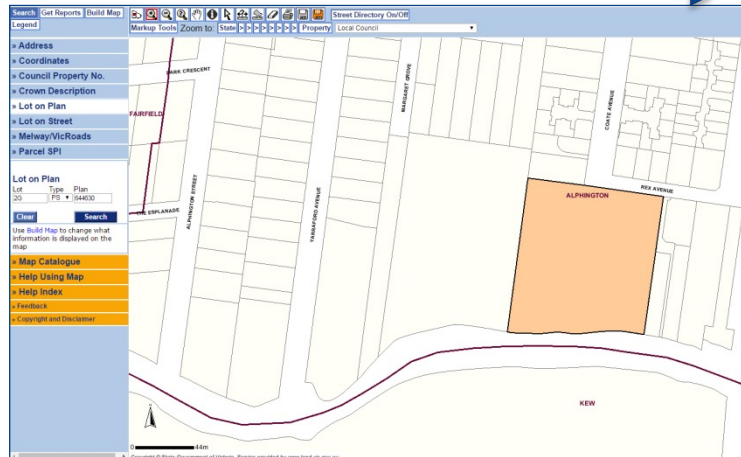
3D Digital Subdivision Model



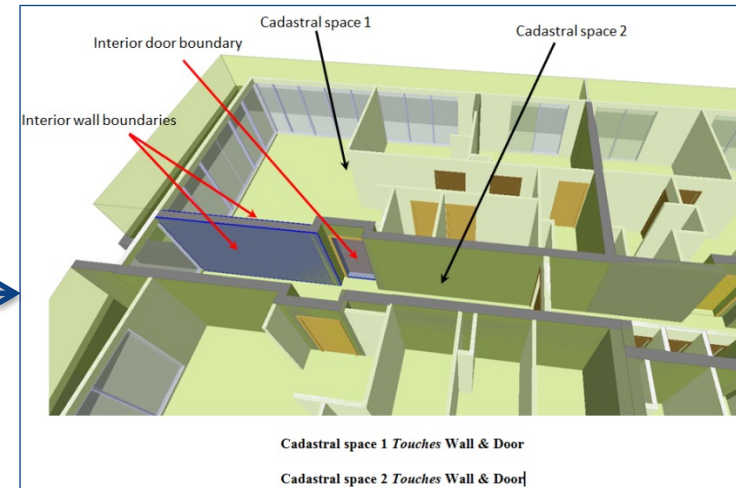
Validate Model



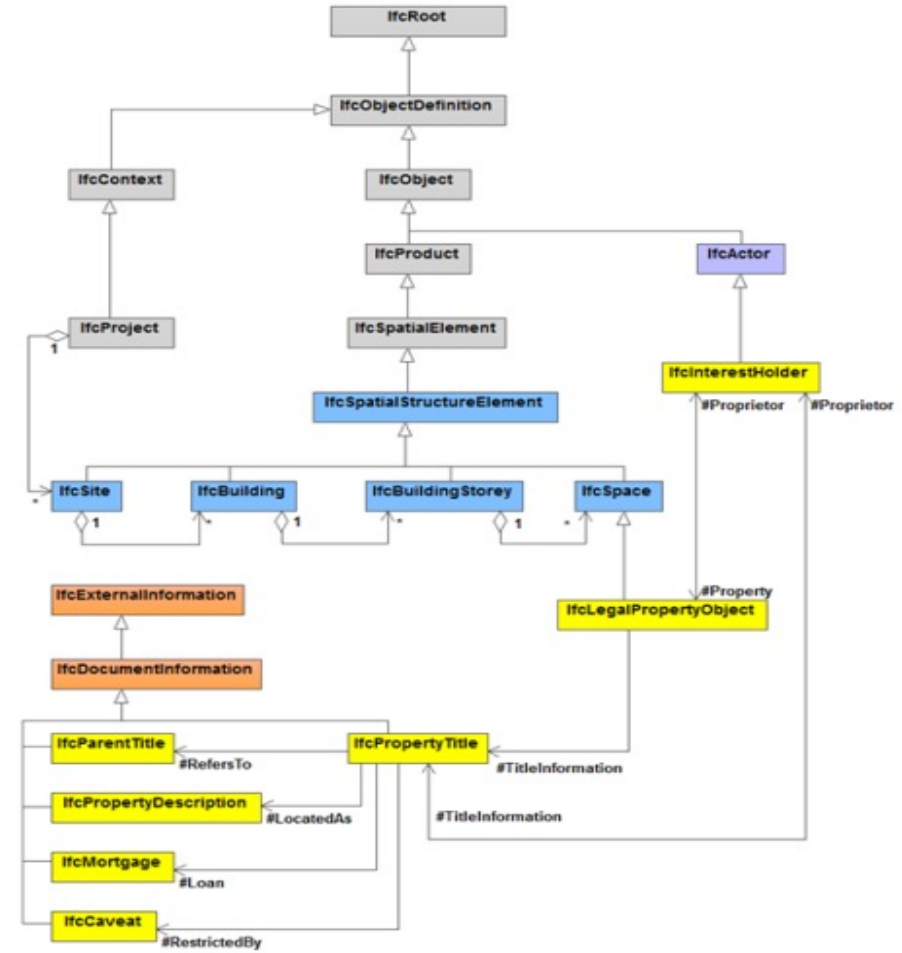
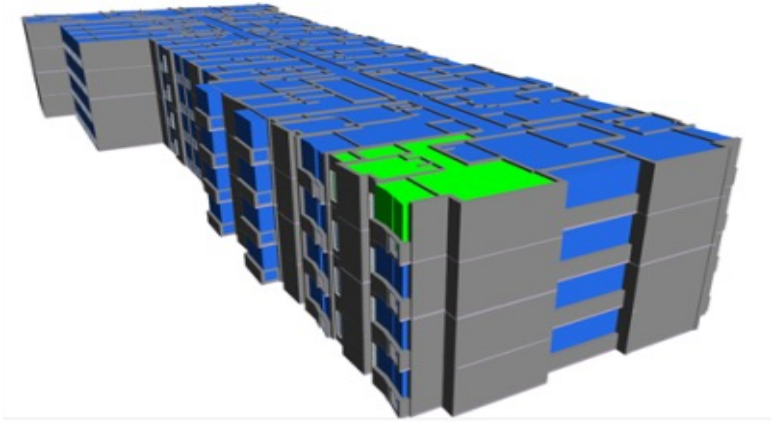
Integrate 3D Model into Property Map Base



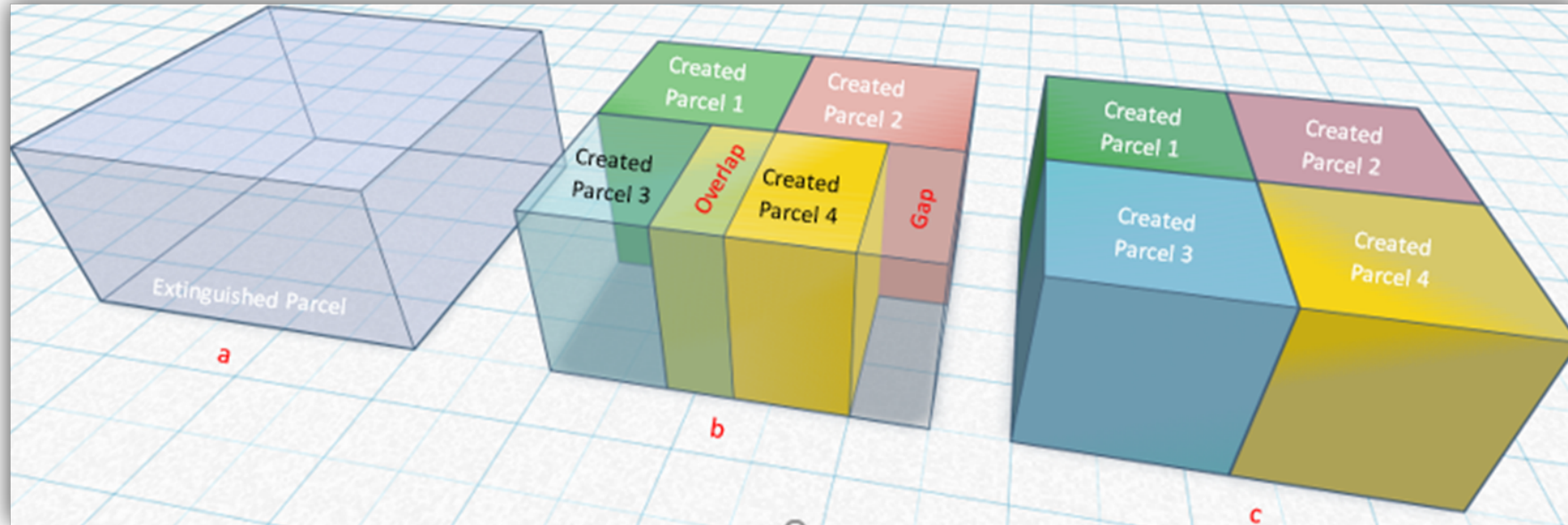
3D Spatial Operations on Property Map Base



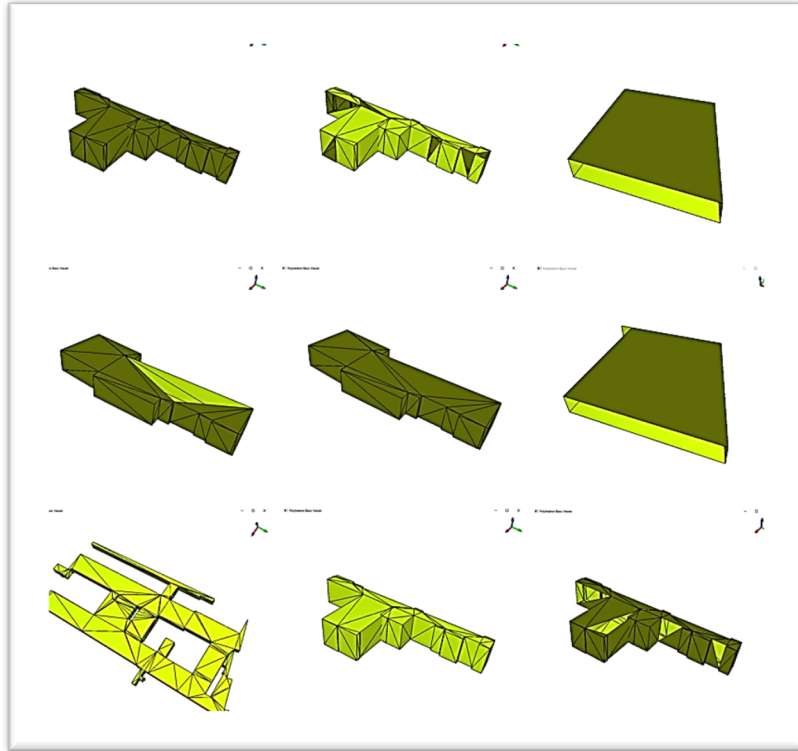
How can we model ownership using BIM?



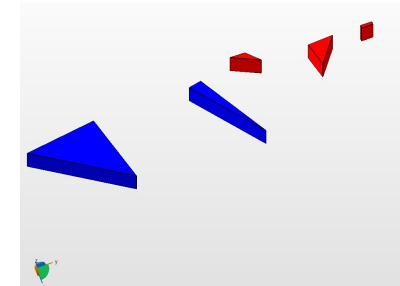
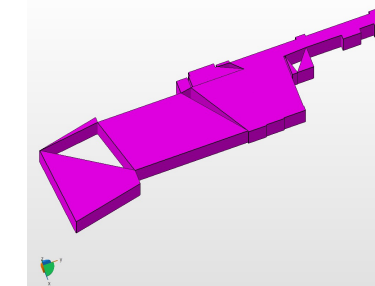
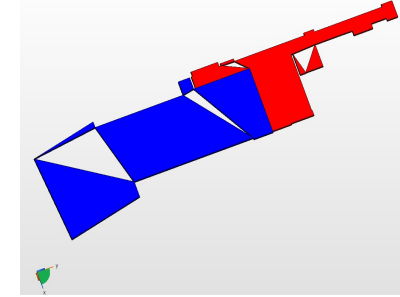
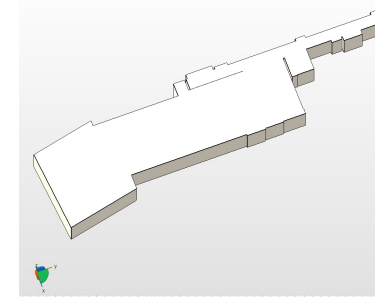
How can we validate 3D cadastre of BIM?



How can we validate 3D cadastre of BIM?



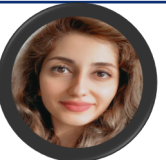
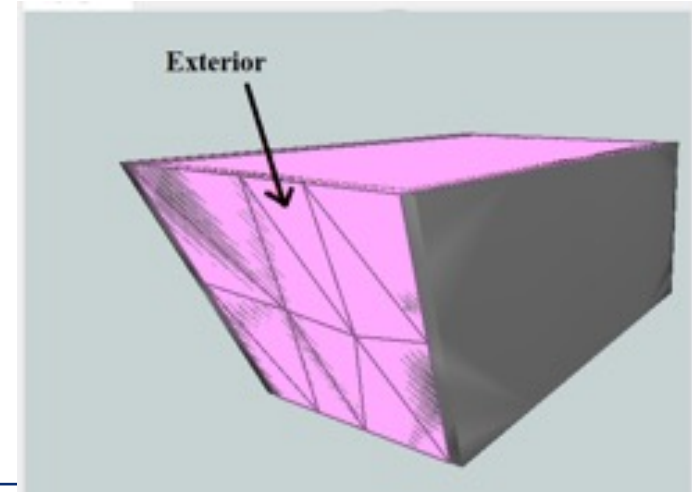
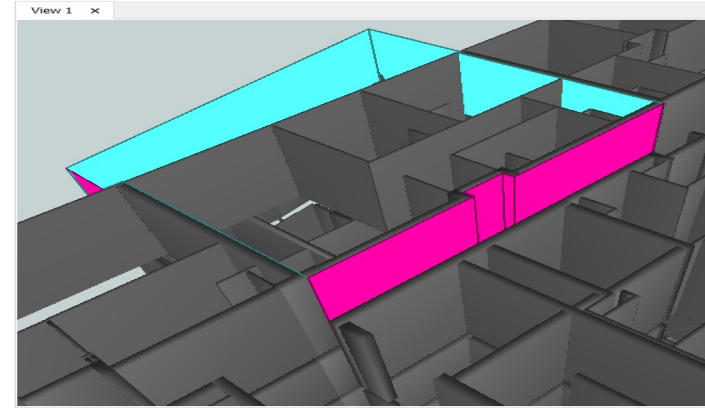
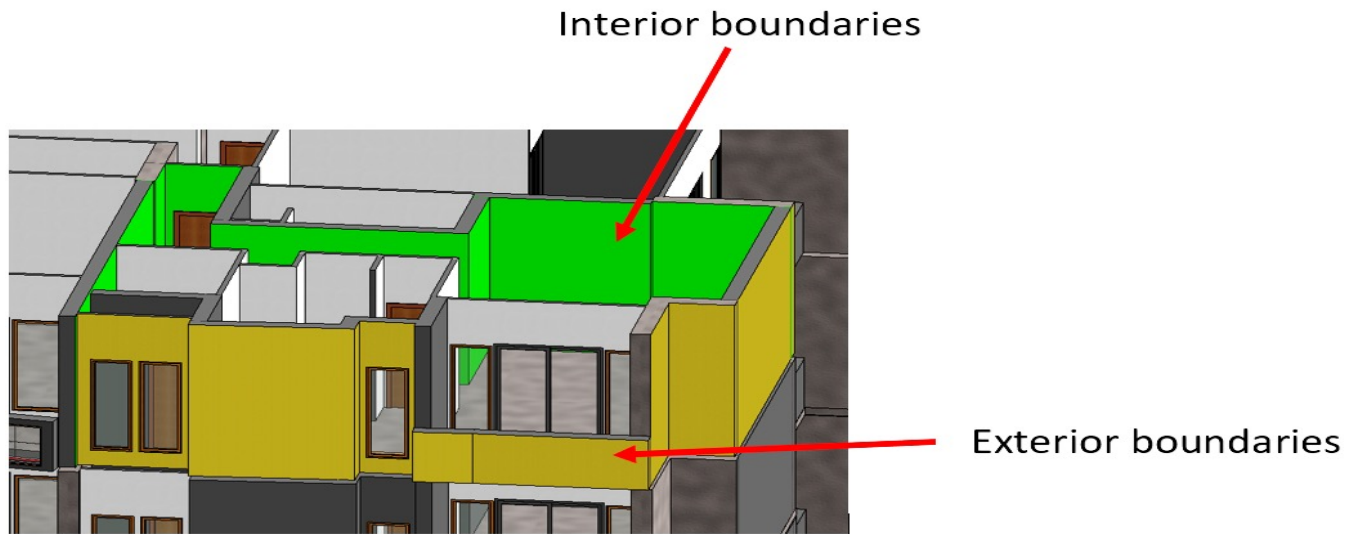
Validating watertightness



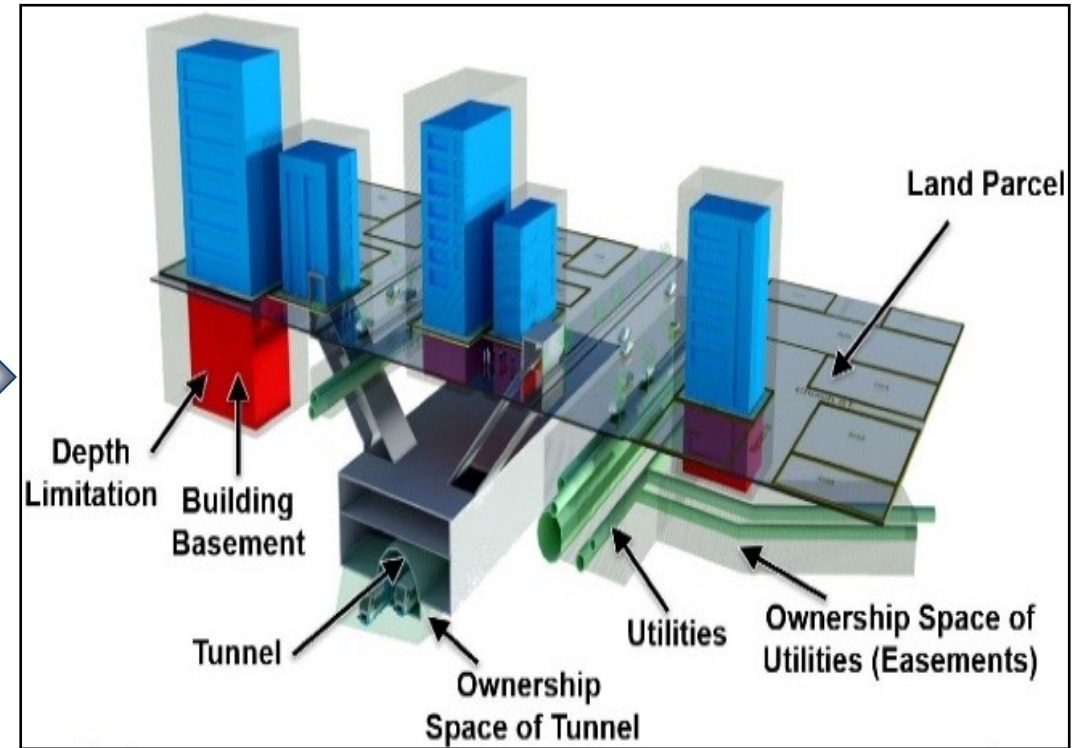
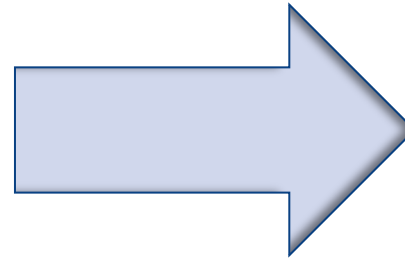
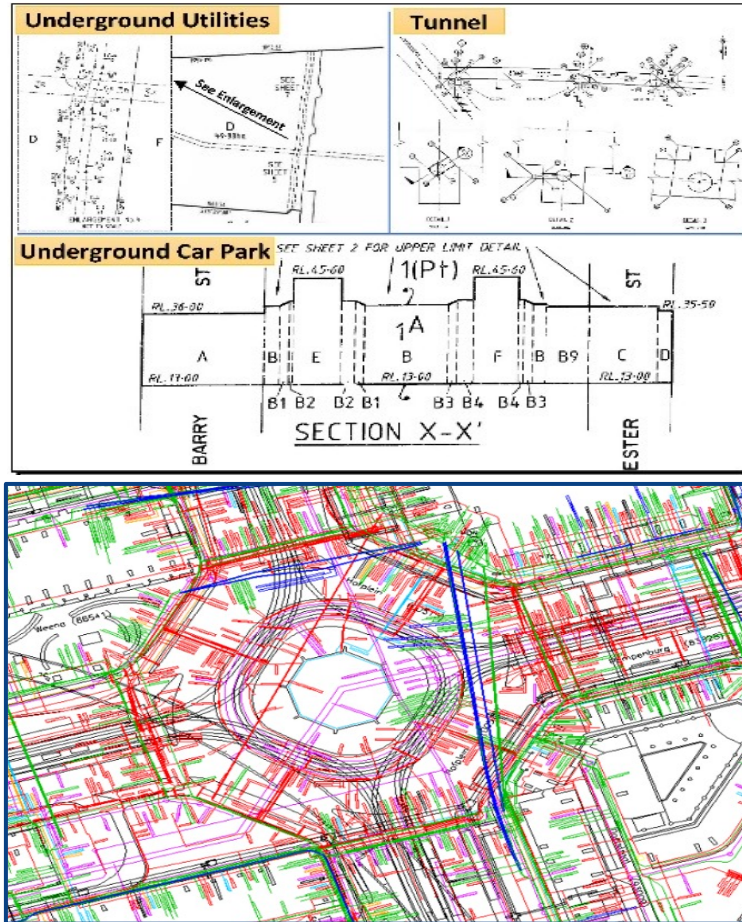
Detecting overlaps



How do we perform 3D analysis on BIM?

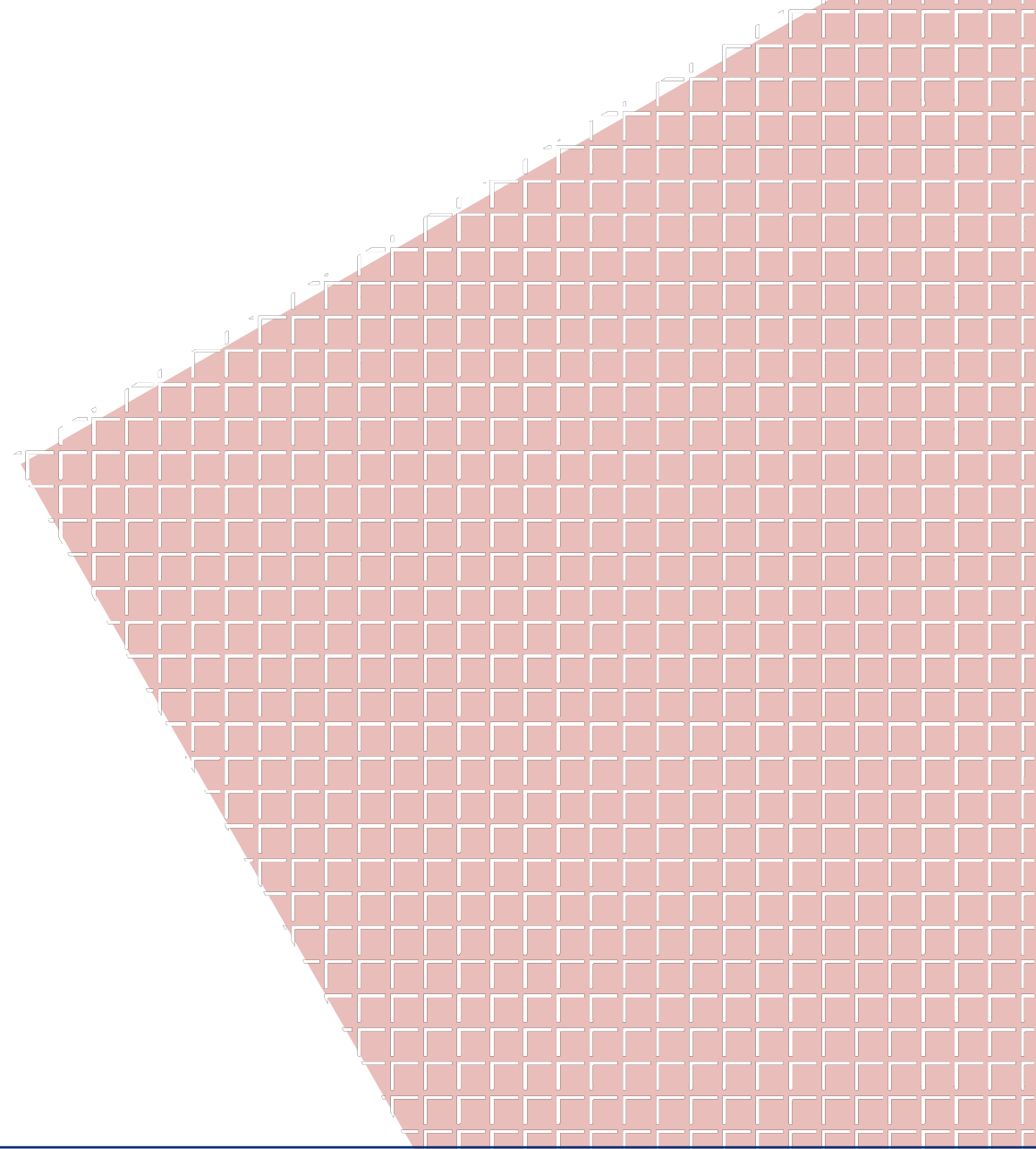


How can we model underground ownership in BIM?

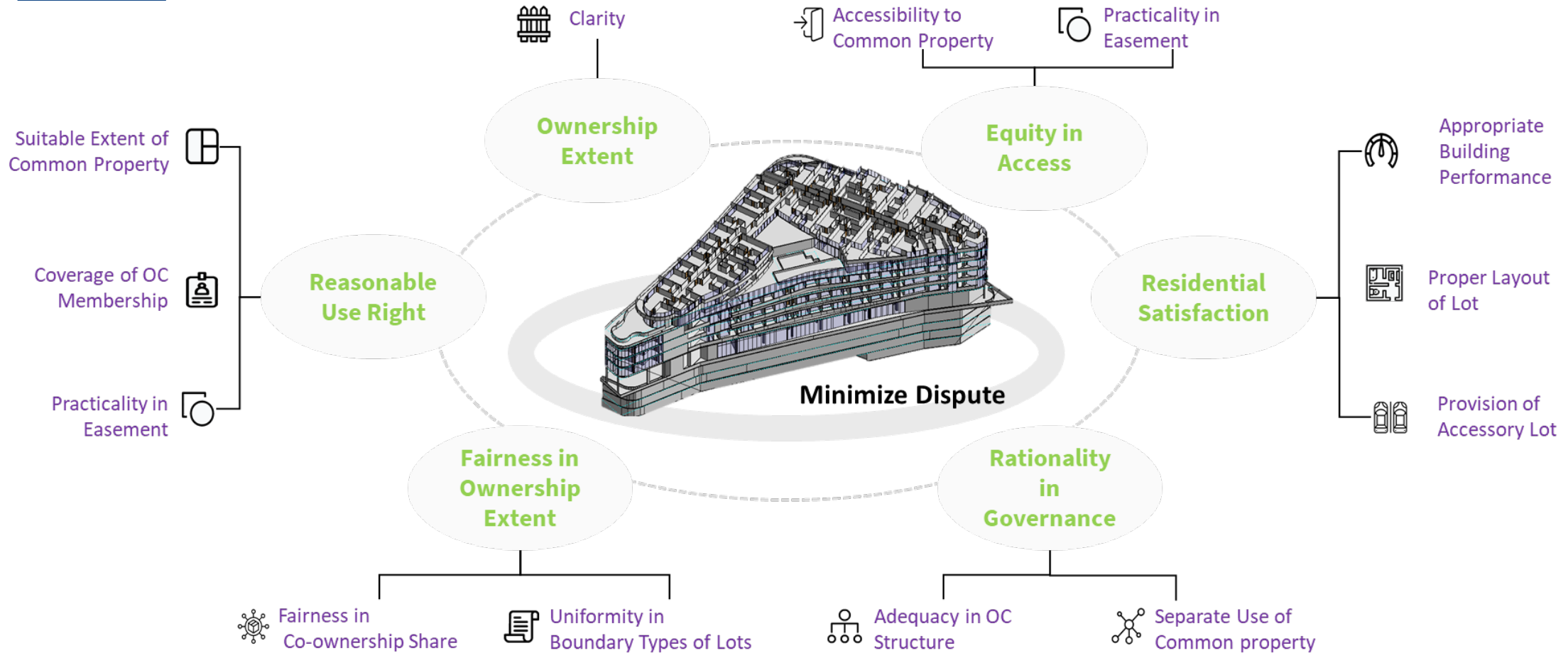




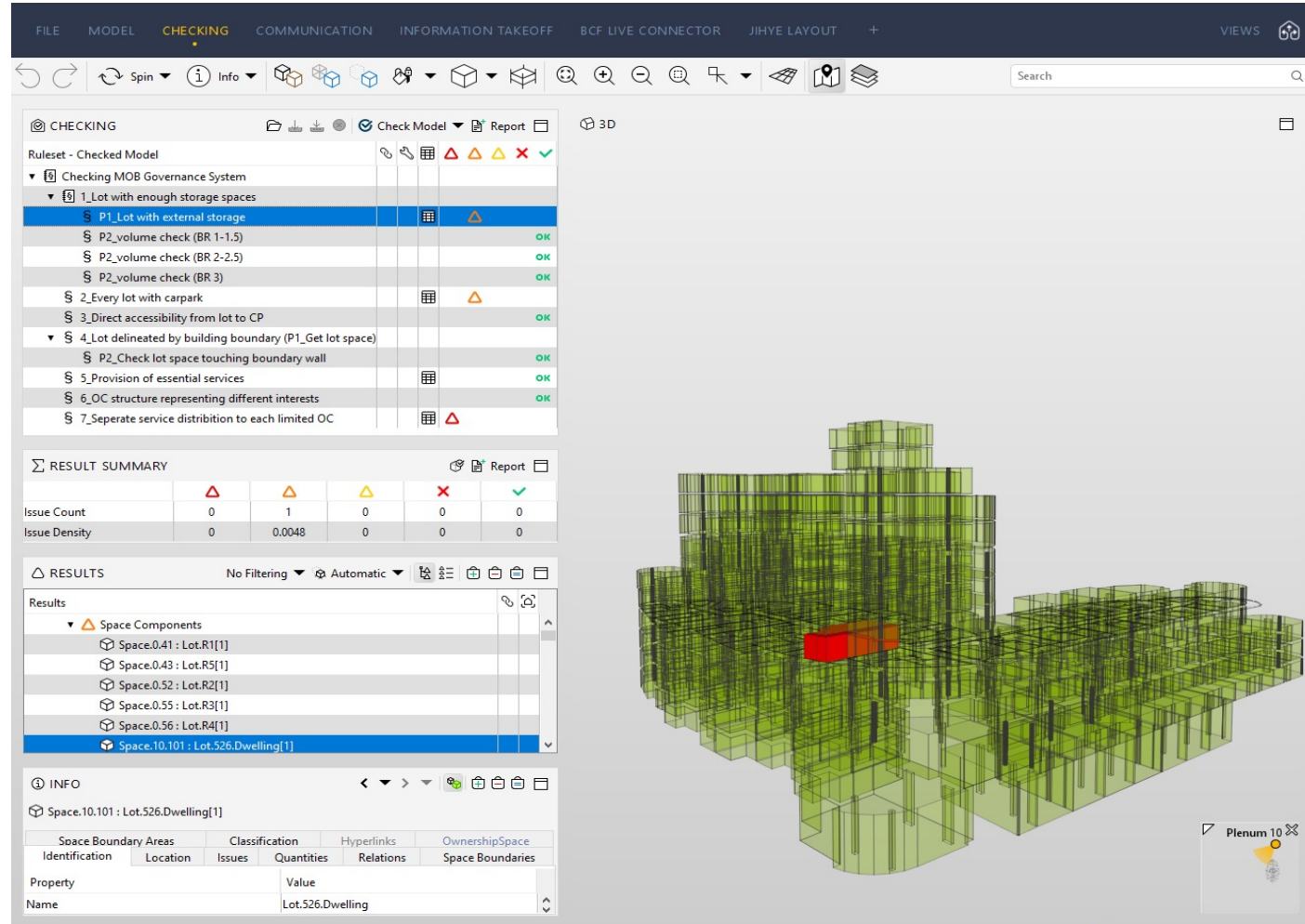
BIM for property management



What are dispute indicators in multi-owned buildings?



Can we use BIM to minimize Multi-owned Buildings using BIM?



CHECKING

Ruleset - Checked Model

- Checking MOB Governance System
 - 1_Lot with enough storage spaces
 - P1_Lot with external storage
 - P2_volume check (BR 1-1.5)
 - P2_volume check (BR 2-2.5)
 - P2_volume check (BR 3)
 - 2_Every lot with carpark
 - 3_Direct accessibility from lot to CP
 - 4_Lot delineated by building boundary (P1_Get lot space)
 - P2_Check lot space touching boundary wall
 - 5_Provision of essential services
 - 6_OC structure representing different interests
 - 7_Separate service distribution to each limited OC

RESULT SUMMARY

	0	1	0	0	0
Issue Count	0	1	0	0	0
Issue Density	0	0.0048	0	0	0

RESULTS

Results

- Space Components
 - Space.0.41 : Lot.R1[1]
 - Space.0.43 : Lot.R5[1]
 - Space.0.52 : Lot.R2[1]
 - Space.0.55 : Lot.R3[1]
 - Space.0.56 : Lot.R4[1]
 - Space.10.101 : Lot.526.Dwelling[1]

INFO

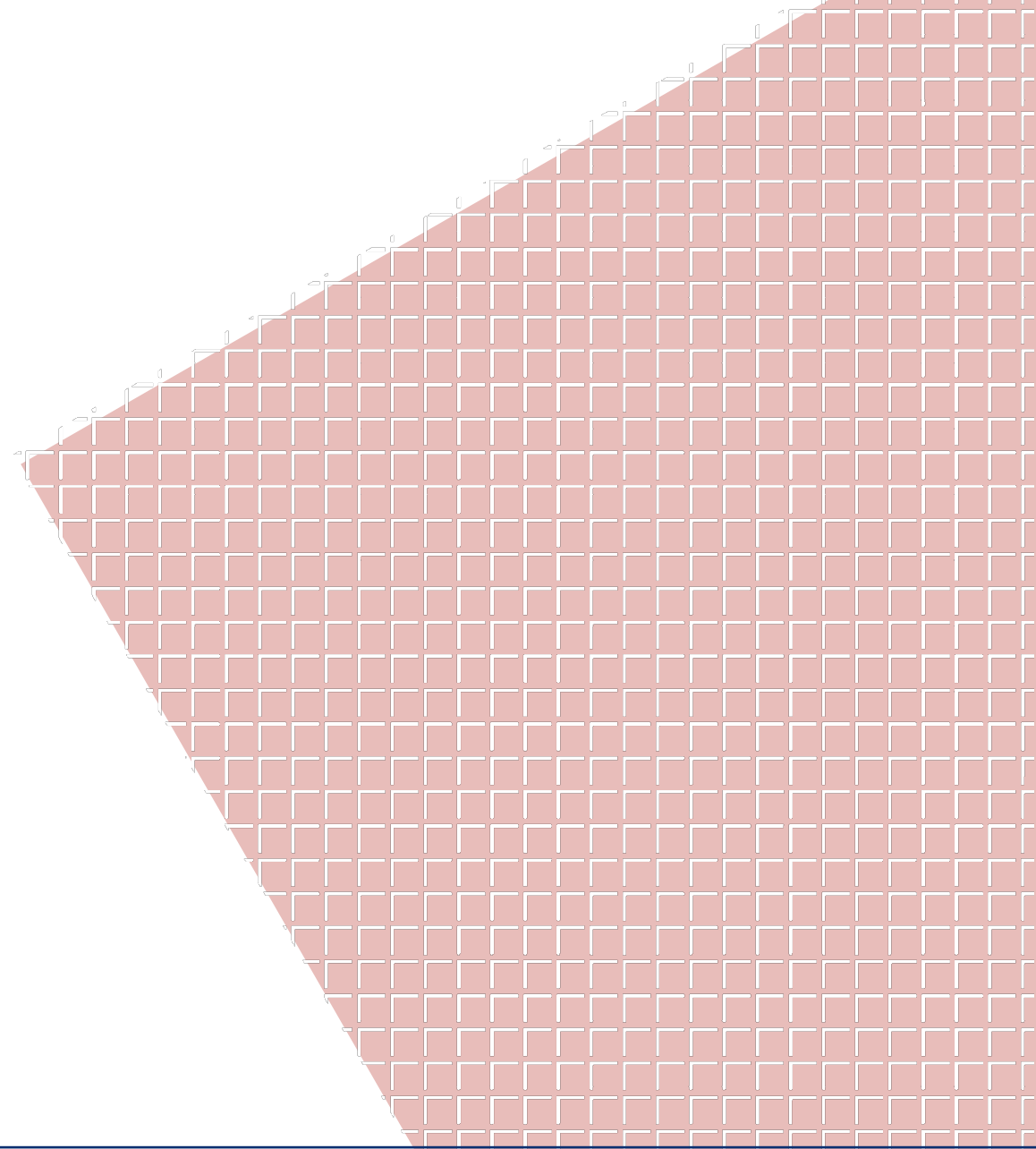
Space.10.101 : Lot.526.Dwelling[1]

Space Boundary Areas	Classification	Hyperlinks	OwnershipSpace
Identification	Location	Issues	Quantities
Relations	Space Boundaries	Value	
Property			
Name		Lot.526.Dwelling	

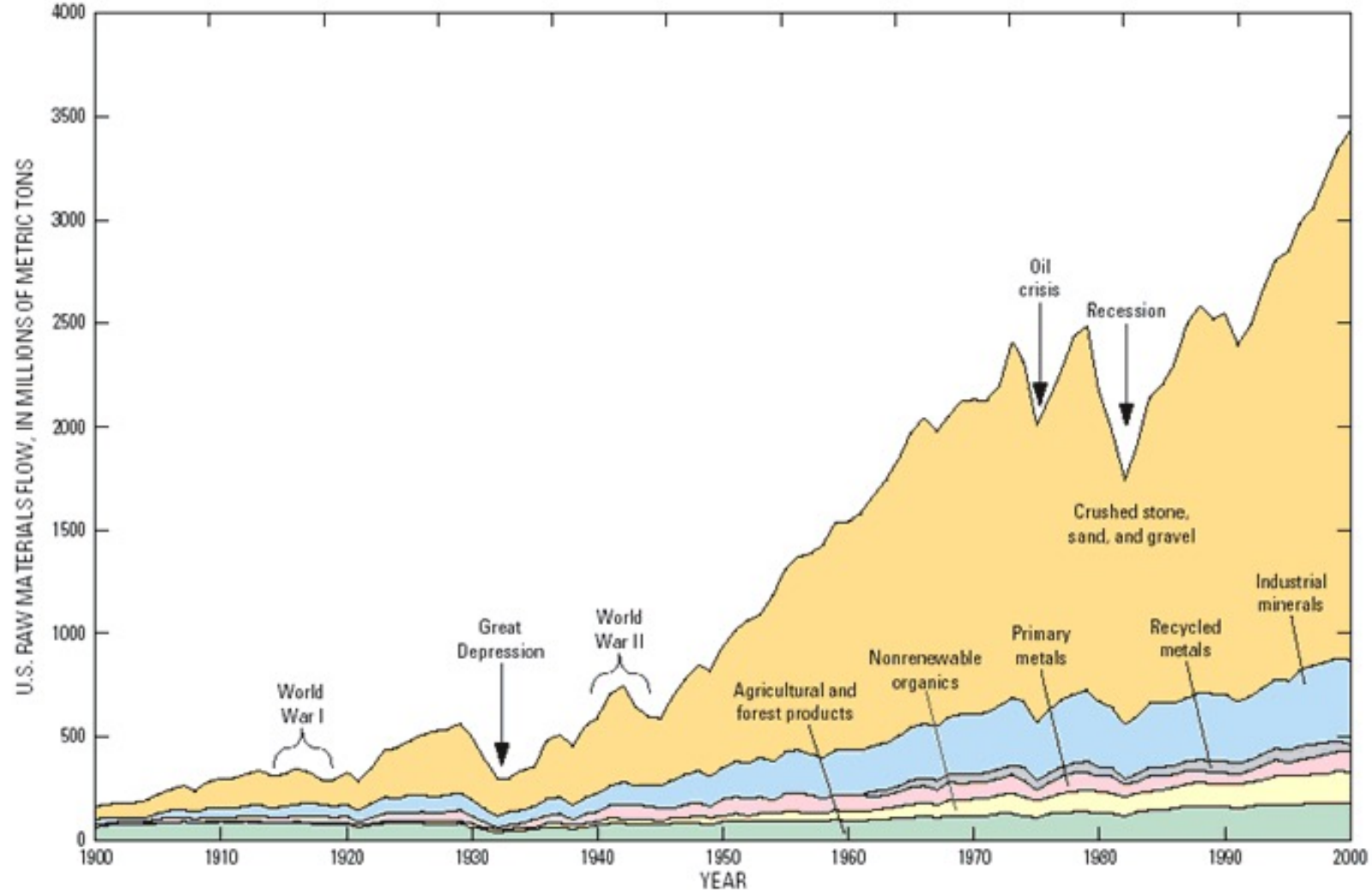




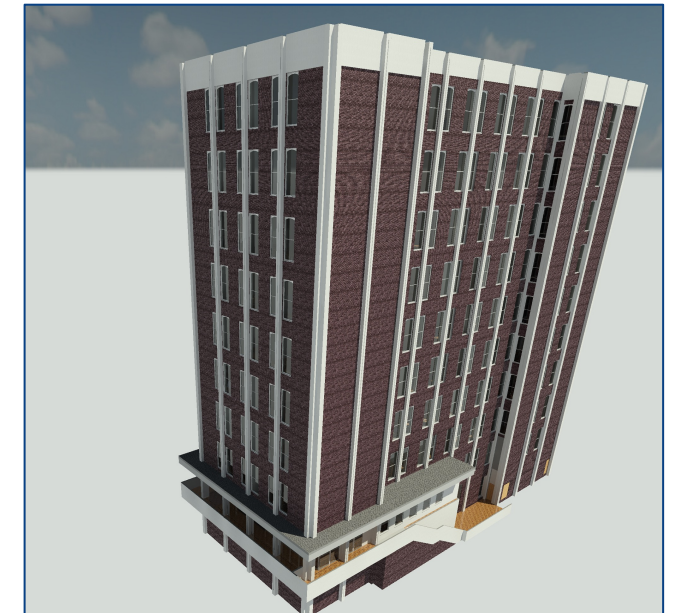
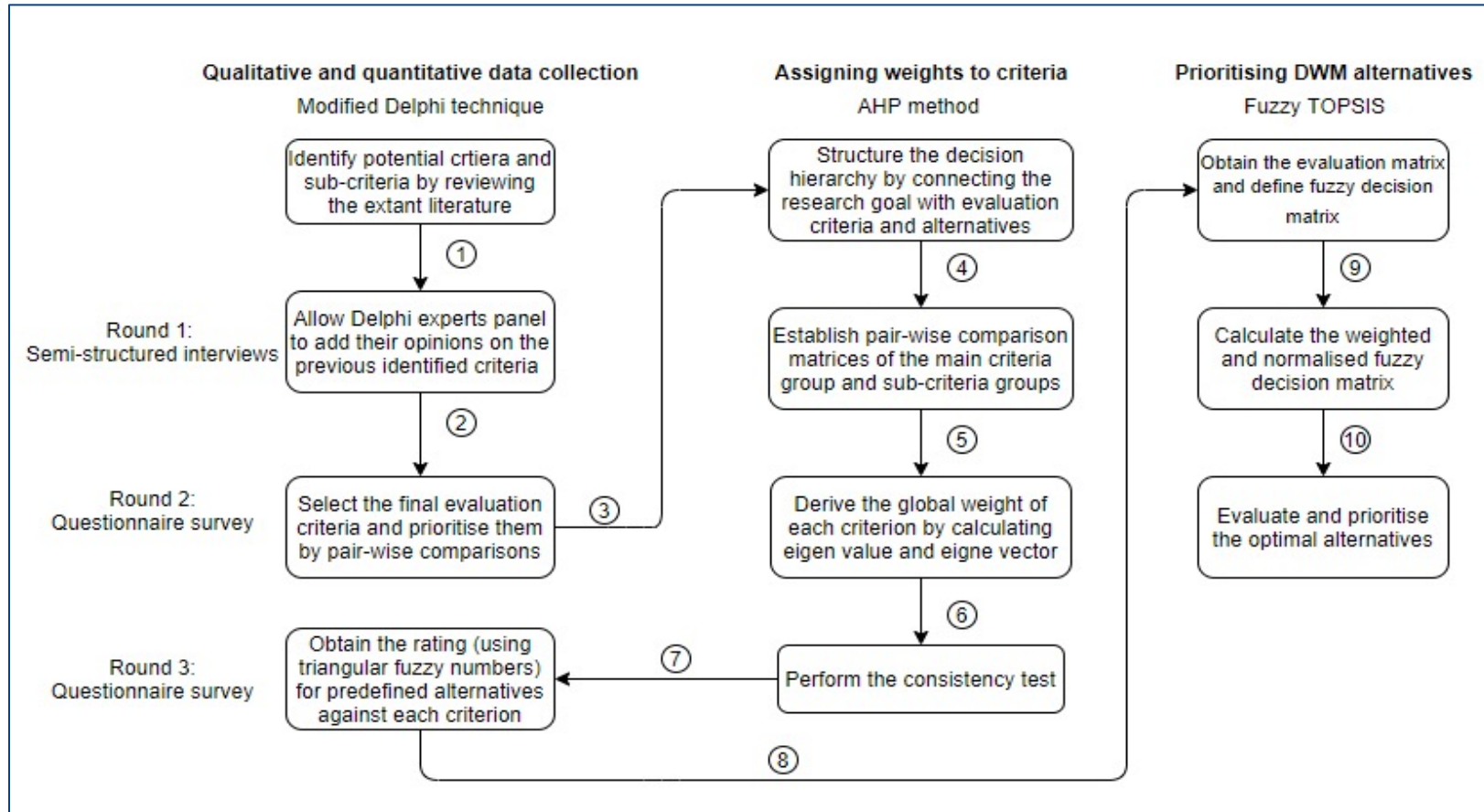
BIM for Demolition Waste Management



Can BIM help with circular economy?



How can we use BIM for sustainable demolition?





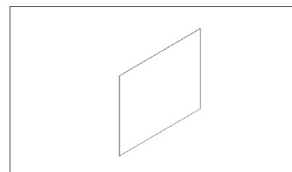
BIM Advocacy, standardization and education

Highlight our role in government BIM policies

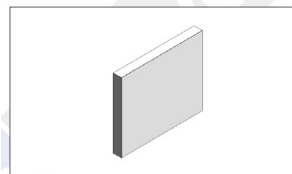


Survey and spatial guidelines are missing

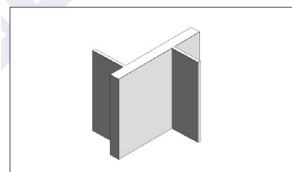
LOI 100	Conceptual Mass
LOI 200	Basic Wall: SURVEY 140mm
LOI 300	Basic Wall: SURVEY INTERNAL 140mm
LOI 400	Basic Wall: SURVEY INTERNAL 140mm [Plaster]
LOI 500	Basic Wall: SURVEY INTERNAL 140mm [90mm Stud Acoustic]



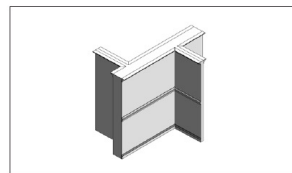
LOD 1



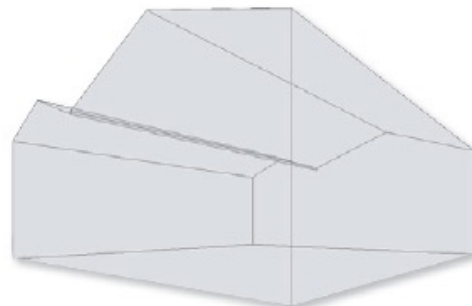
LOD 2



LOD 3



LOD 4



LoD 100



LoD 200



LoD 300



LoD 400



Upskilling and curriculum review is required

handbook.unimelb.edu.au

Handbook / Subjects / Building Information Modeling

Building Information Modeling (CVEN90062)
GRADUATE COURSEWORK Points: 12.5 On Campus (Parkville)

You're viewing the 2017 Handbook.
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ABOUT THIS SUBJECT

- Overview**
- [Eligibility and requirements](#)
- [Assessment](#)
- [Dates and times](#)
- [Further information](#)
- [Timetable](#)
- [Single page view](#)

CONTACT INFORMATION

OVERVIEW

In the past few years, the Architecture Engineering and Construction (AEC) industry has observed the evolution of simple 2D drafting programs into integrated Building Information Modelling (BIM) based on 3D spatial technologies. In this subject, students will learn how BIM is used to model, store and visualise architectural, structural, and facilities components of an infrastructure in 3D. Students will also learn how adding time and cost information to BIM allows AEC to foster collaboration in designing infrastructures, minimize the risk of construction errors and optimise the maintenance of them.

Year of offer	2017
Subject level	Graduate coursework
Subject code	CVEN90062
Campus	Parkville
Availability	Semester 2
Fees	Subject EFTSL, Level, Discipline & Census Date

The subject is of particular relevance to students wishing to establish a career in civil engineering, property management, surveying, spatial information and urban planning but is also relevant to a



Commercialisation opportunities in BIM

One-Click Scan to BIM



F A R A M O O N

What is Faramoon?

Faramoon helps the
Architecture, Engineering and
Construction industries to
make 3D models **100 times**
faster.

Meet the TEAM



Mohsen Kalantari



Amul Jani



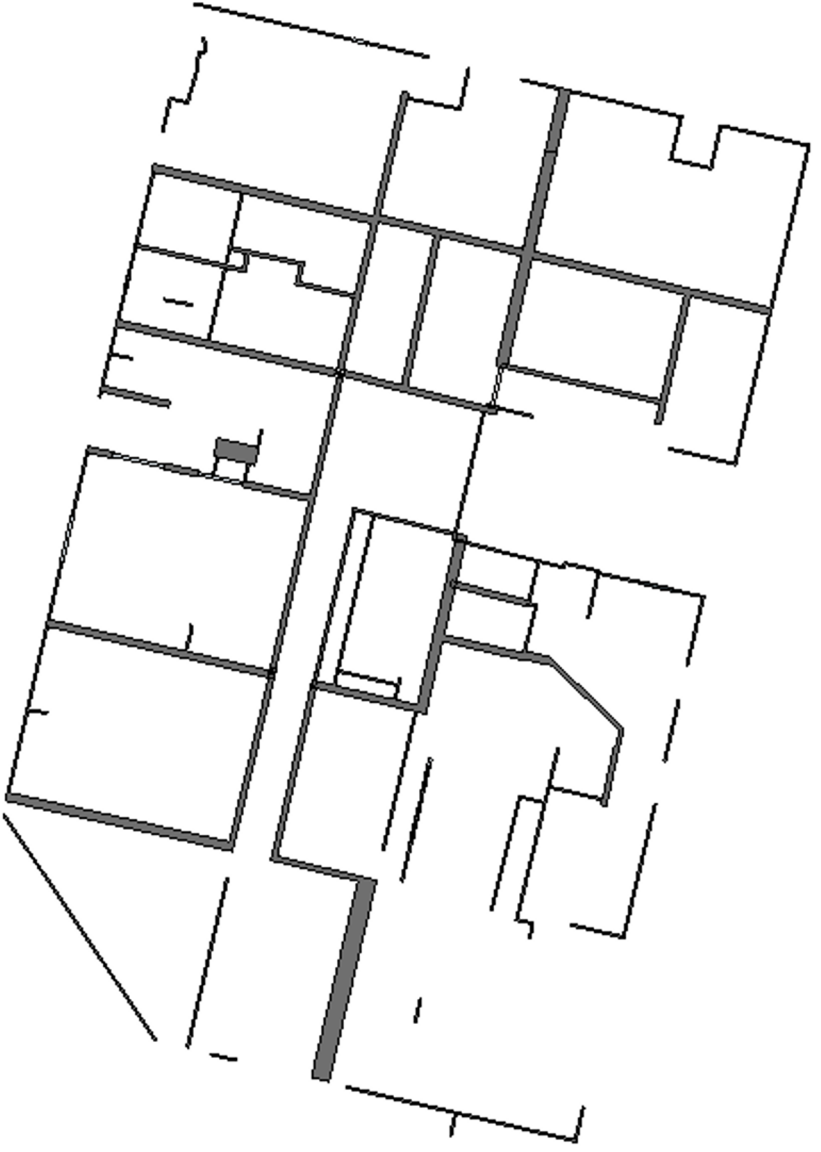
Achini Peiris



Steven Chau

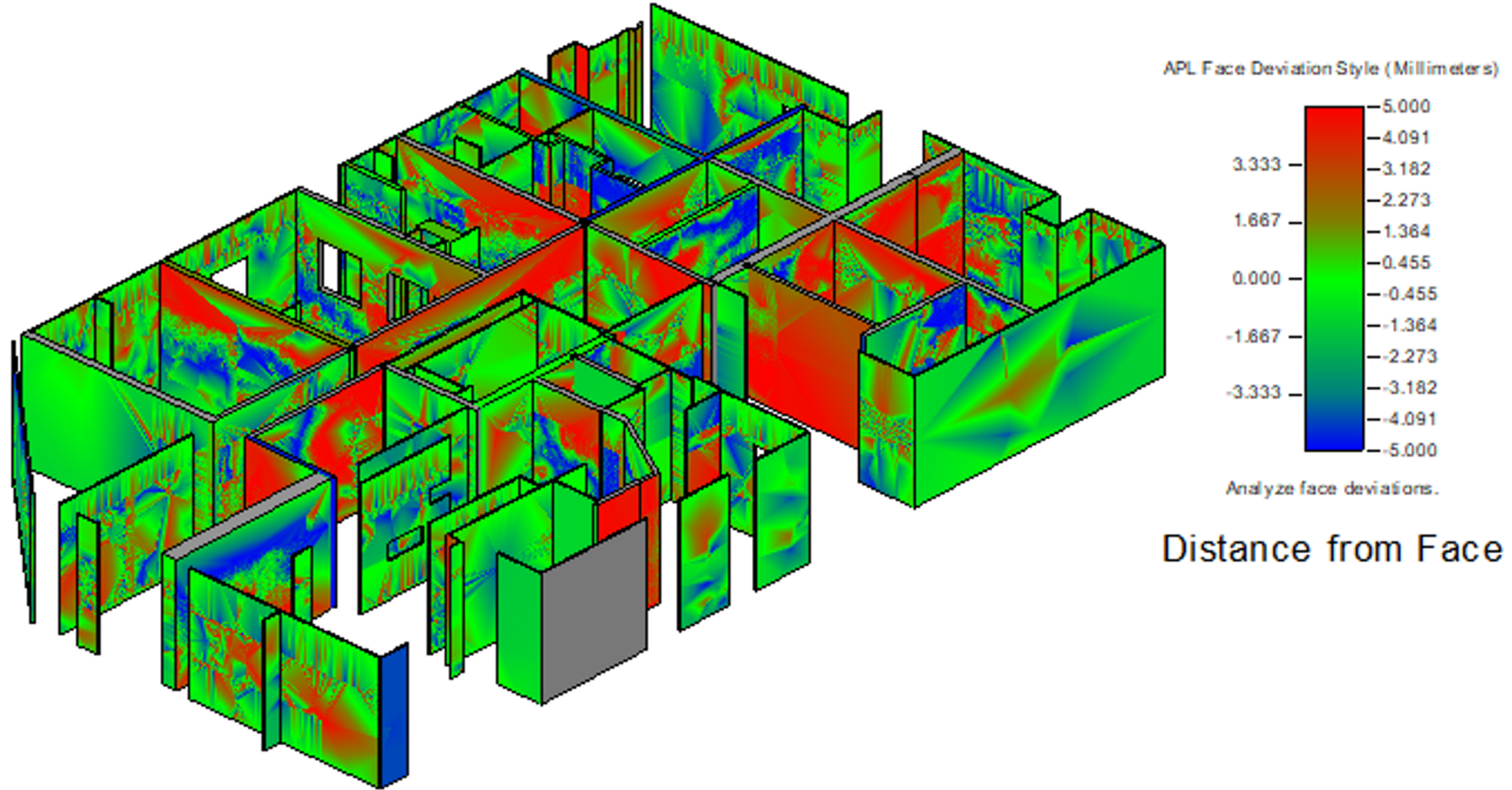
Point Cloud vs IFC

- Wall thickness
- Wall placement



Deviation check

- Wall thickness
- Wall placement



Two options

Web Application (www.faramoon.xyz)

⚡ Please note this software is a beta. Use it at your own discretion.



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







Upload 

Uploads

 Clear All

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MKFloor1_21-01-2021_01-27.pcd	<div style="width: 100%; height: 10px; background-color: green;"></div>	Done	Clear

Downloads

Date & Time	File Name			
Thu Jan 21 2021 12:45	MKFloor1_21-01-2021_01-27.pcd			 FULL LOD 
Tue Dec 22 2020 11:17	MKFloor1_22-12-2020_00-00.pcd			 FULL LOD 
Tue Oct 20 2020 18:16	test_20-10-2020_06-21.laz			 FULL LOD 
Tue Oct 20 2020 16:59	MKFloor1_20-10-2020_05-38.pcd			 FULL LOD 
Tue Oct 20 2020 16:33	testing_20-10-2020_05-28.pcd			 FULL LOD 

1 2

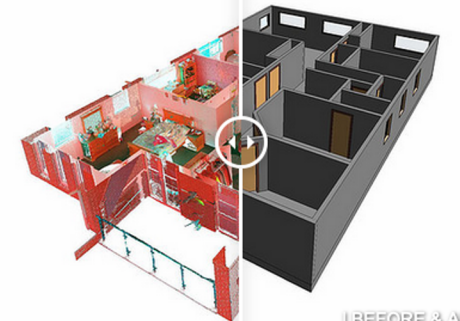
Service (www.faramoon.io)

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Send us a link to your Point Cloud file(s) for us to process.

File Link*

Dropbox, Google Drive or WeTransfer Link etc

Email*

Email

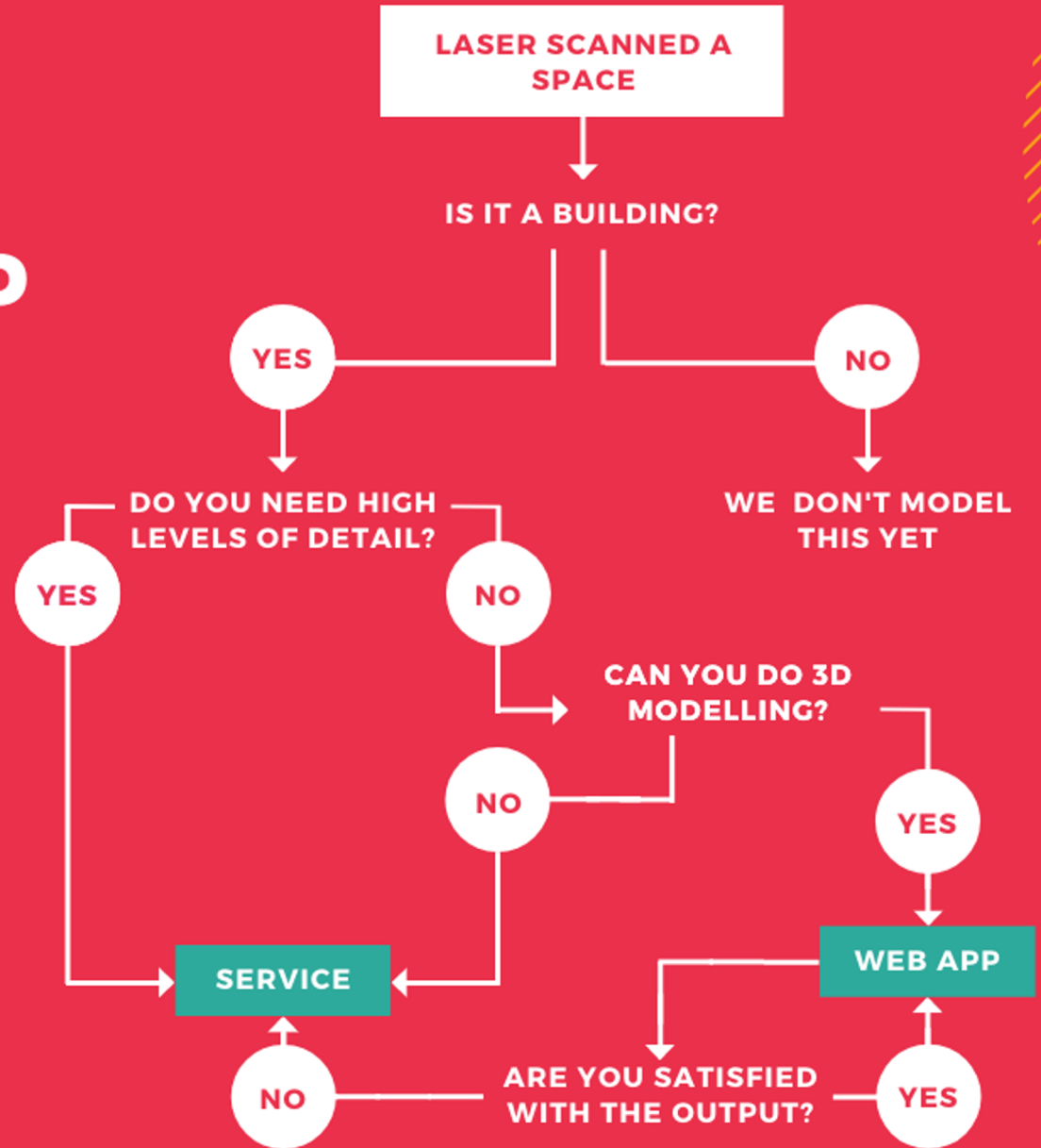
Convert

 Security & Privacy of Data guaranteed

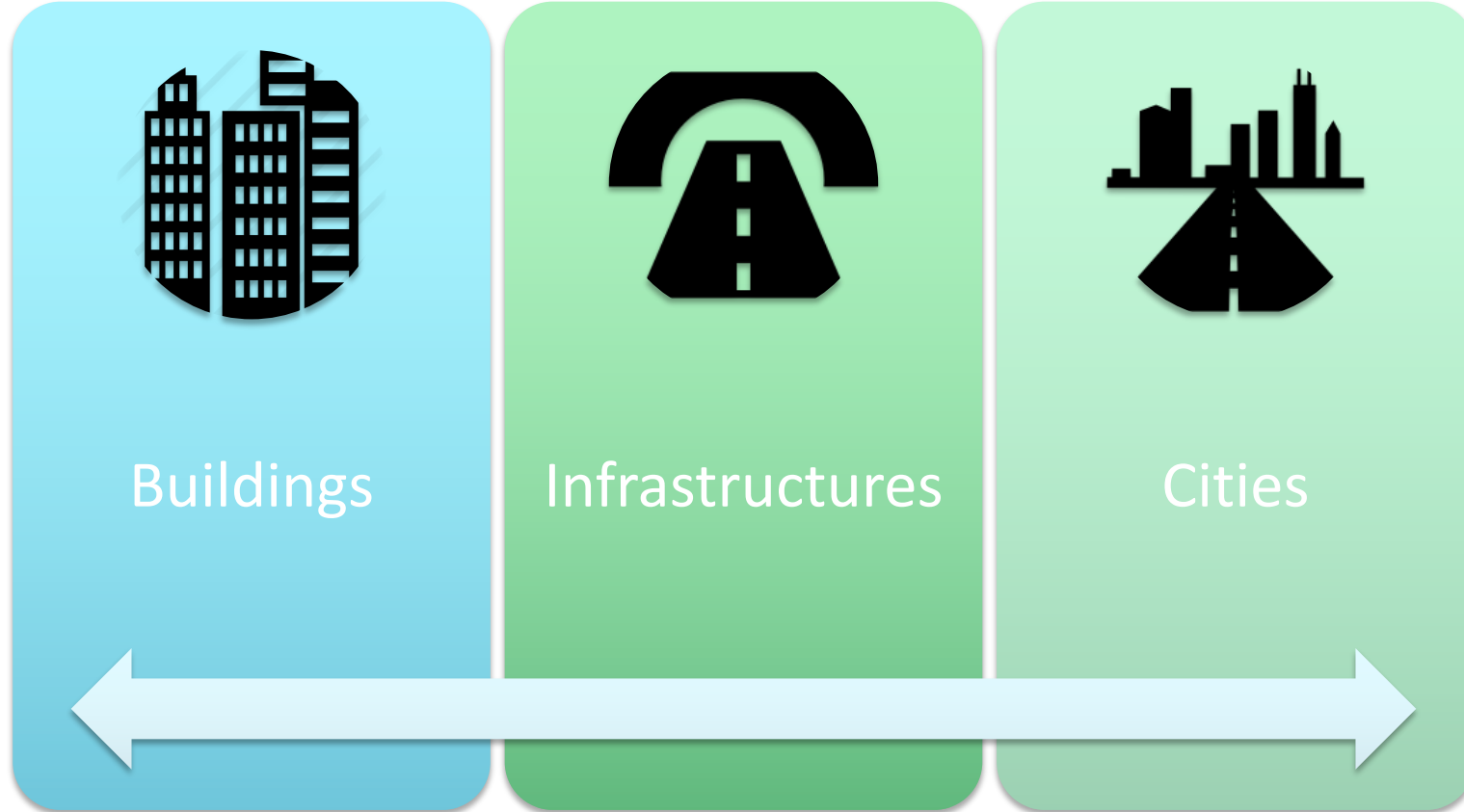
Two options

SERVICE VS WEB APP

FARAMOON



BIM is a continuum of opportunities



Thank You

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