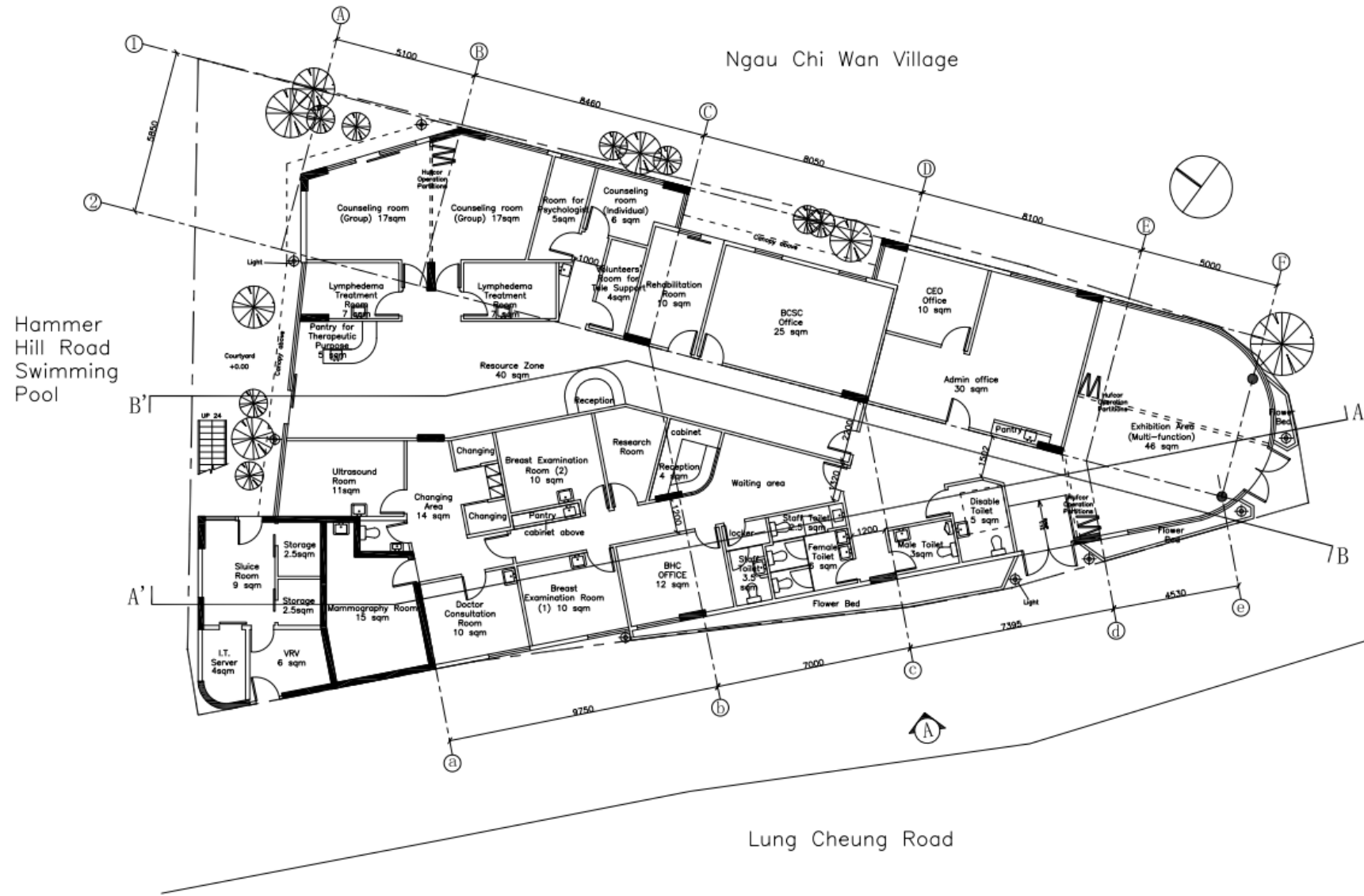


# MDM

## DfMA Experience Sharing – From Design to Install





## Original Design

G/F PLAN 1:150  
Area : 497m<sup>2</sup>



## Site Condition



# Site Condition

## Specific Problems → DfMA Opportunity ← General Constraints

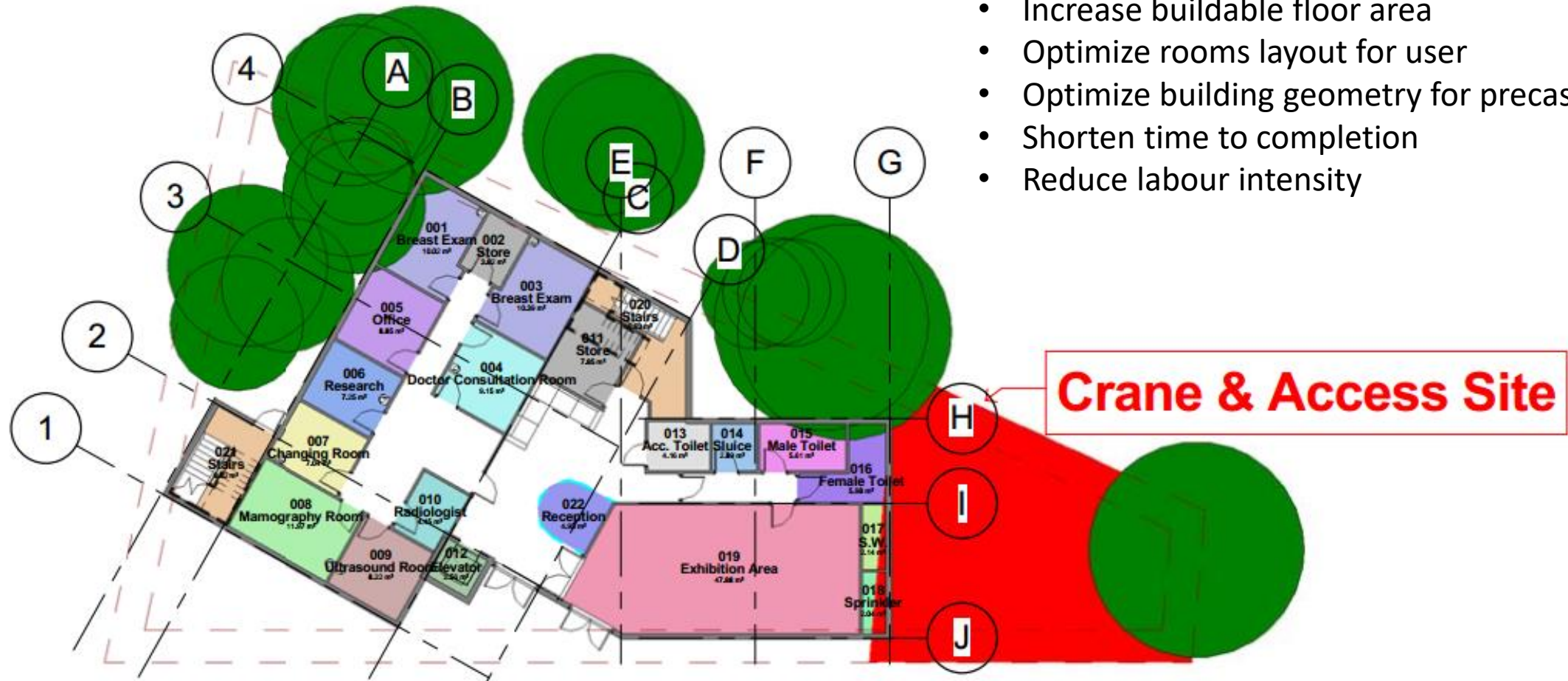
- Inaccessible Site
- Unbuildable Layout
- Limitation of Ground Bearing

- Money
- Time
- Space
- Fulfill User Requirements
- Statutory Approvals
- Site Safety



## Redesign the Building by DfMA

- Preserve the trees
- Increase buildable floor area
- Optimize rooms layout for user
- Optimize building geometry for precast construction
- Shorten time to completion
- Reduce labour intensity

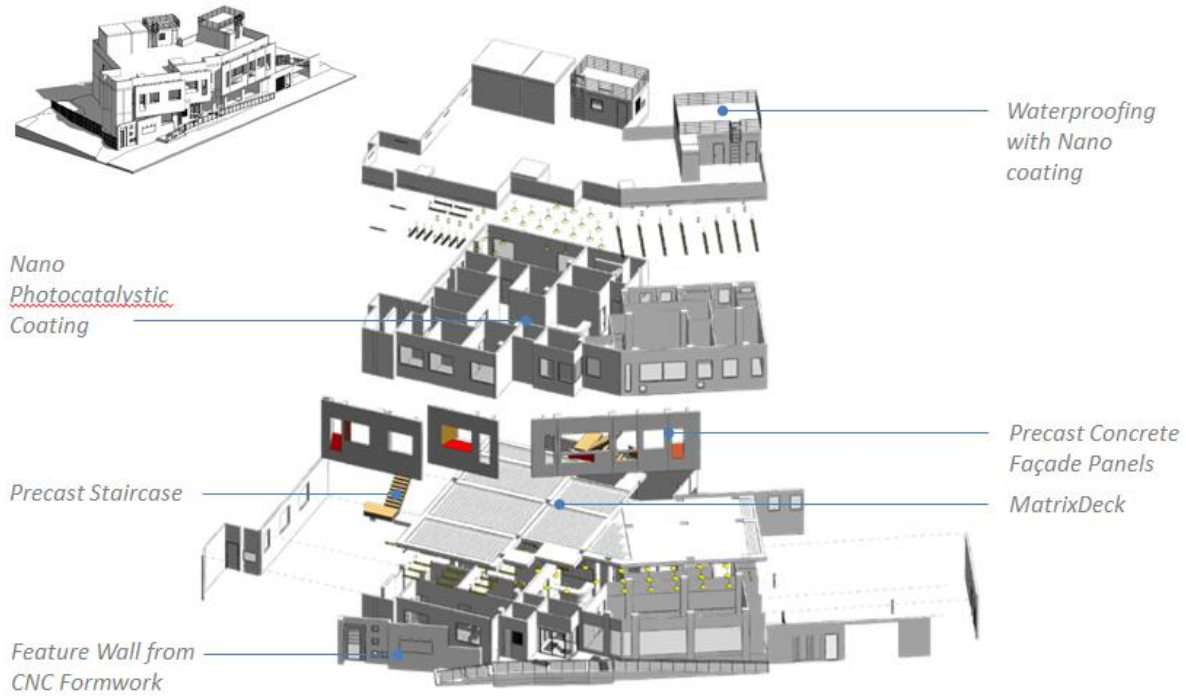


**1 00\_Ground Level - Export - Colour Scheme**  
1 : 200

## Redesign the Building by DfMA

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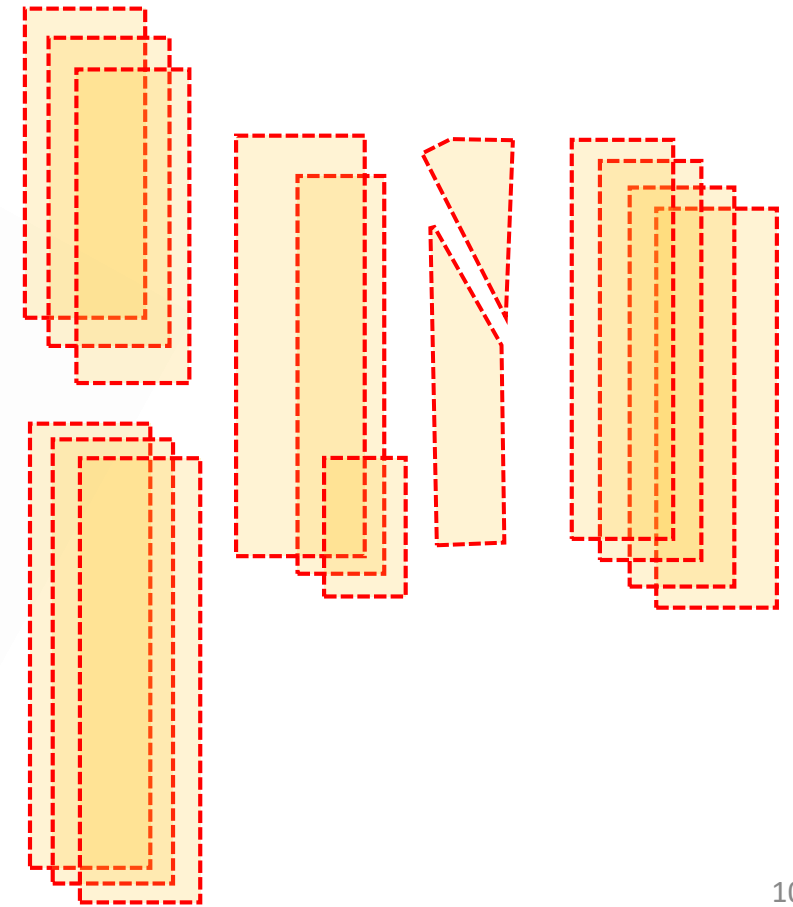
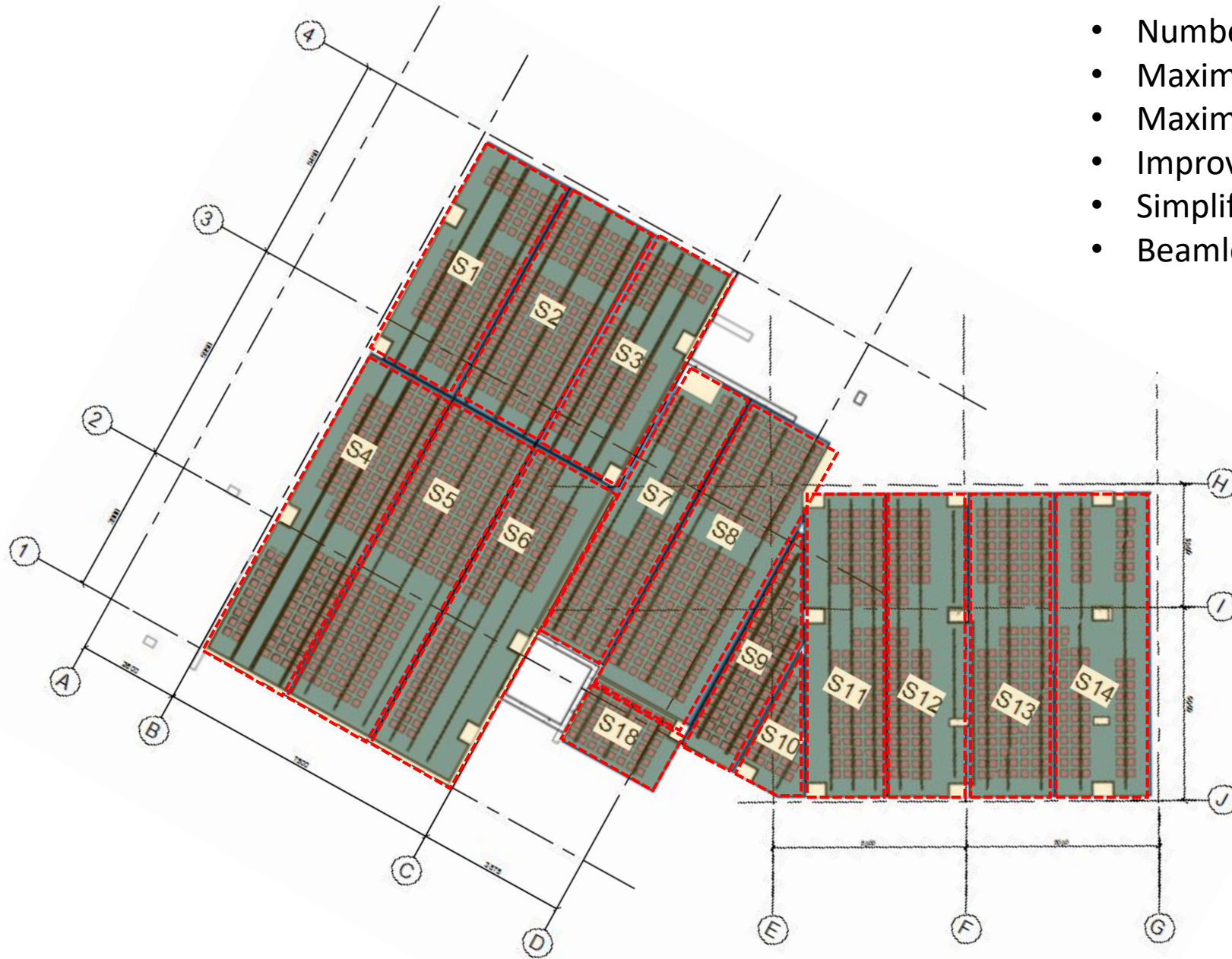


## Design for Manufacturing by Flat-Packing



# Design for Assembly of MatrixDeck System

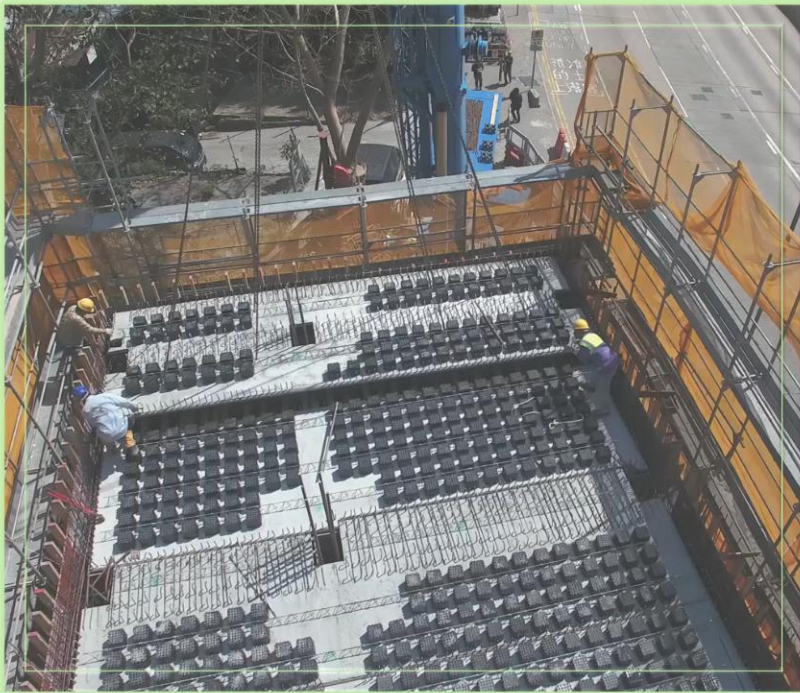
- Number of Unit per floor – 15 pieces
- Maximum Unit Weight – 3.5 Ton
- Maximum Unit Dimension – 2.5m x 8.8m x 60mm
- Improve productivity on site
- Simplify workflow
- Beamless ceiling



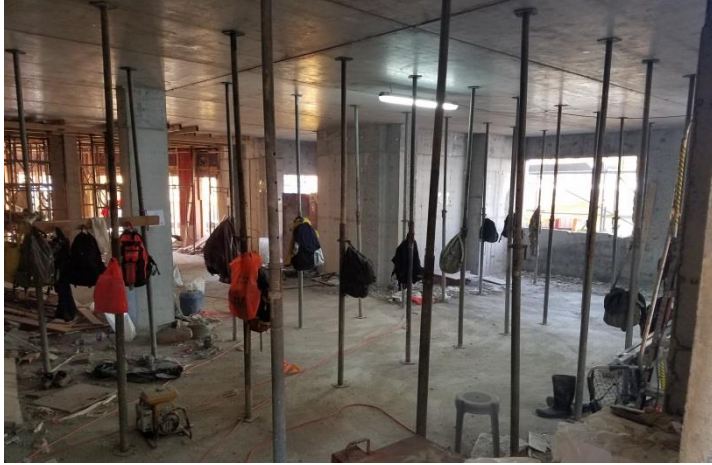
## Design for Assembly of MatrixDeck System



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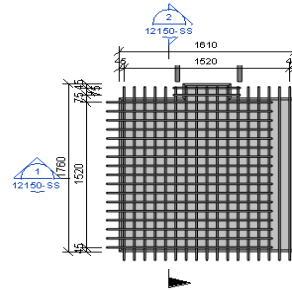
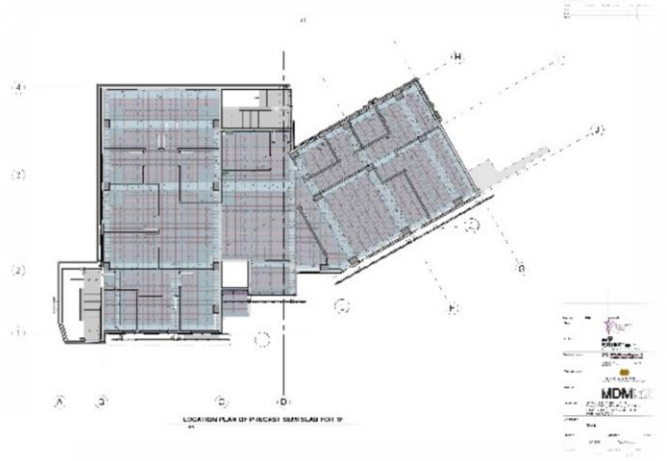
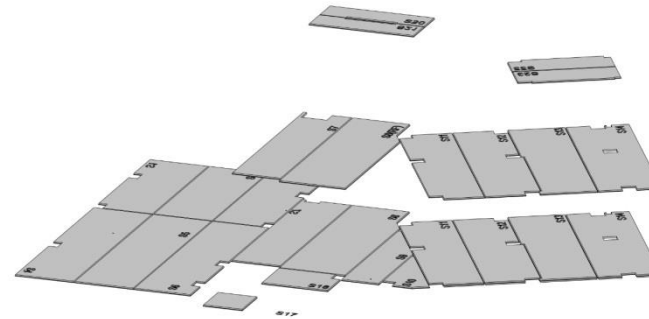
# Design for Assembly of MatrixDeck System



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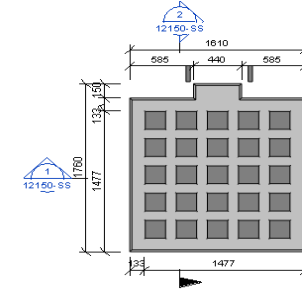


# DfMA Construction driven by BIM



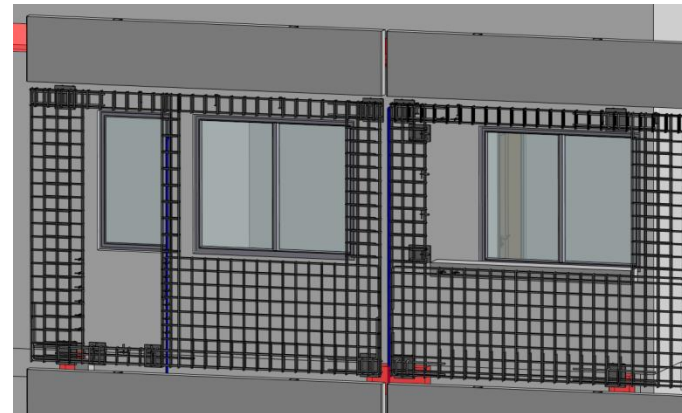
**TYPE S19(URF)-TOP PLAN**

1:50



**TYPE S19(URF)-TOP PLAN**

1:50



<Semi-Precast Slab Schedule>			
A	B	C	D
Category	Volum	Concrete Weight(KG)	Floor
S1	0.87 m³	2134.9	1/F
S2	0.92 m³	2262.1	1/F
S3	0.83 m³	2043.3	1/F
S4	1.28 m³	3141.8	1/F
S5	1.29 m³	3171.8	1/F
S6	1.22 m³	2980.4	1/F
S7	0.96 m³	2359.8	1/F
S7	0.93 m³	2280.8	R/F
S8	1.32 m³	3222.4	1/F
S8	1.32 m³	3241.0	R/F
S9	0.49 m³	1191.0	1/F
S10	0.22 m³	547.4	1/F
S11	0.97 m³	2380.5	1/F
S11	0.99 m³	2415.2	R/F
S12	1.00 m³	2449.9	1/F
S12	1.01 m³	2484.6	R/F
S13	1.03 m³	2534.1	1/F
S13	1.05 m³	2583.1	R/F
S14	1.14 m³	2791.9	1/F
S14	1.16 m³	2833.8	R/F
S17	0.16 m³	397.4	1/F
S18	0.31 m³	759.5	1/F
S20	0.29 m³	711.4	UR/F
S21	0.29 m³	711.4	UR/F
S22	0.32 m³	790.7	UR/F
S23	0.33 m³	802.7	UR/F
	21.72 m³		



## Structural Excellence Award 2019

COMMENDATION  
**MERIT**

**Design and Construction of Breast Cancer Foundation Kowloon  
Centre at Lung Cheung Road, Ngau Chi Wan, Kowloon**

Winner: Chun Wo Building Construction Limited  
Hong Kong Project - Non-Residential



**Client:** Hong Kong Breast Cancer Foundation Ltd  
**Structural Engineer:** P&T Architects and Engineers Ltd  
**Architect:** Tam & Philip So & Associates Ltd  
**Main Contractor:** Chun Wo Building Construction Limited  
**Others:** MDM Group Inc Ltd – Specialist Sub-Contractor

## ADVANCED CONSTRUCTION TECHNOLOGIES (ACT)

PRE-APPROVED LIST ITEM CODE OF MATRIXDECK SYSTEM : PA18-037



Code	Technology	Benefits	Make and Model	Product Descriptions	Reference Photo
PA18-037	Construction Material 建築物料	Enhance productivity and built quality 提高生產力及提升建造質素	MDM Group Inc. Ltd. MatrixDeck Panel Configuration Models A200 to A850	<p>MatrixDeck System is a green technology. It is essentially a structural floor system that provides a 150kg per square meter of carbon emission saving when compared to conventional building system.</p> <p>It is a high performance reinforced concrete floor slab that allows greater column spacing and minimizes the material usage of concrete and steel reinforcement when compared to conventional structural floor system.</p> <p>此產品是一項綠色科技。以此產品作為樓宇地台，將能減少碳排放達 150kg/平方米。</p> <p>同時，此產品相較傳統鋼筋混凝土結構系統能提高強度，從而優化設計如增加柱子間距。</p>	





**MDM**



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Hong Kong Science Park, Shatin, N.T.



General (+852) 3955 0891



[info@mdmg.hk](mailto:info@mdmg.hk)

The End – Thank You