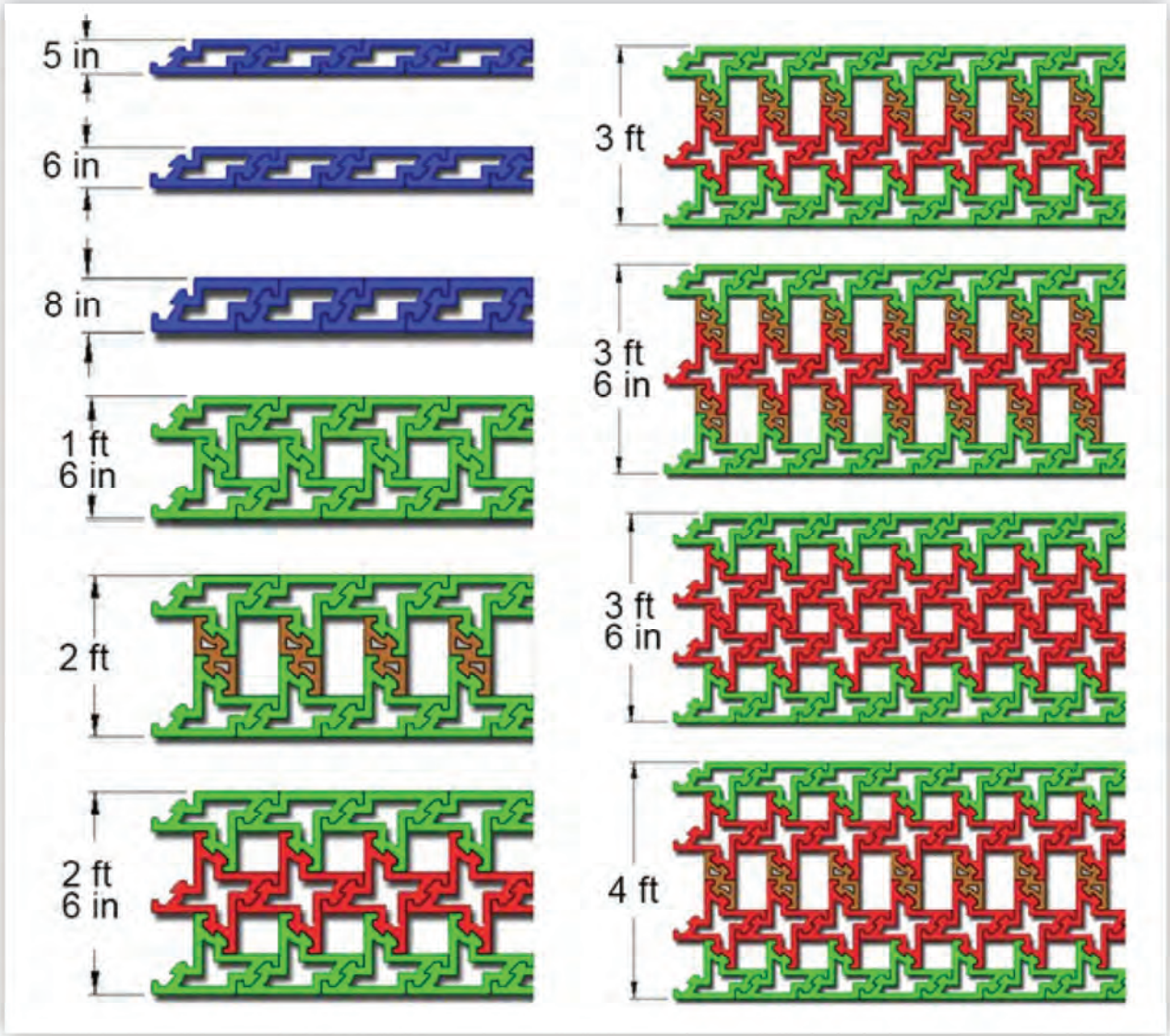
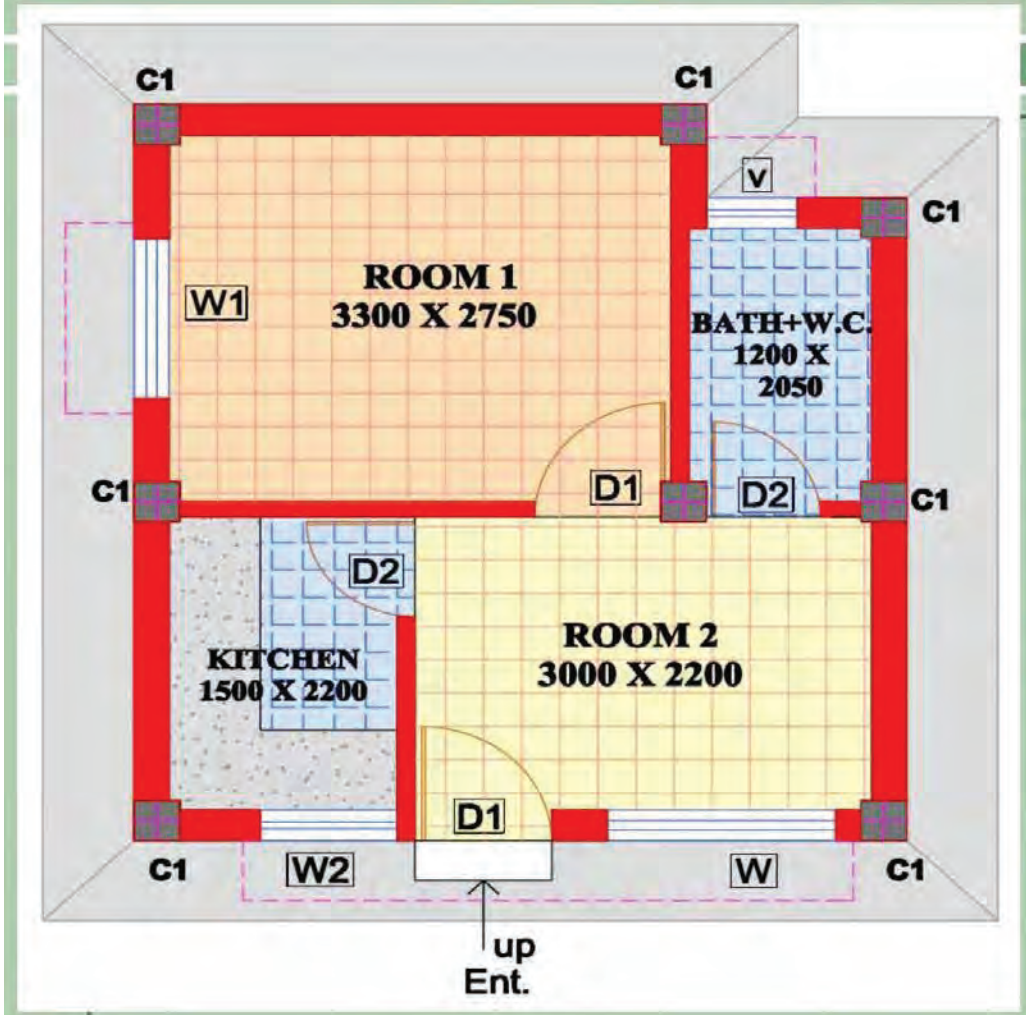

5 in
6 in
8 in
1 ft
6 in
2 ft
2 ft
6 in
3 ft
3 ft
6 in
3 ft
6 in
4 ft

Humengi®
Engineered for Humanity

Proposed DU Layout Plan & Room Sizes

प्रधान मंत्री
आवास योजना-शहरी
Pradhan Mantri Awas Yojana-Urban



AREA STATEMENTS

SL.	DESCRIPTION	LENGHT	WIDTH	AREA (SQ.M.)
1.	ROOM1	3.30	2.75	9.075
		0.90	0.115	0.104
2.	ROOM2	3.00	2.20	6.600
		0.90	0.23	0.207
3.	KITCHEN	1.50	2.20	3.300
		0.75	0.115	0.086
4.	BATH+W.C.	1.20	2.05	2.460
		0.75	0.115	0.086
DEDUCTION OF COLUMN				- 0.0392
CARPET AREA				21.77
BUILT AREA				27.110

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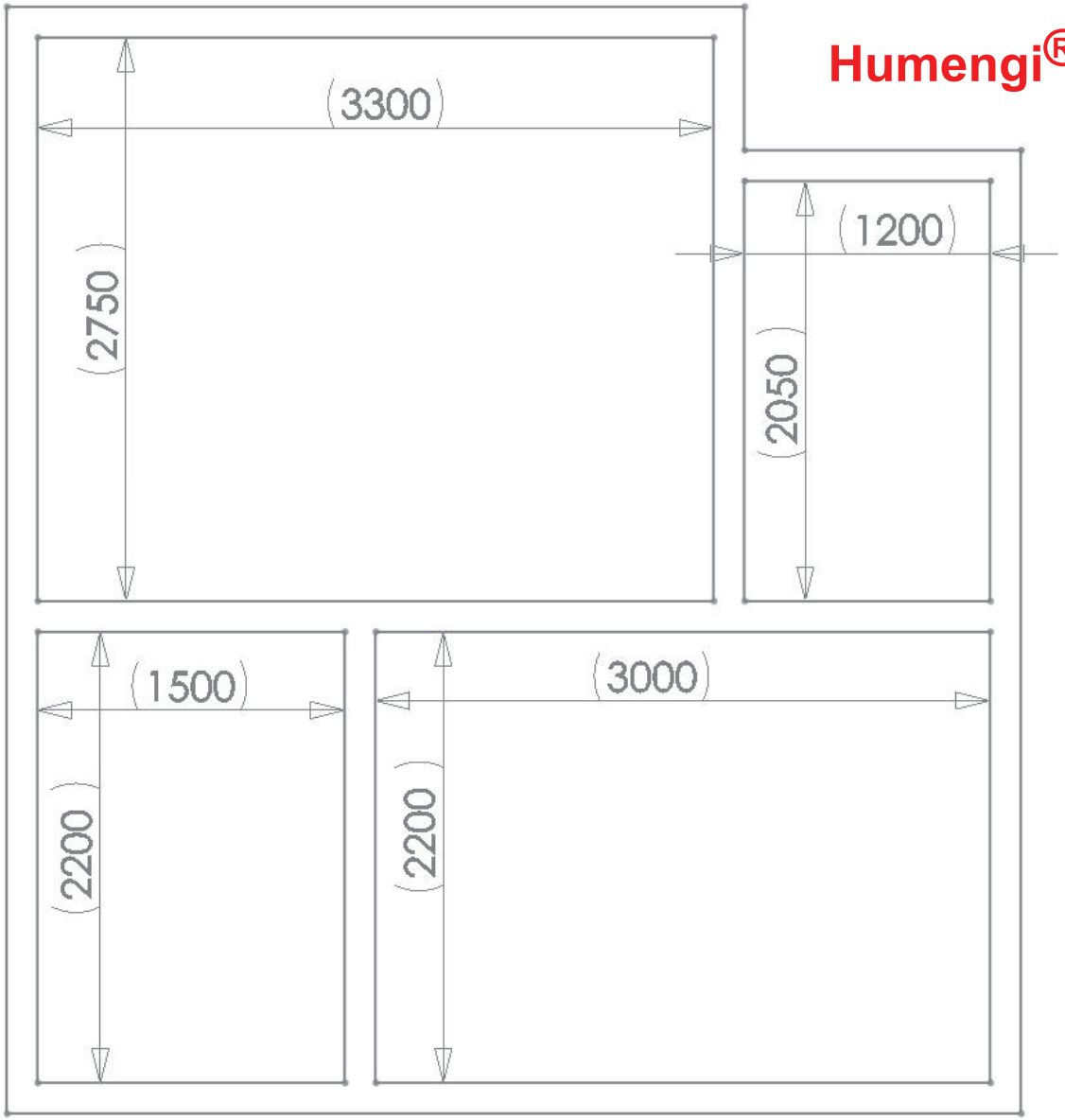
Humengi® Plan



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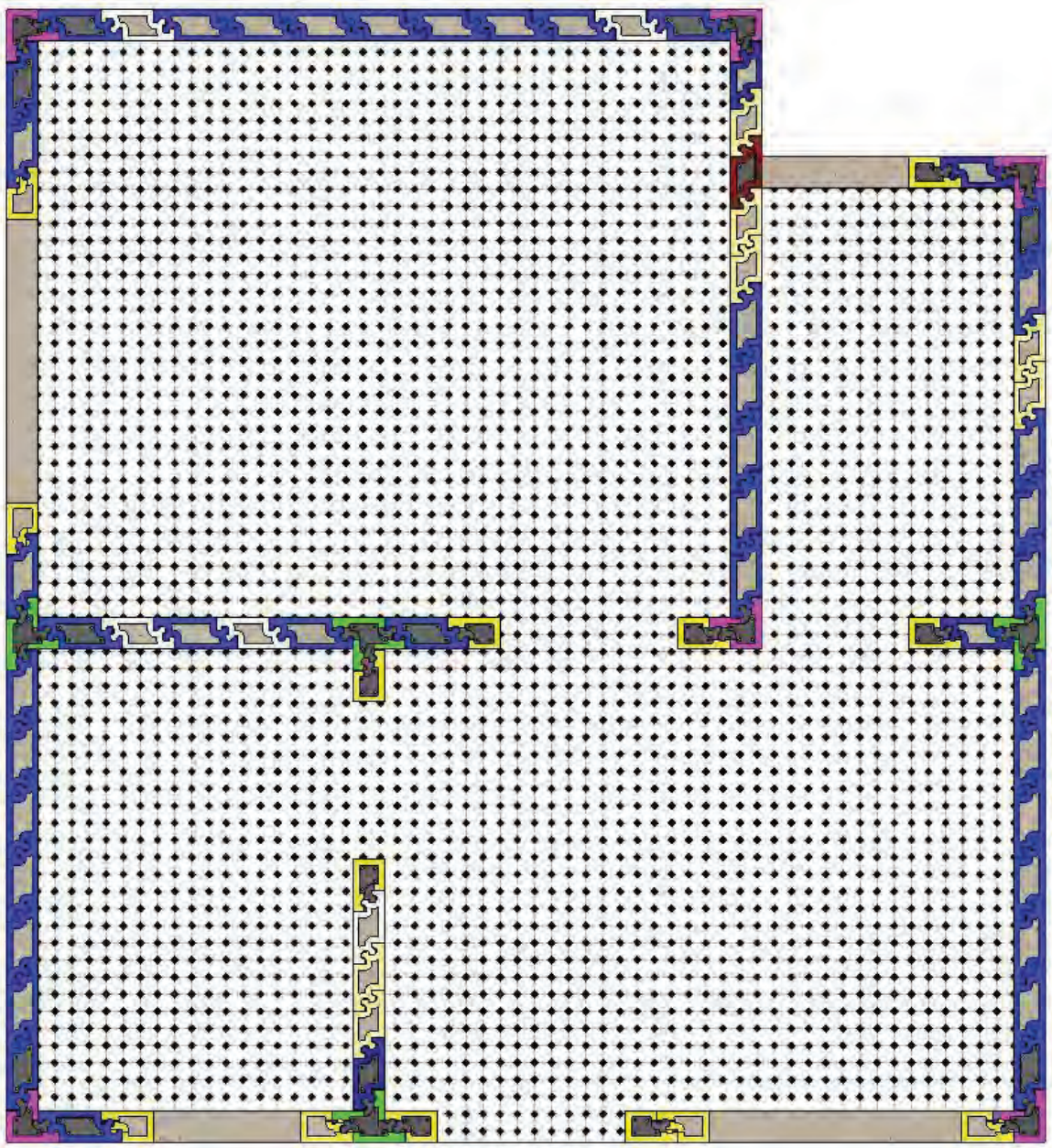


Humengi® Unit Area Details

	Area Analysis	SQ.M.	SQ.ft.
Humengi	Carpet Area	22.02	237.02
	Built Area	25.79	277.55
Carpet Area increasing =		0.25	2.70
Built Area Saving =		1.33	14.32
Deuction of columns =		0.00	

One SQ.ft Unfinished Total Cost

Single Floor Blocks Cost / SQ.ft	=	244.49	Rs.
Single Floor Reinforcement Cost / SQ.ft	=	112.14	Rs
Under Ground Blocks Cost / SQ.ft	=	28.66	Rs.
Under Ground Reinforcement Cost / SQ.ft	=	20.30	Rs
Foundation share and Slab Cost / SQ.ft	=	133.86	Rs

One SQ.ft Unfinished Total Cost = 539.46 Rs.

Soil Excavation Volume = 38.176 m3

Details

Humengi Single Floor Blocks Cost Analysis

ITEM NO.	Blocks		QTY.	Block Price	Total Price
1	S & HS	S-SB	392	0.80	313.60
2		S-TChB	31	0.80	24.80
3		S-BChB	150	0.80	120.00
4		HS-SB	85	0.66	56.10
5	EX10 & HEX10	EX10-SB	99	0.77	76.23
6		EX10-TChB	12	0.77	9.24
7		EX10-BChB	51	0.77	39.27
8		HEX10-SB	29	0.65	18.85
9	EX9 & HEX9	EX9-SB	80	0.76	60.80
10		EX9-TChB	12	0.76	9.12
11		EX9-BChB	14	0.76	10.64
12		HEX9-SB	8	0.64	5.12
13	C	C-TChB	76	0.77	58.52
14	E	E-TChB	118	0.73	86.14
15	3W & H3W	3W-SB	2	0.83	1.66
16		3W-TChB	52	0.83	43.16
17		H3W-SB	2	0.67	1.34

Description	Area	Length	Width
Room 1	9.075	3.30	2.75
Room 2	6.600	3.00	2.20
Kitchen	3.300	1.50	2.20
Path&WC	2.460	1.20	2.05

Humengi	Area Analysis	SQ.M.	SQ.ft.
	Carpet Area	22.02	237.02
	Built Area	25.79	277.55
	Carpet Area increasing =	0.25	2.70
	Built Area Saving =	1.33	14.32
	Deuction of columns =	0.00	

Blocks Cost / SQ,ft = 3.37 $USD

Total Blocks No. = 1213 Blocks

Total Blocks Cost = 934.59 $USD

Block Price $USD	
S	0.80
HS	0.66
EX10	0.77
HE10	0.65
EX9	0.76
HEX9	0.64
C	0.77
HC	0.65
E	0.72
HE	0.62
3W	0.83
H3W	0.67
4W	0.89
H4W	0.70

Blocks Cost / SQ,ft = 244.49 Rs.

Humengi Under Ground Blocks Cost Analysis

ITEM NO.	Blocks		QTY.	Block Price	Total Price
1	S & HS	S-SB	168	0.80	134.40
2		S-TChB	26	0.80	20.80
3		S-BChB	69	0.80	55.20
4		HS-SB	78	0.66	51.48
5	EX10 & HEX10	EX10-SB	50	0.77	38.50
6		EX10-TChB	33	0.77	25.41
7		EX10-BChB	14	0.77	10.78
8		HEX10-SB	16	0.65	10.40
9	EX9 & HEX9	EX9-SB	42	0.76	31.92
10		EX9-TChB	9	0.76	6.84
11		EX9-BChB	6	0.76	4.56
12		HEX9-SB	6	0.64	3.84
13	C	C-TChB	25	0.77	19.25
14	3W	3W-TChB	30	0.83	24.90

Total Blocks No. = 572 Blocks

Description	Area	Length	Width
Room 1	9.075	3.30	2.75
Room 2	6.600	3.00	2.20
Kitchen	3.300	1.50	2.20
Path&WC	2.460	1.20	2.05

Humengi	Area Analysis	SQ.M.	SQ.ft.
	Carpet Area	21.44	228.80
	Built Area	25.79	275.23
Built Area Saving		1.33	14.14

UG Blocks Cost / SQ.ft =	**1.59**	**$USD**
UG Blocks G+3 Total Cost / SQ.ft =	**114.66**	**Rs.**

Total Blocks Cost = 438.28 $USD

Block Price $USD	
S	0.80
HS	0.66
EX10	0.77
HE10	0.65
EX9	0.76
HEX9	0.64
C	0.77
HC	0.65
E	0.72
HE	0.62
3W	0.83
H3W	0.67
4W	0.89
H4W	0.70

UG Blocks unit share Cost / SQ.ft = 28.66 Rs.

Single Floor Reinforcement Cost / SQ.ft

Single Floor Reinforcement		Rebar Kg	Total Rebar Kg	Core m3	Total Core Concrete m3
3W-TCH-RS	4	23.827	95.306	0.041594	0.166376
C-TCH-RS	6	21.553	129.318	0.034465	0.206790
S-BCH-RS	9	22.942	206.476	0.045599	0.410391
EX10-BCH-RS	2	21.773	43.546	0.033931	0.067862
E-TCH-RS	8	20.927	167.418	0.027188	0.217504
E-TCH-Window-RS	6	6.492	38.951	0.011380	0.068280

1 m3 concrete Cost (USD$)
44.26

Rebar Cost Rs/ Ton
40,000

Total Quantities =	681.015	Kg	1.137203	m3

Total Cost $USD =	378.34	50.33
Total Cost Rs =	27,240.58	3,623.89

Total Cost Rs =	30,864.47	Rs

Total Area=	275.23	SQ.ft.

Single Floor Reinforcement Cost / SQ.ft = 112.14 Rs

Under Ground Reinforcement Unit share Cost /SQ.ft

Reinforcement		Rebar Kg	Total Rebar Kg	Core m3	Total Core Concrete m3
3W-TCH-RS	4	18.328	73.313	0.015998	0.063991
C-TCH-RS	6	16.579	99.475	0.013256	0.079535
S-BCH-RS	9	17.648	158.828	0.017538	0.157843
EX10-BCH-RS	2	16.748	33.497	0.013050	0.026101
E-TCH-RS	8	16.098	128.783	0.010457	0.083655
E-TCH-Window-RS	6	4.994	29.962	0.004377	0.026262

1 m3 concrete Cost (USD$)
44.26

Rebar Cost Rs/Ton
40,000

Total Quantities =	523.857 Kg	0.437386 m3
Cost $USD =	291.03	19.36
Total Cost Rs =	20,954.30	1,393.80

Total UG R Cost Rs =	22,348.10	Rs	Total Area=	275.23	SQ.ft.

UG Reinforcement G+3 Total Cost / SQ.ft =	81.20	Rs

UG Reinforcement Unit share Cost / SQ.ft = 20.30 Rs

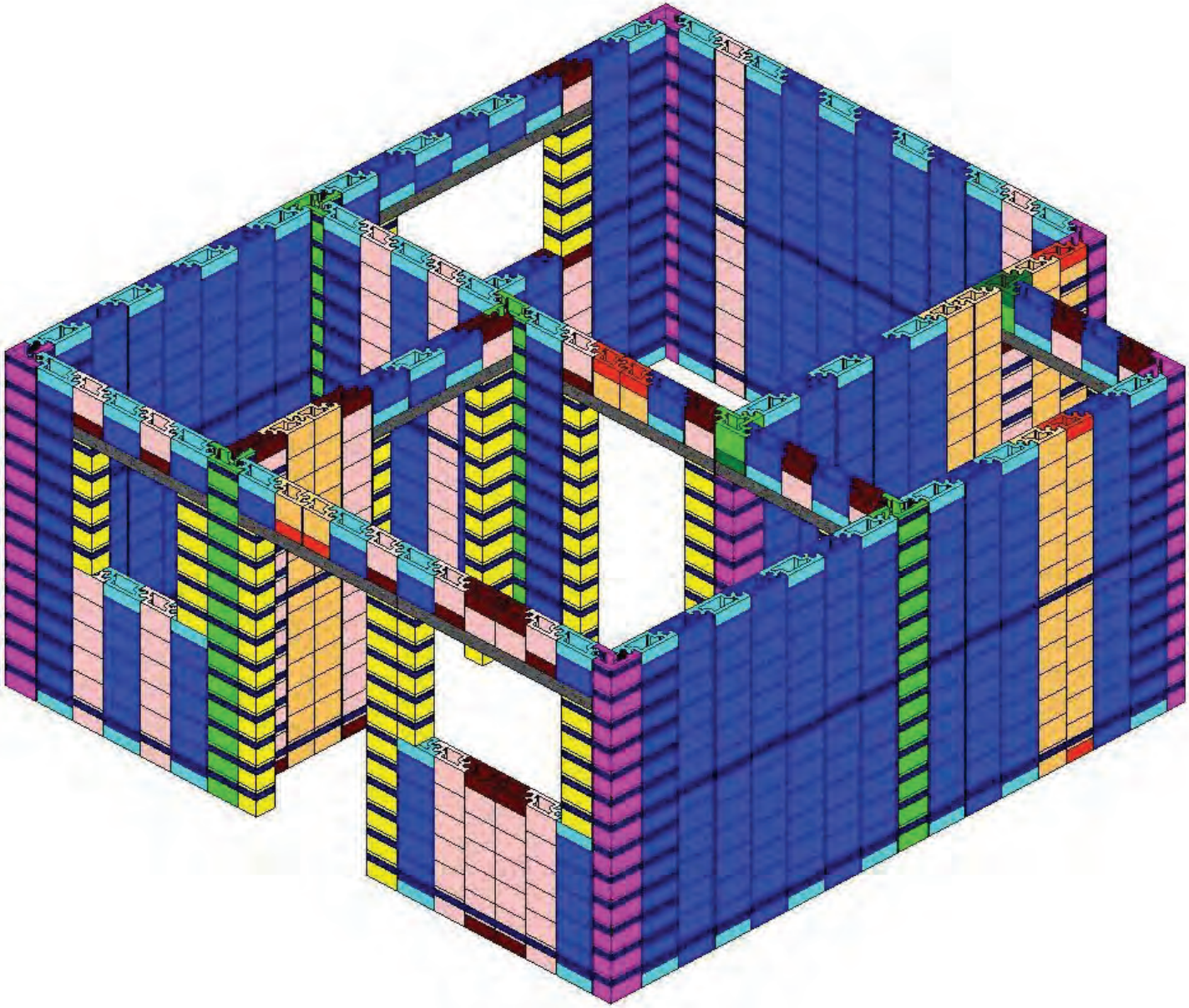
Foundation Share and Slab Cost / SQ.ft

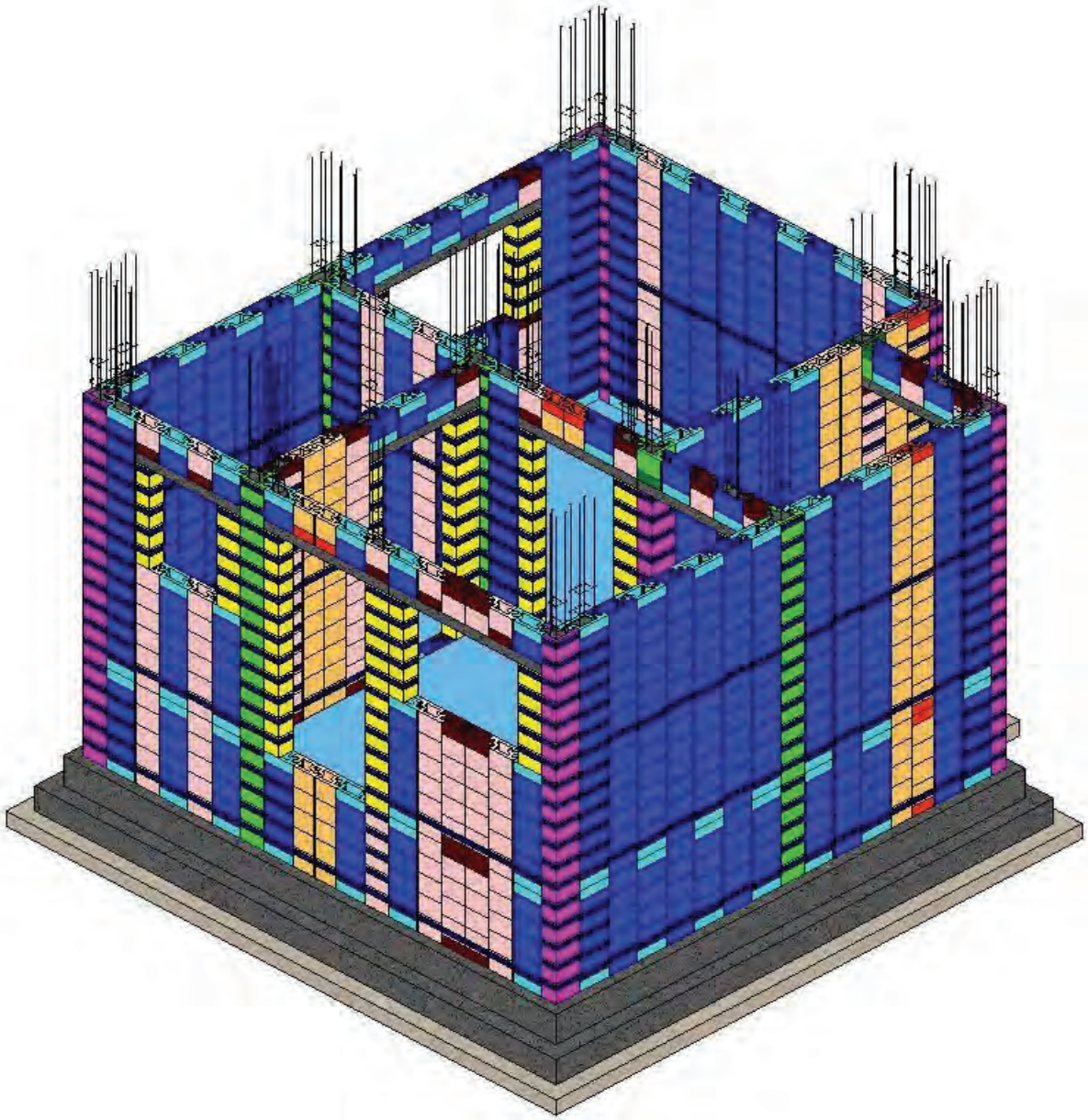
Item	Qyantity	Unit Cost $USD	Item Cost
Under foundation concrete layer m3	3.790500	34.33	130.14
Reinforced foundation m3	7.450750	44.26	329.76
Steel Reinforced foundation 120 Kg/m3	894.090	40,000 Rs/Ton	496.72
Under foundation Sand m3	1.415250	25	35.38
Reinforced foundation Sand m3	8.720250		218.01
Around Foundation Sand	9.984250		249.61
Under Ground Floor Sand m3	18.219750		455.49
Ground Floor concrete layer m3	3.215250	34.33	110.39
Floor Slab m3	4.312200	44.26	190.85
Steel Reinforced Floor Slab 80 Kg/m3	344.976	40,000 Rs/Ton	191.65

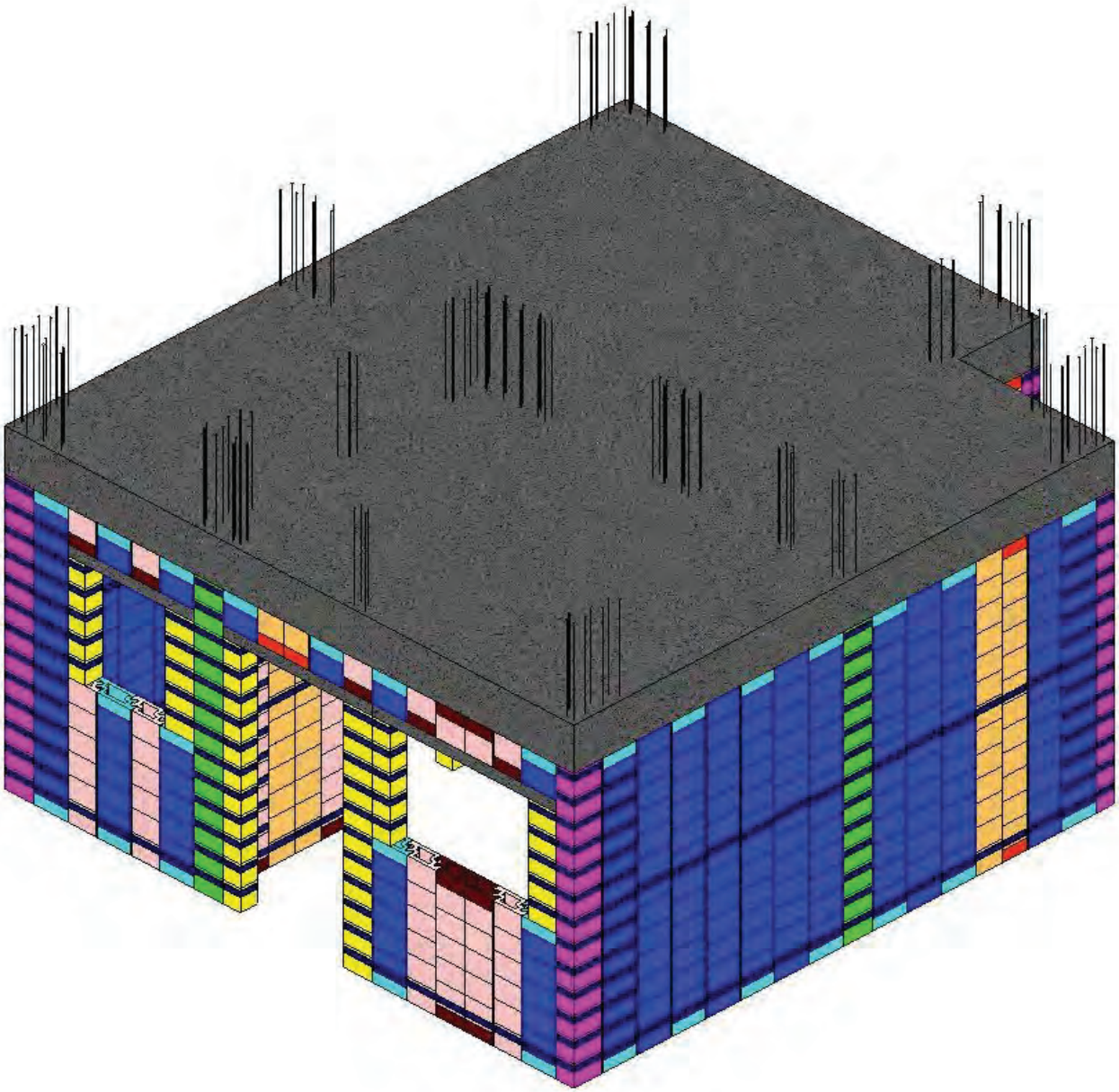
Total G+3 Foundation Cost =	2,025.50	$USD
Total G+3 Foundation Cost =	145,835.97	Rs
Single Unit Foundation Share in Cost =	36,458.99	Rs
Single Unit Slab Cost =	382.51	Rs

Foundation Share and Slab Cost / SQ.ft = 133.86 Rs

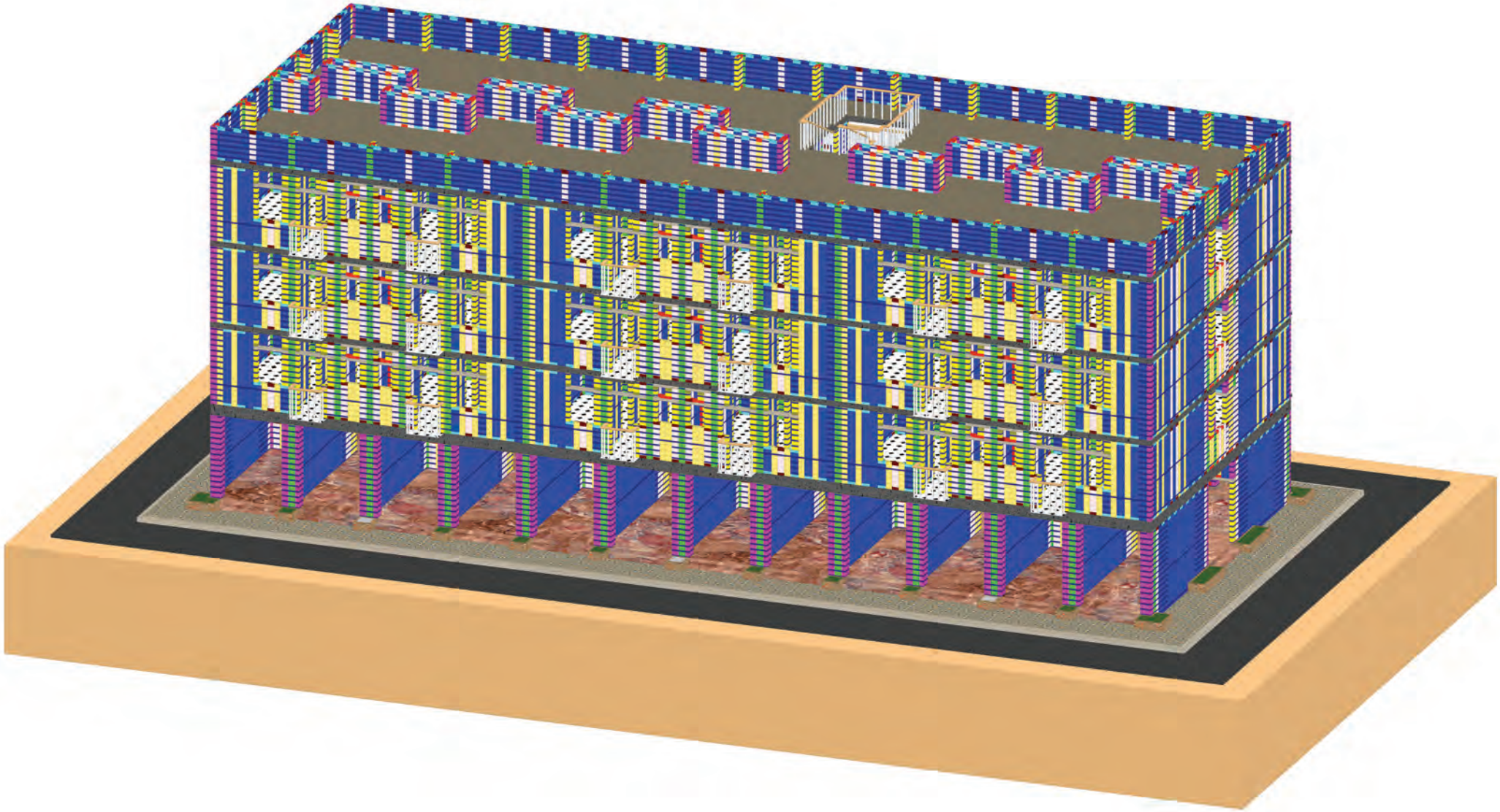
Soil Excavation =	38.175500	m3

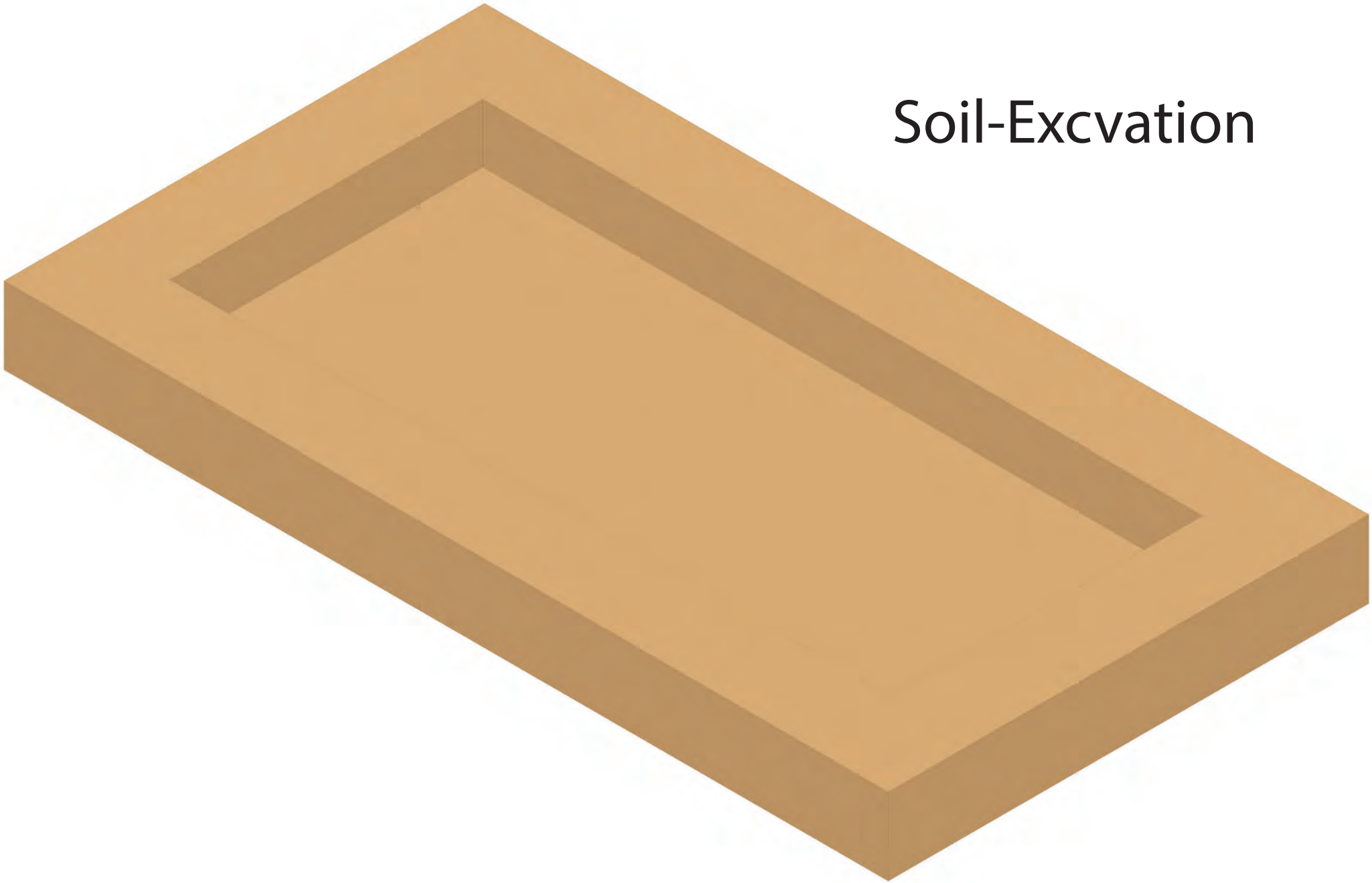




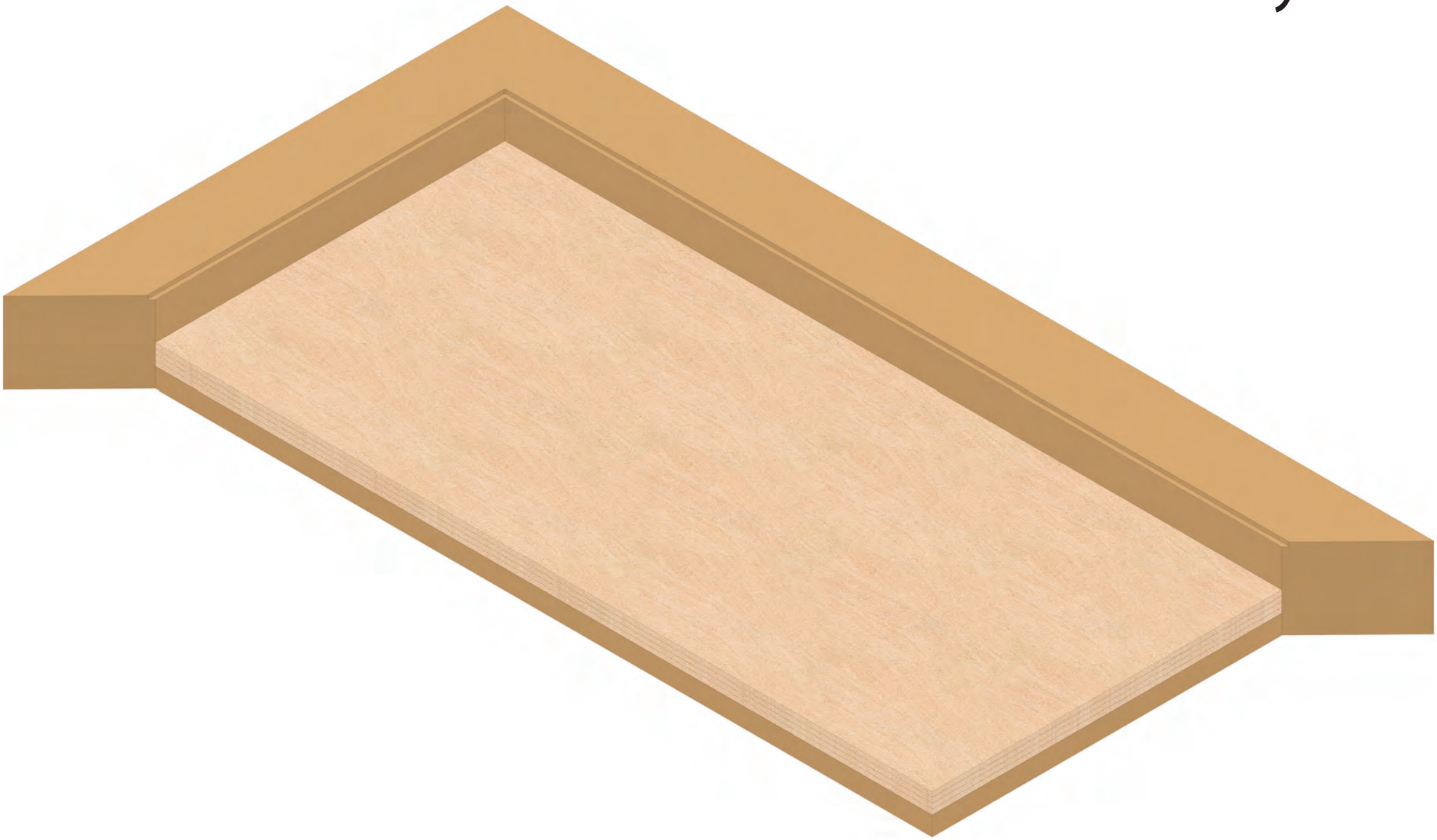


Complete building

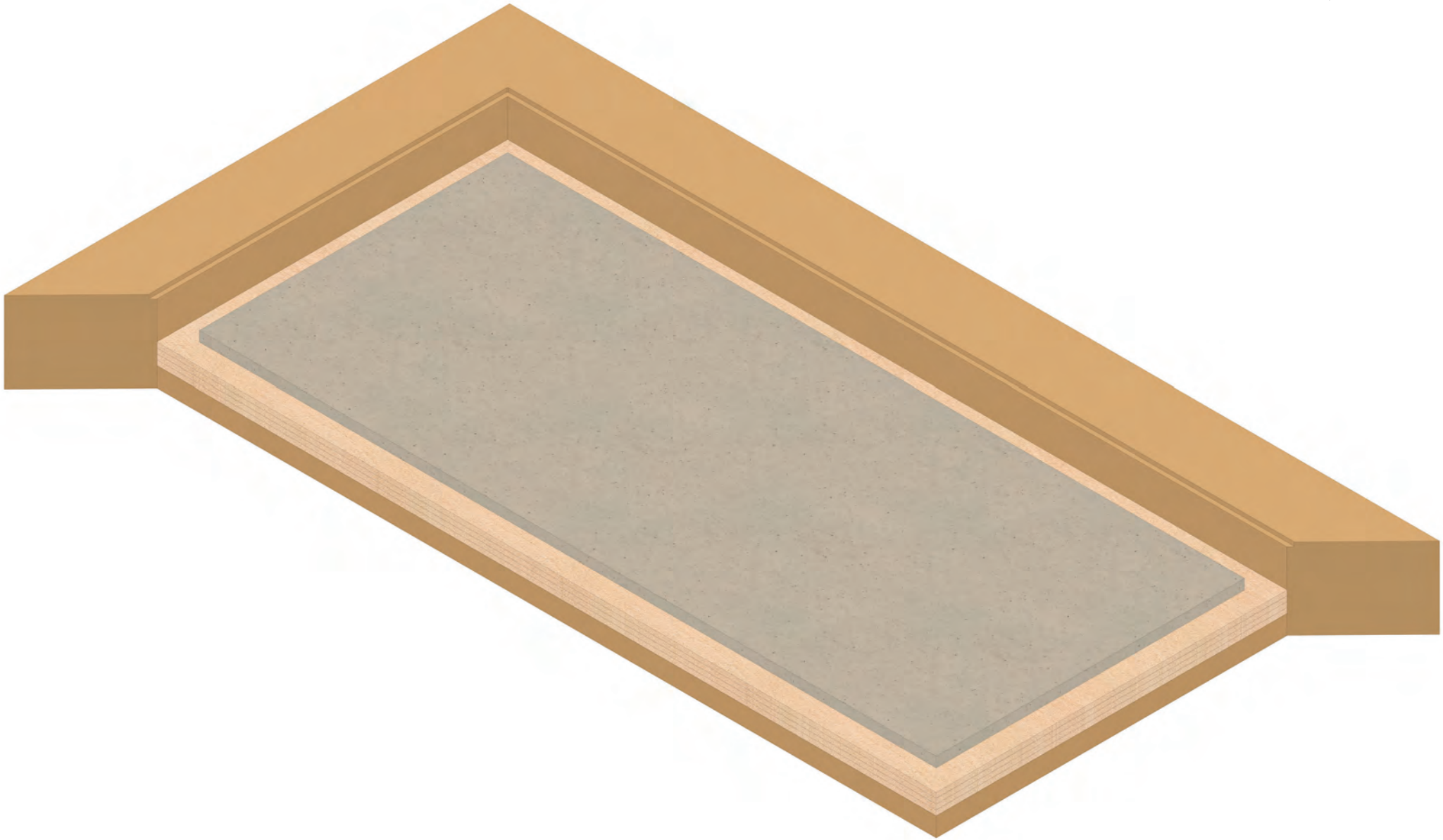



Soil-Excvation

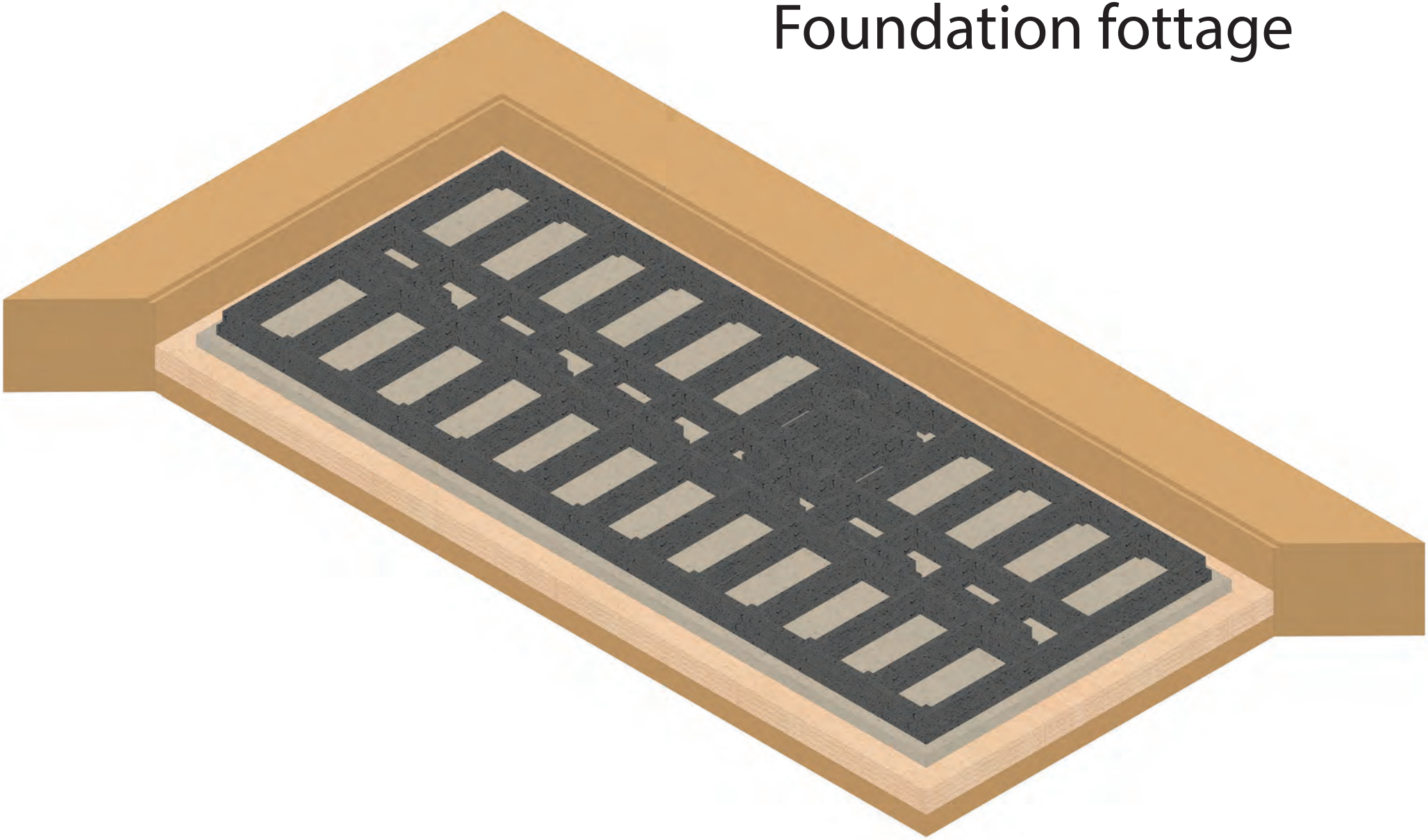
Under foundation sand layers

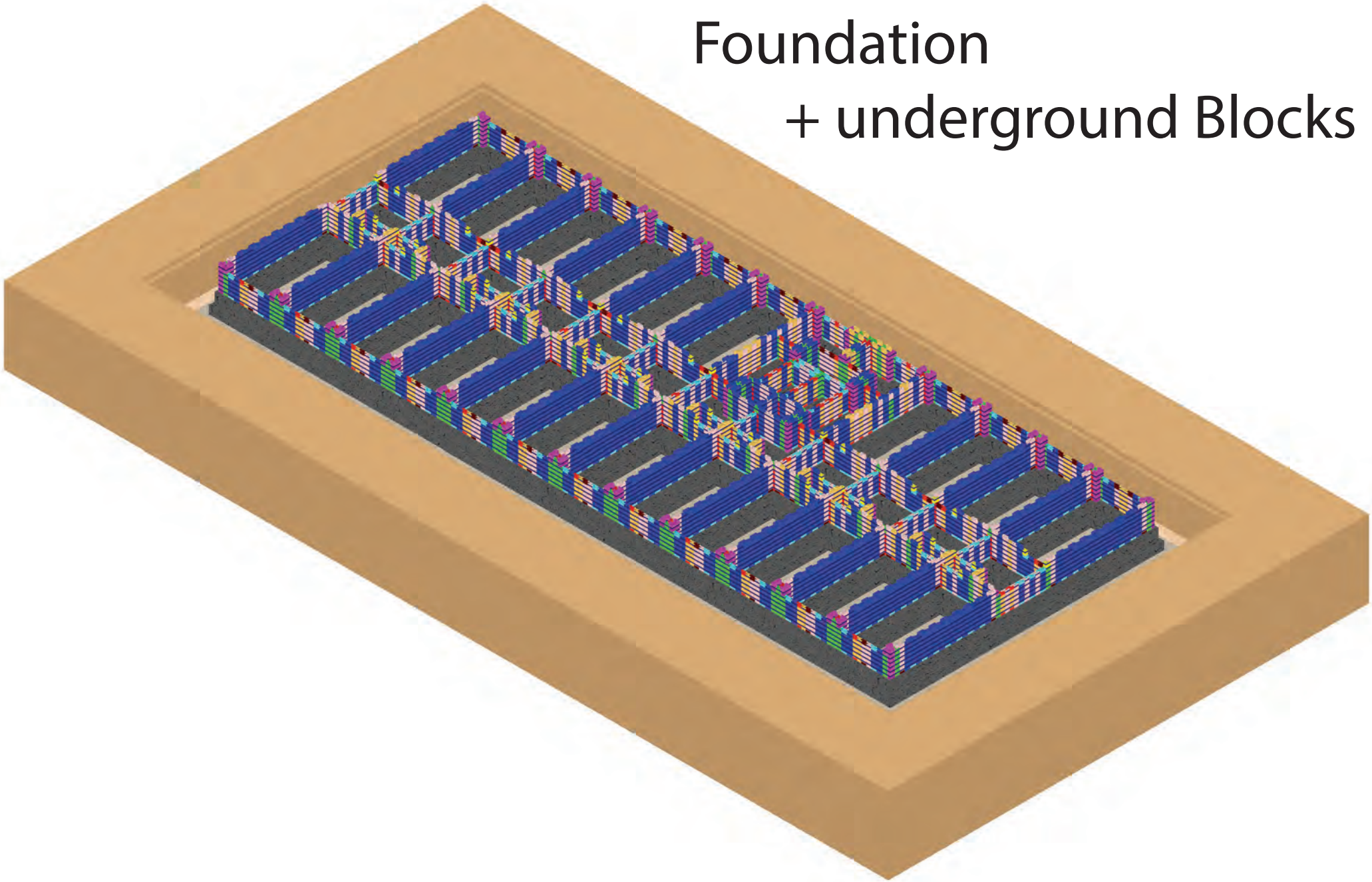


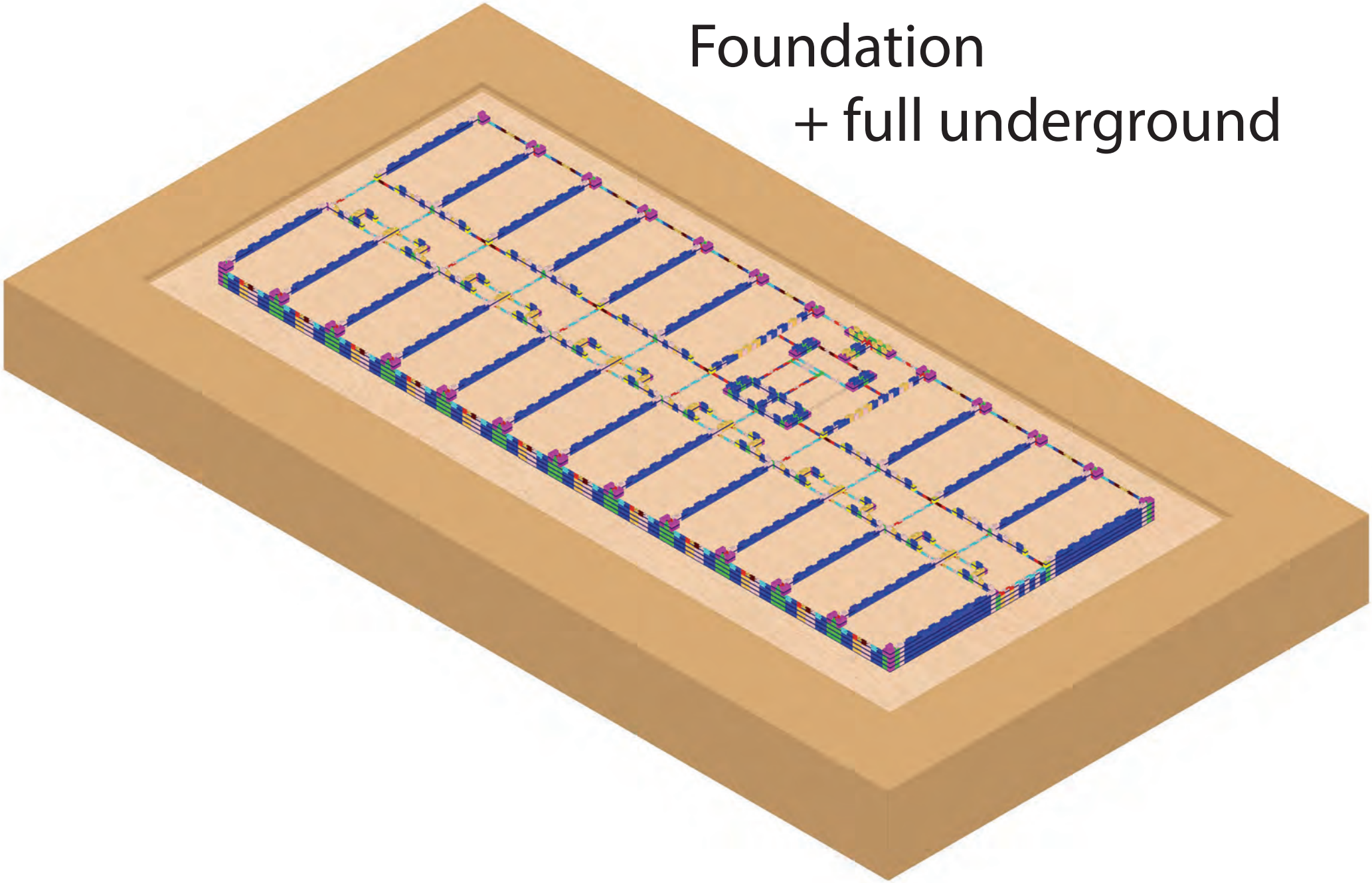
Foundation normal concrete layer



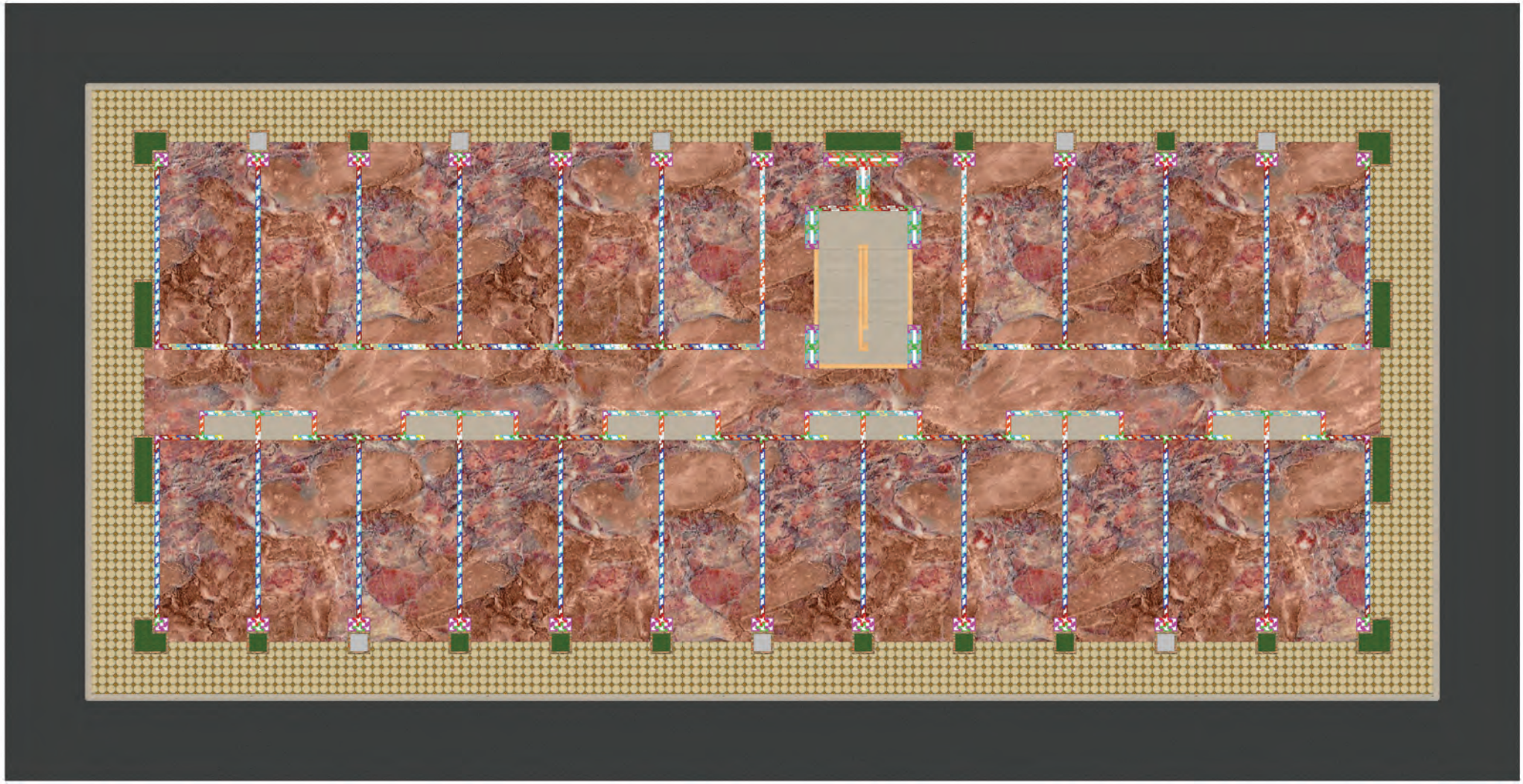
Foundation fottage



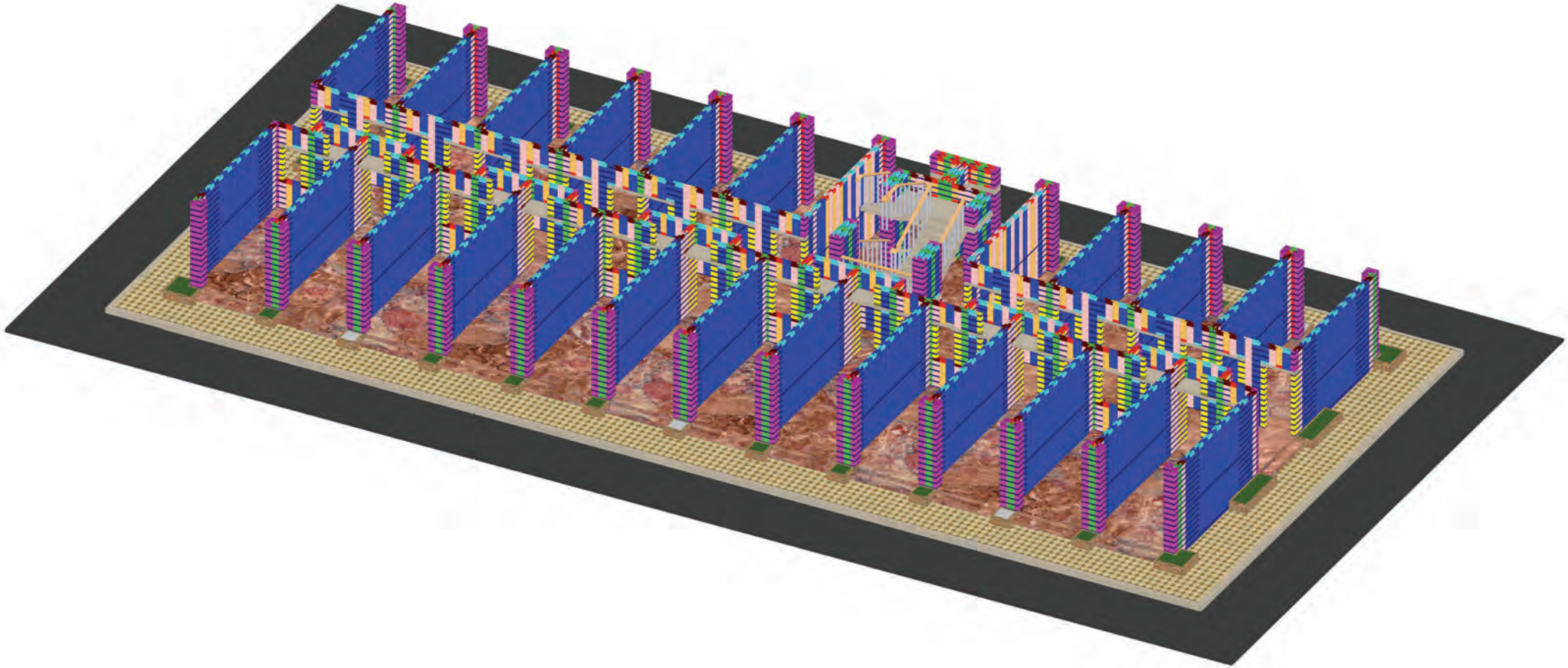

Foundation
+ underground Blocks


Foundation
+ full underground

G-Floor-Plan

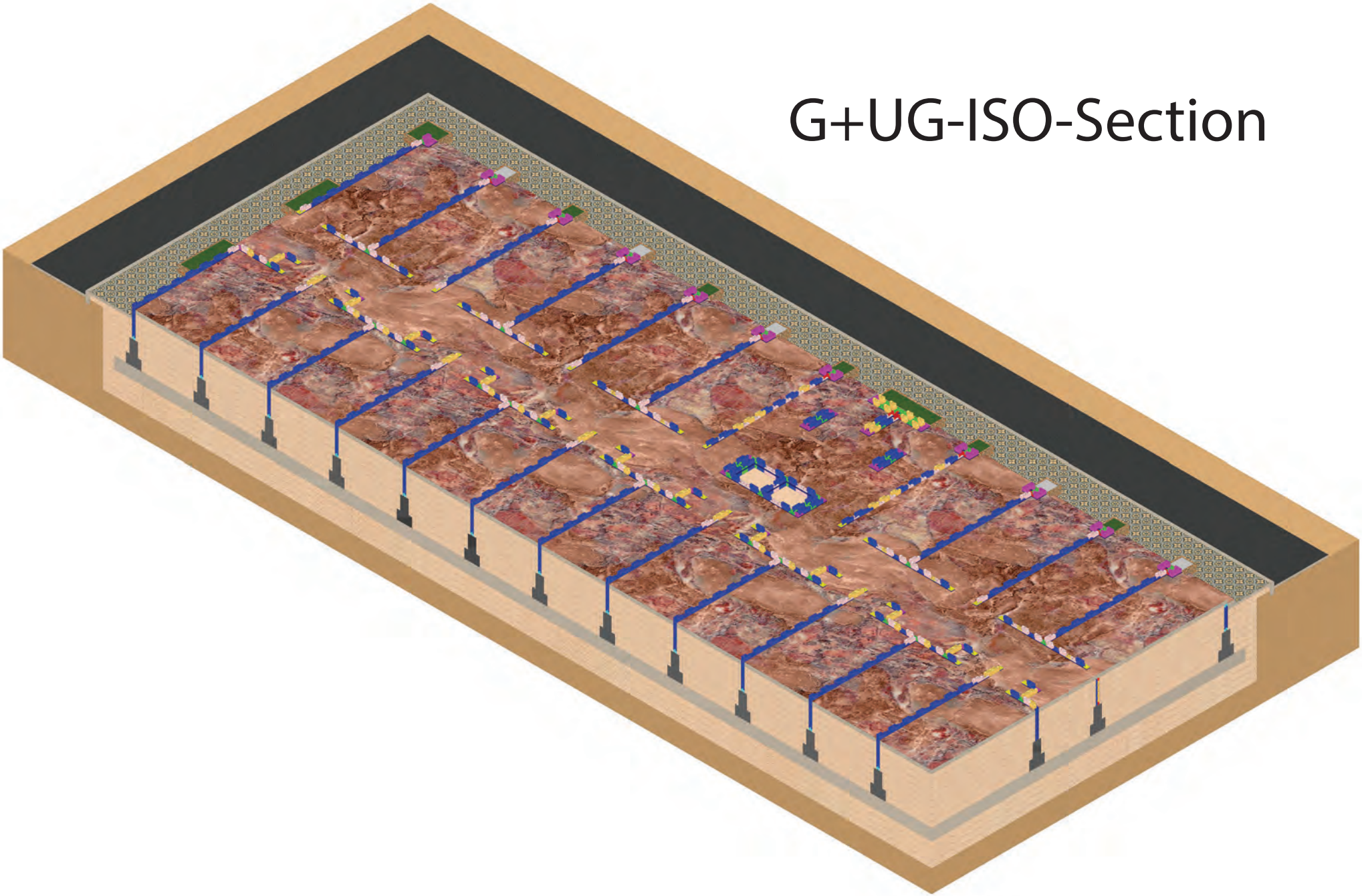


G-Floor-ISO

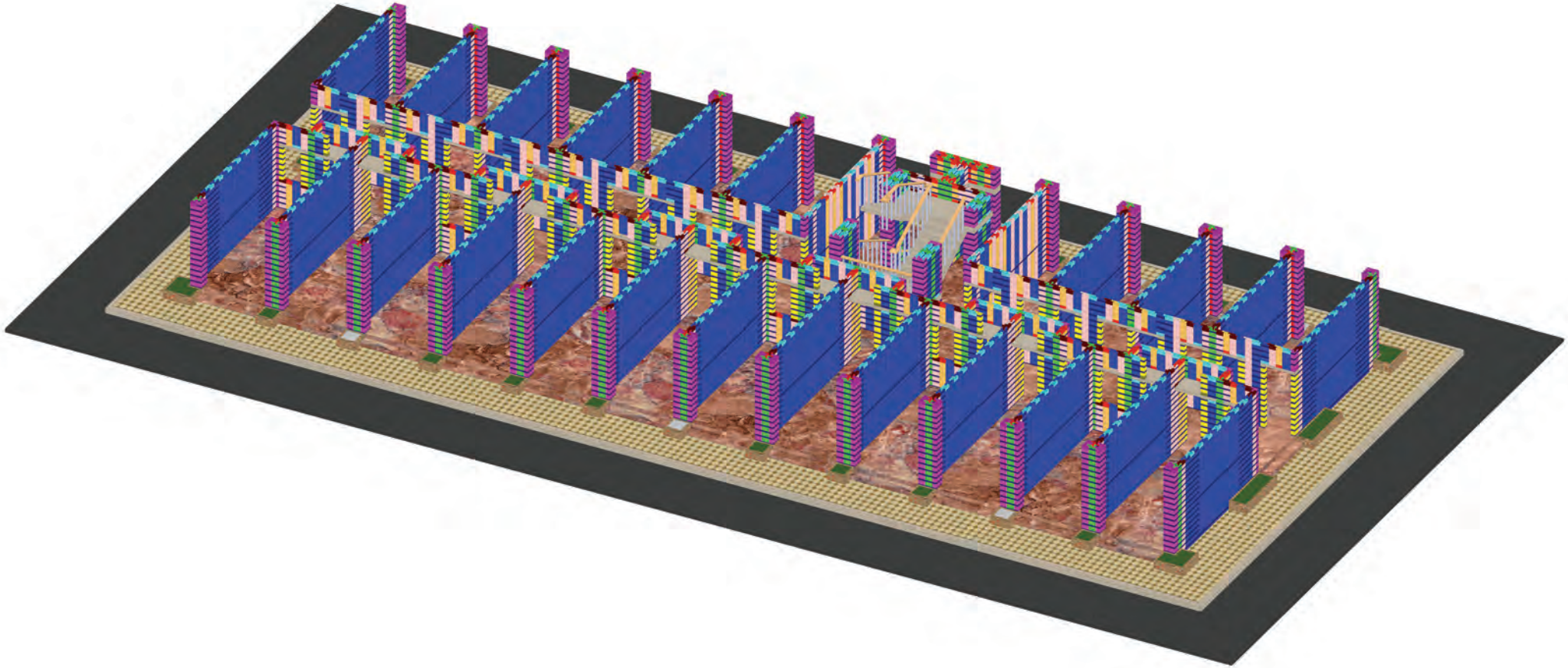


G+UG-Elevation-Section

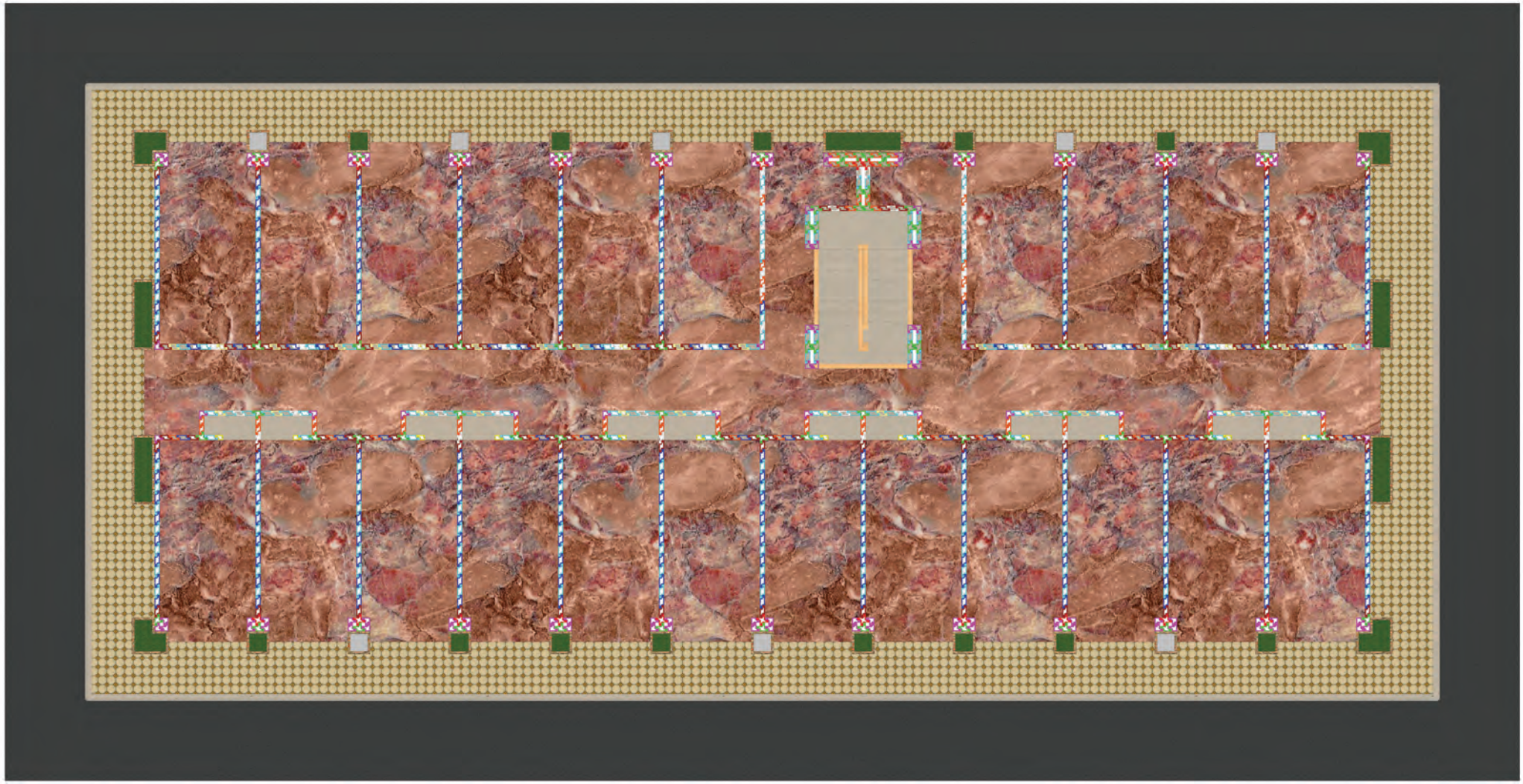
G+UG-ISO-Section



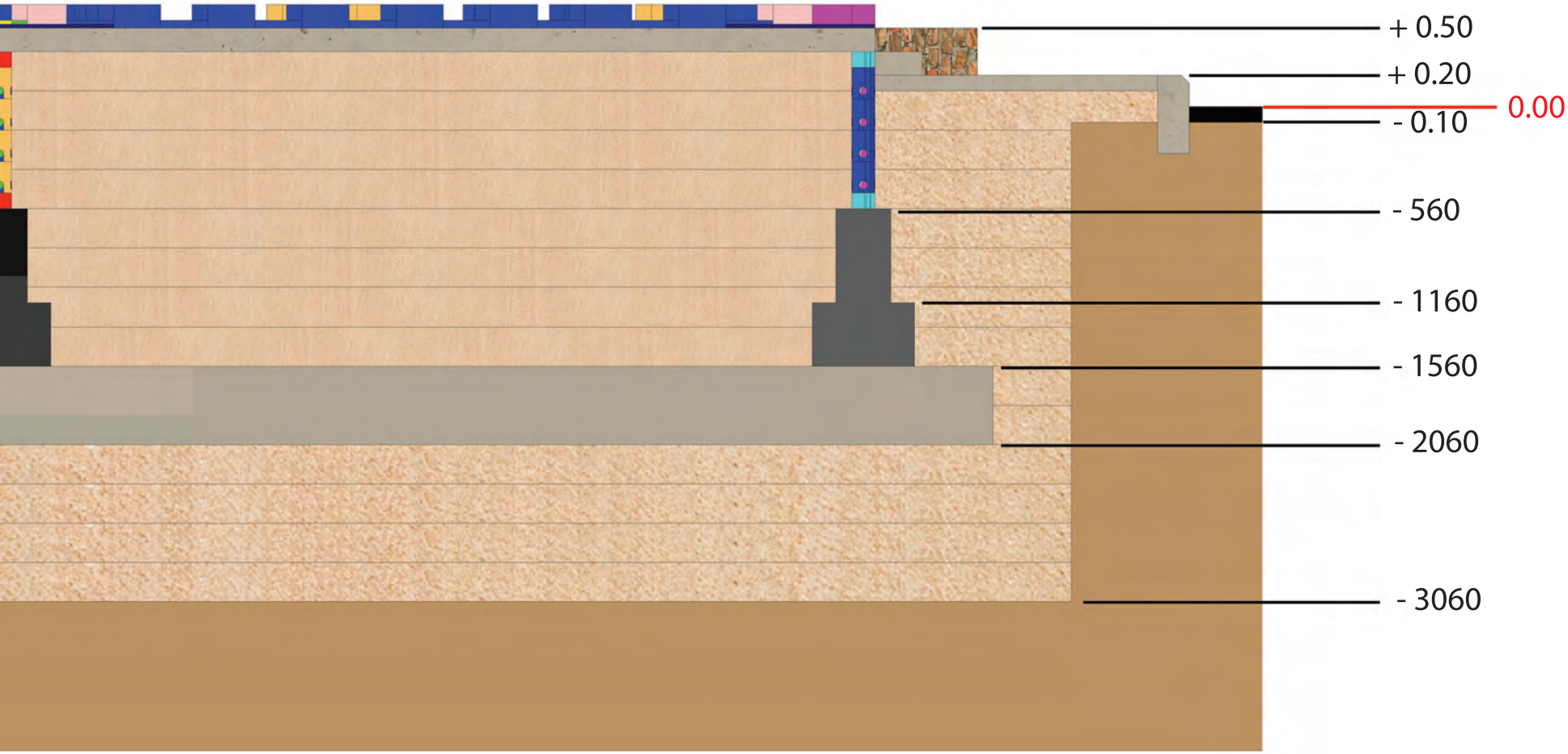
G-Floor-ISO



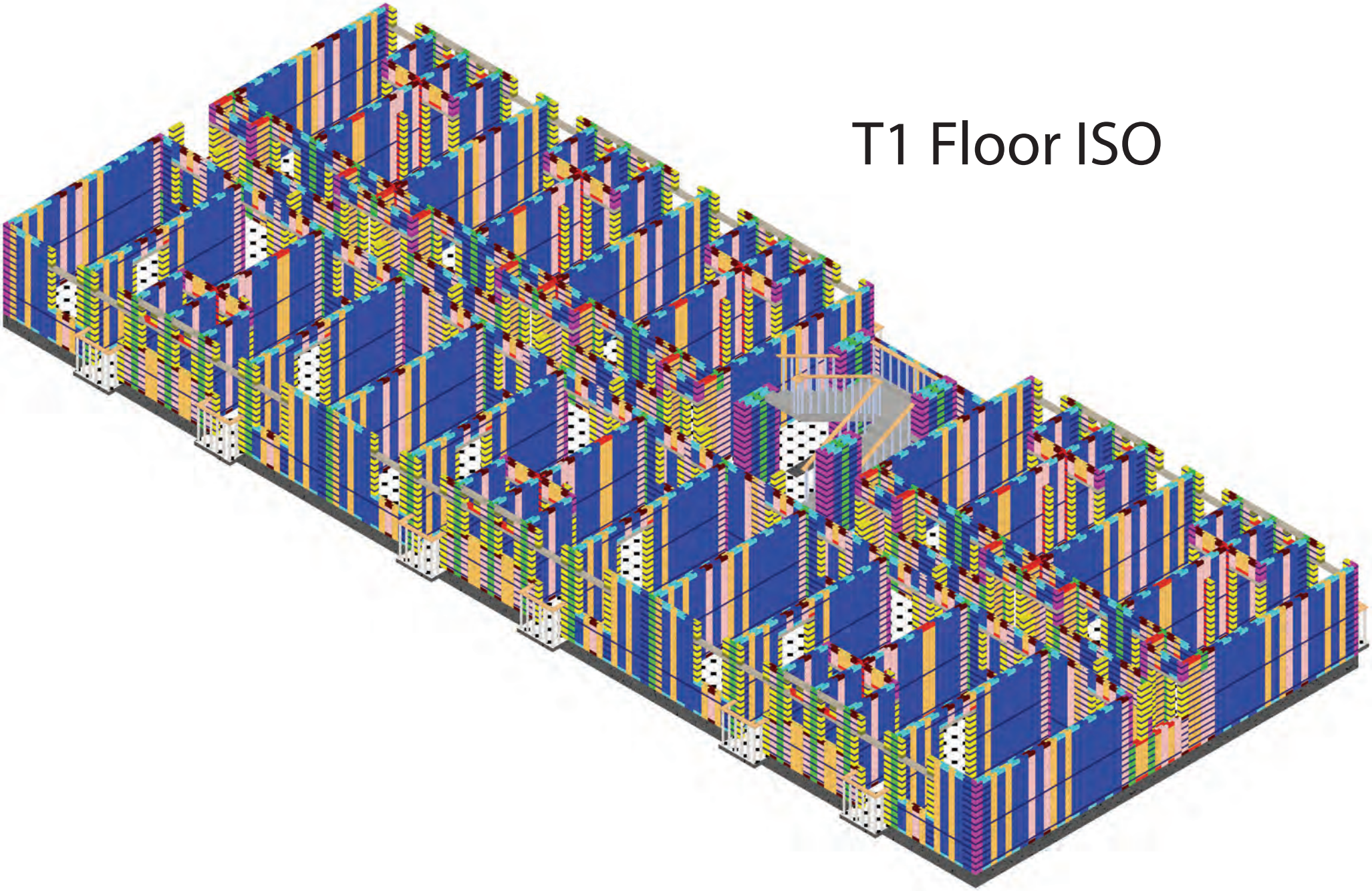
G-Floor-Plan



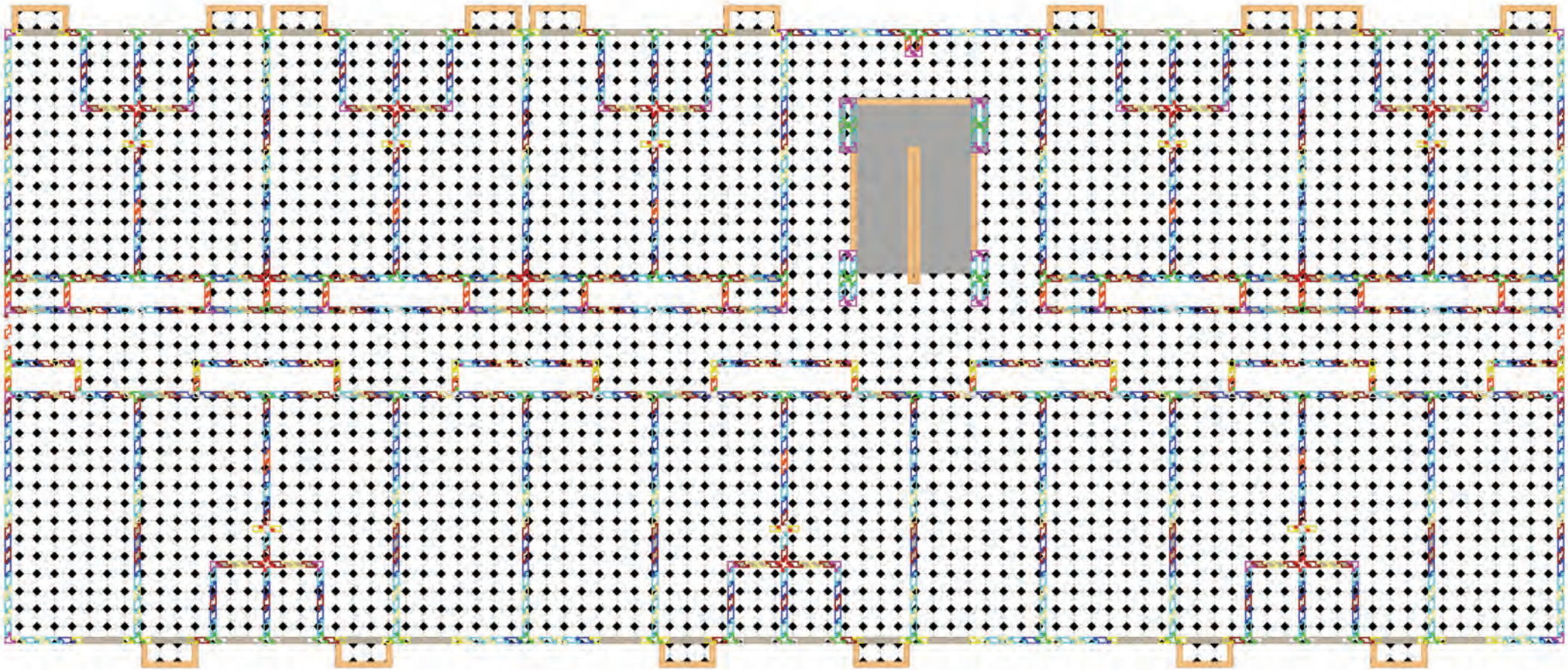
G-Floor-Levels



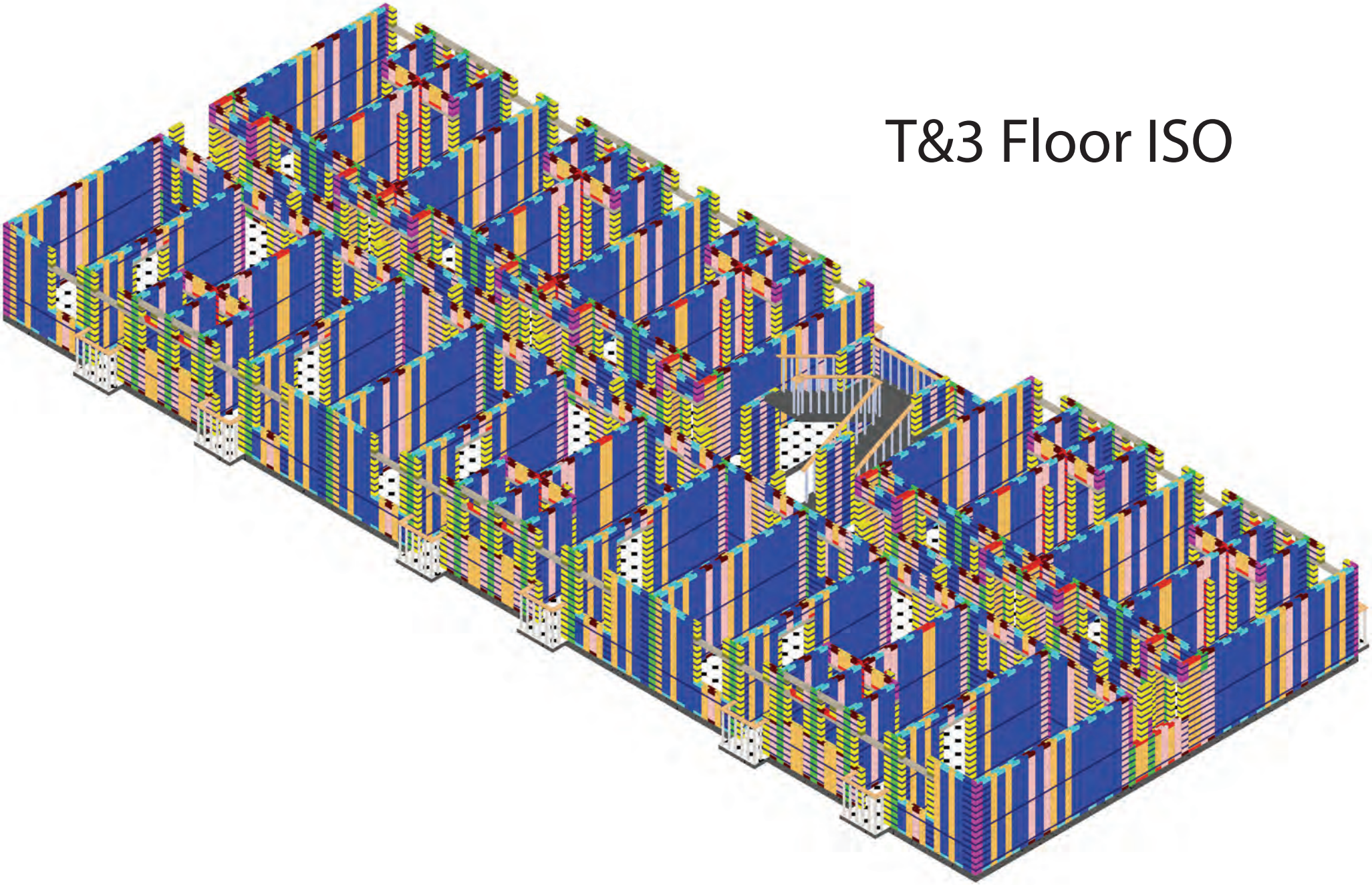
T1 Floor ISO



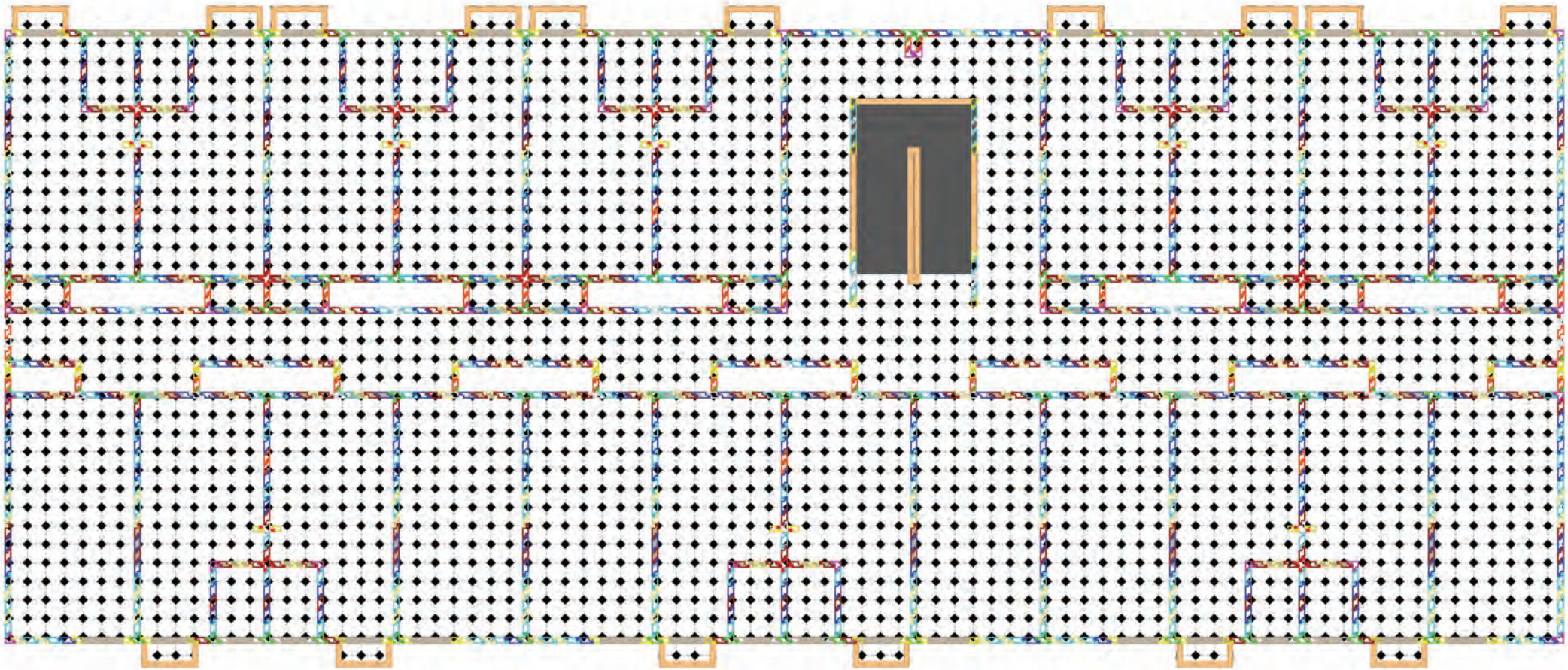
T1 Floor plan



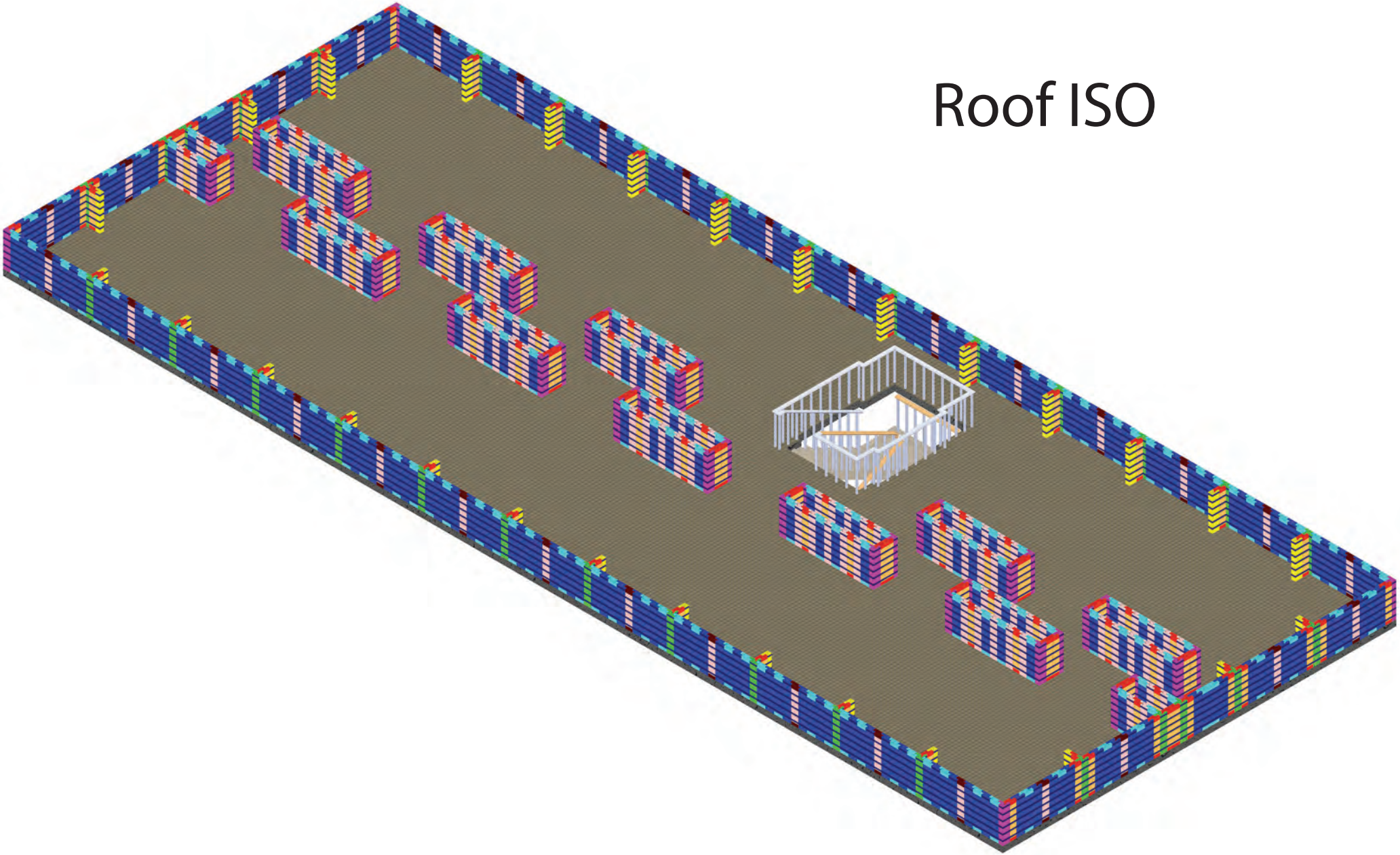
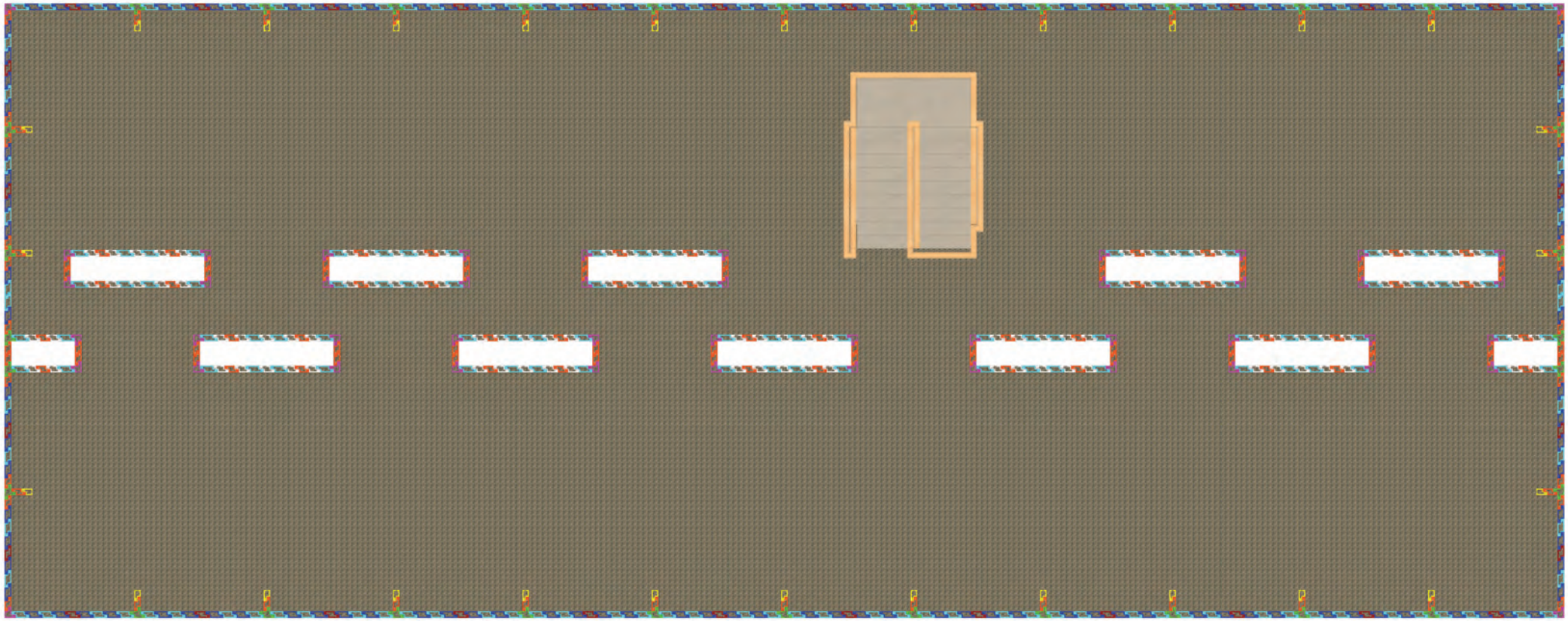
T&3 Floor ISO



T&3 Floor plan



Roof ISO



Roof plan