chapter 7 | supa sewe

design + technical development

80

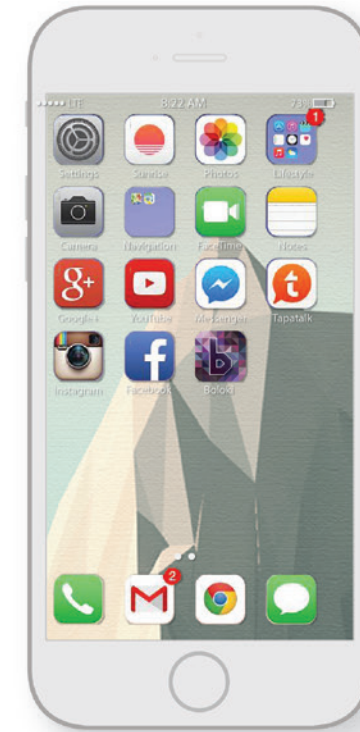81

© University of Pretoria
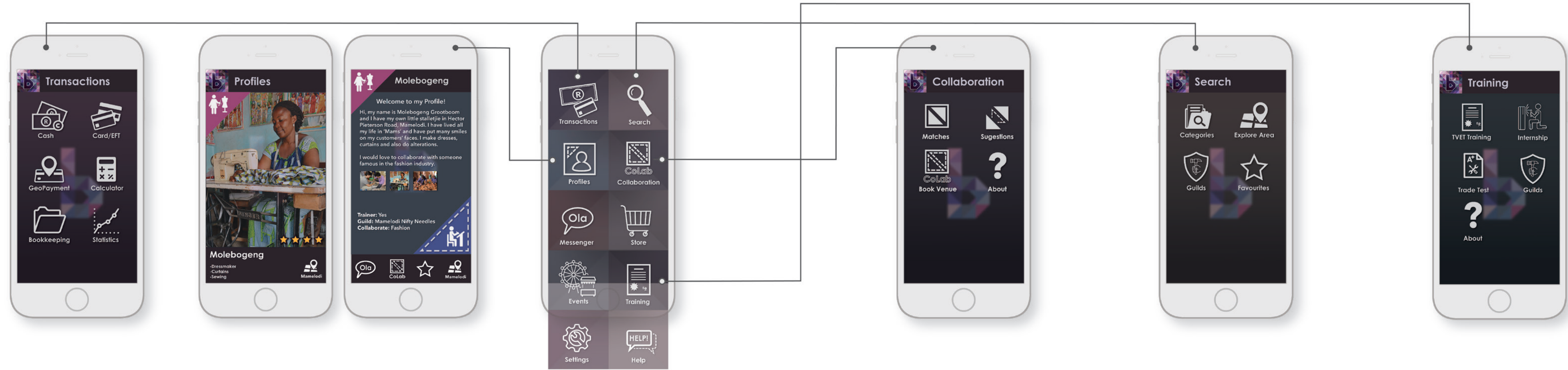
Figure 7.1 App proposal 1 (Author, 2016)

PHASE 1

Figure 7.2 App proposal 2 (Author, 2016)

Current stall condition

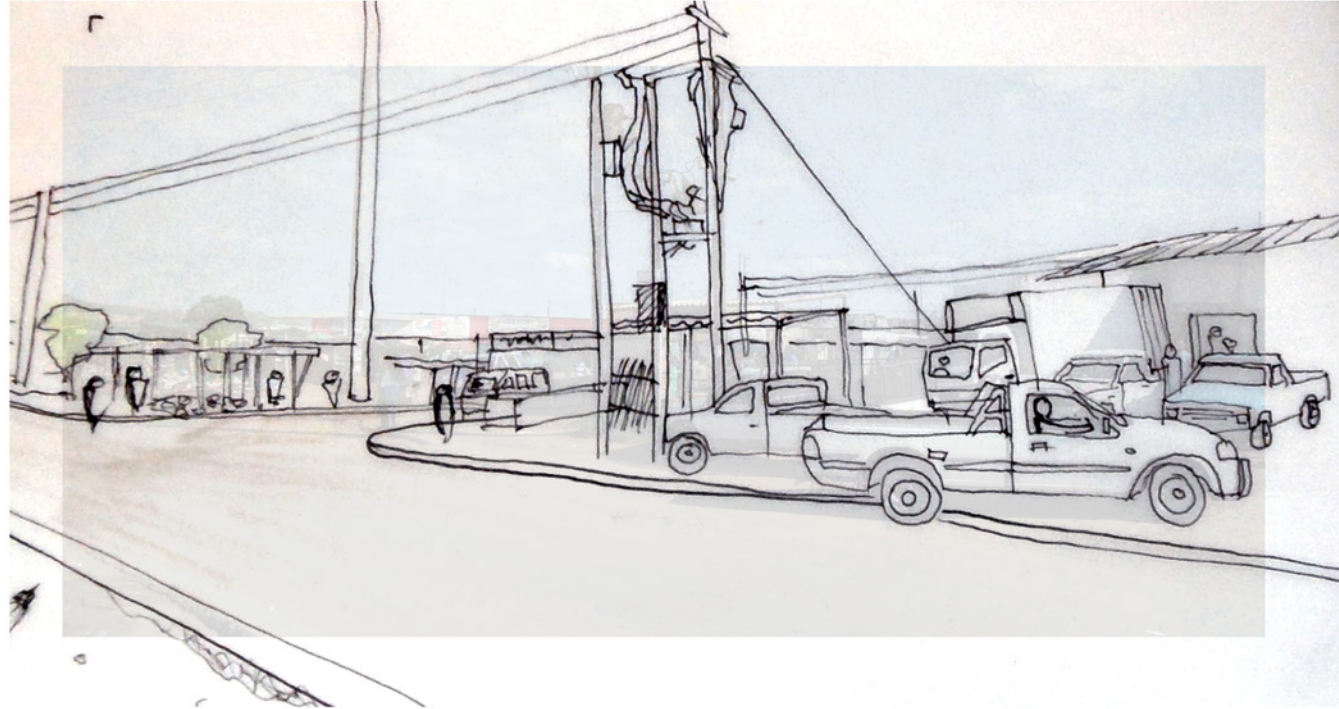

Figure 7.3 Current stall condition (Author, 2016)

Proposed stall upgrade

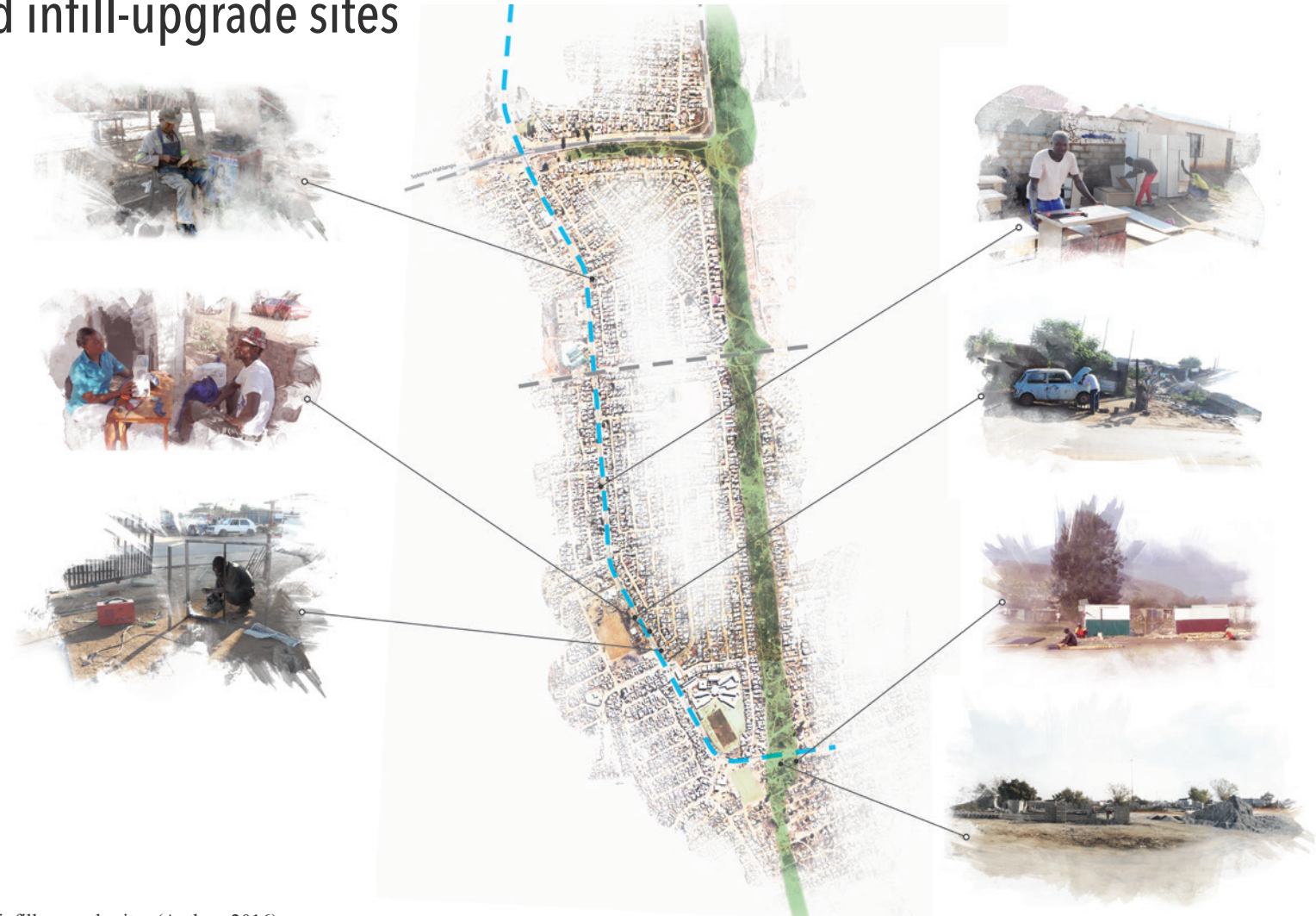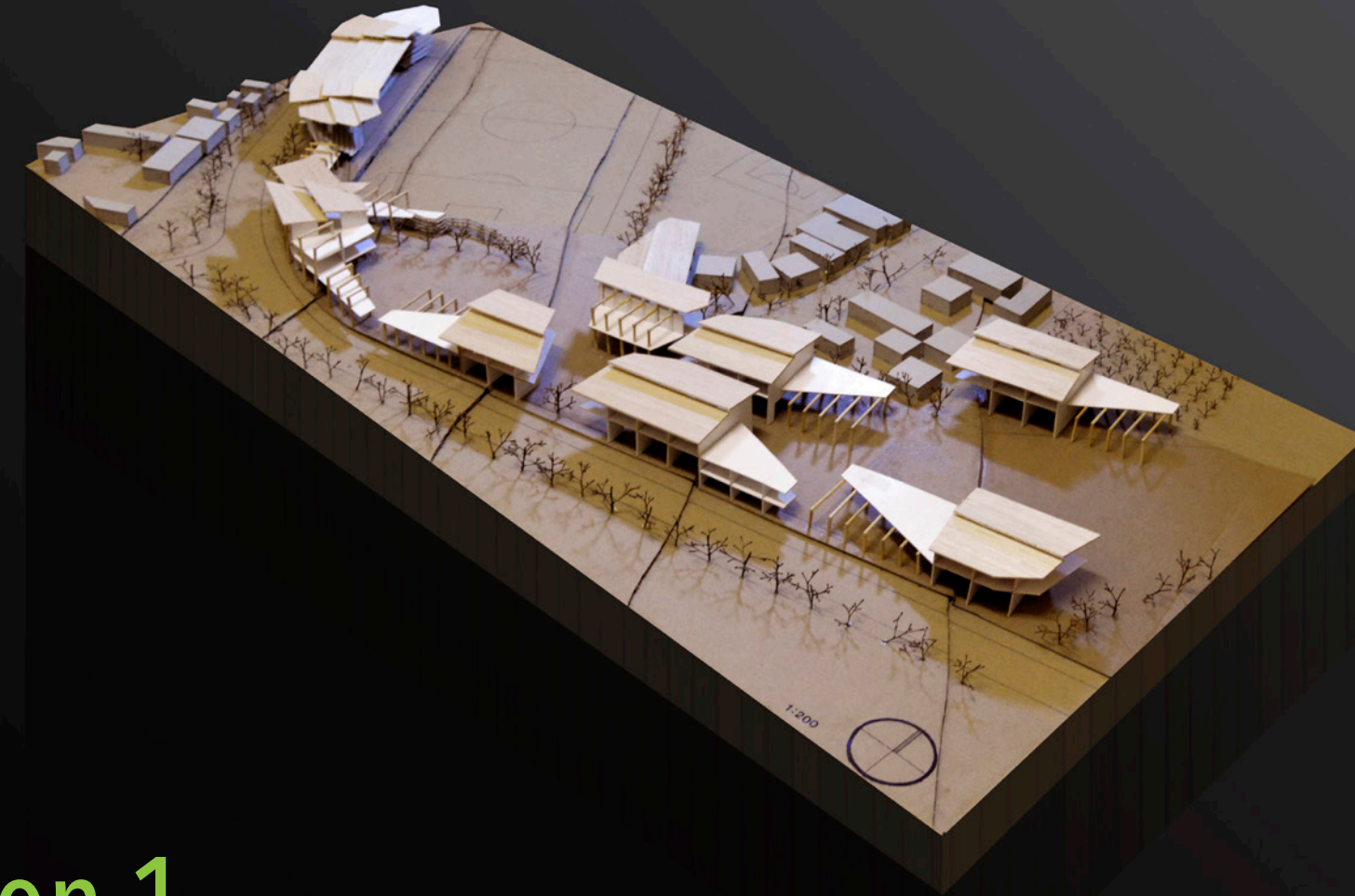Figure 7.4 Proposed stall upgrade (Author, 2016)

Proposed infill-upgrade sites

Figure 7.5 Proposed infill-upgrade sites (Author, 2016)

Figure 7.6 Bophelo Trade Training Centre Logo (Author, 2016)

PHASE 3

Figure 7.7 Iteration

Figure 7.8 Iteration 1 plan (Author, 2016)
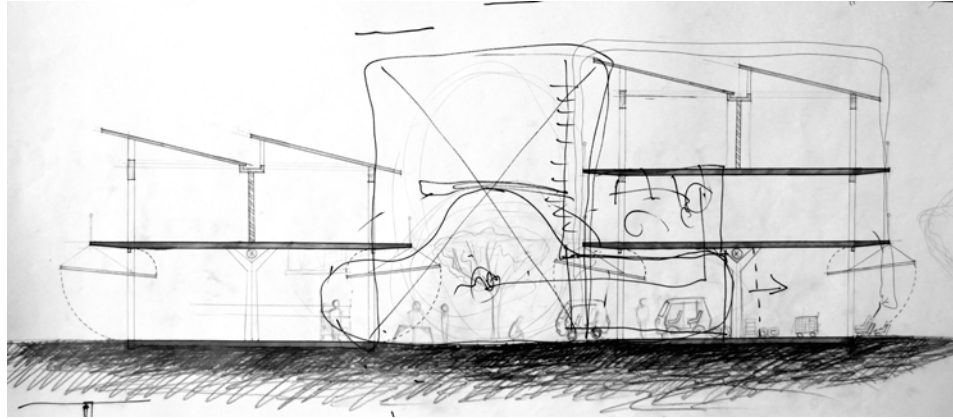
PHASE 3
iteration 1

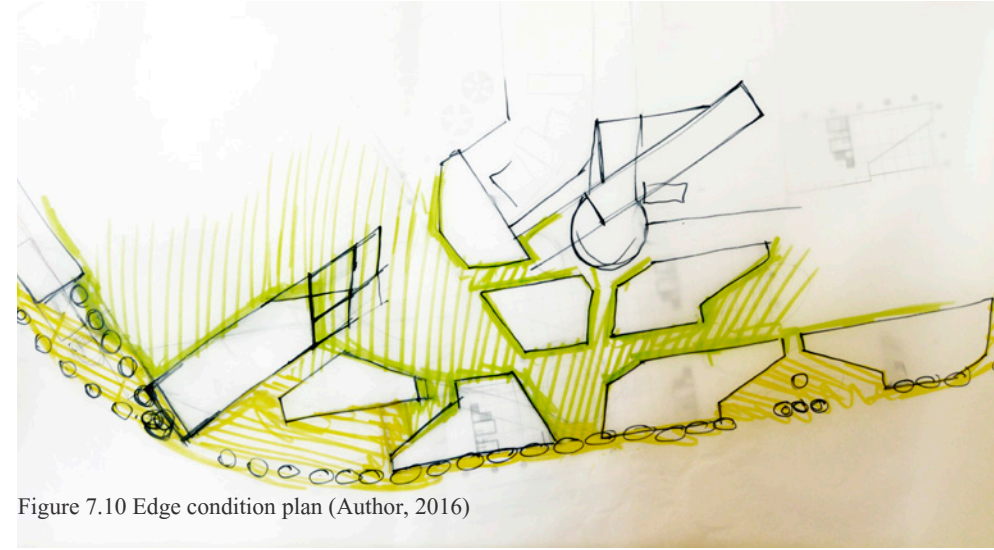Figure 7.9 Collaboration corridor section (Author, 2016)

Figure 7.10 Edge condition plan (Author, 2016)

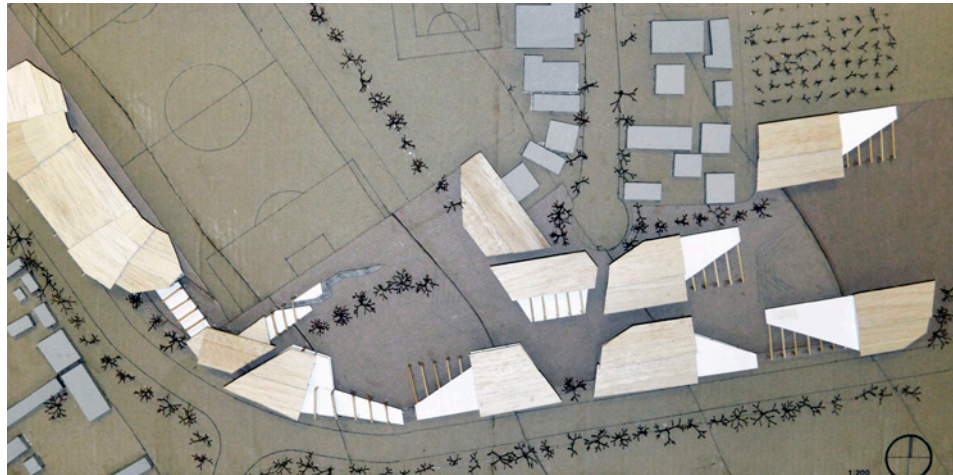Figure 7.11 Iteration 1 model (Author, 2016)

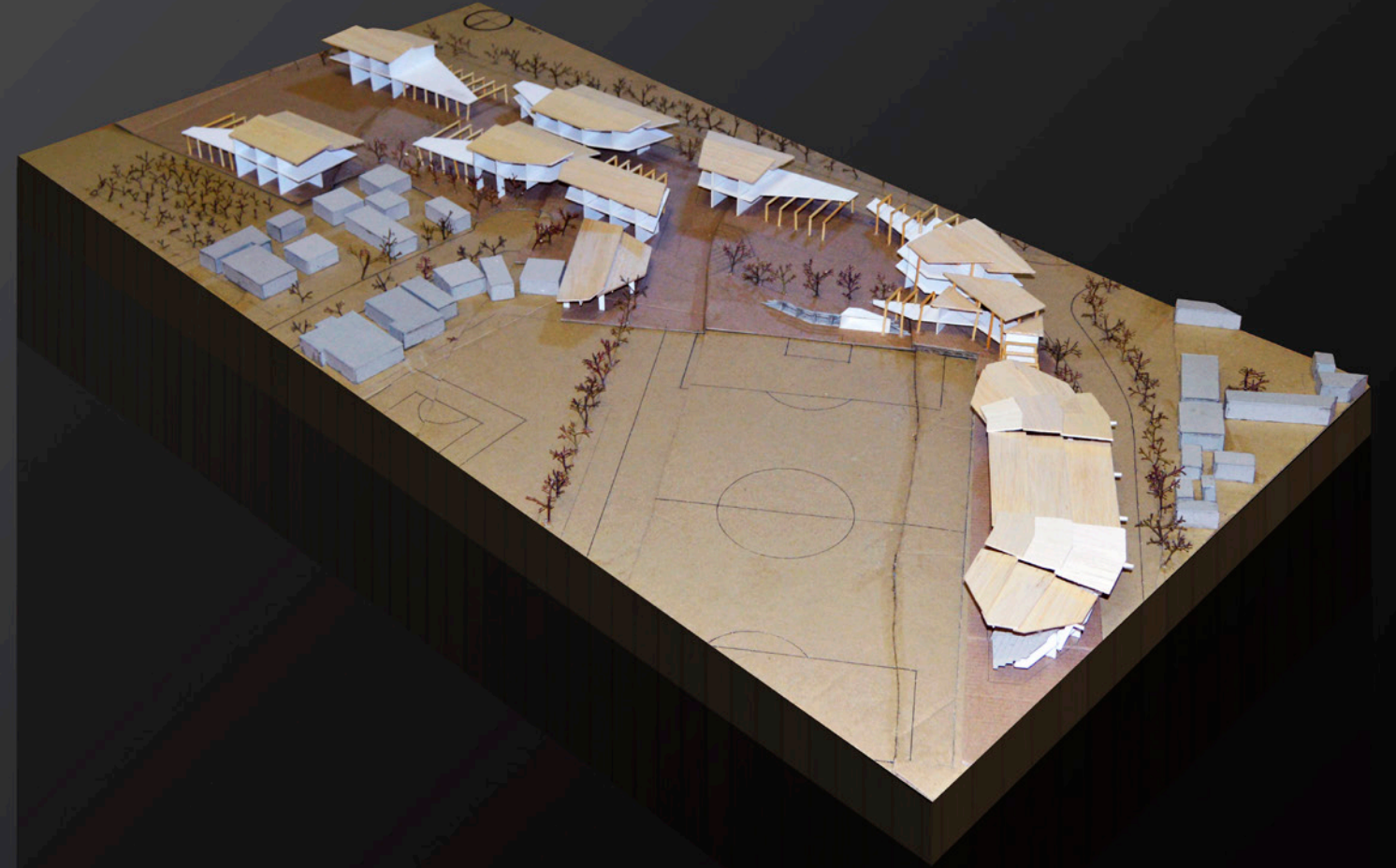Figure 7.12 Outside working space relationship (Author, 2016)
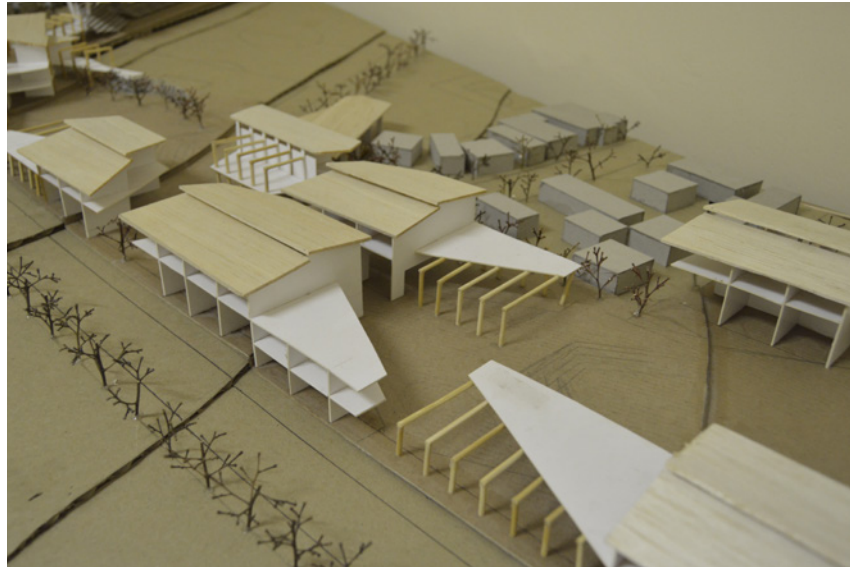

(Author, 2016)

Figure 7.14 Iteration 1 model (Author, 2016)

Figure 7.15 Iteration 1 model (Author, 2016)

Figure 7.16 Iteration 1 model (Author, 2016)
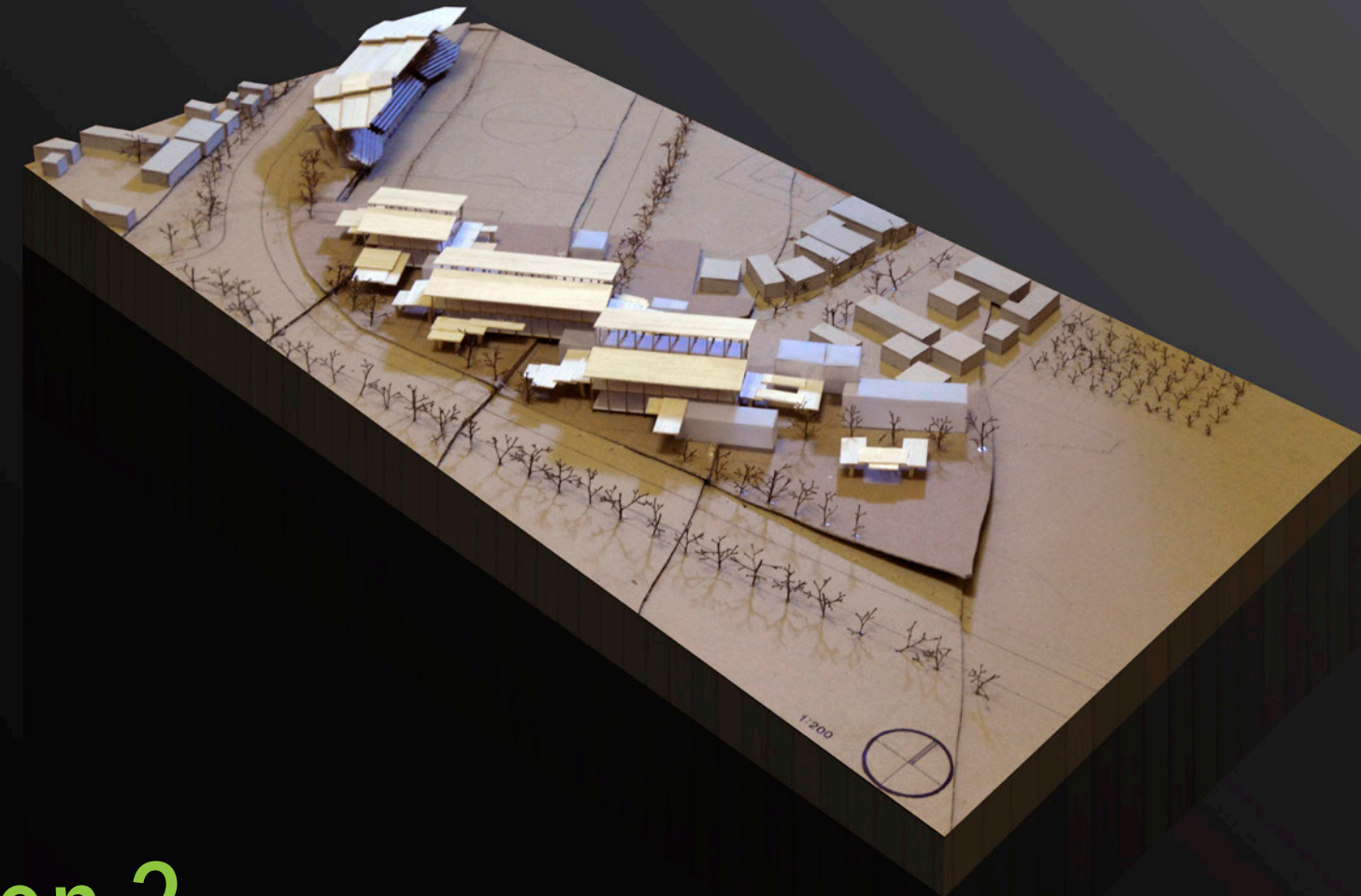

Figure 7.17 Iteration 1 model (Author, 2016)

PHASE 3
iteration 2
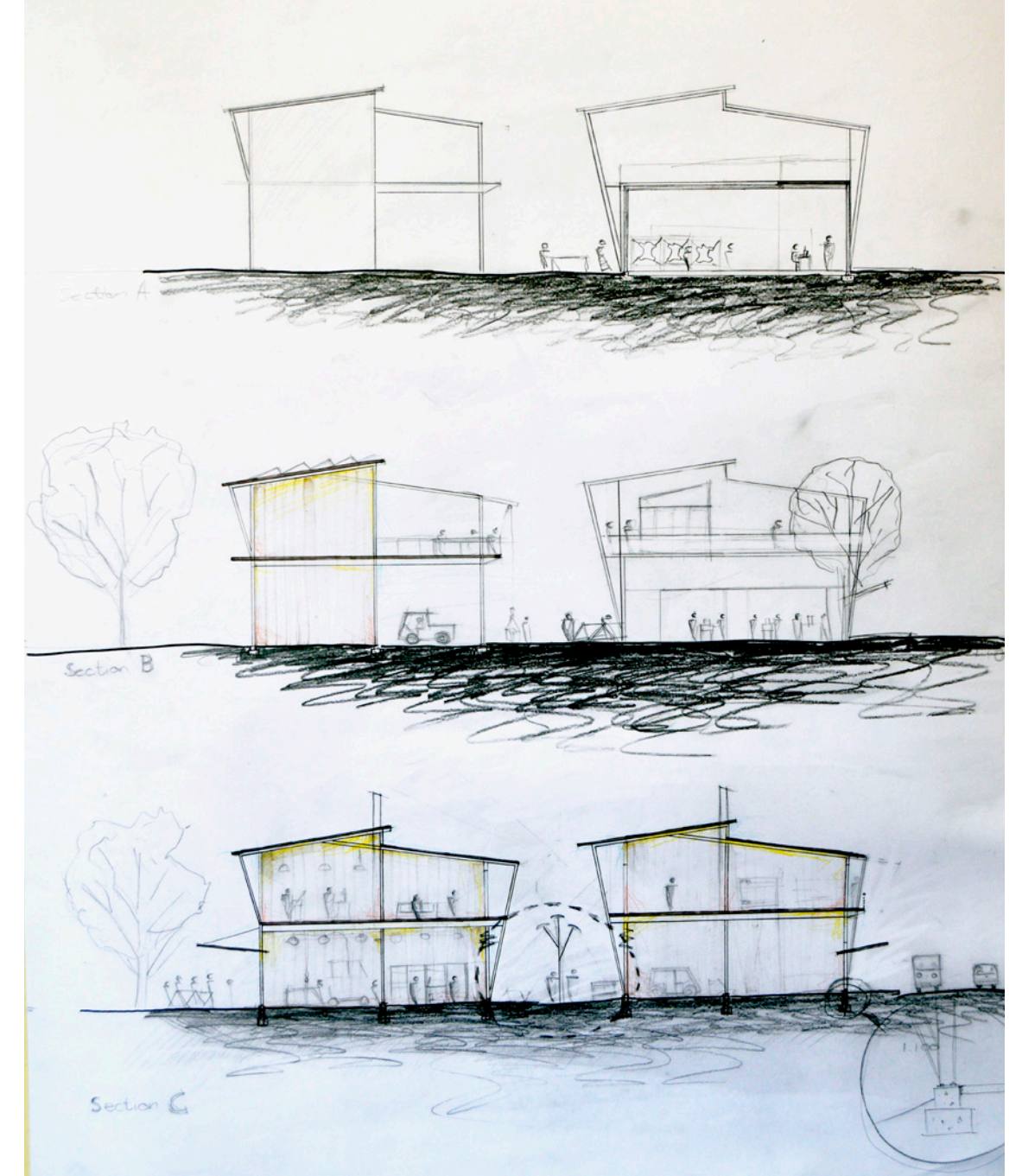
Figure 7.18 Iteration 2 ...
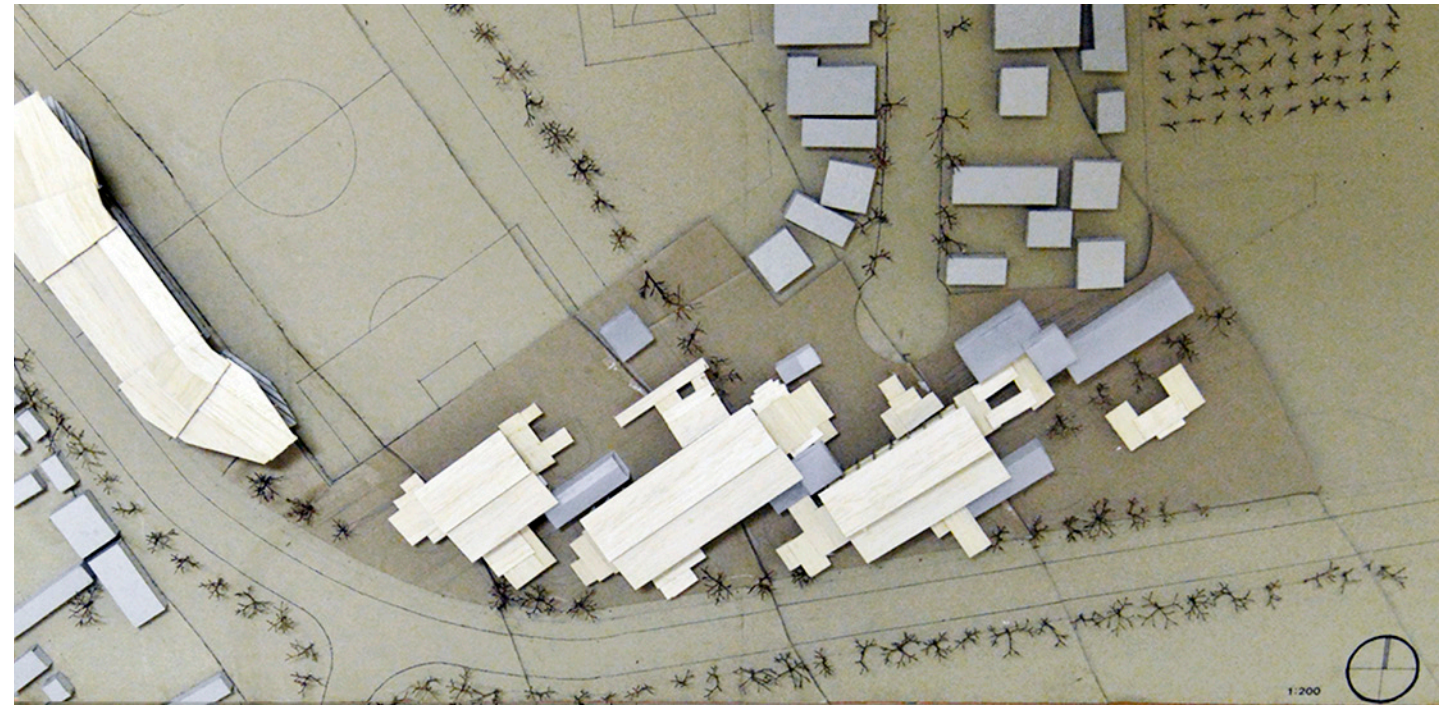
Figure 7.19 Section Development (Author, 2016)

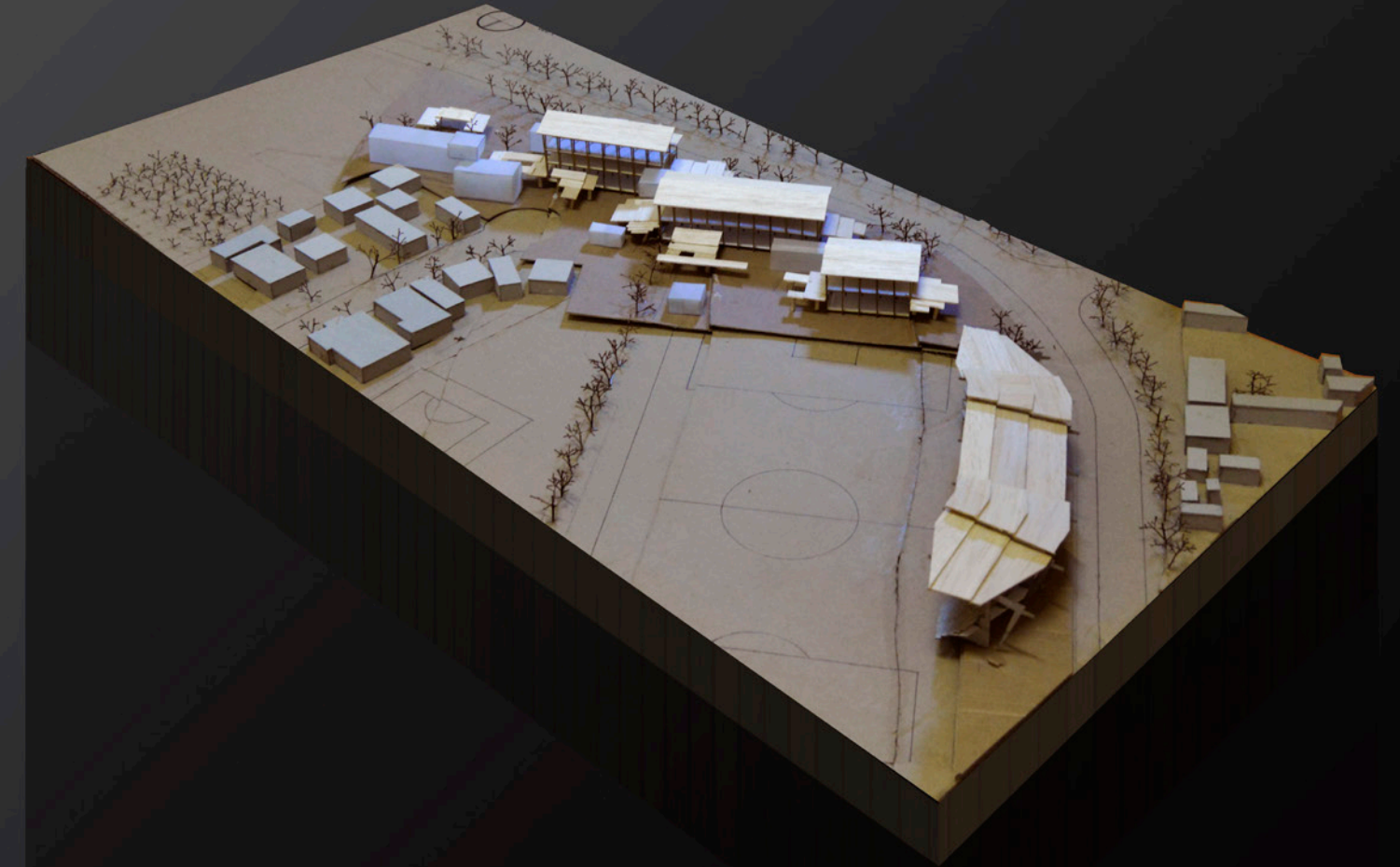Figure 7.20 Iteration 2 model (Author, 2016)

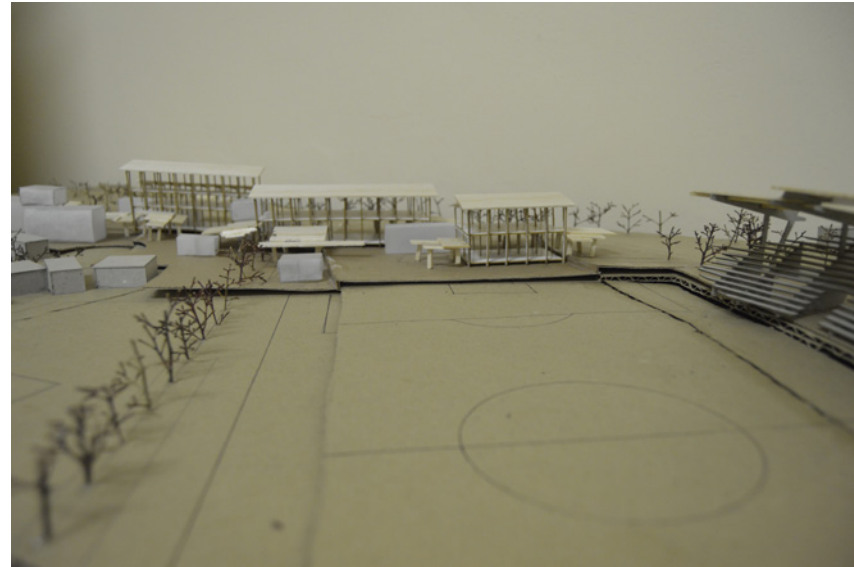Figure 7.21 Iteration 2 model (Author, 2016)

Figure 7.22 Iteration 2 model (Author, 2016)

Figure 7.23 Iteration 2 model (Author, 2016)

Figure 7.24 Iteration 2 model (Author, 2016)
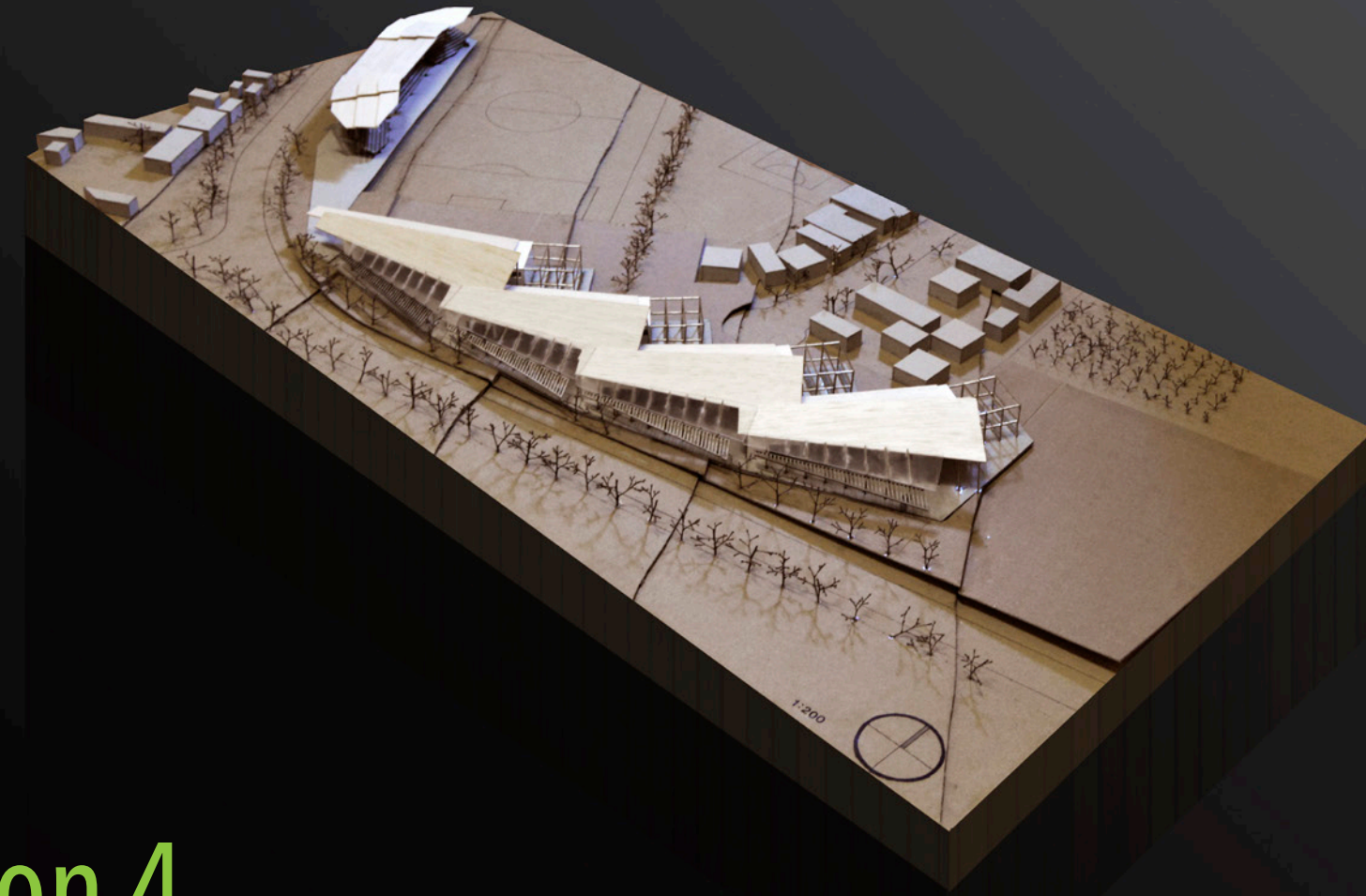

Figure 7.25 Iteration 2 model (Author, 2016)

Figure 7.26 Iteration

PHASE 3
iteration 4

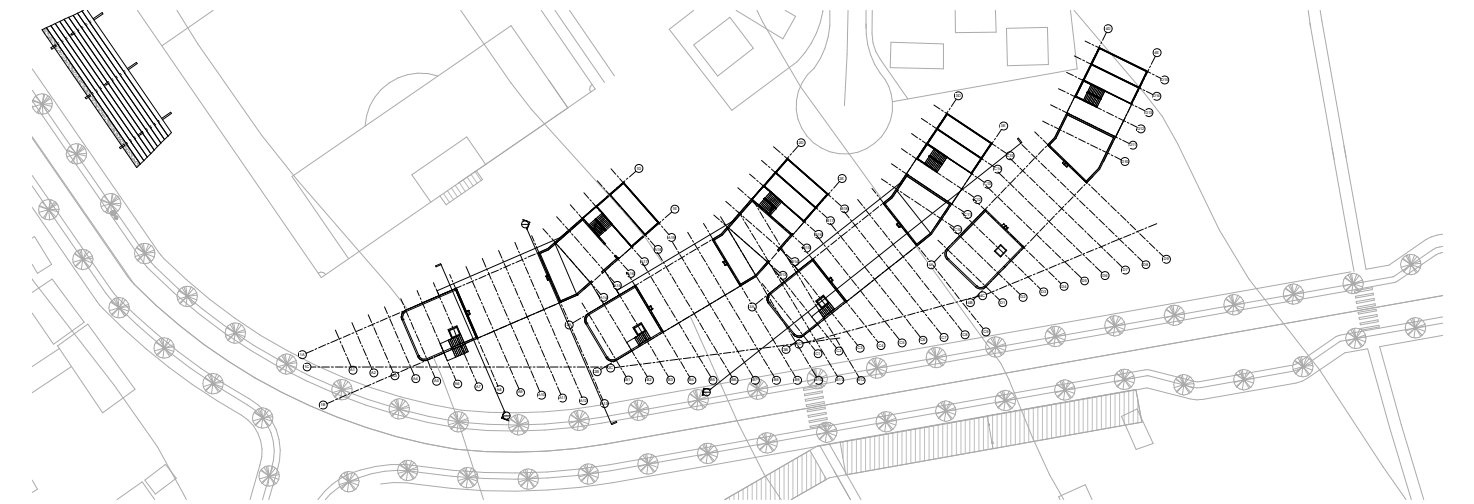Figure 7.27 Ground floor plan (Author, 2016)

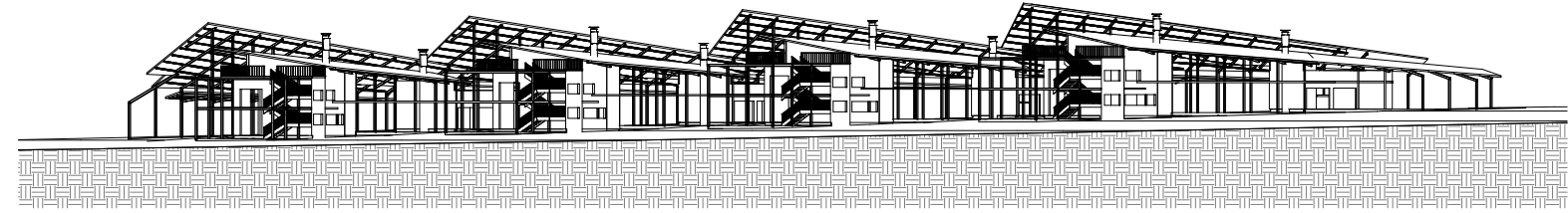Figure 7.28 First floor plan (Author, 2016)
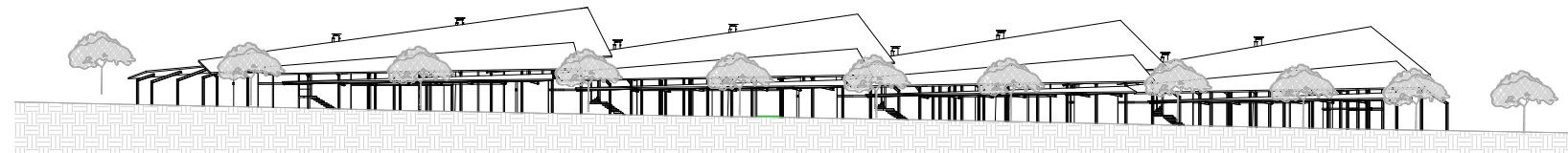
Figure 7.29 Northern Elevation (Author, 2016)

Figure 7.30 Southern Elevation (Author, 2016)
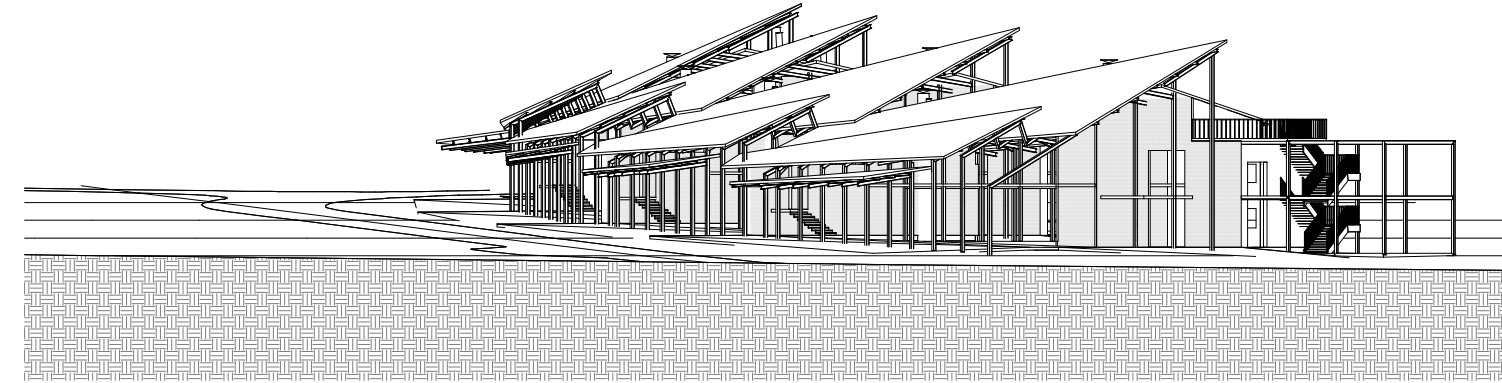

Model (Author, 2016)

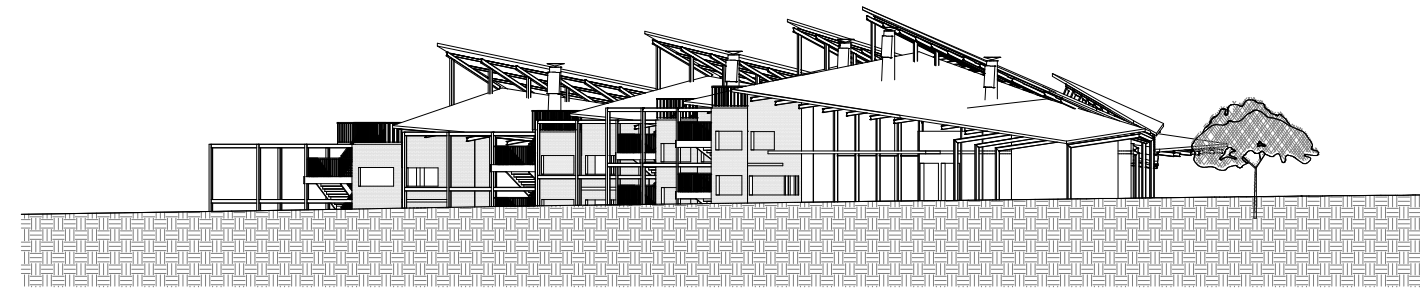Figure 7.32 Eastern Elevation (Author, 2016)

Figure 7.33 Western Elevation (Author, 2016)

Figure 7.34 Iteration 4 model (Author, 2016)

Figure 7.35 Iteration 4 model (Author, 2016)

Figure 7.36 Iteration 4 model (Author, 2016)

Figure 7.37 Section A-A (Author, 2016)

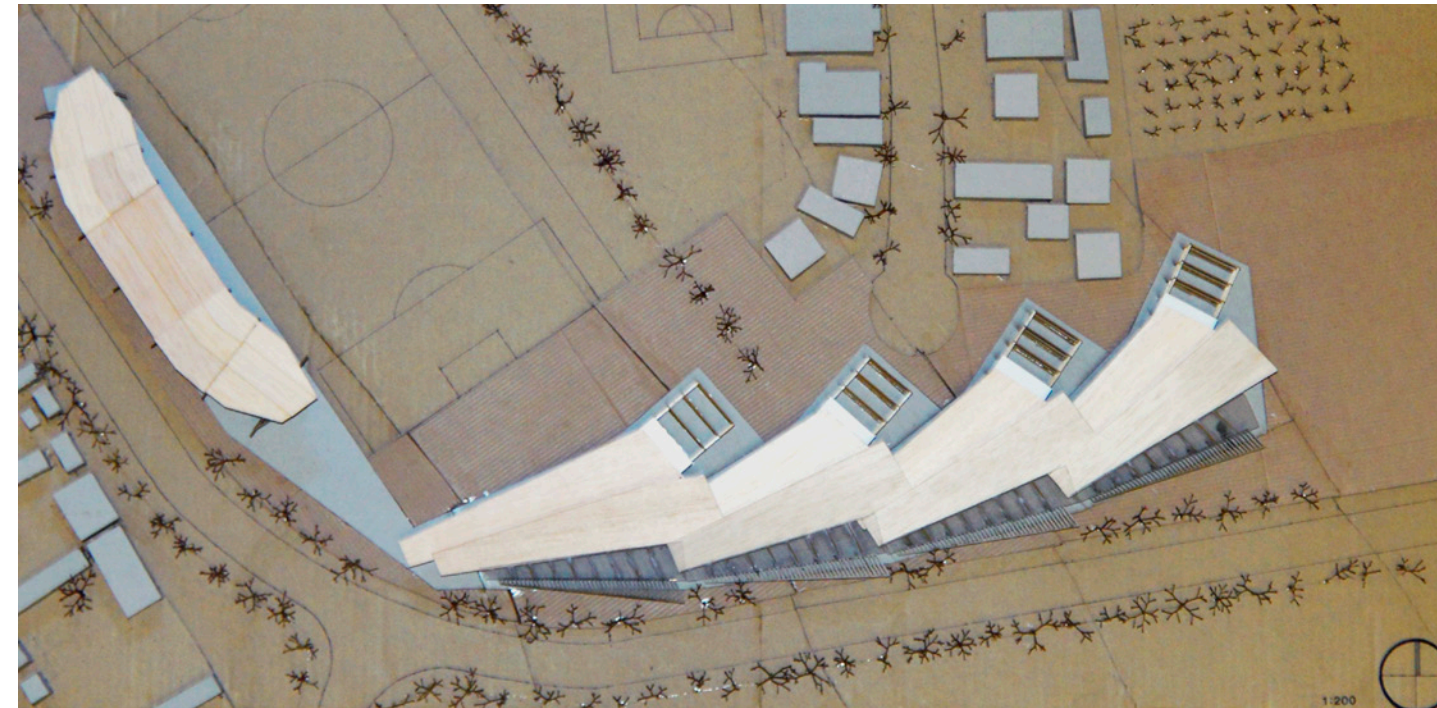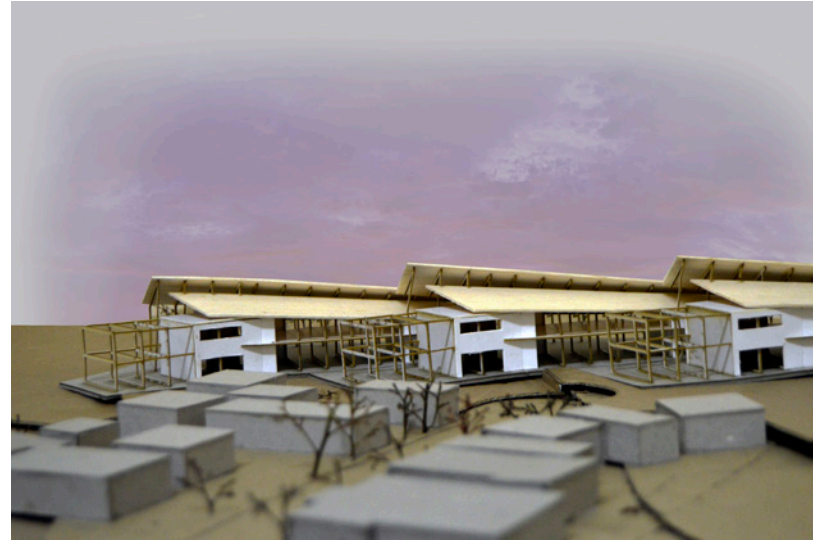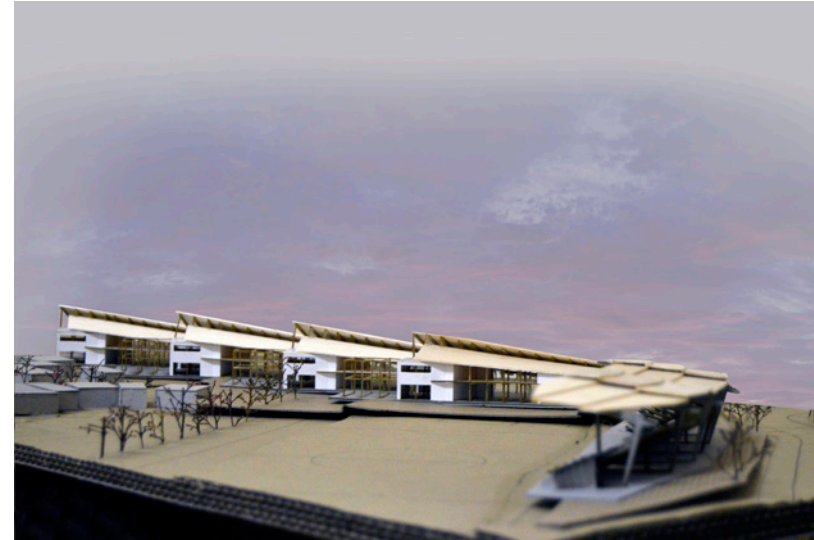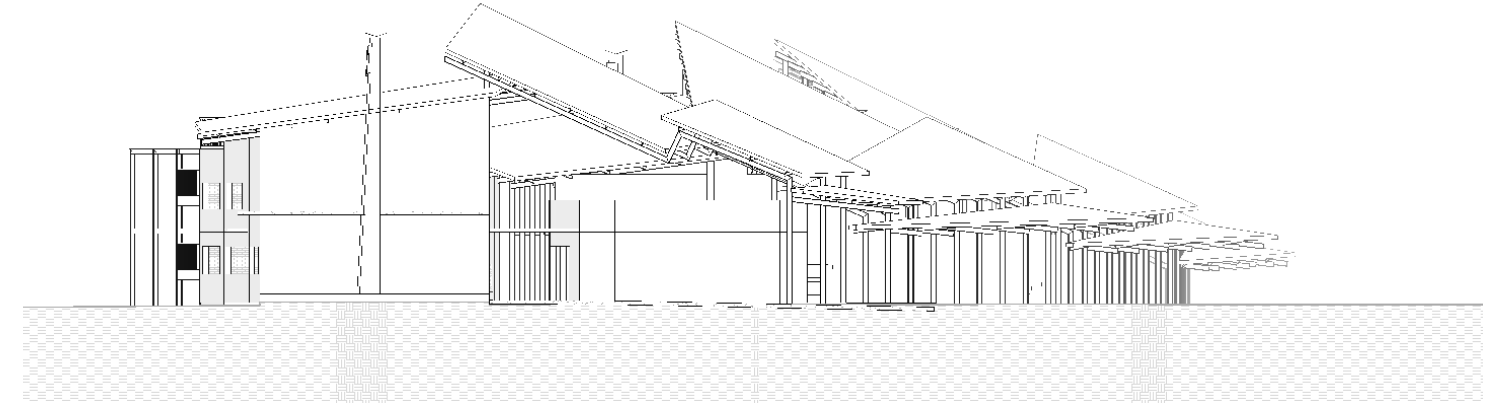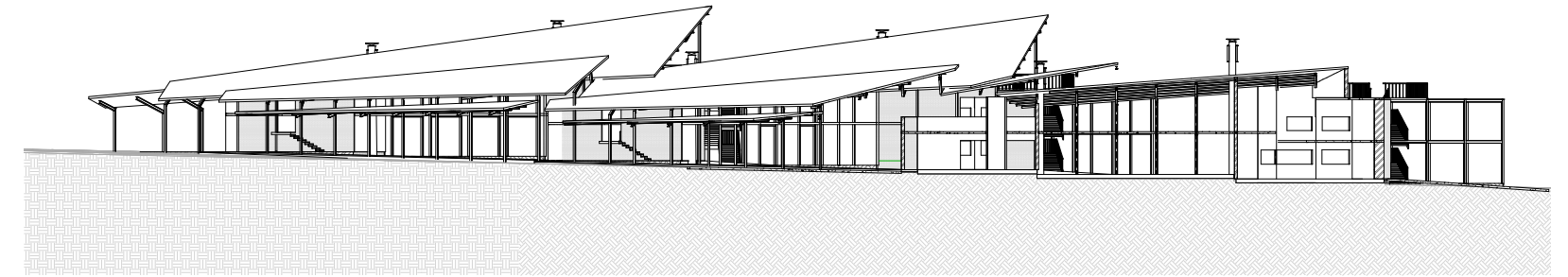Figure 7.38 Section B-B (Author, 2016)

Figure 7.39 Iteration 4 model (Author, 2016)

Figure 7.40 Iteration 4 model (Author, 2016)

Figure 7.41 Iteration 4 model (Author, 2016)

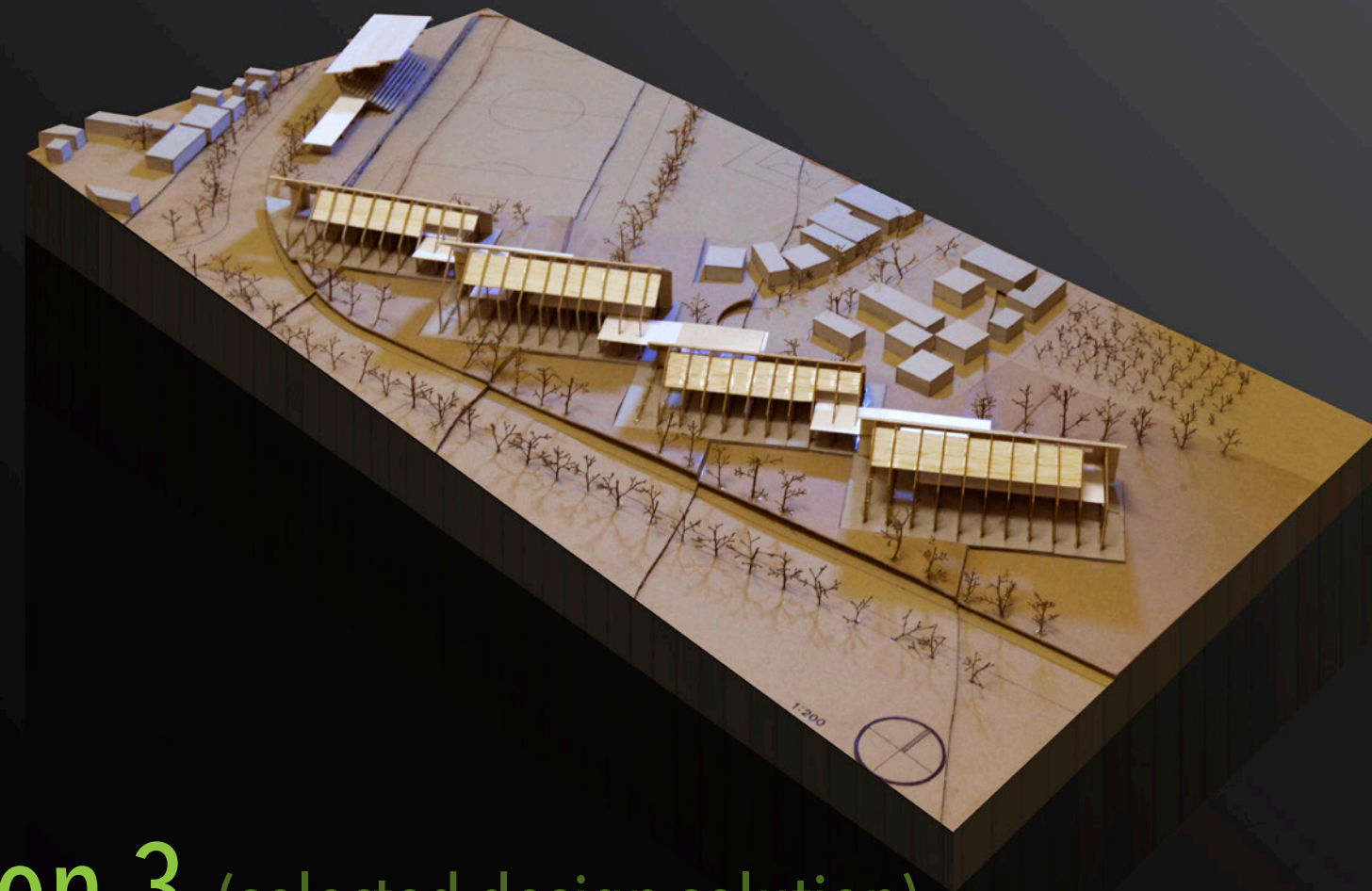Figure 7.42 Iteration 4 model (Author, 2016)

PHASE 3
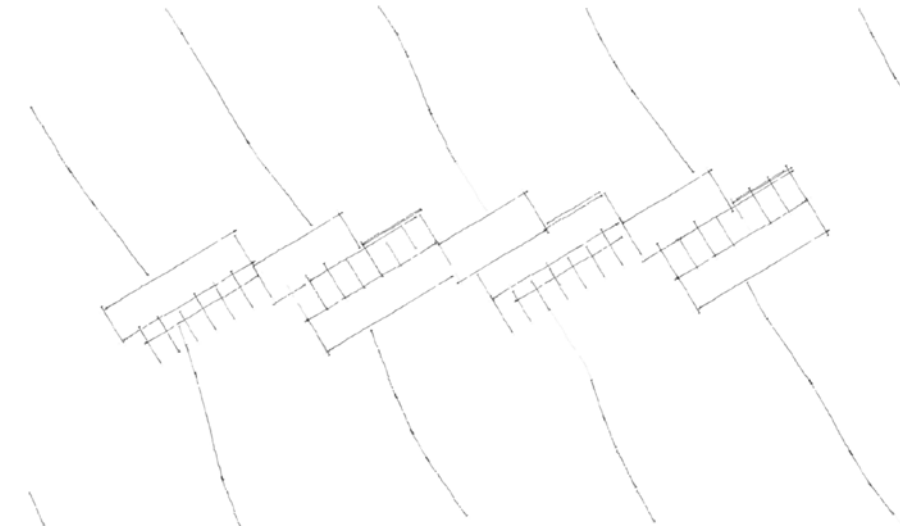## iteration 3 (selected design solution)

Figure 7.43 Iteration

Figure 7.44 Iteration 3 site plan (Author, 2016)

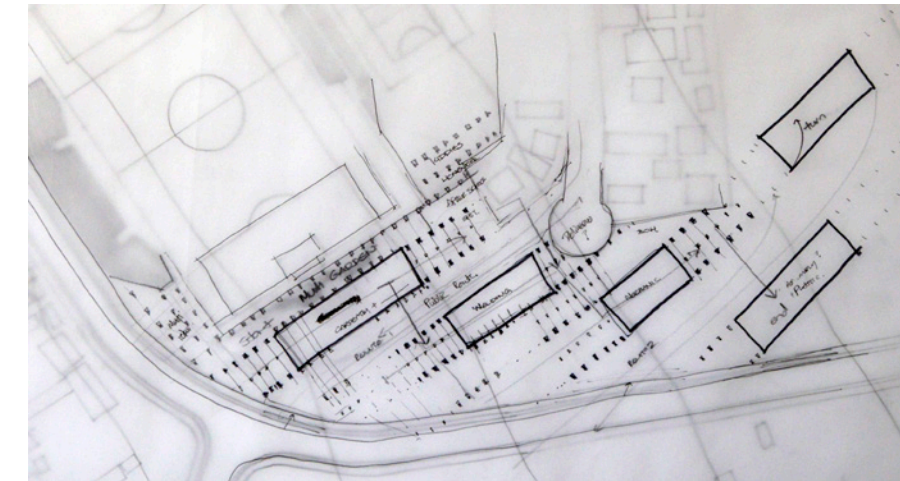Figure 7.45 Ground Floor Development (Author, 2016)

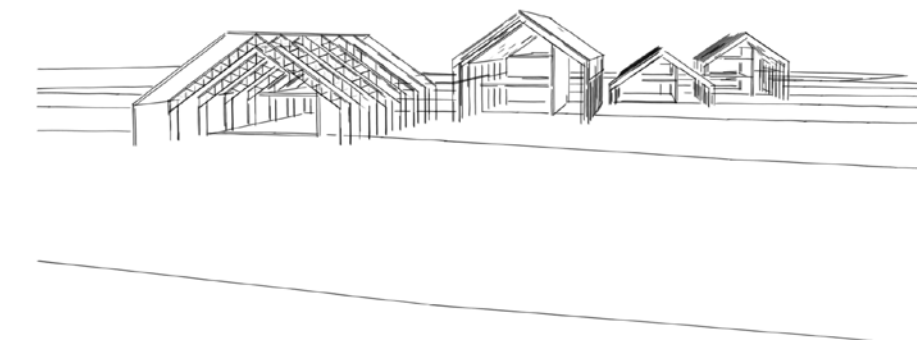

Figure 7.46 Expansion possibilities (Author, 2016)

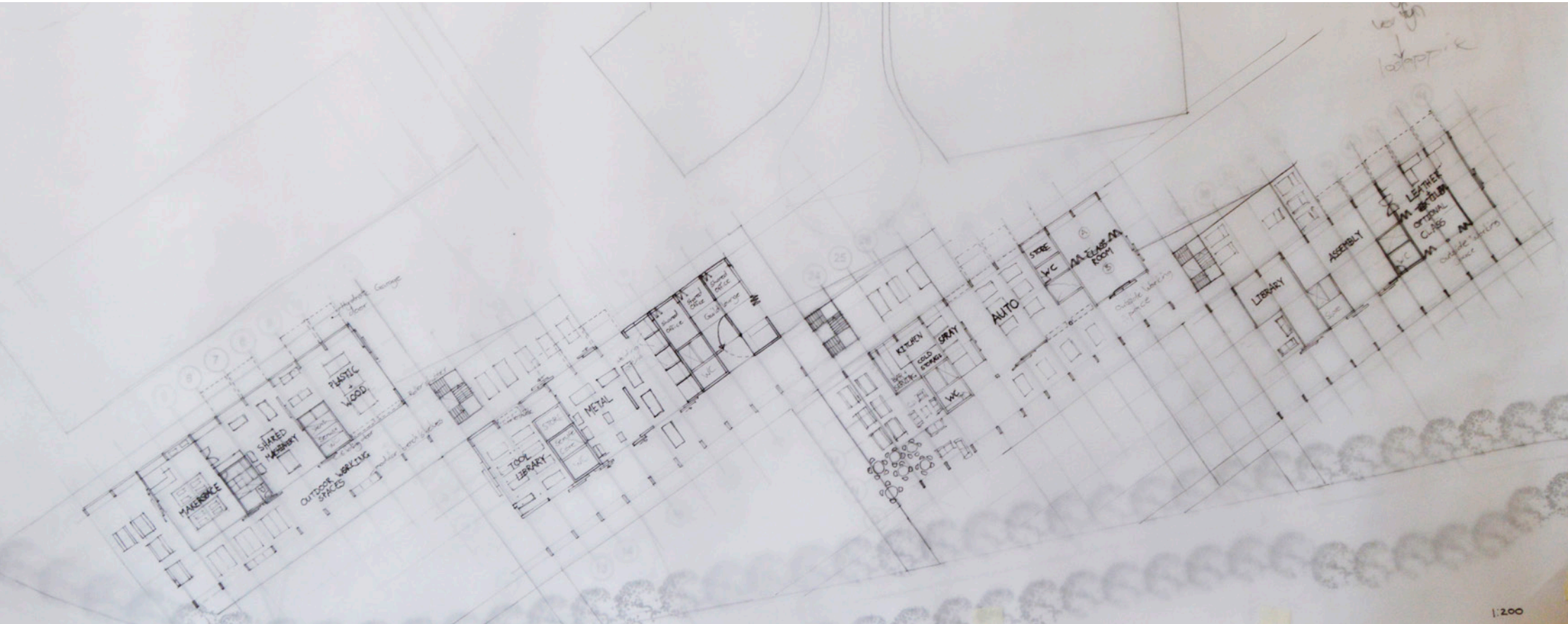Figure 7.47 Street edge (Author, 2016)

Figure 7.48 Ground Floor Plan (Author, 2016)

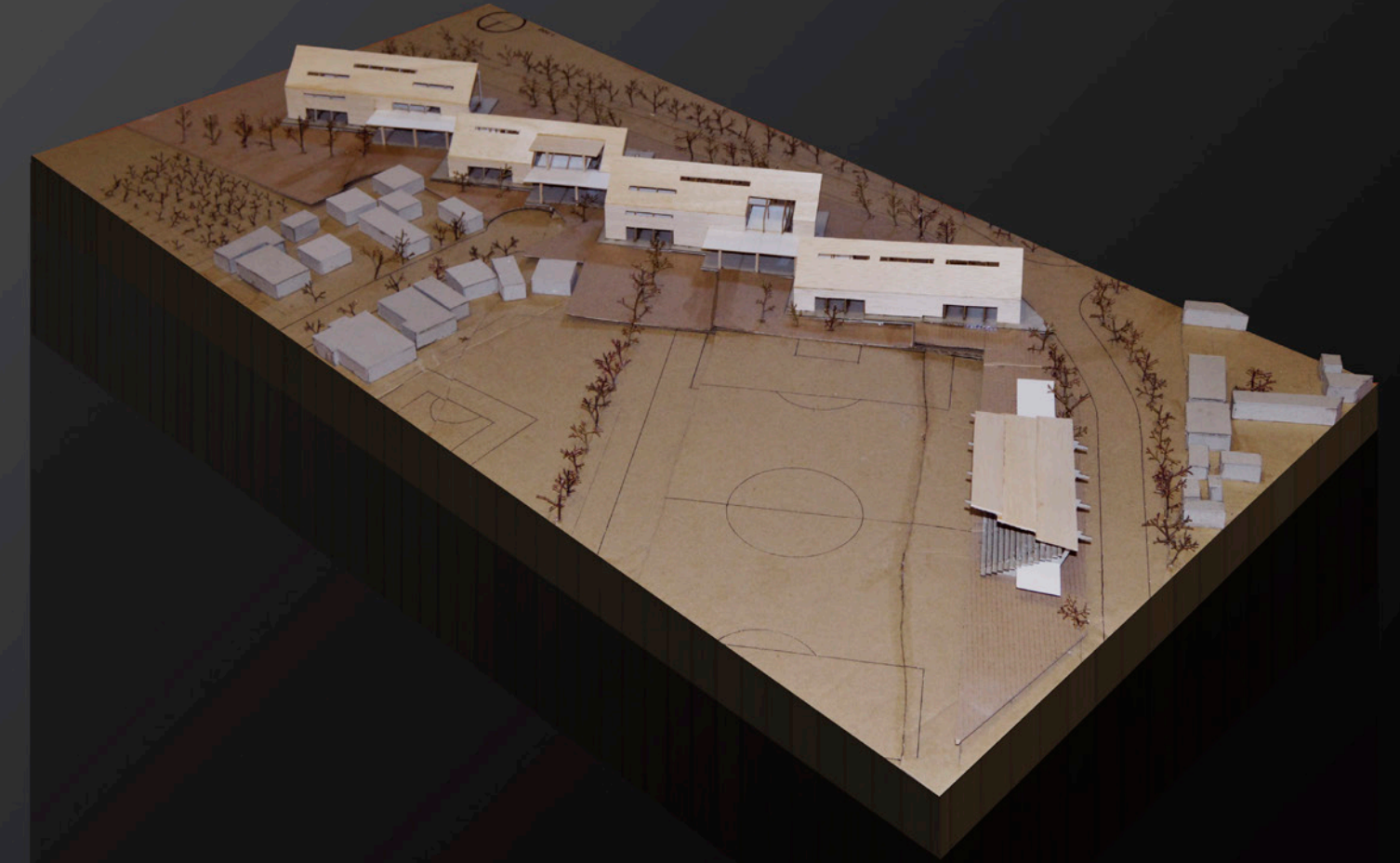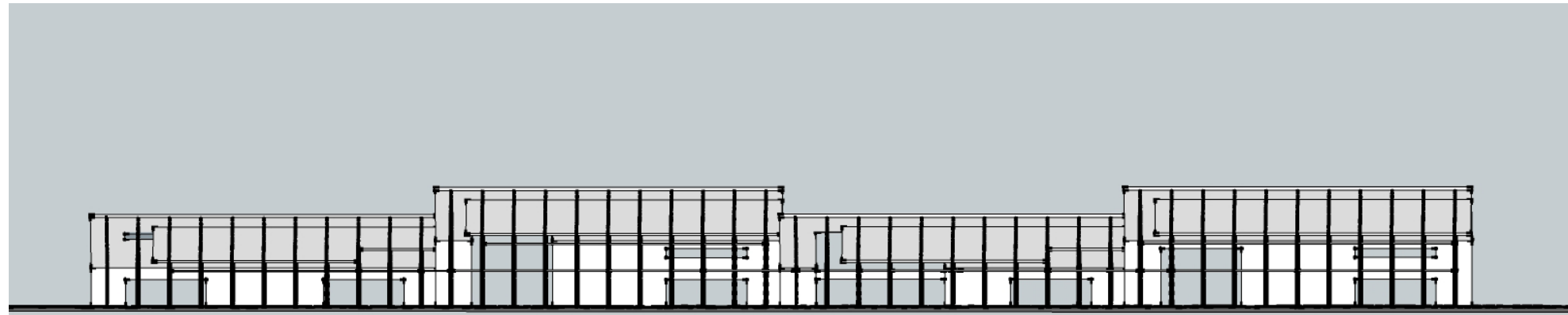(Author, 2016)
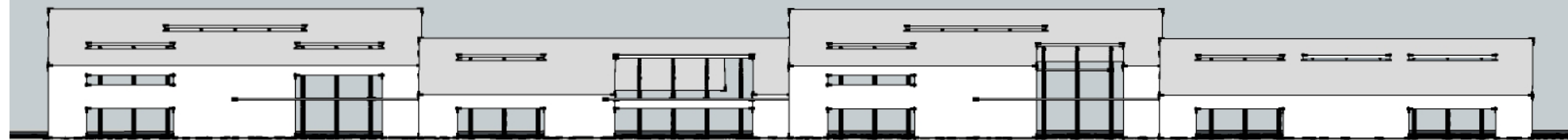
Figure 7.50 Southern Elevation (Author, 2016)

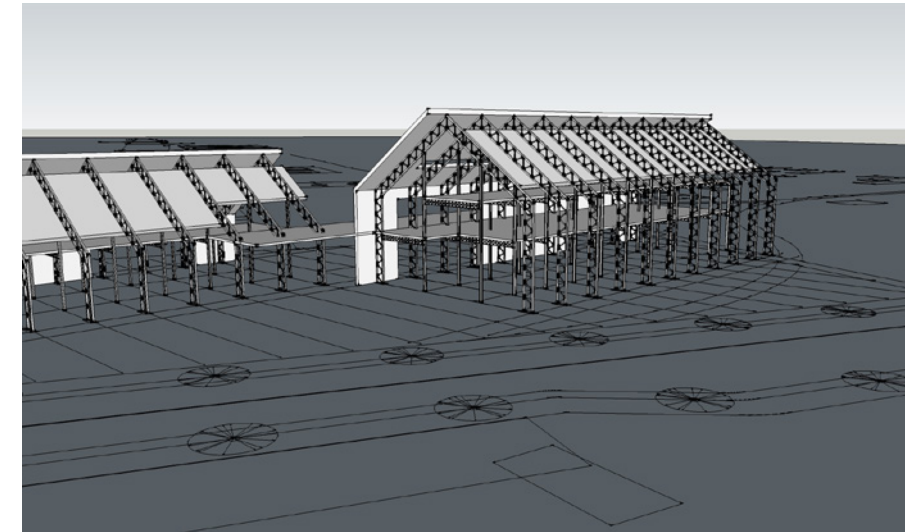Figure 7.51 Northern Elevation (Author, 2016)

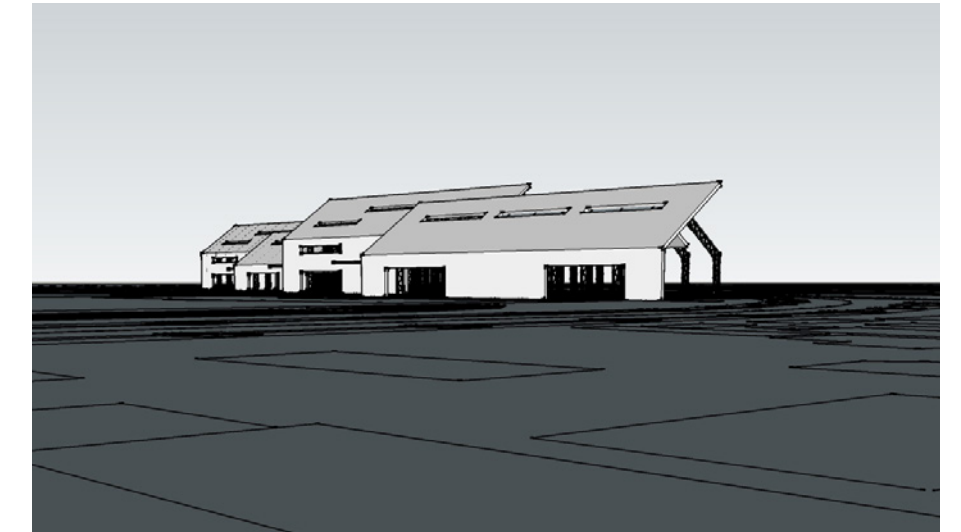Figure 7.52 Modular Structure (Author, 2016)

Figure 7.53 School edge (Author, 2016)

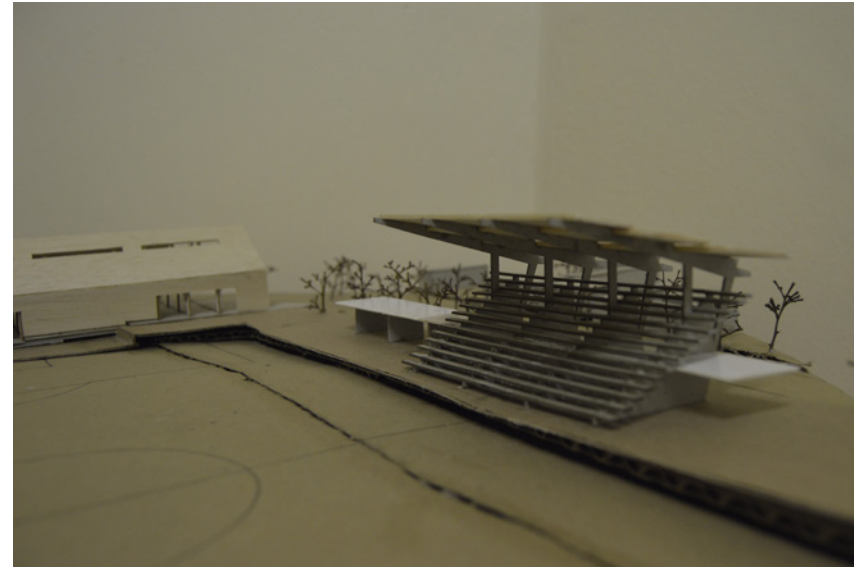Figure 7.54 Iteration 3 model (Author, 2016)
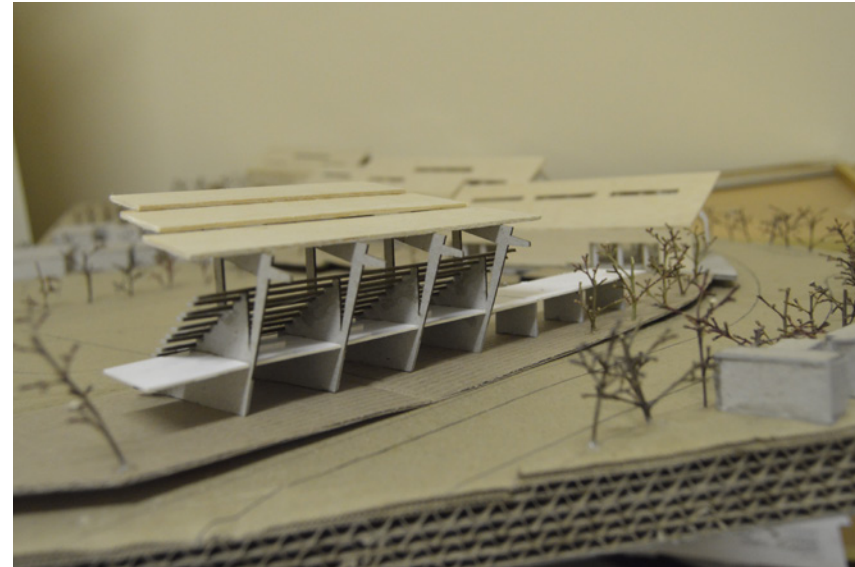

Figure 7.55 Iteration 3 model (Author, 2016)

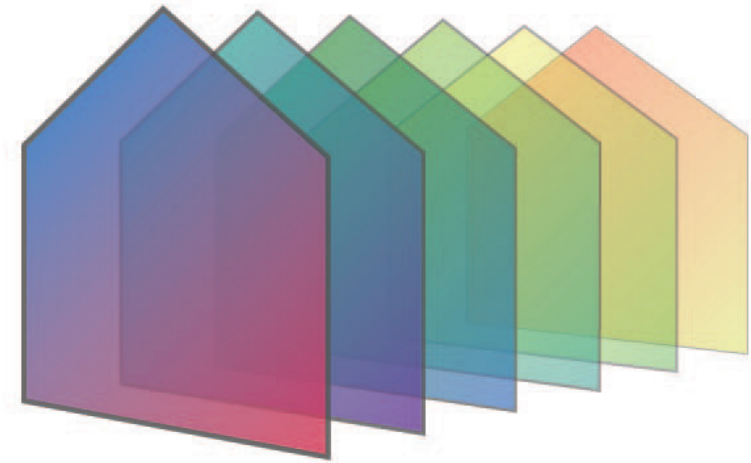Figure 7.56 Iteration 3 model (Author, 2016)

Figure 7.57 Iteration 3 model (Author, 2016)

Figure 7.58 Iteration 3 model (Author, 2016)

"Another solution is to entrench technologies which should utilise local and readily available materials and be suited to self-help and semi-skilled labour. Construction must be versatile, economical and contextually responsive"
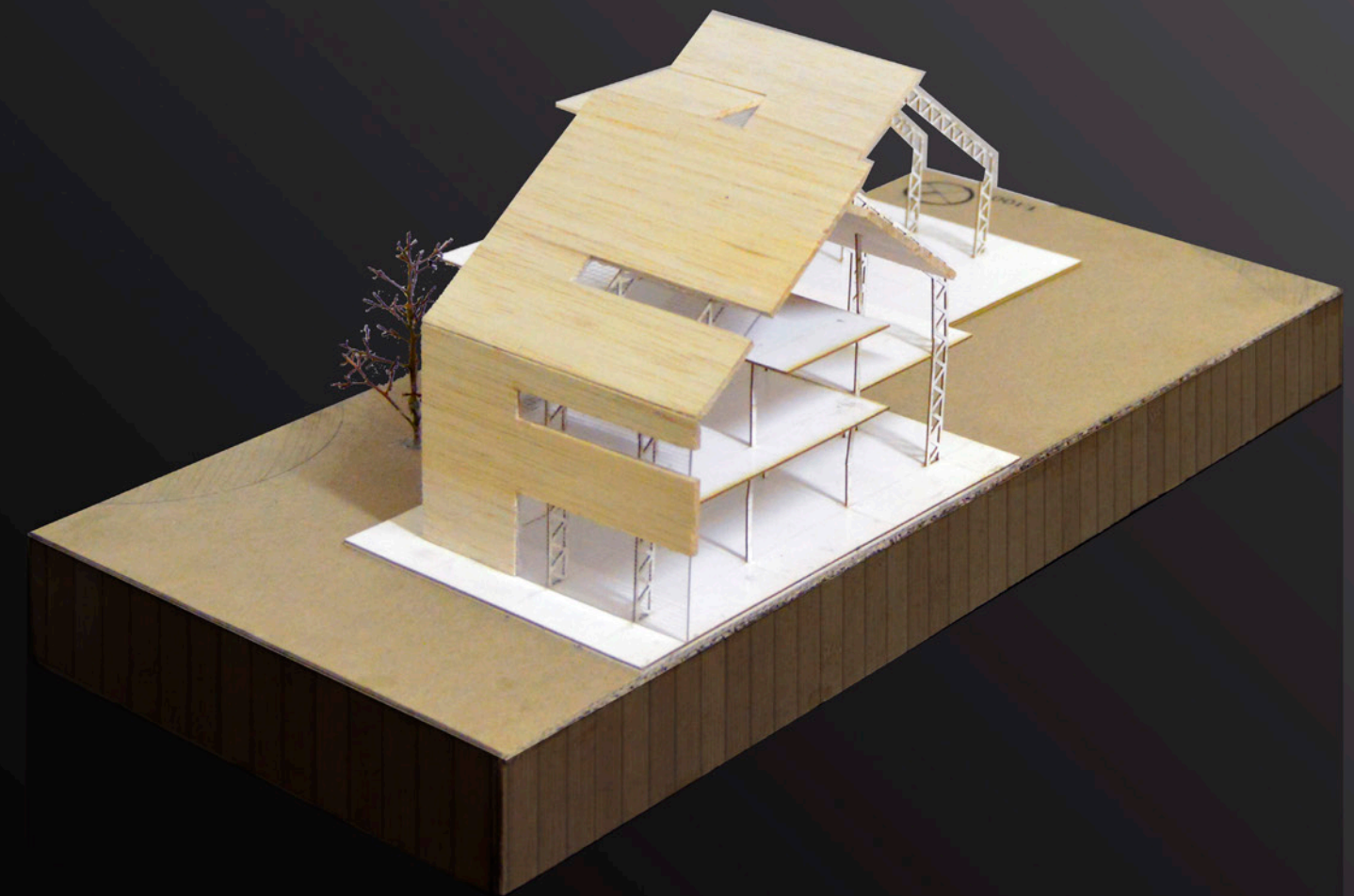*Steyn (n.d.)*

Figure 7.59 Technical Approach (Author, 2016)
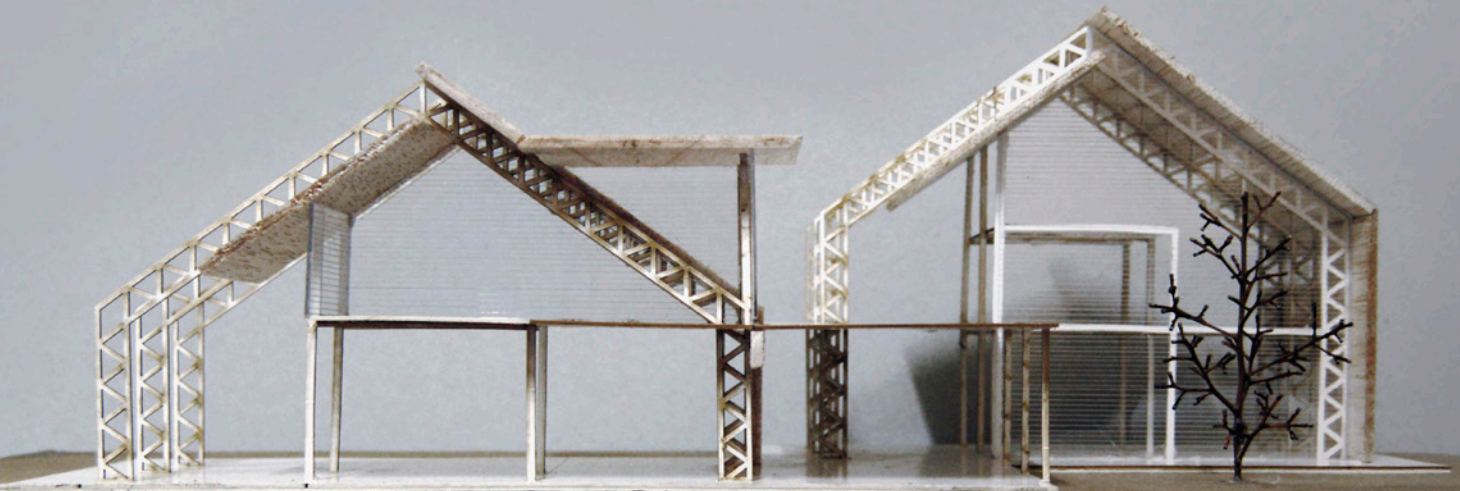
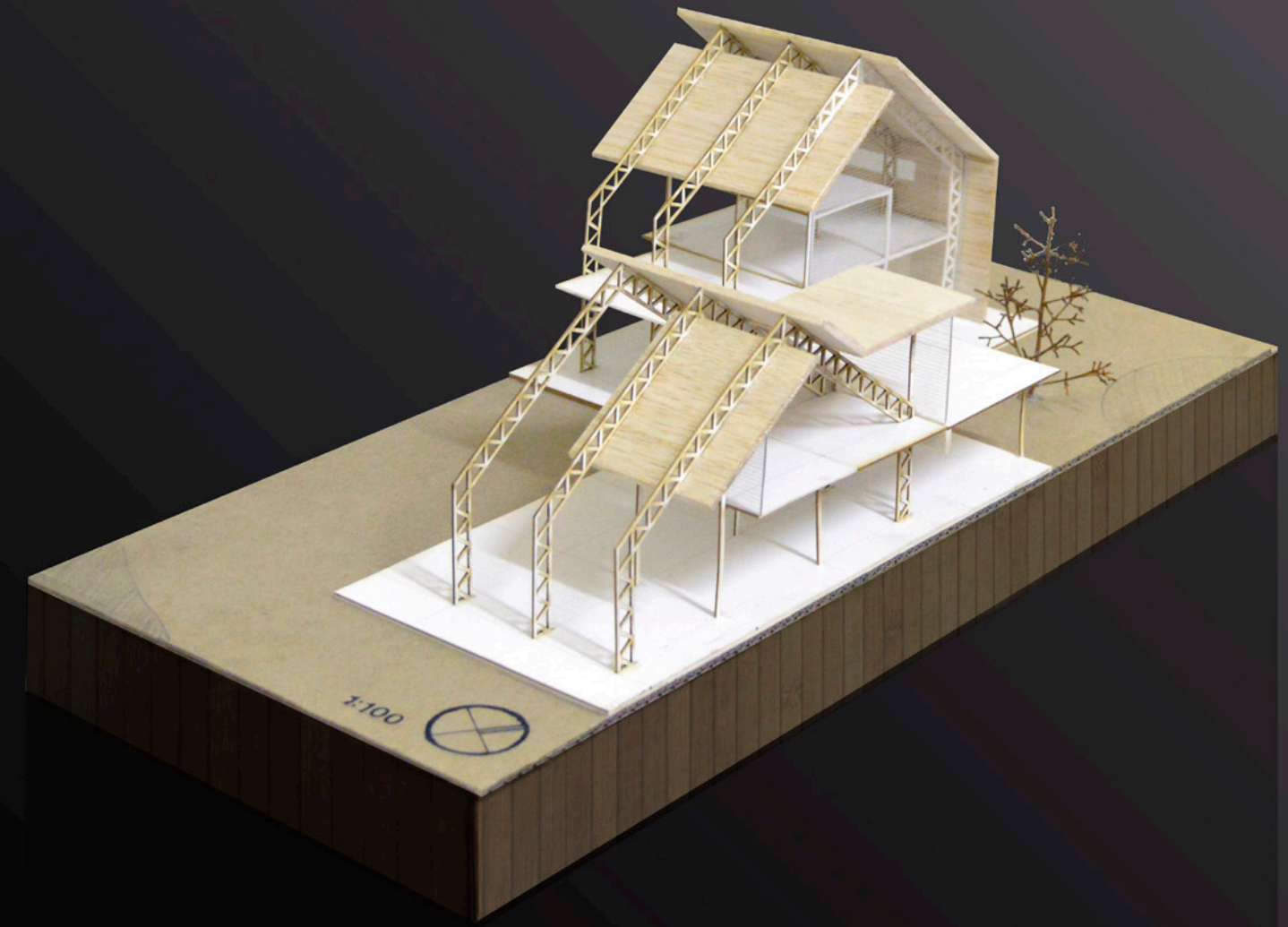Figure 7.60 1:100 Sectional Model (Author, 2016)

Figure 7.61 1:100 S[...]

Figure 7.62 1:100 Sectional Model (Author, 2016)

125 x 50 x 20 x 2.5 cold formed steel lipped channel purlin bolted to cleat with 4 x M16 bolts at max 1200 centres

50 x 50 x 2.5 steel square hollow profile chord

0.5mm Chromadek hot-dip galvanised steel sheet Pre-painted

100 x 100 x 2.5 steel square hollow profile parallel chord frame

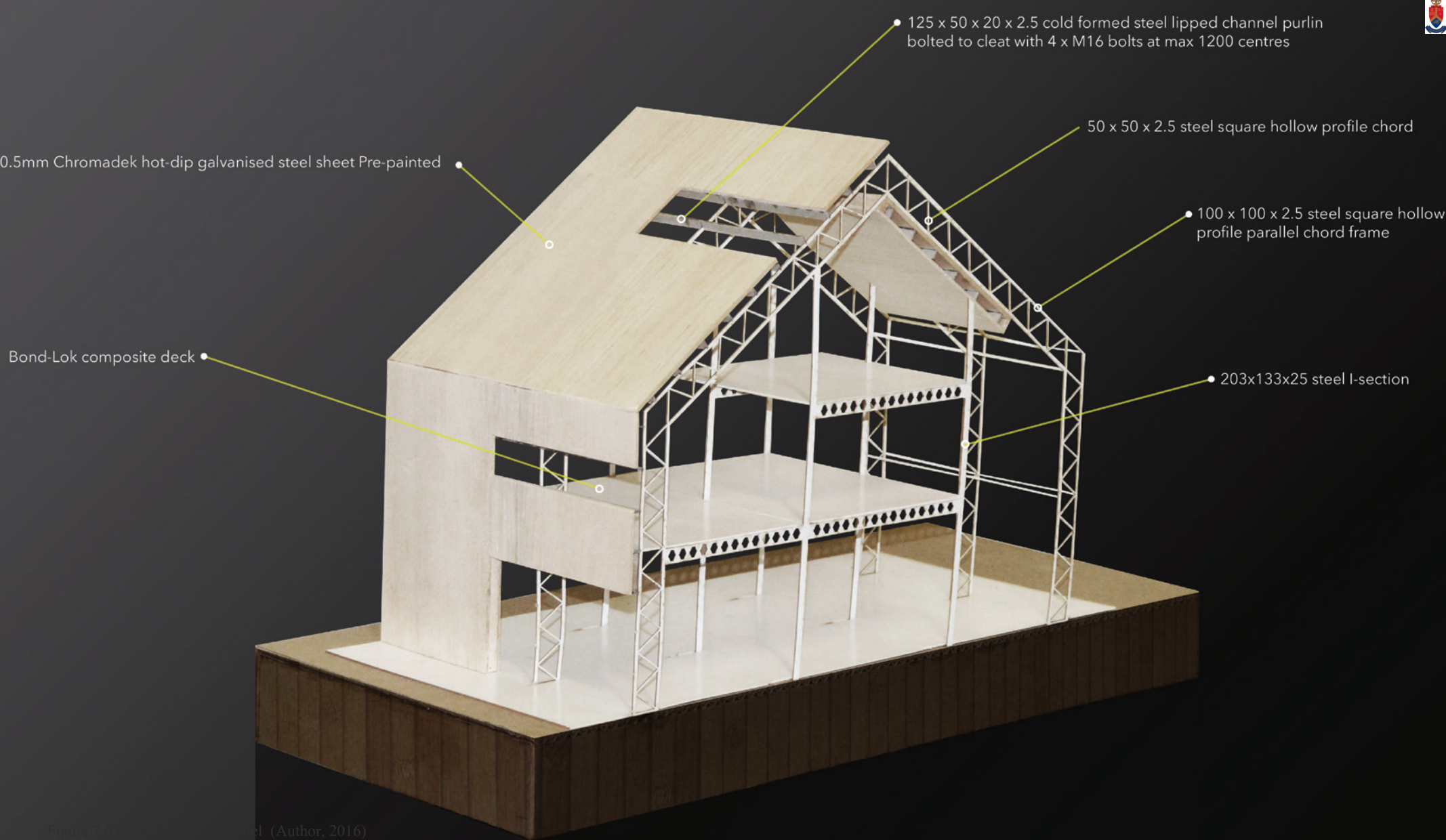Bond-Lok composite deck

203x133x25 steel I-section

Figure 7.6? 1:50 Sectional Model (Author, 2016)

Figure 7.64 1:50 Sectional Model (Author, 2016)