



7. DESIGN DEVELOPMENT

INTRODUCTION

This chapter distills the key design intentions extracted from previous design explorations in order to reveal the overall project. Although the focus is on the infill elements that form the major intervention introduced into the building, the architectural development and alteration of the building itself formed a major part of the design. The infill elements comprises of a wall/seating system, a feature staircase, balustrade element and a seating intervention.

7.1 FINAL DESIGN

7.1.1 DESIGN MANIFESTO

The building environment is the threshold between man and his surroundings. The architecture should engage with it's users providing facilities which is in support of the specific needs.

7.1.2 DEMOLITION

The original building form and identity is preserved with only the essential walls removed to accommodate new functions. As stated before, the chosen building and site form the backdrop of the design. The existing retained structure comprises mostly of primary concrete column-and-beam structure which is layered with brick walls and facades. The north facade is preserved to celebrate the original character of the building. The south edge of the building is altered to promote transition, the edge itself is stepped to enhance movement creating activity corners. The east facade is partly set back to form the major east entry point from the city. The entrance on the east form steps that allow seating and social gathering space. The central space of the building is opened up to introduce a atrium space where a new rib frame structure is visible from the outside. The designed routes within the building established the base for the demolition of certain parts (see Chapter 6). The insertion of new routes that merges, separates and punctures the existing facade, create spaces for new stairs, walkways and activity points that allow an active edge to develop. The building diagrams on the right reveal the parts that are demolished, indicated by the orange layer.

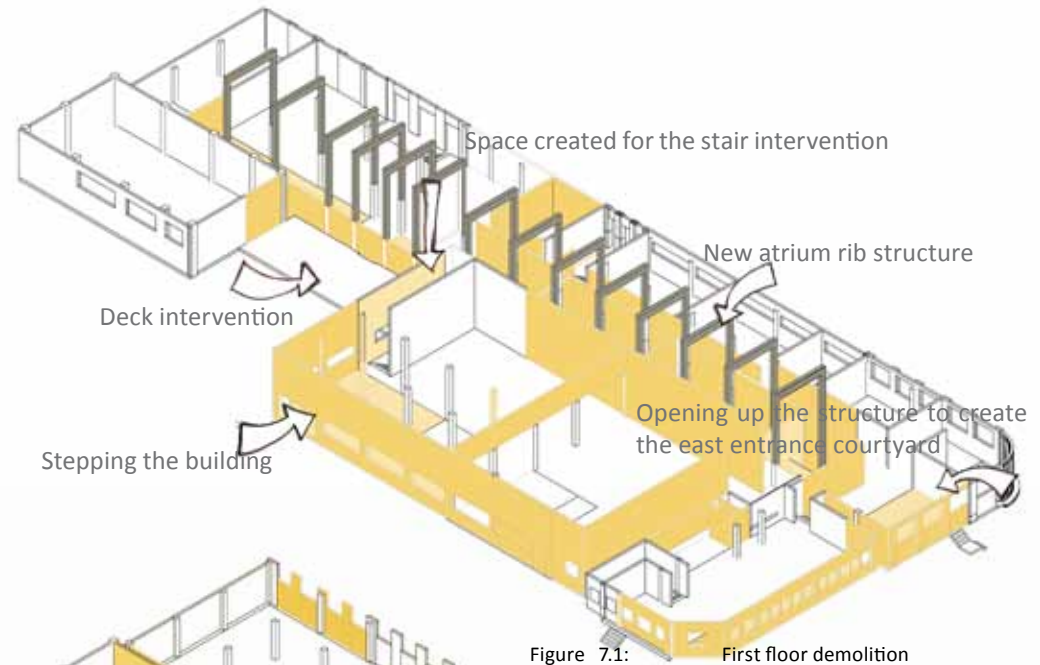


Figure 7.1: First floor demolition

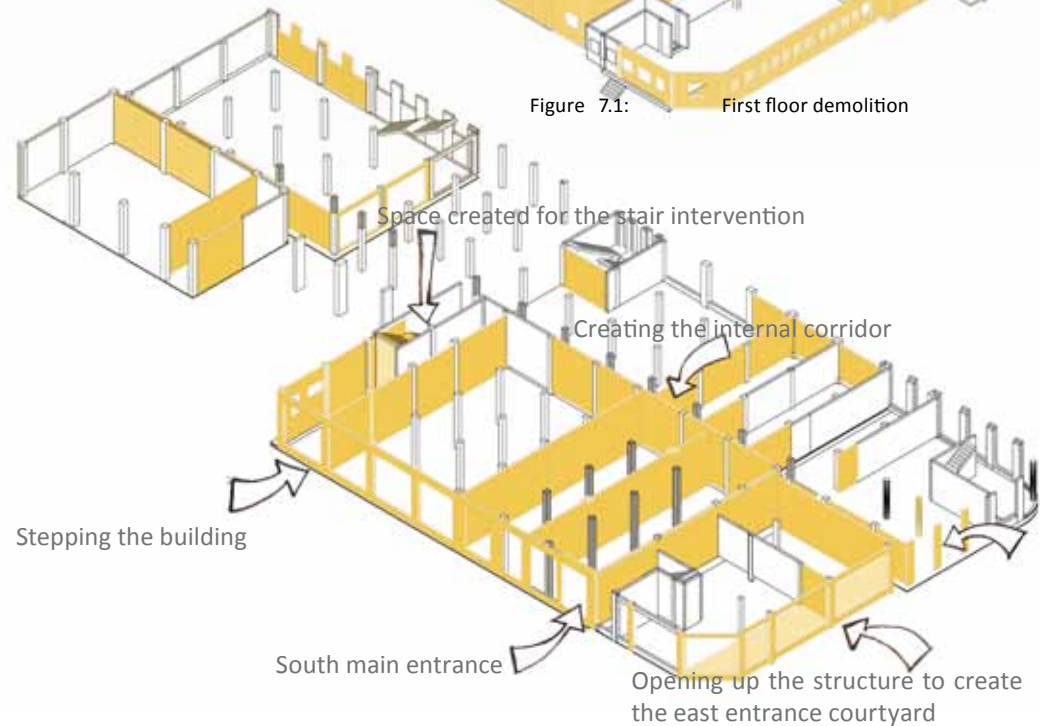


Figure 7.2: Ground floor demolition

7.1.3 PROPOSED USE

These diagrams indicate the overall building framework and the location of specific necessary functions.

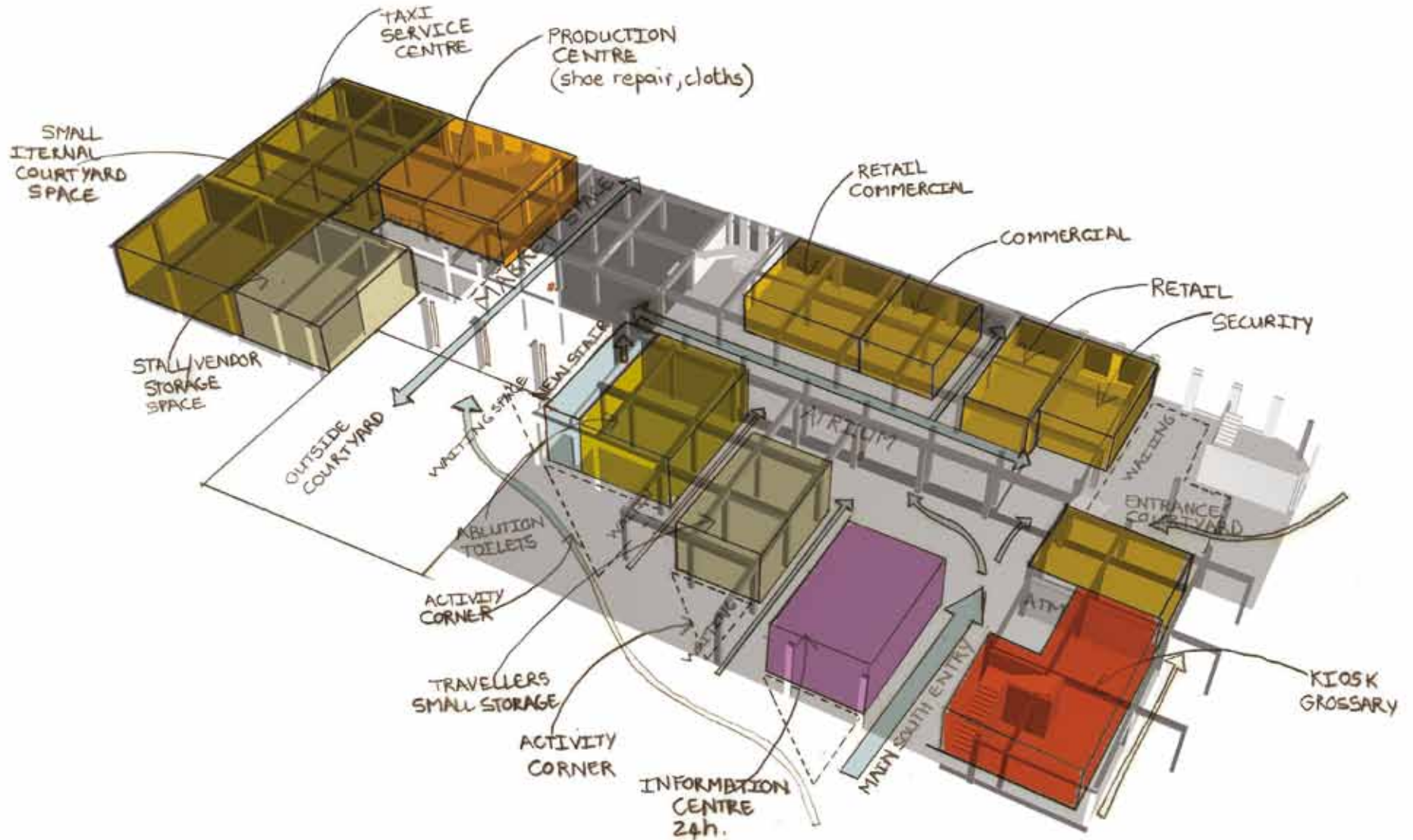


Figure 7.3: Ground floor: Proposed use

- _stepping the building allow interactive edges
- _double volume spaces produce view points
- _routes enhance flow through the building
- _new openings create links with the city and Pretoria station

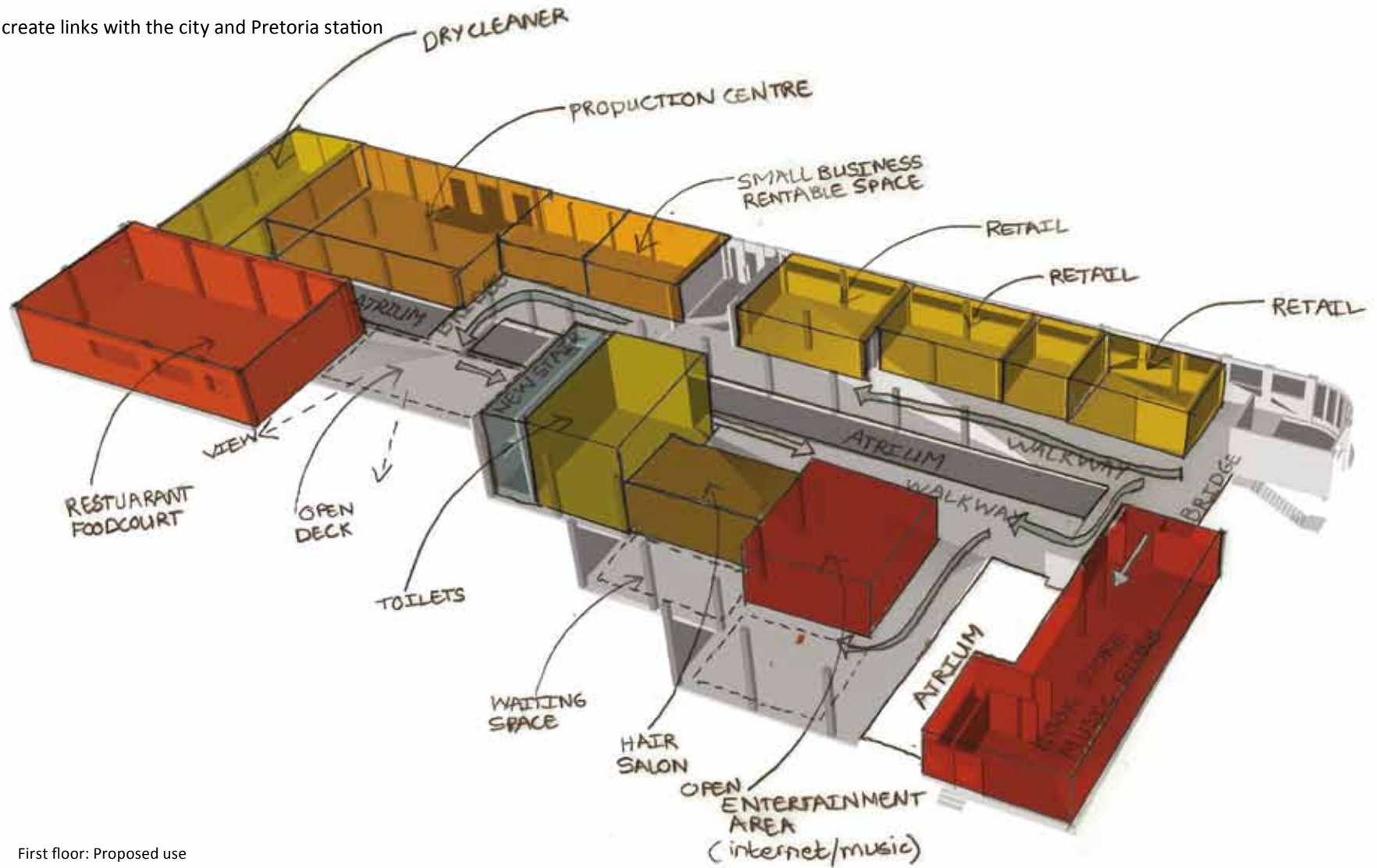


Figure 7.4: First floor: Proposed use

7.1.4 THE USER

The building are intended to allow individual freedom and civic life therefore the architecture allow encounters between society. The intervention allow different spaces for different ways of waiting.

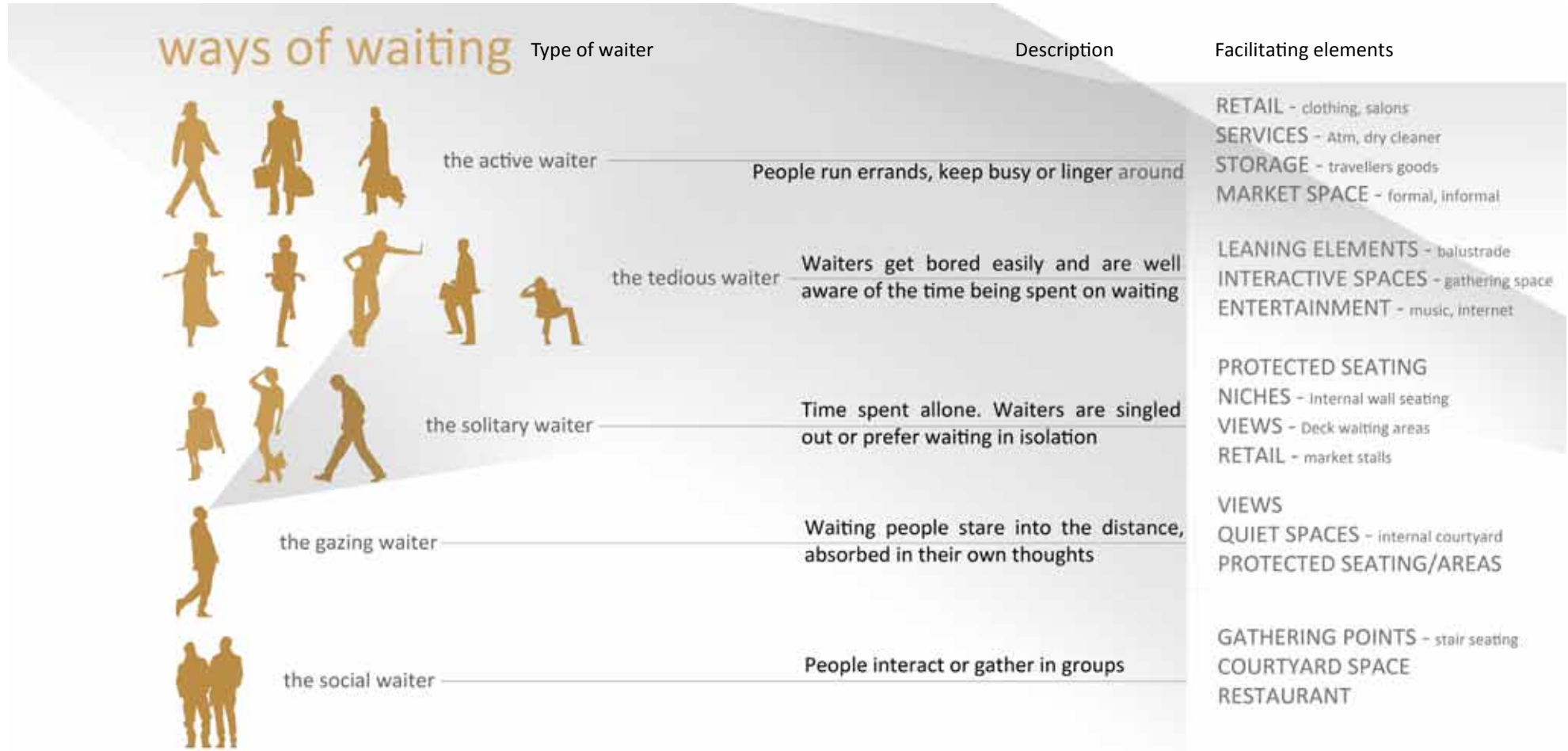
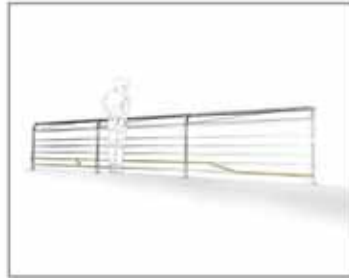


Figure 7.5: Ways of waiting



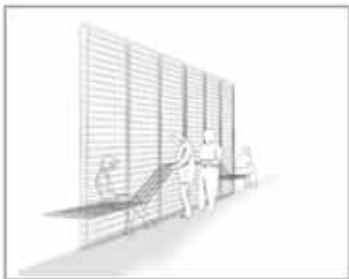
_THE BALUSTRADE INTERVENTION FACILITATE THE USER DURING THE GAZE, PROVIDING A FOOTREST ELEMENT AND A BENT BALUSTER WHICH THE USER CAN LEAN AGAINST.



_THE WALL SYSTEM PROVIDE THE SOLITARY WAITER WITH A SECLUDED SPACE FOR WAITING. THE WALL VOID CAN ALSO BE TRANSFORMED INTO A MARKET STATION SPECIFICALLY SERVING THE ACTIVE WAITER.



_THE STAIRCASE INTERVENTION WRAPS AROUND THE EDGES OF THE BUILDING PROVIDING THE USER WITH SEATING SURFACES LOOKING ONTO THE OPEN COURTYARD SPACE CELEBRATING SOCIAL GATHERING.



_THE SEATING AND SCREEN ELEMENT PROVIDE THE USER WITH A TEMPORARY SEATING OR PAUSE POINT. THE SCREEN SECURES THE USER FROM ONE SIDE. THE SEATING ELEMENT FLOW INTO A TABLE SURFACE PROVIDING A QUICK WORKING SPACE.

Figure 7.6: Interventions facilitating waiting

7.1.5 DESIGN INTERVENTIONS

The diagrams on the right indicate the positioning of the new infill elements. Each element serve to define new spaces and important gathering zones.

_The Wall system is a steel constructed frame that serve to define retail spaces and circulation routes. The wall system serve a dual function, the internal wall void either provide secluded seating space or a market station. The internal voids become functional spaces. The idea is that the wall does not become a boundary but rather an interactive element. Sometimes places seem to lose their identity due to forced boundaries such as walls. This creates a physical confrontation between contained space and a multifunctional object. The key lies in the movement along the wall and the experience that it creates at specific points.

_The Staircase element is juxtaposed to the open courtyard space where people is most likely to gather. The staircase is designed to wrap along the edge of the building to create seating spaces while providing a view onto the courtyard environment.

_The Balustrade element is placed on the newly rearranged deck and walkway edges. The element is specifically designed to allow the user to lean against, in order to stay longer having a view on activities below. Again it challenges the idea of a boundary, forming an interactive element.

_The Seating intervention is designed as a family object that is similar to the balustrade. The seating element is a general object that can be placed anywhere within the boundaries of the site. The configuration of the element consist of a linear seat, transforming into a table surface where the user can perform tasks. The linear seat wraps around a screen which can be used as a dividing element in certain spaces.

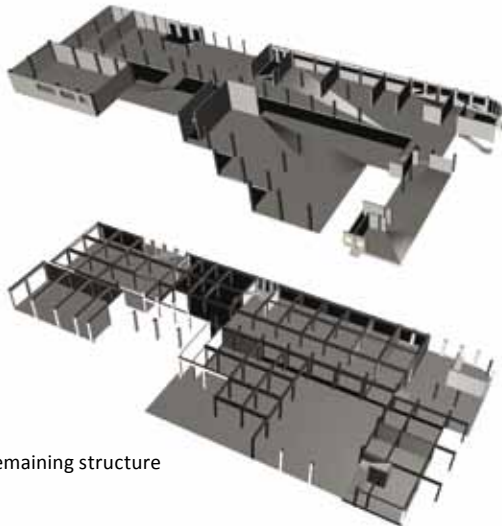


Figure 7.7: Remaining structure

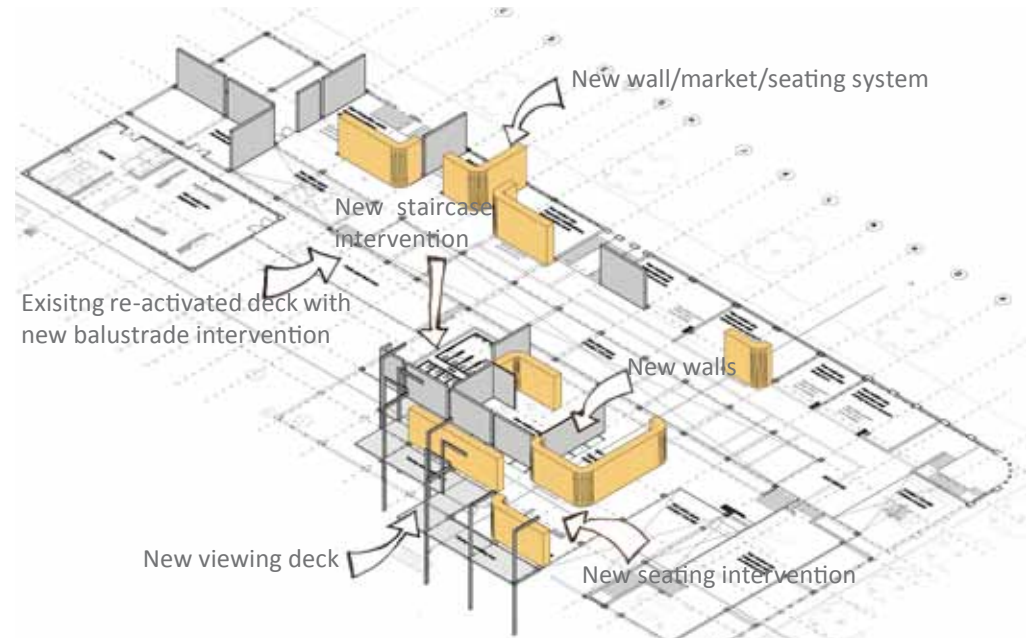


Figure 7.8: First floor interventions

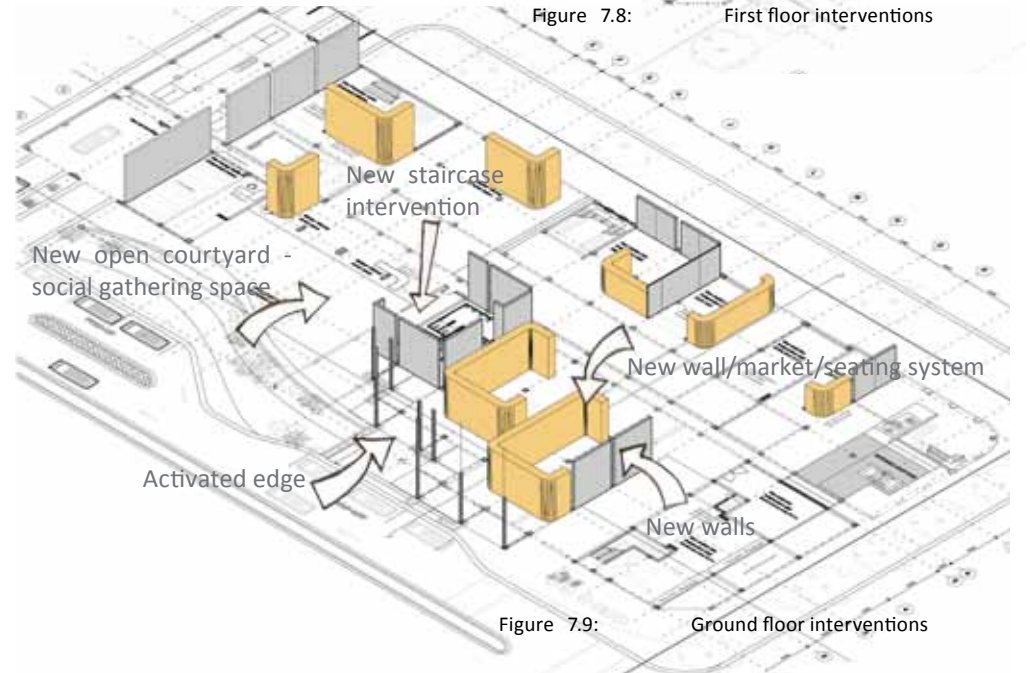


Figure 7.9: Ground floor interventions

7.1.5.1 WALL PRECEDENT

This precedent show an example of a house that literally make use of a wall to create the building. The Wall House by Architect John Hejduk was completed in 1973. The house was only built after the death of the architect. The architecture is meant be an theoretical experiment with symbolic meaning. The wall which is 1,5m thick forms the basis of the house. If we look at the wall house in general the whole unit is constructed to stand alone. It does not relate to either the contained inner space or the outer space. Looking at the Wall House, the house relies on the wall for meaning rather than the idea of house with prefixed meaning. The wall house does not represent a barrier but is meant to be experience internally. Thus, walls can become an element that can be experienced internally.

We use barriers to contain reservoirs and protect reservoirs (Groak, S. 1994). It is affecting how we circulate in and around places, creating fragmented places which afflicts on many urban settings. I believe that barriers or physical walls also affect buildings internally. Therefore the wall system element aim to redefine physical boundaries or separate space. Human interaction within them may give meaning to these boundaries. If these in-between spaces can be utilized and adapted to host new functions it already lead to the virtual removal of barriers.

Description: Wall house 1

Architect: John Hejduk

Date: 1973

Reference:<http://www.ivarhgendoor.com>



Figure 7.10: The wall house

7.1.5.2 THE WALL SYSTEM

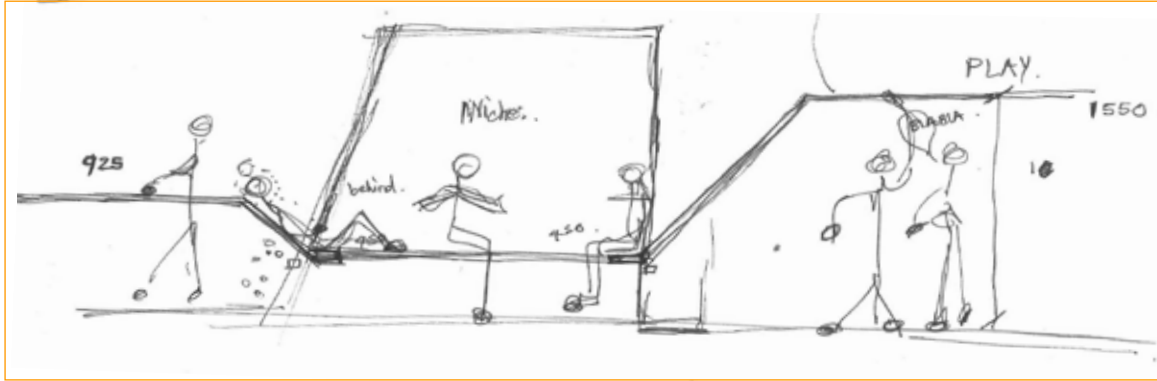


Figure 7.11: Key wall system design diagram



Figure 7.12: Model exploration



Figure 7.13: Wall system internal seating

The wall system forms part of the retail stores defining between the interior and exterior edge. The element has a depth of 800 mm providing internal seating space or a market station. The wall system is designed to act as an infill element that can be installed as an independent unit. The element consists of a horizontal rectangular frame defining the horizontal ribs, which is supported by hidden vertical rectangular bracing elements. The internal space is clad with 25 mm 3Form panels that sit flush with the horizontal ribs. The exterior is clad with 3mm perforated metal sheeting allowing for a certain level of transparency. Voids within the wall provide the seating station or market station areas. The 25mm rectangular hollow sections with infill wooden slats form either a seating element or a market table. The rectangular steel strips wrap around the interior and exterior edge following a fluctuating line serving different pause positions.

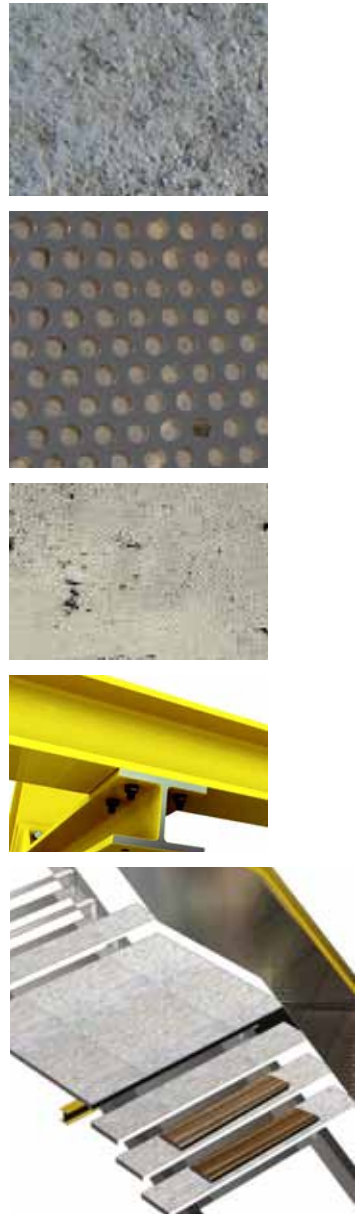


Figure 7.14: Wall system material selection



Figure 7.15: Visualisation of the wall system

7.1.5.3 STAIRCASE INTERVENTION



OPEN DECK SEATING

NEW STAIRCASE

STAIR EXTENSION
FORMING SEATING SPACE

STAIR WRAPPING ELEMENT

OUTSIDE COUTYARD

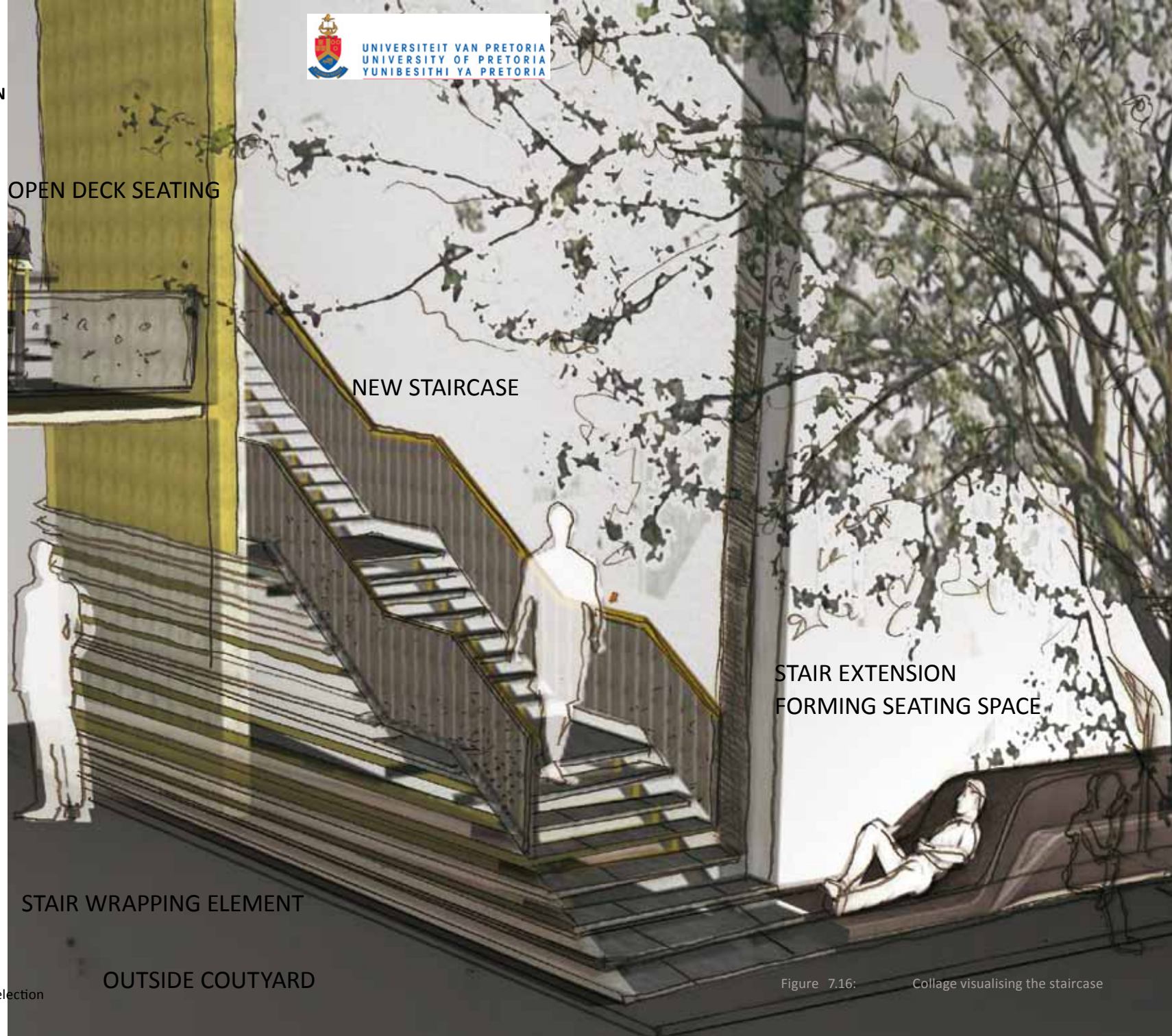


Figure 7.17: Staircase material selection

Figure 7.16: Collage visualising the staircase

7.1.5.4 PRODUCT PRECEDENT

The dissection of classical geometry where the point cut the line and the line cut the plane which then cut through solids should be challenged with infill building systems. The physical and the ancient limitations of building elements such as a staircase or wall has ceased it to expand beyond continuous or physical values of length and extensions.

Therefore the reinterpretation of building elements to serve numerous functions lead the design objective of these infill objects forming part of the existing building. We can now see more clearly the practical importance of the interface that drastically diminishes the classical separation of position as well as the traditional partitioning of space into physical dimensions in favour of instantaneous configuration of nearby space. The new interfaces offer to view in the immediacy of an instantaneous transmission.



Figure 7.19: Urban seat

Description: Urban seat

Architect: Le Plan B

Date: 2009

Reference: <http://www.deco-design.biz>

The Urban Seat is a outdoor urban seat that provides an innovative sitting space for passersby. The design fits uniquely into the urban landscape. The furniture elements comprises a table and a chair and is a smart solution for short-term resting or social gathering.



Figure 7.18: Staircase extending along the edges of the building

7.1.5.5 SEAT AND SCREEN ELEMENT



Figure 7.20: Seating intervention

7.1.5.6 THE BALUSTRADE

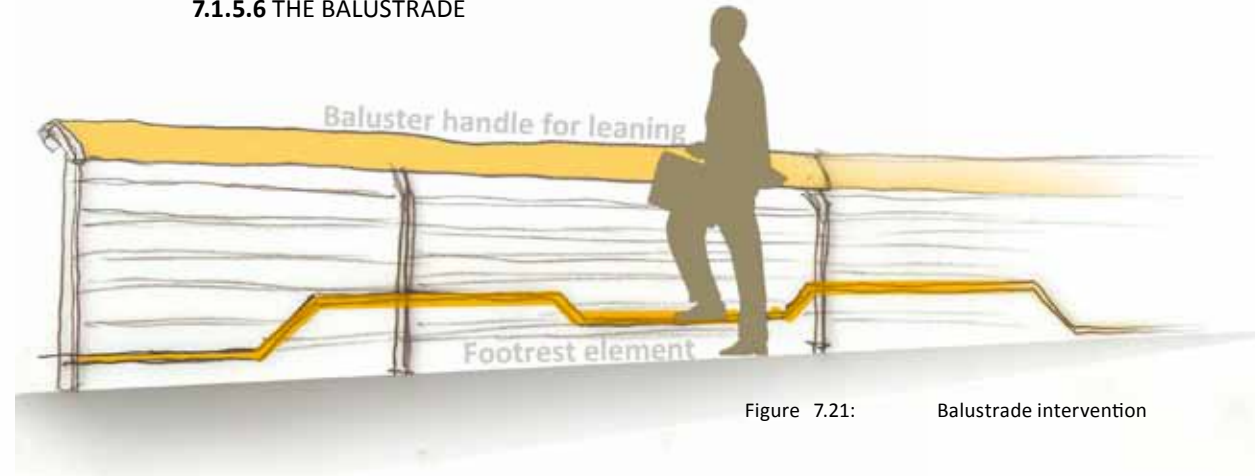


Figure 7.21: Balustrade intervention

The seating and balustrade elements act as infill objects facilitating the temporary condition of waiting. The elements are placed where there's a need for defining an edge yet allowing for a transparent barrier. It deals with transition space and progression, it forms a family object with a single line element, serving different waiting mannerisms.

7.1.5.7 KEY DESIGN INSPIRATION

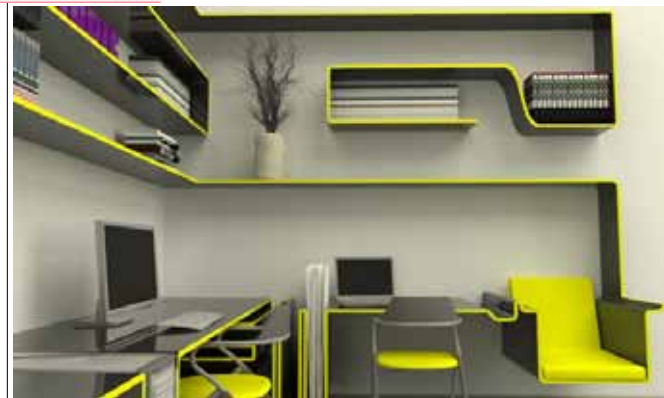


Figure 7.22: Single Line Furniture



Description: Single line furniture

Designer: Yuppie Hippie

Date: 2009

Reference: <http://lovecoolest.com>

The designer of this set of single line furniture has integrated desk, supporter, bookshelf and the location for computer host into one unit and used a line to compact the various sections, making the whole furniture integrated.