



CHAPTER SEVEN



DESIGN DEVELOPMENT

CONCEPT

DESIGN DEVELOPMENT

SITE FRAMEWORK

Concept Origins, and design generators

CONCEPT FORMULATION

When formulating a concept, which is intended to instill upon the taxi industry, a new identity, the first course of action would be to decipher exactly what the taxi industry was and meant to its daily users, and stakeholders. The manner in which to do this would be to follow a qualitative research methodology where by strategic questions would be asked to all pertinent parties involved in the industry. Once a tangible conclusion was reached from that, the next course of action was to follow the prescription of the theoretical research, in defining what methodologies one should use in formulating identity. In so doing, one would have both the tangible, metaphorical, and pragmatic meaning of the industry in conjunction with the theoretical backdrop of identity formulation. Both of which, when used simultaneously can be used to conceive a coherent inclusive identity

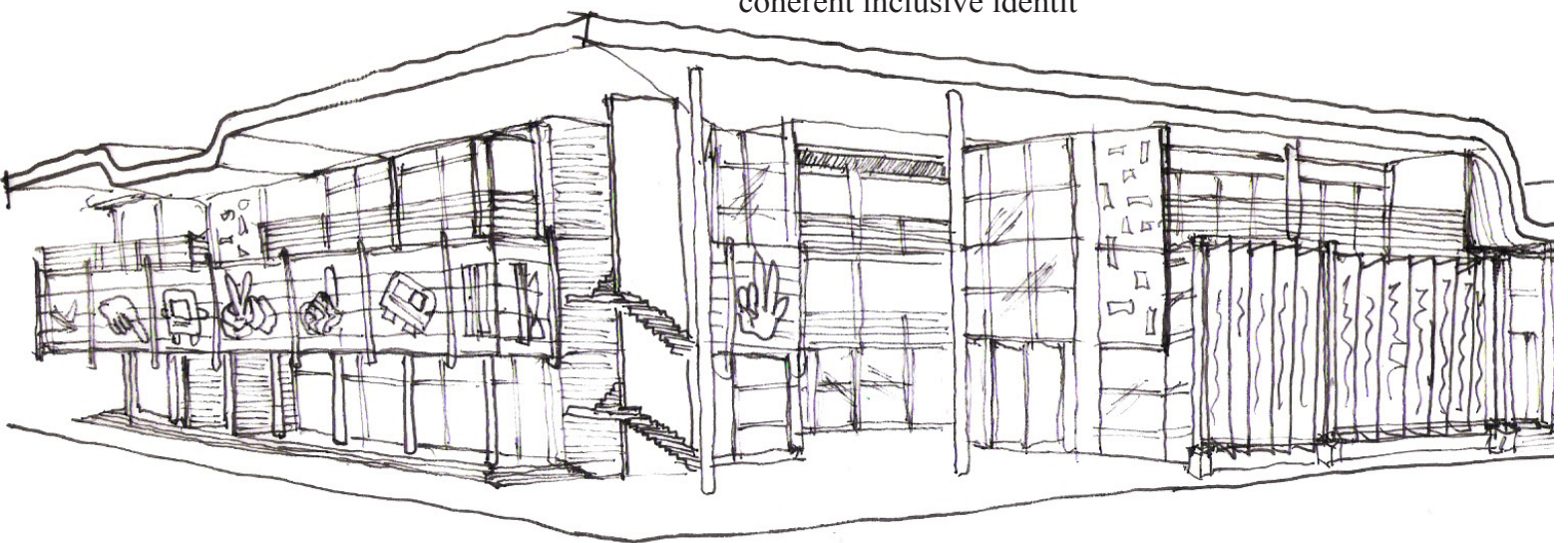


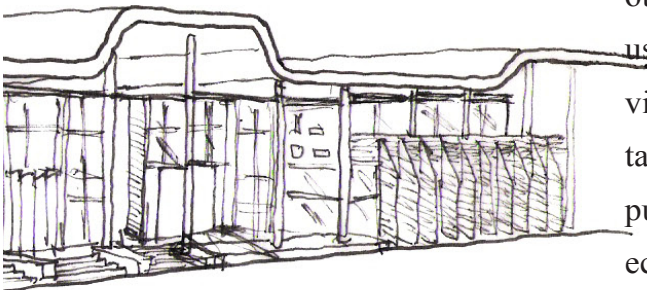
FIG 90-Entrance perspective

DESIGN CONCEPTS

CONCEPT GENERATOR 1

In beginning to understand what the taxi industry is, one has to negate its current one-dimensional perception, of it primarily being a renegade public transport system. Instead, one has to adopt a holistic approach, which incorporates not only its current perception, but also its allegorical meaning. In essence, one would have to find a meaning, which would still hold true, if all taxis where to conform to operational norm, and taxi drivers where to obey road rules with in a day. It is only once one has this un-wavering, meaning, can one then begin to formulate a new identity for the industry.

To begin one has to look at who the taxi industry primarily caters for, and what significance the industry has to that segments life. The first impression one would have is that it serves as the primary transport mode, but to attribute mean to that one would have to understand what having that transportation means to its users. Being that the taxi industry principally caters for the lower income bracket/ working class members of society, its is feasible to assume that the industry also serves as an economic enabler to that demographic. So other than just a transport mode, it is also what enables its users to move from their private lives to the public lives and vice versa. From that analogy, one can then deduce that the taxi industry represents the journey one has to undertake from public to private, disenfranchisement to economic opportunity ect. Thus, in conclusion from this correlation the formulation of identity of the taxi industry would have to represent its inherent meaning of journey.



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Origin of Concept

CONCEPT GENERATOR 2

The second approach in formulating an interconnected concept for formulating identity would be to follow the prescriptions dictated by the theoretical research done earlier on in the document. Because this thesis primarily deals with attributing meaning to a social construct, one has to follow a method that incorporates both social identity theory, and architectural typology. The resultant ideology should then be the summation of the two doctrines, and should clearly be able to illustrate how architecture can be used to formulate, quantify and even articulate identity.

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As stated in the theoretical component of this document, the method in which to formulate identity is to structure the identifying elements in a manner that is indicative of the entity they are intended to represent. In the case of the taxi industry the modus operandi to implement in formulating identity is through the re-appropriation and re-defining of its formative, expressive and operational elements.

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In order to give credence to the concept and the theoretical response, one has to express the resultant product in an architecturally expressive manner. The manner in which architecture could give meaning or identity to the industry is in three ways. Firstly, it is through a programmatic response that exemplifies the factions of the industry. Secondly, the architecture would have to express the narrative of the taxi industry. Finally, the architecture would have to represent the re-appropriation of the current typologies associated with the taxi industry. In so doing one can immediately begin to associate the structure with the industry, as it will comprise of all the attributes of the industry, thus formulating a new identity.

DESIGN CONCEPT

FACET INTERACTION

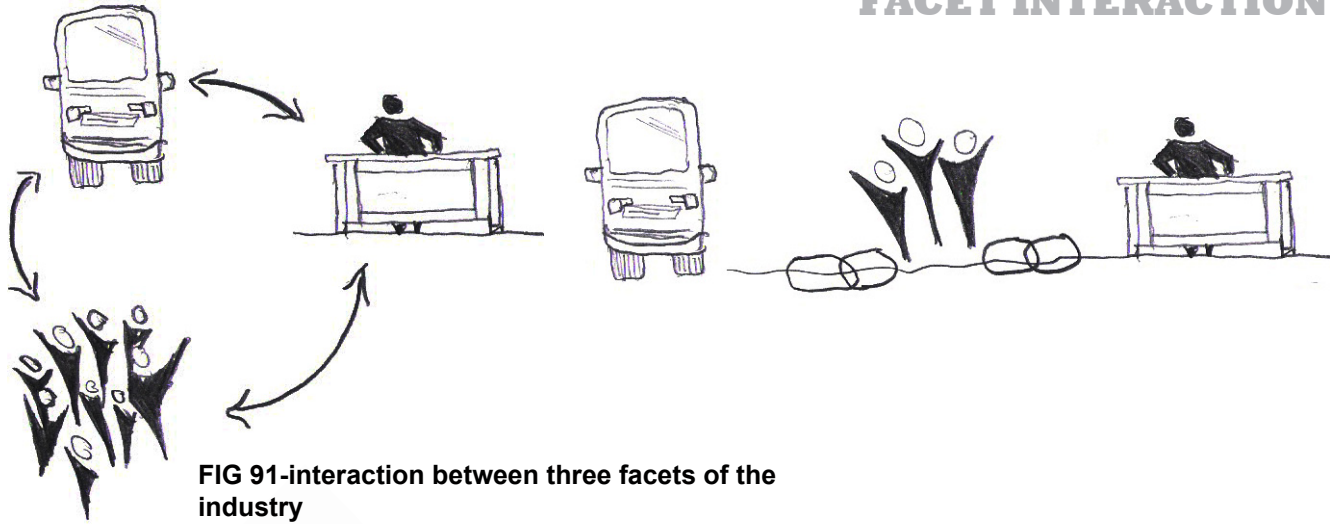


FIG 91-interaction between three facets of the industry

SOCIAL CONNECTION



FIG 92-Conceptual link journey plays

TYOLOGY RE-APPROPRIATION

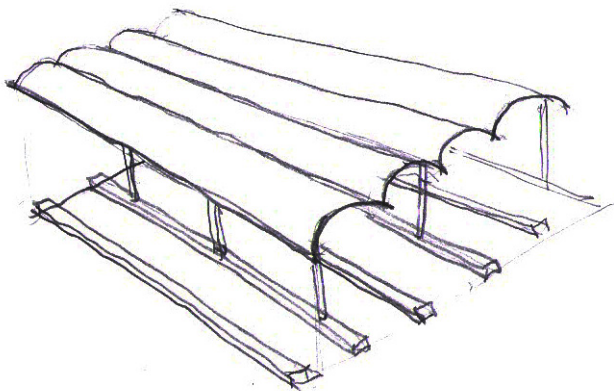
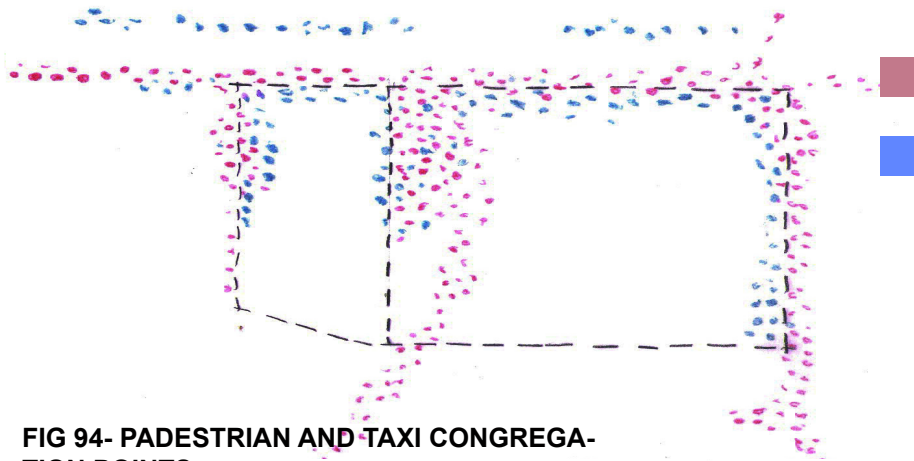


FIG 93- re- using typology in order to formulate identity

Design informantas

DESIGN GENERATORS



LOCATION OF MASS GATHERINGS

- Pedestrian Gathering
- Taxi Gatherings

Image indicates where along the site, pedestrians and Taxis ongregate

FIG 94- PADESTRIAN AND TAXI CONGREGATION POINTS

PEDESTRIAN MOVEMENT

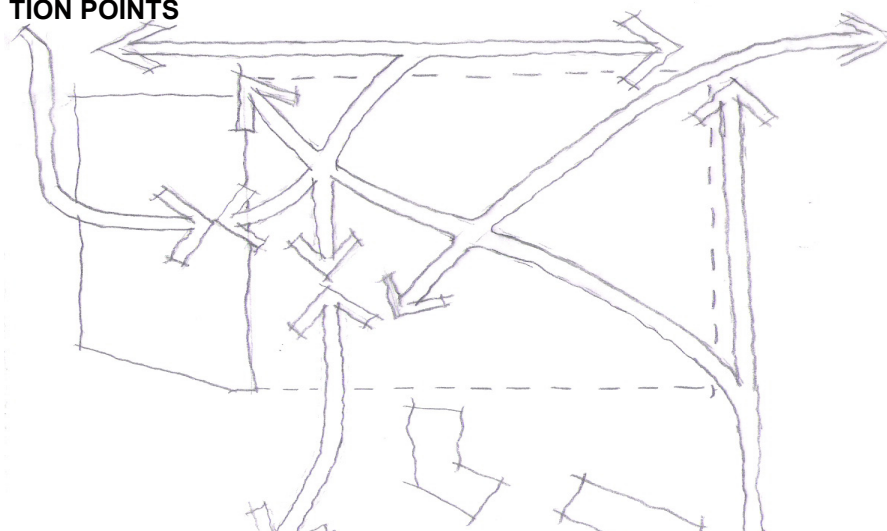


Image indicates the conceptual movement of pedestrians before the site had been fenced off

FIG 95- PEDESTRIAN MOVEMENT

CONCEPTUAL MASSING

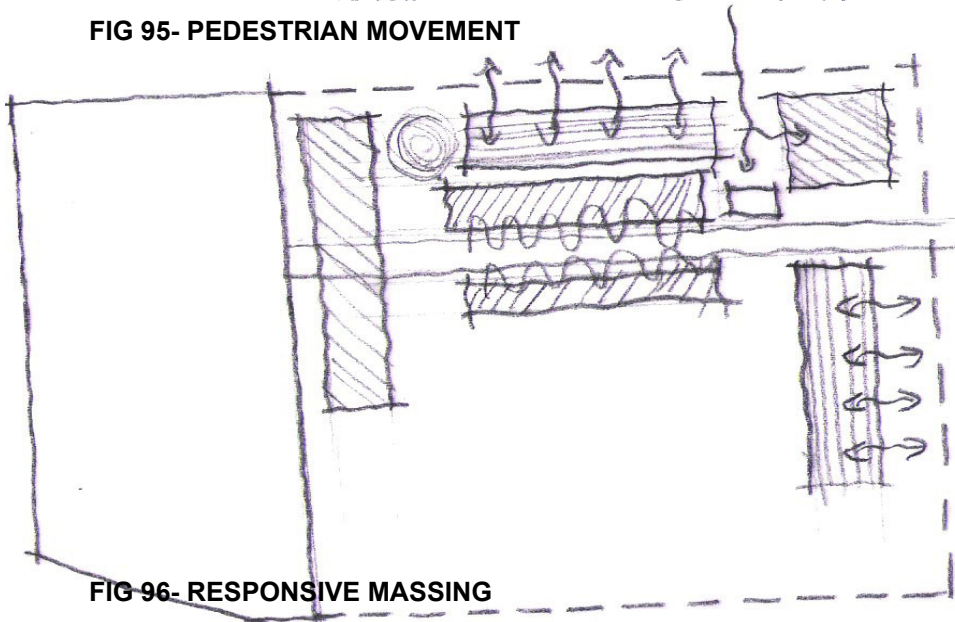


Image indicates the conceptual Massing of what the intervention might be, if it had to respond to the current urban fabric

FIG 96- RESPONSIVE MASSING

DESIGN GENERATORS

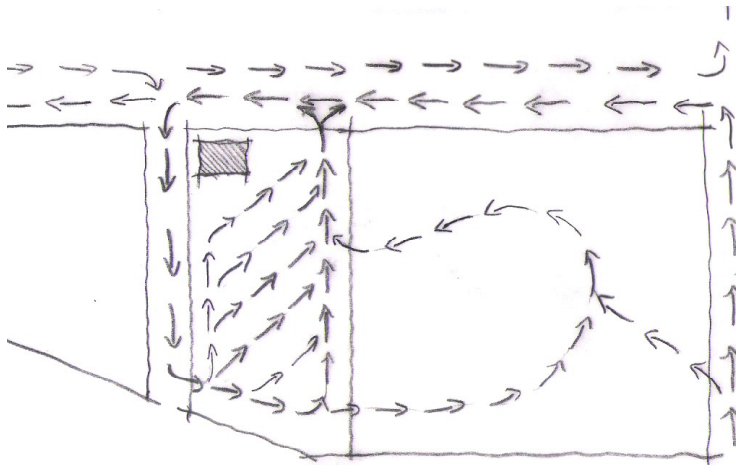


FIG 97- TAXI MOVEMENT

TAXI MOVEMENT

Image indicates the conceptual movement of taxis, as they would be required to interact with the site. the movement represents the conceptual notion of having the taxis be programmatically part of the building

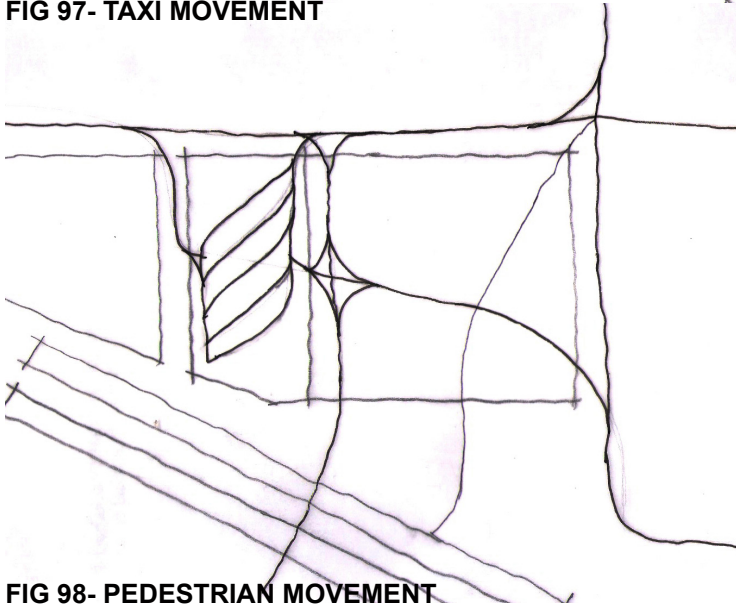


FIG 98- PEDESTRIAN MOVEMENT

PEDESTRIAN MOVEMENT

Image indicates the conceptual movement of pedestrian before the site had been fenced off. The image also represent how they pedestrians move through the adjacent taxi rank

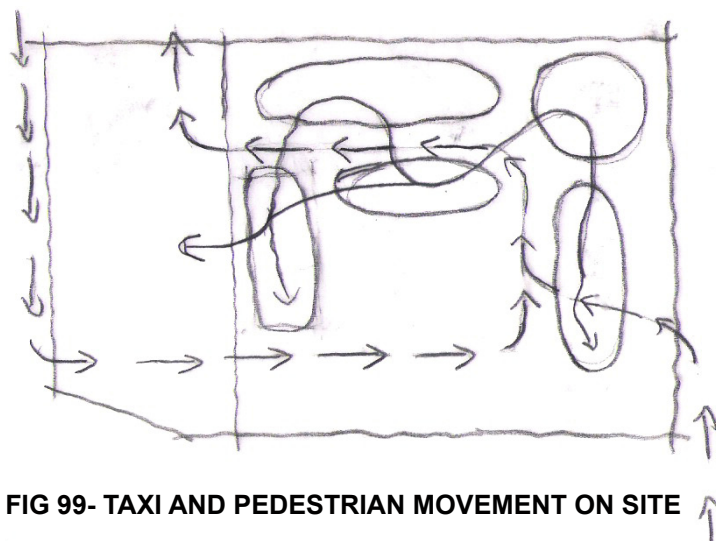


FIG 99- TAXI AND PEDESTRIAN MOVEMENT ON SITE

CONCEPTUAL MOVEMENT

Image indicates the conceptual movement of people between the suggested massing. the movement would represent an interactive program

**Movement, massing and interactions
 between programatic spaces**

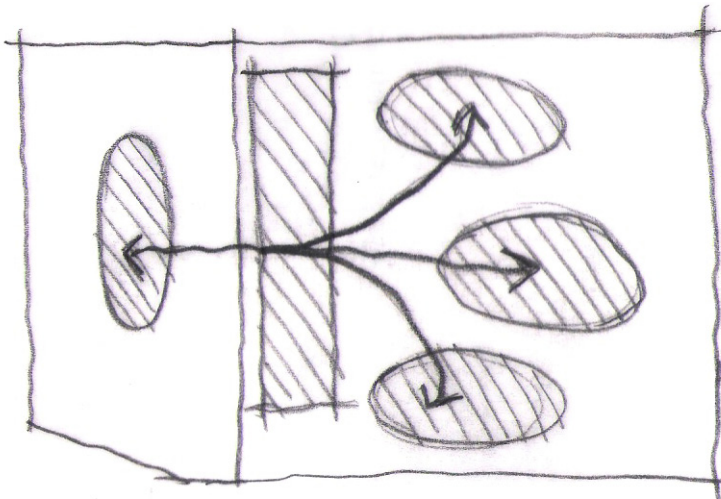


FIG 100- Dispercement Through site

DISPLACEMENT THROUGH SITE

The following image indicates the conceptual displacement of padestrians from the taxi rank into the site. By spreading the program, one can activate the whole site.

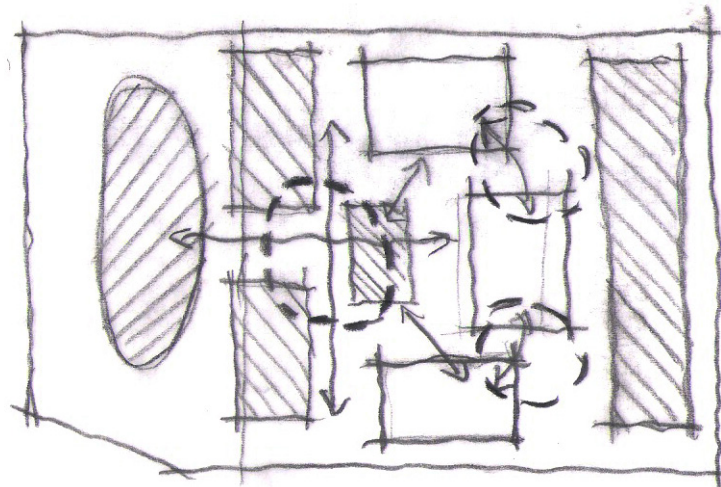


FIG 101-Activation of Nodes

SPATIAL ARTICULATION AROUND NODES

The image represents the need to activate nodes and buffer zones between primary programatic areas. In so doing one gives credence to all left over spaces.

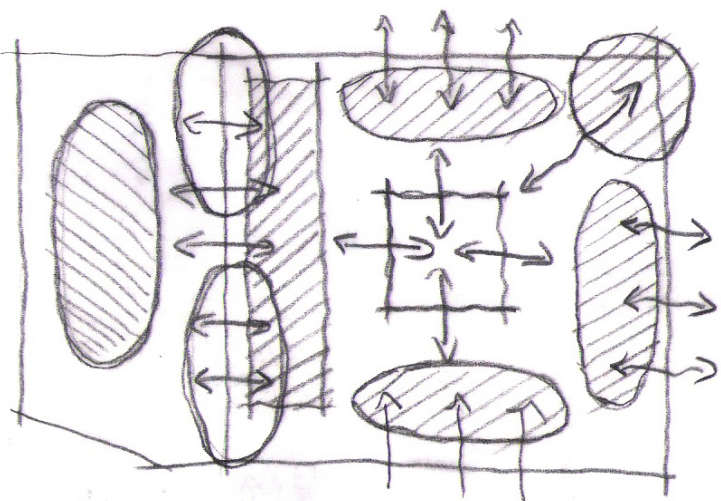


FIG 102- Interaction of buffer zones

INTERACTION BETWEEN BUFFER ZONES

Image represents the intention of having programitic activites along major edges on the site. The intention is to improve social interaction be tween the site and its surrounding context. buffer zones would be used to active intermediate spaces.

DESIGN CONCEPTS

CONCEPT 1

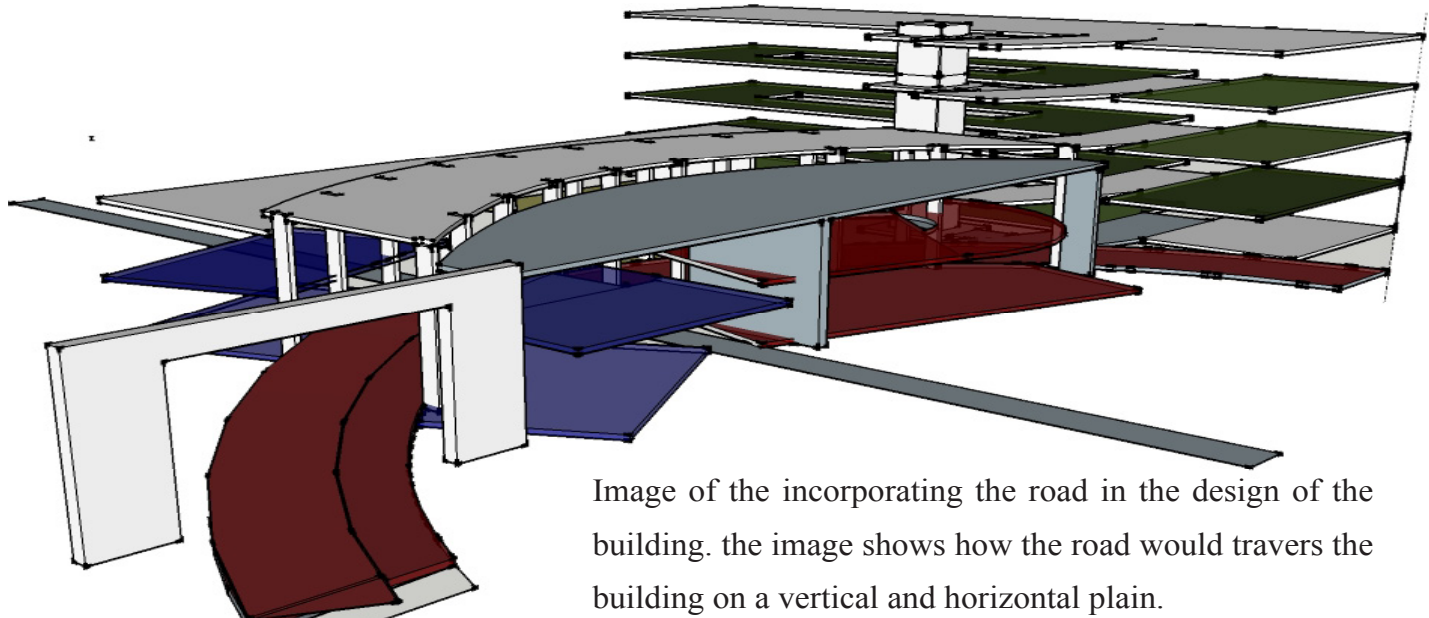
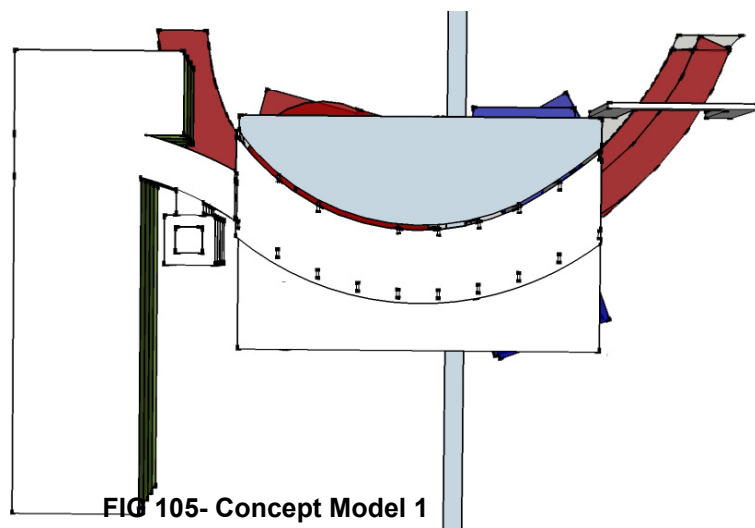
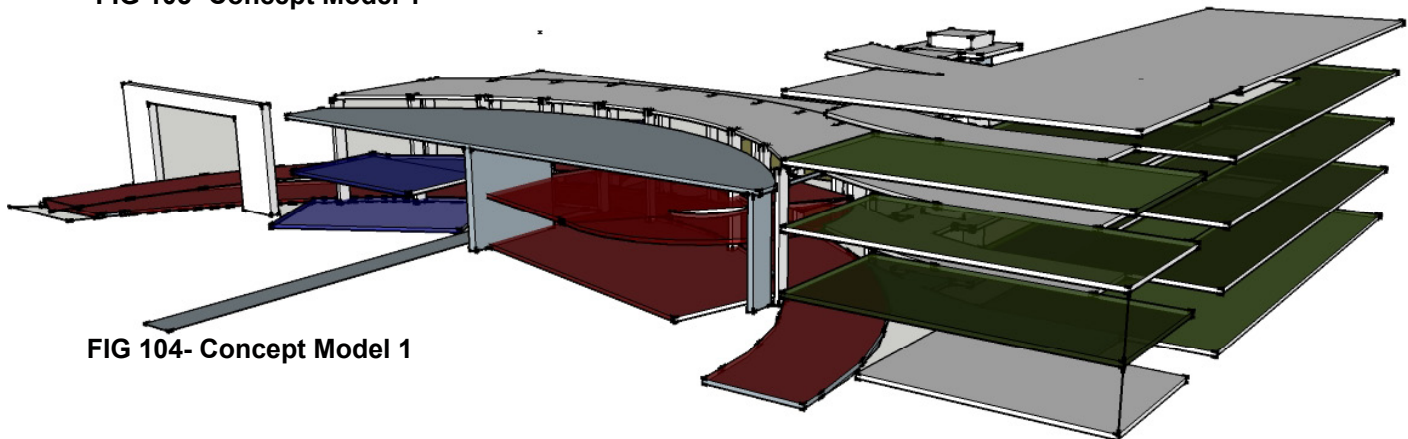


FIG 103- Concept Model 1



The initial concept originates around the idea of incorporating the taxis metaphorical home (being the road) and including it in the design of the building. The intention was to allow the taxis to become part of the program of the building, and since the idea was to instill identity for them, allowing them full access to the building would do this.

**Movement, massing and interactions
between programmatic spaces**

CONCEPT 2

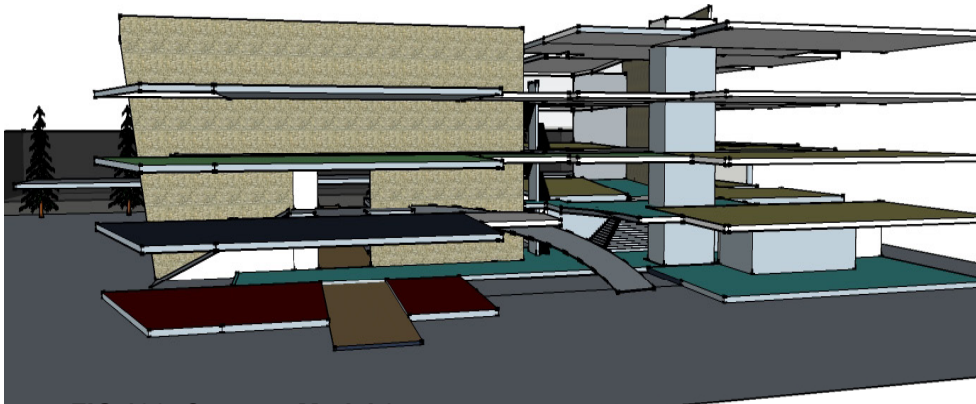


FIG 106- Concept Model 2

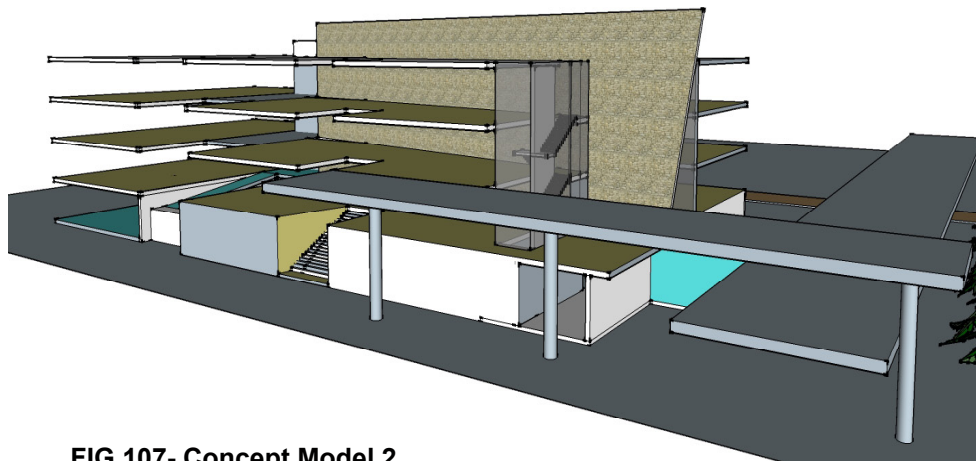


FIG 107- Concept Model 2

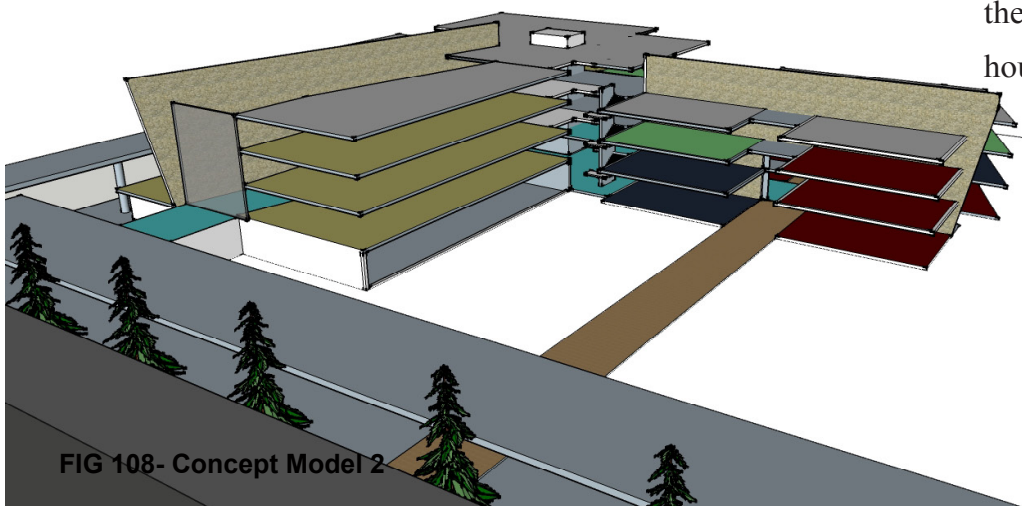


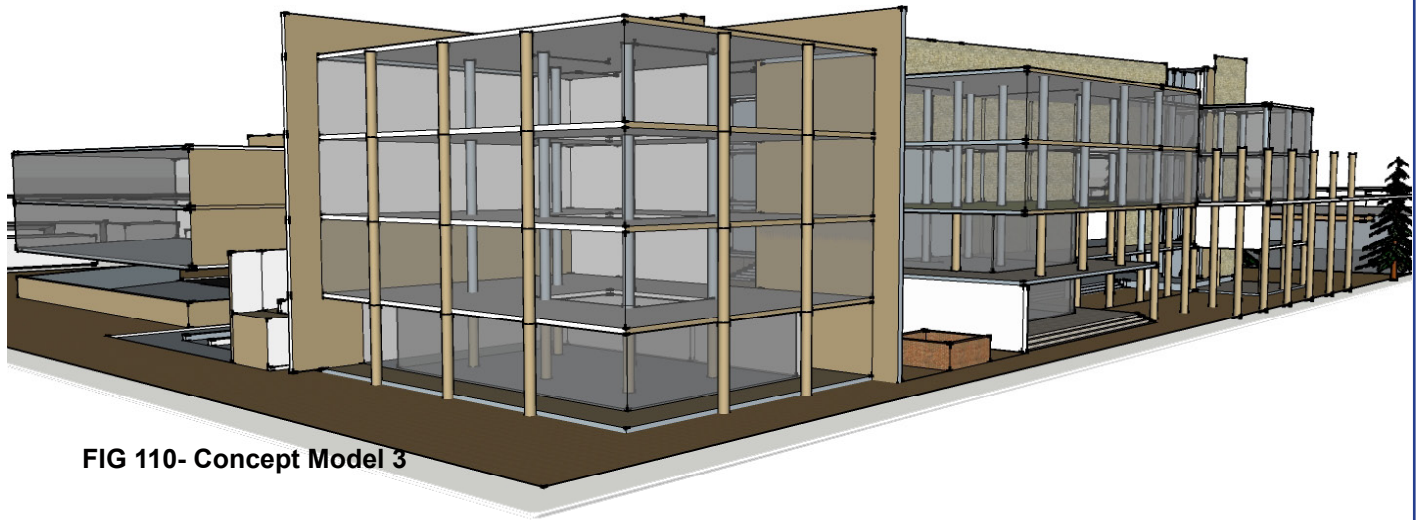
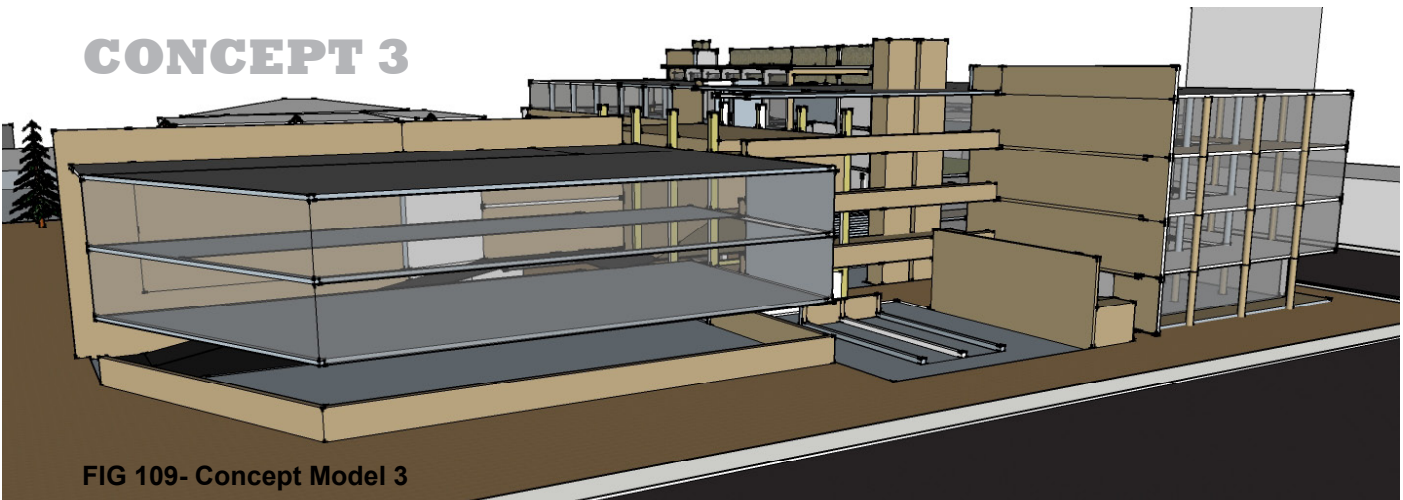
FIG 108- Concept Model 2

The second concept was centered around two conceptual ideas, the first was to emphasize the notion of the taxi being the primary user of the building, thus enabling taxis to move vertically and horizontally through the building, the second was to increase the general public's passive involvement in the ongoing of the taxi industry. The scheme's flaw was that it did not spatially link the formal aspect of the industry with the informal aspect. The third concept followed the same principals, but lacked the identifying elements or architectural gestures that would give the building the sense of identity. In essence the building did not represent the industry, but rather could house any program.



DESIGN CONCEPTS

CONCEPT 3



Interpretation after Digital design strategy

FAILURES, SUCCESSES

In the beginning the entire design process from concept generation to initial design, was completely computer generated. The process had the following positive and negative aspects

Process

Successes:

- Efficiency in time management in relation to work input and out put.
- Computer generated images allowed for easier 3D representation of scheme

Failures:

- Lacked the design fluidity of hand drawings
- Led to the design process being rushed
- Critical conceptual stages where missed

Design Orientated

The positives that could be drawn from the digital investigation, was that in order to better achieve the goals set out in the design brief, is that the design would need to articulate the three facets of the industry better. There would have to be a more coherent articulation of the programmatic spaces, in order to give credence to the design as a whole. Further, more the idea of identity needed to be explored more through the articulation of not only the programme, but also through the architectural expression. The design of the building would need to Implicitly represent the taxi industry and not just serve as a building that could in all certainty serve any programme. The digital experience led to a new investigation of how the building should not only respond to the brief, but also its context. The greatest differentiation between the digital process and the proceeding design process was the architectural language response to the brief.

DESIGN CONCEPTS

CONCEPT 4



FIG 112- Concept Model 4



FIG 113- Concept Model 4

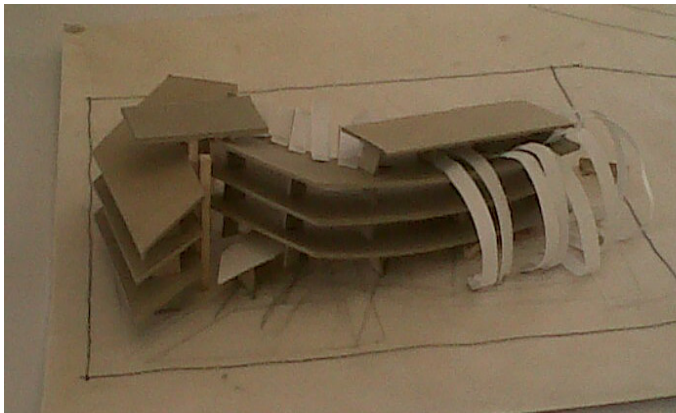


FIG 114- Concept Model 5



FIG 115- Concept Model 5

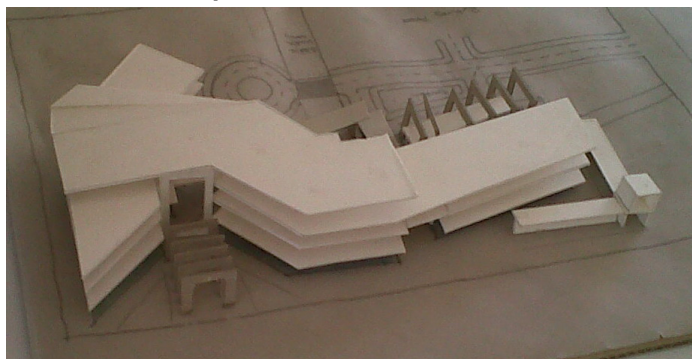


FIG 116- Concept Model 6

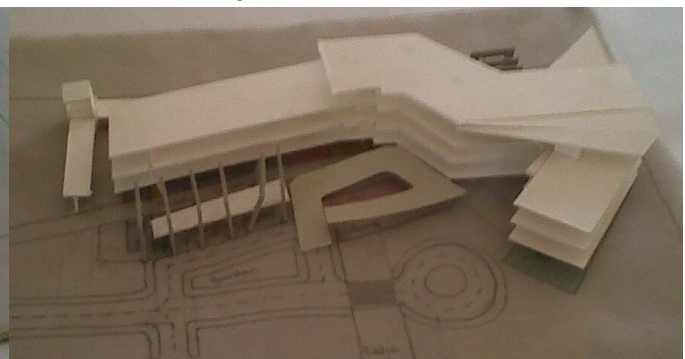


FIG 117- Concept Model 6

The above represented models represent the design investigation after the digital period of the design development. The building's form is intended to signify a move from the previously rigid and orthodox form of the previous design. The change of form is symbolic of the fluid nature of the taxi industry, is meant to highlight the main primary social spaces, and the linkages between them

NEW SITE ANALYSIS

SITE FRAMEWORK 2

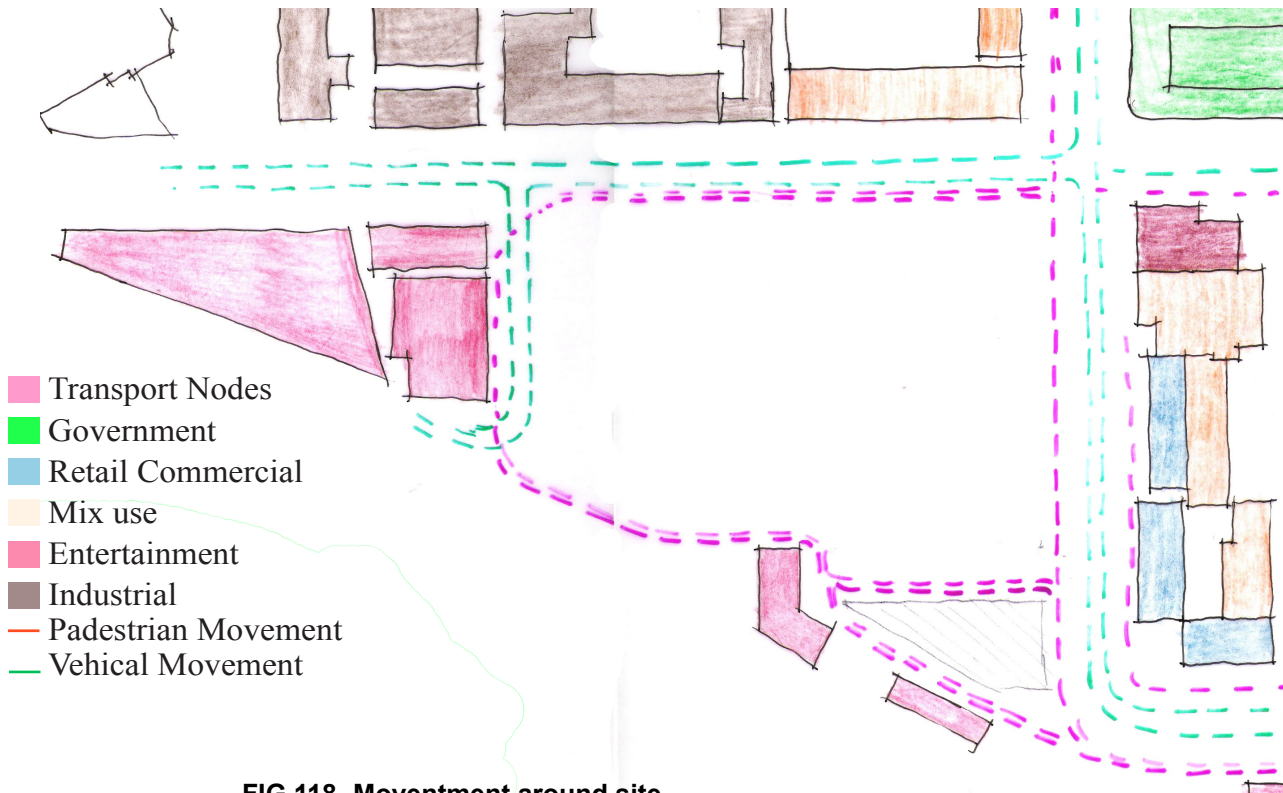


FIG 118- Movement around site

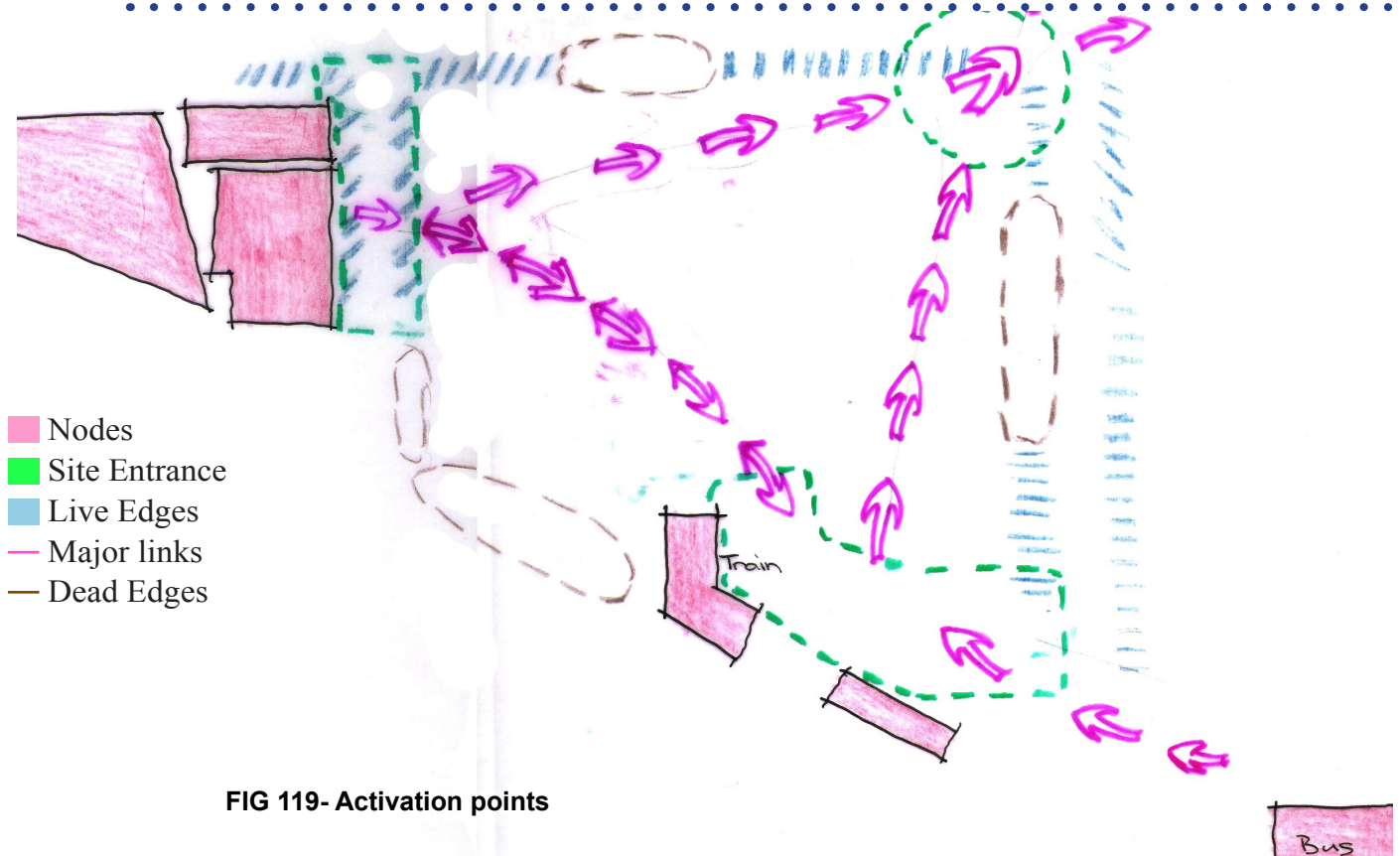
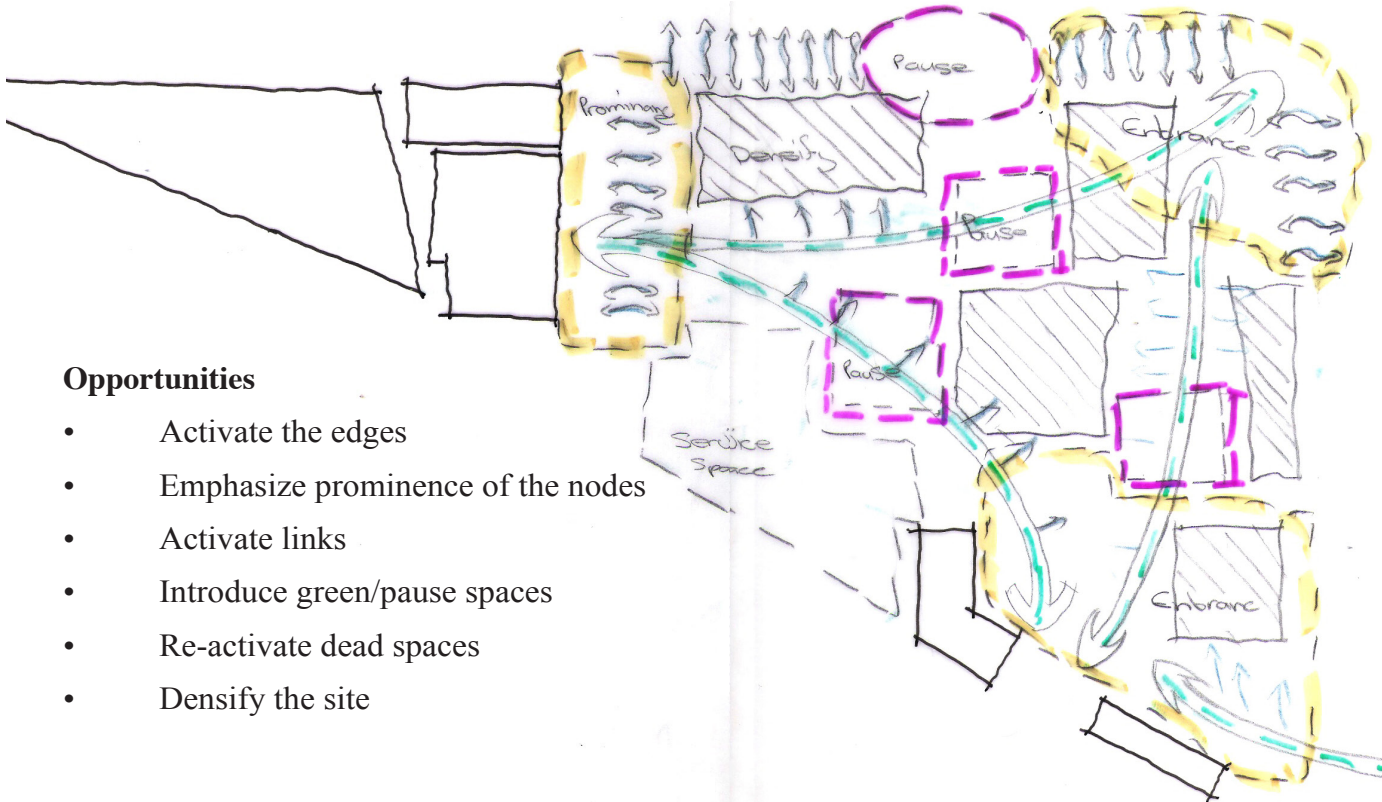


FIG 119- Activation points

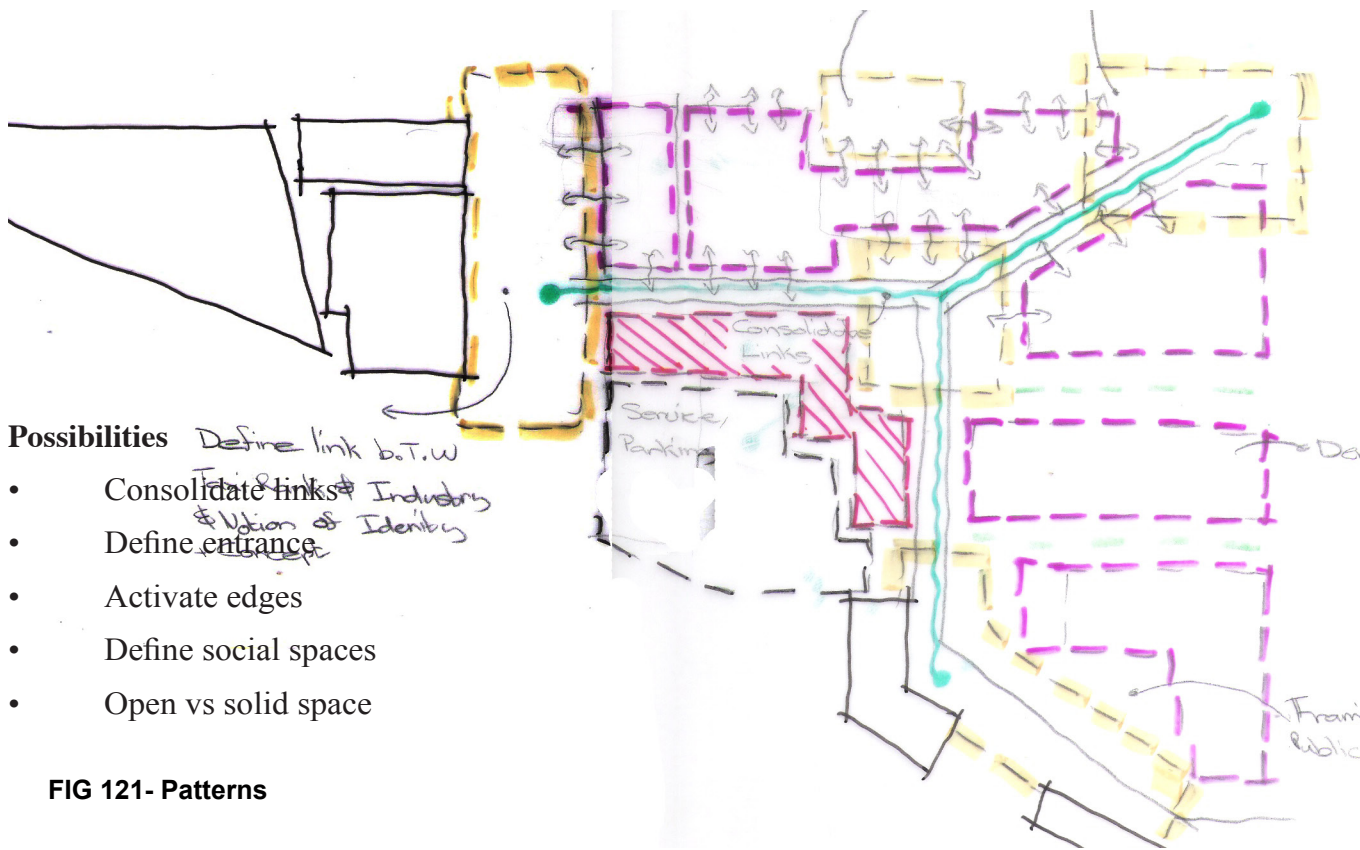
SITE DESIGN, stage 2



Opportunities

- Activate the edges
- Emphasize prominence of the nodes
- Activate links
- Introduce green/pause spaces
- Re-activate dead spaces
- Densify the site

FIG 120-Opportunities



Possibilities

Define link b.T.W

- Consolidate links & Industry & Urban & Identity
- Define entrance
- Activate edges
- Define social spaces
- Open vs solid space

FIG 121- Patterns

Massing and Interactions

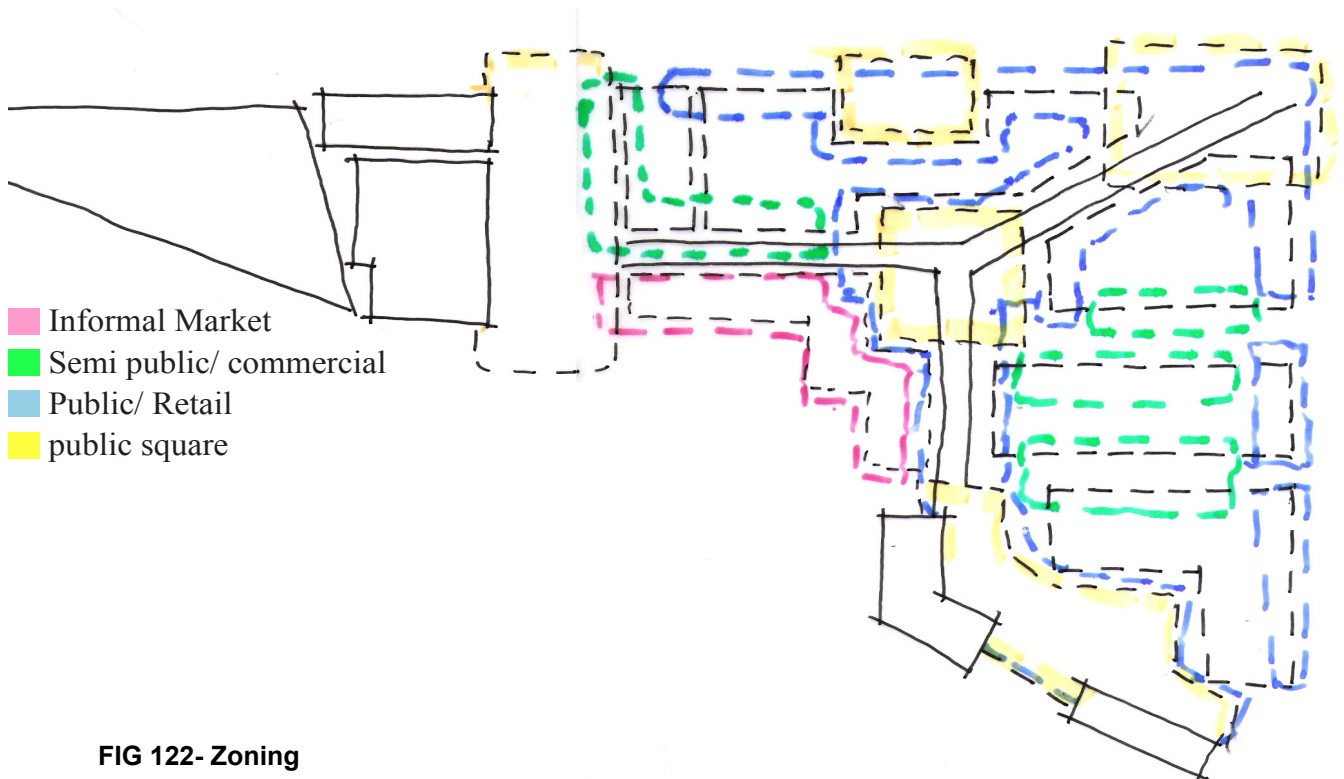


FIG 122- Zoning

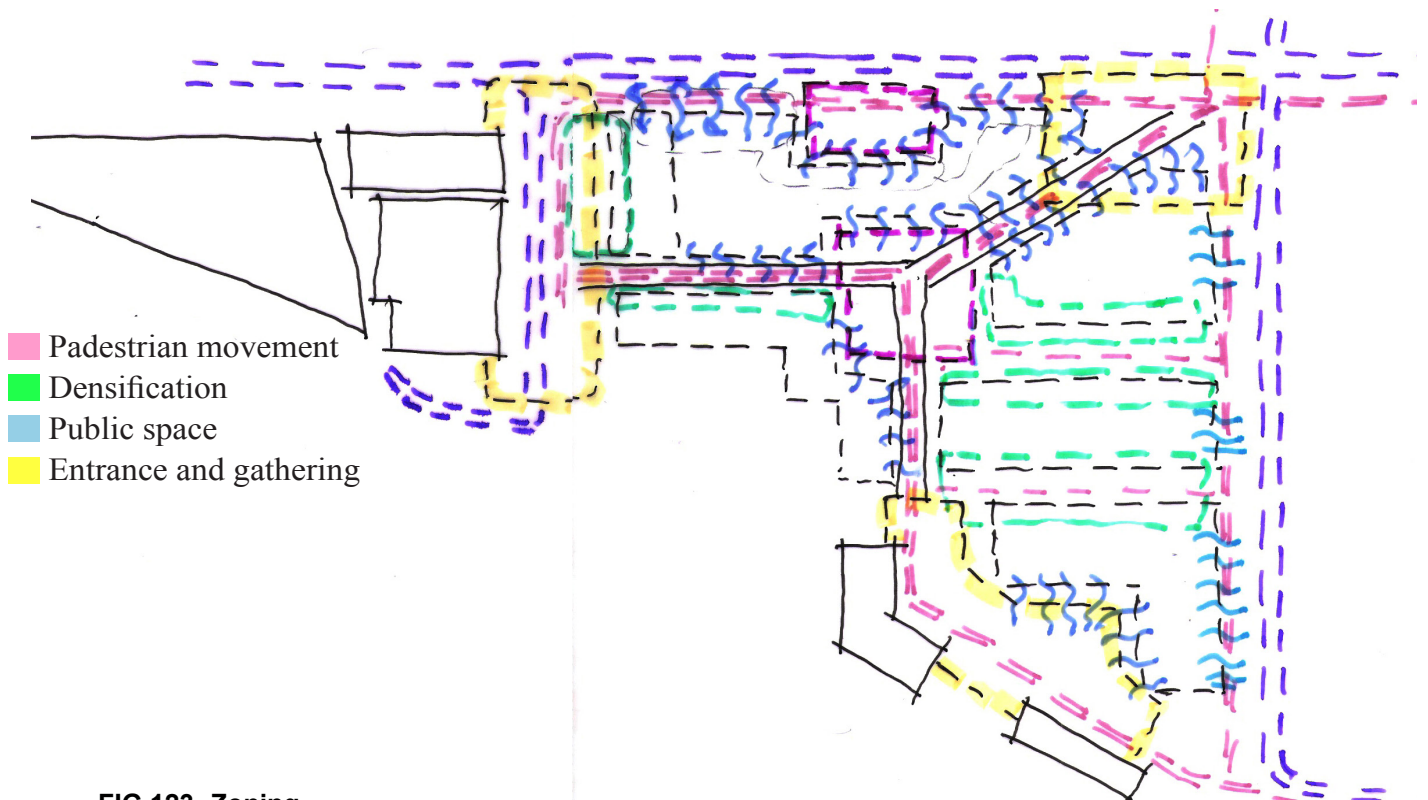


FIG 123- Zoning

SITE DESIGN

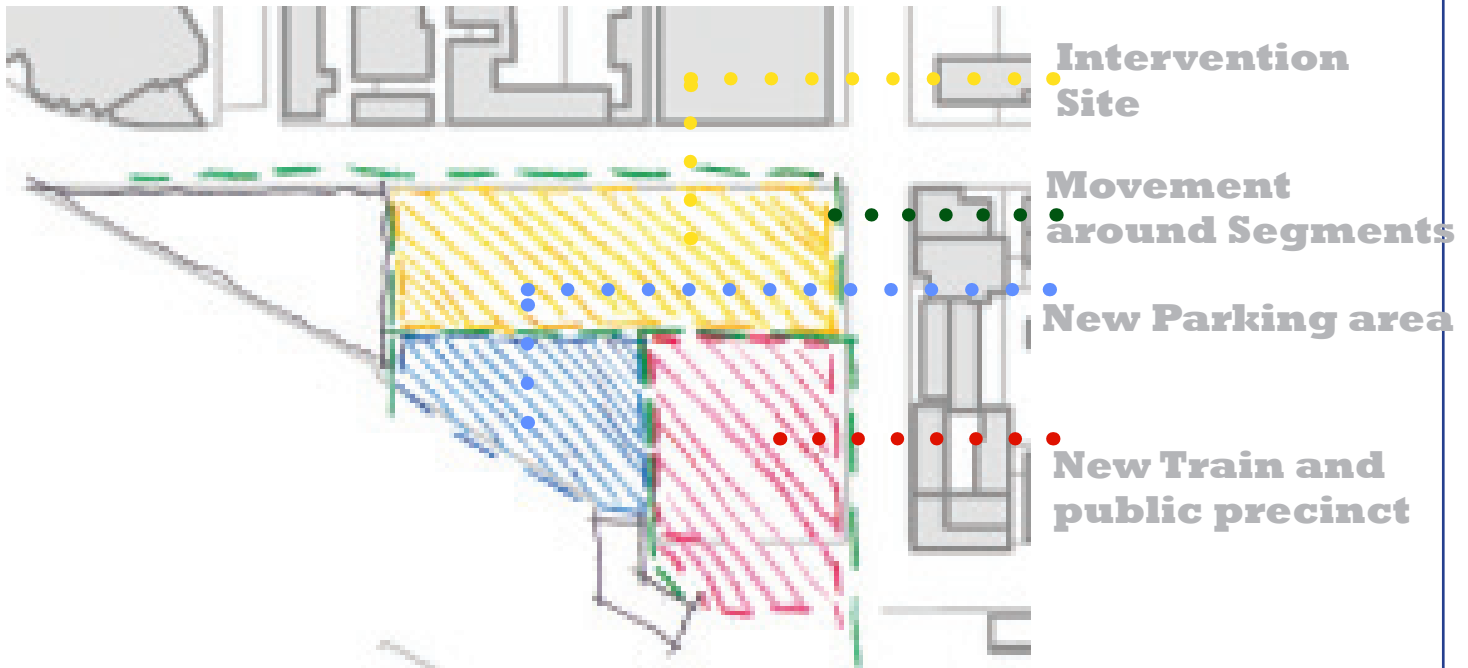
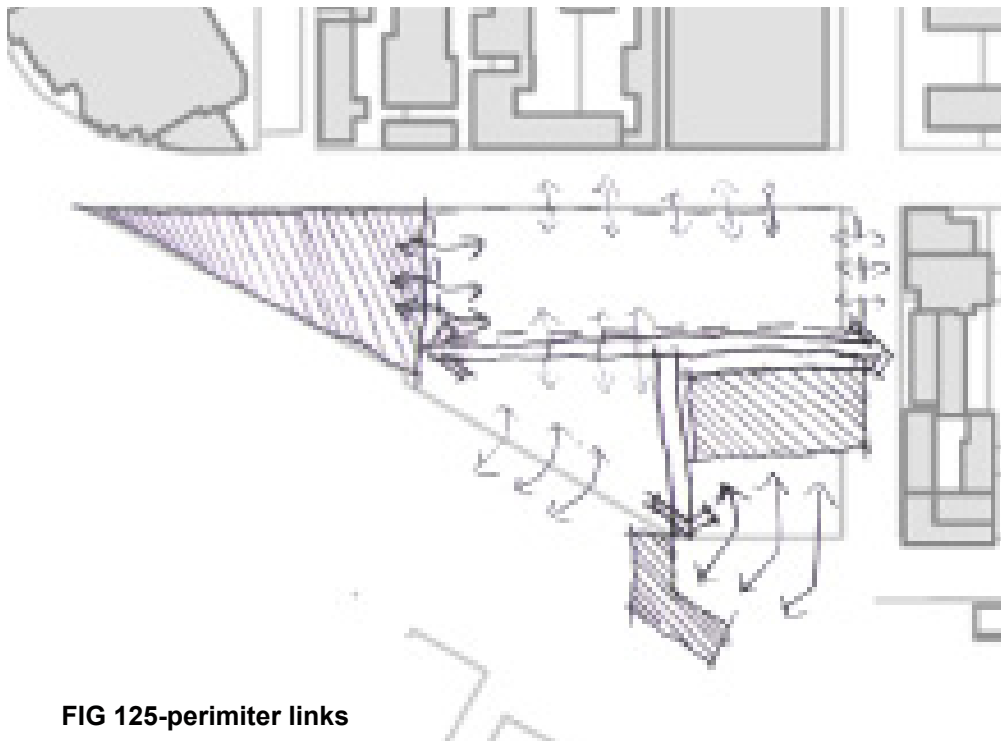


FIG 124-site partitioning

..... **The creation of buffer zones, and links between transition spaces, allows for better interaction between the segmented spaces**



The site has been divided into three segments, all of which deal with its surrounding context. A new walk way and road has been introduced to bisect the site, to allow for better accessibility, and permeability through the site. The site and the new proposed buildings, are arranged in a manner that allows for the creation of public squares, and interaction points.

FIG 125-perimeter links

Design Response to secondary Site framework

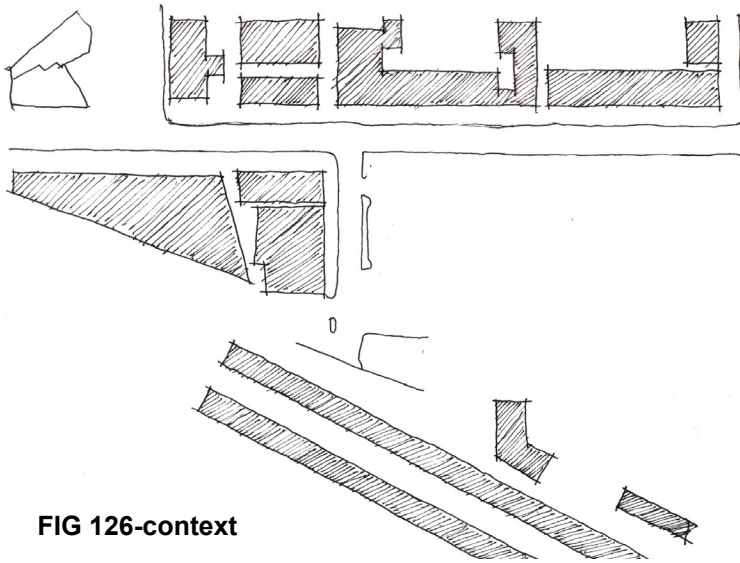


FIG 126-context

In beginning the new site layout, the first course of action was to look at the surrounding context. The intention of which was to have a building that responded to its surroundings in terms of scale and language. The challenge was finding the median between the left flank of the site, which is single story, and the right flank, which are 3 to 8 stories high.

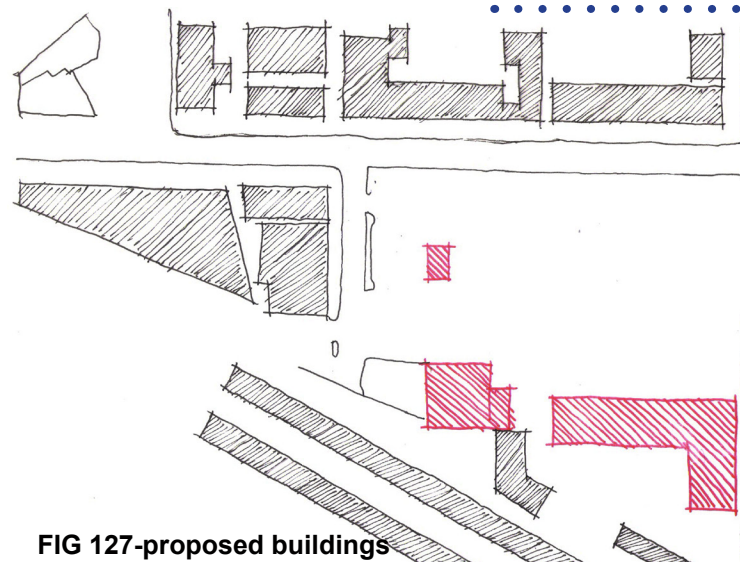


FIG 127-proposed buildings

The buildings represented in red, are intended to be supplementary buildings that emphasize the site as a taxi precinct. Their program would be a taxi wash bays, and parking bays, as well as accommodation. To the north west corner is a service station, which serves the adjacent taxi rank.

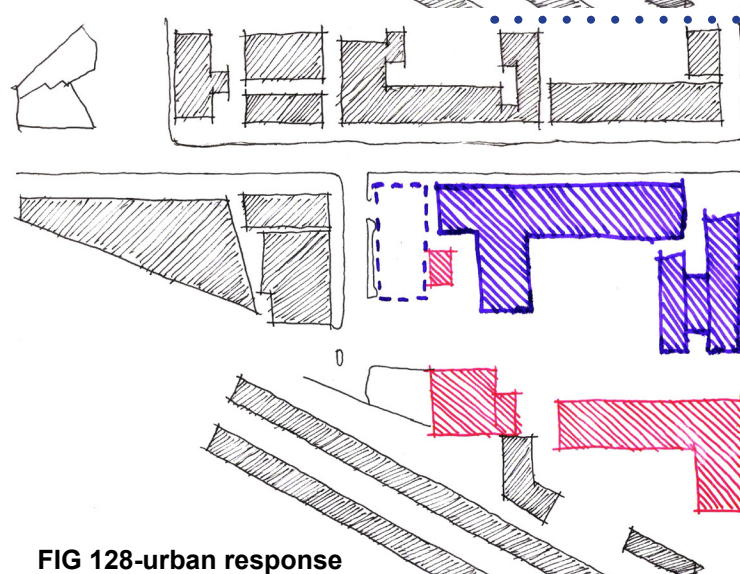


FIG 128-urban response

The buildings in purple represent the form of the design intention. The form is primarily derived from a need to maintain the urban city language and to frame the site. The form allows for maximum interaction with the street edge, thus further enabling the buildings social program

SKETCH PLAN

The orange dash, dotted line represents the primary pedestrian movement along and through the site. The movement is derived from the linkage of primary transport nodes, ease of movement, and existing pedestrian movement. The design responds to the movement patterns

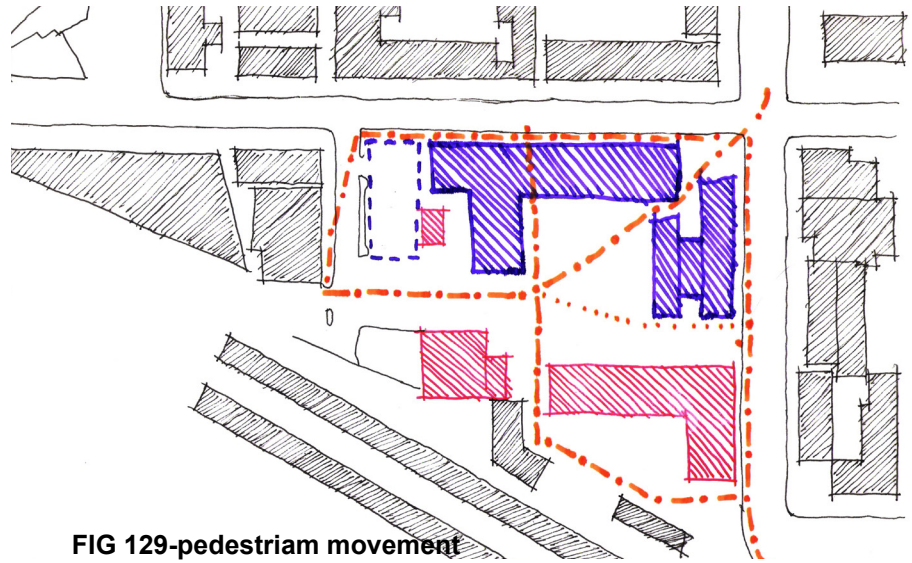


FIG 129-pedestrian movement

The blue line represents the existing taxi movement past and into the site. A secondary route has been proposed at the rear of the design, to allow it access to parking and service bays. The pink bars represent market areas which have been located along the major movement areas

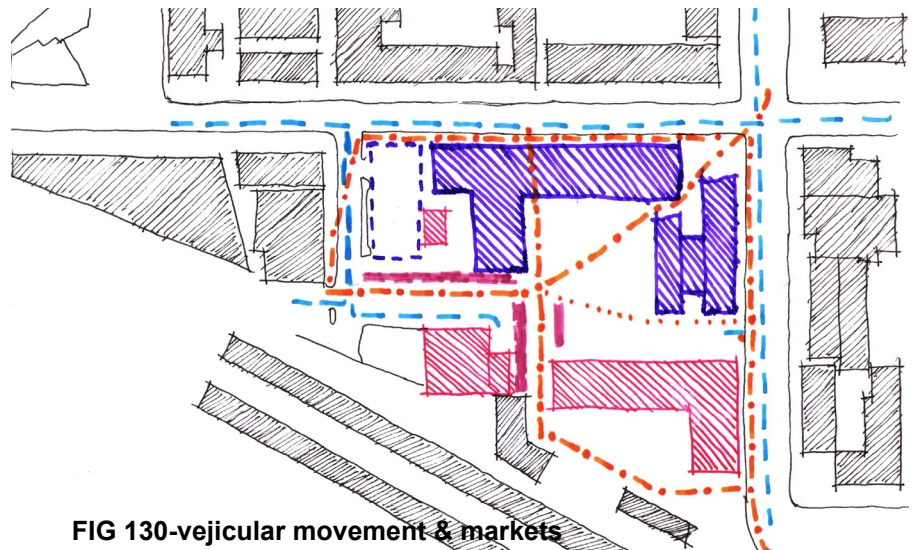


FIG 130-vehicular movement & markets

The last image represents the culmination of all the design intentions that have been considered. The remaining space on the site is intended to serve as a public spill out or quart yard space. The space links all the programmatic facilities on the site, and acts as the major public collection space.

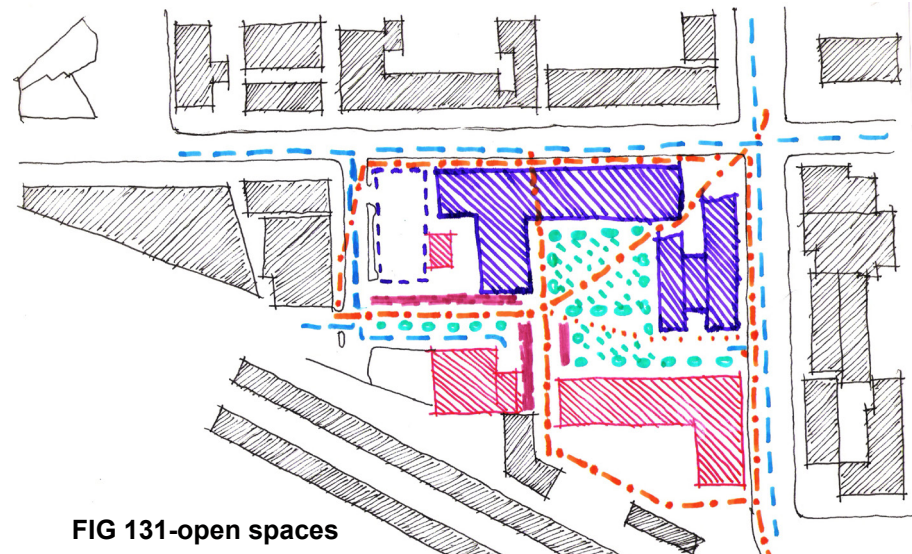


FIG 131-open spaces

Design Response to existing conditions around the site

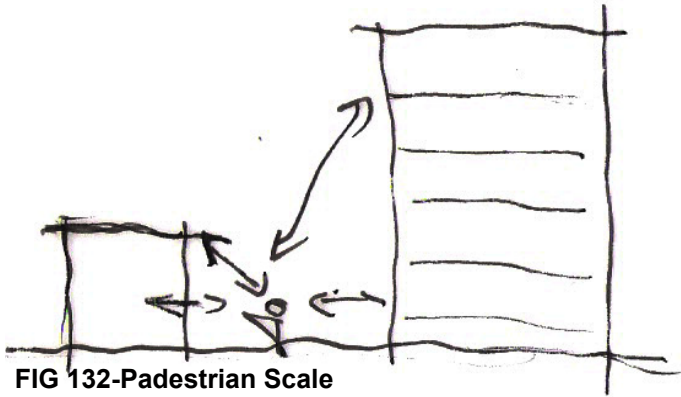


FIG 132-Pedestrian Scale

PADESTRIAN SCALE

The design takes into consideration the human scale, in relation to its surrounding, the concept was to create a space that acted as a transition space between the different fabrics around the site



FIG 133-Street section

STREET CLARITY

The conceptual idea was to create a visually transparent building, in which all its activity's could be passively vied by the public. The intention was to create an inviting building

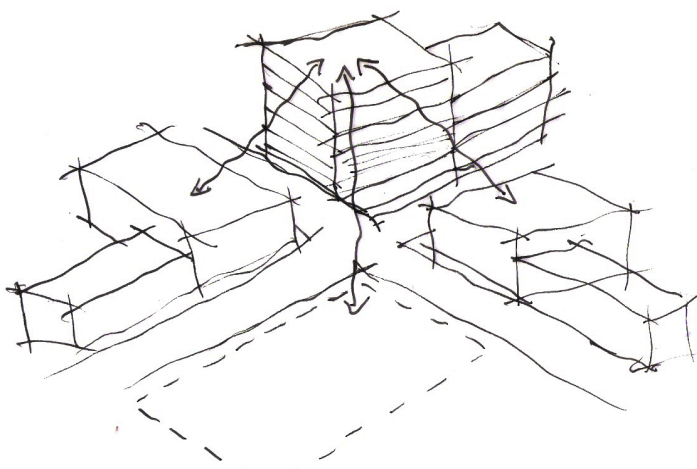


FIG 134-Building Heights

GATEWAY RESPONSE

The building acts as both a gateway/ transition building between the city and the major transport nodes around the site. Secondly, its form is intended to respond to its surrounding context

DESIGN INTENTIONS

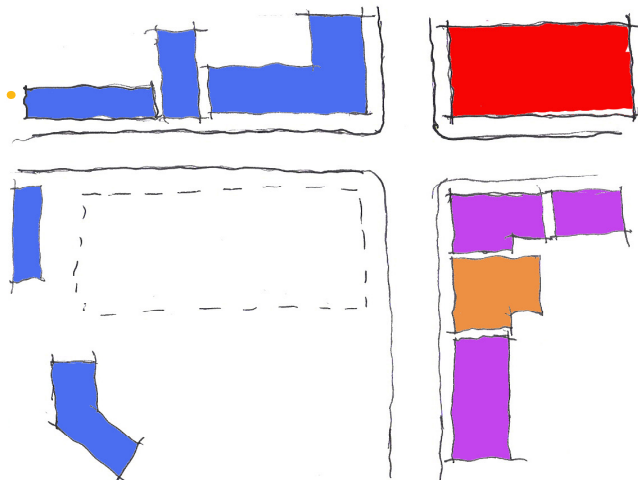


FIG 135-Building Heights

BUILDING HEIGHTS

The site is surrounded by a disparity of building heights. On the north west corner the site needs to respond to building heights of up to 18 stories, where as the surround buildings do not exceed two stories.

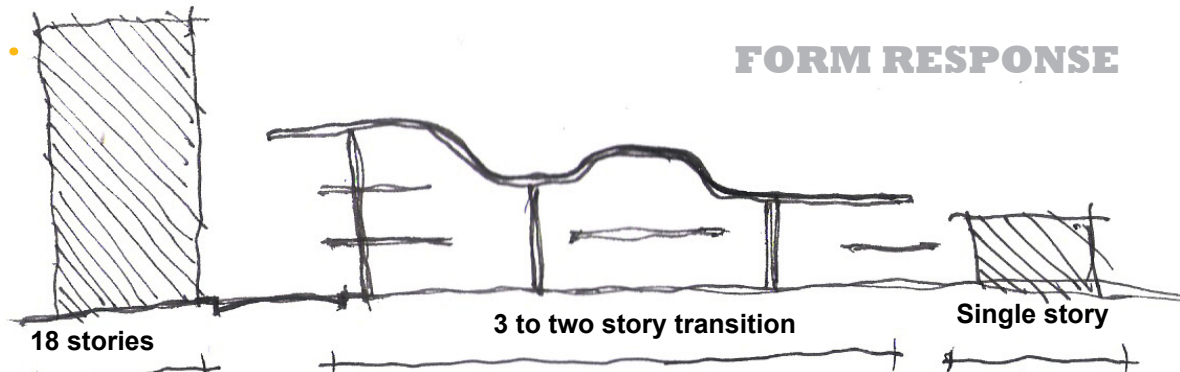


FIG 136-Form response

FORM RESPONSE

Conceptually the buildings is meant to respond to its context as well as maintaining its own logic derived from the principals of formulating identity

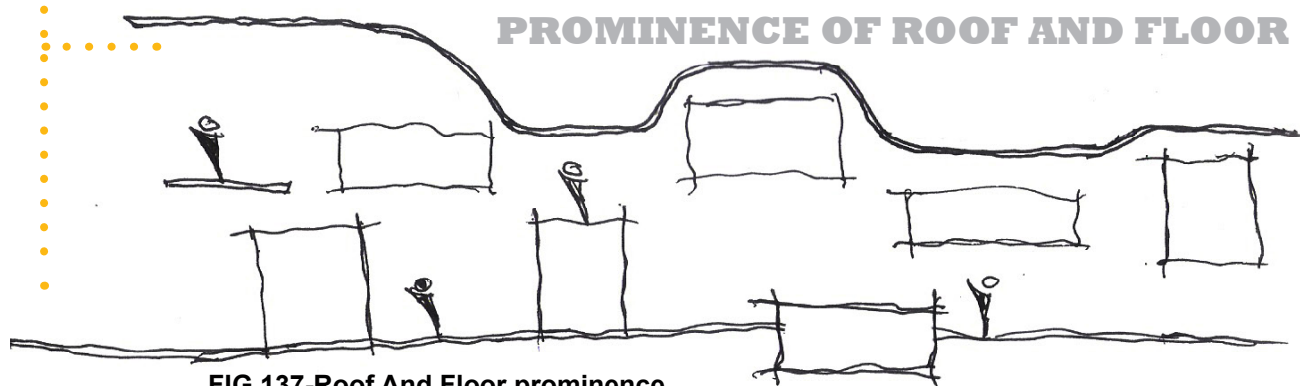


FIG 137-Roof And Floor prominence

PROMINENCE OF ROOF AND FLOOR

In following the principals of transport architecture, and re-defining existing typologies pertaining to the taxi industry, the conceptual form is derived out of a need to emphasize the prominence of the floor and roof plains. The floor determines where programmatic constraints occur, while the roof acts as an encapsulating member which houses them all, with out being influenced by the program

Design Response to secondary Site framework



FIG 138-concept model-5

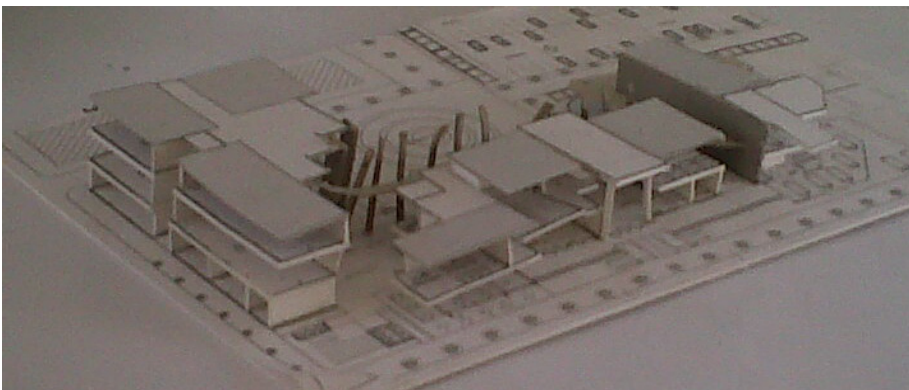


FIG 139-concept model-5

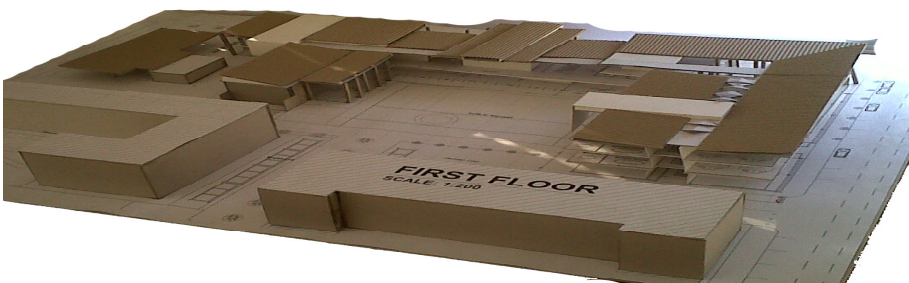


FIG 140-concept model-6

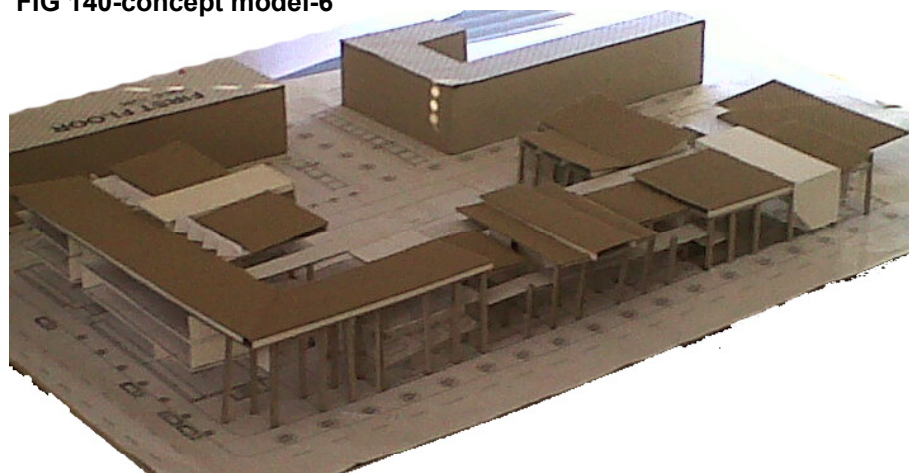


FIG 141-concept model-6

CONCEPT 5

The design of the fifth concept begins to address the city fabric, by aligning its programmes along or near major movement routes. This articulation does formalize the form of the building, and acknowledges the stipulations of urban design. The building does begin to bring together the facets of the industry, being the formal, informal, and user. The design does revert to the initial idea of having the taxi being able to enter the building.

CONCEPT 6

The sixth concept expands upon the fifth concept by further refining the programmatic articulation, and further defining the social spaces. The design rethinks the idea of having the taxis being able to penetrate the building, as well as the idea of having a taxi show room. The design does however develop the idea of representing the taxi history through the introduction of a memorial space, which exhibits the history of the

DESIGN PROGRESSION



FIG 142-concept model-6

industry. The biggest flaw of this design and previous concepts is that it does not have a singular architectural structure that physically links all the facets of the industry. Furthermore the roof structure was too fragmented and could not represent a unified identity.

CONCEPT 7

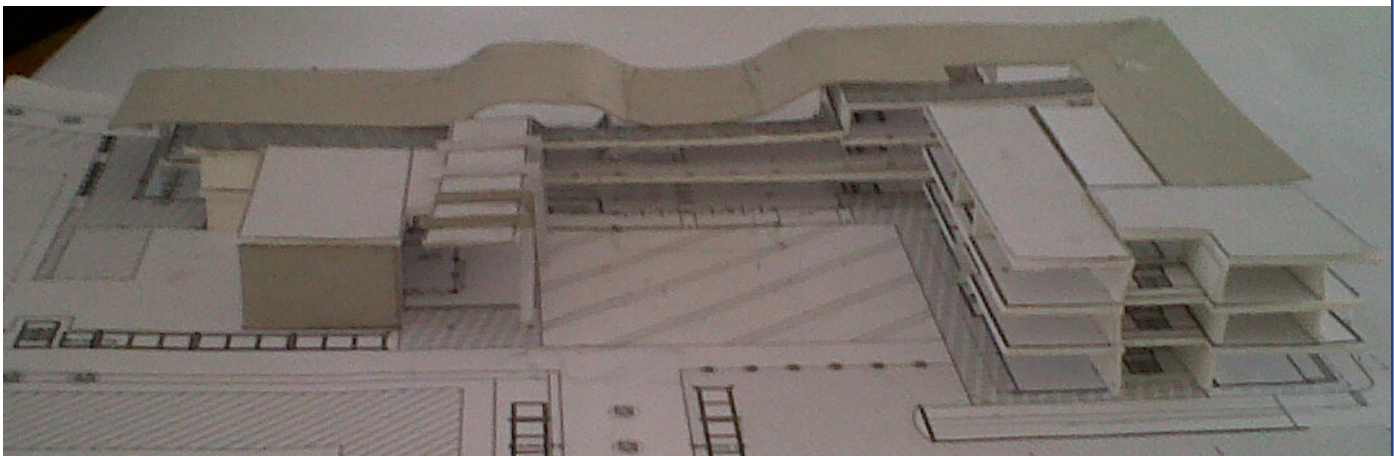


FIG 143-concept model-7



FIG 144-concept model-7

The seventh concept expands upon the six by introducing a roof structure that covers the building as a whole; the roof structure serves as the unifying element that links all aspects of the design, and its form is intended to represent a re-interpretation of transport architecture. Conceptually the design represents transport architecture in the sense that it has a roofscape that allows all functions to happen freely underneath it. The ground plane articulates the movement independent of the roof, and allows for the prominence of certain social spaces.

**Conceptual 3D representation of the
final design progression**

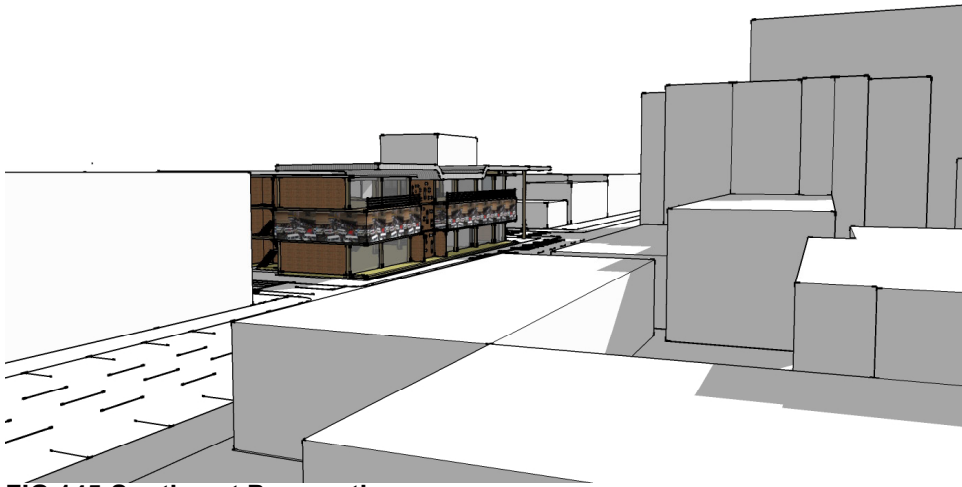


FIG 145-Southeast Perspective

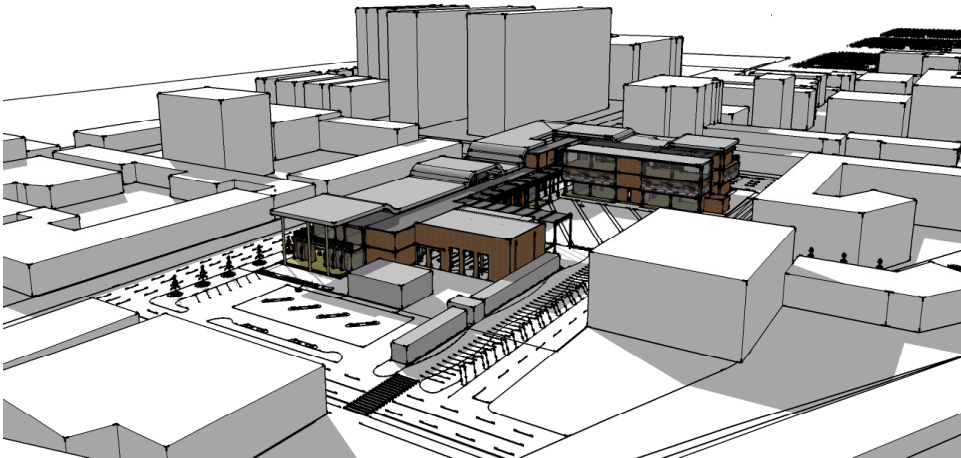


FIG 146-Southwest perspective



FIG 147-North elevation



FIG 148-Northeast perspective



3D CONCEPT MODEL

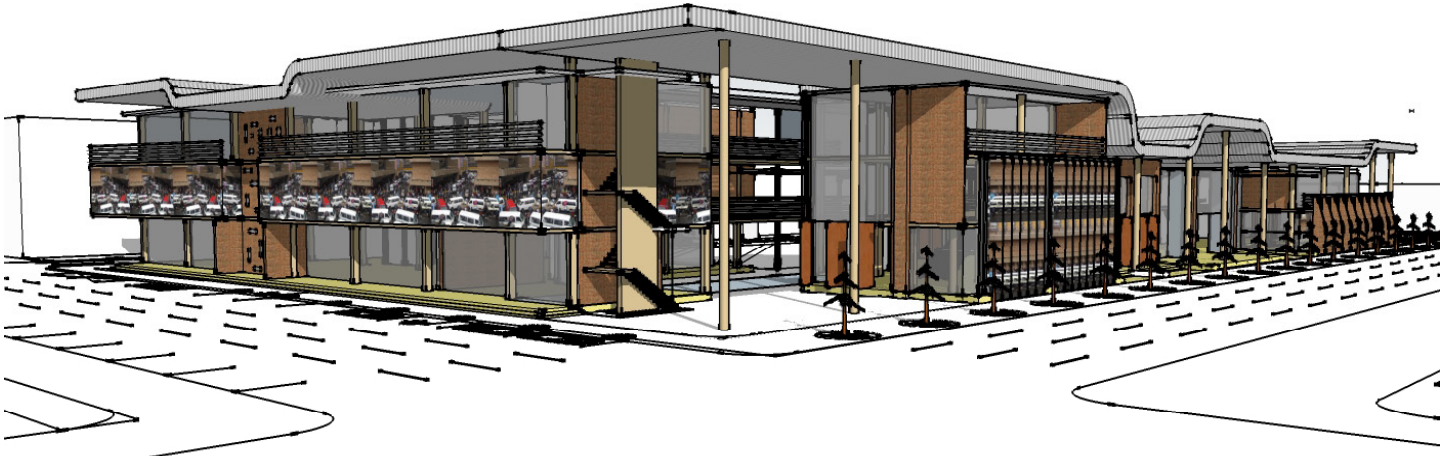


FIG 149-Corner entrance

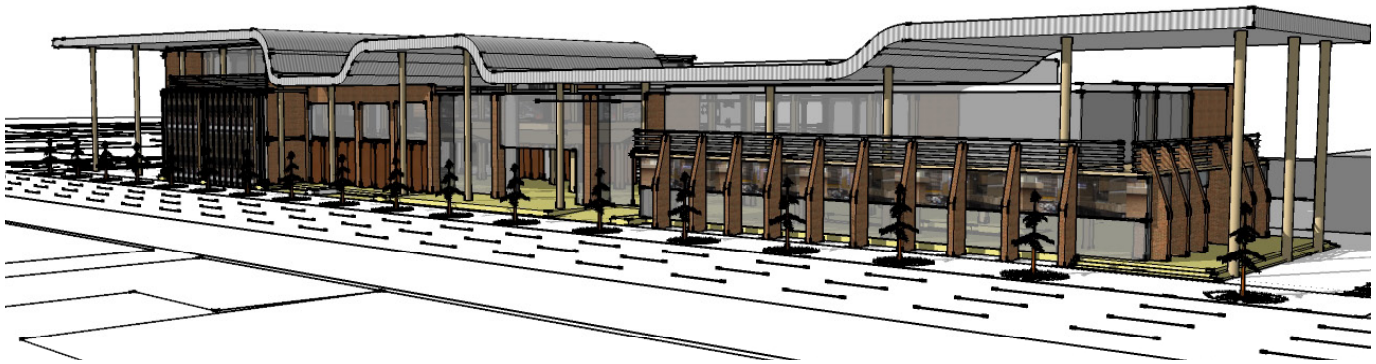


FIG 150-Northwest perspective

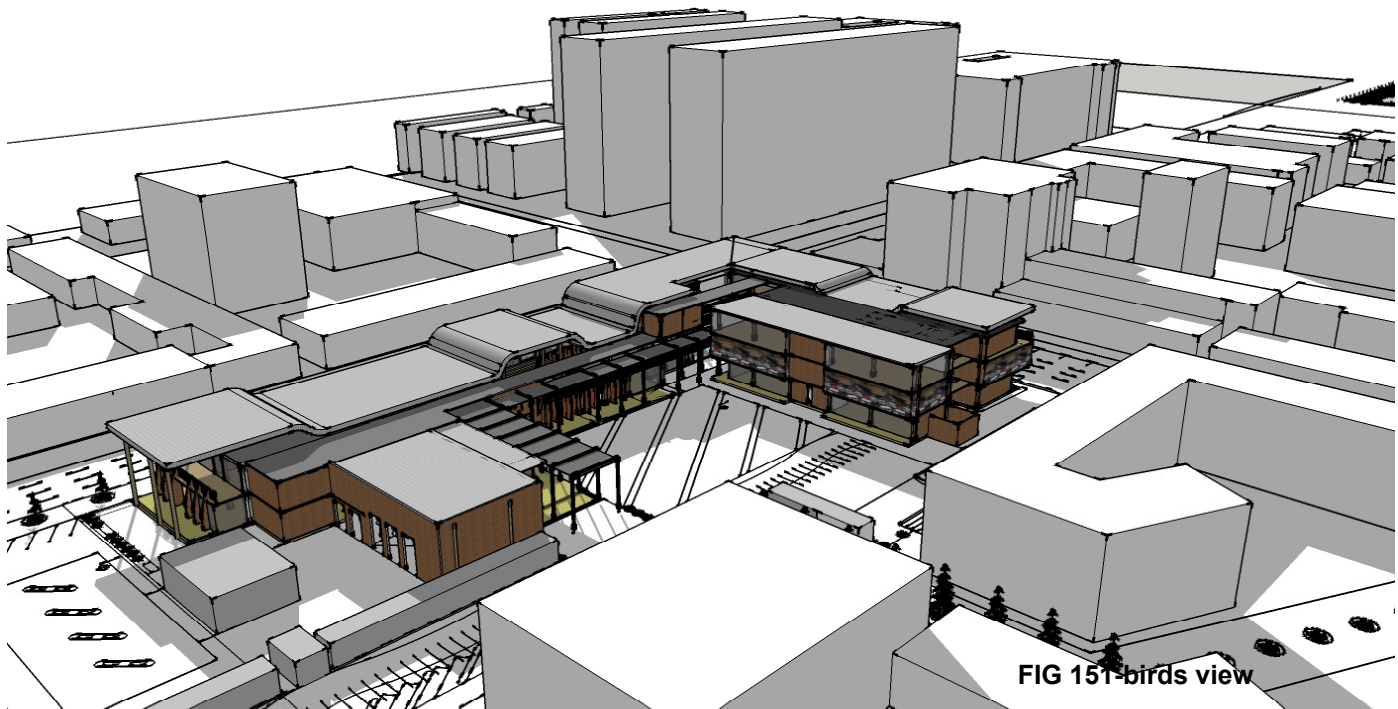


FIG 151-birds view