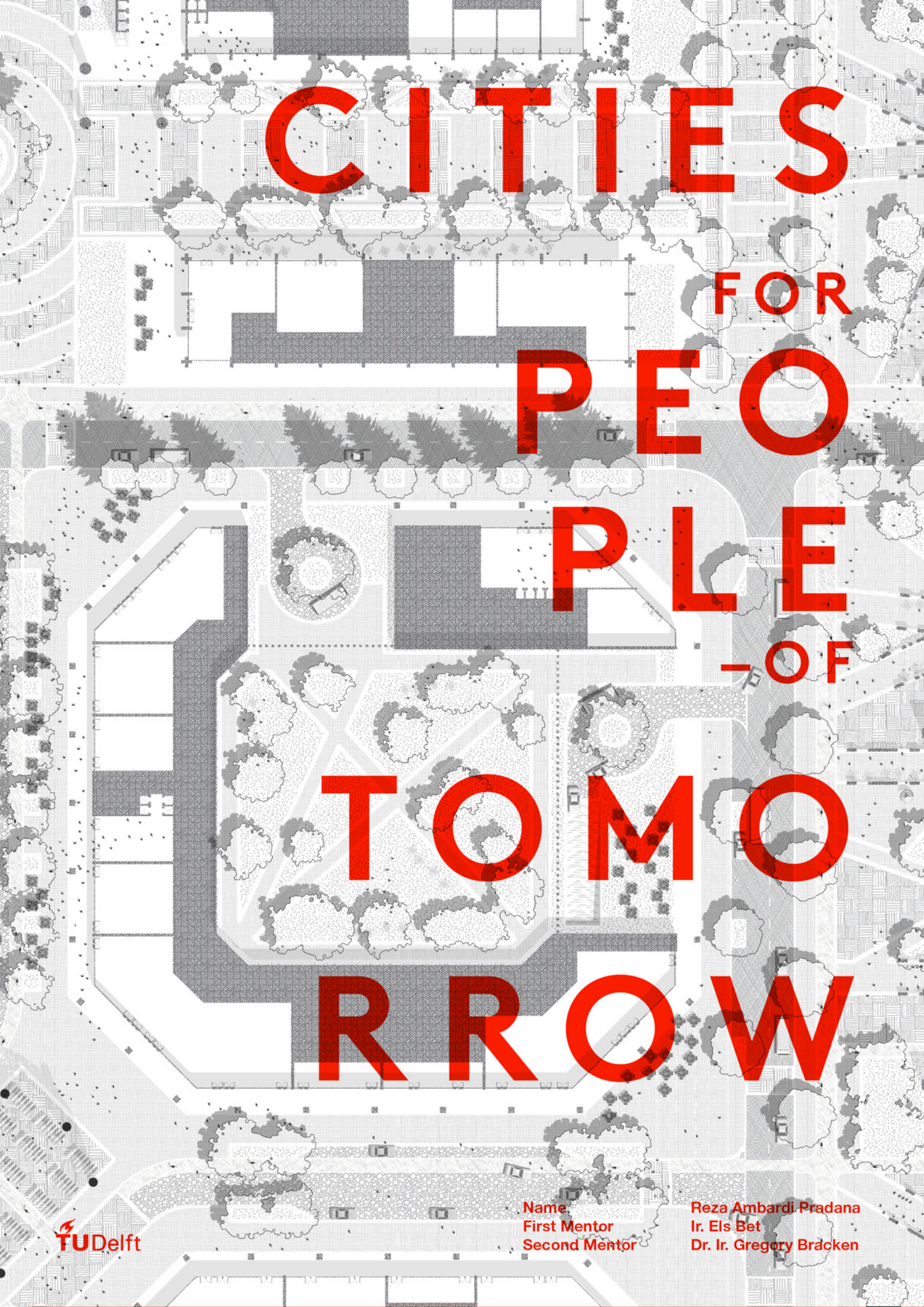


CITIES FOR PEOPLE OF TOMORROW

Name: Reza Ambardi Pradana
First Mentor: Ir. Els Bet
Second Mentor: Dr. Ir. Gregory Bracken

TUDelft

FOREWORD

[every urbanist should read this novel.]

"You see, but you don't observe. The distinction is clear, Watson."

- Sherlock Holmes

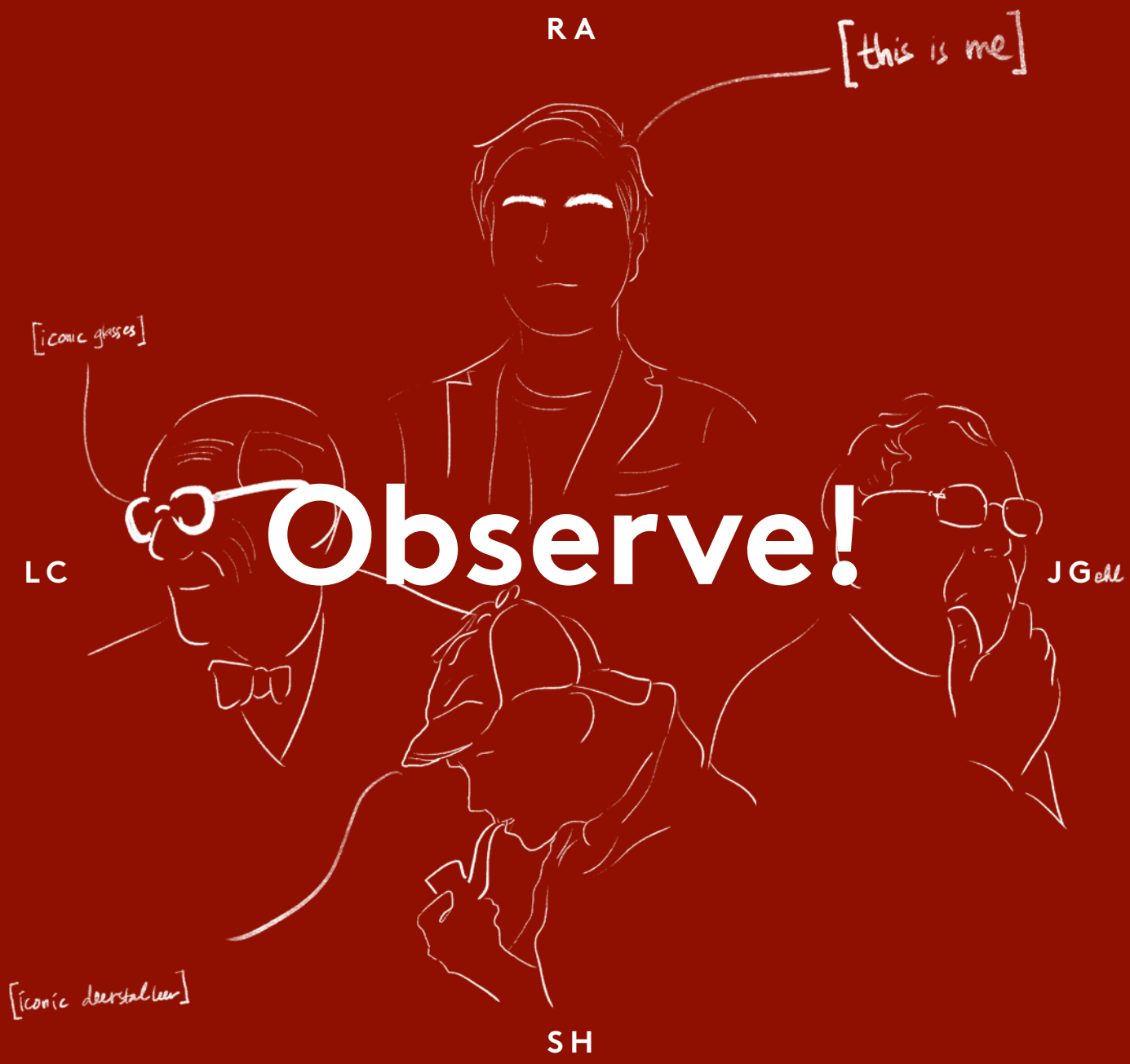
This simple quote by the renowned (fictional) detective Sherlock Holmes triggered and has been steering my journey in the academic and professional realm of urbanism so far. It puts forward the fact that observation is a critical part to thoroughly understand what happened in a crime scene – how do people walk; what do people touch; where is the shortest path to escape. Then, you might ask, what's the relation to the realm of urbanism? This notion has strangely linked me to the likes of people-first, cities urbanists' beliefs e.g., Jane Jacobs, William H. Whyte, Kevin Lynch, and Jan Gehl, just to name a few. Instead of a crime scene, they observed how people behave in cities and how cities affect people's behavior – how people behave on the sidewalk; use movable chair; imagine their city; or choose their path. Gehl's 'cities for people' concept (see Gehl (2011;2013)) in particular, have piqued my academic and professional interest and over the past five years, I have been exploring this topic.

This exploration reached its turning point in the summer of 2017 when I went to Paris (France) and Tianducheng (China), where I incidentally found two Eiffel Towers, one obviously trying to copy the other. This striking phenomenon depict the very idea of this graduation project – to juxtapose the two topics: Gehl's 'cities for people' (depicted by Paris old town and many other European old towns as the ideal 'cities for people') and Le Corbusier's (1947) 'the city of tomorrow' (Tianducheng new town and many other new towns) –hence, the name of this graduation project: Cities for People -of Tomorrow.

In short, the interesting question to be explored is, "how to create cities for people (as Gehl proposed) from scratch (in new town form as Le Corbusier proposed)?

This report is part of the series of iterations for a graduation project in TU Delft master of Urbanism track. As the last iteration of this graduation project, this report is intended to demonstrate the full spectrum of the research: from thesis plan, theoretical framework, contextual analysis, site visit, design process and design evaluation. As the last iteration, this report signifies the completion of the project and hopefully become the first milestone in the pursuit of creating cities for people.

Delft, July 2nd, 2018



Colophon

Faculty	: Faculty of Architecture and the Built Environments
Department	: Urbanism
Studio	: Design of the Urban Fabrics
Full Name	: Reza Ambardi Pradana
Student Number	: 4622553
Website	: issuu.com/rezaambardipradana
First Mentor	: Ir. Els Bet
Second Mentor	: Dr. Ir. Gregory Bracken
Project Title	: Cities for People -of Tomorrow
Case	: Ecopark New Town, Hanoi, Vietnam

TABLE OF CONTENT

[the boring part] but important

PART I.

[the exciting part!] **PART II.** [click this one]

PART I.

[Thesis Plan] How I planned the project

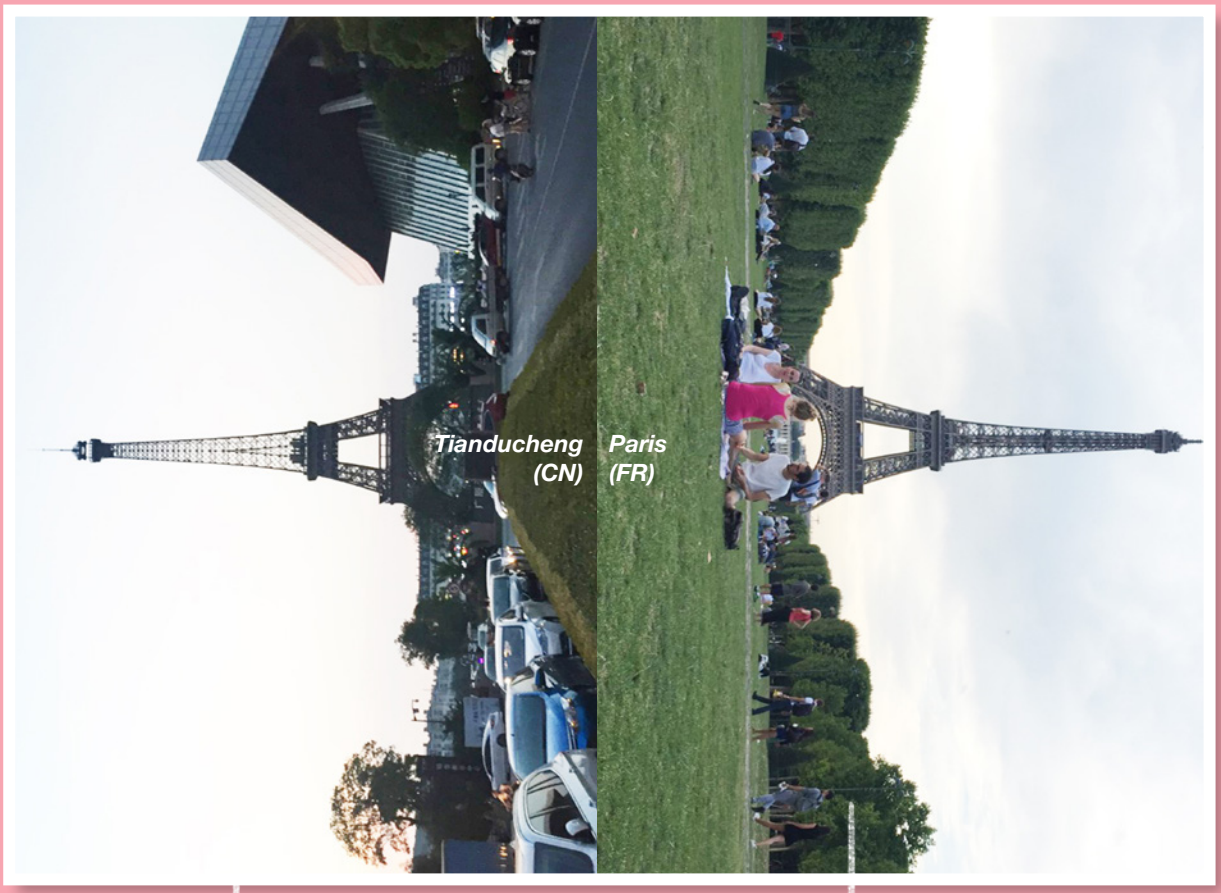
[Theoretical Framework] Theories I refferred to in the project

[Context Analysis] How I used Space Syntax analysis

[Site Visit] How I used Gehl's observation tools

the results are used as inputs for the design [Part II]

I found two Eiffel Towers!



Le Corbusier

Cities of Tommorow

Jan Gehl

Cities for People

THESIS PLAN

[the very essential question of this project]

"how to create cities for people, **from scratch**?"

*[ambitious right?]

1.1 STUDY MOTIVATION

Future Masterplanning?

"It used to be that the best architects did the biggest work while the smaller work was left to all the other ones. Now, it is the opposite. While Pritzker Prize-winning architects are designing vodka bottles and necklaces, unknown developer-architects are building entire cities from the ground-up in the Middle East and China. In the age of the 'scratch-built metropolis' the call for (good) architects to return to big design is more critical than ever." (Visionary Cities: vol.1)

First, I need to define the motivation and the problem why new town is chosen as my graduation project topic. My motivation is simply to answer questions that I had and still have when doing a new town masterplanning project in a design consultant. While I have done several new town masterplanning projects, I have never had any formal education on how to formally or ideally do a masterplanning process. It is understood that new town masterplanning is a product of Western urban design paradigm ties back to the 1930s e.g., Ebenizer Howard and Le Corbusier, which is arguably not relevant anymore in the Western urban environment. Although the masterplanning pedagogy is absent in most of the Western school of architecture/urban design/urban planning, current market for masterplanning design consultancy is still high especially in emerging cities e.g. Asian and African cities (Keeton, 2011). Although new town isn't the most progressive driver in the always-changing urban fabric, it is certainly place on the top driver. Hence, responding to the gap between the pedagogy absent and the current professional market in masterplanning, it is in high relevance to take this topic as my graduation project general topic. Moreover, being in the Netherlands will give me an advantage on learning the best practice of new town masterplanning to practice in the Global South i.e., Asian cities.

Future Cities for People?

"As cities are increasingly densifying, are the lessons of Western and Northern Europe still relevant?", asked the interviewer.

"Yes, because I see no signs that homo sapiens will not be homo sapiens in the future", Jan Gehl replied.

(Q&A: Jan Gehl on Making Cities Healthier and the Real Meaning of Architecture. Metropolis Magazine. August 11, 2015. Mikki Brammer)

The next question is in which part of this new town masterplanning process that I want to focus on? Here's where my long-standing passion comes in: understanding cities from the perspective of people. In the existing studies of creating 'cities for people', the main focus is on the existing cities, which entails to revitalization, observation of the existing users, tweaking the existing system, and so on. Tie back to the roots movements (notably by Jane Jacobs, Christopher Alexander, Willam H. Whyte, Edward T. Hall, and Jan Gehl), they come from cities with existed urban fabric, generally opposing the redevelopment movement e.g., the famous fights of Jane Jacobs and Robert Moses. If these movements are brought to today's urban condition, especially to Asia's expanding cities, the interesting question is: "how to create cities for people, from scratch?"


Shanghai New Towns
上海新城
010
Rising in the East
New Towns for the 21st Century
the Planned vs. the Unplanned City
#03
2012
Architecture and the Built environment
Urban Vitality in Dutch and Chinese New Towns
Stakeholder Dynamic & Implemented Results
(Hartog, 2010)
Development Theme & Implementation Process
(Keeton, 2011)
Dynamic Plan & Unplanned City
(Provoost, 2010)
Urban Vitality in New Town
(Zhou, 2012)
Product: Spatial Aspect of Urban Vitality
Process: Masterplanning Process

1.2 PROBLEM FIELD

Study Background

...Yet, study about these development areas, particularly about new towns in Asian context are still lacking.

New Town as Part of Urban Growth

Almost 50% of people in Asia live in cities today (UN, 2014) (Figure 1, bottom). This number is predicted to raise up to 64% in 2050 urbanizing faster than the other regions i.e., Northern and Latin America, Europe, the Carribean and Africa (UN, 2014). In response to this prediction, many studies and agendas in urban development field have been raised. In Asian cities context, the focuses are more towards the extended metropolitan regions (Firman T, 2017; Robinson, 2011), peri-urban region (Winarso et al, 2015), decolonisation (Rimmer and Dick, 1998), and urban slums i.e., informal settlements (Tunas, 2008). Studies about the latter in particular, have a lot of spotlight from many institutions as the living conditions on the informal settlements are generally far from ideal and many urban population growths are allocated in these informal settlements around the inner city (Tunas, 2008). However, when growth in informal settlements takes up to 30% of the total urban population (UN-Habitat, 2004), and 43% in the developing region (UN-Habitat, 2001) (Figure 1, top) it means that the rest will be catered in other urban areas i.e., suburban and new towns in the peri-urban regions. For example, Hanoi's new towns are 444 km2 while the exiting urban area is 84 km2 (Figure 1, middle).

Yet, study about these development areas, particularly about new towns in Asian context are still lacking (Zhou, 2012; Hartog, 2010; Provoost, 2010; Keeton, 2011). Some studies that have been done about the planning and design of new towns in Asia focuses on: stakeholder dynamic and implemented results (Hartog, 2010); development theme and implementation process (Keeton, 2011); dynamic between planned and the unplanned cities (Provoost, 2010); similarities with capitalist first world city (Rimmer and Dick, 1998); and urban vitality (Zhou, 2012). The latter study in particular (Zhou, 2012) mentioned the common problem of many recent new towns to be "the difficulty of making a town into a socially, culturally and economically balanced city".

Apart from the urban vitality, the common problem of new towns in Asia lies in the masterplanning process. Hartog (2010) and Keeton (2011) extensively discuss the masterplanning process of Shanghai new towns, especially in the stakeholder dynamic, implementation process, and the implemented results. Based on their studies, the problem is not on the spatial design form (the masterplan, urban design, and architecture), but more on the implementation process and the implemented result.

In short, from the point of view of urban design, the two main factors to make a vital new town are in the product i.e., spatial aspect of urban vitality and in the process i.e., masterplanning process. These two factors are two sides of the same coin: to make a new town vital, the two factors needed to be thoroughly addressed.

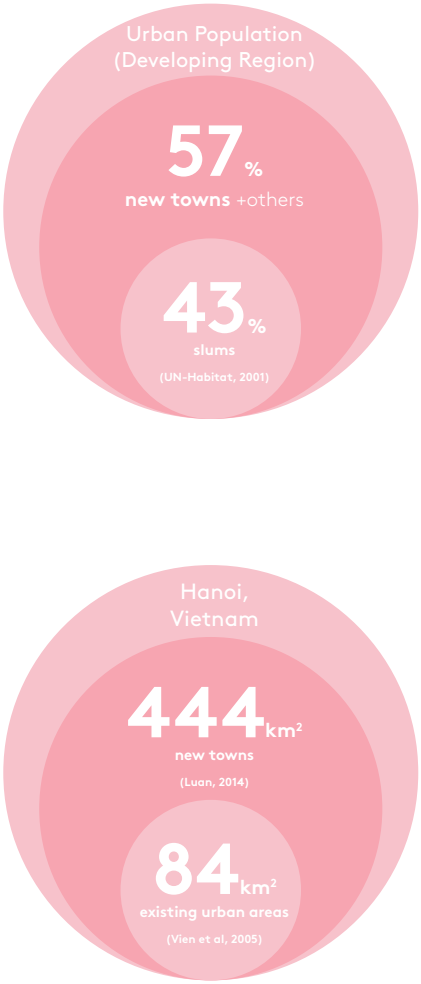


Figure 1. New town as part of the urban growth (source: various)

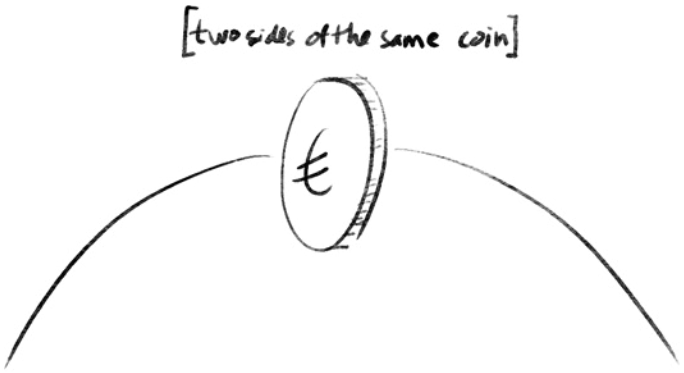
	Self-Conscious Design	Un-Self-Conscious Design
Knowing Place-shaping	**Design Process**	**Development Process**
Unknowing Place-shaping	**Management Process**	**Space in Use**

Masterplanning Process
(modified from Carmona, 2014)

WESTERN
definition of urban vitality

ASIAN
definition of urban vitality

1.3 PROBLEM DEFINITIONS



The Product: Spatial Aspect of Urban Vitality

In order to address urban vitality as the intended product, it is critical to first clearly define the term for this graduation project. Based on the study by Zhou (2012), the spatial aspects of promoting urban vitality in new town lies in the relationship between the place, people, and program. For this graduation project, definition of urban vitality will be derived and expanded from Zhou's (2012) definition of the spatial aspect of urban vitality as it is already applied in the realm of new town development. These dynamics is derived based on the generalized definition of urban vitality in her research which will be elaborated as follows.

Urban vitality as the parameter of an ideal city (urbanity, urban quality, urban liveliness or urban life) has been advocated by many scholars e.g., Montgomery (1998), Gehl (1996;2010;2013), Jacobs (1961), Lynch (1960) and Cullen (1971) which are mainly advocating against the status quo at that time which was modernism, advocated majorly by Corbusier (1925). Additionally, since the chosen site is in Hanoi, the spatial aspect of urban vitality need to be defined from different perspective: the Asian and Hanoi perspective (Figure 3) e.g., urban informality (Roy, 2005); mixed-use sidewalk (Kim, 2012); spatial justice (Lim, 2013); common space (Kusumawijaya, 2013); and street vendor as 'out of place' element (Yatmo, 2008). In compare to the mainstream definition of the spatial aspect of urban vitality, a glimpse of definition from the Asian perspective shows that there is a little relation between the two and the interpretation in urban form is different.

In summary, for this graduation project spatial aspects of urban vitality are defined as the impact of physical qualities of space to the liveliness of the public life. These spatial aspects (people, place, program) as proposed by Zhou (2012) will be further expanded for this project, take into account the Western mainstream scholars definitions, Asian scholars definitions and definitions specific to Hanoi context.

The Process: Masterplanning Process

The common problem of new towns in Asia lies in the masterplanning process i.e., the implementation process and implemented results. Hence, to investigate this masterplanning process, there is a need to refer to a well-established model. In order to have this model, new town masterplanning needs to be seen as the sub-field of urban design field as Lang (2005) have defined.

One of the ongoing discussion about urban design is regarding the components of urban design process, mainly discoursing on how urban design is actually implemented. In the discourse of urban design as the place-shaping continuum, Carmona (2014) argued that one of the main problem of urban design as a field of practice is that urban design projects are rarely subjected to post-occupancy review and almost never a systematic view of the whole process. Most studies focus on either part of the whole process (as Carmona (2014) suggested: design, development, management, or use of space) and not to the relationship to the final design outcome or realised space (Banerjee & Loukaitou-Sideris, 2011).

What makes Carmona's (2014) urban design process model standout is that it breaks down place-shaping processes into four categories based on the self or un-self-conscious design and knowing or unknowing place shaping (Figure 2). This breakdown of design and place-shaping will be critical to understand the complexity of the masterplanning process and how each process can be designed from the perspective of an urban designer in which this graduation project will seek. The main notion of this model is to see urban design not exclusively only in the 'design' process but as a continuum – of place-shaping. For these reasons, Carmona's (2014) urban design process model is chosen for this graduation project.

↖

Figure 2. Carmona's (2014) Place-shaping Continuum model

Figure 3. Mainstream definition of urban vitality (left) (source:https://media.giphy.com/) and Asian (Hanoi) definition of urban vitality (right) (source: https://thepetitewanderess.com/)

1.4 CONTEXT INTRODUCTION

CITYLAB

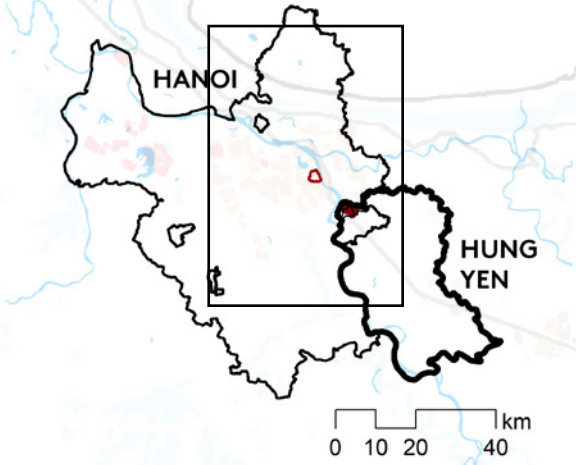
No One Wants to Move to Vietnam's New Cities

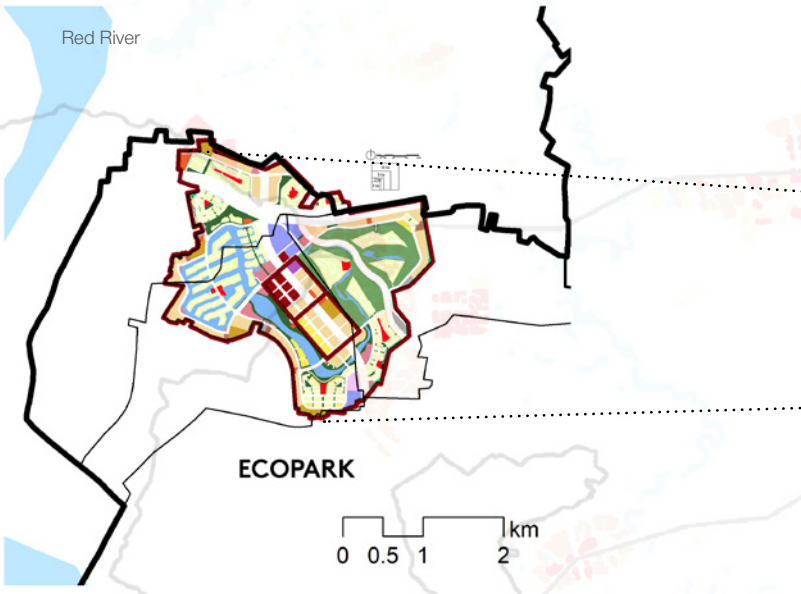
NATE BERG JAN 9, 2012

The Case: Ecopark New Town, Hanoi, Vietnam

Similar to many Asian cities, Hanoi experienced major boost in its urban population in recent years, especially since the economic reformations in 1987. Catering to this population boost, Hanoi has put enormous effort to house these populations, mainly rural immigrants (Geertman, 2007; Labbe, 2010). Hanoi promoted new kind of development: New Urban Areas (NUA) that are located around the city intertwined with the existing peri-urban areas (Figure 4) with more than 152 New Urban Areas in the areas of more than 444 km2 (Luan, 2014). These new urban areas are characterized by private-led large-scale development, mono-functional, excessive productions and speculations, lack of urban vitality, and lack of flexibility (Calabrese et al, 2015). Some studies have been done in relation to this type of development, with focus on the tradition in land and housing (Geertman, 2003); self-organizing development (Geertman, 2007); planned and spontaneous urbanization (Labbe, 2010); and flexibility as alternative development strategy (van Faassen, 2014) (Figure 4). The latter study in particular has done an extensive study on how to counter the main issue of flexibility in typical new urban areas in Hanoi with tools that foster flexibility. Van Faassen (2014) proposed a new model of corporation between the developer and the collectives; a more incremental approach of development; and new housing typologies.

Ecopark New Town is located in Hung Yen province, just outside the boundary of Hanoi province (Figure 4,5,6). The geodesic distance from Hanoi old town to Ecopark is approximately 10 km although driving distance is approximately 15 km (30 minute-drive, based on Google Maps). There is one collector road connecting Hanoi's city loop highway and going through Ecopark. Red river as the major river flowing through Hanoi is located on the western site of Ecopark (approximately 4 km far).



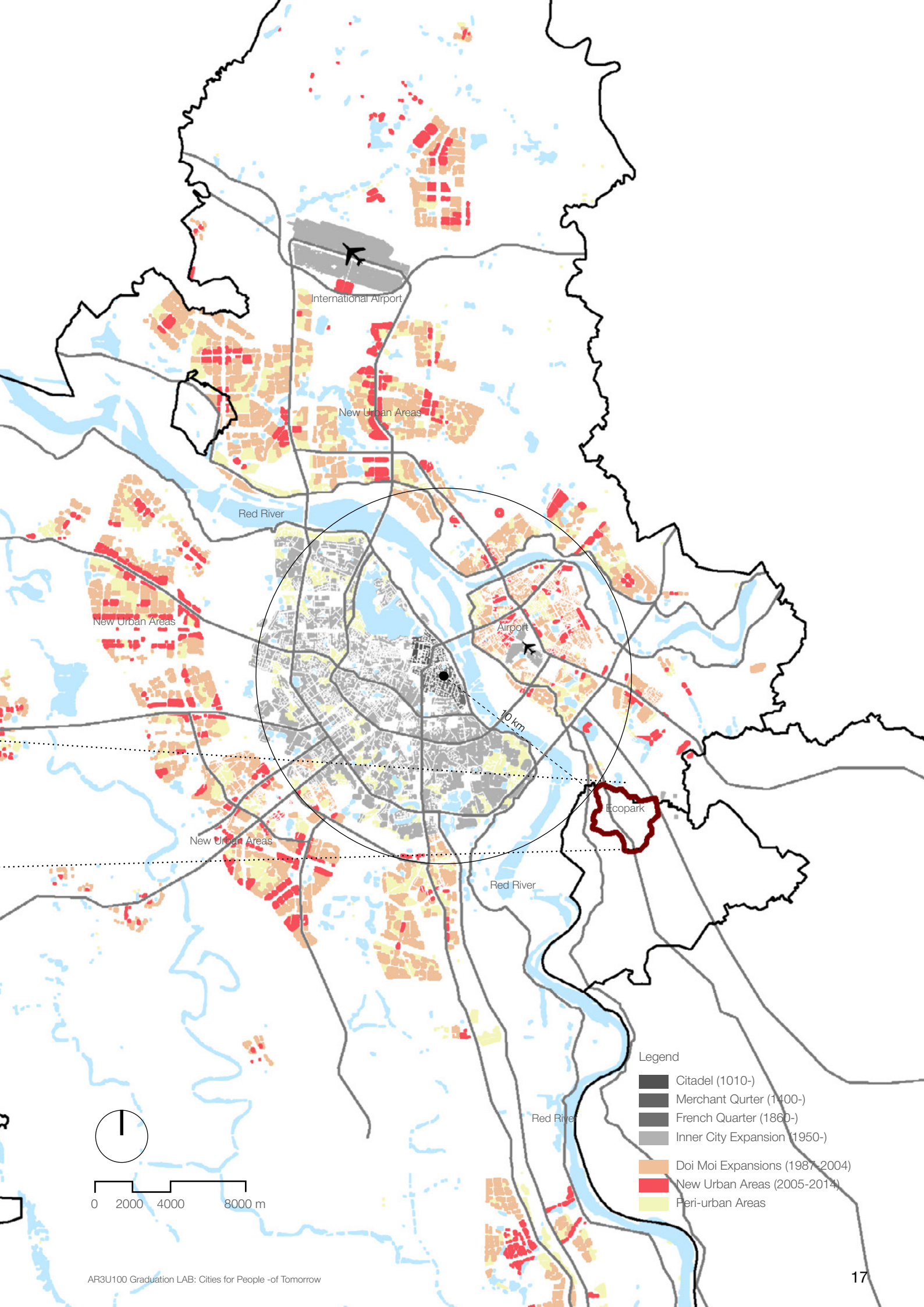


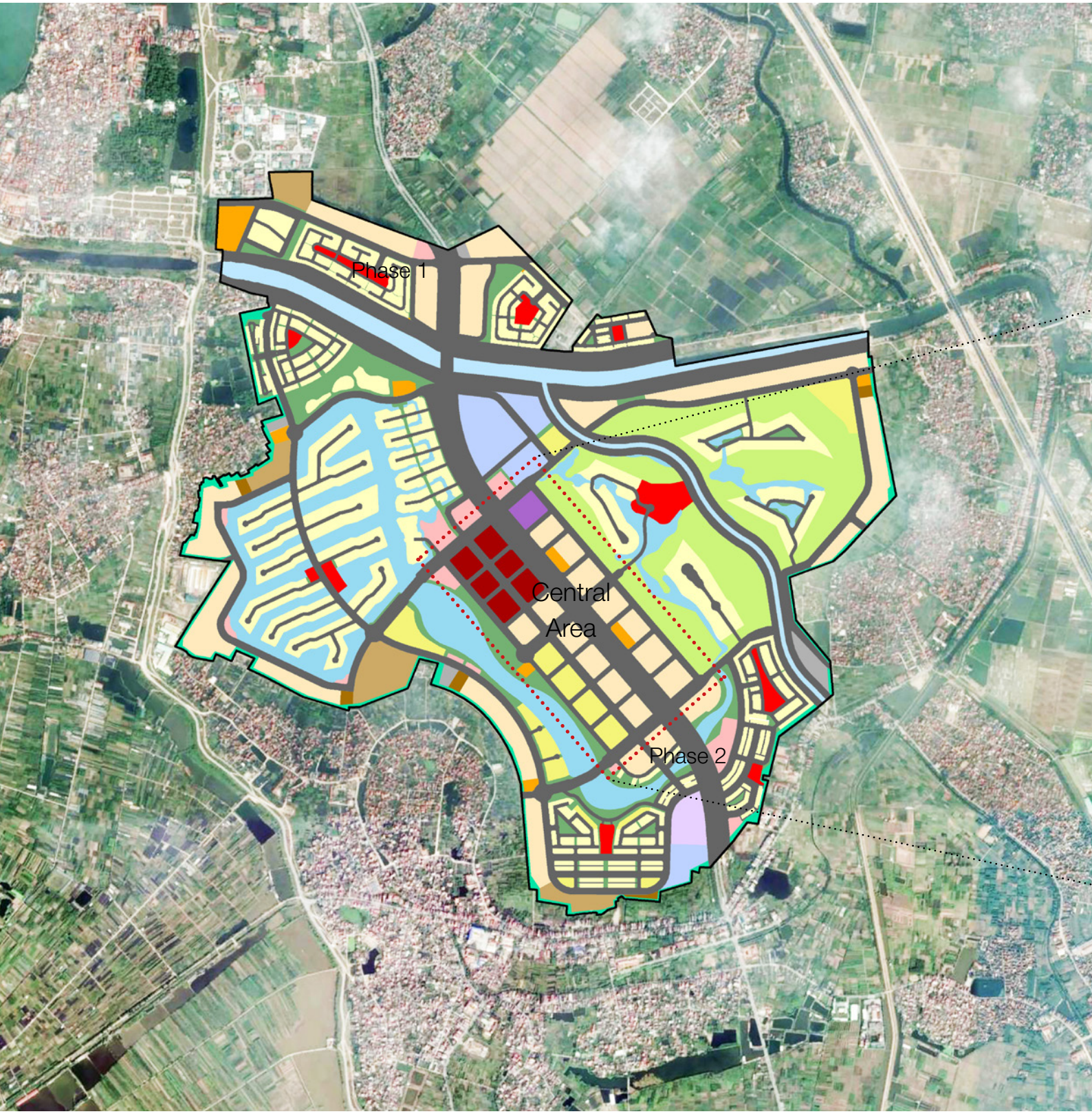
Hanoi New Urban Areas

Hanoi new urban areas are failing, characterized by private-led large-scale development, mo-no-functional, excessive productions and specu-lations, lack of urban vitality, and lack of flexibility (Calabrese et al, 2015).

Figure 4. Municipal context of Hanoi & news headlines of Hanoi new urban areas (source: Perkins Eastman & van Fassen (2014)

Figure 5. Regional context of Hanoi
Figure 6. Masterplan context of Ecopark


International Airport
New Urban Areas
Red River
New Urban Areas
Airport
10 km
Ecopark
New Urban Areas
Red River
Red River
0 2000 4000 8000 m
Legend
Citadel (1010-)
Merchant Qurter (1400-)
French Quarter (1860-)
Inner City Expansion (1950-)
Doi Moi Expansions (1987-2004)
New Urban Areas (2005-2014)
Peri-urban Areas

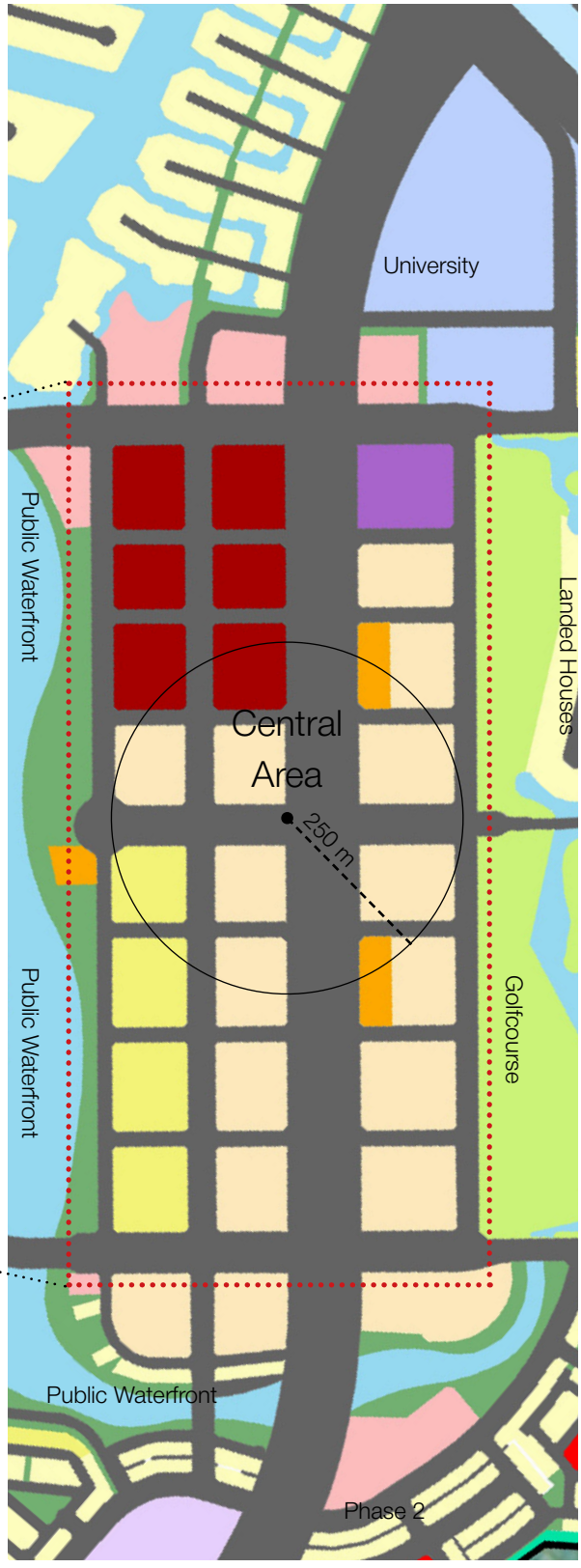


Landuses

- Residential - Highrise
- Residential - Midrise
- Residential - Lowrise
- Office
- Golfcourse
- Commercial
- Sport
- Public Works
- Hospital
- Road Reserve
- Knowledge
- Clubhouse
- Civic Use
- River
- Water Feature
- Open Space
- Perimeter Canal
- Utility
- Transport

0 300 600 1200 m

Figure 7. Possible focus area in the masterplan context



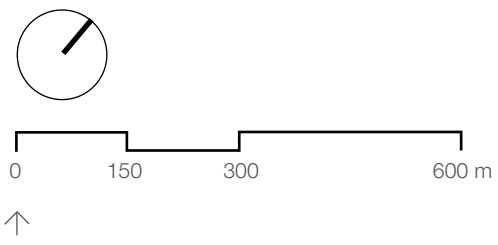


Figure 8. Possible focus area for zoom-in

Central Area's Importance

Aligned with the topic of urban vitality, this central area needed to be more vital in compare to the already built Ecopark developments which are mainly residential area (not necessarily need to be vital).

Graduation Project Focus Area

Since 2016, the developer has commenced the development of the whole masterplan by first clearing the land. The next phase that will be developed in the near future is the central area (Figure 7 & 8, red-dashed boundary) comprising the mix uses of: high-rise to low-rise residential; offices; hospital; school; and public works. This central area is adjacent to the supporting uses like: universities (North); public transport hub (North); public waterfront (West); golf courses and landed housings (East); and high-rise housings in phase 2 development (South). This central area is envisioned to be the centre for activities of the whole Ecopark new town.

Ecopark is considered successful until today because of the effort in community building. The complex part has yet to come i.e., the central area which the developer themselves admit that they do not have the required capability (Dung, 2017). Hence, planning in advance this future development will be critical. Moreover, aligned with the topic of urban vitality, this central area needed to be more vital in compare to the built Ecopark developments which are mainly residential area (which not necessarily need to be vital).

In summary, this central area is considered fit to be the focus area of this graduation project.

1.5 PROBLEM STATEMENT & RESEARCH QUESTIONS

From the point of view of urban design, the two main factors to make a vital new town are in the product i.e., spatial aspect of urban vitality and in the process i.e., masterplanning process. These two factors are two sides of the same coin: to make a new town vital, the two factors needed to be thoroughly addressed. The product – spatial aspects of urban vitality is defined as the impact of physical qualities of space to the liveliness of the public life. The process – masterplanning process is defined as the amalgam of the context, power relationship among stakeholders; and the place-shaping processes.

Ecopark New Town as the anomaly of failing new towns of Hanoi is on the critical phase of developing its most dense urban area – the central area that need to be the most vital. The main task for this graduation project would be to seek the way to design a vital central area that promote urban vitality throughout the masterplanning process – not only the design process.

MAIN RESEARCH QUESTION	**SUB-RESEARCH QUESTION**
Aim How to promote urban vitality	1. What constitute the spatial aspects of urban vitality?
Scope throughout the process of new town masterplanning	2. How is the process of new town master-planning?
Context in Ecopark New Town central area, Hanoi	3. How do city centres work in Ecopark and Hanoi?
Design Outcome with urban design?	4. How can urban design relate to urban vitality and master-planning process?

[Product : urban vitality]
X
[process : masterplanning process]

Research Question

How to promote urban vitality throughout the process of new town masterplanning in Ecopark New Town central area Hanoi with urban design?

METHOD

Design Principles
Literature, Comparative, Interview

Process Analysis
Literature, Theory Paper

Positioning & Visioning
Comparative, Masterplan Analysis, Site Visit

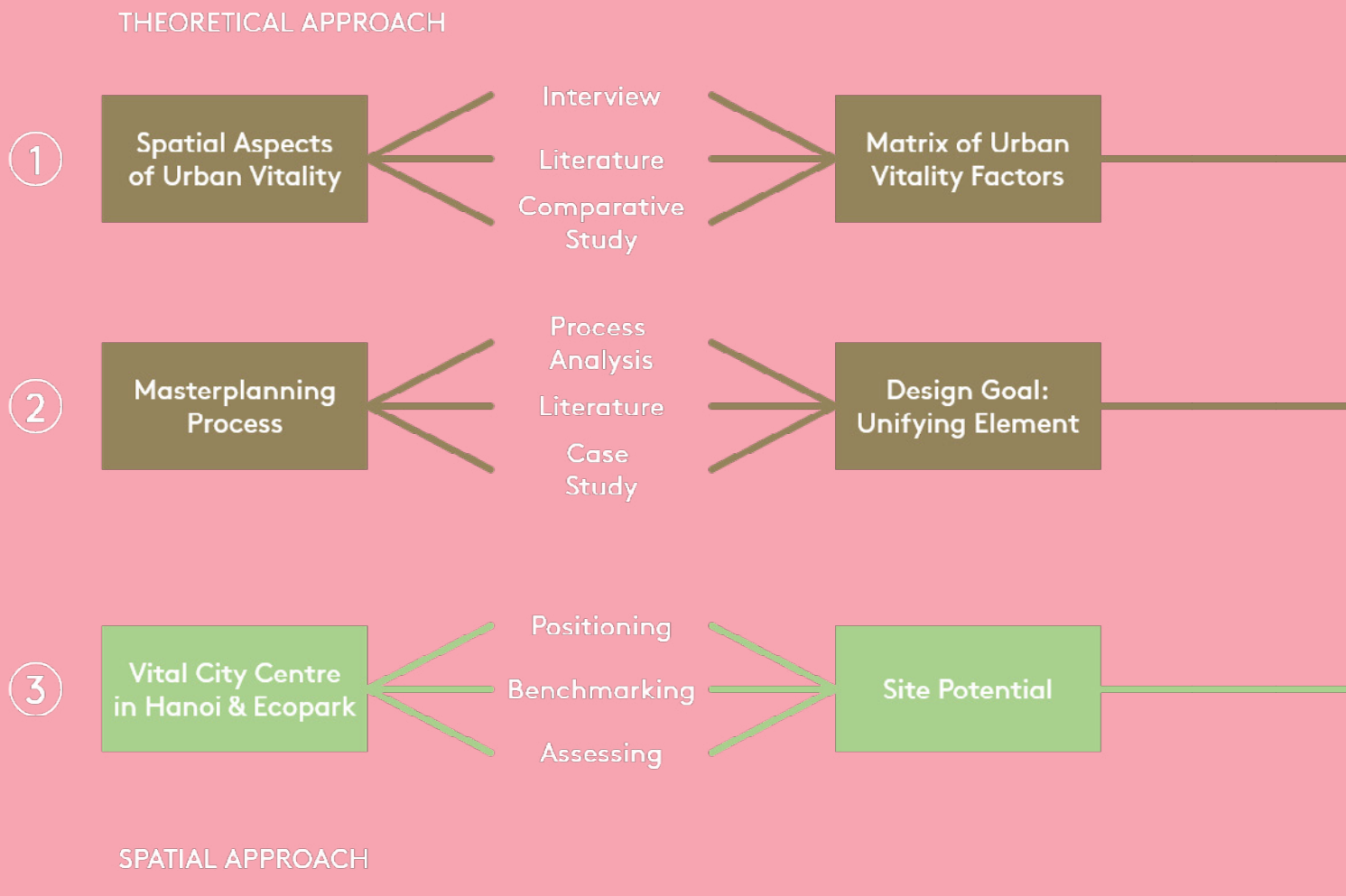
Research by Design
Scenario-based Design, Design through Scale, Evidence & Observation-based Design

THEORETICAL APPROACH

Spatial Aspect of Urban VItality
Zhou (2012) Expanded

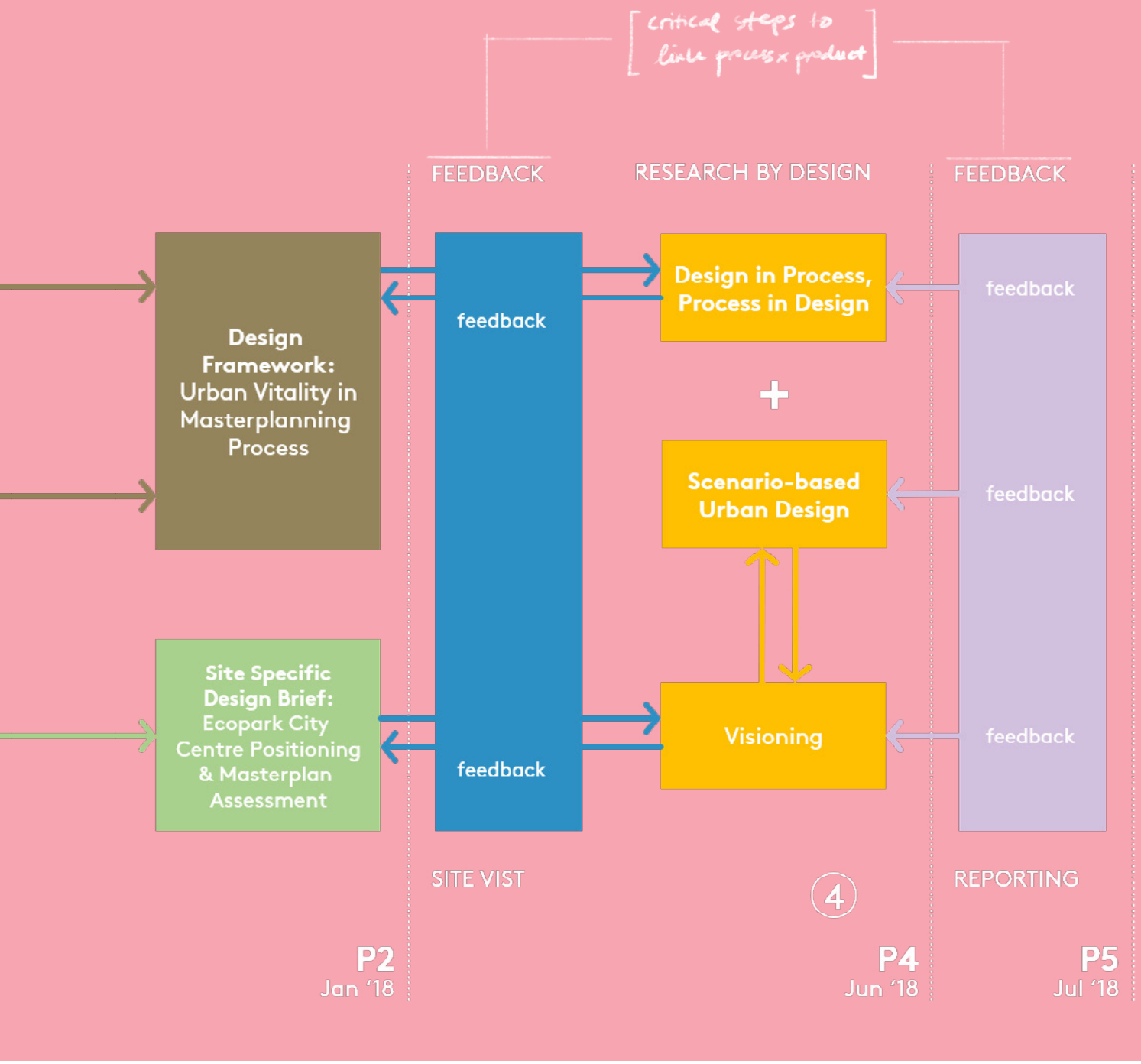
Masterplanning Process
Carmona (2014) Expanded

1.6 RESEARCH METHOD & TIME PLANNING



There are four main sections of the research method to answer the research questions as elaborated on the previous sub-chapter (Figure 9). The first and second section will be focusing on the theoretical approach i.e., the spatial aspects of urban vitality and the masterplanning process. The first section will be done through interview, literature review and comparative study of how urban vitality is used in practice. This section will produce a matrix of urban vitality factors. The second section will be done through process analysis, literature review, and case study of Ecopark New Town. This section will be done mainly in the form of theory paper and will produce a design goal: a unifying element of the four-active place-shaping processes. Based on the first two sections, a design framework will be elaborated.

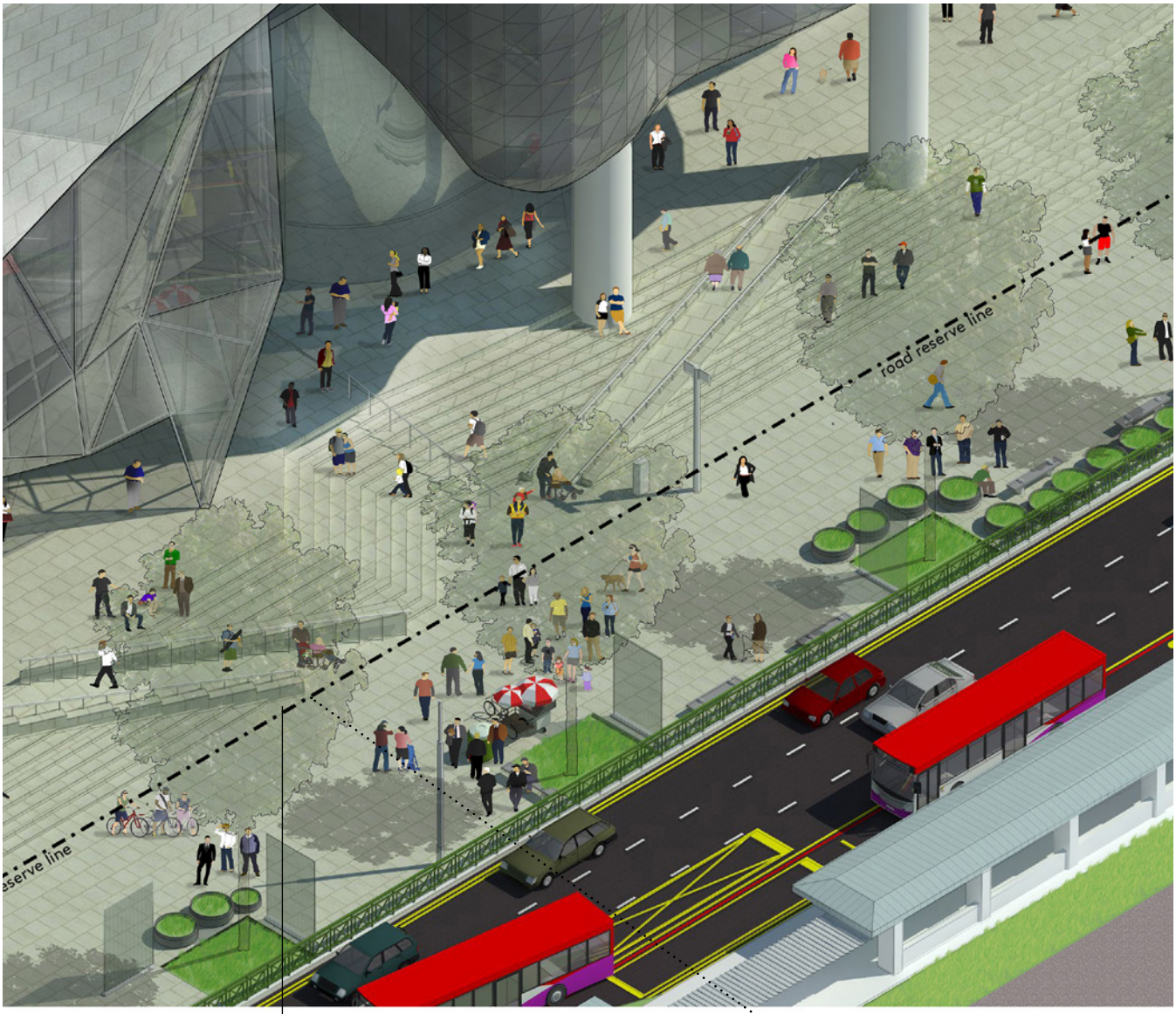
Figure 9. Research methods and time planning

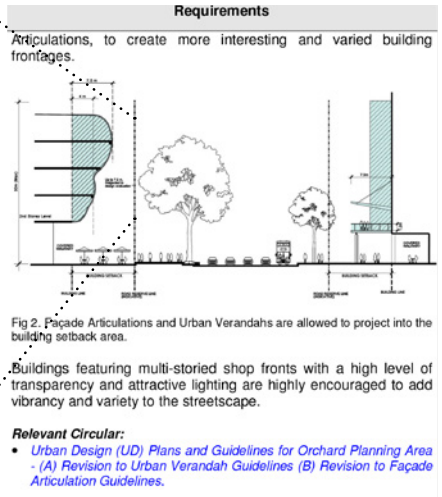


The third section will be focusing on the spatial approach of the project to understand how vital city centres in Hanoi is working and how vital city centre of Ecopark should work. This spatial approach will be done through city centre positioning, city centre benchmarking, and assessing the existing masterplan. This section will produce the site potentials that will be elaborated to a site-specific design brief. This design brief along with the design framework from the first two section will together act as the guiding and assessing tool of this graduation project outcome. The first three sections will be principally finished before P2 (January 2018).

The fourth section will be focusing on the research by design approach of the project to ultimately answer the research questions. This section will be a back and forth/ trial and error processes, elaborating feedbacks from the stakeholders (designer, developer, manager, and user) that will be gathered during the site visit (early February 2018) and from the design trials. The designs will include visioning that entails to scenario-based urban design and design in process, process in design. These will be the ultimate outcome of this graduation project that will be principally finished before P4 (June 2018).

Final feedback session from the stakeholders (mainly designer and developer) will be gathered post-P4 and elaborated into the final outcome. The two feedback sessions will be the main strength of this graduation project as it tries to bridge the masterplanning processes. Reporting phase (may include design report and interactive report) will be done until P5 (July 2018).





Requirements

Articulations, to create more interesting and varied building frontages.

Fig 2. Façade Articulations and Urban Verandahs are allowed to project into the building setback area.

Buildings featuring multi-storied shop fronts with a high level of transparency and attractive lighting are highly encouraged to add vibrancy and variety to the streetscape.

Relevant Circular:

- *Urban Design (UD) Plans and Guidelines for Orchard Planning Area - (A) Revision to Urban Verandah Guidelines (B) Revision to Façade Articulation Guidelines.*

'informal' ice cream sandwich vendor

Figure 10. Example of implemented design governance (source: author (top), Google Street View (bottom))

Figure 11. Example of design governance (source: URA Singapore)

1.7 STUDY RELEVANCE

Intended End Products

As elaborated on the previous sub-chapter, the intended end products of this graduation project include: design framework; project positioning and visioning; scenario-based urban design; and design in process, process in design. The latter end product will be the unique feature of this graduation project as it will not focus on a singular final design but a continuum design. Carmona (2016) elaborated this kind of outcome as 'design governance' defined as "the process … of designing the built environment in order to shape both processes and outcomes in a defined public interest." This definition will be expanded and tested through design in this graduation project.

Example of established design governance that is relatively fit with this graduation project is urban design guidelines produced by Urban Redevelopment Authority (URA) Singapore that guides all Singapore's urban development. One of the example of this guideline as can be seen in Figure 11, shows how the guidelines are written and drawn, implemented in the design (Figure 10, top-left) and built (Figure 10, bottom-left). One distinct example in this guideline is how the guideline regulate seamless transition between private lot and public area with invisible plot line (Figure 10&11, dashed line) and uniform ground material. This seamless transition promotes urban vitality by encouraging diverse activities inside and outside building (even with the 'informal' ice cream sandwich vendor).

Scientific Relevance

Study about Asian new town is still lacking. Hence, this graduation project will add to this body of knowledge, especially as a case study. In relation to the Design of Urban Fabrics studio, this graduation project will expand the study about urban growth to the growth in a new town setting as city extensions, particularly in Asian context. In relation to urban design process, as mentioned by Carmona (2014), study about urban design process, especially thorough study about its processes is still lacking. Hence, by studying the masterplanning processes, this graduation project will add to this body of knowledge.

In relation to study about urban vitality, this graduation project will broaden the mainstream understanding of urban vitality in European and North-American context towards urban vitality in Asian context, especially in the spatial design factor. Furthermore, this urban vitality aspect will be investigated not only on the design process of new town masterplanning, but also in the development process, management process, and space in use. Approach on investigating throughout the whole masterplanning process tackle the common issues of implementation process and products of new town in Asia.

Social Relevance

For Hanoi context, this graduation project is intended to complement studies that have been done about this new urban area type of development in Hanoi with the intention of finding a more sustainable new town masterplanning framework focusing on the urban vitality throughout the masterplanning process. With also expanding the study on new town masterplanning phenomena in Asia, the result of this graduation project is expected to be applicable (with careful modification) in other new town development in other cities in Asia with similar context.

By investigating everyday activities of people in Hanoi, this graduation project will bridge the gap between the mainstream knowledge with local knowledge of urban vitality as have been demonstrated by Kim (2012). This investigation will also bridge the gap between the formal and informal, the planned and the unplanned, and existing peri-urban areas and new towns.

Ethical Dimension

By taking new town masterplanning as the subject of this graduation project, the ethical consideration to be taken is the objective position from the perspective of an academia. This consideration is needed because of the nature of new town masterplanning towards a market-driven development hence the dominant powers of private parties i.e., the developer and the consultant. Feedbacks from these private parties are needed for this project to be more relevant to the real situation. Moreover, these feedbacks will be balanced by giving objective view from academic perspective. Finally, this graduation project is hoped to be relevant for both academia, practices, and communities.

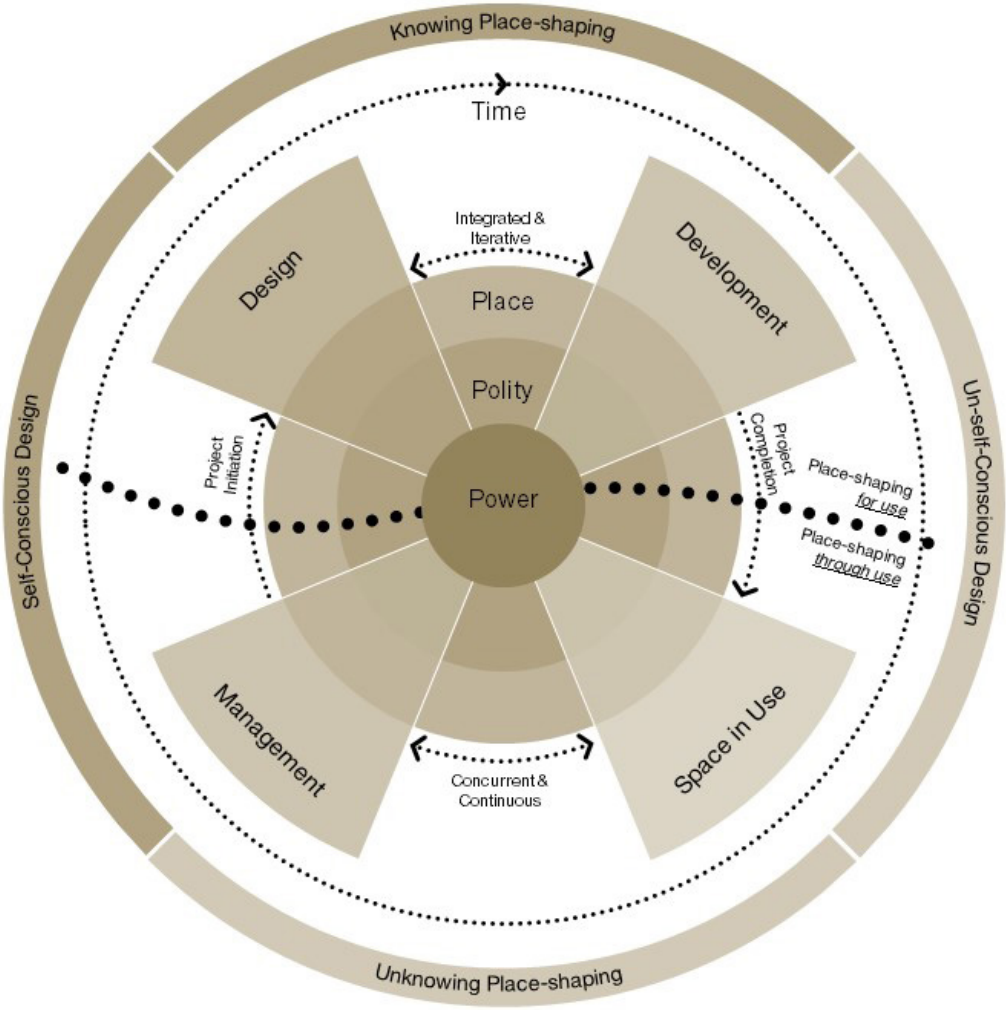
Informal transaction in the sidewalks
or is it formal?

The phenomena of motorbike uber in Hanoi.

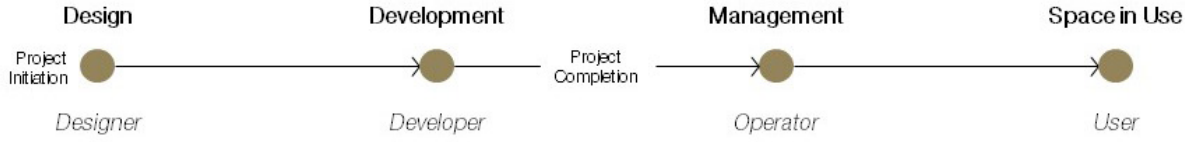
↓

urban vitality in
Hanoi context?
or even Asian context?

THEO RETICAL APP ROACH



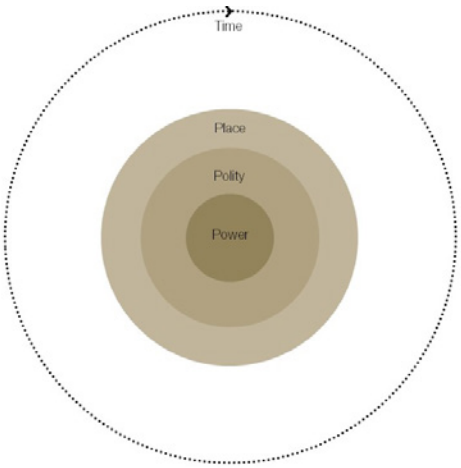
Place-shaping Continuum
(adapted from Carmona, 2014)



Linear Place-shaping

Figure 12. Place-shaping Continuum (Carmona, 2014) and linear place-shaping

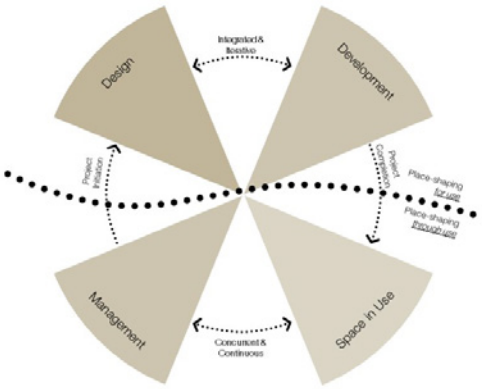
2.1 MASTERPLANNING PROCESS



Contextual Factors & Power Relationships

Carmona's Place-Shaping Continuum Urban Design Process Model

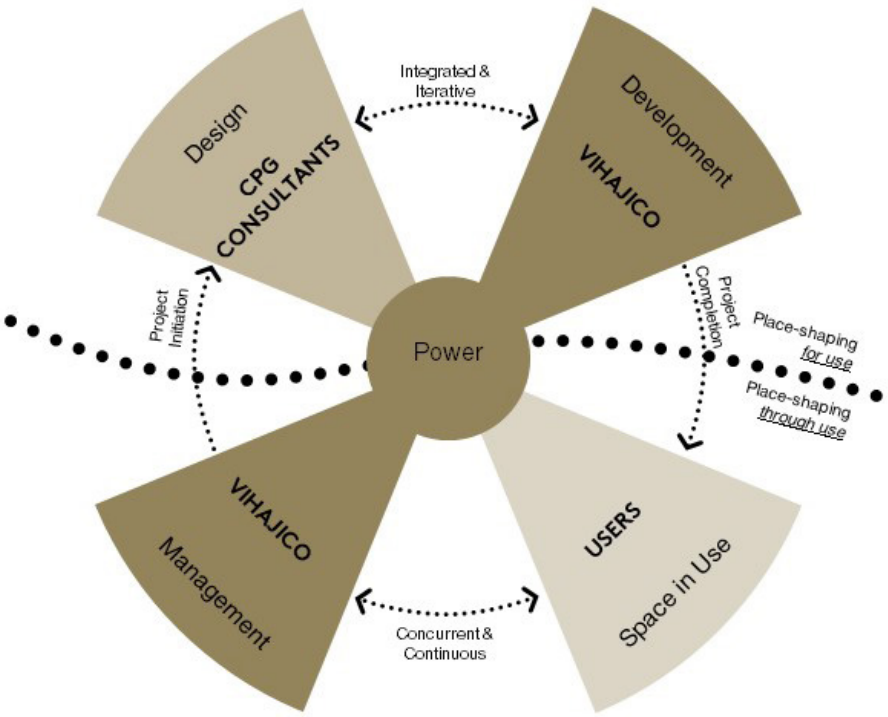
Carmona (2014) elaborated urban design process as integrated place-shaping continuum through time incorporating three main factors: contextual factors – the history and traditions of place; power relationships between stakeholders; and active place-shaping processes – design, development, management, and space in use (Figure 12). First, the history and traditions of place as the contextual factors claimed that contemporary urban design processes are always related to the history of experience and practice. Hence, the continuum always situated in both place and time. Second, power relationships explained the twin forces of agency and structure in urban design processes. This power factor explained differences between different stakeholders and stage of the processes. Third, the four-active place-shaping processes disseminated urban design processes based on the knowing and unknowing place-shaping, and self-conscious and un-self-conscious design (Figure 12-top) contra to the linear place-shaping processes (Figure 12-bottom). He argued that although design process is the starting point of the other sub-processes, other processes are equally important or even more important. For this project, the framework will be focused on this factor of urban design sub-processes as the distinctions (knowing and unknowing place-shaping, and self-conscious and un-self-conscious design) can be used to elaborate new town masterplanning process complex sets of stakeholders and practices (as Anderson & Law (2015) elaborated).



4 Active Plase-shaping Processes

Conscious Design & Knowing Place-shaping

link to the full theory paper: https://www.dropbox.com/s/5ja0wumeoamd9kf/Theory%20Paper_RA%20Pradana_4622553.pdf?dl=0



Place-shaping Continuum in Ecopark New Town
(adapted from Carmona, 2014)

Figure 13. Place-shaping Continuum in Ecopark New Town

Figure 14. The use of already mature trees (left) (grown in the local tree nursery in Ecopark New Town Hanoi (source: https://media.licdn.com/)
Figure 15. Alfresco dining street in Ecopark New Town Hanoi (right) (source: http://khudothiecopark.vn)

The unique feature of Ecopark's four-active place-shaping processes is in the fact that the developer and the manager being the same entity. Hence, the boundary between development and management process become blur.

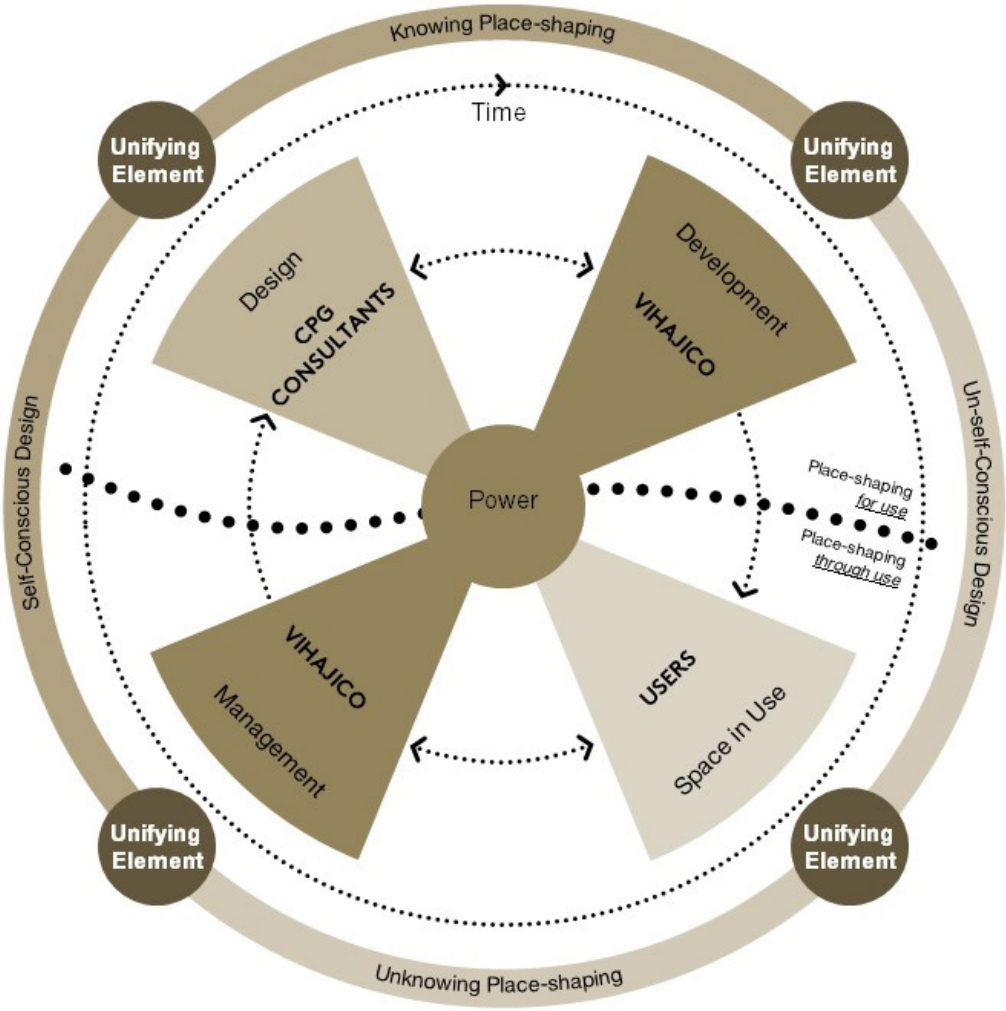
The Four-Active Place-Shaping Processes in Ecopark New Town Masterplanning

First, the design process in Ecopark New Town is done mainly by the master-planner (CPG Consultants since 2005-present) guided by the developer. In relation to Carmona's place-shaping continuum, the master-planner is self-consciously use design as the tool to knowingly shape the future of Ecopark New Town. The two agendas mentioned previously – establishing a vision and creating values are present constantly in the masterplanning process of Ecopark New Town which was regularly amended since 2005 with at least five amendments (CPG Consultants, 2016). The vision developed over time from 'commercial and tourism urban area' (2007), 'liveable community' (2013), 'accelerate development' (2015), 'leisure hub' (2017) to 'knowledge & creative hub' (2018) (CPG Consultants, 2016). As for the value creation, the masterplan amendments were mainly occurred because of the market demand change as studied by the developer (Dung, 2017).

Second, the development process in Ecopark New Town is done by the developer (Vihajico). The development is done by phased development. The main phasing strategy is to create a mature town in each phase with housing, amenities, and public green as the main offerings (CPG Consultants, 2016). In this strategy, design is un-self-unconsciously used as the tool to knowingly shape the future of places. The un-self-consciousness can be seen for example in the specific way the developer developed the masterplan as designed by the master-planner e.g., the use of already mature trees (grown in the local tree nursery) for the street-side and public open spaces (Figure 14). The street-side trees are self-consciously designed by the master-planner, but the use of mature trees is un-self-consciously designed by the developer. This example depicts the two common sub-processes in the development stage: leading and coordinate i.e., the coordination on the design (street-side trees) by the master-planner and the way it developed (the used of mature trees) by the developer; and the injecting quality i.e., the used of mature trees inject the quality of a mature town as strategized by the developer.

Third, as explained earlier, Ecopark New Town is operated and managed by the subsidiary of the developer i.e., Ecopark PM. Since the developer and the operator are basically the same entity, long-term investment and space controlling are handled while the development process happened hence the two processes are closely intertwined. Example of this occurrence is in one of the main shopping street in the phase one of Ecopark New Town (Figure 15) where the street was developed by the developer and managed by the subsidiary with specific alfresco dining rule that was tailored to boost the business of the developer (Karkal & Surahwadi, 2017). This condition of the interrelated developer and manager might have possessed problems in the future e.g., the problem of democracy with the occupants which might be obscured by the dominance of the developer (Provoost, 2017).

Lastly, since Ecopark have been implemented and occupied only on the first phase, the space in use is not as significant as the other processes although still possess critical role in the whole urban design process. Adaptation and appropriation are minimal as mostly are still controlled by the developer/operator. This process need a more thorough observation on how the occupant involved the un-self-conscious design and unknowing place shaping.



Place-shaping Continuum in Ecopark New Town
(adapted from Carmona, 2014)

Figure 16. Design goal: the need for a unifying element

... further investigation is needed to find an element to ties all the processes of active place-making together (design, development, management, and space in use).

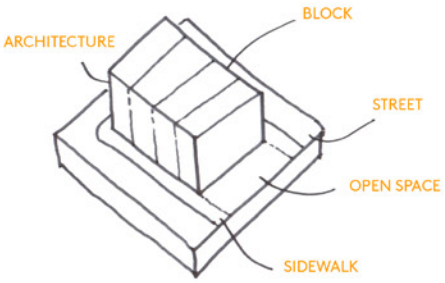
Design Goal: The Need for a Unifying Element

As elaborated, it is valuable to investigate the phenomena of overlooked urban design process in new town masterplanning context with Carmona's place-shaping continuum urban design process model. Using Carmona's model helps to understand the dynamic among stakeholders, with the distinction of the knowing and unknowing place-shaping, and self-conscious and un-self-conscious design (Figure 16). For example, as demonstrated in Ecopark New Town Masterplan case study, with the new town developer and the manager being the same institution (subsidiary) the distinction became blur in the development and management process. Although this distinction is sometimes cannot be clearly defined in all the processes (as Anderson & Law (2015) demonstrated), the distinction is still useful when complemented with the understanding of the power relationship among the stakeholders e.g., the power hierarchy among the master-planner, developer, manager, and the user.

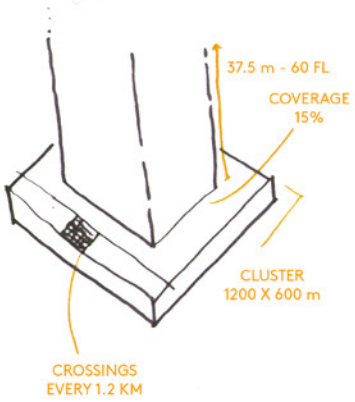
Apart from the benefit, the model also possesses a disadvantage partly on the overlooked aspect of urban form (as also mentioned by Ellis (2014)). Although in the study Carmona (2014) demonstrated the model in the context of public spaces in London, the link between the process and the form is not really clear. The question is whether the form of the urban space also affect the urban design process, and if yes how it is affecting the process and how big the influence is. For example, as demonstrated in Ecopark New Town Masterplan case study, the dynamic of the development and the management process because of the developer and the manager being the same institution can explain the successful place of one street in the masterplan. But this dynamic does not explain the success in relation to the form of the street itself. Hence, further investigation is needed to find an element to ties all the processes of active place-making together (design, development, management, and space in use). Some of Carmona's article have mentioned such element e.g., design coding (Carmona, 2009) and design governance (Carmona, 2016, 2017; Barnett, 2017; Lang, 2017). This element will be investigated further in the broader research project.

As for the case study of Ecopark New Town masterplanning, further observation is needed to complement the understanding of the stakeholder dynamic and its relation to the urban form. This observation is needed specifically for the process of space in use i.e., the adaptation and appropriation aspects. These aspects are important in a new town masterplanning context since it is the process where the design, development, and management eventually end up to. This has been demonstrated in other new town studies e.g., Songjiang New Town (Den Hartog, 2010; Keeton, 2011) where some spaces are eventually used as occasional touristic activity (e.g., wedding photography venue) – totally different with what the designer and developer intended.

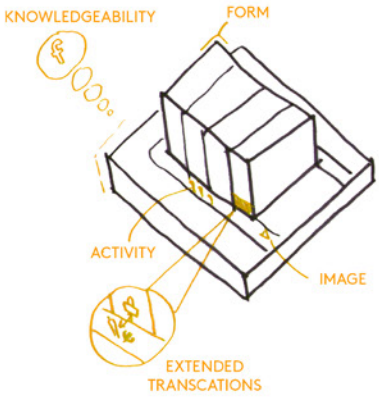
BASE



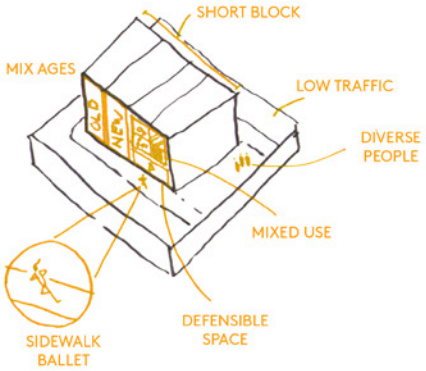
CORBUSIER, 1925



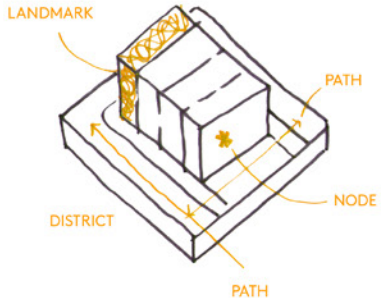
MONTGOMERY, 1998



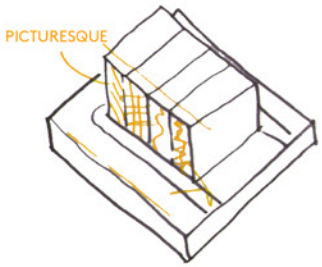
JACOBS, 1961



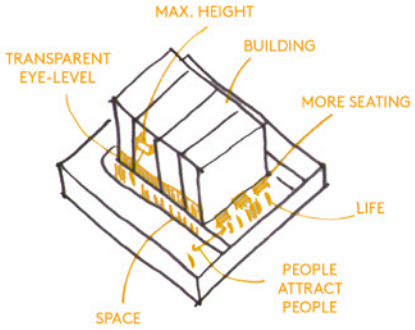
LYNCH, 1960



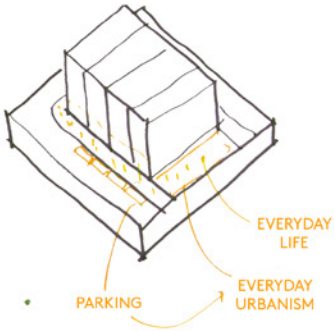
CULLEN, 1971



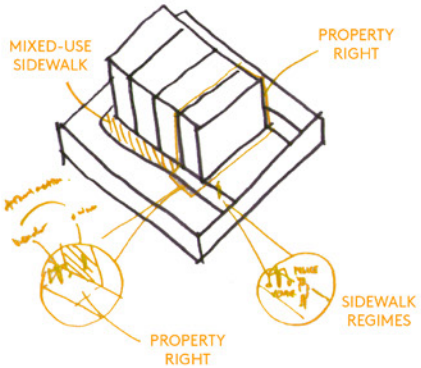
GEHL, 1996



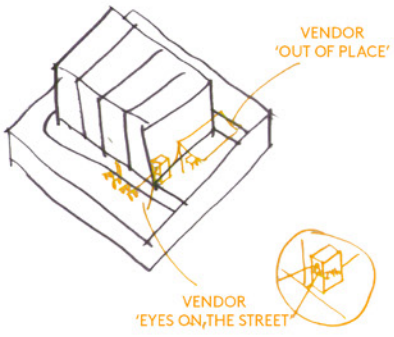
CRAWFORD, 1995



KIM, 2012



YATMO, 2008



2.2 URBAN VITALITY FACTORS

"...balance between precise guides as Corbusier (1925) proposed, intangible elements as mainstream scholars proposed, and the unplanned as other scholars proposed needed to be further investigate, especially in relation to the design of urban form."

Urban Vitality through Various Lenses: Systematically Illustrated

In order to systematically investigate the definition of urban vitality through various lenses – from West to East, each idea from each scholar is illustrated using the same base (Figure 17, top-left): architecture, block, street, sidewalk, and open space. By doing this exercise, the ideas are 'forced' to be compared. Although this exercise has some limitations, some points can be derived from it:

- Corbusier (1925) has some very precise guides on how to promote his idea of urban vitality/urbanity with figures like ideal building coverage of 15% and pedestrian crossings every 1.2 km while other scholars do not propose such precise figures.
- Mainstream scholars e.g., Montgomery (1998), Jacobs (1961), Lynch (1960), Cullen (1971), and Gehl (1996) ideas are not focusing on the urban form but more on the intangible elements i.e., activities, people, image, and uses (Figure 17, first-second row). However, Gehl (2013) proposed some observation principles in understanding public space and public life instead of precise guides.
- On the other side, scholars like Crawford (1995), Kim (2012), and Yatmo (2008) focuses more on the everyday activities and the 'unplanned' urban form e.g., property right, sidewalk regimes, street vendor, and interaction in the parking lot (Figure 17, last row).
- In summary, balance between precise guides as Corbusier (1925) proposed, intangible elements as mainstream scholars proposed, and the unplanned as other scholars proposed needed to be further investigate, especially in relation to the design of urban form.

Urban Vitality Definition: The Need to Take a Position

As elaborated and illustrated, the various definitions of urban vitality from different scholars and context called for this graduation project to take a position in defining its own definition of urban vitality with Zhou (2012) definition as the starting point (people, place, program). Referring to Montgomery's (1998) definition '...the extent to which a place feels alive or lively', the keyword is in the term 'lively'. This term is arguably related closely to the local culture in this case Hanoi and Ecopark. What will be lively for Western cities or even Indonesian cities, might not be the same lively to people in Hanoi. Lively in Hanoi can means sidewalk eating with low seating, or the presence of market seller, or the market itself, or the presence of a lake (as Hanoi is known for its many lakes).

Urban vitality and the liveliness can also be related to the real estate issue which partly contribute to the phenomena of ghost town where the form of the place itself might not be the main problem but more about for example the tenancy, property right, land and real estate speculation, or even related to the condition of local and country-wide economy at that time. Hence, investigating this definition closely from the local perspective from its stakeholders i.e., users, developer, consultants – with still learning from others, will be the key to take a position.

↖

Figure 17. Ecopark masterplan evoluton in relation to urban vitality and urban design process

Urban Vitality Factors	Principle	Dominant Process	Power Relationships	Context
Program	Mixed-used and Functional Overlap Landuse	Design	Medium-term	Masterplan
Program	Public Provision	Design	Long-term	Masterplan
Program	Informal Economic Activities	Design	Medium-term	Block
Place	Clear Regional Position	Design	Long-term	Regional
Place	Legible, Integrated, and Accessible Street Network	Design	Medium-term	Masterplan
Place	Transitional Place	Development	Short-term	Block
People	High Density of People	Design	Medium-term	Masterplan
People	Social Composition	Development	Long-term	Block
People	Private Initiative Events	Development	Short-term	Block

Important elaboration of what urban vitality means in this project

Quality Description	Criteria
The landuse promote mix activities and uses not mono-functional activities and uses.	High mixture of uses
Adequate service areas for all the public uses and amenities.	Effective coverage to the users
Adequate space for informal activity to happen.	Informal economic acitivities is encouraged to happen
Clear position in compare to other competitor and align with market demands.	Clear position as a satelite self-sufficient town
Legible: Identifying how easy it is for one in a local position to comprehend the global structure. Integrated: Measures how integrated (or central) a street is to network Accessible: Measures how important street is as a through-road for the network.	High integration and high connectivity values; High integration value; High choice value
Designed with transition in mind to promote the feeling of completeness.	Subtle transition strategy during transition between phases
Located in the area with appropriate critical mass	High population density
Diversity of age, origin, education level, occupation, income level and cultural background.	High social diversity
The amount of cultural events and celebration throughout the year	High amount of cultural events

Urban Vitality Matrix

First, definitions by Zhou (2012): people, place and program are elaborated and expanded further as noted in the table above (Figure 18). Each factor is expanded to certain sets of principles. For example, place factor is expanded to: clear regional position; mixed-used and functional overlap landuse; high density of people; and so on. Each principle is elaborated based on the relation to the three aspects from the masterplanning process i.e., dominant process, power relationships, and context. Each principle is also elaborated to its quality description, criteria, spatial requirement, case study, and source. This elaboration is important to link and categorized the principles to what actually happened in practice.

Figure 18. Urban vitality matrix

Starting Point 1: Accessibility Study

Based on the two theory frameworks i.e., urban vitality and masterplanning process, the starting points for the next steps are defined. The first starting point is in relation to the urban vitality factor: accessible street. This starting point is chosen as because of its capability to relate the other factors of urban vitality. The notion is, to design a vital new town city centre, the first step is to understand how Hanoi city centres are performed. Presumably, these Hanoi city centres are located in the most accessible places in Hanoi, hence the starting point of accessible street factor. The tools that are used here is the Space Syntax simulation (Javadi et al, 2017)

2 important tools in this project

Space Syntax + Public Life Studies
Simulation + Observation

Starting Point 2: Gehl Observation Tools

The second starting point is in relation to both urban vitality and masterplanning process framework i.e., Gehl observations tools. These tools are chosen in relation to the core idea of this project in the pursuit of creating 'cities for people' from scratch – the idea that Gehl (2013) proposed. The tools itself are produced by Gehl Institute (see: https://gehlinstitute.org/public-life-tools/). The idea is use the observations tools in the on-site observation to investigate how the urban vitality principles are used in practice in Hanoi and Ecopark, and ultimately how they are linked to the masterplanning processes.

Here, I imagined the amalgam of Hanoi old city centre qualities with a typical new town qualities (with towers and some sort) using a kind of 'inception' like image.

CONTEXT ANALYSIS

3.1 POSITIONING

How should Ecopark city centre positioned themselves to be vital?

Positioning: Hanoi New Town 'Ring' and Flooding Risk

Hanoi is structured with the development of new town 'ring' surrounding the old part of the city (Figure 19). Although Ecopark is not in located in the province of Hanoi, but location-wise Ecopark is part of this new town 'ring'. As the focus of this graduation project is on the city centre of Ecopark, it is important to first positioned the centre in the context of this new town 'ring'. This positioning is important since the city centre of Ecopark will need to attract population (for living, working, and recreation) from Hanoi.

Other than the new town 'ring', in the regional scale, Hanoi region is in the risk area of flooding based on historical flood (UNOSAT) and predicted flood (choices.climatecentral.org). Although this study will not focus on the topic of climate resilience, the fact that flooding is and will be a risk and Ecopark is located in the 4-km buffer zone (adjacent to the Red River dike, Figure 19-top right) demanded Ecopark to positioned accordingly. This climate resilience principle will have to be embedded in the design of Ecopark city centre.

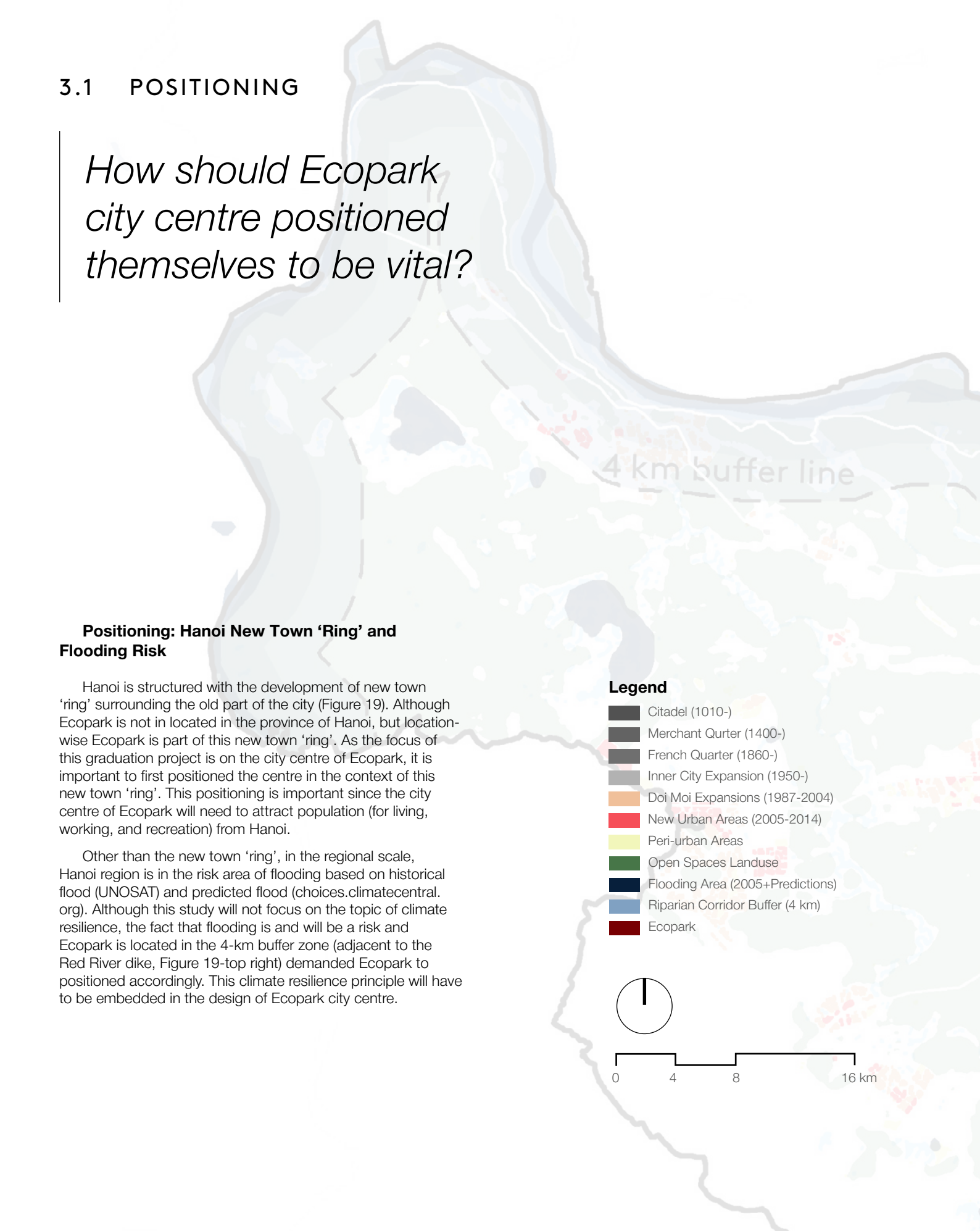
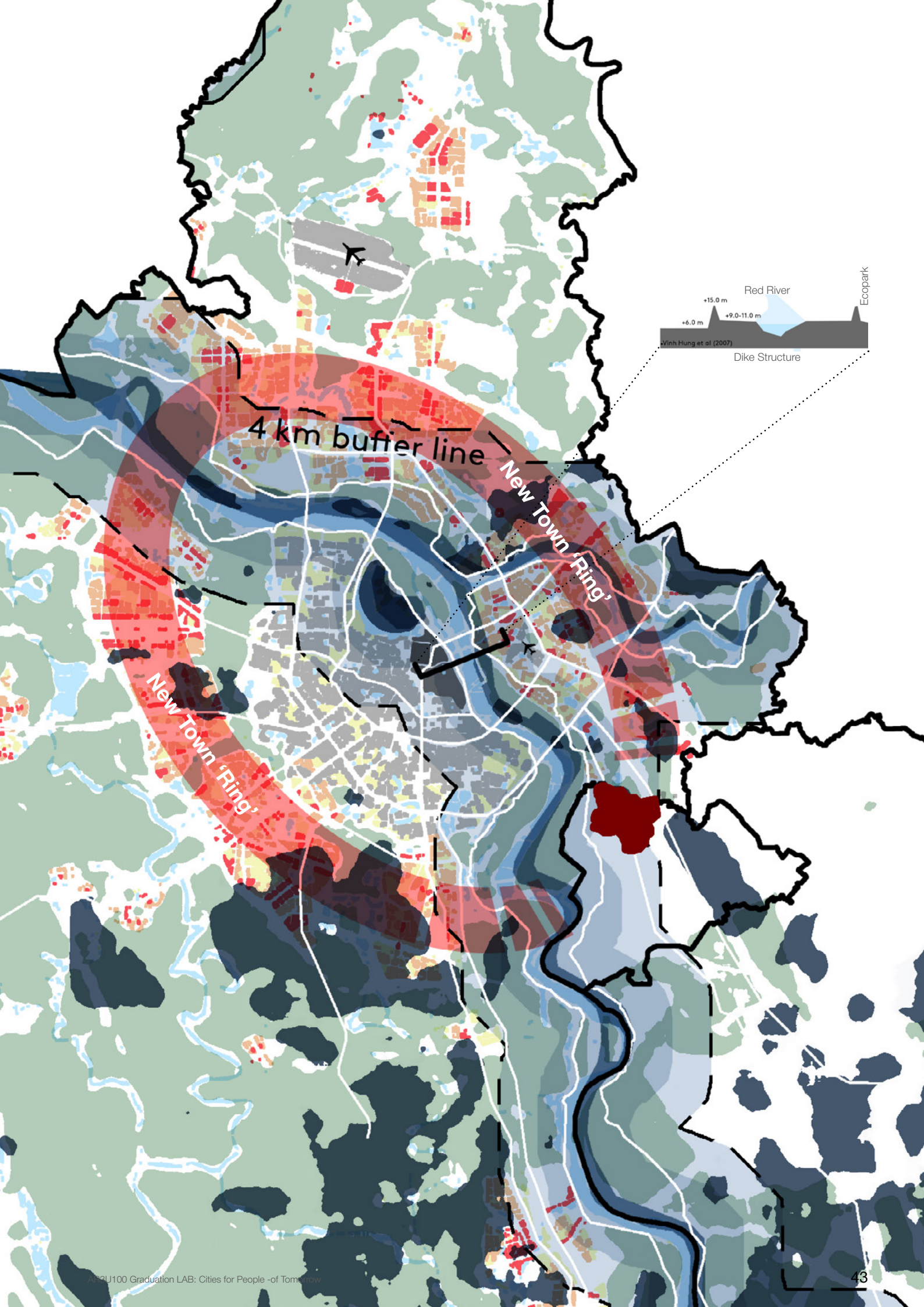
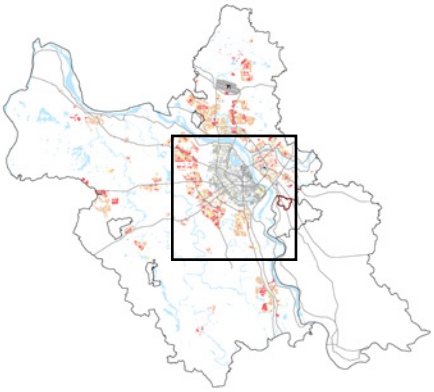


Figure 19. Hanoi city structure and flooding risk (flooding map source: UNOSAT & choices.climatecentral.org)


Red River
Ecopark
+15.0 m
+9.0-11.0 m
+6.0 m
Vinh Hung et al (2007)
Dike Structure
4 km buffer line
New Town 'Ring'
New Town 'Ring'



Key Map

Distinct Positioning: Accessibility

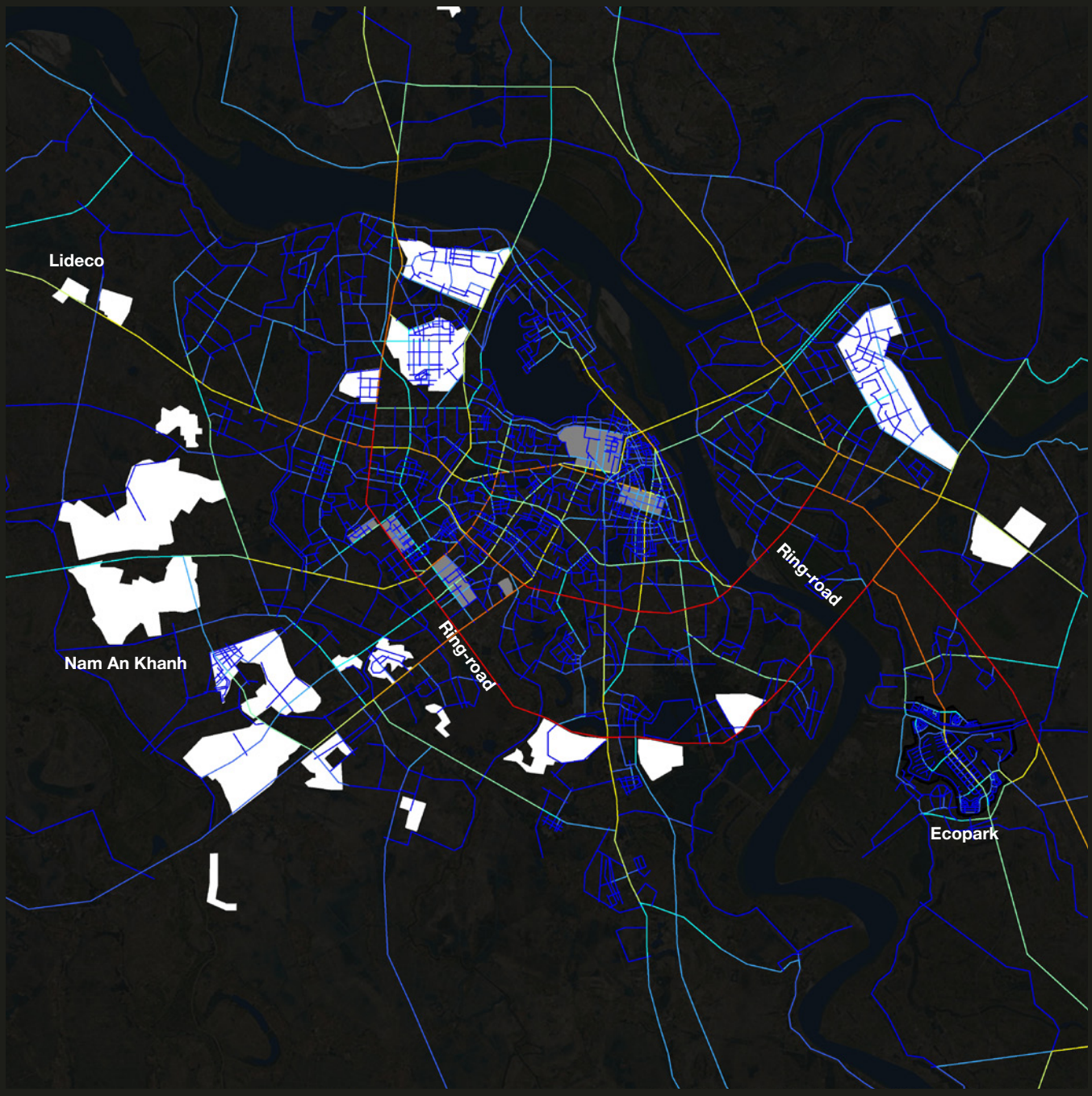
City centre of Ecopark needs to distinct itself with other new town competitors – especially those that are located in the 'ring'. Most of the new towns in the 'ring' (Figure 20) are currently made to be a 'dormitory' town – mostly residential uses. Hence, to create a distinct position, Ecopark city centre (as part of Ecopark New Town as a whole) should positioned to be a both 'dormitory' and destination town with the mix of live, play, and work activities. In order to do this, Ecopark need to learn from the vital city centres of Hanoi that are already working and provided such mix of activities. This step is deliberately taken to embrace locality instead of learning from international best practice like many of Hanoi new towns have done.

The first step to understand how city centres in Hanoi are working is by seeing the accessibility aspect of it as advocated in the principle of accessible street network. Accessibility possess an indirect correlation to the economy of the place – in this case the vitality of the place as put forward by Hiller (1996) as 'movement economies'. Accessibility can be analysed using the Space Syntax simulation. One of the factor of accessibility is 'Choice' which means how often the street is passed to reach all the segments (in a radius of n) in a road structure (Javadi et al, 2017). High level of choice means that this particular segment of the street is more often in compare to other streets and vice versa. This aspect is important for the like of commercial uses which depend on the 'accidental' visitor which will be higher if the street is passed more often.

Based on the space syntax analysis of Hanoi (Choice aspect, radius=n (global)), streets that have the highest level of choice are the highways (ring-road). This result is logical since highway is naturally used more often to access other part of the city. In relation to the new towns, the one that are located on the western part of the outer ring road with the medium to low Choice level are mostly failing (e.g., Nam An Khanh New Town as investigated by van Fassen (2014), and Lideco New Town). Ecopark on the other hand, is still connected to the high-level of choice streets, hence give Ecopark the advantage position in compare to other new towns.

↗

Figure 20. Space syntax analysis (Choice, R=n) of Hanoi



Legend

Choice, R=n

High

Low

Hanoi Centres

New Towns

Water Features

0 2000 4000 8000 m

...Ecopark need to learn from the vital city centres of Hanoi that are already working and provided such mix of activities. This step is deliberately taken to embrace locality instead of learning from international best practice like many of Hanoi new towns have done.

How do vital city centres work in Ha-noi?

Accessibility Factor

Ecopark need to learn from vital city centres of Hanoi to understand what defined urban vitality in Hanoi. The next step to do is to analyse where such city centres are located and what kind of transit coverage this city centres are accessible to. This analysis will be done using Space Syntax simulation.

Transit coverage will be defined as the radius of the analysis: radius of 800 m is defined as local accessibility (walkable distance); radius of 2700 m is defined as neighbourhood accessibility (cycling and motorbike distance); and radius of n is defined as global accessibility (driveable distance). Accessibility itself is defined as combination of Choice aspect and Integration aspect. Choice (closeness) aspect is how often the street is passed to reach all the segments (in a radius of n) in a road structure whilst Integration (betweenness) aspect is how central the particular street is in relation to all other street (in a radius of n) (Javadi et al, 2017). High level of accessibility means that the particular street has a high level of Choice aspect and high level of Integration aspect (bivariate classification).

Based on the simulation, streets with high accessibility level is expanding as the transit coverage grew: the most locally accessible streets are located around the old town of Hanoi (Figure 21-top); the most neighbourhood accessible streets are located around the newer part of the old town e.g., the French quarter (Figure 21-middle); and the most globally accessible streets are mainly the highways (ring roads) (Figure 21-bottom). Based on this simulation, the location of the streets with the highest Choice and Integration aspect can be pinpoint accordingly (for each transit coverage) (Figure 21-white squares). Each location will then be analysed in terms of its spatial quality and how it relates to the vitality of the place. This analysis needed based on the notion of how accessibility relates to urban vitality.

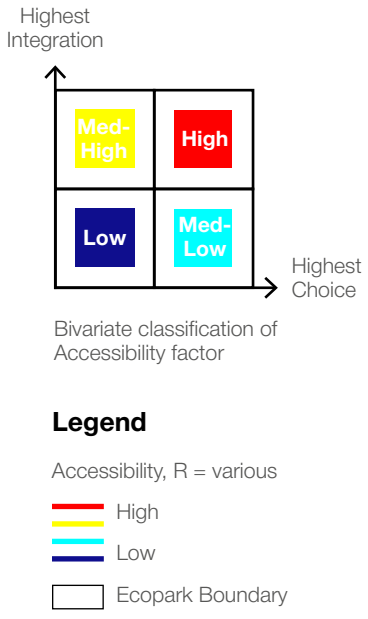
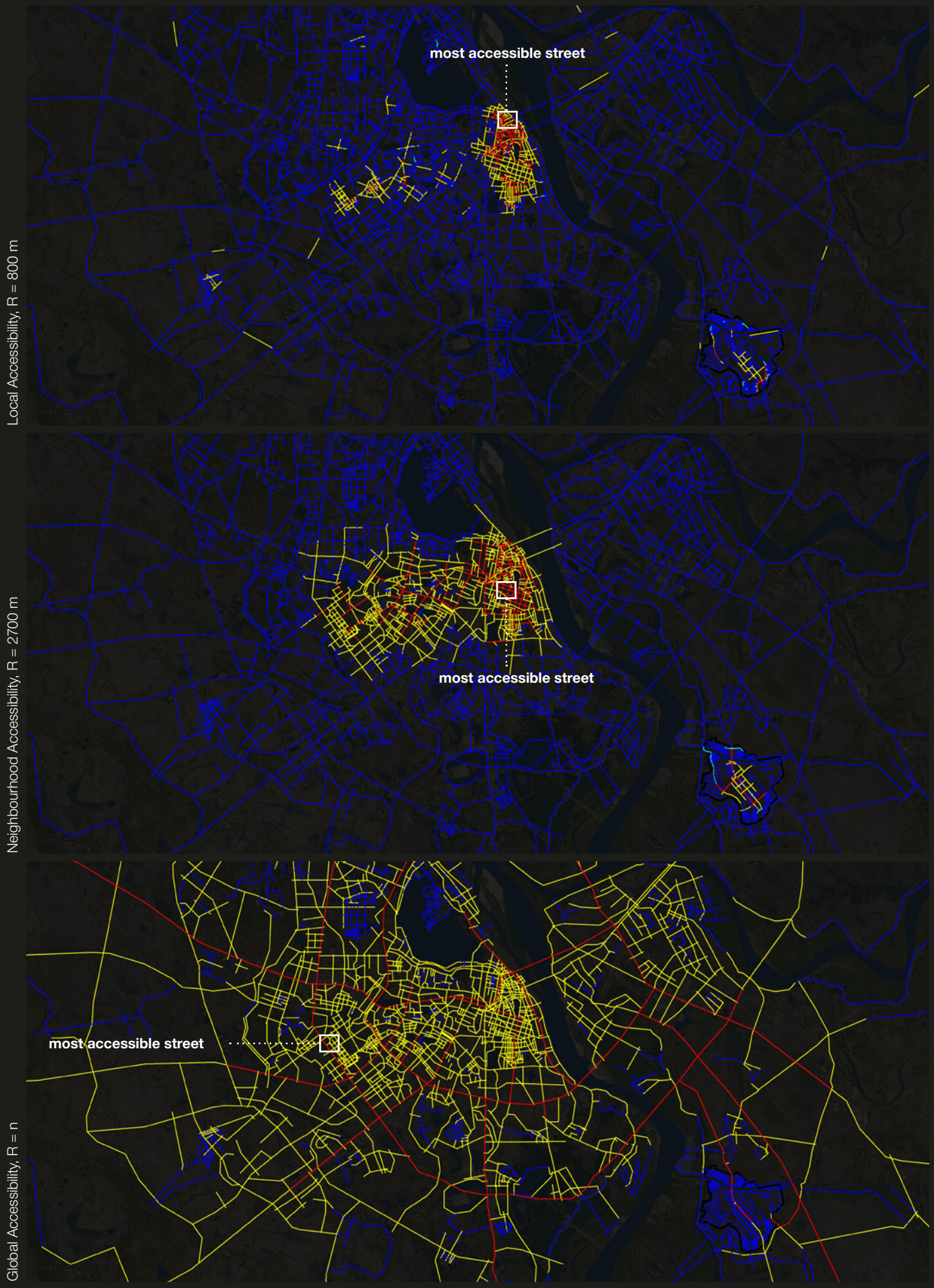
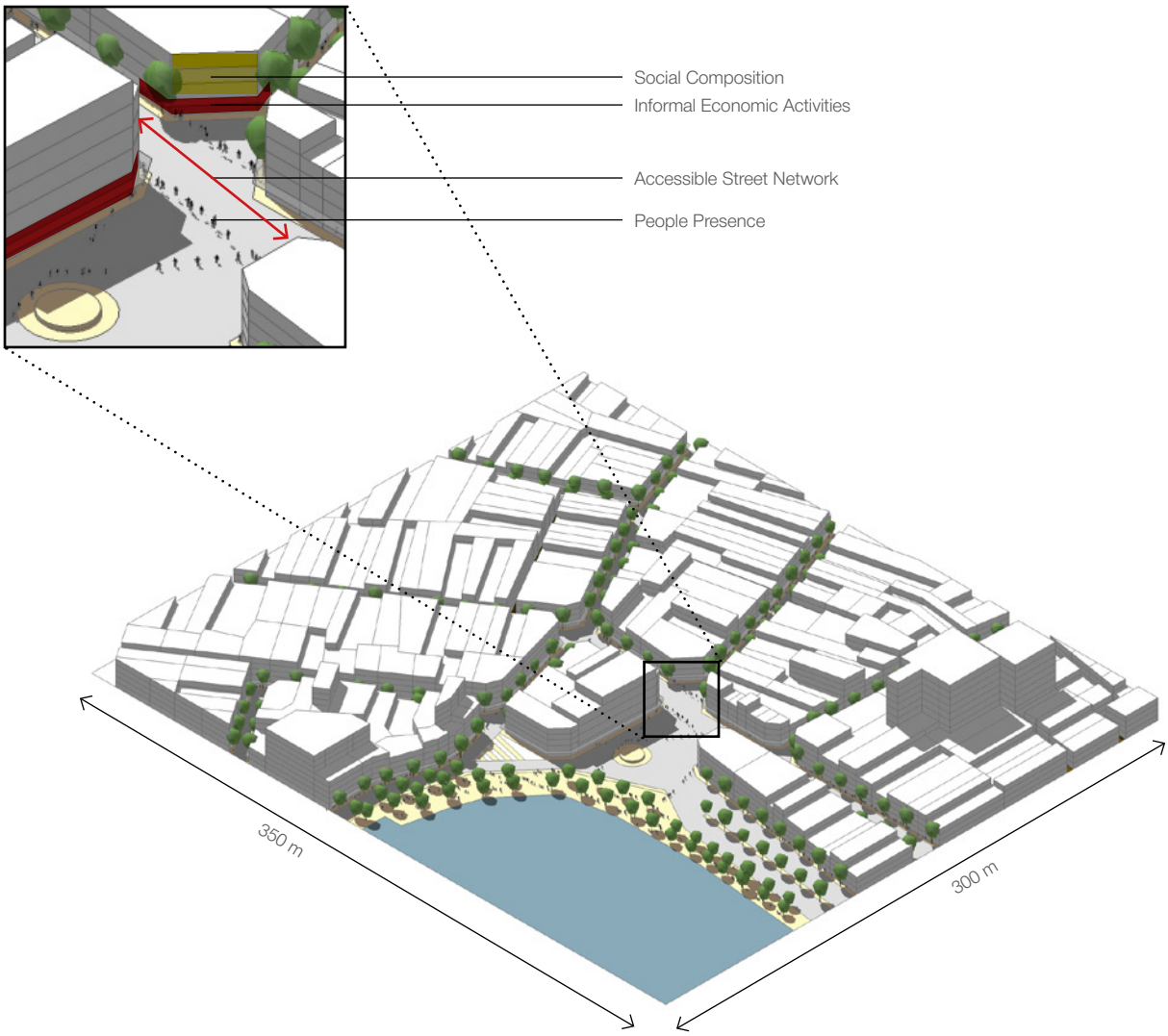


Figure 21. Accessibility analysis of Hanoi city centres



...High level of accessibility means that the particular street has a high level of Choice aspect and high level of Integration aspect (bivariate classification)



Local Accessibility

Based on the accessibility analysis, streets with the highest accessibility in the local transit coverage (R=800 m) is the Cau Go street in the Old Quarter District on the northern part of Hoan Kiem Lake (Figure 22 & 23). In this preliminary analysis, the basic spatial parameter i.e., density, coverage, plots are analysed inside the area of 300 m to 350 m (Figure 22-top). This parameter is useful to get the first understanding of the area in relation to the urban vitality (which principles are visible) and to be comparable to other areas. The high number of plots and high percentage of building coverage are what distinct in this area which happened because of the long and incremental development that had happened here in the Old Quarter district (as far as the year 1400).

This area consists of mainly shophouse typology in the small and narrow plots. This typology ensures the mixed of uses, high density and variety of people inside the building. People presence happened because of the presence of tourists attracted to this area (to Hoan Kiem Lake and the Old Quarter). Lastly, informal economic activities happened in the narrow streets in front of the building. All of these principles constitute the liveliness of the place. Detailed investigation will be done further through on-site observation.

Figure 22. Block with the highest local accessibility level

Figure 23. Local accessibility map

Legend

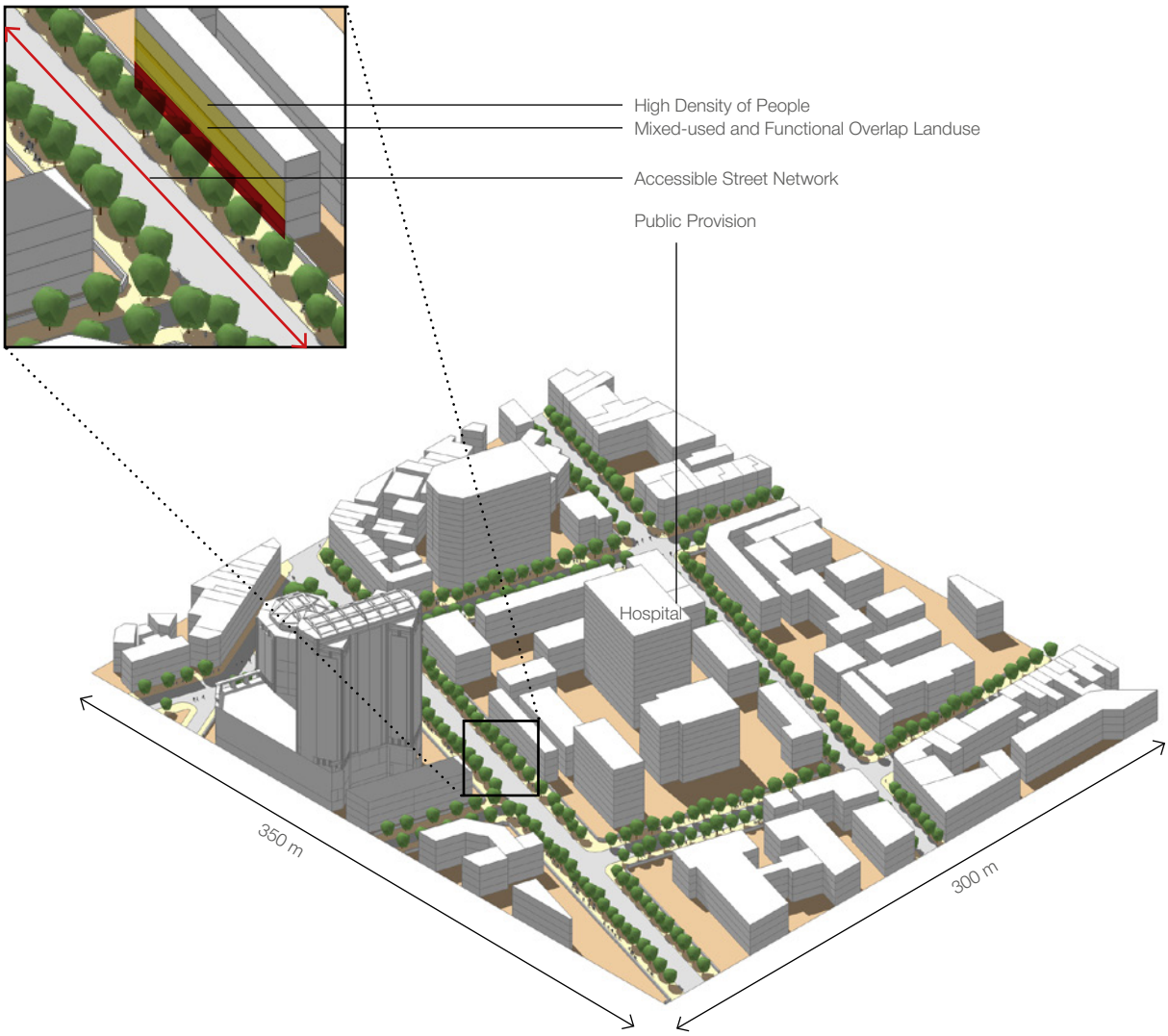
Accessibility, R = 800 m

- High
- Low
- Focus Area

0 2000 4000 8000 m

Development Statistic

Block Area	: 10.5 ha
Total Plots	: 350
Average Floor Area Ratio (FAR)	: 4.3
Average Building Coverage (COV)	: 50%
Height Indext (HEI)	: 5.4
Plots Coverage	: 63%
Street Coverage	: 20%
Open Space Coverage	: 17%



Neighbourhood Accessibility

Based on the accessibility analysis, streets with the highest accessibility in the neighbourhood transit coverage (R=2700 m) is the Trang Thi street in the French Quarter District on the southern part of Hoan Kiem Lake (Figure 24 & 25). In comparison to the local accessible area (R=800 m), the Floor Area Ratio (FAR) and the building coverage (COV) are lower but the Height Index (HEI) is higher. The lower COV and FAR happened because of the added tower typology that can distribute the floor area vertically in comparison to the shophouse typology. In comparison to the local accessible area, the shape of the blocks is more regular (grid, around 100 m width) with the influence from the French colonization (1900s).

With this typology (grid & mix of towers and mid-rise buildings), big public uses like hospital, theatre, and government offices are possible to be accommodated. The mix of uses and high density can also be accommodated with lower building coverage. With wider road reserve (mainly East-West direction), the informal economic activity is not as high as the local accessible area but still exist e.g., street parking. Liveliness of the place mainly visible in the narrower street (mainly North-South). Detailed investigation will be done further through on-site observation.

Figure 24. Block with the highest neighbourhood accessibility level

Figure 25. Neighbourhood accessibility map

Legend

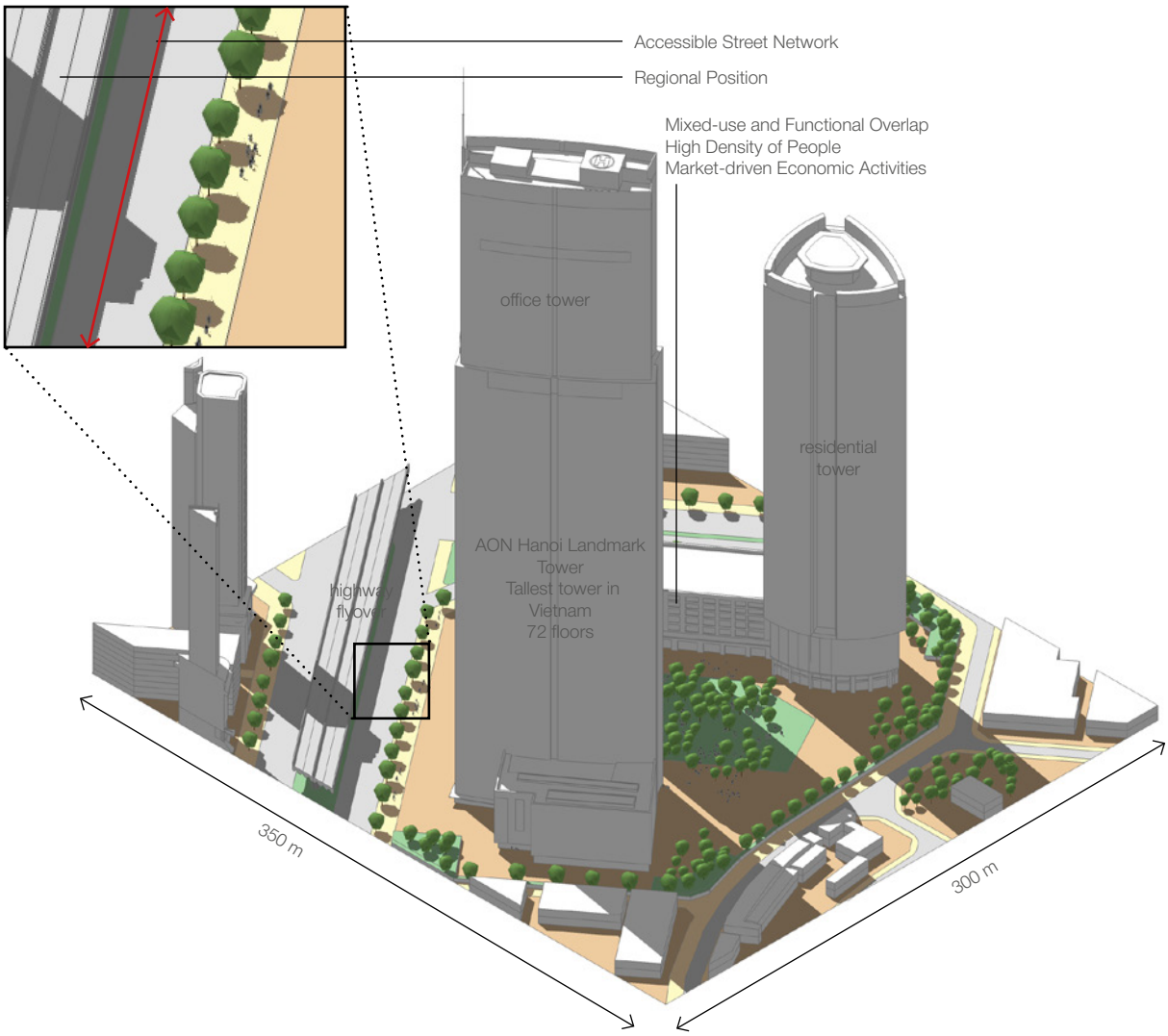
Accessibility, R = 2700 m

- High
- Low
- Focus Area

0 2000 4000 8000 m

Development Statistic

Block Area	: 10.5 ha
Total Plots	: 93
Average Floor Area Ratio (FAR)	: 2.9
Average Building Coverage (COV)	: 34%
Height Index (HEI)	: 6.0
Plots Coverage	: 71%
Street Coverage	: 25%
Open Space Coverage	: 1%



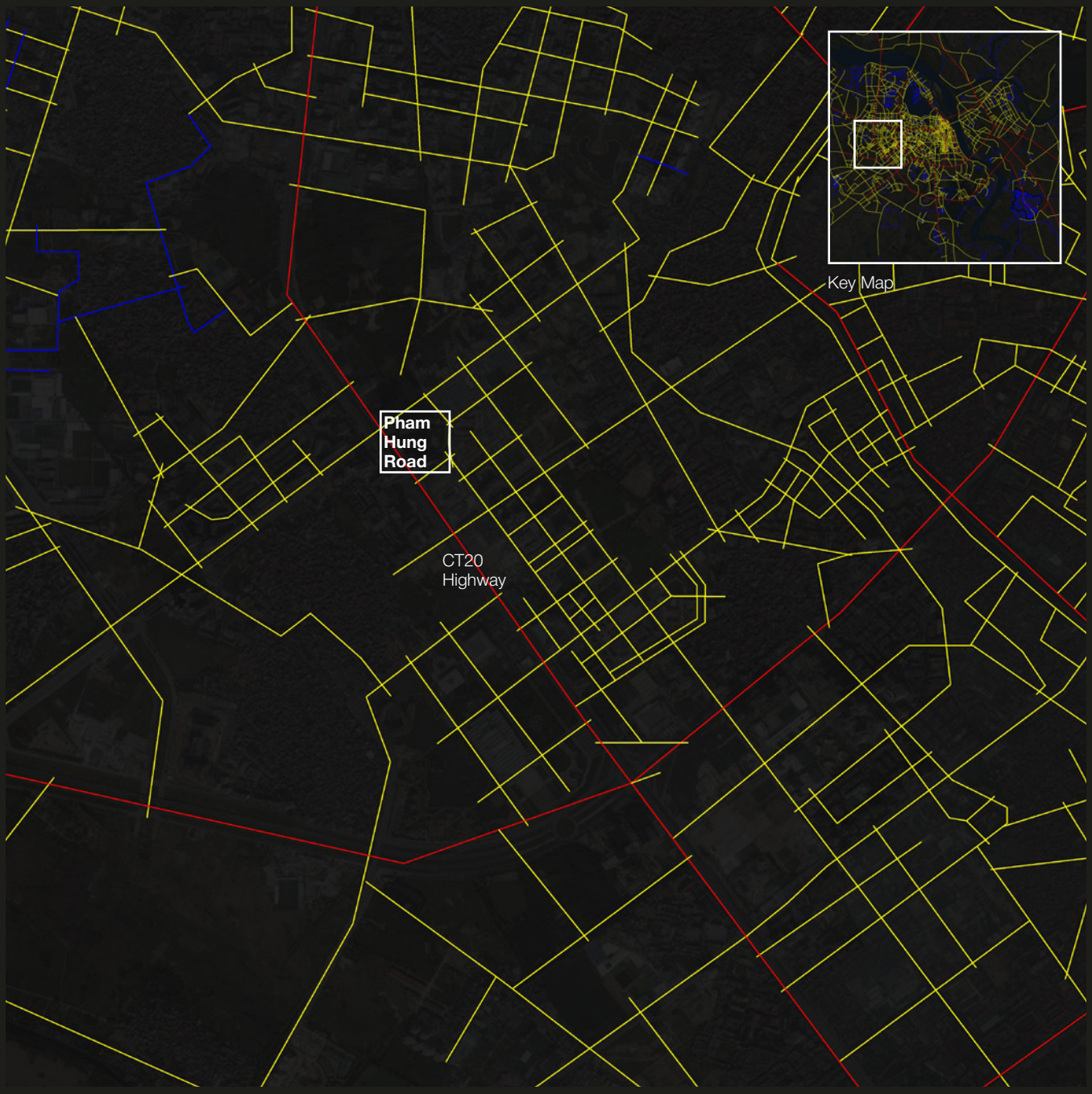
Global Accessibility

Based on the accessibility analysis, streets with the highest accessibility in the global transit coverage (R=n) is the Pham Hung Road along the CT20 highway (western outer ring-road) (Figure 26 & 27) In comparison to the local and neighbourhood accessible area, the Floor Area Ratio (FAR) and the Height Index (HEI) are higher (FAR 10 and HEI 21.4) mainly because of the relatively tall towers (72 floors, tallest tower in Vietnam). With high HEI, the building coverage is concurrently low which is used for larger (private) open spaces. Road reserve is also wider with highway fly-over included inside the road reserve.

Building typology is a podium + tower type, with mix of uses in the podium including parking. The high tower ensures high density of people in the area especially the mix between office tower and residential tower. The distinct principle of this area is a clear regional position and the market-driven economic activities as the new CBD of Hanoi. The adjacency to the highway and high towers explained these two principles. In terms of liveliness, since the road reserve is relatively wider and most of the area are privatised, the liveliness is lower. Most of the activities are located inside the plot especially inside the building. Detailed investigation will be done further through on-site observation.

Figure 26. Block with the highest globall accessibility level

Figure 27. Global accessibility map



Legend

Accessibility, R = n

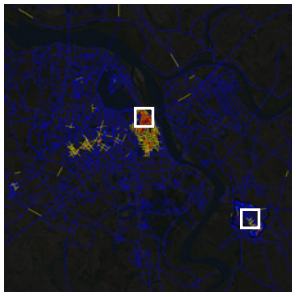
- High
- Low
- Focus Area

0 2000 4000 8000 m

Development Statistic

Block Area	: 10.5 ha
Total Plots	: 8
Average Floor Area Ratio (FAR)	: 10
Average Building Coverage (COV)	: 30%
Height Index (HEI)	: 21.4
Plots Coverage	: 65%
Street Coverage	: 29%
Open Space Coverage	: 6%

How should vital city centres work in Ecopark?

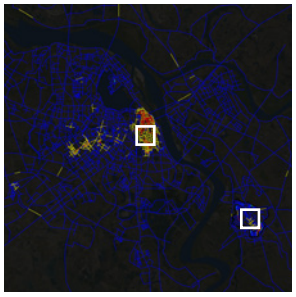


Key Map

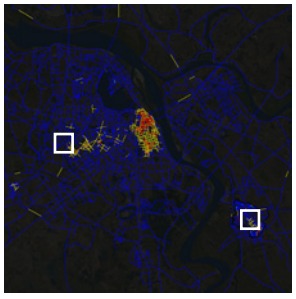
Hanoi City Centres & Ecopark City Centres

After understanding how city centres in Hanoi work using accessibility analysis in Space Syntax simulation, the next step is to compare it to the city centres of Ecopark based on the design by the masterplanner (CPG Consultants). The design of the masterplan is amended periodically with the latest amendment on 2016. With the same parameter, accessibility analysis is done for Ecopark city centres based on the latest design.

Based on the analysis, the main difference between Hanoi and Ecopark city centres is in the fact that the location between different accessible areas. In Hanoi, the three accessible areas (local, neighbourhood and global) are located in relatively different part of the city (Old Quarter, French Quarter, and New CBD) (Figure 28-left column) with very distinct different in the block and building typology. While in Ecopark, the three accessible areas are located inside the city centres (Figure 28-right column). Being in the same area, the block and building typology are designed to be similar. Hence, the key to learn from Hanoi city centres is on how to properly interpret the urban vitality principles to Ecopark city centres.



Key Map



Key Map

Figure 28. Hanoi city centres (left) and Ecopark city centres (right)


Local Accessibility, R = 800 m
Neighbourhood Accessibility, R = 2700 m
Global Accessibility, R = n
Hanoi City Centre
Ecopark City Centre

POSITIONING

Clear Positioning: New Town Ring and Flooding Risk

City centre of Ecopark needs to distinct itself with other new town competitors – especially those that are located in the new town 'ring'. This distinct position can be made through being a both 'dormitory' and destination town with the mix of live, play, and work activities. In order to do this, Ecopark need to learn from the vital city centres of Hanoi that are already working and provided such mix of activities. Apart from that, the distinction can be made through responding to the risk of flood in Hanoi. Climate resilience principle needed to be embedded in the design of Ecopark city centre.

BENCHMARKING

Benchmark: Accessibility

Hanoi city centres are used as benchmark to understand what spatial quality defined a vital city centre for Ecopark. The first step in benchmarking is to analyse where Hanoi vital city centres are located and what kind of transit coverage this city centres are accessible to using Space Syntax simulation. Accessibility itself is defined as combination of Choice aspect and Integration aspect. The result is divided based on the transit coverage (local, neighbourhood, and global). Each location is then being analysed in terms of its spatial quality and how it relates to the vitality of the place.

ASSESSMENT

Assessment: Ecopark City Centre and Hanoi City Centre

After understanding how city centres in Hanoi work using accessibility analysis in Space Syntax simulation, the next step is to compare it to the city centres of Ecopark. Based on the analysis, the main difference between Hanoi and Ecopark city centres is in the fact that the location between different accessible areas. In Ecopark, the three accessible areas are located inside the city centres. Being in the same area, the block and building typology are designed to be similar. Hence, the key to learn from Hanoi city centres is on how to properly interpret the urban vitality principles to Ecopark city centres.

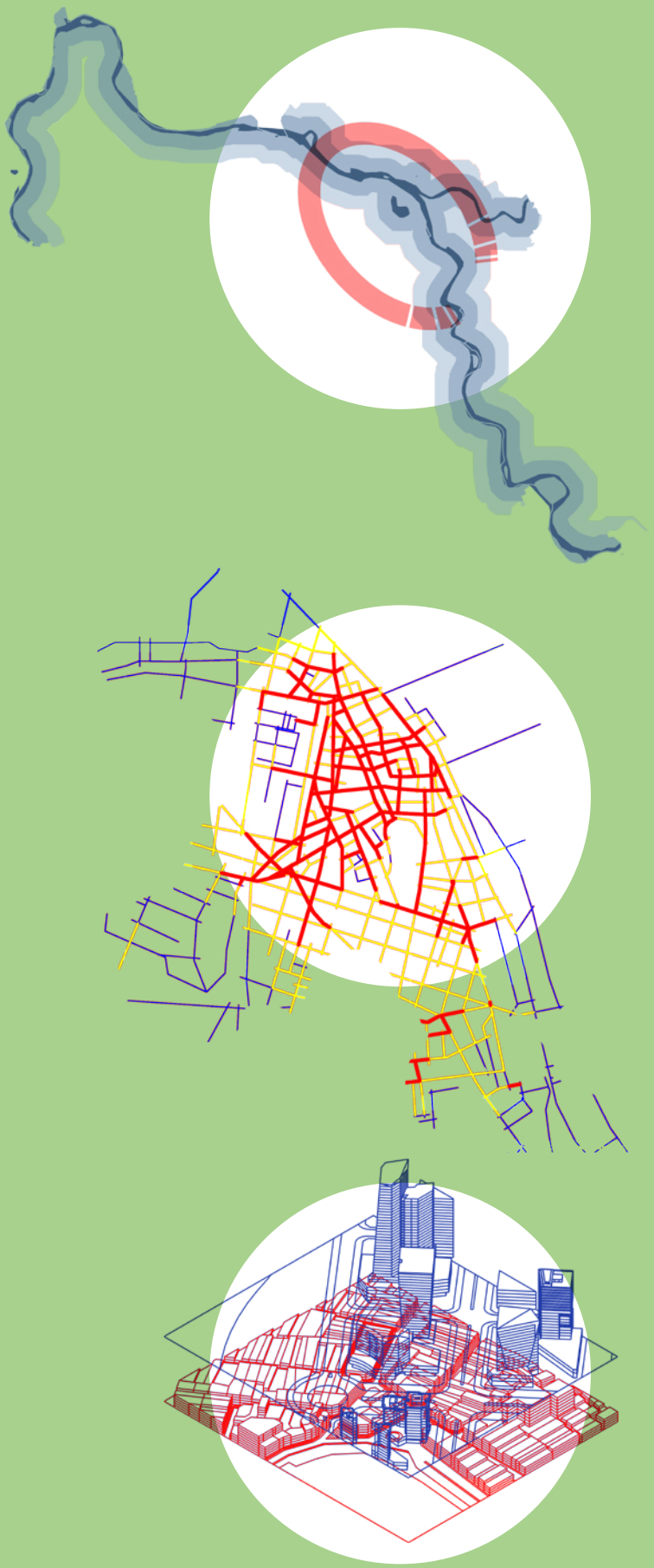
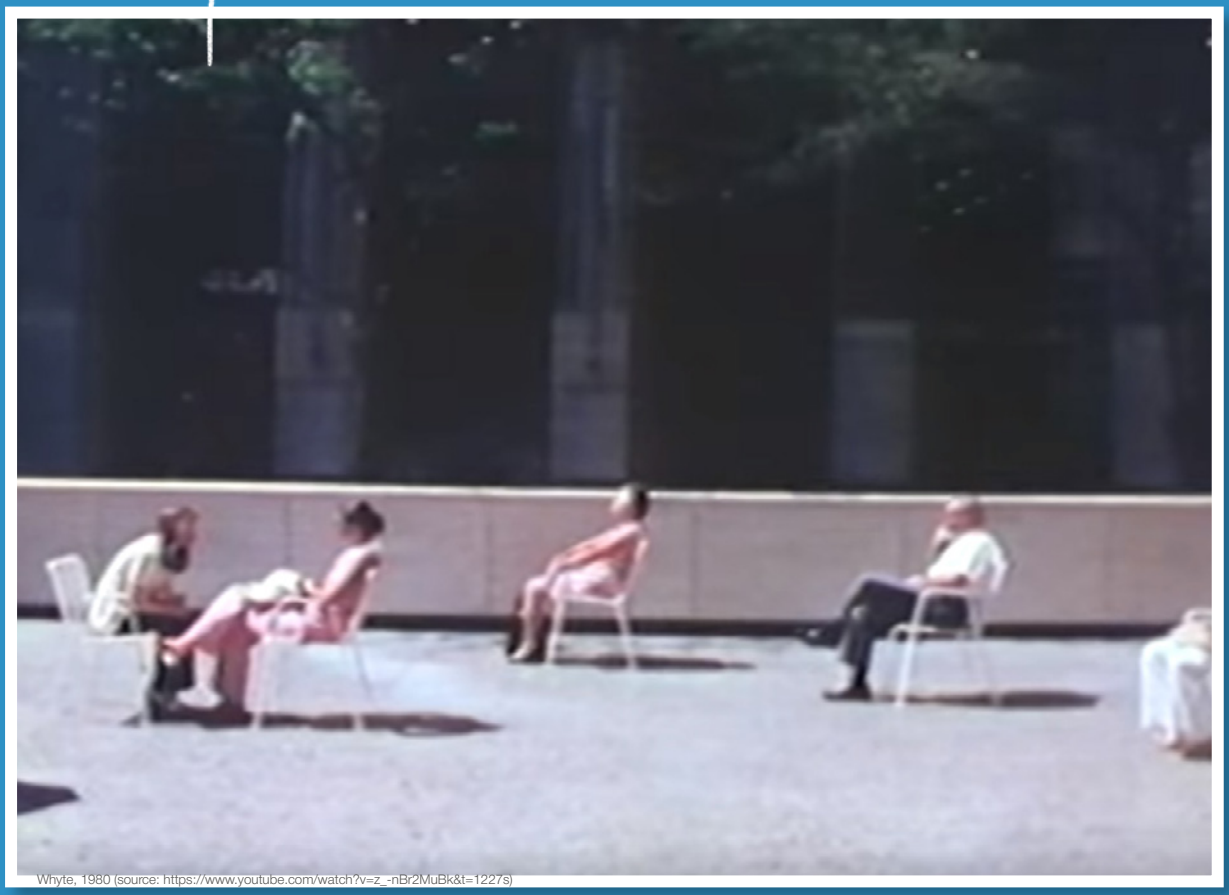


Figure 29. Analysis summary

Watch this classic documentary!



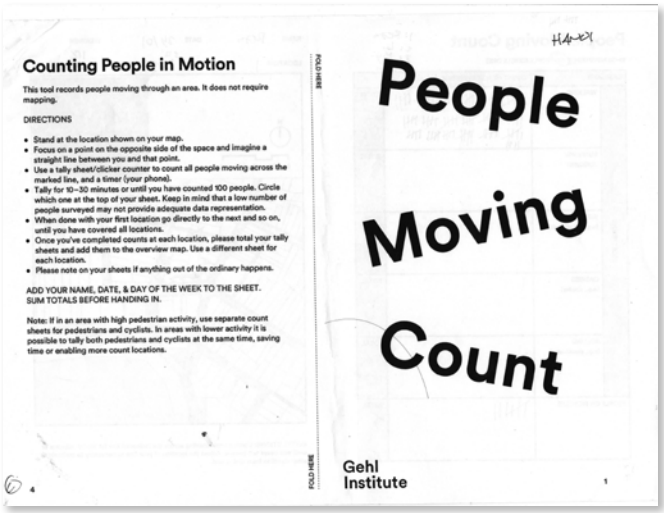
Whyte, 1980 (source: https://www.youtube.com/watch?v=z_-nBr2MuBk&t=1227s)

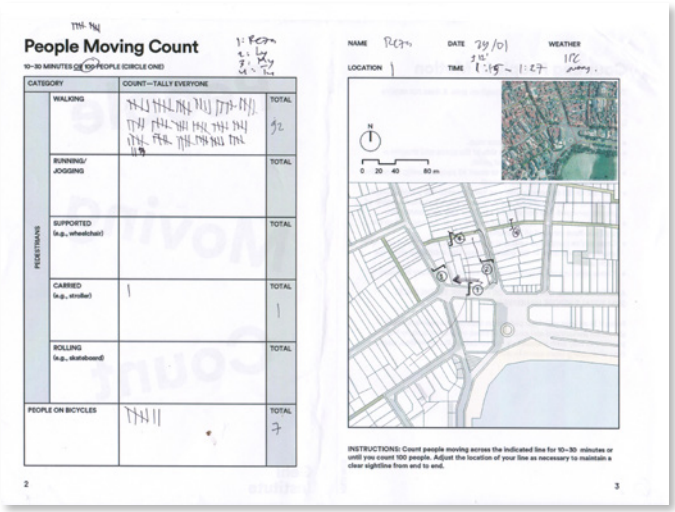
The Social Life of Small Urban Spaces

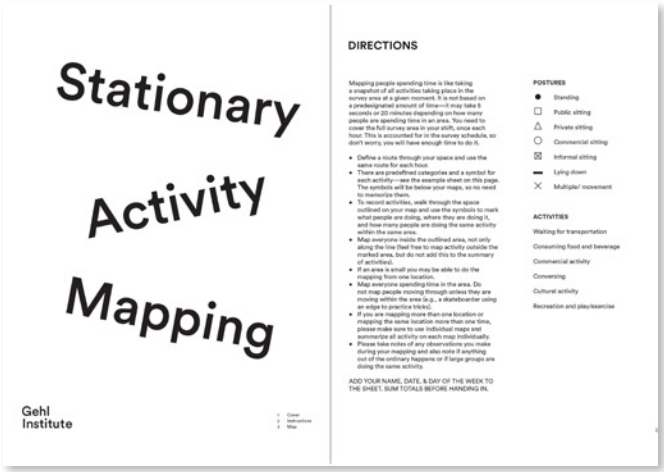
How every people tend to slightly moved their chair before they sit down, just to mark their territory.
Ever observed that? Whyte did.

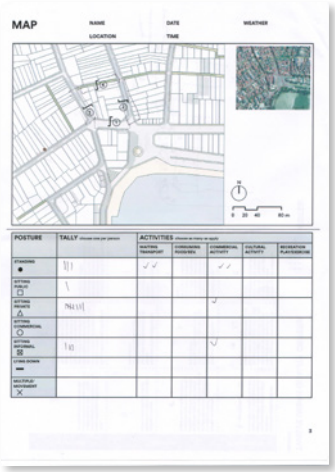
SITE VISIT

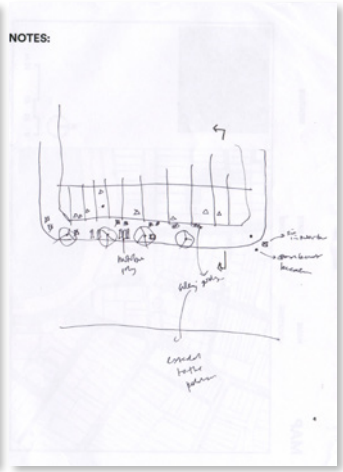
4.1 QUANTITATIVE OBSERVATION

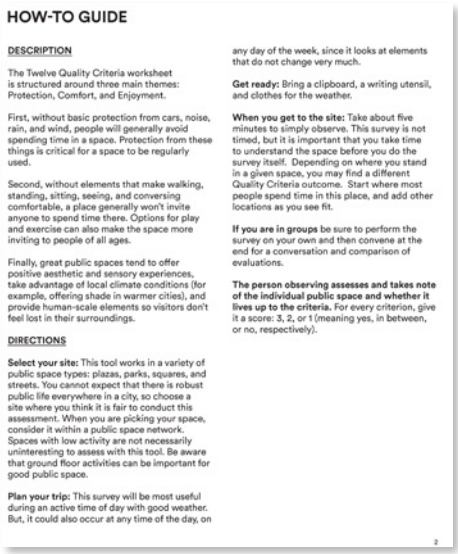


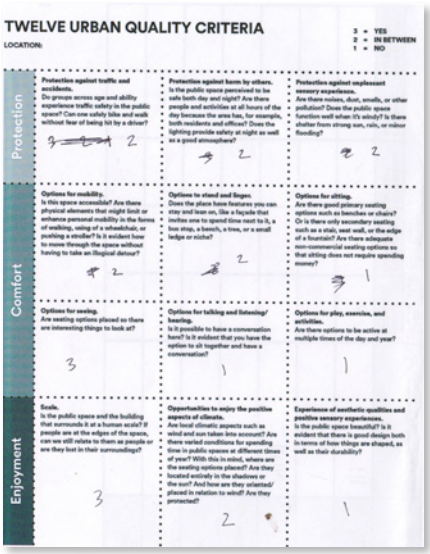












Hanoi R800 Hanoi R2700 Hanoi Rn

Observation Tools: Gehl Institute

After the context analysis, the next step is to clarify the study through on-site observations. The on-site observations here are performed using the observation tools from Gehl Institute in the three blocks that have been defined in the context analysis: Hanoi city centres (R800, R2700, and Rn) (Figure 30) and Ecopark phase 1 area. The reason behind the choice of the observation tools is these tools are the direct interpretation of the tools that Jan Gehl himself used in understanding public life of a certain place. Moreover, Gehl Institute is encouraging urbanists to use their tools so that the tools can be made more refined based on each user's experience.

The three tools that this project used in performing the on-site observation are: people moving count, stationary activity mapping, and twelve urban quality criteria (Figure 30). The first tool is used to count how many people is moving at specific time and location. Using this tool, it can be observed which particular segment of the street/block is the liveliest. The second tool is used to count how many people is staying at specific time and location. With this tool, the stationary activities will be mapped – what are they doing, where are they doing it, for how long they are there. Lastly, the urban quality criteria are used to quantitively measure the quality of a certain space using pre-determine parameter in relation to protection, comfort, and enjoyment. This tool is used to compare the qualities among the observed spaces quantitively.

For this observation, scholars from the local university (National University of Civil Engineering) are contributing in doing the observation and giving the local knowledge about the space. This is especially important for the third tool (the twelve quality criteria) since the tools are originally made for the European/American settings which might be different with the Asian context.

↖

Figure 30. Observation tools by Gehl Institute

00:03 / Let's observe!

00:12 / What to count? People moving

00:30 / Continue counting

00:33 / and counting...

00:48 / What to count? People staying

00:59 / Who? What? Where do people stay?

01:11 / Assess!

01:15 / Quantify!

Figure 31. Video snapshots of the quantitative site observation

00:21 / Use the imaginary line

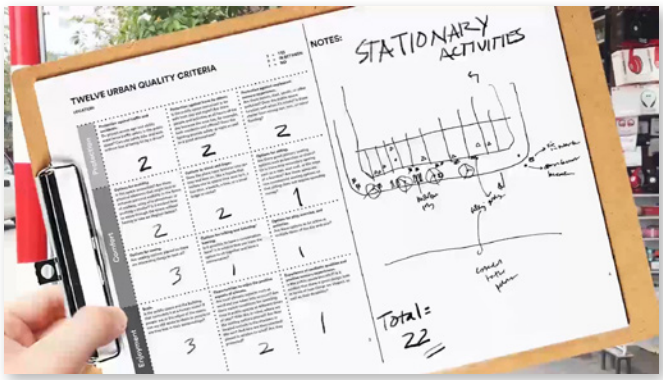
00:27 / Count!

00:37 / Count until 100 people or 20 min.

00:46 / Summarize!

01:01 / Sketch!

01:08 / What to count? Space quality



01:22 / Summarize!

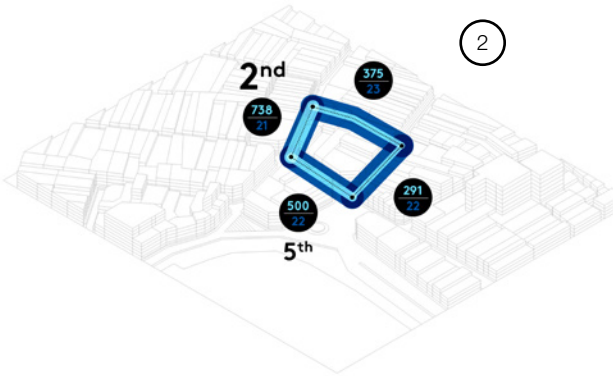
01:28 / Summarize the whole observation for your location!

Observation Snaps in Motion

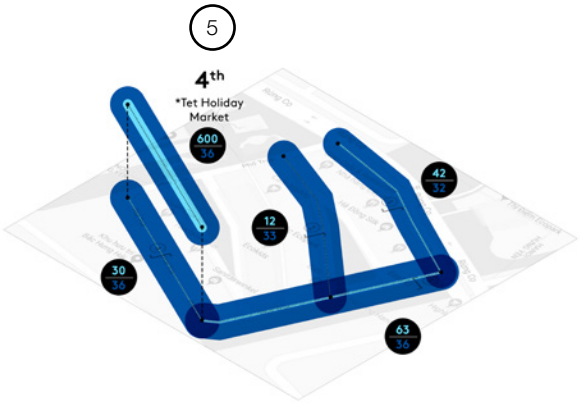
The observation itself is then made into a video format to make it more interactive – and communicative. The video shows the step by step of using the tools and quantifying the observation. This vide is made also in the aim to make explicit the processes behind the project.

See the video here!

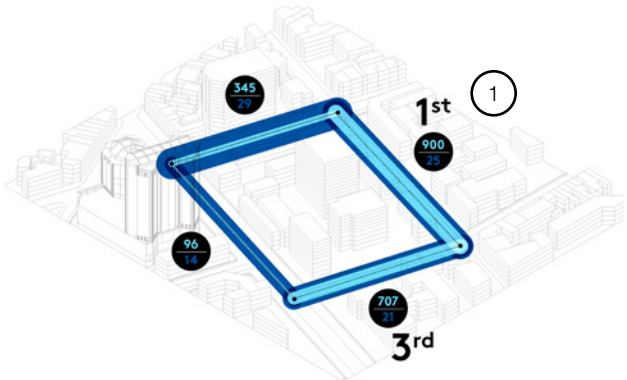
See the full video here: https://youtu.be/TDCtVVboiDQ



Hanoi R800

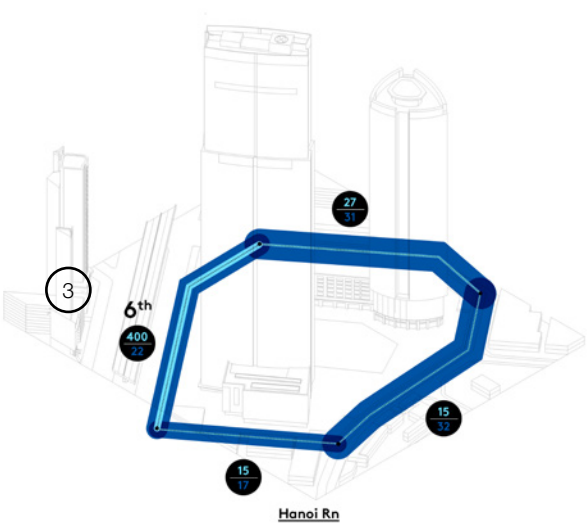


Ecopark R800

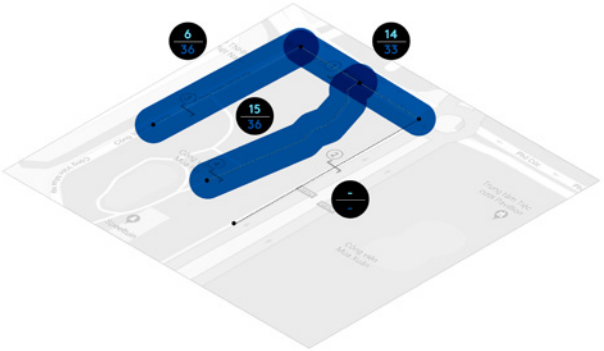


Hanoi R2700

Ecopark R2700



Hanoi Rn



Ecopark Rn

Observation Summary

The quantitative observations are then being summarized for each location with comparable measures i.e., pedestrian/hour and urban quality. These measures are taken to see the relationship between the two measures – whether the liveliest space have good qualities of urban space and vice versa.

Based on the observation, (1) the street segment which have the highest amount of pedestrian/hour is one particular street in the Hanoi 2700 city centre (the French Quarter). This is quite unexpected as it is expected that Hanoi R800 (pedestrian oriented) city centre (the Old Quarter) will be the liveliest among the 6 observed places. However, (2) it is observed that most in average Hanoi R800 city centre is still the liveliest (Figure 32 – top-left & middle-left). The other interesting finding is that (3) one particular street in the Hanoi Rn city centre (Keangnam Tower) has the 6th highest number of pedestrian/hour more than some places in the Hanoi R800 and R2700 city centre while the other streets in Hanoi Rn city centre have really low rate of pedestrian/hour. It is observed that the reason behind the high rate in that particular place is because of the presence of lobby towers which become the main access for many people going into and outside the site.

As for the city centre of the phase 1 of Ecopark, the common results are showing that the pedestrian rate are generally really low in comparison to the pedestrian rate in Hanoi city centres. However, (4) the urban quality in Ecopark city centres are generally good as they are well-designed, well-built, and well-managed. (5) One interesting observation in Ecopark city centre happened in a particular space in which a particular event occurred: Tet-Holiday (Vietnamese New Year) Festival. During this event, it is observed that the pedestrian rate is the 4th highest among all the streets (including Hanoi city centres). This is quite staggering since this particular event can attract so many visitors and become the key of the urban vitality of the area.

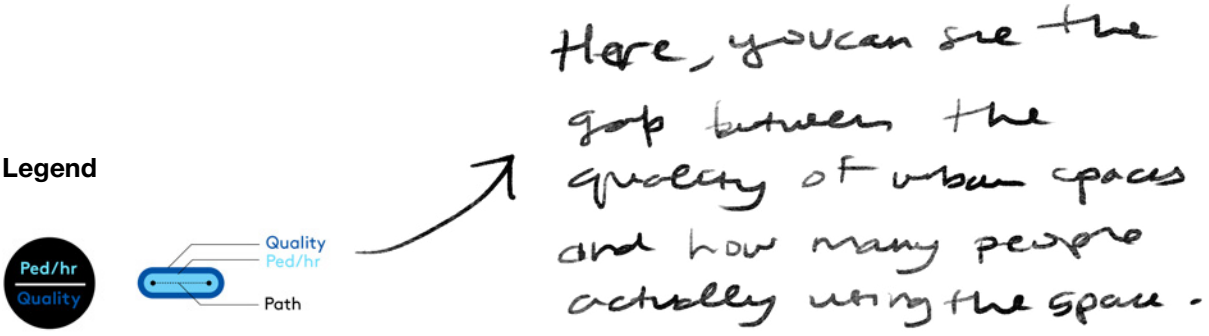
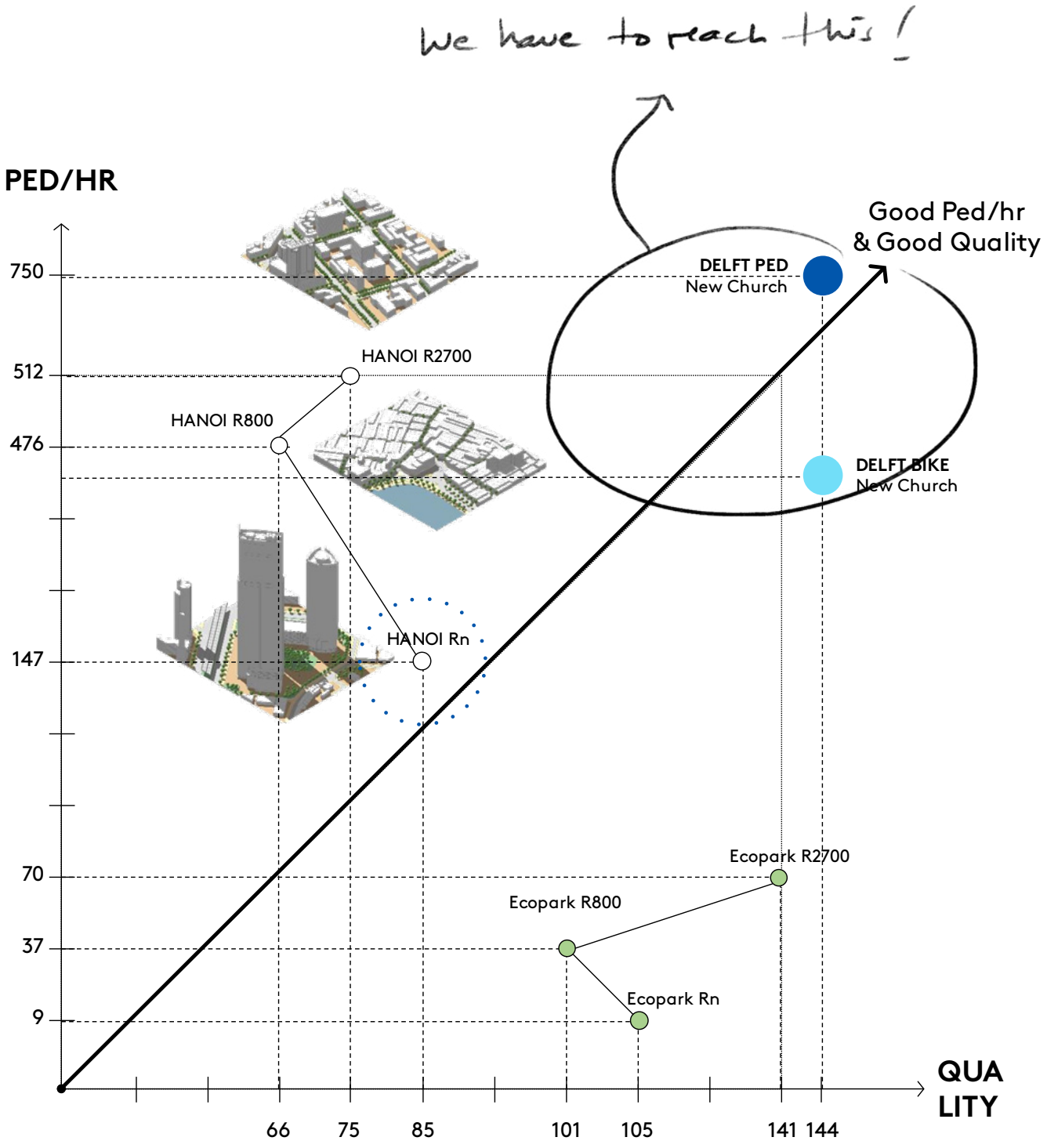


Figure 32. Observation results

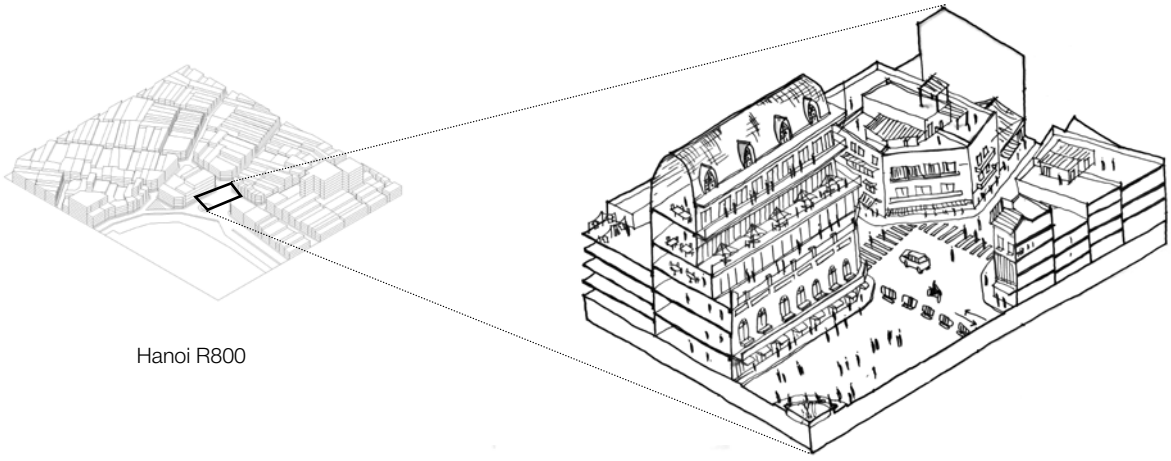

We have to reach this !
PED/HR
750
512
476
147
70
37
9
Good Ped/hr
& Good Quality
DELFT PED
New Church
DELFT BIKE
New Church
HANOI R2700
HANOI R800
HANOI Rn
Ecopark R2700
Ecopark R800
Ecopark Rn
66
75
85
101
105
141
144
QUA
LITY

Observation Results: Mapped

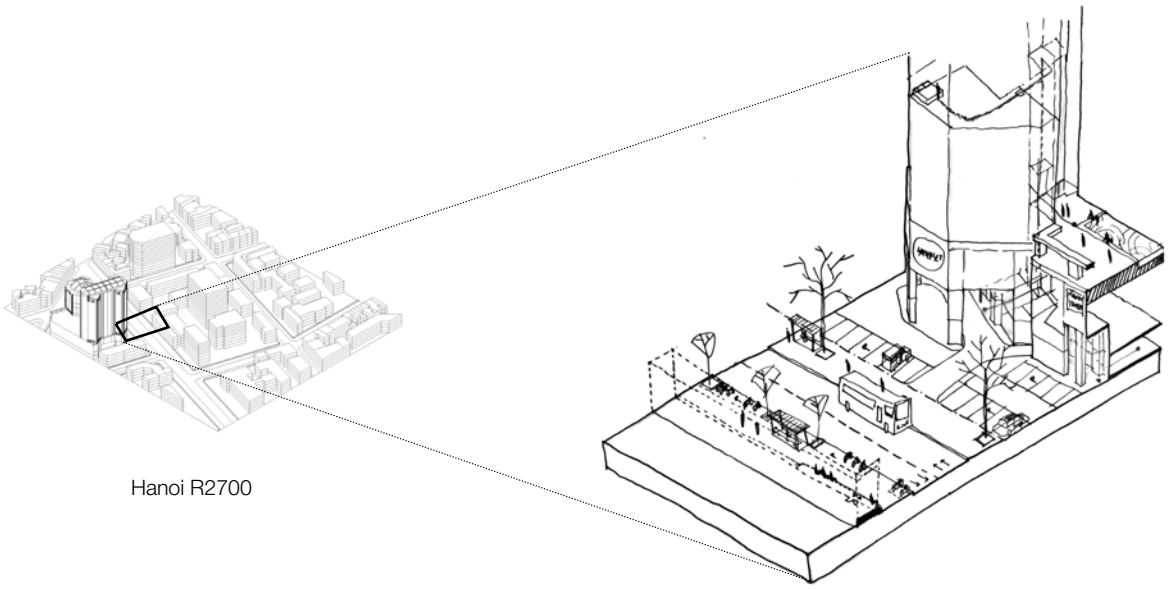
The summary is then mapped into a graph comparing the pedestrian rate (Figure 33, Y-axis) with the urban space quality (Figure 33, X-axis). Through this graph, it can be observed that the trend is that the Hanoi city centres are in general have high pedestrian rate but low urban quality. On the other hand, Ecopark city centres have low pedestrian rate but good urban quality. From this graph it is concluded that the aim for future Ecopark city centre should be high pedestrian/hour and good quality of urban spaces – top-right corner of the graph. Ironically, Hanoi city centre Rn (Keangnam Tower) is the closest to reach this aim among the 6 city centres. To justify this conclusion, small observation in Delft is done in which high pedestrian (750 pedestrian/hour almost 25% more than the highest pedestrian rate in Hanoi and Ecopark) & cyclist rate are accompanied by good urban quality, hence the top-right location in the graph.

Figure 33. Observation results: mapped

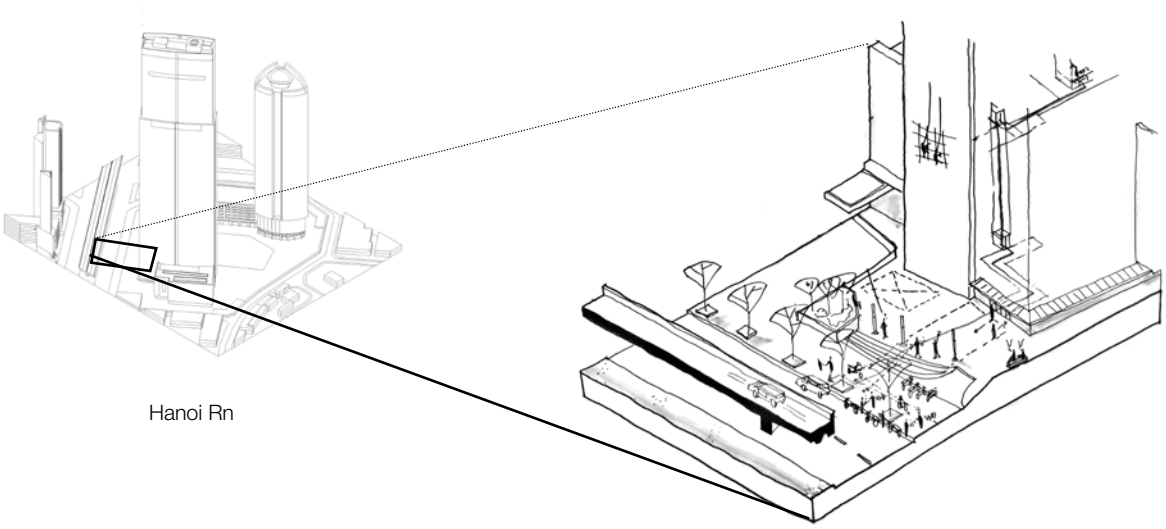
4.2 QUALITATIVE OBSERVATION



Hanoi R800



Hanoi R2700



Hanoi Rn

Observation Tools: Sketch!

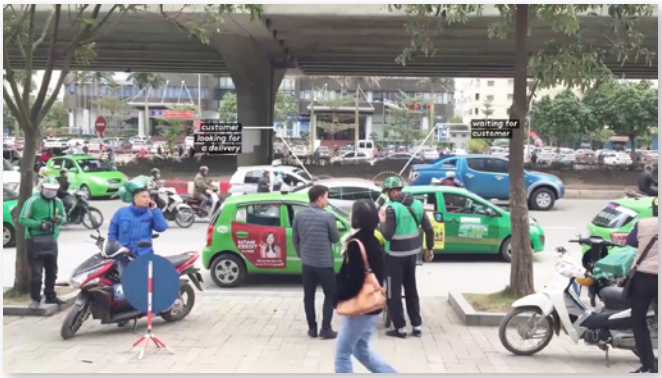
Complementary to the quantitative observation, qualitative observation is done (Figure 34). The main difference from the quantitative observation is that the aim of this observation is more about understanding the vitality factors of a specific place and how these factors are in interpreted spatially. The vitality factors are related to the program, place, and people factor as elaborated on the previous chapter. For example, the mixed uses aspect in the program factor will be observed in Hanoi R800 city centre in terms of how the mixed of uses are distributed in one building. These factors will later on be used in the design of Ecopark city centre. For that, the key is to balance between taking the general principle but still considering the specific context behind it. The main tool in this observation is to sketch out the conditions and principles.

↖

Figure 34. Qualitative observations

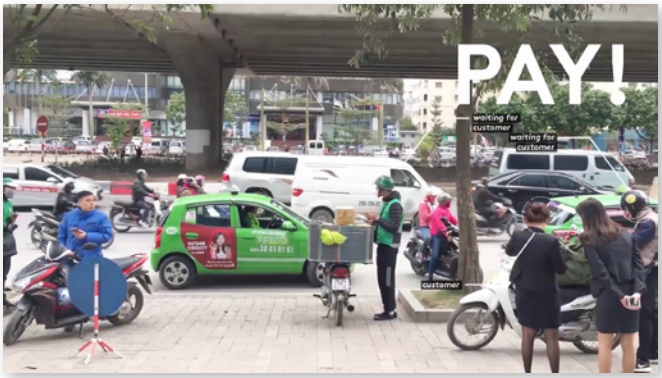
00:04 / Investigate...

00:16 / What happened in the ground



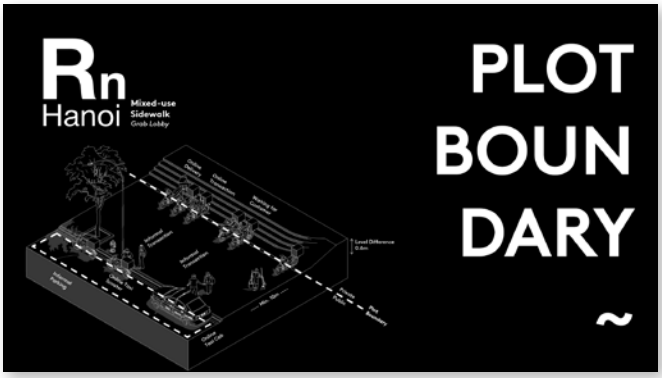
00:24 / Interaction happened

00:27 / Triangulation

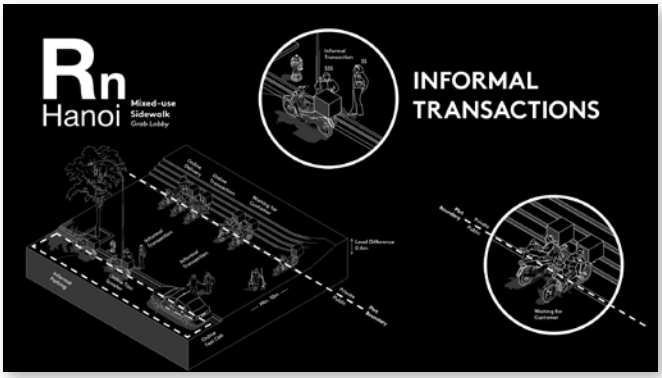


00:51 / Pay!

00:55 / Mixed-use sidewalk



01:20 / Plot boundary: private-public



01:39 / Interactions

Figure 35. Video snapshots of the quantitative site observation

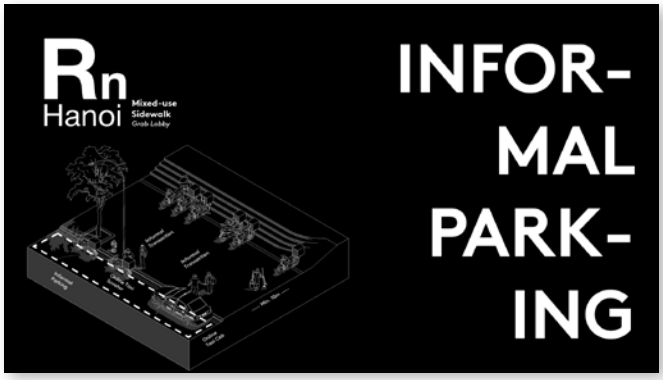
00:13 / Grab driver phenomena

00:15 / Looking for customer/driver

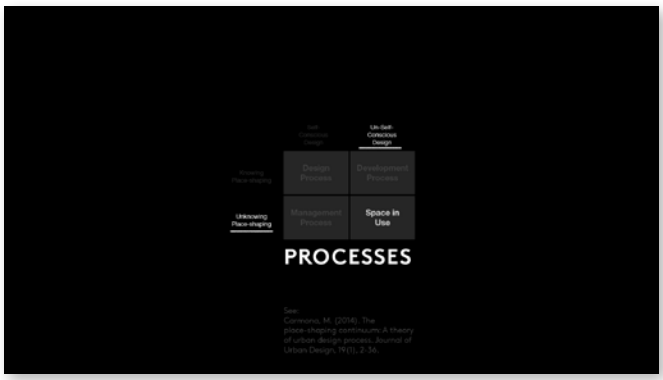
00:40 / Delivering package

00:46 / Interaction happened

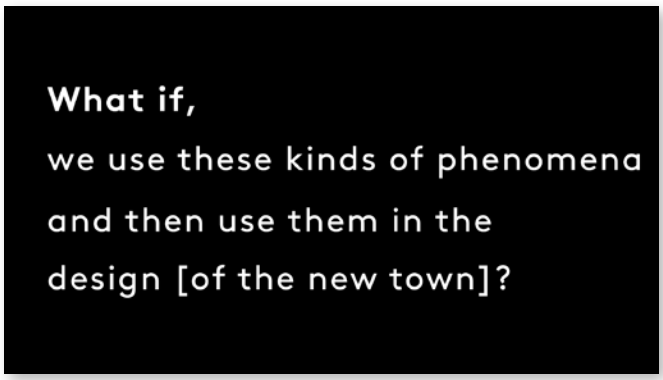
01:05 / Let's see it spatially



01:15 / Informal parking



02:07 / Relate it to the four-processes



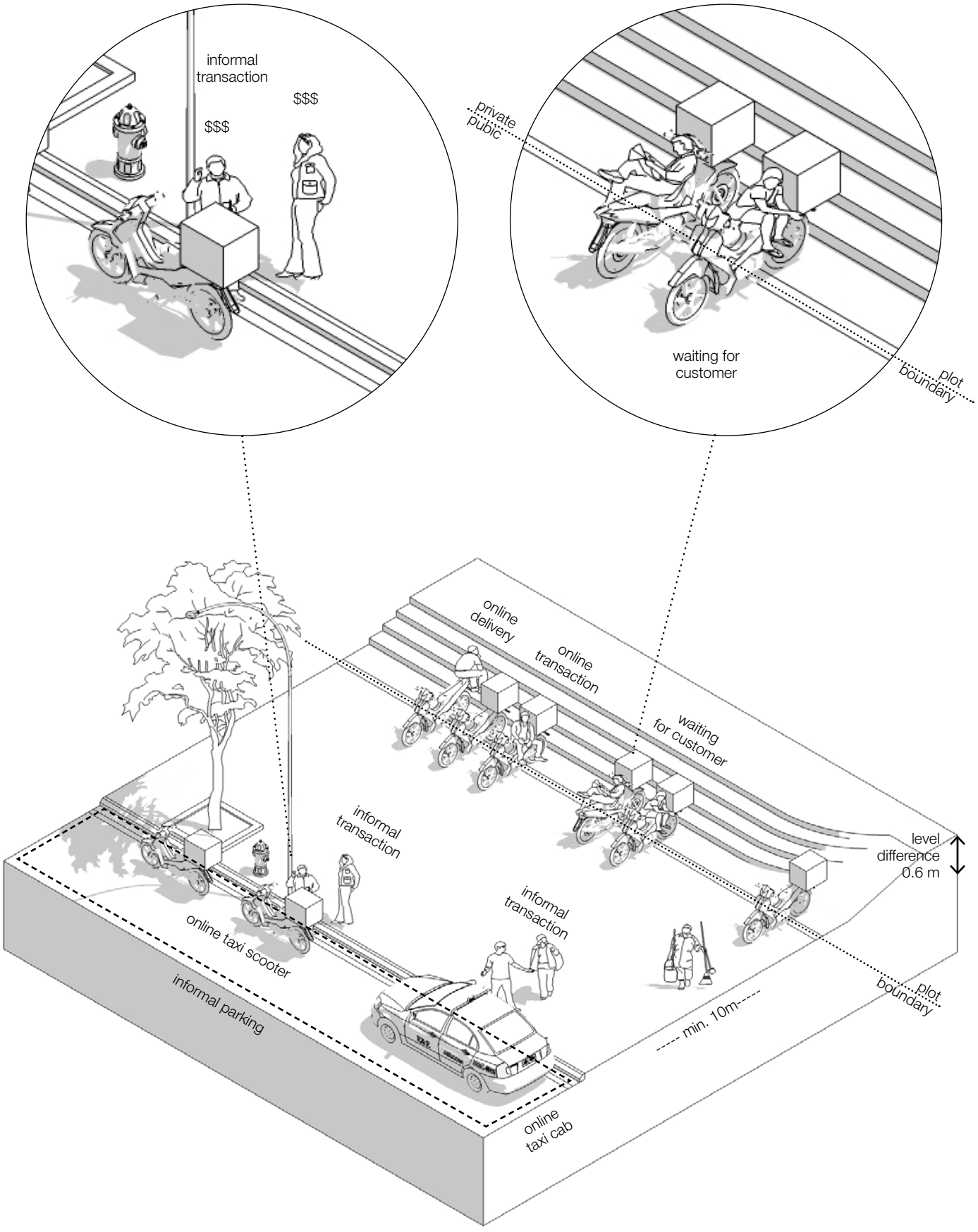
02:17 / What if?

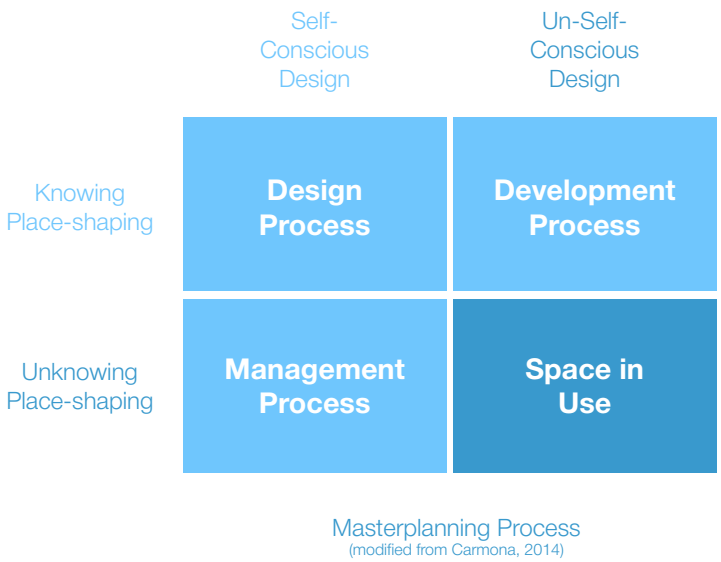
Observation Snaps in Motion

The qualitative observation is also presented through interactive videos. The aim is to show explicitly what have been observed, the vitality factor, and its relation to the space. Moreover, the observed phenomena are also linked to the four-processes (design, development, management, and space in use).

See the video here!

See the full video here: https://youtu.be/TDCtVVboiDQ


informal
transaction
$$$
$$$
private
pubic
waiting for
customer
plot
boundary
online
delivery
online
transaction
waiting
for customer
informal
transaction
informal
transaction
level
difference
0.6 m
online taxi scooter
informal parking
plot
boundary
min. 10m
online
taxi cab



Spatial Aspect of the Urban Vitality Principles

Based on the qualitative observation, urban vitality principles are observed and investigated specifically on how it relates to the space. For example, based on the observation on the Hanoi Rn city centre (Keangnam Tower), some urban vitality principles are observed e.g., mixed-used sidewalk and triangulation (Figure 36). These principles are then being investigated in what are the spatial components that made such principles occurred.

For instance, it is observed that the mixed-used sidewalk occurred because of the informal parking that happen in the side of the main road in combination with the location of the tower entrance which is passed by many people. Hence, this particular street is very lively in compare to the other streets in the same block. As for the triangulation, it is observed that people stayed in the edge of the plot boundary which is just in between the public space and the private space. This created an enclosed space which encouraged interactions among the people staying and passing by – triangulation (Whyte, 1980).

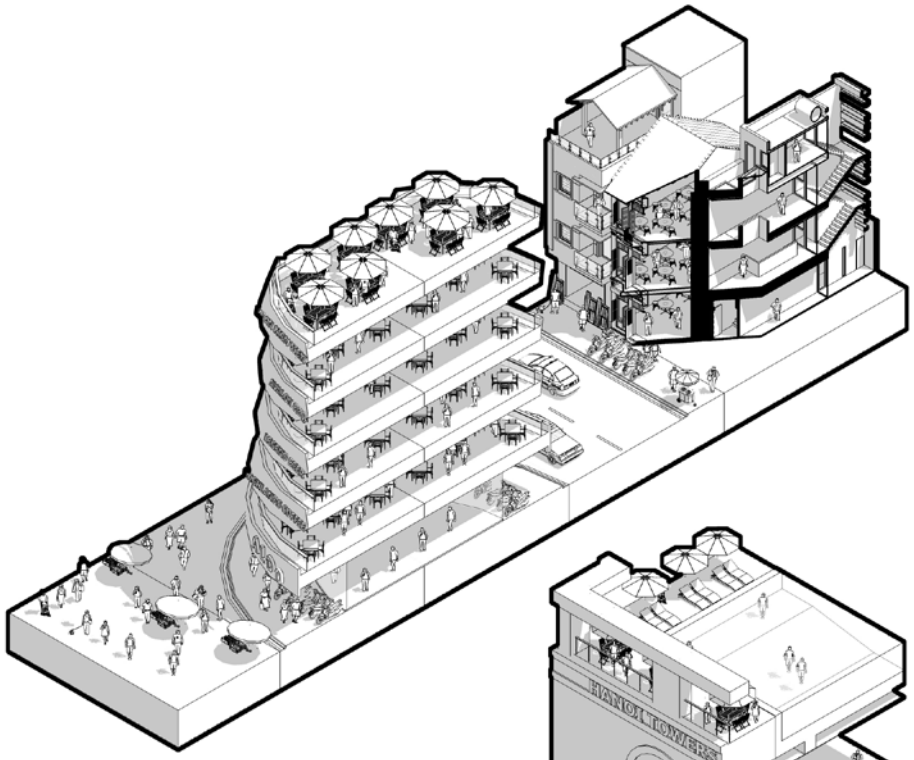
Lastly, these principles are then reflected to the masterplanning processes (Carmona, 2014). The idea is to see the relation between the principles and the conscious or un-self-conscious design; and knowing and unknowing place-shaping. In the two particular principles, they are considered space in use process as both principles occurred through un-self-conscious design (since the activities there are not directly 'designed') and unknowing place-shaping (since the people that are there are not aware that they are actually doing place-shaping through their action e.g., staying in the plot boundary – creating an enclosed space).

Figure 36. Spatial aspects of urban vitality, case in point Hanoi Rn (Keangnam Tower)

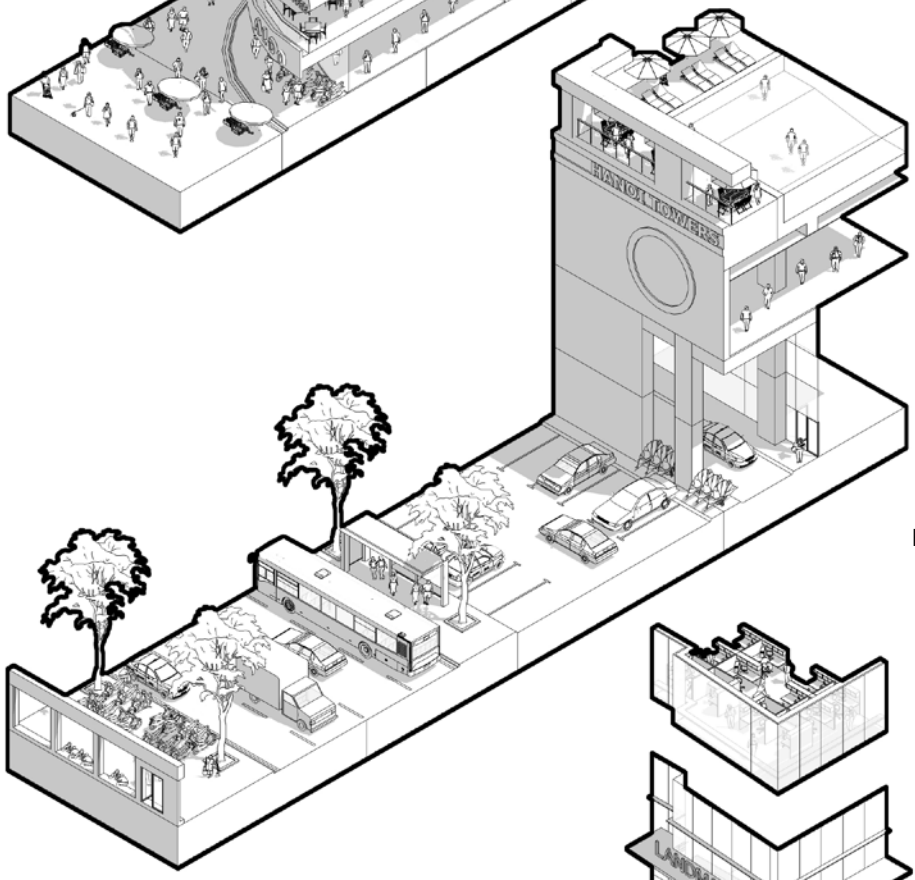
Urban Vitality Principles On-Site

The urban vitality principles from the three chosen area for Hanoi R800, Hanoi R2700, and Hanoi Rn city centres are then being examined and illustrated in the same scale (Figure 37). Five principles are chosen for every city centre to highlight the most important ones. These principles will then be used in the design of Ecopark city centre. Comparing the three city centres, some of the principles are similar although the interpretations are different. For example, the principles of ground floor extension in Hanoi R800 city centre are similar to the mixed-used sidewalk principle in Hanoi Rn. The differences are reflecting the nature of each city centre in relation to the accessibility. As in Ecopark city centre the different type of city centre (R800, R2700, Rn) will be in the same place, the key is to carefully mismatch the principles to the street accessibility. For example, how will it be to mix the idea of triangulation from Hanoi Rn city centre to the Ecopark R800 city centre?

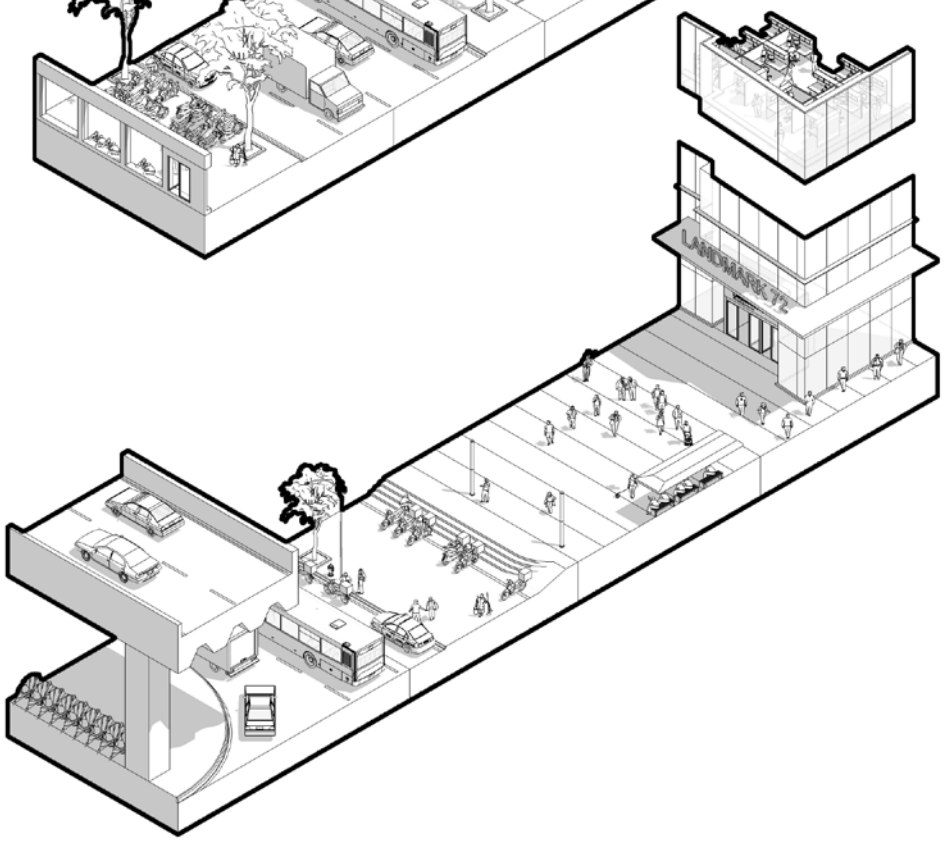
Figure 37. Urban vitality principles on-site



Hanoi R800



Hanoi R2700

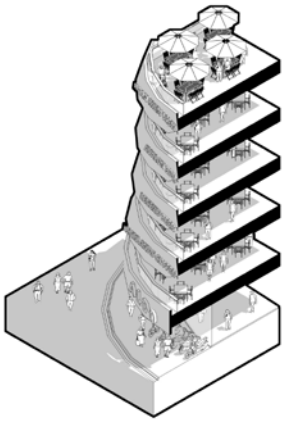


Hanoi Rn

Urban Vitality Principles Inventory

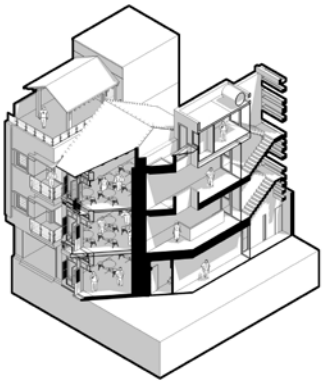
Processes		Urban Vitality		
Design	Develop ment	Place	People	Program
Manage ment	Space in Use			

Manage ment
People
Social Composition



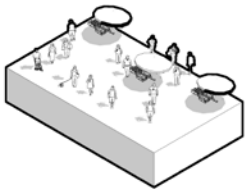
4 / Hanoi R800 - Anchor Tenant

Manage ment
Program
Mixed-uses



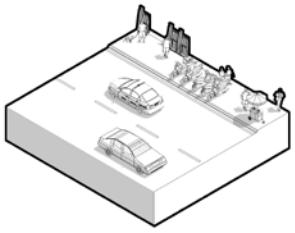
1 / Hanoi R800 - Mixed of Uses

Manage ment
People
Private Initiative Events



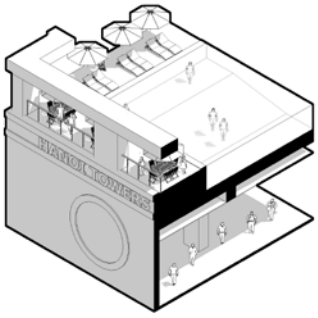
5 / Hanoi R800 - Car Free Day

Space in Use
Place
Transitional Place



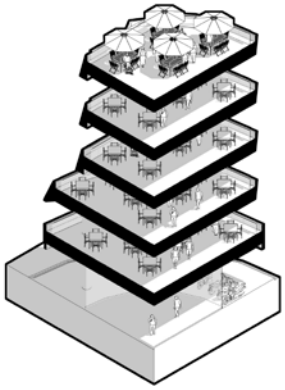
2 / Hanoi R800 - Ground floor Extension

Design
People
Private Initiative Events



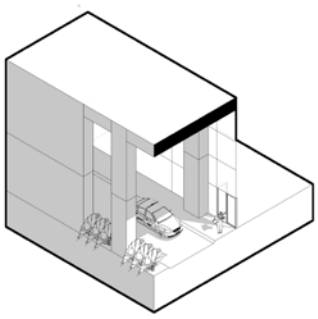
6 / Hanoi R2700 - Private Facility

Design
Place
Transitional Place



3 / Hanoi R800 - Terraces

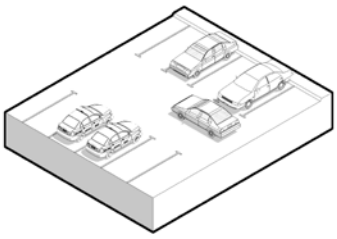
Design
Place
Transitional Place



7 / Hanoi R2700 - Common Lobby

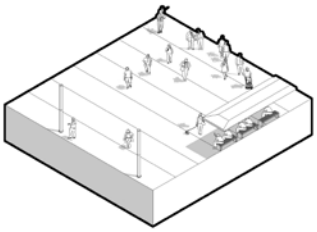
Figure 38. Urban vitality principles on-site

Develop ment
Program
Public Provision



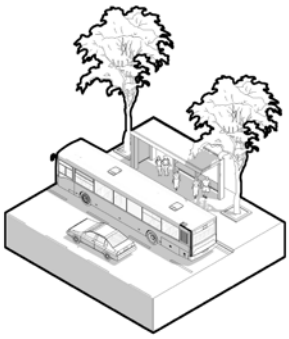
8 / Hanoi R2700 - Parking

Space in Use
People
High Density of People



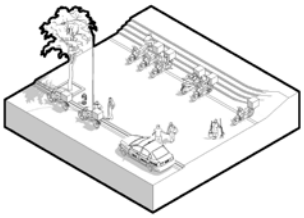
12 / Hanoi Rn - Triangulation

Manage ment
Place
Clear Regional Position



9 / Hanoi R2700 - Public Transport Stop

Space in Use
Program
Informal Economic Activities

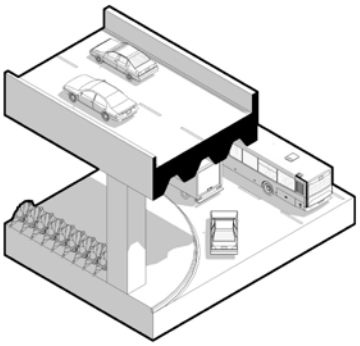


13 / Hanoi Rn - Mixed Used Sidewalk

Manage ment
Place
Transitional Place

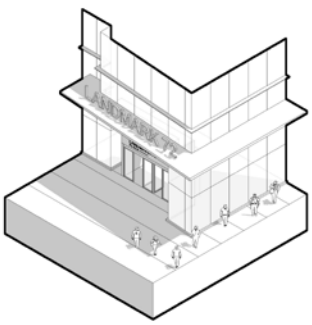
10 / Hanoi R2700 - Pedestrian Motorbike Parking

Develop ment
Place
Accessible Street Network



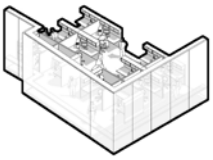
14 / Hanoi Rn - Accessible Street

Design
People
High Density of People



11 / Hanoi Rn - Tower Lobby

Space in Use
Program
Informal Economic Activities

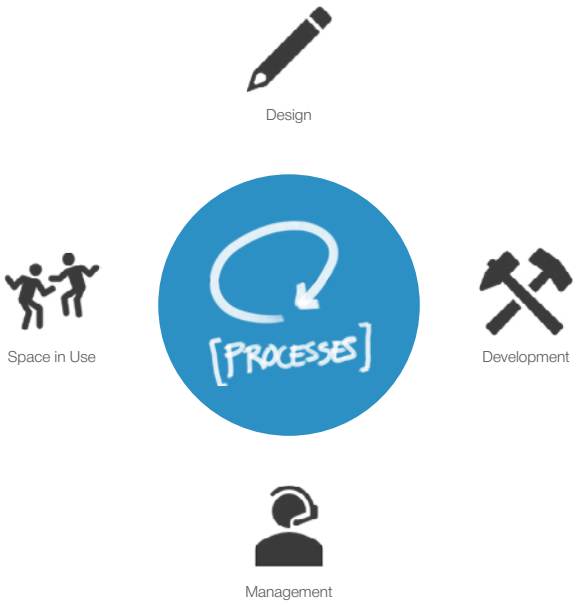


15 / Hanoi Rn - Extended Transaction

4.3 MASTERPLANNING PROCESSES

	Self-Conscious Design	Un-Self-Conscious Design
Knowing Place-shaping	**Design Process**	**Development Process**
Unknowing Place-shaping	**Management Process**	**Space in Use**

Masterplanning Process
(modified from Carmona, 2014)



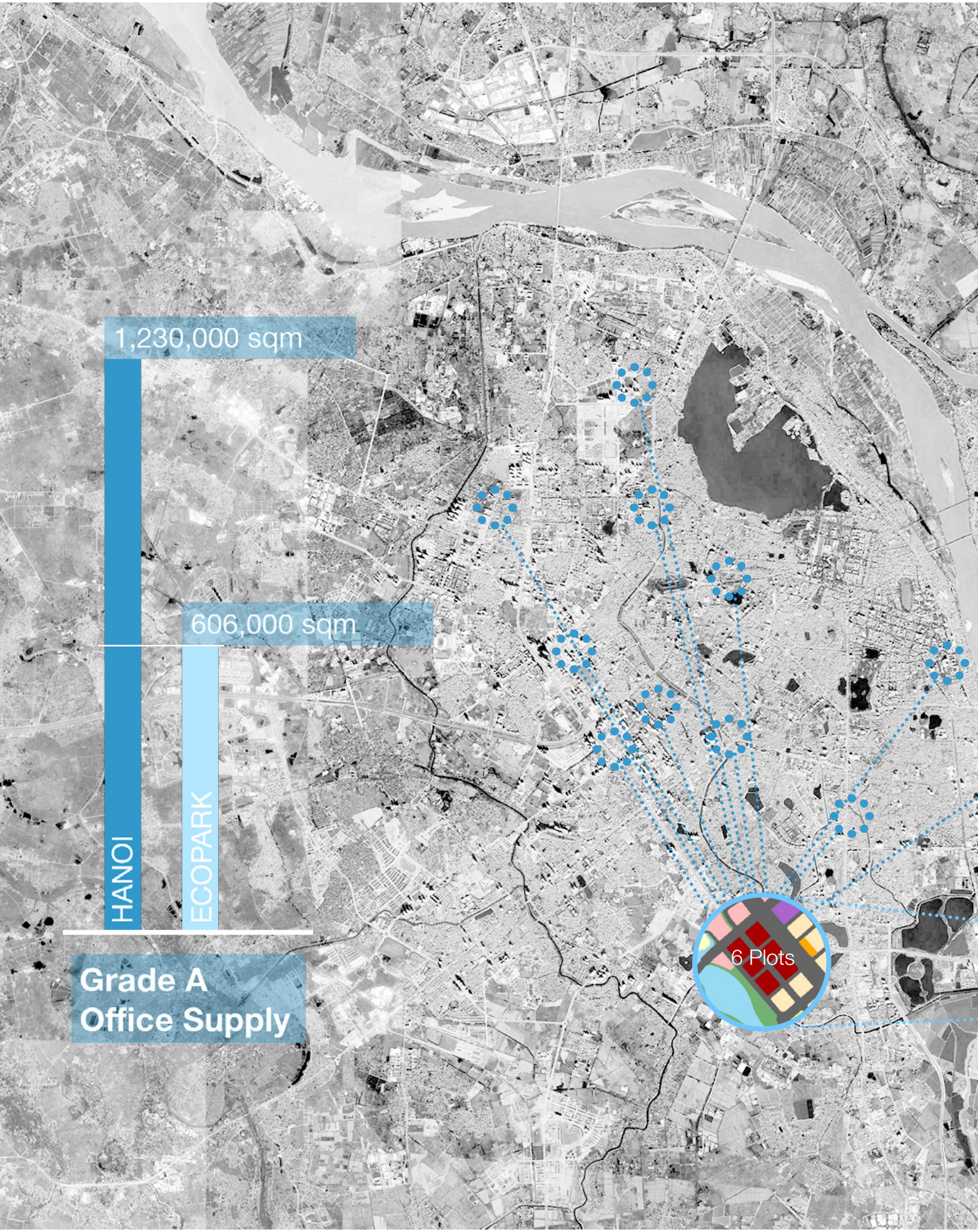
Investigating the Masterplanning Processes

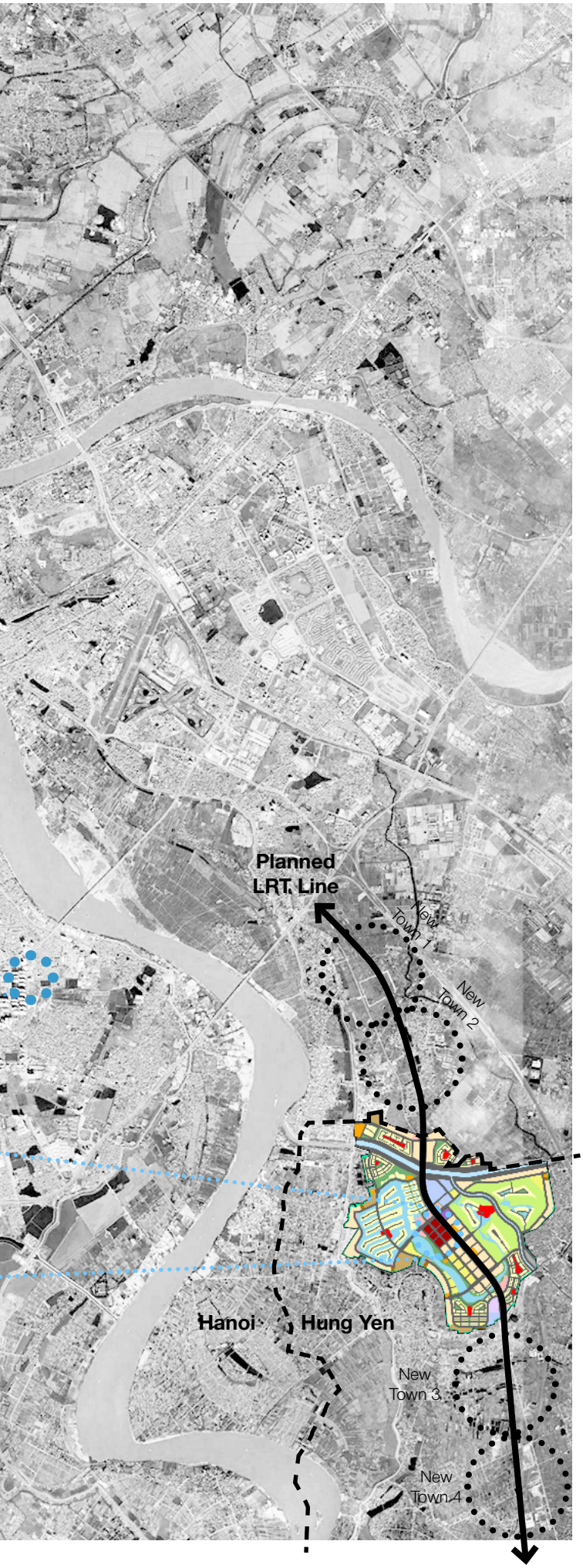
The last part of the site visit is the masterplanning processes investigation. The investigation is done by stakeholder engagement for each process i.e., design, development, management, and space in use process. As elaborated earlier, Carmona's framework (2014) (Figure 39, top) is used as the underlying framework of the masterplanning process in relation to the self-conscious/un-self-conscious design and knowing/unknowing place-shaping. Hence, the idea when engaging the stakeholder is to always relate it to the design and place-shaping process. By understanding the relation for each process, the aim to make these processes continuum can be achieved (Figure 39, bottom).

For example, when approaching the designers who are involved in the design process, the main task is to understand the conscious design steps that the designers took when designing the masterplan. While when approaching the manager/operator who are involved in the management process, the main task is more about to understand the conscious design decision that the managers made that they unknowingly shape the place e.g., as simple as the conscious decision to close the swimming pool during the winter time that unknowingly shape the place around the swimming pool to be emptier than usual.

↖

Figure 39. Masterplanning processes


1,230,000 sqm
606,000 sqm
HANOI
ECOPARK
Grade A
Office Supply
6 Plots



Development Design

Development Process

The first stakeholder is the developers – who is arguably the stakeholder with the most power in the context of Ecopark New Town. The meeting was done with Adam Fowler (Director of Investment of Vihajico – the developer) and Karthik Karkal (SVP of Urban Planning Division CPG Consultants – the designer). Through this meeting, the developer's agenda for the focus area (city centre of Ecopark) is being discussed as per below (Karkal & Fowler, 2018):

1. The total GFA of office space (commercial uses) that the CBD will provide is 606.000 sqm, while the total GFA of office space in Hanoi is currently 1.230.000 sqm (33% Grade A, 66% Grade B, source: Colliers) (Figure 40). It means that Ecopark CBD with only six plots will be equal to half of the entire office space in Hanoi (Figure 40). The question will be then how significant the CBD of Ecopark needed to be envisioned?

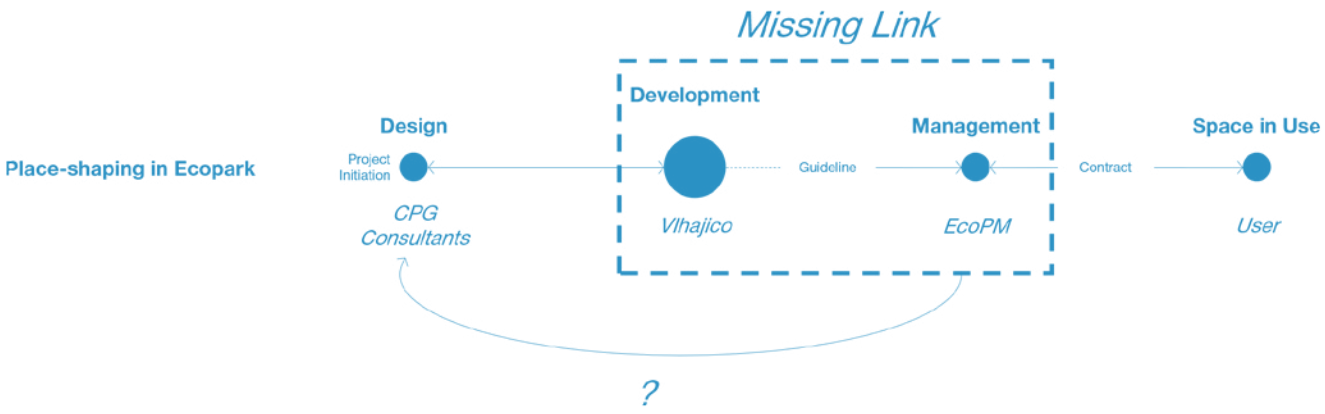
2. In relation to Hung Yen's agenda, the industrial zone (manufacture) might be a potential. For example, the manufacturers headquarters could be located in the CBD of Ecopark. There is also a potential to collaborate with the current tenant of Ecopark e.g., BVU and the hospital.

3. The rise of the middle class (16 million to 30 million) in the next 6 years is also one of the important factor to be considered. The typology of home-office or co-working space are some of the potential typologies to be explored for such class.

Design Process

For this process, the masterplanner of Ecopark New Town i.e., CPG Consultants was engaged. In this meeting, the crucial information revealed was Ecopark's plan on expanding the new town with four other new towns adjacent to Ecopark (Karkal & Suhrawadi, 2018), two new towns are located inside Hanoi while two others are inside Hung Yen (like Ecopark). This revelation is important since with the two new towns inside Hanoi, the developer will now have the ability to tap into the Hanoi's urban development scheme. In relation to this, the second crucial information is that the local government is planning an LRT (Light Rail Transit) line from Hanoi going into Ecopark through the city centre of Ecopark (Figure 40, bottom-right). This information is critical in the way the city centre of Hanoi should be designed, especially because there is no other new town in Hanoi that currently have the connection to the public transport like LRT, hence positioning Ecopark in a better place at least in terms of accessibility. In summary, the agenda from the designer is to integrate these new towns and integrate Ecopark with the LRT line.

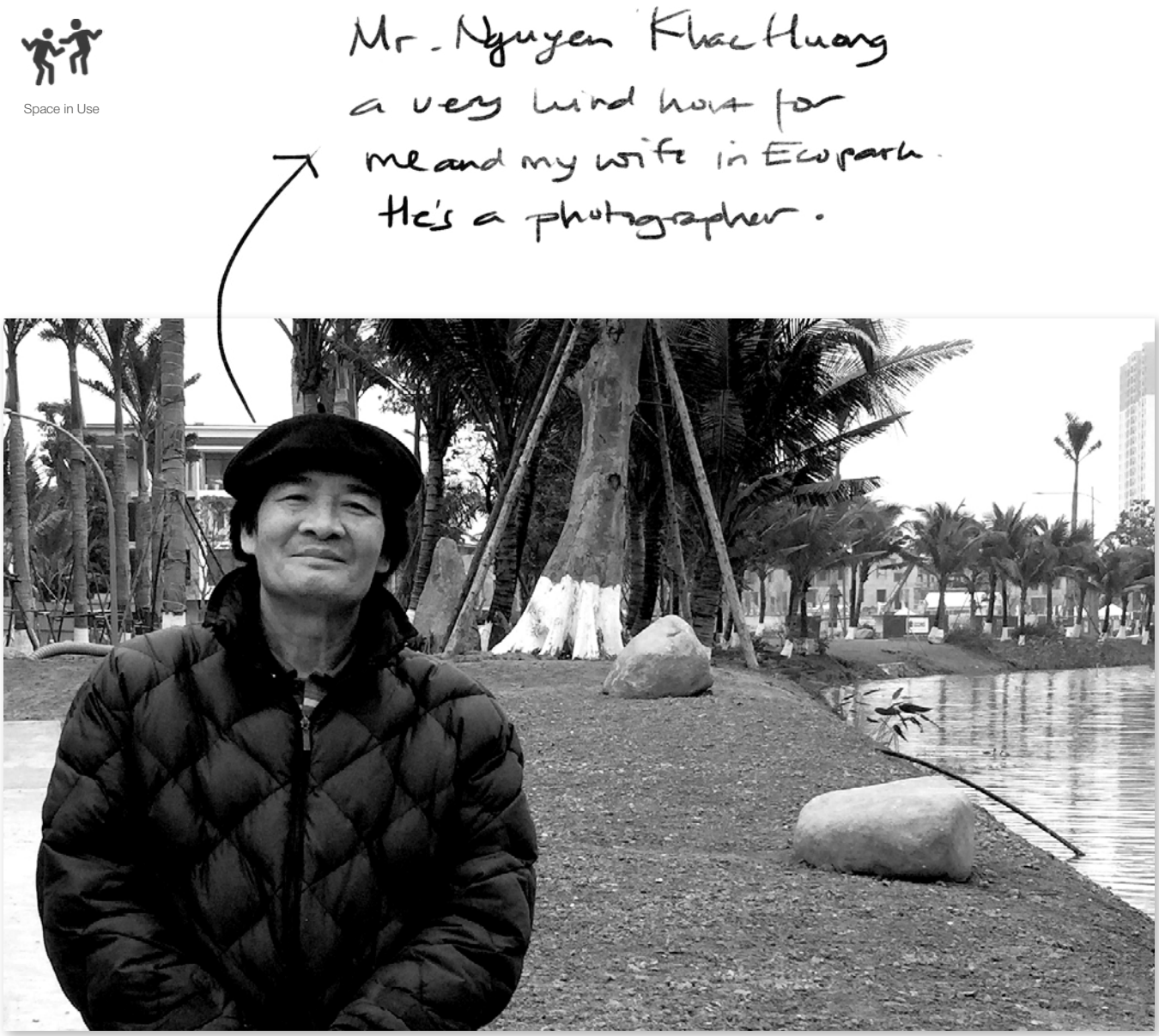
Figure 40. Agendas of design and development process (basemap source: Google Earth)



Management Process

For this process, the stakeholder is the operator of Ecopark i.e., EcoPM which is a subsidiary company under Vihajico (the developer). The stakeholder engagement was done through a semi-structured interview with the Deputy Director of EcoPM. The questions are related to the management process undergone in Ecopark e.g., EcoPM involvement in the design process, EcoPM's responsibilities in Ecopark, and their relationship with other stakeholders. The main revelation from the engagement is that the manager is generally uninvolved in the masterplanning process of Ecopark, especially in the design and development stage (Tung, 2018) (Figure 41). Although it is understandable since it is not in their job description to design and develop but with their practical day-to-day expertise in managing Ecopark, their involvement will benefit the whole masterplanning process. The designer has also tried this approach of integrating the day-to-day expertise in the masterplanning process (CPG Consultants, 2016) e.g., the waste system.

Figure 41. The missing link in the masterplanning process of Ecopark

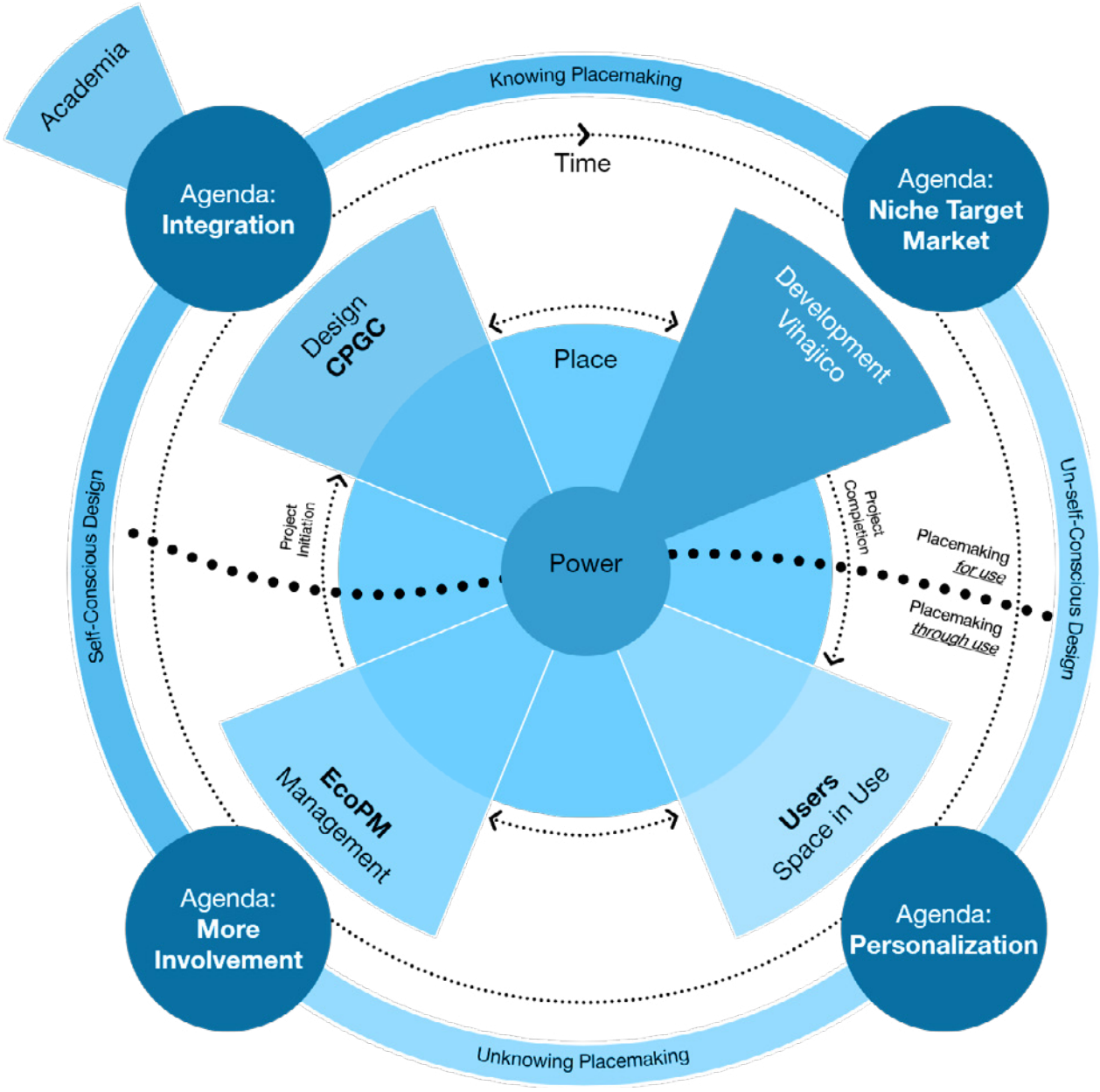


Space in Use

The last stakeholder is the users i.e., the residents of Ecopark. For this process, the engagement was done by experiencing living in Ecopark with the resident. By doing this, the agenda of the space in use process is investigated. The three observed agendas are: first, the main target market of Ecopark is the young population and the retiree population from Hanoi e.g., the resident that was engaged in this project (Figure 42). The resident is a senior-couple from Hanoi that have some investments in Ecopark in the form of various housing units. What they are looking for is different living condition from what they had in Hanoi, which is the second agenda that was revealed. This distinction from Hanoi's living condition is one of the distinct offering that differ Ecopark from the other new town competitor. The third agenda is the private initiatives that the residents themselves are organizing. These private initiatives are in the form of society organization, community events, community competitions, and other forms.

Figure 42. The engaged resident (Nguyen Khac Huong)

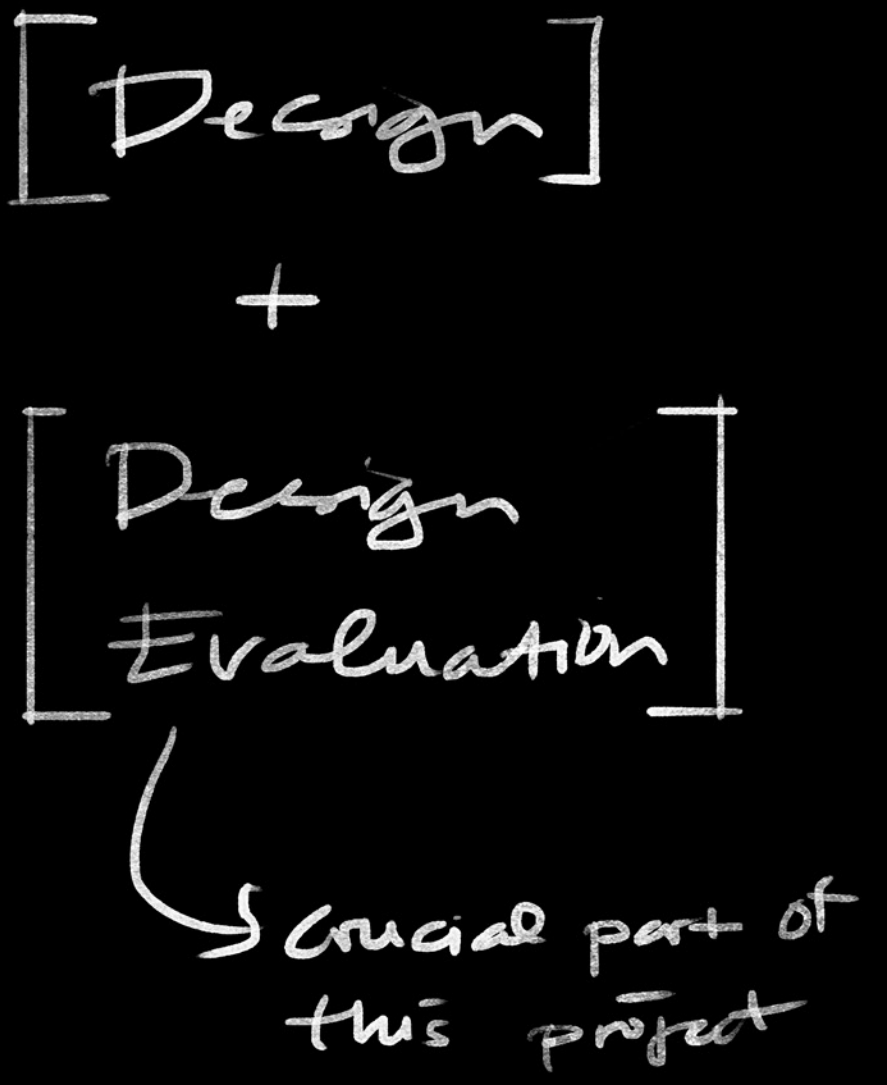
4.4 SITE VISIT SUMMARY



Summary

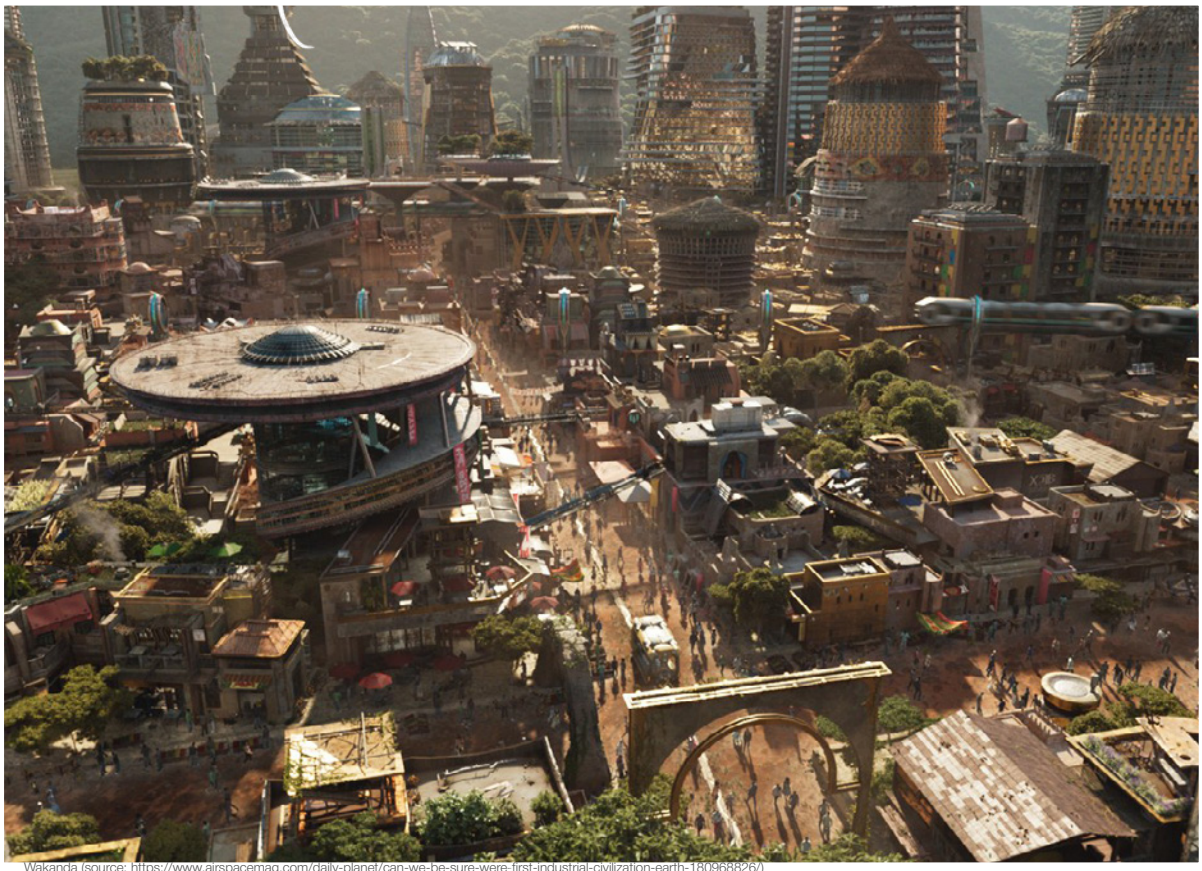
The agendas that were revealed through stakeholder engagements are then summarized with the framework of masterplanning process (derived from Carmona's (2014) Place-shaping Continuum) (Figure 43). First, in the aspect of power in the masterplanning process, the prediction of the developer having the biggest power in the masterplanning process is clarified. Second, the agenda of each process which reflected by the agenda of the stakeholder is summarized as: integration (design process); niche target market (development process); more involvement (management process); and personalization (space in use). These agendas are then reflected to the self-conscious/un-self-conscious design and knowing/unknowing place-shaping. Lastly, the additional agenda is taken from the academia which was engaged in this project. The academia is from the National University of Civil Engineering (NUCE). Their agenda is to link their research with the developer, which is uncommon in the practice of new town development in Hanoi. The opening is through the designer/design process and not the other processes. In summary, these reflections of agendas will then become the input for the design of Ecopark city centre.

Figure 43. Stakeholder engagement agenda summary


[Design]
+
[Design Evaluation]
Crucial part of this project

PART II.

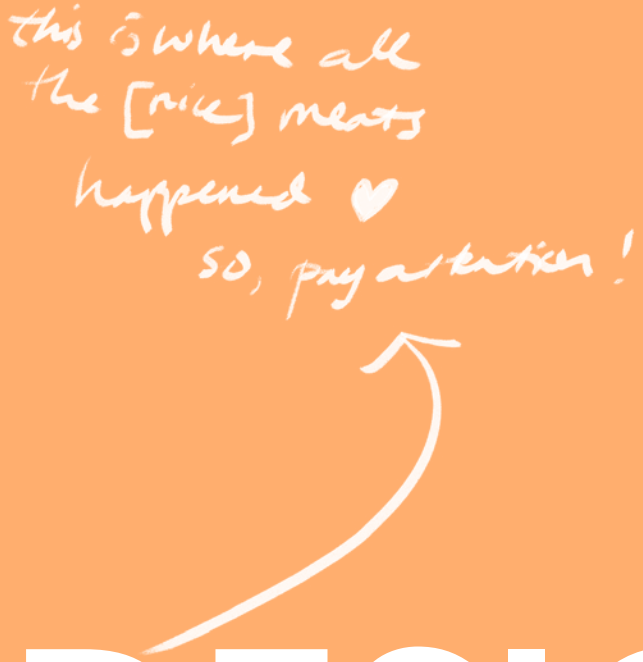
there are some actual discussion
about this imaginary city
by some urban experts, see: city Lab



Wakanda (source: https://www.airspacemag.com/daily-planet/can-we-be-sure-were-first-industrial-civilization-earth-180968826/)

Wakanda
Forever !*

*watch the movie



DESIGN

WHAT IF

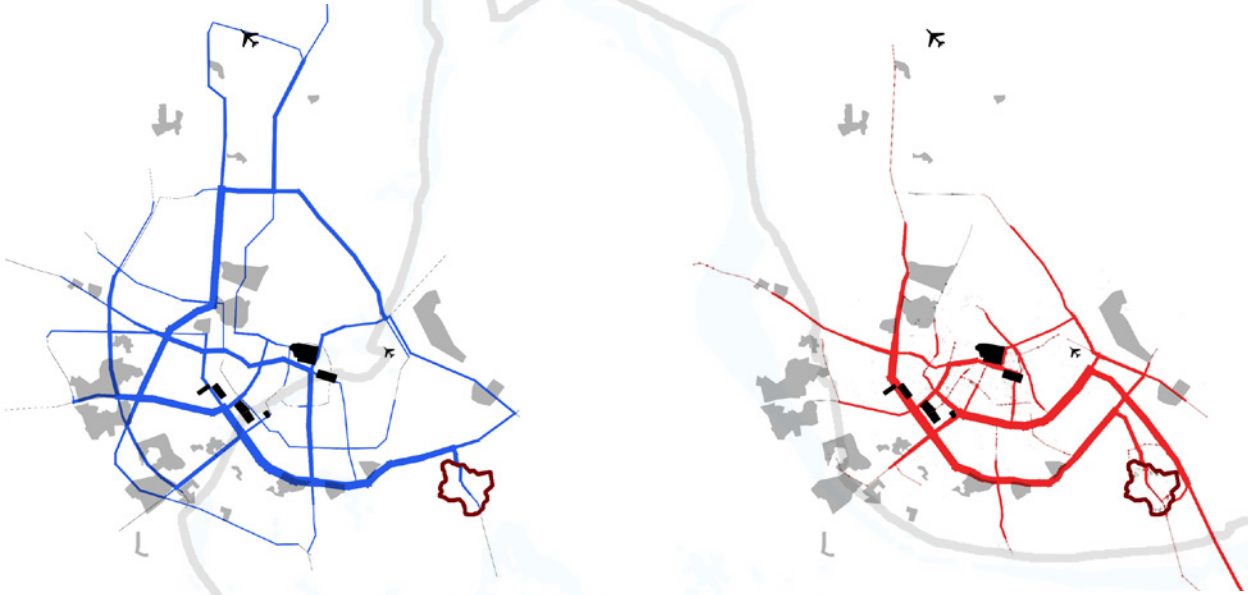
the future of Hanoi New Towns doesn't have to be the clean-sleek-modern looked, as imagined by many developers?

Figure 44. Wakanda (source: Black Panther by Marvel Studios)

VISIO NING

What if Ecopark New Town can be the pioneer that shows that the future Hanoi New Towns can still have the liveliness of the Hanoi Old Towns, the robustness of Hanoi's French Quarter, and the accessibility of Hanoi's current business district?

Figure 43: Vision of the future Ecopark city centre



Distinct Positioning: Accessibility

City centre of Ecopark needs to distinct itself with other new town competitors – especially those that are located in the 'ring'. One of the distinction proposed here is in the accessibility aspect of the new town. Based on the accessibility analysis of the road and public transport (path source: http://hanoimetro.net.vn/) structure in the Choice aspect (which path tend to be used more often to access all other paths – the thicker the line the more accessible the path) of Space Syntax analysis (Figure 46), Ecopark is located along the most important lines which are the overlapped of highly accessible car and public transport infrastructure path (Figure 47, purple arrow).

In addition, there are two main paths that go through to Ecopark: one thoroughfare (run through Ecopark) which will be the combination of public transport (LRT) and car; and one adjacent road (on the Eastern side) which is an interprovincial highway (as the main access to the Southern part of Hung Yen Province). These two conditions give Ecopark a distinct position in comparison to other new towns in the 'ring', as no other new towns have both accessibility to car and public transport infrastructure. Hence, to be a vital new town, Ecopark's new town city centre need to be positioned as the gateway from Hanoi and the gateway to Hung Yen.

Legend

- Car Infrastructure
- Public Transport Infrastructure
- Overlapped of Public Transport and Car
- Hanoi Centres
- Hanoi New Towns

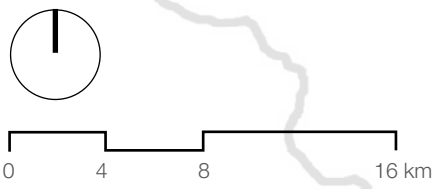


Figure 46. Accessibility analysis of public transport (left) and car (right) infrastructure

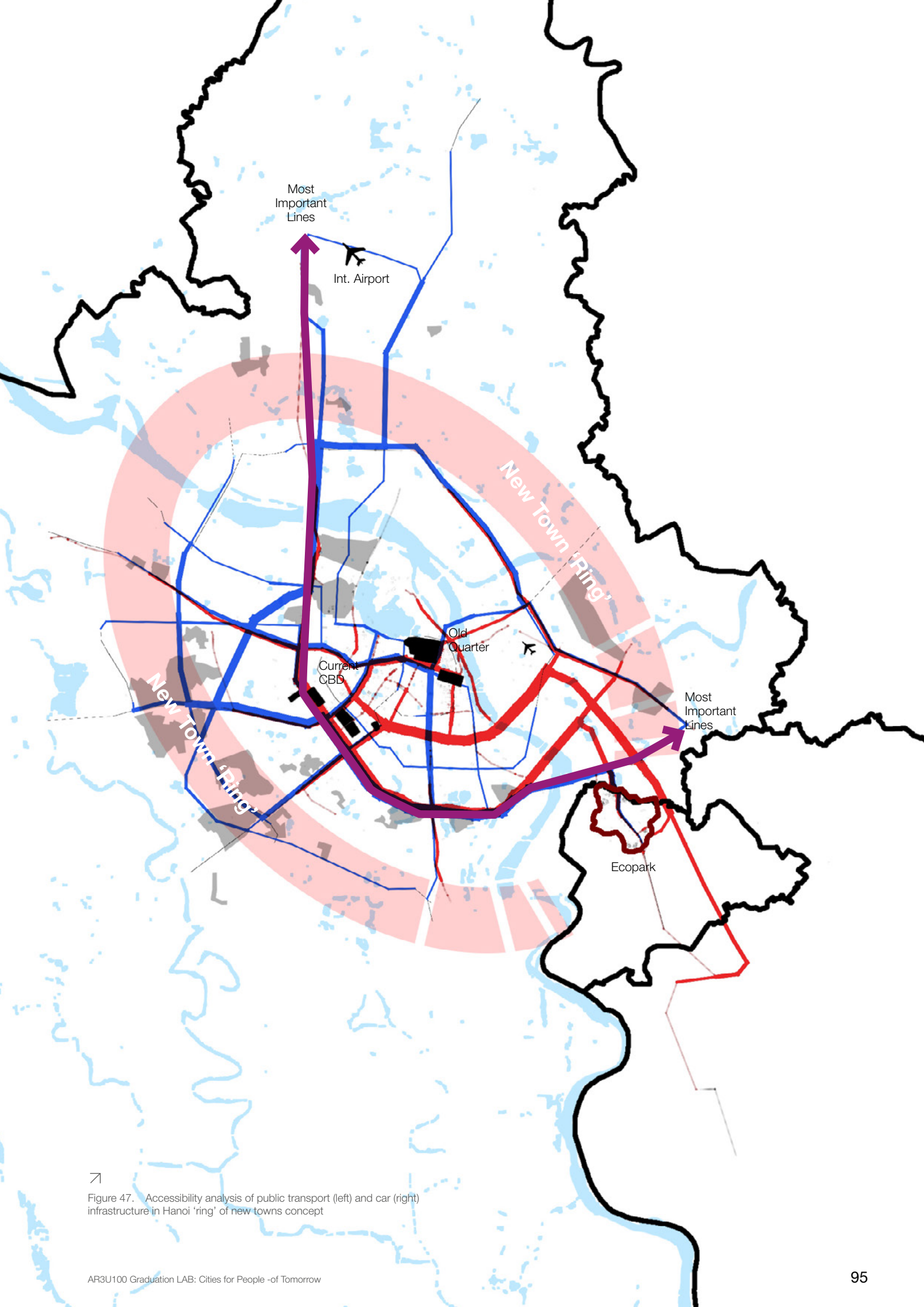
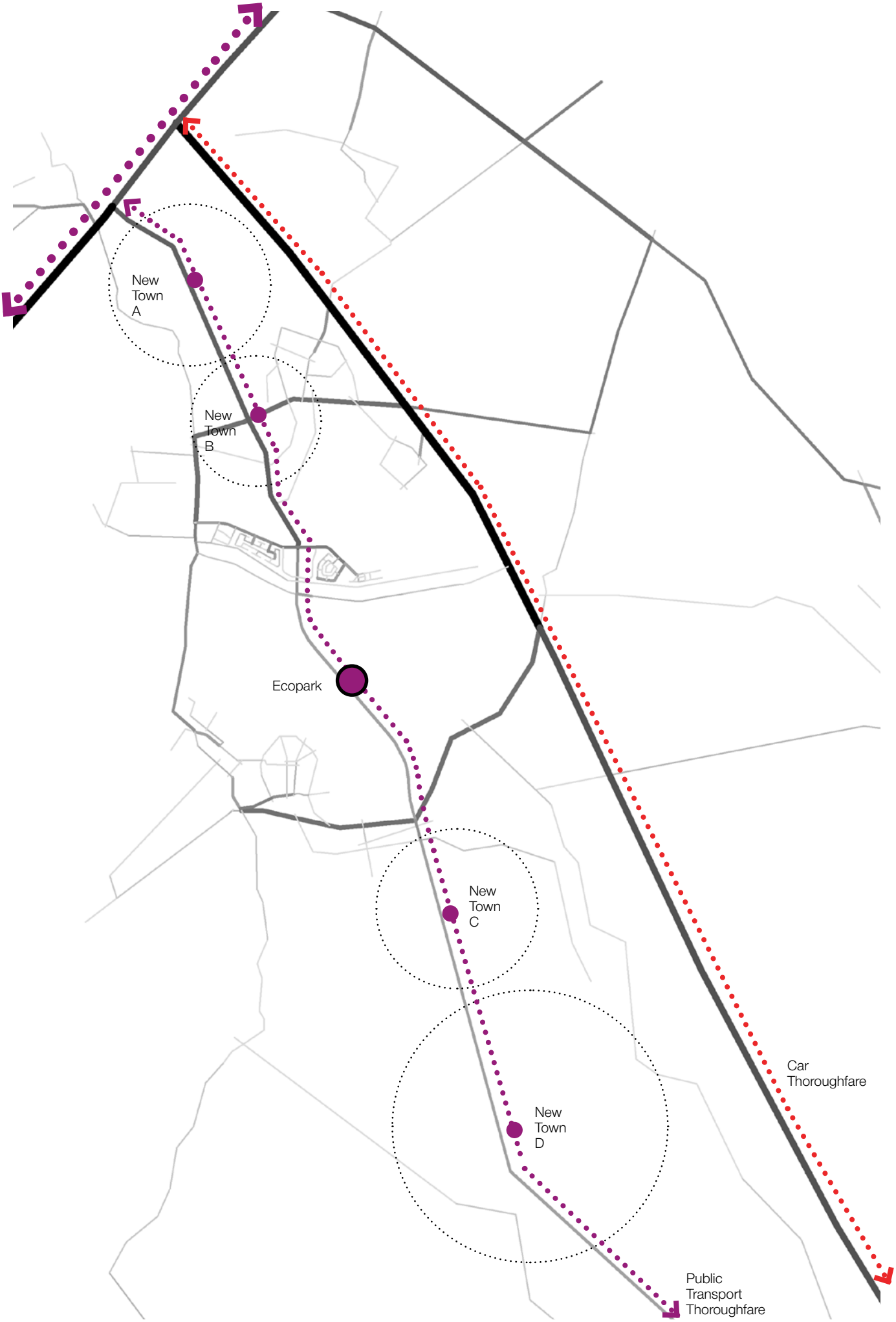
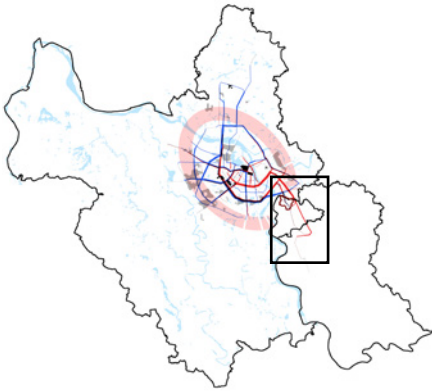


Figure 47. Accessibility analysis of public transport (left) and car (right) infrastructure in Hanoi 'ring' of new towns concept


New
Town
A
New
Town
B
Ecopark
New
Town
C
New
Town
D
Car
Thoroughfare
Public
Transport
Thoroughfare



Key Map

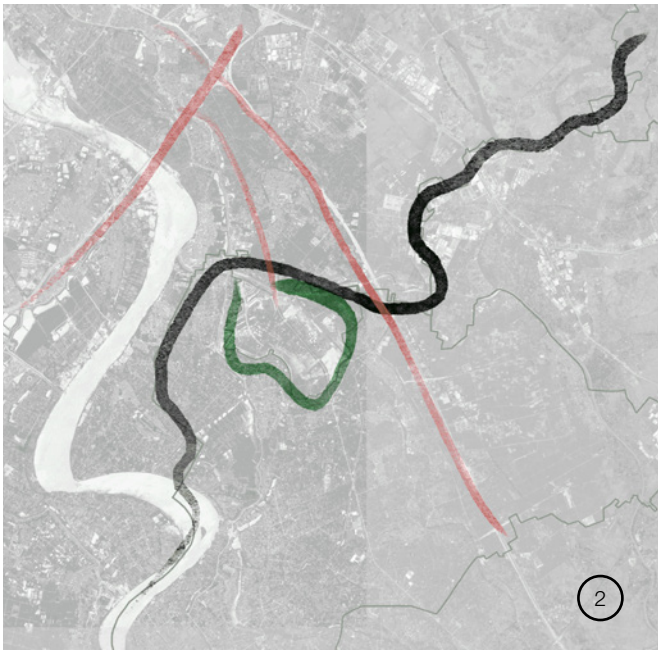
Positioning Agenda: Integration & Prioritization

Based on the mentioned positioning, two agendas are derived: integration & prioritization. First, integration agenda is derived based on the plan that the thoroughfare road going into Ecopark will be the combination of public transport (LRT) and car (Figure 48, purple dotted line) and the information that there will be 4 other new towns (Figure 48, black dotted line) that will be developed by the same developer (2 in Hanoi and 2 in Hung Yen) (CPG Consultants, 2018). The agenda is to integrate these 4 other new towns using the planned LRT line and to connect it to Hanoi's public transport infrastructure. Furthermore, Ecopark being the first to be developed among the 4 new towns will give the advantage of Ecopark to be the centre of this chain of new towns.

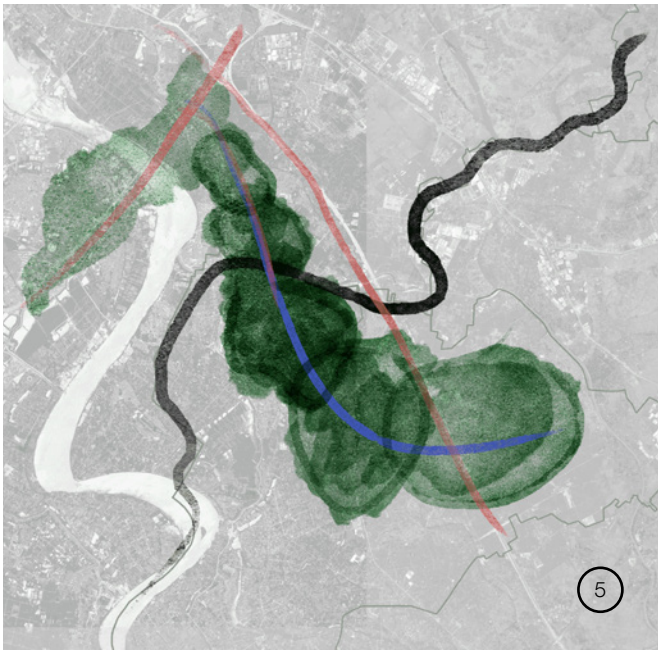
The second agenda is prioritization. This agenda is derived based on the accessibility analysis (Choice Aspect, R=n) of the road structure. The two thoroughfares have different value of accessibility with the eastern interprovincial highway (Figure 48, red dotted line) having the higher accessibility. This difference is then interpreted that the two thoroughfares does not need to be in the same hierarchy (which is planned to be the same). Hence, the prioritization agenda here is to downgrade the first thoroughfare (Figure 48, purple dotted line) more for public transport. This downgrade will be reflected in how the road is design.

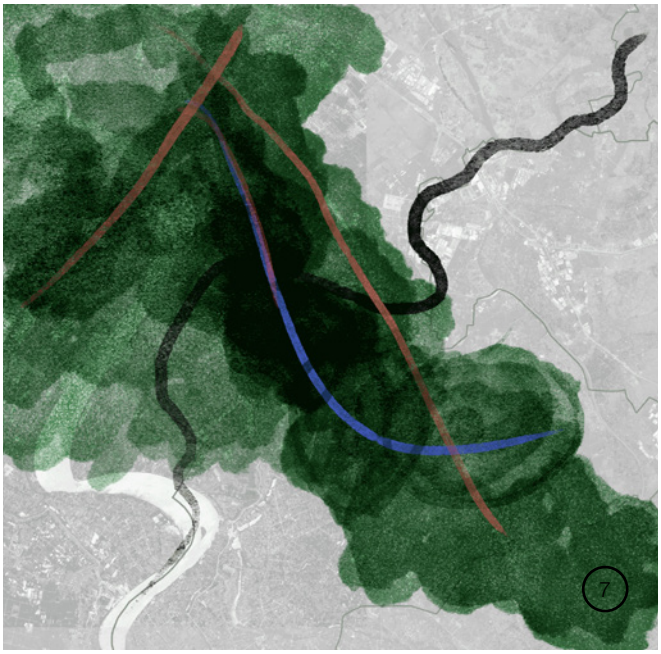
Figure 48. Positioning agenda: integration & prioritization

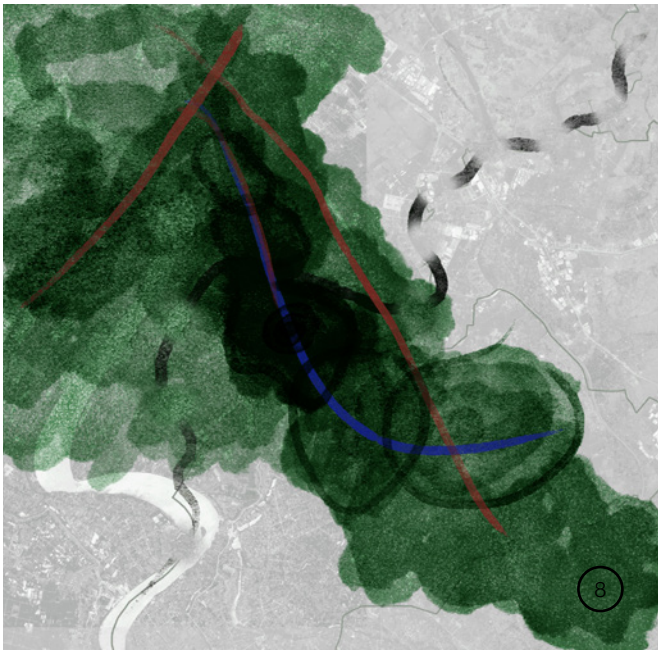

1

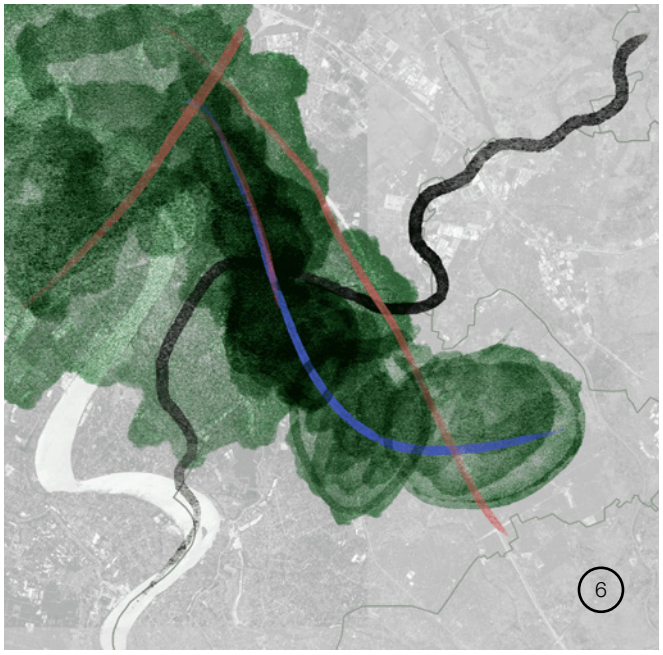

2

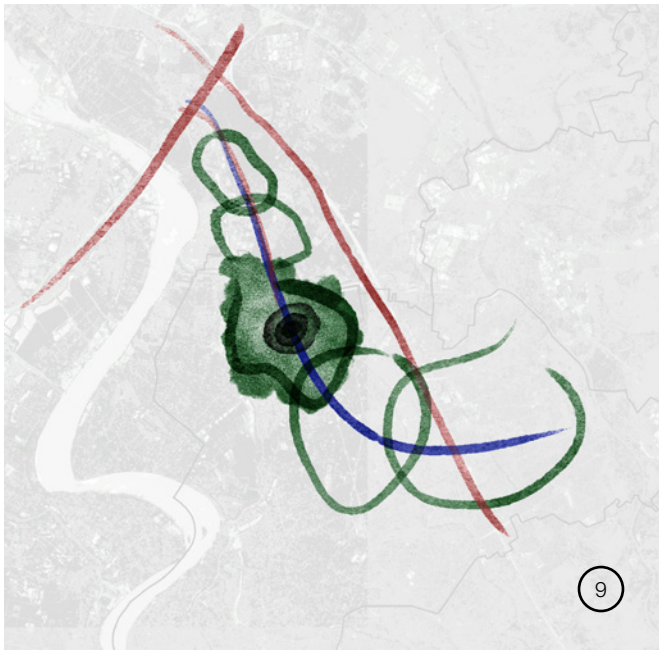

4


5


7


8



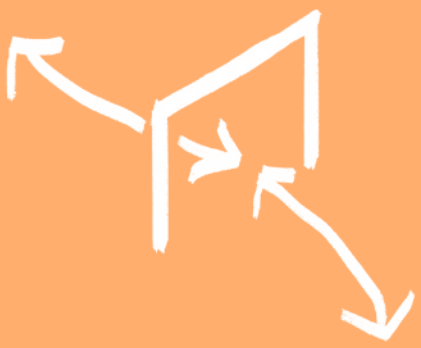


POSI TION ING

Ecopark New Town should be the main node connecting the chain of new towns that will eventually blurred the boundary between Hanoi and Hung Yen and becoming both Hanoi's and Hung Yen's gateways.

[NODE]

[CONNECT]



[GATEWAY]

[Node]

This concept proposed Ecopark city centre to be the place where all activities i.e., work, live, and play will be accommodated and integrated. This will be related to the program aspect of urban vitality i.e., mixed of uses, public provision, and informal economic activities – all vital to the way people of Hanoi and Hung Yen live their life.

Mixed-uses

Public Provision

Informal Economic Activities

[Connect]

This concept proposed Ecopark city centre to leverage on the planned LRT system that goes through Ecopark connecting to 4 other ring of new towns and to Hanoi. This concept put forward a rather new way of living for people of Hanoi and Hung Yen: transit-oriented living. For this concept to be implemented, the place aspect of urban vitality i.e., clear regional position, accessible street network, and transitional place are crucial to be used.

Clear Regional Position

Accessible Street Network

Transitional Place

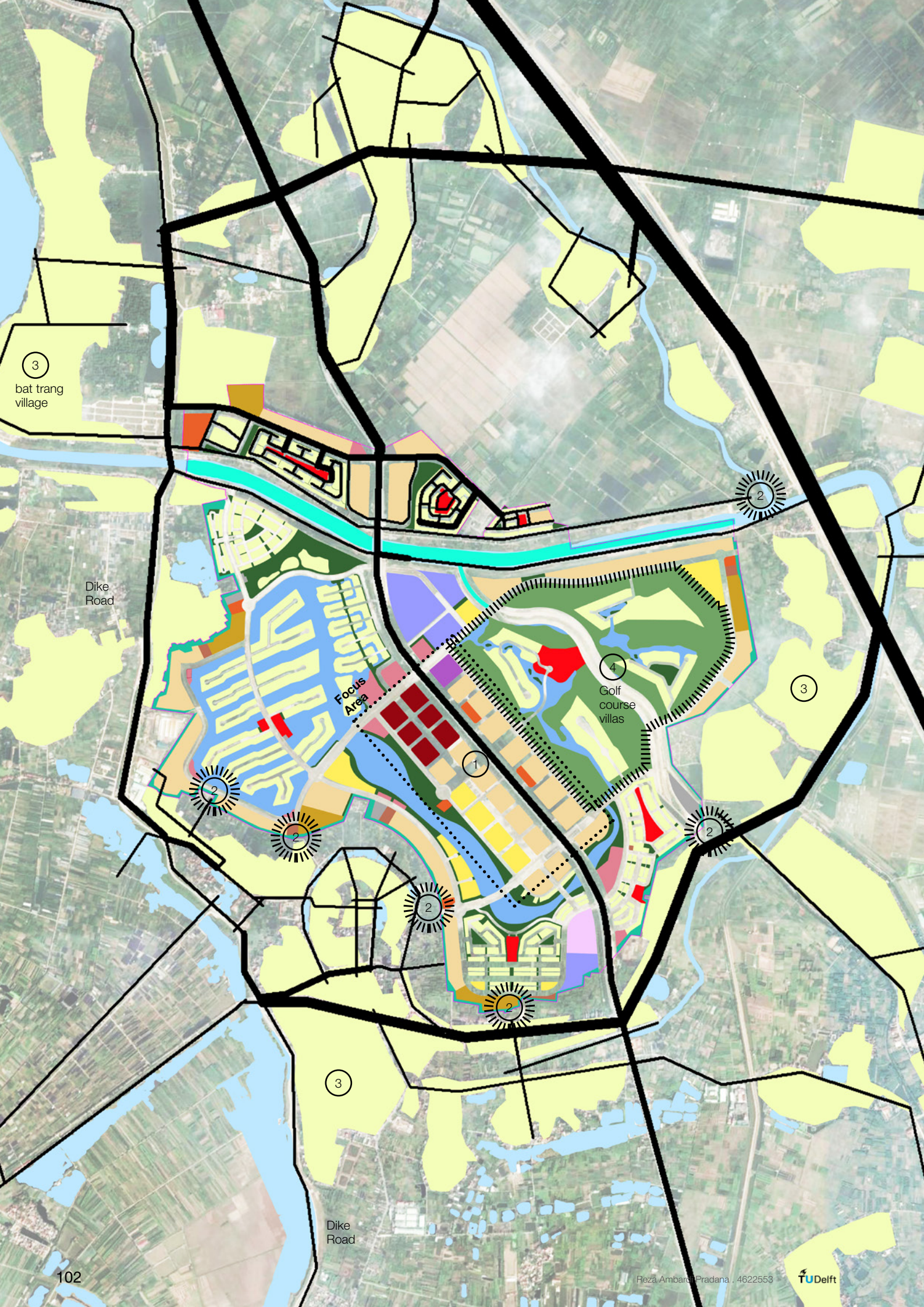
[Gateway]

This concept proposed Ecopark city centre to be the complementary city centre of Hanoi and Hung Yen. Complementary here means that Ecopark city centre should give a different kind of offerings from the existing city centre of Hanoi and Hung Yen yet still catering the needs of the people. Three crucial vitality factors in relation to these needs are high density of people, social composition, and private initiative events. These are the three factors that will attract people to live in Ecopark.`

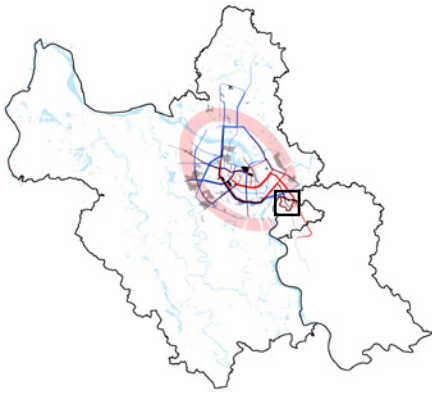
High Density of People

Social Composition

Private Initiative Events


3
bat trang
village
Dike
Road
Focus
Area
1
2
2
2
2
2
4
Golf
course
villas
3
3
Dike
Road

5.2 MASTERPLAN ASSESSMENT



Key Map

Focus Area Context

With the stated visioning and positioning, the original masterplan needs to be assessed in terms of its relevance (Figure 49). The assessment will be focused on the surrounding context that will influence how the city centre as the focus area of this graduation project works. The assessments are as per below:

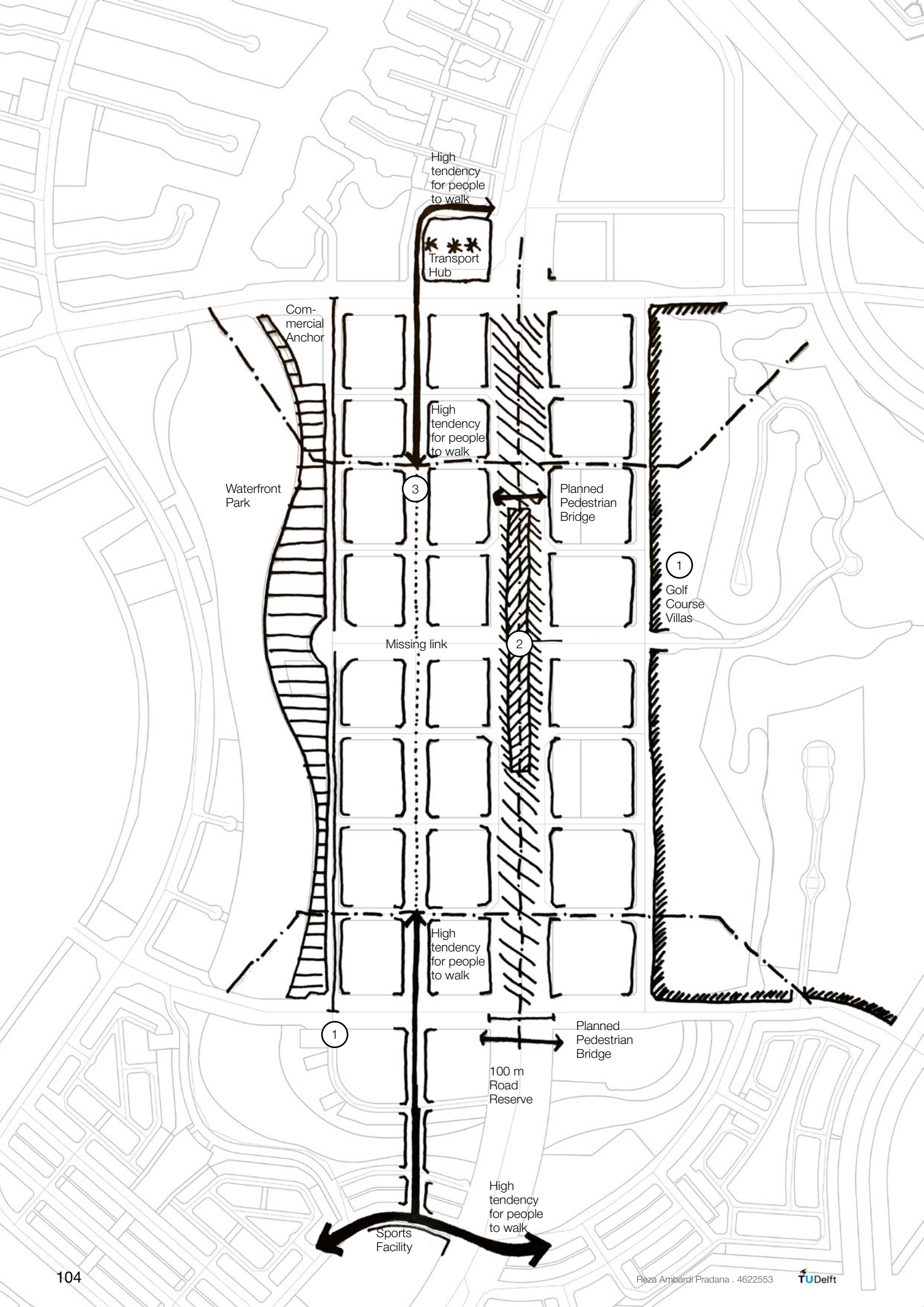
1. The main thoroughfare that goes through Ecopark will be downgraded in the hierarchy. This step will significantly change how the city centre will be designed as in the original design the road is designed as interprovincial highway with 100 m width road reserve.

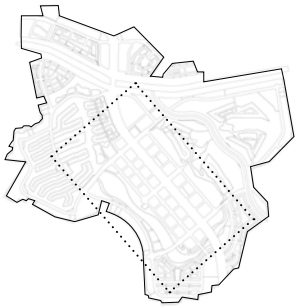
2. The significant feature of the original design is that many roads inside the masterplan are not linked to the surrounding road structure. This indication is seen most significant on the western side of the masterplan which is surrounded by existing villages and the dike road that goes along the Red River. It is intriguing to see the effect in accessibility if these roads are linked.

3. Related to the previous point, the link to the surrounding villages are minimum in the original masterplan. This is ironic because it is known from the interviews to the stakeholder that many of the workers inside Ecopark are living in these villages (some of them are the evicted farmer). Moreover, these villages have unique propositions that can be used to make Ecopark more vital e.g., Bat Trang village which is internationally well-known for its ceramic production which is located just on the north-western tip of Ecopark.

4. A very distinct feature around the city centre is the golf course villas on the eastern side. Although the residential and golf course component is arguably needed to raise the overall real estate value of the city centre, one thing to notice is that the border of this golf course will be typically closed-off and fully privatised. This will jeopardize the publicness of the city centre e.g., the long-distance perception of walking in a really long wall (more than 1km) especially the eastern side of the area.

Figure 49. Assesment of the original masterplan design


High tendency for people to walk
Transport Hub
Com-mercial Anchor
High tendency for people to walk
Waterfront Park
3
Planned Pedestrian Bridge
1
Golf Course Villas
Missing link
2
High tendency for people to walk
1
Planned Pedestrian Bridge
100 m Road Reserve
High tendency for people to walk
Sports Facility



Key Map

The Urban Structure

Zooming in to the focus area, there are three things to be noticed as the assessment of the original design (Figure 50).

1. Apart from the golf course villas long border of wall on the eastern side of the city centre, the long interface to the waterfront on the western side also needed to be considered. Along the more than 1.2 km side of the waterfront park, there is only one anchor which is on the top-north part of the park. Although the placement on the original design is logical because of the planned density on the northern of the city centre, if the intention is to make the whole focus area as one vital city centre, the waterfront park needs to have more activating uses.

2. The 100 m main thoroughfare road reserve is planned to be downgraded in hierarchy. This is necessary reflecting to the original design to have a road fly-over structure in the middle of the area and pedestrian bridges to cross the wide roads. As learnt from the case of Hanoi City Centre (Rn, Keangnam Tower area), this type of structure will disrupt the vitality of the place. Hence, it is necessary to rethink the design of this road.

3. Based on the accessibility analysis (Choice Aspect, R=800 m), the tendency for people to walk towards the city centre from both the northern and southern side of area will not reach the whole length of the city centre. This is intriguing since the intention of the original design is to make this road to be the main pedestrian street, connecting sport facility in the southern side to the transport hub on the northern side. Hence, based on the analysis, there will be a missing link area that people will not tend to walk which will eventually lose its vitality.

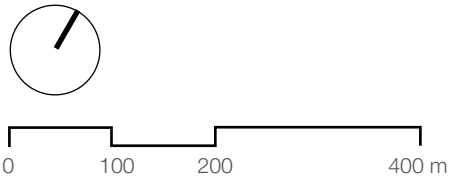
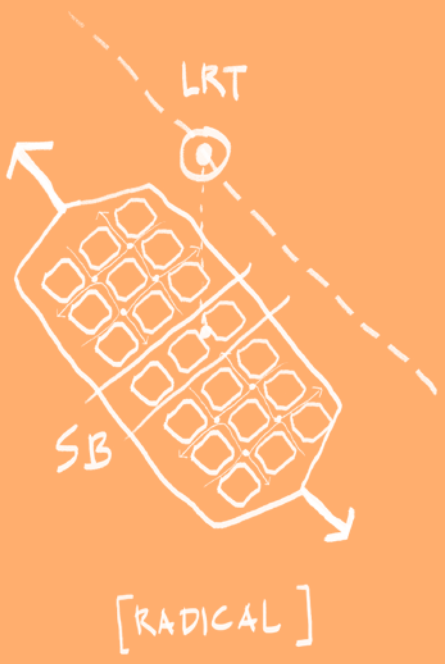


Figure 50. Original design urban structure asessment



The Three Options

Based on the positioning, original design assessment, and scale comparison, three design options for the focus area are derived (Figure 51). The first option is the [safe] option which prioritized to minimize the change in structure of the original design by keeping most of the plot sizes. The main changes in this option are: to sunken the thoroughfare; add the LRT line; and linked the waterfront park to the LRT station. The second option is the [moderate] option which introduce the concept of superblock (inspired by the Barcelona grid) along with the 1:2 block width ratio (inspired by the New York grid). The superblock concept is to emphasize the idea of pedestrian friendly block while the New York grid is to tackle the issue of a long wall of golf course villas. The third option is the [radical] option which fully implement the concept of superblock, splitting the thoroughfare into two and change the main access towards the are to LRT system. The three options will then be analysed in terms of its advantages and disadvantages.

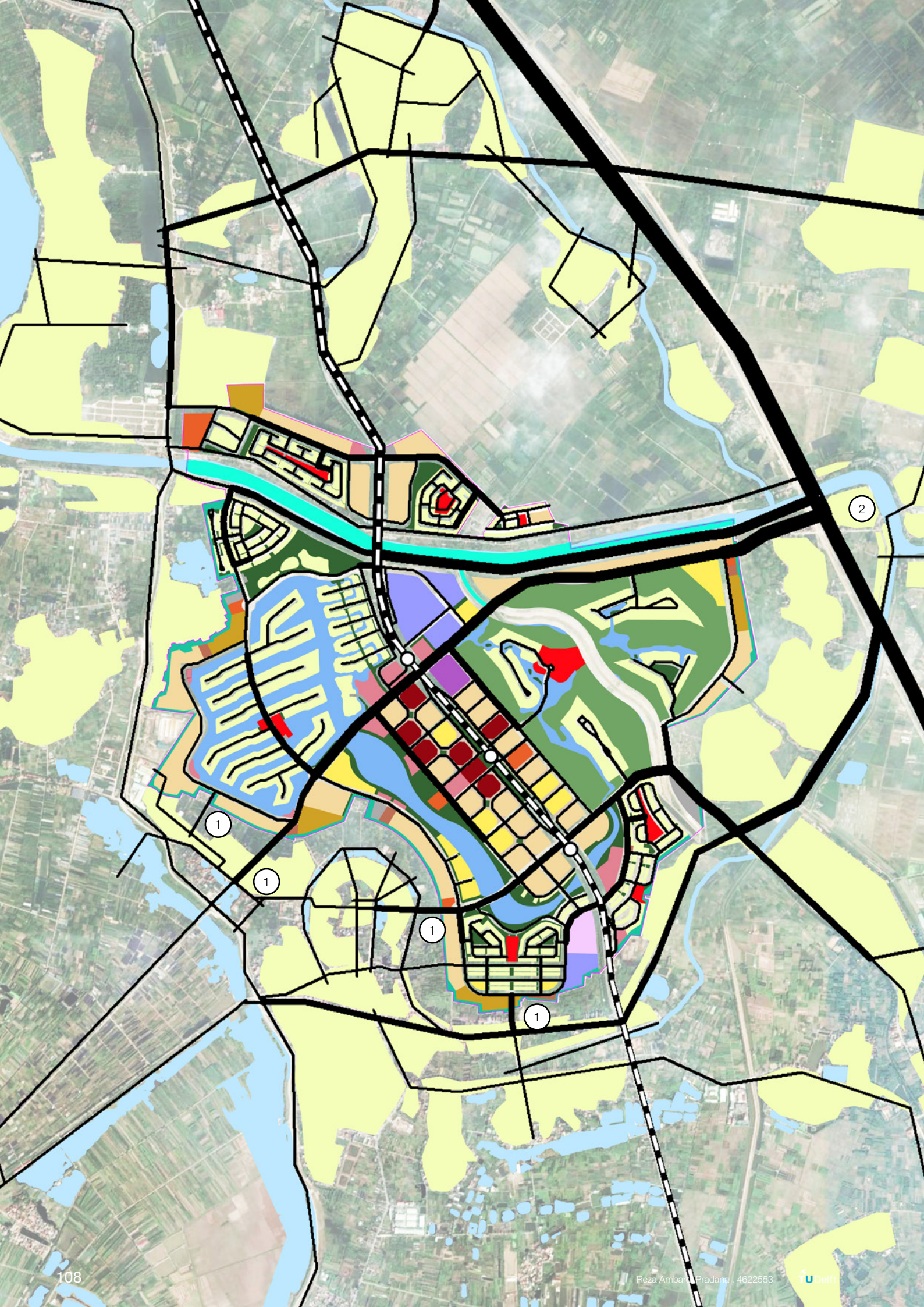
5.3 DESIGN OPTIONS

Option 1 [safe]

Option 2 [moderate]

Option 3 [radical

Figure 51. Three concepts of the design options: safe, moderate, and radical

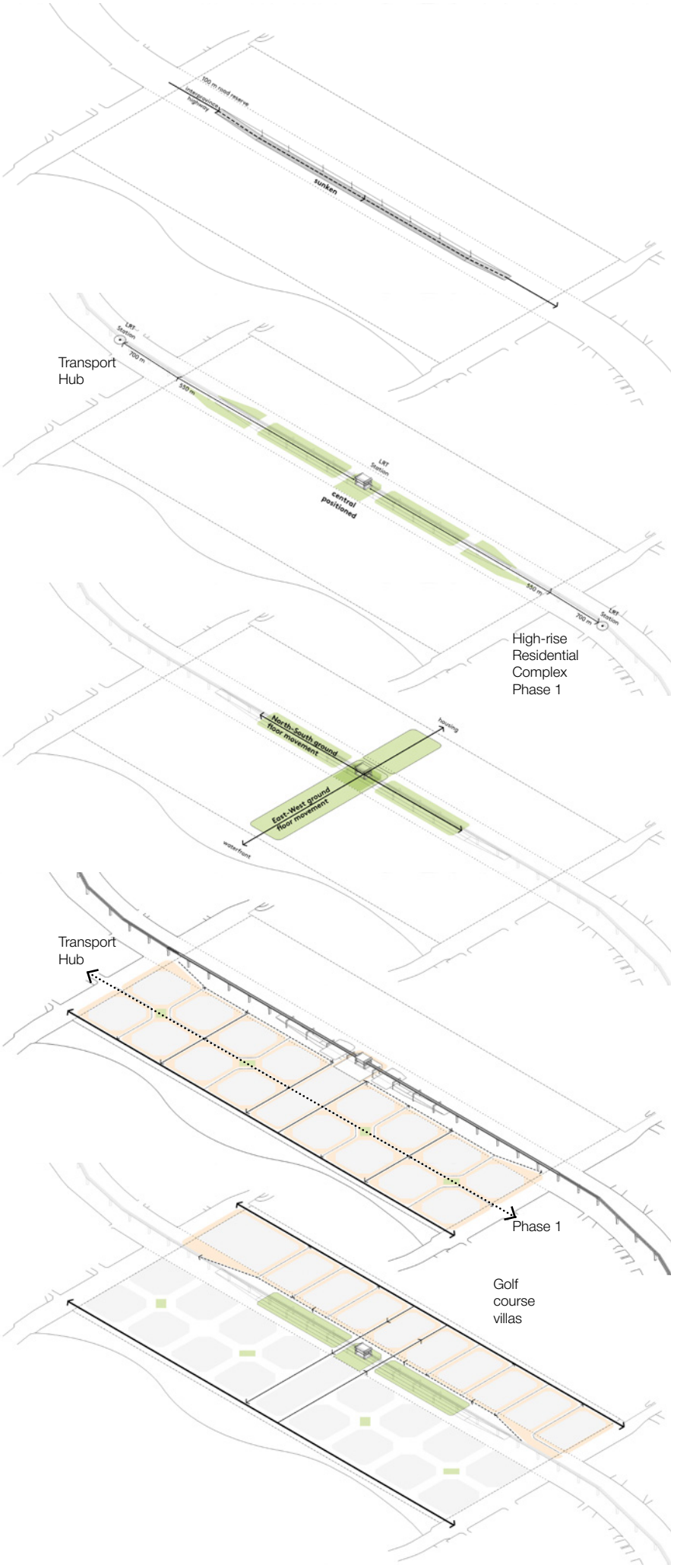

2
1
1
1
1

5.4 DEVELOPED DESIGN THROUGH SCALE

The Chosen Option

Option 2 is chosen to be developed further because of the moderate changes it brings to the design with optimum impacts and advantages. The chosen option is then being developed further through scale (masterplan, focus area, superblock and street scale). In the masterplan scale (Figure 52), the first impact is in the connections to the surrounding context (1). With these connections, the impact is the change in the accessibility of the roads on the global radius (Rn). Roads with highest accessibility (Choice, R=n) are flanking the city centre on the northern and southern side gravitated towards the interprovincial highway on the eastern side of Ecopark (2). This is aligned with the positioning agendas that are mentioned earlier. With these changes, the 100m road reserve running through the city centre can be reserved for public transport (LRT) and pedestrian friendly streets. Next, on the focus area scale, the steps taken in building up the design will be explored.

Figure 52. Positioning agenda: integration & prioritization


100 m road reserve
sunken
1
Transport
Hub
LRT
Station
700 m
550 m
central
positioned
2
High-rise
Residential
Complex
Phase 1
North-South ground
floor movement
East-West ground
floor movement
housing
waterfront
3
Transport
Hub
4
Phase 1
Golf
course
villas
5

The 10 Steps: Design Build-up

Step 1: Sunken the Road

This is a critical step in the effort of downgrading the 100m road reserve. By doing this, the spaces on the ground level will be free for other uses. The tunnel is ±850 m long with 12 m clearance and 16 m wide carriage way (bi-direction two lanes). This tunnel is also used as potential linked with the underground parking and shared logistics area.

Step 2: Put the LRT in the Centre of the Area

The central position of the LRT station in the city centre is crucial to make the whole area as one integrated area. With 700m distance (following the existing Hanoi LRT system) to the next LRT stations, the location is fitted so that the next LRT station can be located just beside the planned transport hub on the North and beside the high-rise residential complex on the South.

Step 3: Establish the East-West Connections

With the freed-up spaces from the sunken road and the LRT station location, East-West corridor is created. This corridor is crucial in linking the waterfront park and plots on the western side to the plots and golf course villas on the eastern side. The corridor will not be in the form of open space land uses but rather spaces between buildings. This step is consciously taken in response to the local culture of public life.

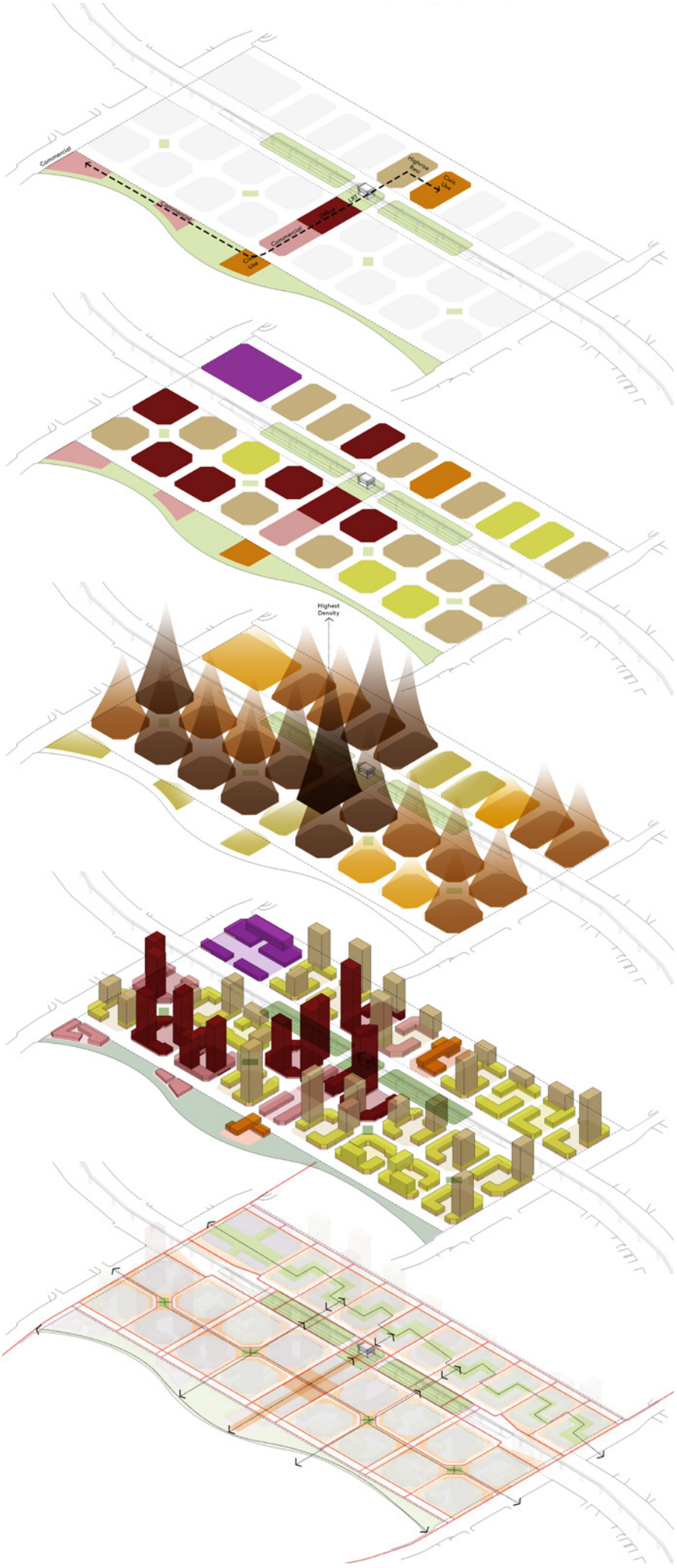
Step 4: Create 4 Superblocks

Implement the superblock concept on the western side of the city centre. With the node of every superblock, pedestrian corridor is created in the middle aligning with the concept from the original design to link the phase 1 development on the South to the transport hub on the North. The superblock is integrated with road structures linking the road on the western side to the road inside the 100m road reserve. The typical area of the block is 1 ha with ±100m x 100m size.

Step 5: Create the 1:2 Blocks

Inspired by the New York grid system, the 1:2 blocks are created with the short-width located on the side of the long wall of golf course villas. With the shorter block, the walking perception in this side will be better in compare to having a longer width. The blocks are integrated with a one-way road system with still applying the pedestrian friendly system. These roads are linked to the road on the eastern side and the roads inside the 100m road reserve. The typical area of the block is 1 ha with ±134m x 80m size.

Figure 53. The first five steps of the design build-up


Commercial
Highest Density
Civic Use
LRT
Commercial
Civic Use
Commercial
Civic Use
Highest Density

6

7

8

9

10

Step 6: Establish the Public Uses Corridor

Align with the establishing the East-West connection, the public uses along the corridor are established linked with the uses inside the waterfront park on the western side. These public uses are integrated with commercial uses, office uses, residential uses, and LRT station. By having this mix of uses, the corridor will help promote vitality of the place.

Step 7: Mix the Land Uses

After establishing the public uses, complementary uses are established. First, office uses are spread linking the transport hub on the North to the LRT in the centre. Next, medical use is established on the northeast end of the site linking it to the planned university on the northern side of it. Next, residential uses with mixed of high-rise and mid-rise residential are spread across the entire city centre. The main intention of the mix uses is to make sure every superblock and 1:2 block to have a mixed of uses not mono-uses.

Step 8: Densify

Based on the uses and location, densities are planned across the site. Fist, the highest density is planned to be just beside the LRT station with the FAR (Floor Area Ratio) of 12. Next, the FAR 10 plots are spread on towards the transport hub on the northern side and around the LRT station. Next, mixed of density is planned for every superblock and 1:2 block. This mixed are complementary to the mixed of uses step.

Step 9: Mix the Building Uses

Complementary to the mix of land uses, the mix of building uses are established. This building use mix is intended also to create a mixed of social composition for every superblock and 1:2 block.

Step 10: Establish Public Space Programs

The last step, while being the most important step is to establish the public space programs. First, the public space along the pedestrian corridor linking phase 1 on the South to the transport hub is planned to be the centre of retail activities with nodes in every superblock. Next, these public spaces are linked to the waterfront corridor through the East-West corridor towards the LRT station. The North-South park under the LRT track is planned to be the centre of informal activities e.g., street market, festivals, bazaars, etc. Lastly, the corridors linking the inner-courtyard of the 1:2 blocks are established. These corridors are planned to be a more private area of the public spaces.

Figure 54. The second five steps of the design build-up


18
16
17
8
9
12
13
3
12
9
11
9
3
9
4
11
11
4
5
7
4

Isometric Plan

Legend

Public Spaces
1. LRT Station
2. Station Park
3. The Superblock Nodes
4. The Waterfront Parks
5. The Mall

Uses
6. School
7. Community Centre
8. Hospital
9. Offices + Commercials
10. Offices + Residentials
11. Commercials
12. High-rise Residentials
13. Mid-rise Residentials

Context
14. Golf Course Villas
15. High-rise Residential Complex
16. Transport Hub
17. Commercial
18. University

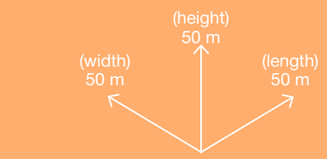


Figure 74. Isometruc plan

LRT station

[The mall towards LRT station]

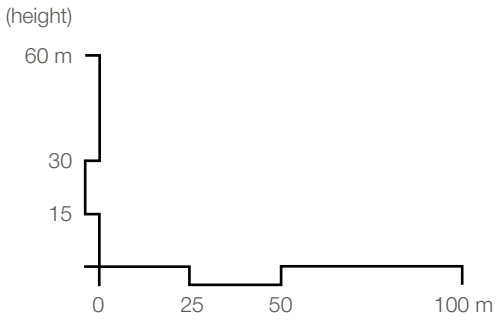
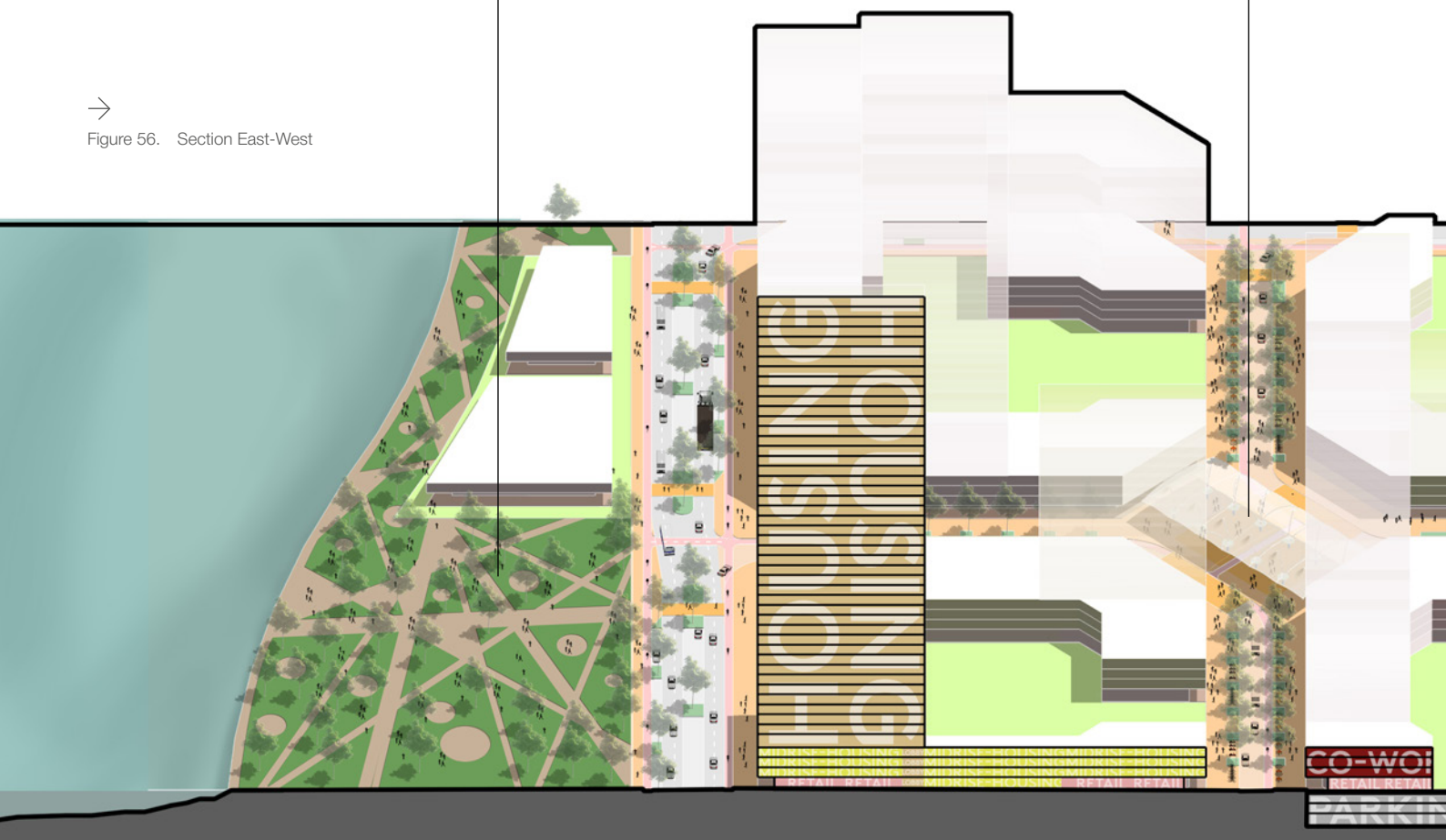


Figure 56. Section East-West

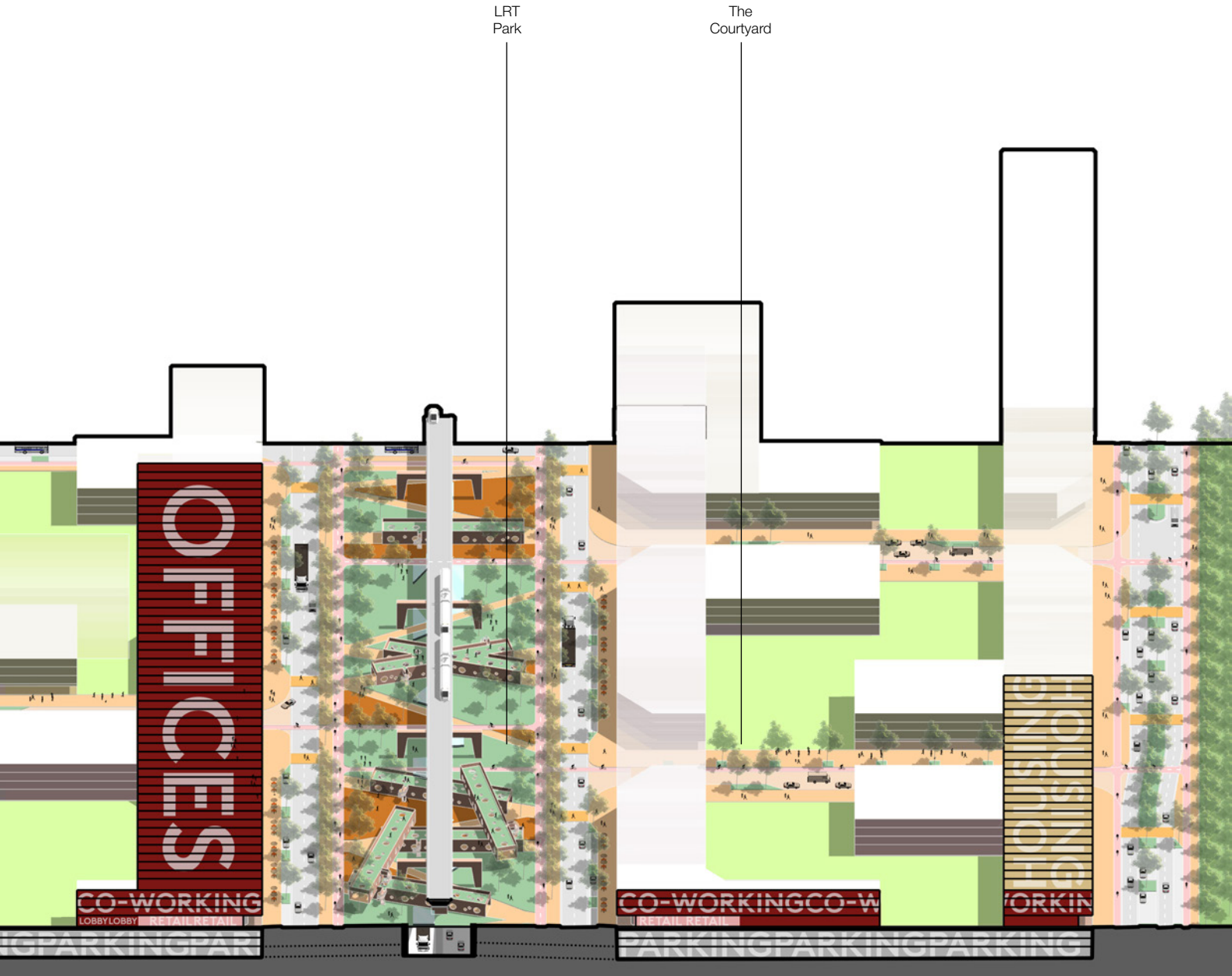


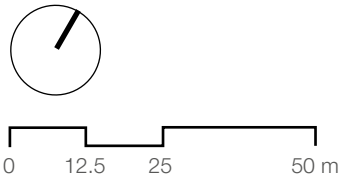
Node/Program

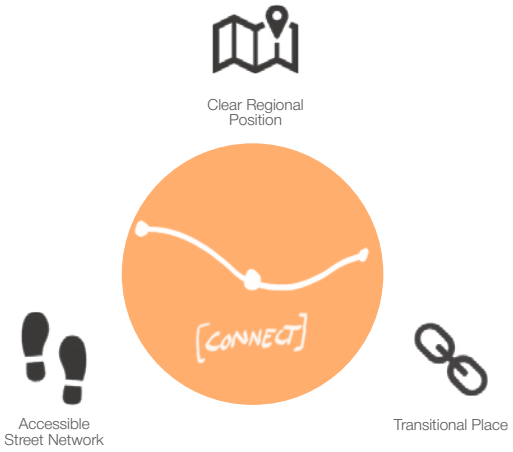
As explained earlier in the positioning of Ecopark city centre, this area is proposed to be the place where all activities i.e., work, live, and play will be accommodated and integrated i.e., the [node] concept. This concept will be most related to the program aspect of the urban vitality factor. The first factor is in the mix of uses proposed in the area. The mix of uses will be not only in the land uses but also in the building uses for each plot: no development plot can be a mono-uses. The main uses are offices and housings and different type of offices and housings are proposed e.g., the combination of shop houses and high-rise housing, and grade-A office tower with co-working offices in the podium (Figure 56).

The second factor is public provision. The three main interpretation of this factor are: consolidated parking, the LRT system, and the shared public spaces. First, consolidated parking is system where 2 basement parking (with each 3 floors underground) is proposed to be shared for each superblock (consist of 4 plots) to enhance efficiency in the parking system. These parking areas will also be used as the consolidated logistic centre. Second, the LRT system will be the main public facilities used in the area. Lastly, the shared public spaces are for example the LRT park, the superblock nodes, the courtyard and the waterfront park. All these shared public spaces will be the place where most outside public life occur.

The third factor is the informal economic activities. This factor is the distinct factor that will make Ecopark city centre different from any other new town in Hanoi. Related to the second factor, informal activities are proposed to be provisioned in the shared public spaces e.g., LRT park and the superblock nodes. As these activities could not be planned, the intention here is to encourage it through provision.




0
12.5
25
50 m


Clear Regional Position
[CONNECT]
Accessible Street Network
Transitional Place


Pedestrian Bridge
Waterfront Park
Community Centre
The Mall
The Node
The Mall

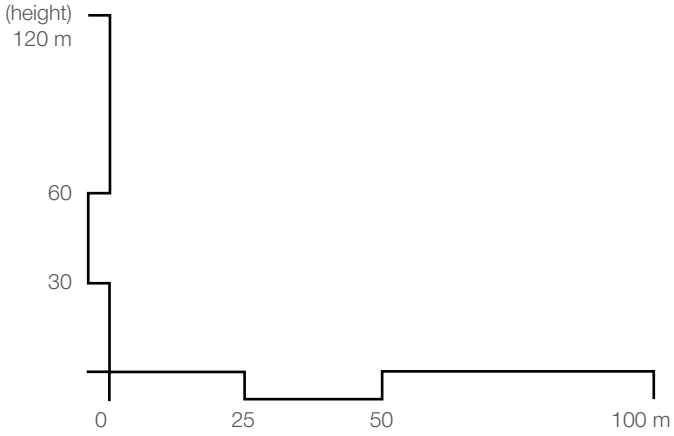
Connect/Place

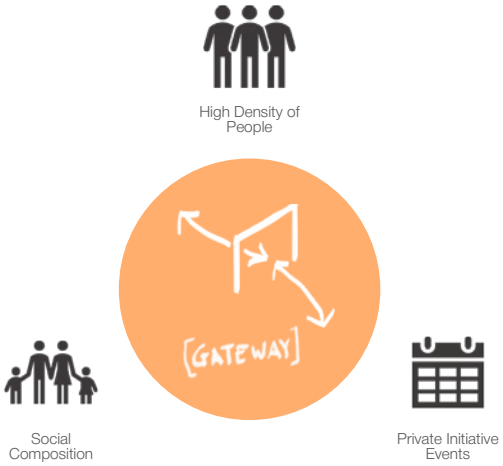
The second positioning concept is the [connect] concept, which is linked to the place aspect of urban vitality factor: clear regional position, accessible street network, and transitional place. The main interpretation of these factors is in the integrated movement system which centred around the LRT system. As demonstrated earlier, there are three major movements planned here in Ecopark city centre: pedestrian (R800), cyclist and motorbike (R2700), and car (Rn).

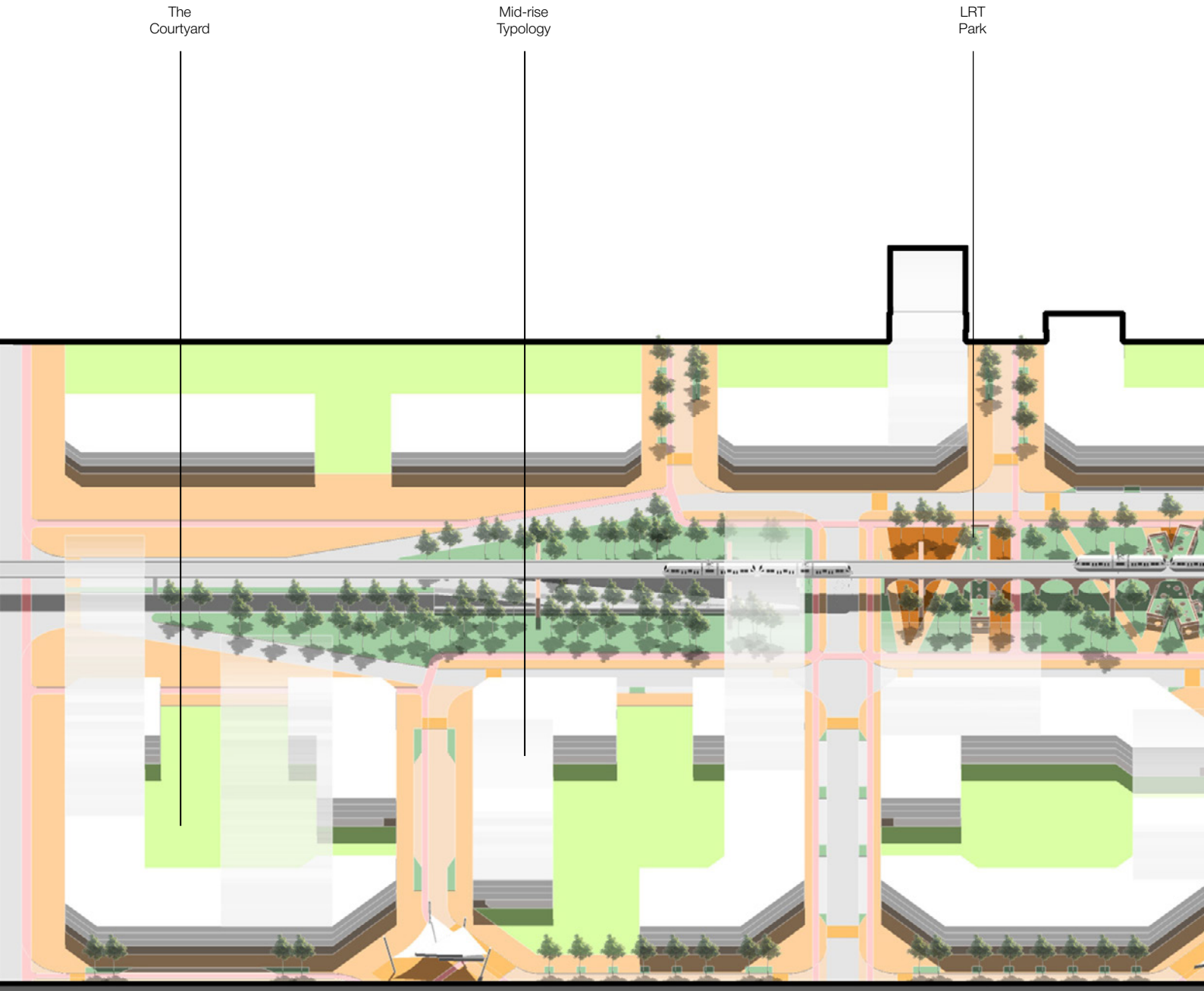
The interpretation can be seen clearly in the area around the LRT station (Figure 57). The LRT station itself reflected the clear regional position of the place, where people come and go to and from this place which will be a rather new way of living for people of Hanoi and Hung Yen: transit-oriented living. From the LRT station, people can choose which mode of movements they want to do: the pedestrian can access almost all buildings in less than 800 m walking distance; the cyclist can use the cycling infrastructure integrated in the road system; the motorbike and car users can access their vehicle from the consolidate parking areas. The idea is not to separate these mode of movements, but to integrate them together in one accessible street network.

The last factor of this concept is transitional place. This factor is inspired by the way Hanoi public life is unfold: in the transitional places – in between the road, in between the buildings, in between activities. Hence, all the public spaces are planned in the fashion that they are always in transitional places: in between LRT station and the offices – The Mall; below the LRT track – The LRT Park; in between the one-way pedestrian friendly roads – The Node. In conjunction with the previous concept, these spaces are where the informalities are encouraged to happen.

Figure 57. Zoom-in illustrative plan


(height)
120 m
60
30
0
25
50
100 m


High Density of People
[GATEWAY]
Social Composition
Private Initiative Events


The Courtyard
Mid-rise Typology
LRT Park

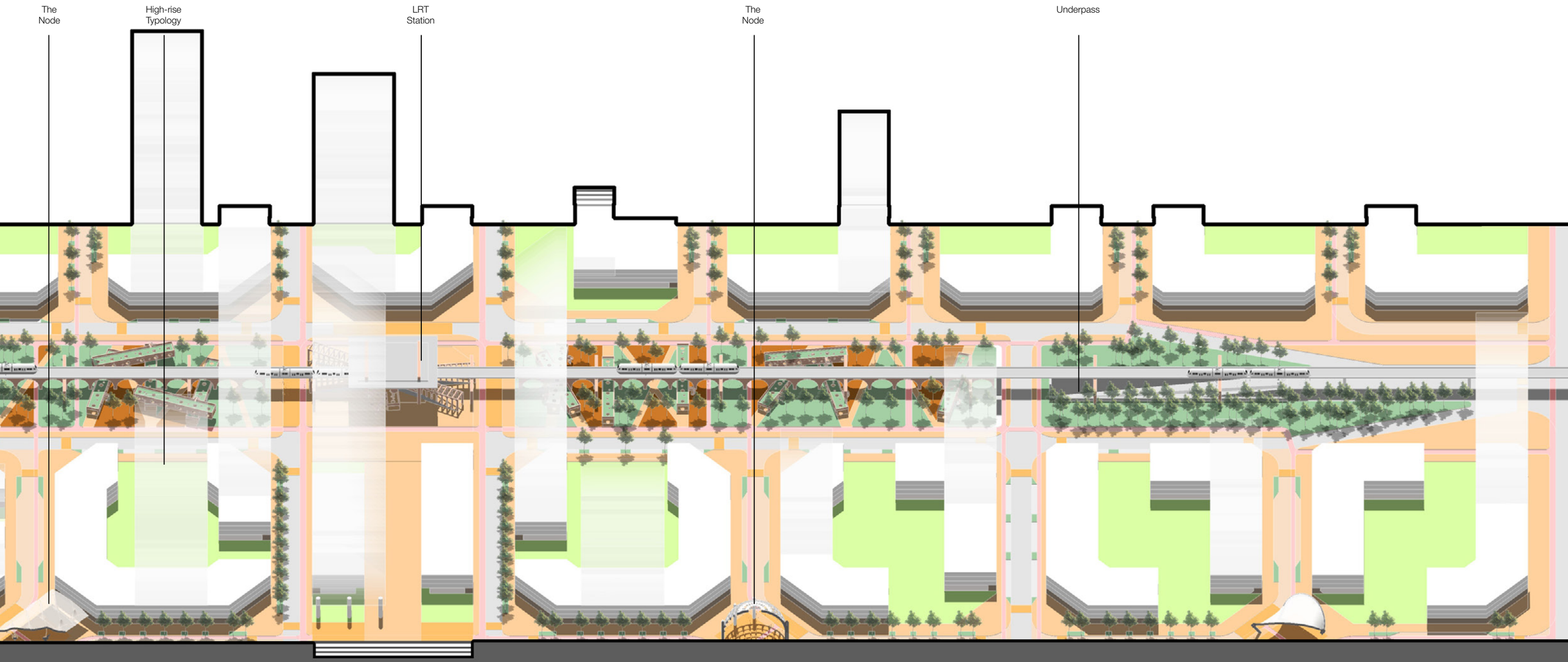
Gateway/People

To be the complementary city centre of Hanoi and Hung Yen – the [gateway], the city centre of Ecopark needs to give a distinct kind of offerings. The distinct offerings are in relation to the people aspect of urban vitality: high density of people, social composition, and private initiative events. First, high density of people is achieved by having the combination of high-rises (commercials and residentials) and podium type of urban blocks (Figure 58). This high density of people is concentrated around the superblocks, centred around the superblock nodes. As learnt from the Hanoi city centre (Rn), the place where there is high density of people will be the most vital places e.g., the tower lobbies.

Complementary to the high-rises, podium/mid-rises type of urban blocks are also proposed. These mid-rises are not only to produce high density of people but also to encourage social composition: where the shophouses, smaller retails, smaller offices can be located. Apart from the block type, some of the development plots will also be divided into smaller plots which can consist of smaller buildings, much like what Barcelona and New York blocks are consist of.

Lastly, one of the reason Ecopark is already famous among Hanoian is because of the private initiate events held around Ecopark. Hence, this city centre will also provide places for that events to happen e.g., the superblock nodes and the pedestrian friendly street around it – where the car free day can happen; the LRT park – where the festival, night market, and parade can happen, and the courtyards – where community led events can happen.

Figure 58. Section North-South



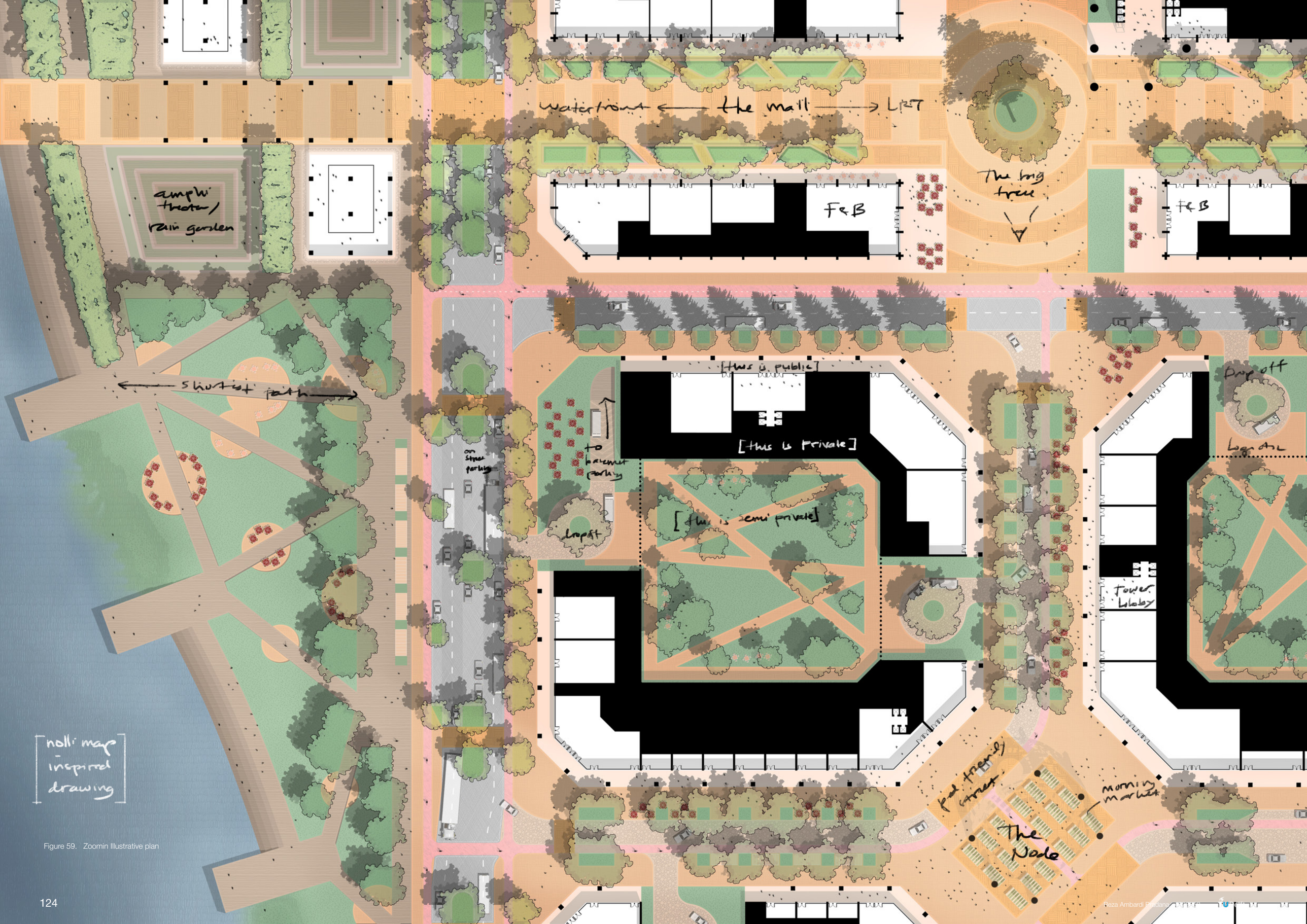


Figure 59. Zoomin Illustrative plan

[LRT Station]

Figure 60. View towards the LRT station with the Pod on the foreground

[this guy again...]

[the pod with provisioned informal economy]

[the node : flexible space for events]

Figure 61. View towards the Node with informal activities happening

Illustrative Plan

Legend

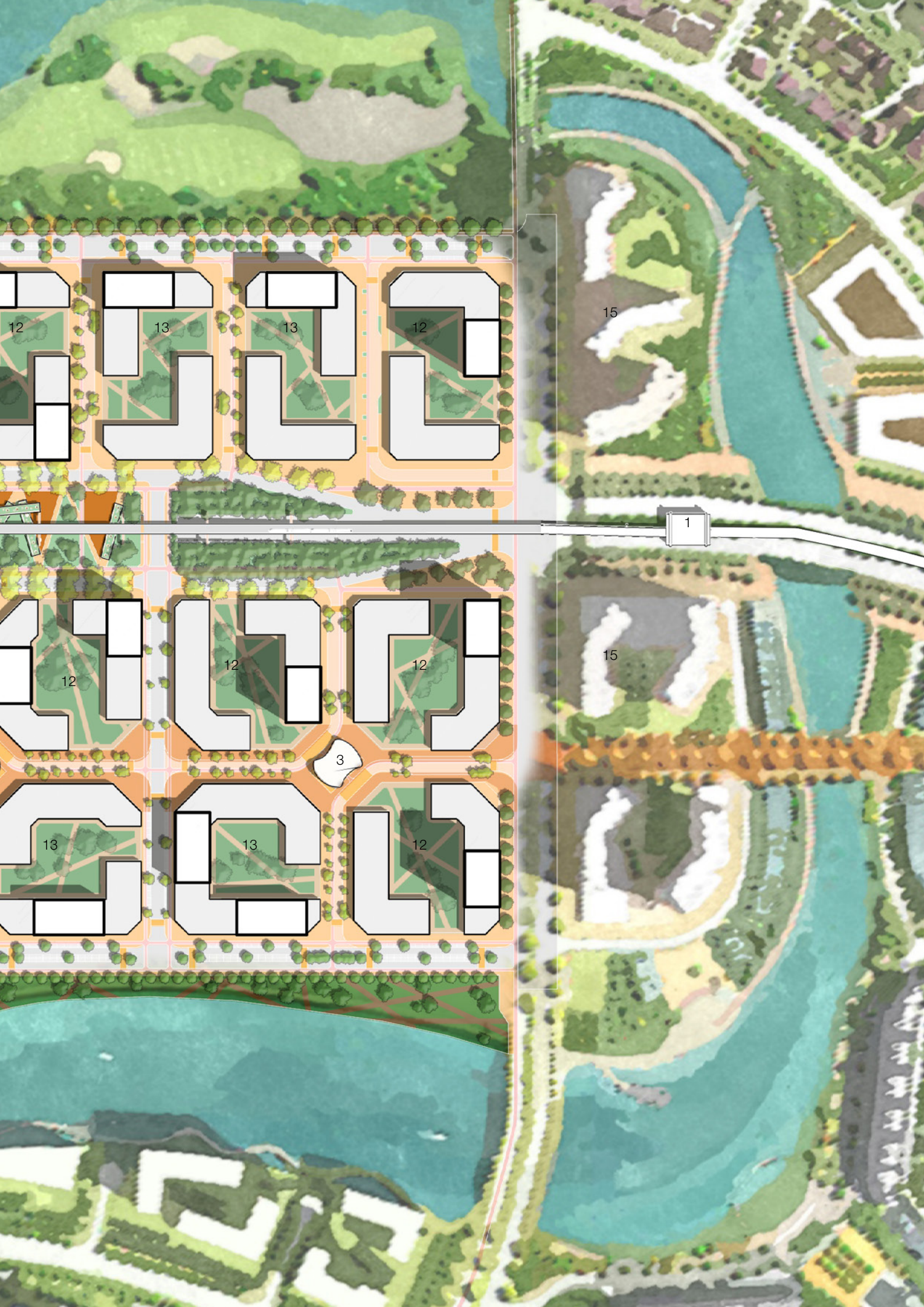
Public Spaces
1. LRT Station
2. Station Park
3. The Superblock Nodes
4. The Waterfront Parks
5. The Mall

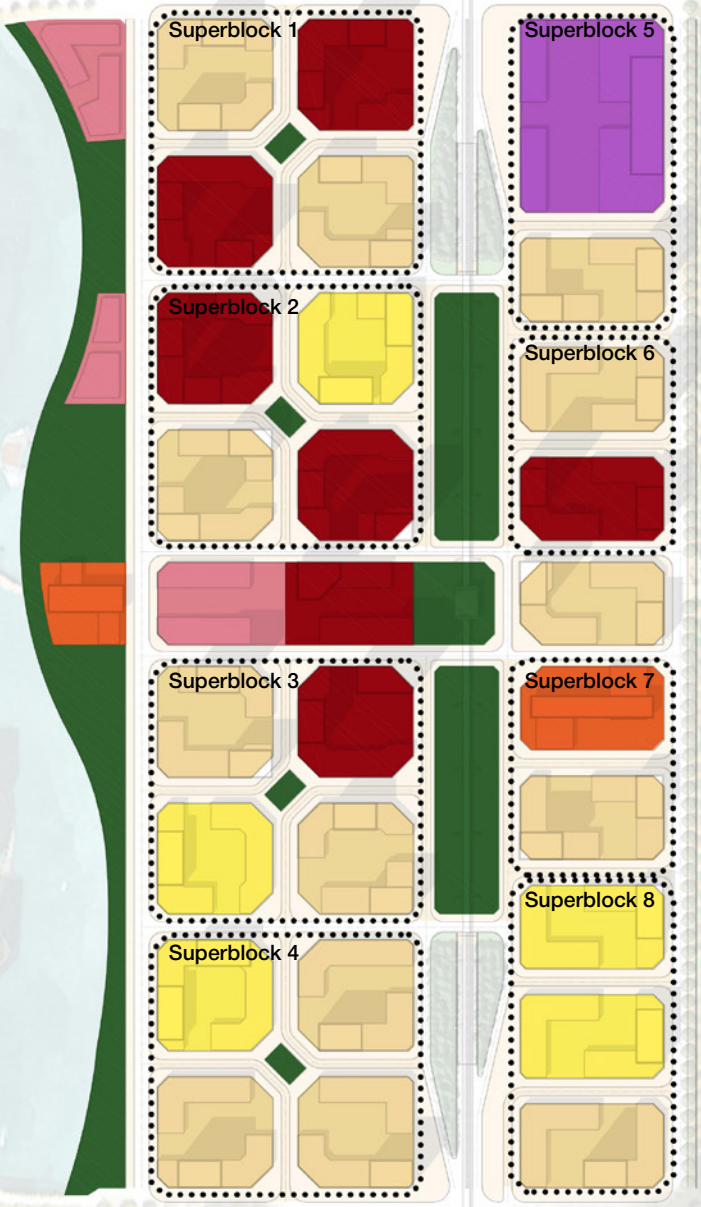
Uses
6. School
7. Community Centre
8. Hospital
9. Offices + Commercials
10. Offices + Residentials
11. Commercials
12. High-rise Residentials
13. Mid-rise Residentials

Context
14. Golf Course Villas
15. High-rise Residential Complex
16. Transport Hub
17. Commercial
18. University

0 50 100 200 m

Figure 62. Illustrative plan


12
13
13
12
15
1
12
12
12
15
3
13
13
12


Superblock 1
Superblock 2
Superblock 3
Superblock 4
Superblock 5
Superblock 6
Superblock 7
Superblock 8

Superblock Scale

The next scale is the superblock scale – integrated collection of blocks (Figure 63). These superblocks are integrated for three particular reasons: shared facilities e.g., parking spaces and superblock nodes; collective pedestrian-friendly streets – one-way street system provided mainly for pedestrian, cyclist and light vehicle; and consolidated mix of uses – different for each superblock to give a distinct role in the overall area. The superblocks are consisting of four superblock typologies and four 1:2 typologies. Next, the interpretation of the positioning concepts (node, connect, and gateway) and urban vitality factors (people, place, and program) will be explained in the superblock scale.

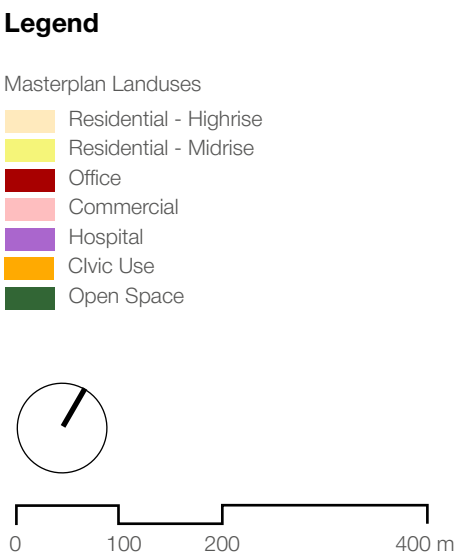


Figure 63. Superblock scheme

Mixed-uses

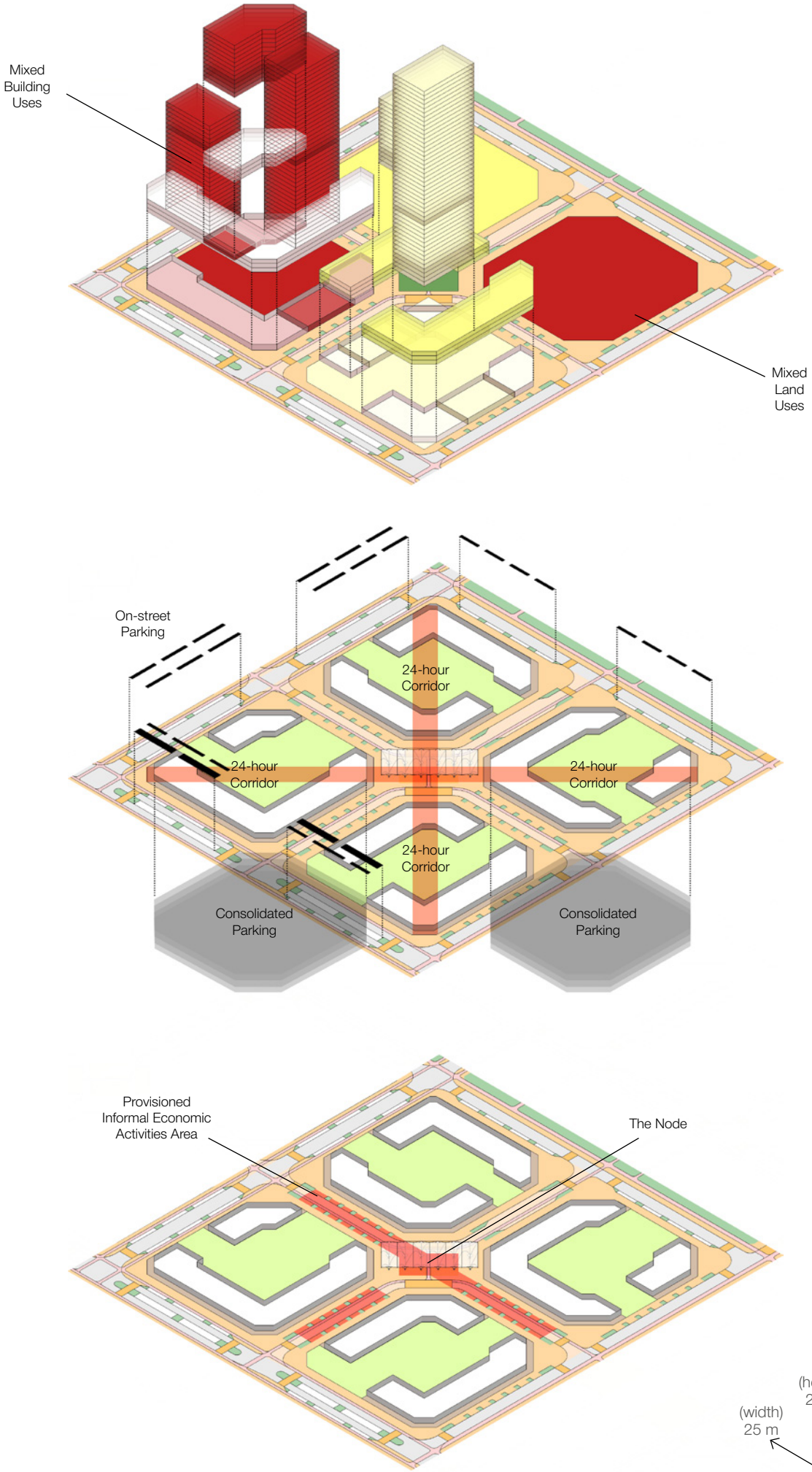
Node/Program

As demonstrated in the masterplan level, vitality factors in this concept of [node] are mixed uses, public provision, and informal economic activities. First, the mixed of uses are demonstrated in the superblock level to be not only in the land uses but also in the building uses (Figure 64, top). The mixed of uses can be achieved in differentiating the uses of the ground floor, the podium, and the tower. The uses in the ground floor specifically are related to the commercial corridors that are planned to be the centre of economic activities. Second, the public provision in the superblock level are mainly related to parking – on-street parking and consolidated underground parking, and public corridor. The 24-hour corridor ensure the fastest access for pedestrian to reach important destination e.g., LRT station. Third, the informal economic activities are provisioned in the pedestrian area leading to The Nodes in the type 1 road (see next sub-chapter, Street Scale). By centralizing the informal economic activities, the disadvantage of this kind of activity can be kept minimum.

Public Provision

Informal Economic Activities

Figure 64. Node/Program superblock vitality principles


Mixed
Building
Uses
Mixed
Land
Uses
On-street
Parking
24-hour
Corridor
24-hour
Corridor
24-hour
Corridor
24-hour
Corridor
Consolidated
Parking
Consolidated
Parking
Provisioned
Informal Economic
Activities Area
The Node
(height)
25 m
(width)
25 m
(length)
25 m

Clear Regional Position

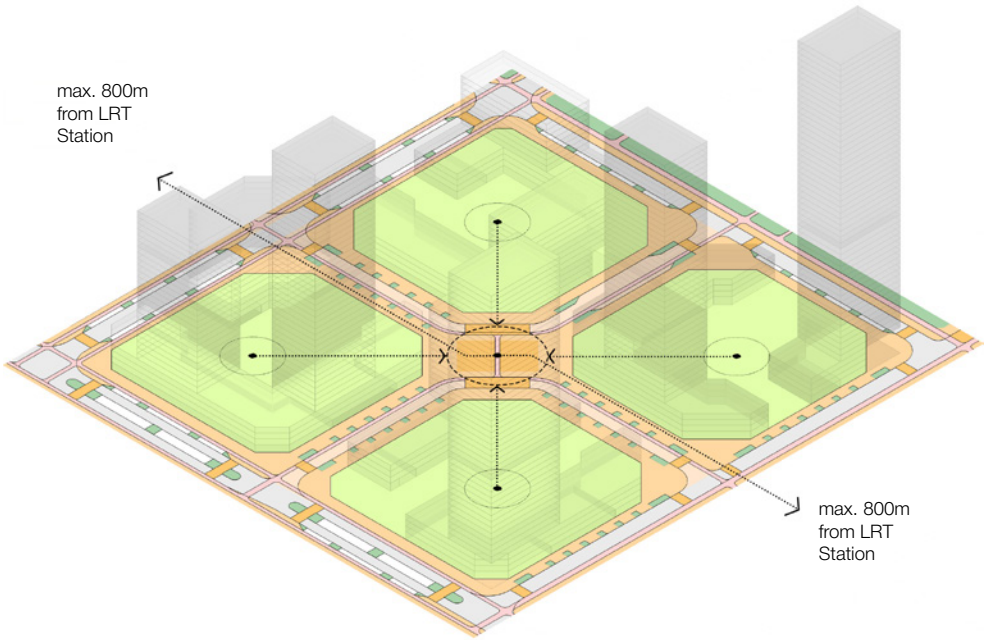
Connect/Place

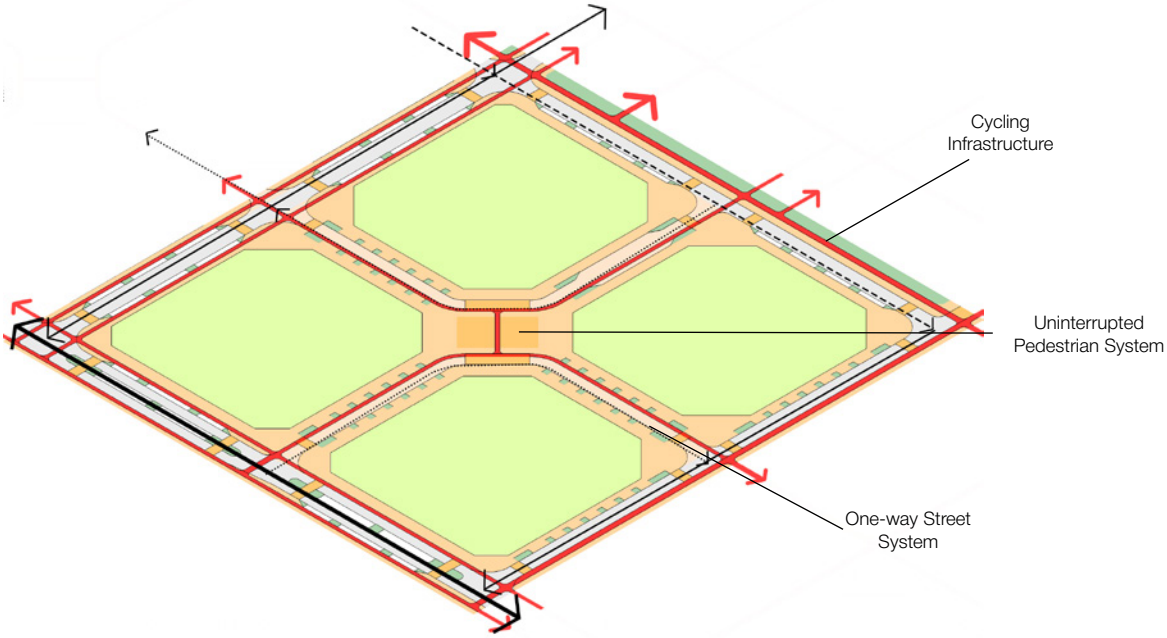
As demonstrated in the masterplan level, vitality factors in this concept of [connect] are clear regional position, accessible street network, and transitional place (Figure 65). First, the clear regional position is demonstrated in the superblock scale as the requirement that every building in the superblock must be accessible to the nearest LRT station in maximum of 800 m. By having this proximity, each superblock has a clear position in the region – as the LRT system is connected to the regional public transport system. Second, each superblock is supported by uninterrupted pedestrian system, cycling infrastructure (for cyclist), and road system (for cars and motorbikes). Lastly, the transitional place aspect is where the in between places occur – in this case, is in between the public area and the private area. The area where there is no commercial corridor are considered private area.

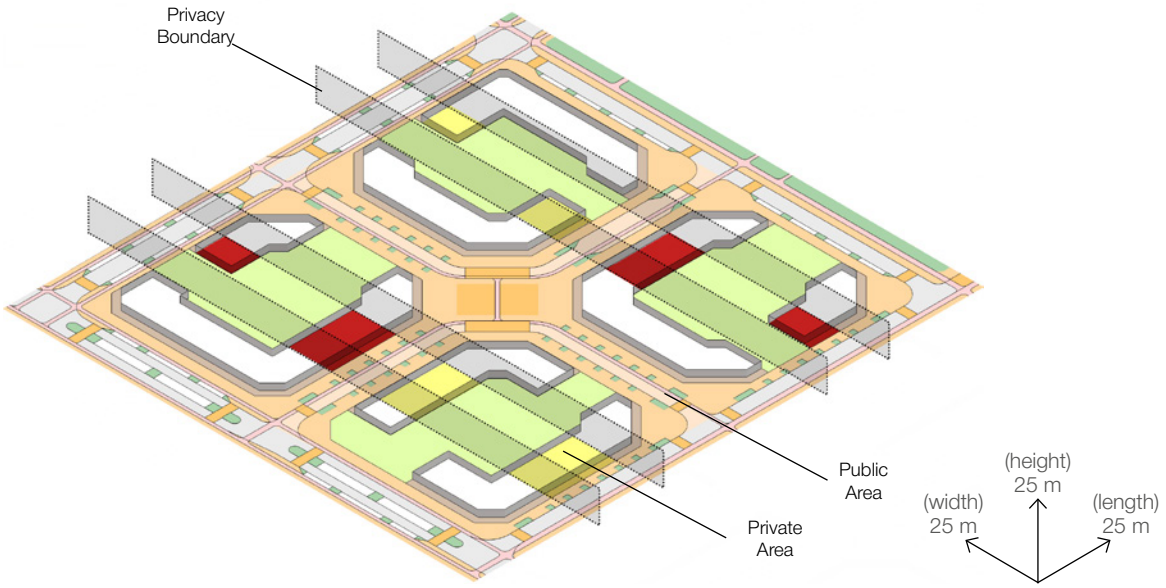
Accessible Street Network

Transitional Place

Figure 65. Connect/Place superblock vitality principles


max. 800m
from LRT
Station
max. 800m
from LRT
Station


Cycling
Infrastructure
Uninterrupted
Pedestrian System
One-way Street
System


Privacy
Boundary
Public
Area
Private
Area
(height)
25 m
(width)
25 m
(length)
25 m

High Density of People

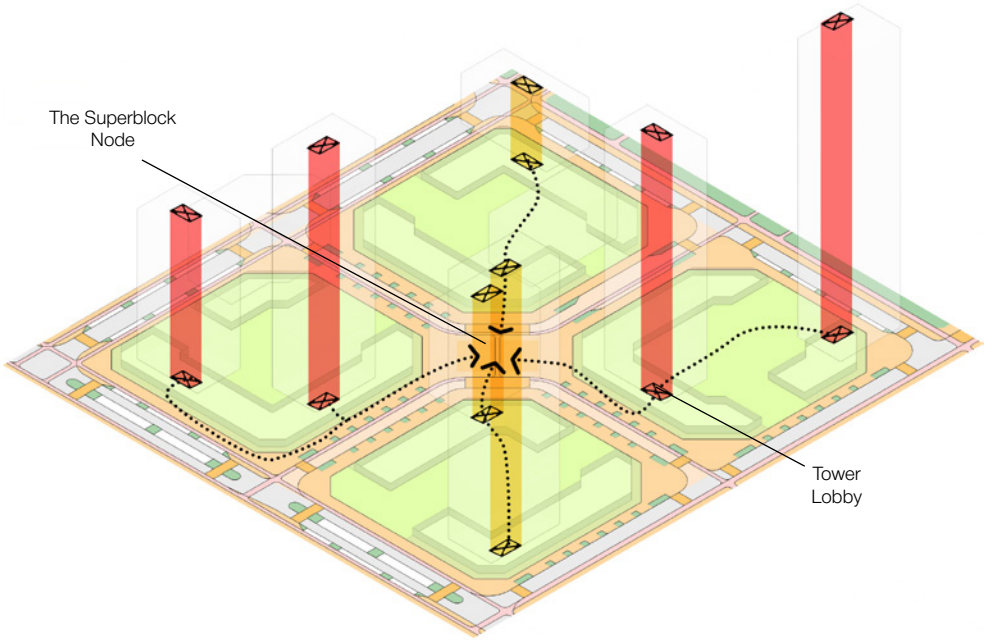
Gateway/People

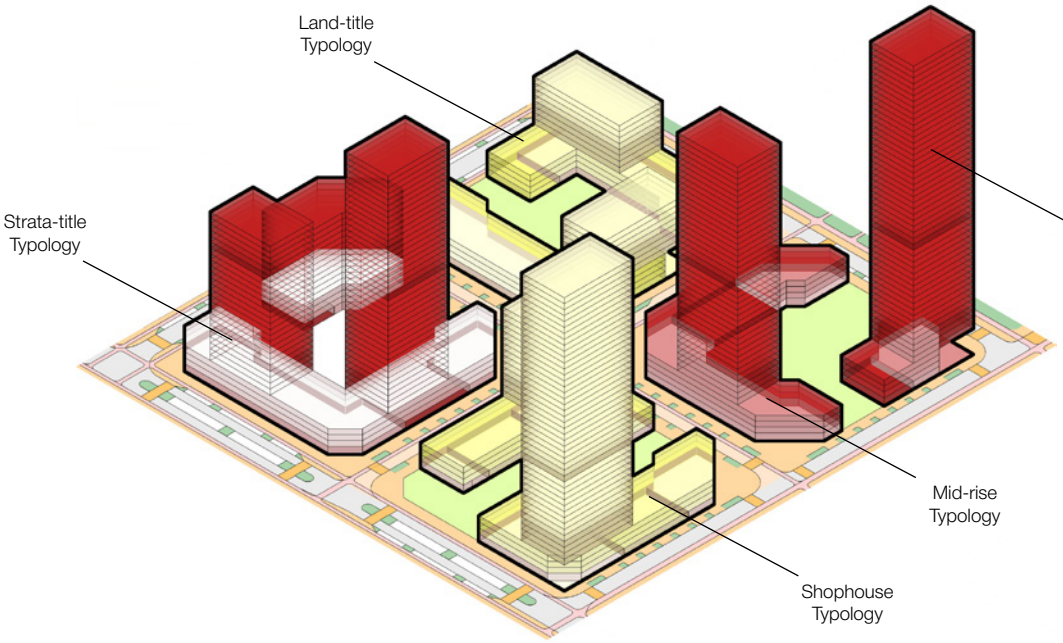
As demonstrated in the masterplan level, vitality factors in this concept of [gateway] are high density of people, social composition, and private initiative events (Figure 66). First, high density of people aspect is demonstrated in the superblock level on how every tower lobby should directly/indirectly linked to the superblock node through the public corridor or through uninterrupted pedestrian area. This will ensure the high density of people to be concentrated in one place. Second, the social composition in the superblock level is demonstrated through various building typologies that could happen in each superblock. These different typologies will lead to a good social composition for each superblock. Lastly, the private initiative events are planned to happen in each superblock node which will be designed collaboratively by each stakeholder in the superblock.

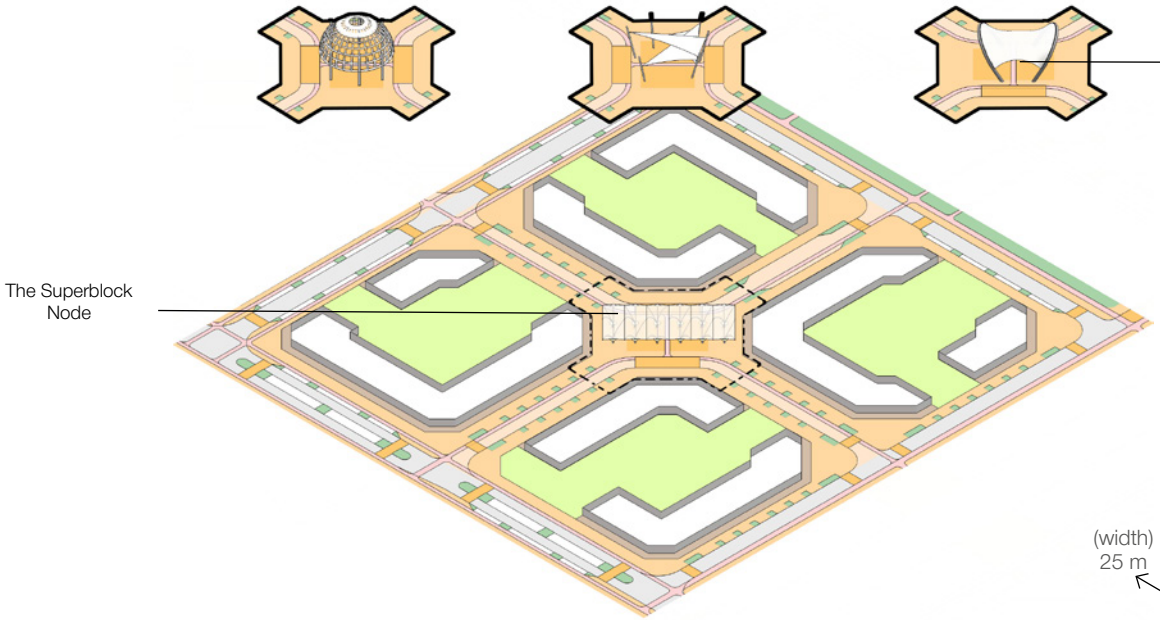
Social Composition

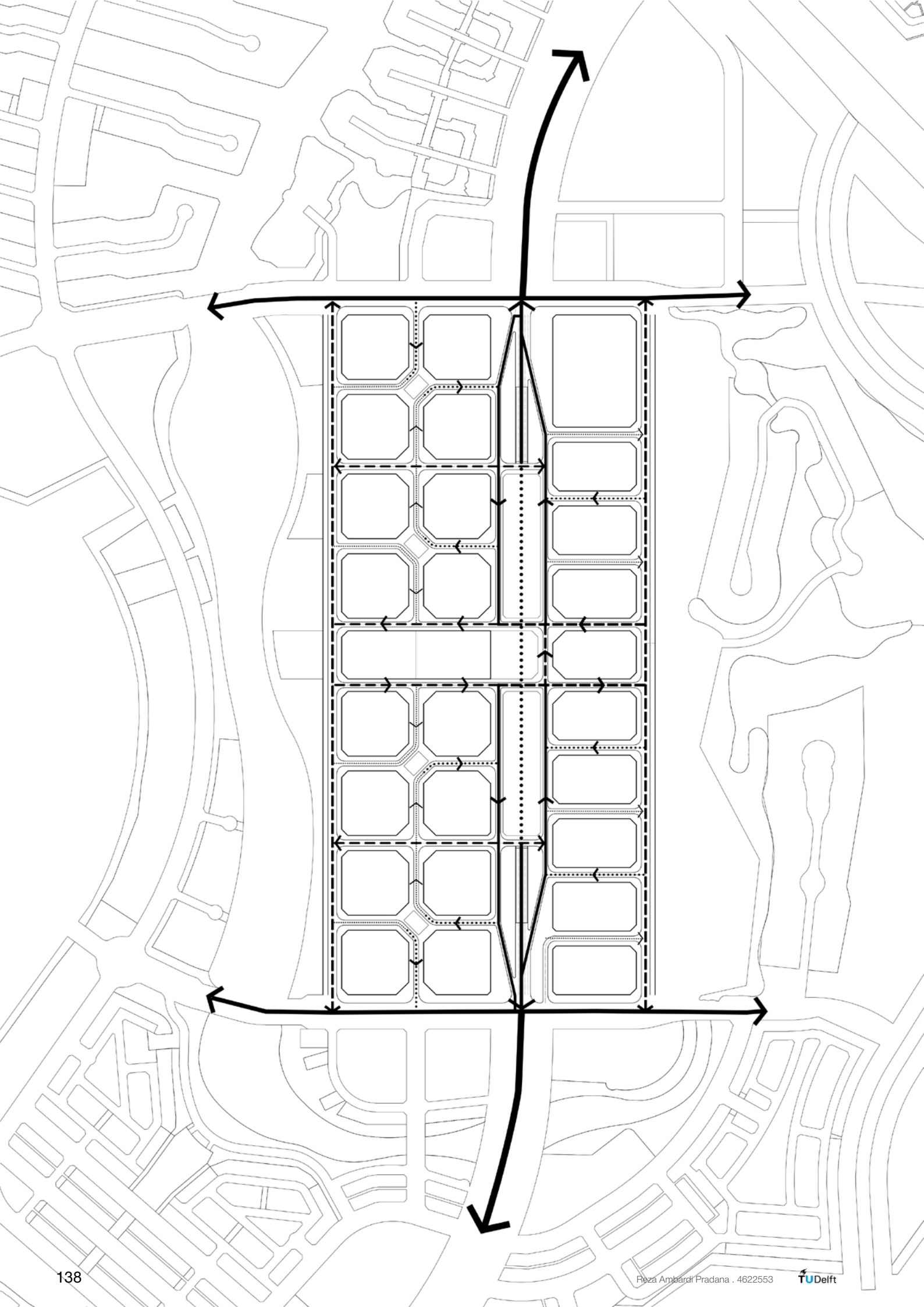
Private Initiative Events

Figure 66. Gateway/People superblock vitality principles


The Superblock
Node
Tower
Lobby


Land-title
Typology
Strata-title
Typology
High-rise
Typology
Mid-rise
Typology
Shophouse
Typology


Superblock
Node Variations
The Superblock
Node
(height)
25 m
(width)
25 m
(length)
25 m



Street Scale

The next scale is the street level – the smallest level after the masterplan and the superblock level yet arguably the most important level. In this scale, the key is to use what have been learnt from understanding the urban vitality principles of Hanoi city centres, in each movement system (R800, R2700, Rn). With that movement system in mind, the street hierarchy (Figure 67) in Ecopark city centre is built upon. The idea is that a particular street is always constructed as in between two type of movement system. For example, type 1 street is pedestrian street (R800) that leads to motorbike street (R2700) hence it is R800/R2700 type. Hence, in this particular street hierarchy the principles learnt from Hanoi R800 and R2700 streets can be incorporated. This in between approach is consistent with the urban vitality principle of transitional place. With this approach every street is designed in response to the surrounding context and in the same time in response to the user's movement system. Next, each street hierarchy will be elaborated further.

Legend

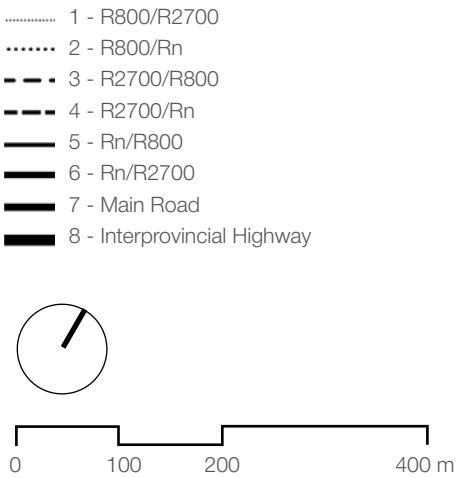
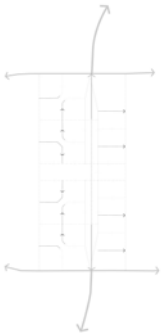
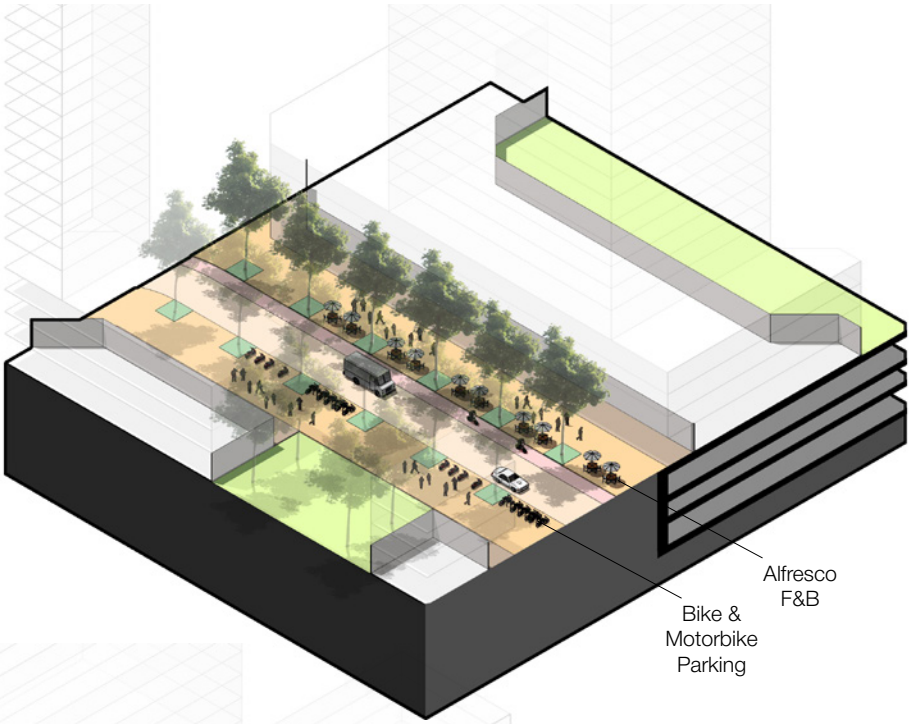
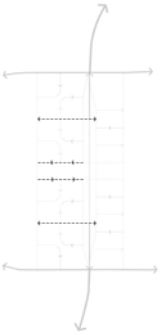


Figure 67. Street hierarchy

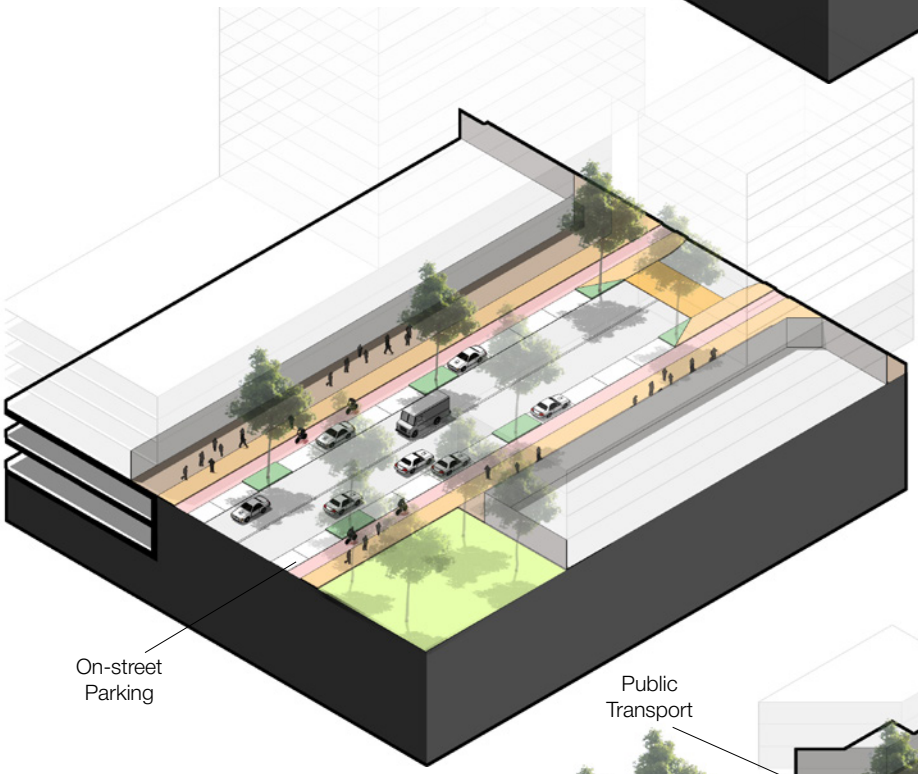


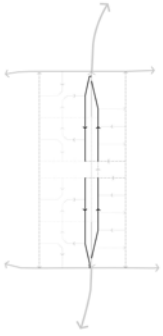
Type 1 - R800/R2700



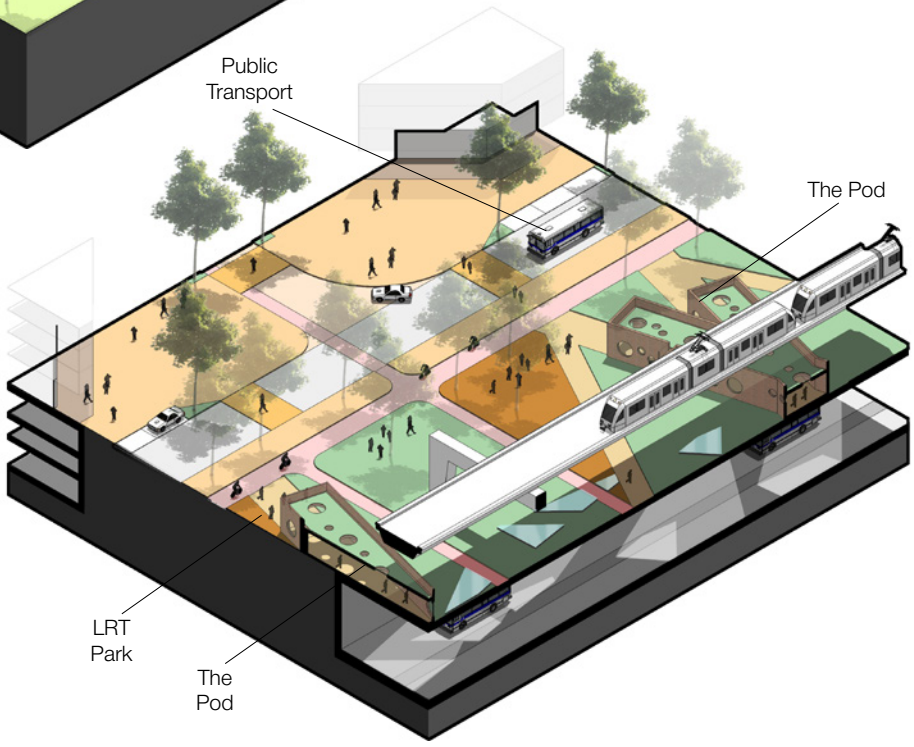


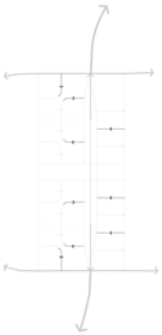
Type 3 - R2700/R800



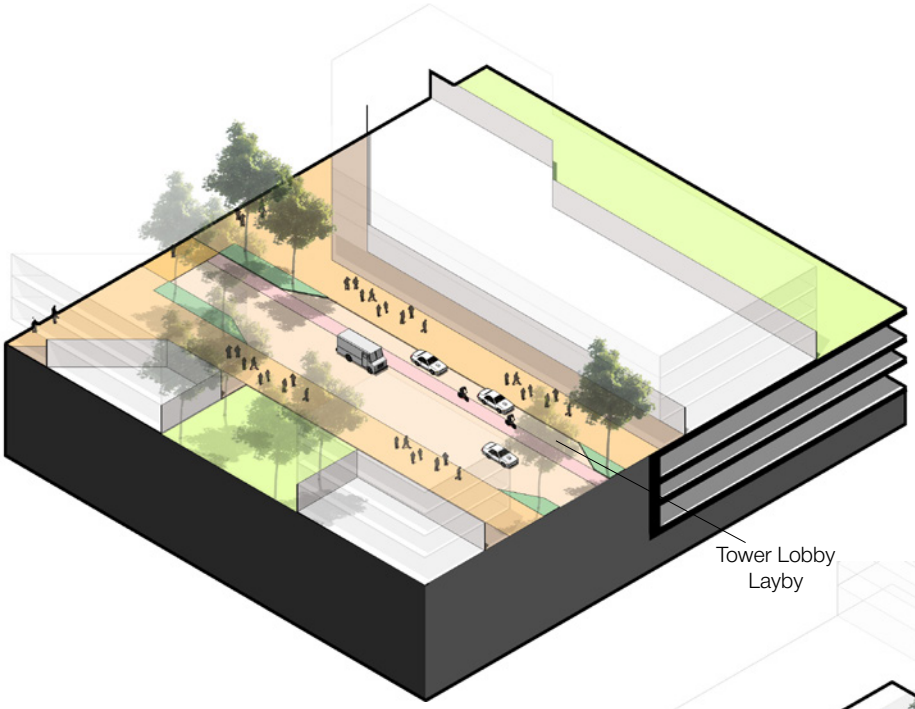


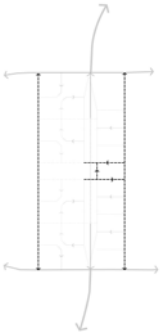
Type 5 - Rn/R800



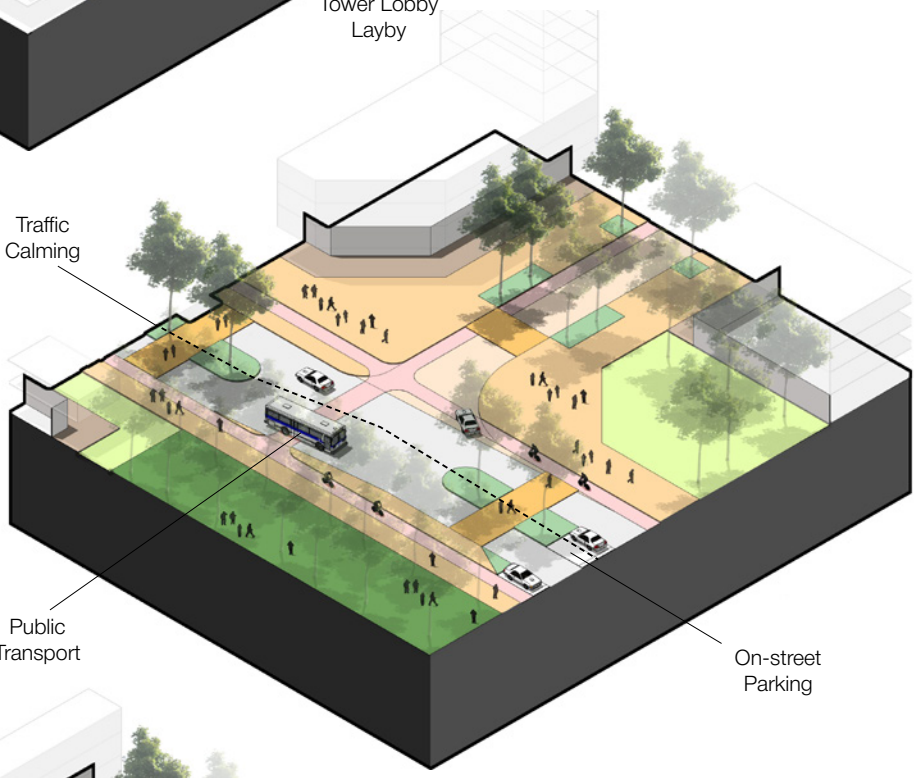


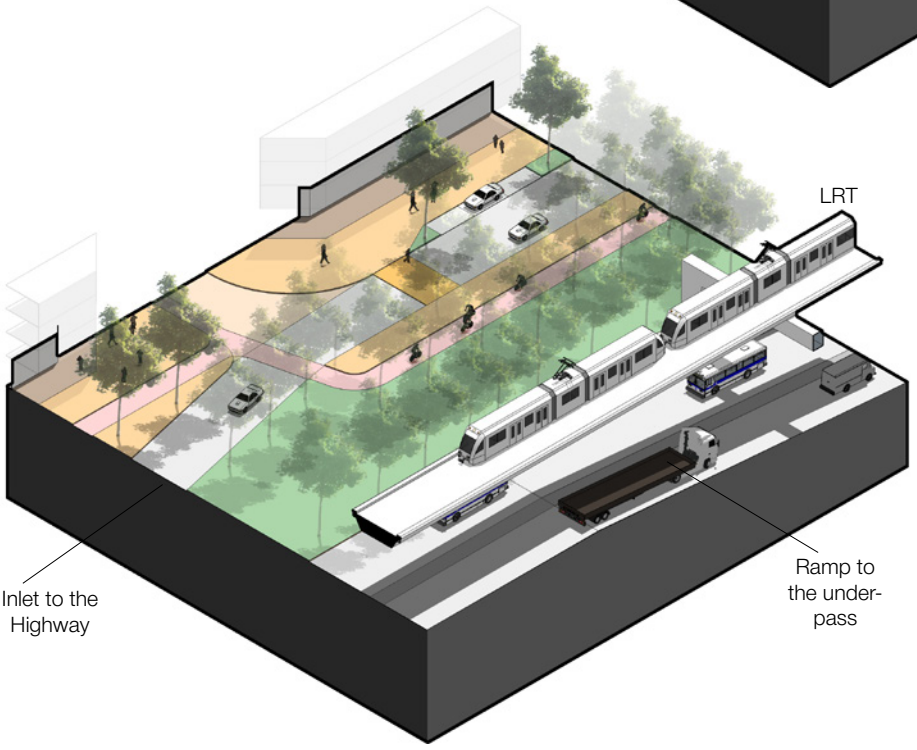
Type 2 - R800/Rn

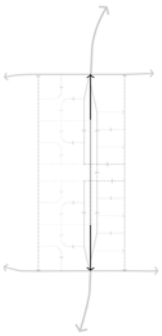




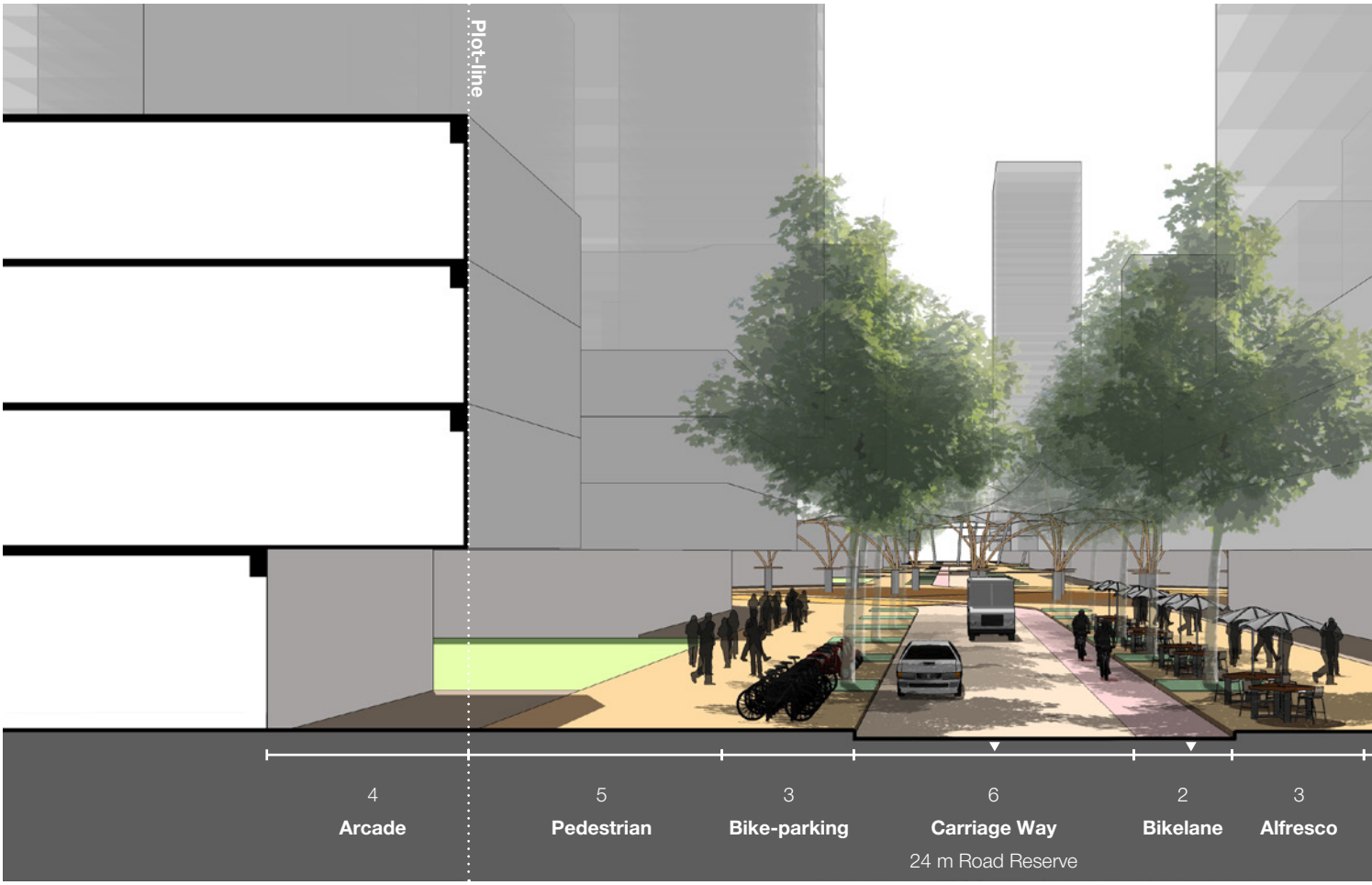
Type 4 - R2700/Rn



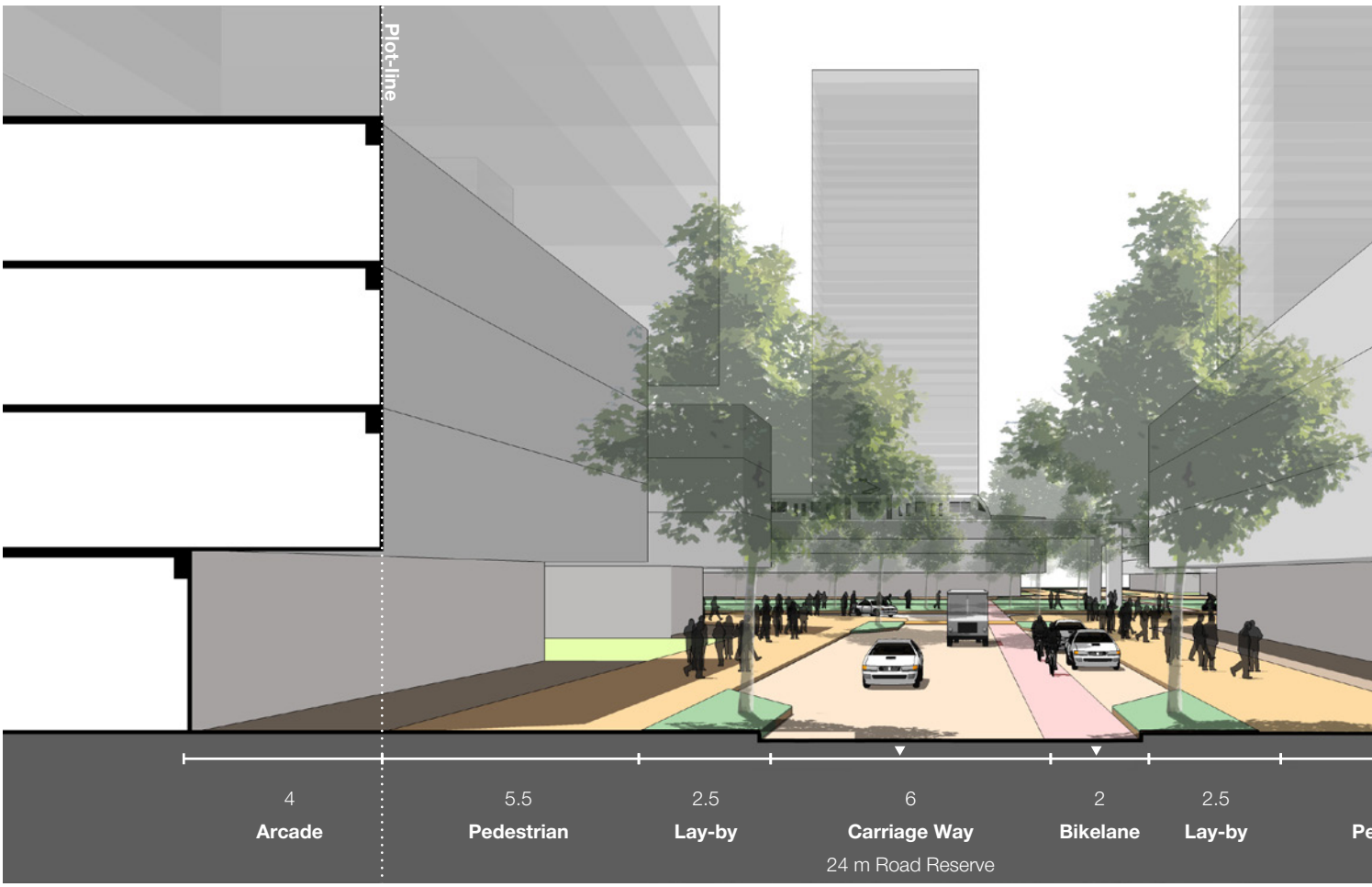




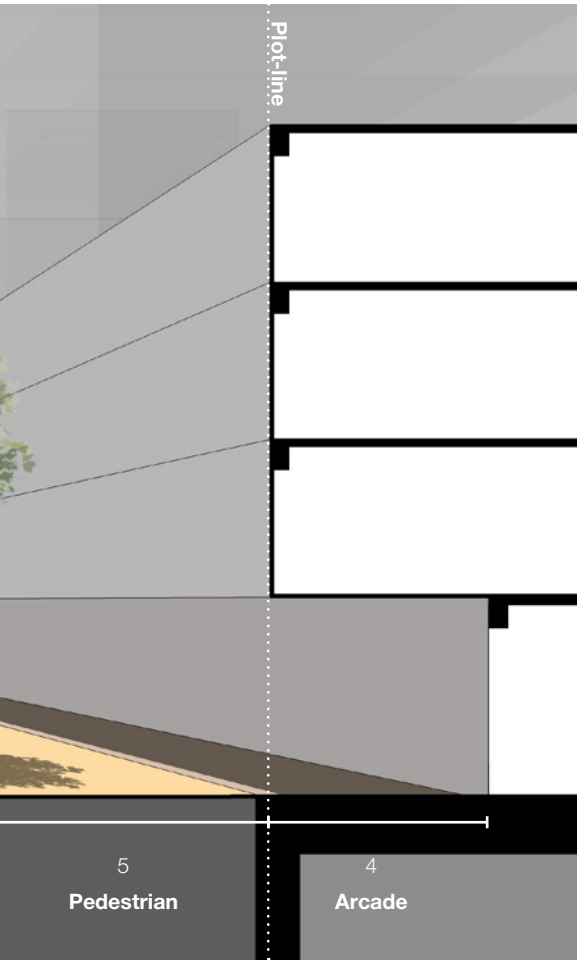
Type 6 - Rn/R2700



Type 1 - R800/R2700



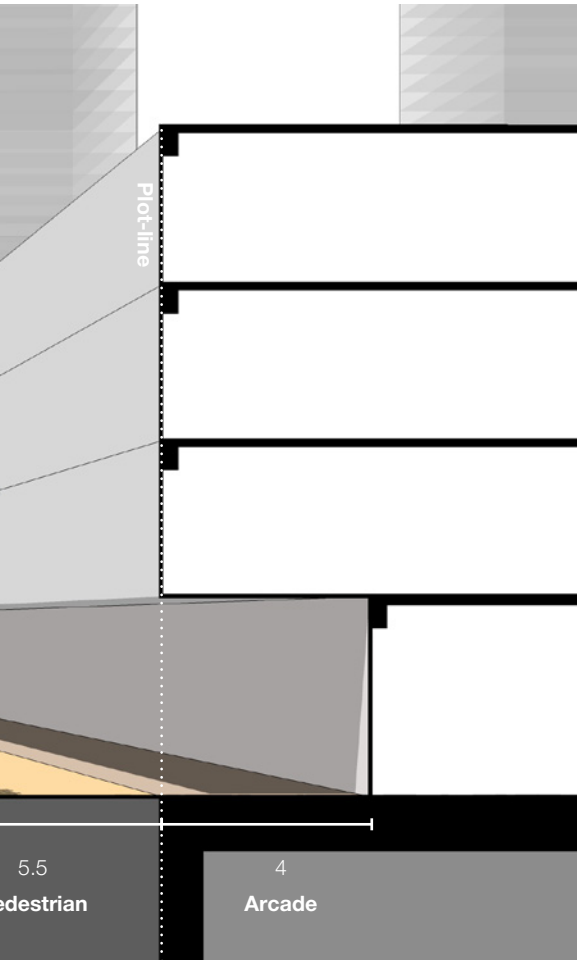
Type 2 - R800/Rn



Type 1 - R800/R2700

The first two types (type 1 & 2) are the most pedestrian-friendly streets which are located inside the superblocks. Type 1 street is a 24 m road reserve street consist of: one-way street for light vehicles and cyclist; pedestrian area for bike and motorbike parking, alfresco food and beverage (F&B), and informal economic activities. This typology is inspired by the superblock concept of Barcelona and 'woonerf' idea from Dutch streets.

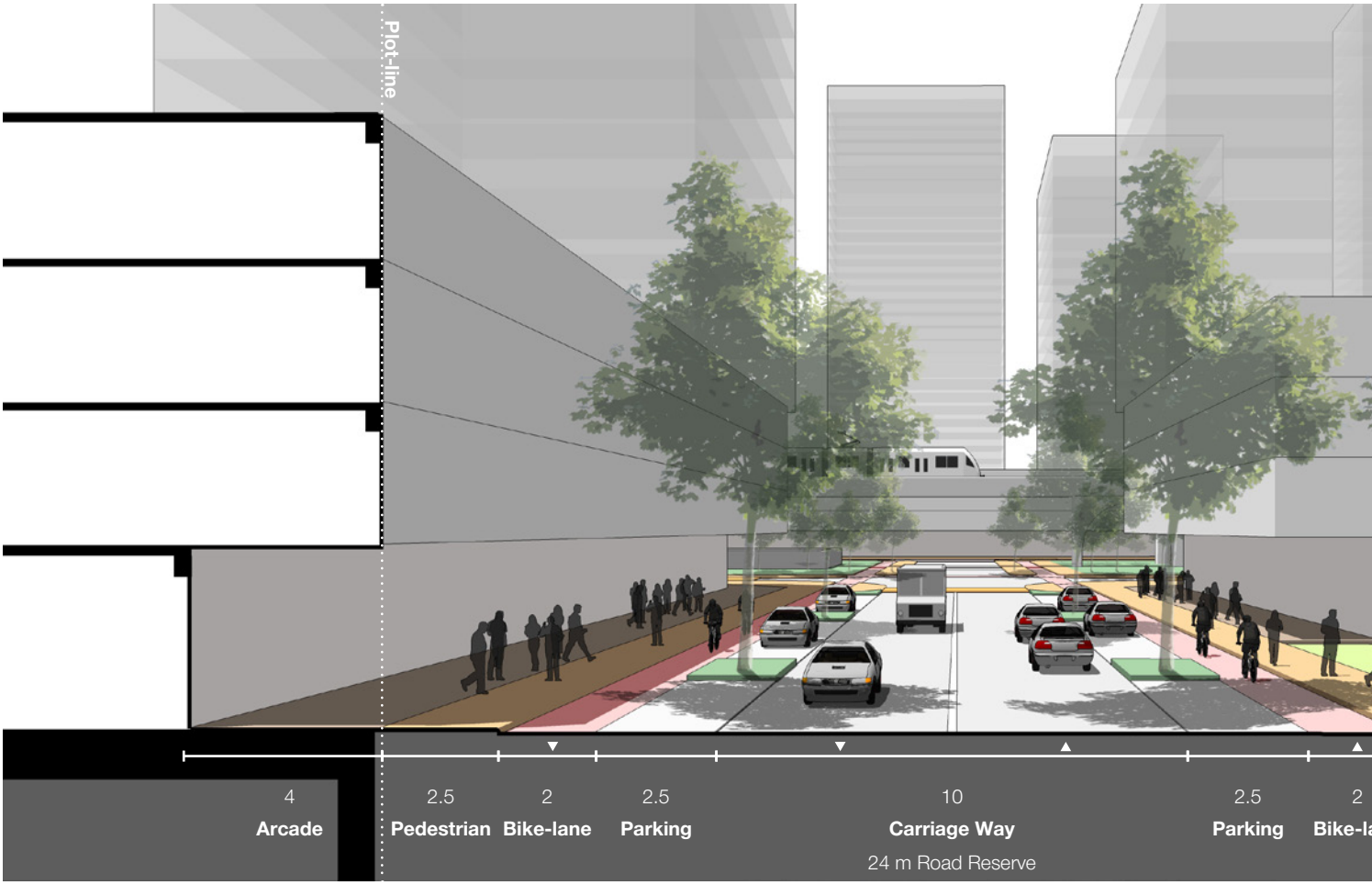
Figure 68. Woonerf in The Netherlands (source: https://d1q8kgt00fn2v8.cloudfront.net)



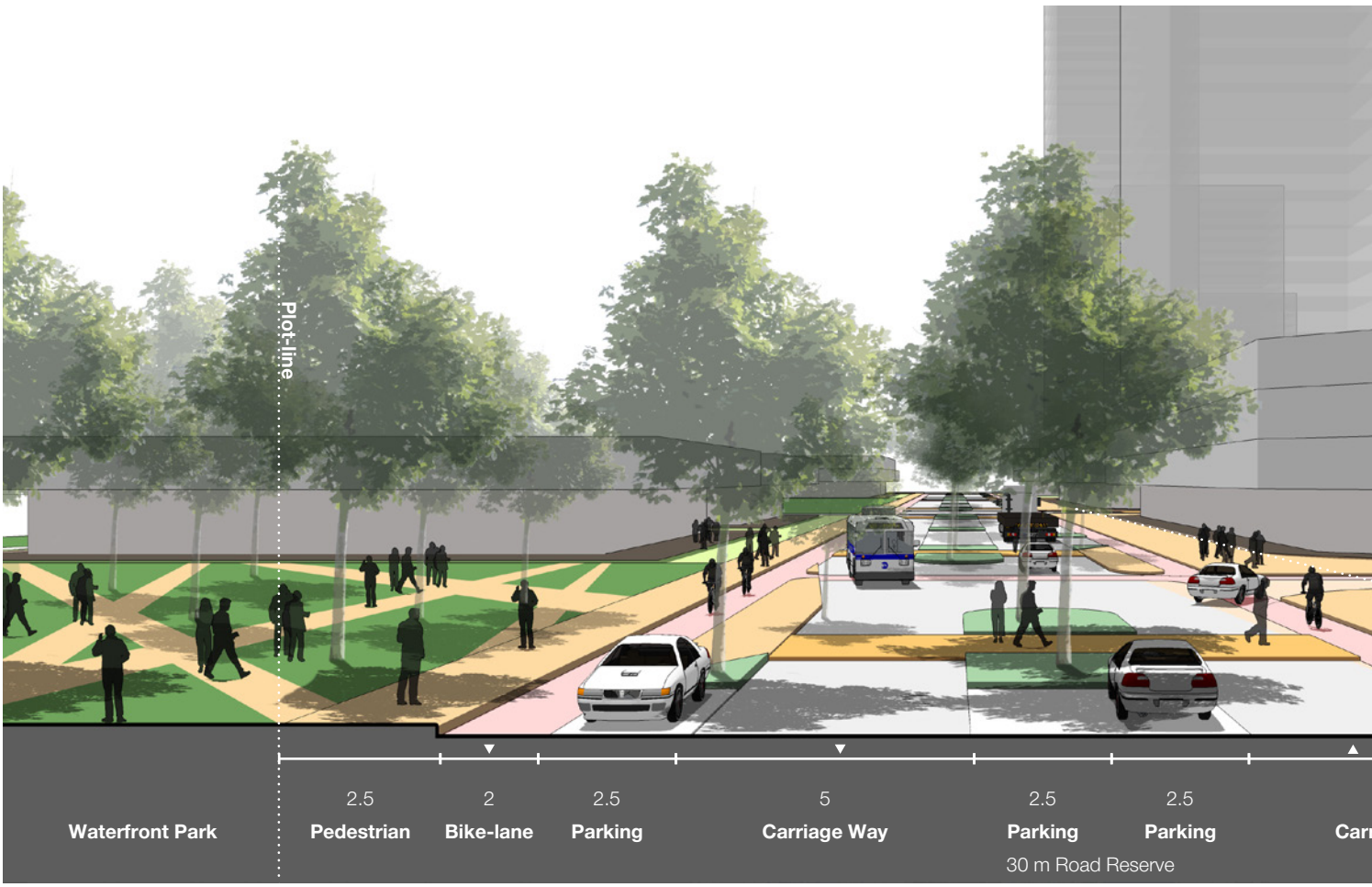
Type 2 - R800/Rn

Type 2 street is a pedestrian-friendly street which leads to a car-oriented streets (Rn). Hence the distinct feature in comparison to type 1 street is the availability of drop-off layby area where the tower lobby is encouraged to be located. Activities on the street are also planned to be less busy in comparison to type 1 street. Moreover, streets in this typology will be oriented towards major infrastructure of the area i.e., the LRT track and the main roads.

Figure 69. Shared street with lobby (source: http://www.boffamiskell.co.nz/)



Type 3 - R2700/R800

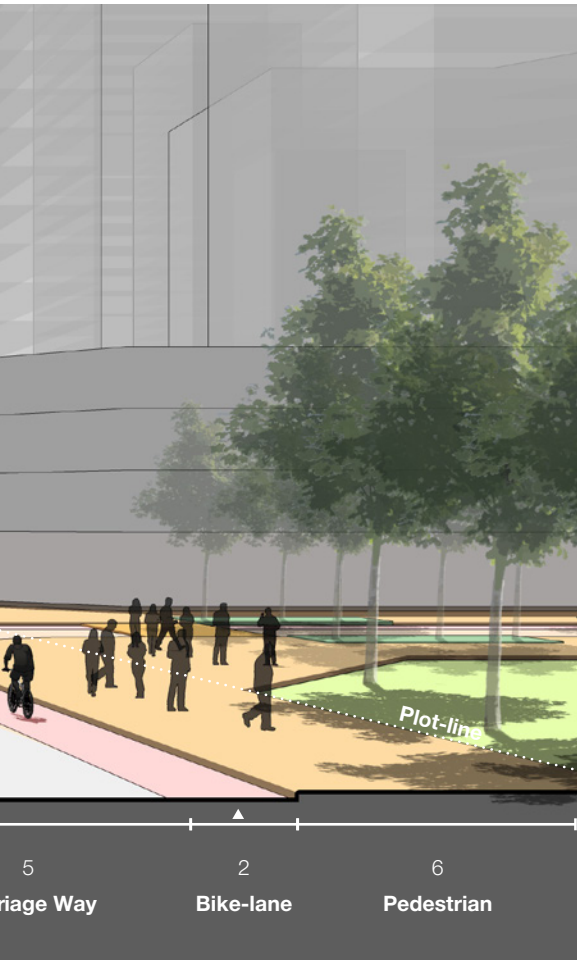


Type 4 - R2700/Rn

Type 3 - R2700/R800

The next two typologies are the intermediary street between the pedestrian-friendly (R800) and the car-oriented streets (Rn). In these two types, the distinct features are related to the in between mode of movements e.g., public transport and on-street parking. In the whole system, these two types are acting as the collector roads. Type 3 itself acted as minor collector road, connecting the western major collector road (waterfront street) and the eastern major collector road (golf course villa street). In type 3 streets, the main element is the on-street parking which can be multi-functioned as occasional informal economic activities.

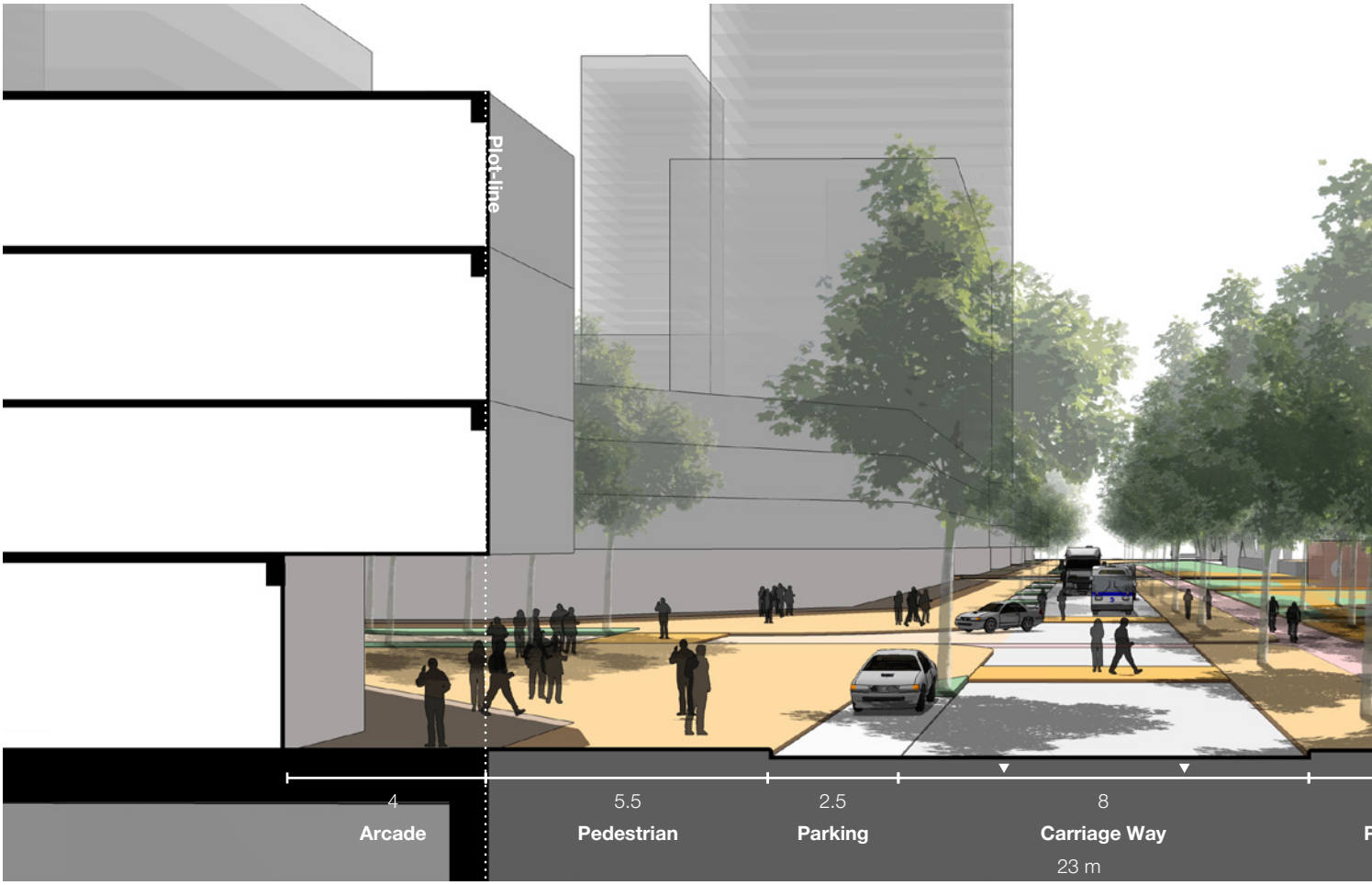
Figure 70. On street parking & street life (source: https://www.uitagendarotterdam.nl/)



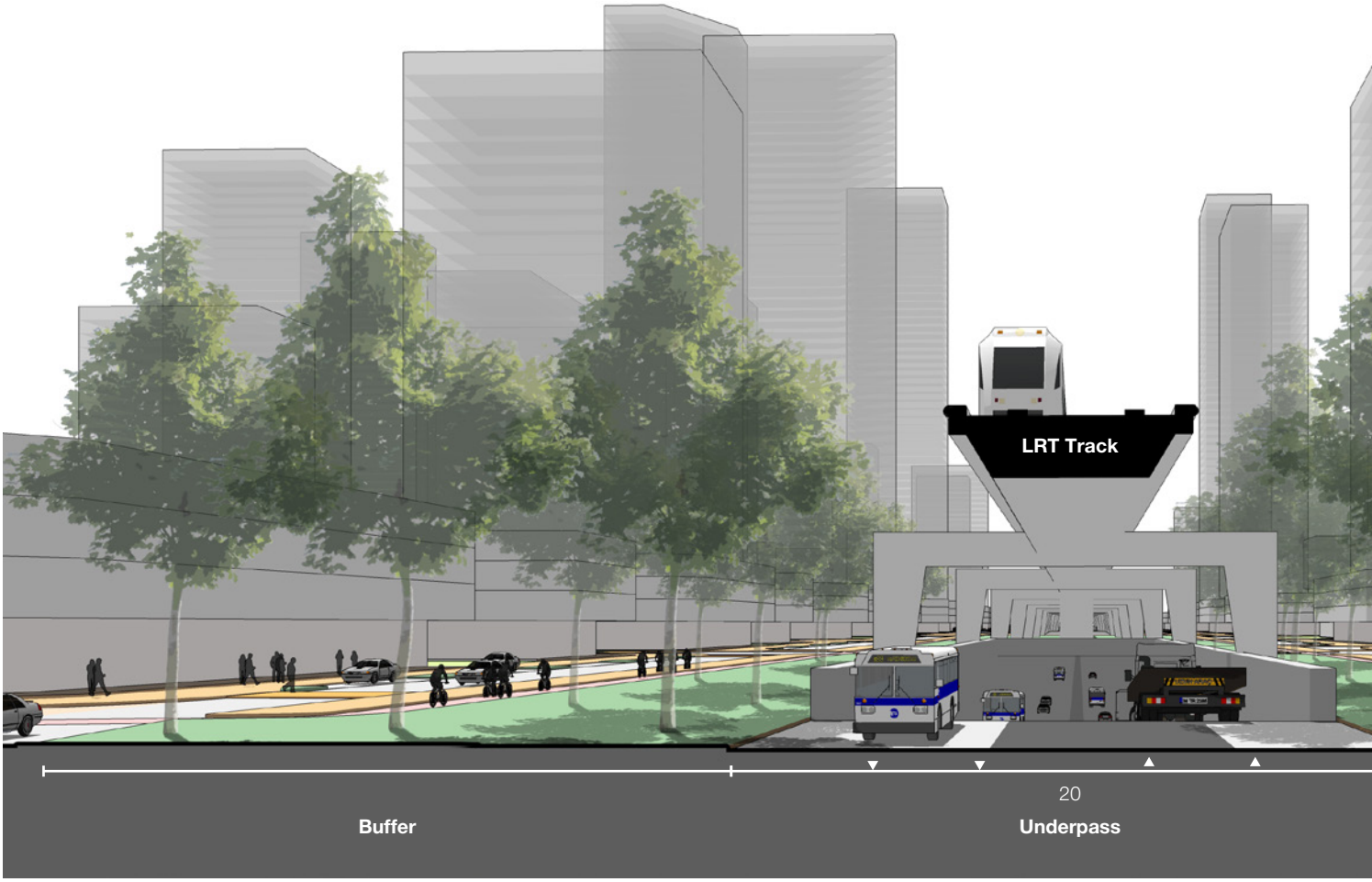
Type 4 - R2700/Rn

Type 4 streets acted as major collector road, consist of two main streets western major collector road (waterfront street) and the eastern major collector road (golf course villa street). The main element in this street type is the public transport presence and the idea of shifting the road centre line. This shifting idea as traffic calming is proposed to make the road sight of line not a continuous line so that it is not encouraged for cars to drive in high-speed.

Figure 71. Waterfront street in Boompjeskade Rotterdam (source: Google Streetview)



Type 5 - Rn/R800

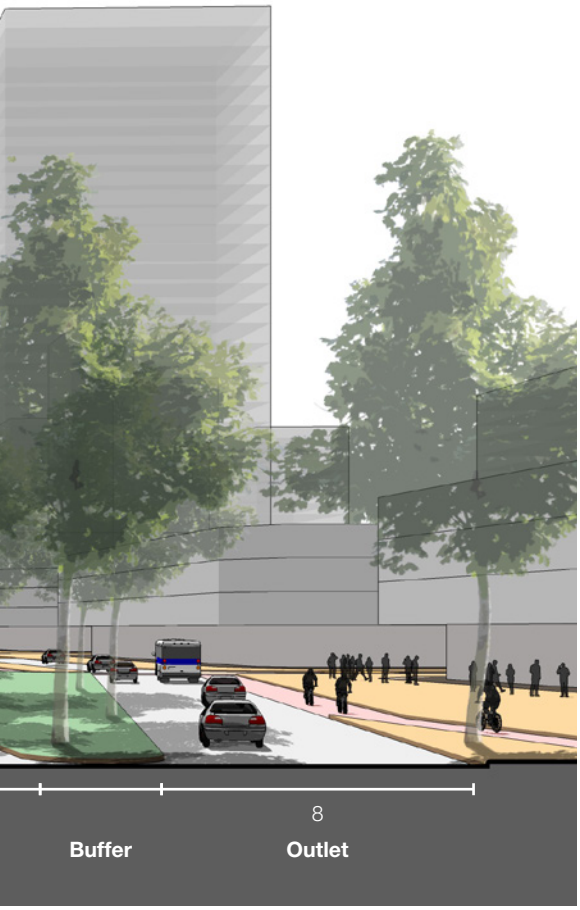


Type 6 - Rn/R2700

Type 5 - Rn/R800

The last two typologies are the most car-oriented streets in the whole street system – although the streets are still designed to be pedestrian-friendly. The two street types are located inside the 100m road reserve, type 5 acted as the feeder to the system inside the area and type 6 acted as the inlet/outlet to the system outside the area. Type 5 itself will be a one-way road loop system circling around the LRT park. In LRT park itself will be the place that bridge the western to the eastern part of the site. Hence, the idea is to encourage public life in this in between space.

Figure 72. Activities under the LRT track structure (source: http://en.vietnam.vn)



Type 6 - Rn/R2700

The last street typology is the inlet/outlet street to the system outside the area. This typology consists of mainly the sunken road in the middle of the area that will be used to bypass the traffic in the direction of North-South. This middle area will also be the area where the LRT station and track located.

Figure 73. La Defense in Paris (source:http://pariz.poznej.com/files/defense1.jpg)

the same two people

Poppies by Monet, 1873 (source: https://www.unprofesor.com/ciencias-sociales/arte-moderno-artistas-mas-importantes-2066.html)

Poppies, by Monet (1873)

This painting is interesting because the four figures on the painting are actually the same two people but in different time. Monet cleverly showed the spatio-temporal quality that I took as inspiration in evaluating my design.

(see page 167)

the necessary steps to deal
with both the product (urban vitality)
and the process (masterplanning process)

DESIGN EVALUATION

Mixed-uses

Accessible
Street Network

Social
Composition

Design

Space in Use

Development

Management

Design Evaluation Method

In this final chapter, the proposed design will be evaluated using the framework that have been established to guide the analysis and design process of this project. The intention of this design evaluation is to examine whether the proposed design have achieved the project aim in a quantifiable manner. With this manner, the proposed design that have been demonstrated through every scale (masterplan, superblock, and street level) and every vitality aspect (program, place, people) could be strengthen even further. Each urban vitality aspect will be evaluated with one factor: program aspect with mixed-use factor; place aspect with accessible street network factor; and people aspect with social composition factor.

Furthermore, to complement the spatial aspect that have been demonstrated in the proposed design, this evaluation is also intended to touch upon the other key aspect of this project: masterplanning process. With the intention of making the processes continuum, this design evaluation will specifically propose a set of design governance for each process (design, development, management, and space in use).

6.1 NODE/PROGRAM

Mixed-uses

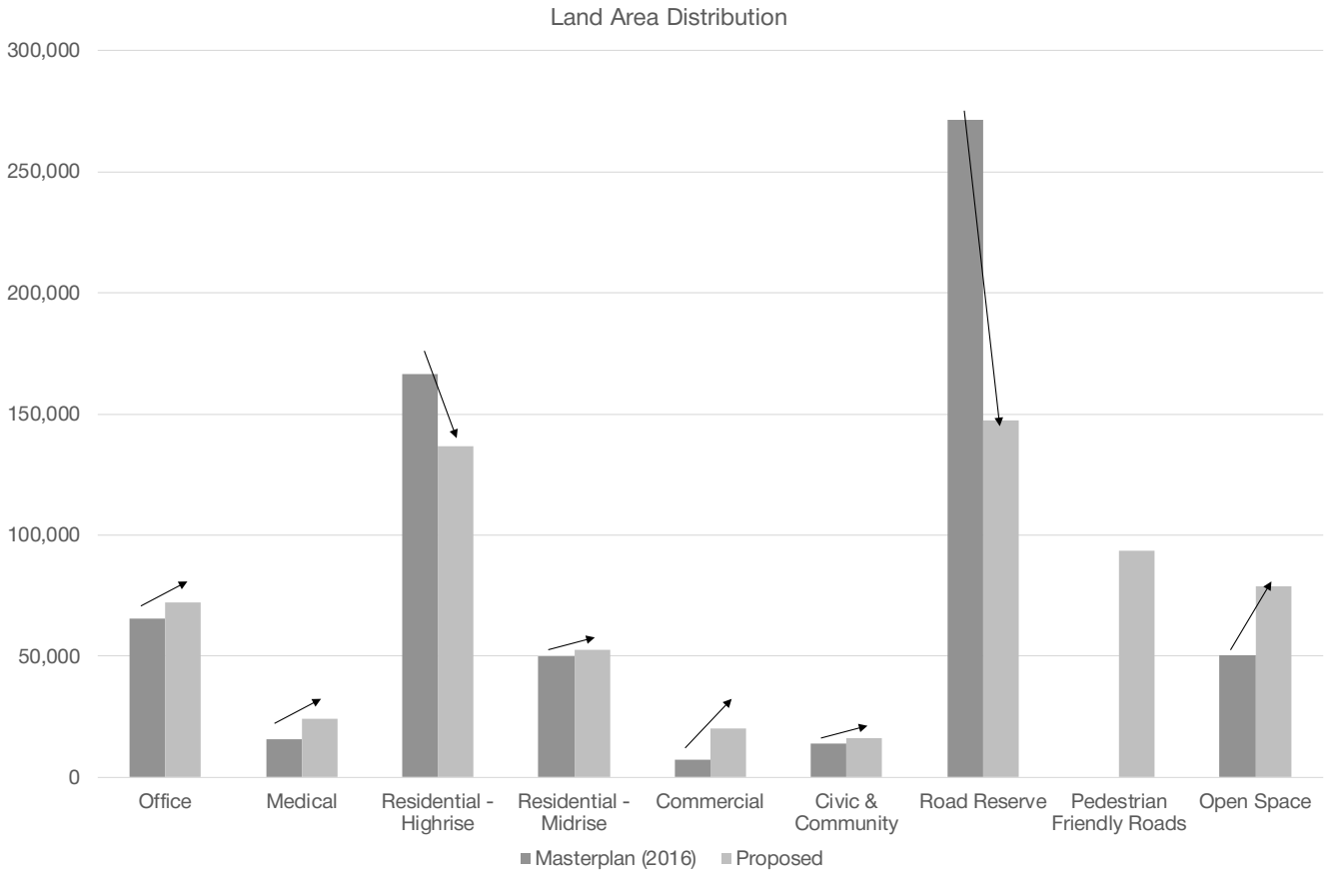


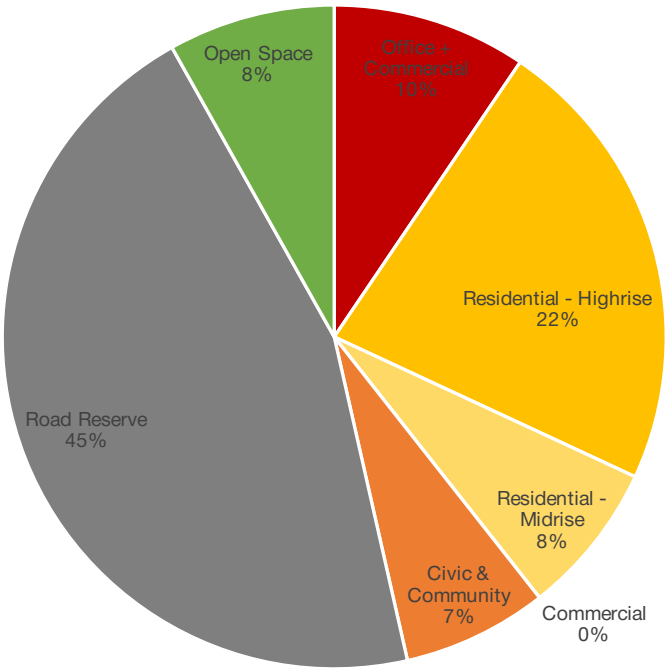
Figure 74. Landuse Comparison (top)
Figure 75. Land Area Comparison (bottom)

Mixed Land Uses

In terms of mixed of uses, the evaluations are divided into three ways: land use allocation, land area distribution, and GFA (Gross Floor Area) distribution. First, the land use allocation is evaluated by comparing the allocation in the original design and the proposed design (Figure 74). Apart from the structural change that have been demonstrated in the previous chapter, the main changes are in the placement of the uses: in the original design the method is more of a clustering method while the proposed design is to mix the uses for every superblock. In terms of the quantity of the land use, the major changes are in the reduction of the road reserve land use to become the pedestrian friendly roads (Figure 75). Although the total amount of road reserve is pretty much the same, pedestrian friendly roads are kept consistent with the overall concept. The other significant changes are in the total development plots which are increased by 3,400 sqm (1% increase) and the open spaces which is increased by 28,700 sqm (57% increase) mainly because of the sunken road strategy.

Mixed-uses

New York (Upper East Side 59St - 71St - Lexington Ave)



Land Area - Proposed

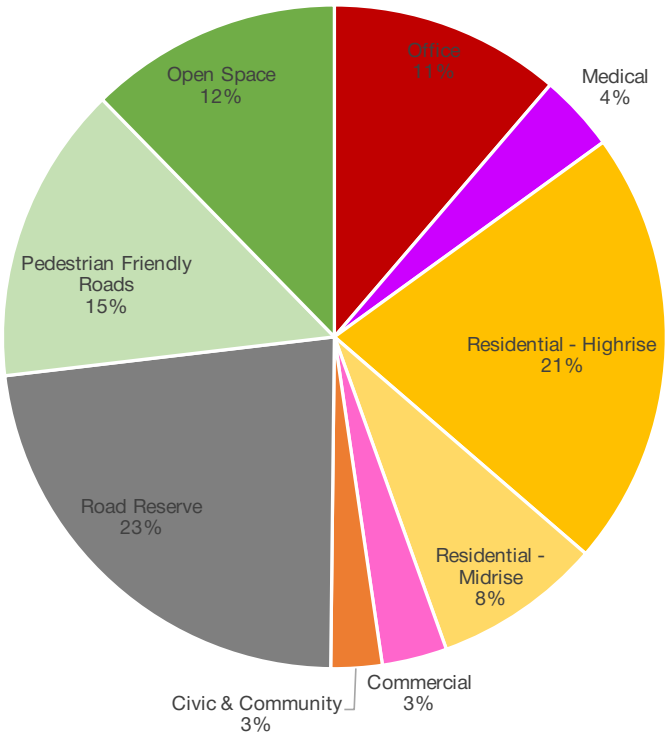
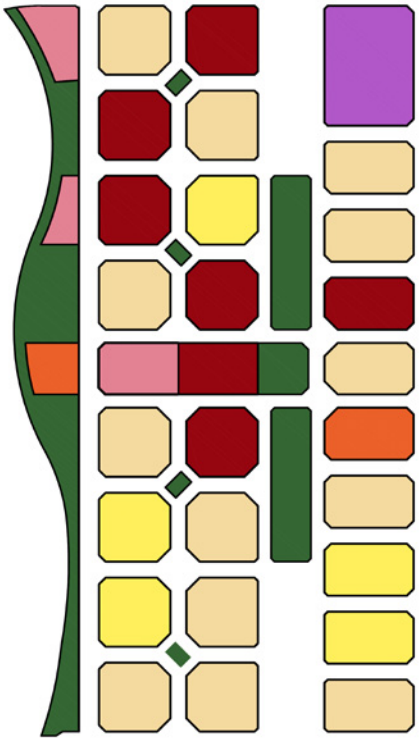


Figure 76. Land use comparison, New York (top) and proposed design (bottom)

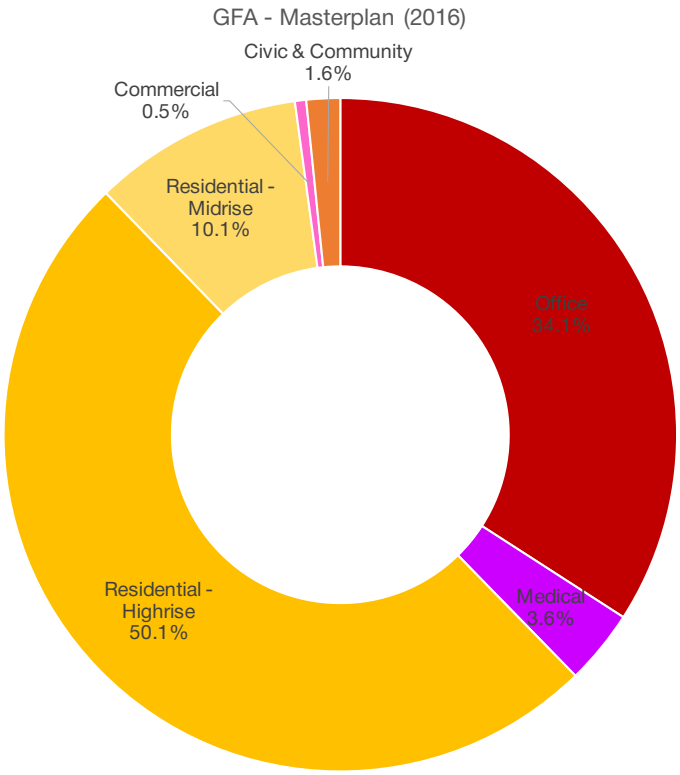


Grid Comparison - New York

Next, the proposed mix of land uses are evaluated using comparison study to the New York case that has been used previously (see Chapter 5.3). The idea here is to evaluate how the New York blocks are mixed in the land uses aspect (using the same parameter of land uses). Based on the evaluation, the three indications are: first, in terms of land use distribution, the distribution is quite comparable especially in the road reserve and open space figure (Figure 77). Moreover, the main difference is in the mixed of land uses per block, which in the New York case is heavily mixed for almost every plot (there are only two blocks out of thirty-six blocks which are mono-uses). Whereas in the proposed design, every block is mono-uses – although it is because of the regulation (Figure 78). Hence, the proposed design is to mix the uses in the building (ground floor, podium, and tower (Figure 78).

Figure 77. Land use allocation, New York (top-left) and proposed design (top-right)
Figure 78. Ground floor, podium, and tower use in the proposed design

Mixed-uses



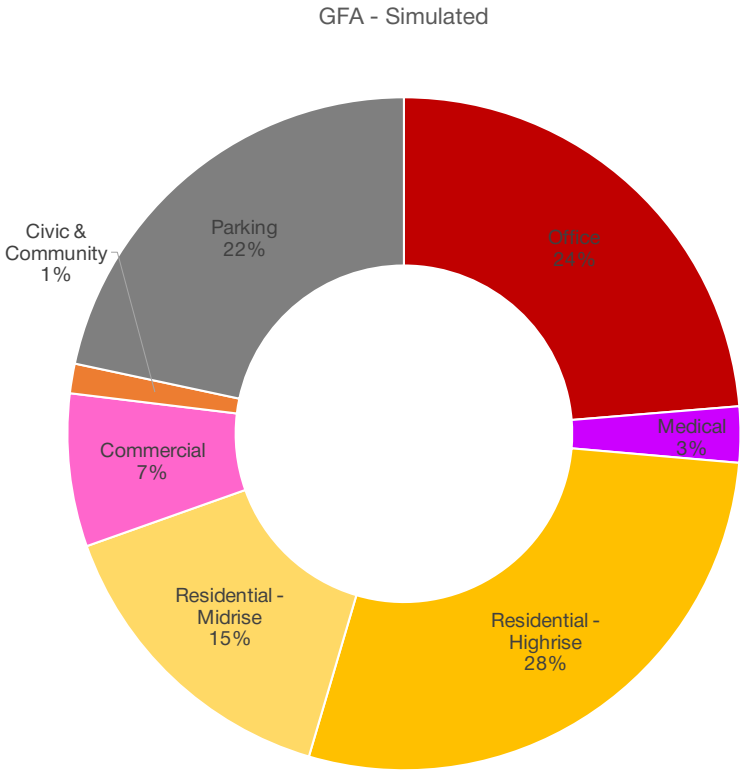
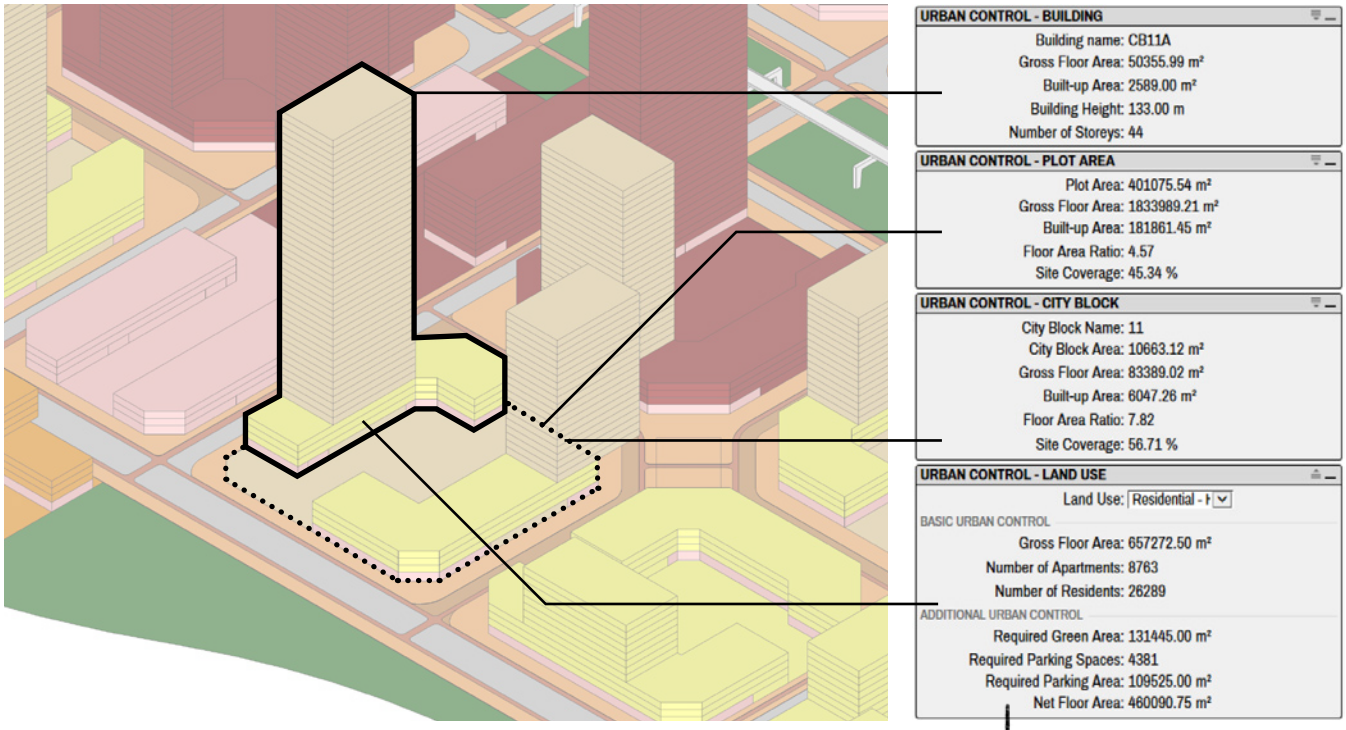


Figure 79. GFA Distribution Comparison



check this out!
super useful tools
for simple urban
design simulation
(FAR, COV, Land %, etc.)

Mixed of Building Uses

For the mixed of building uses, as the intention is still use the figures that the designer proposed in the original design, the focus is in the simulation process – demonstrating how the figures would be spatialized. Hence, the simulation process is approached using a specific plugin called Modelur (Vidmar, 2013). With this plugin, the uses distribution can be monitored real time while creating the design (Figure 80). The intention is to not focus on the figure itself only, but also in how the figure would be seen in space.

As for the figure itself, the main difference with the original design is in the addition of the parking GFA, with the assumption of 0.5 parking space per apartment and 1 parking space per 60 sqm of office space and commercial space. With this assumption, parking space will take up to 22% of the total GFA uses (Figure 79).

↑
Figure 80. Modelur interface

6.2 CONNECT/PLACE

[the argument of
making more connections
to the surrounding villages]

Contextual Accessibility

Next, the place factor will be evaluated using the Space Syntax simulation, as has been demonstrated in the analysis part of the project (see Chapter 3). The evaluation will be using only the factor of Choice (the tendency of path to be used the most to access the road structure) for practical reason. The first evaluation is in the contextual scale – how the proposed design changed the accessibility of the site. In this scale, the relevant movement system is the global radius i.e., car-oriented accessibility (Rn). The changes in this scale are observed to be: (1) the added connection to the surrounding villages changed the accessibility of the streets gravitated towards the interprovincial highway on the East, not towards the central highway (100m road reserve road) or the dike road on the West, (2) this gravitation to the East is mainly altered towards the main road on the northern side of the focus area, (3) the central highway is no longer the most accessible street in the global movement (Rn), hence it is aligned with the intention of the design.

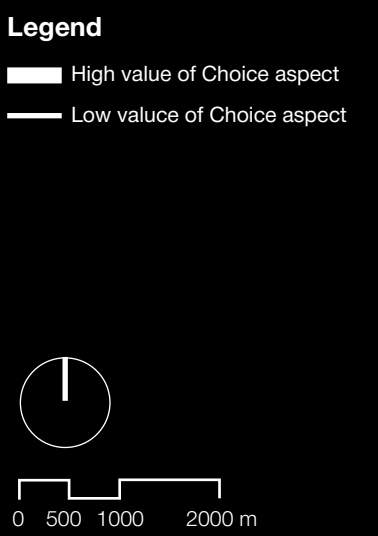


Figure 81. Contextual Accessibility

Original Design

Proposed Design

All Values

Highest Values

Pedestrian Accessibility (R800)

In this pedestrian accessibility factor, as demonstrated earlier (see Chapter 3), the simulation for the original design showed that there is a broken link in the city centre (Figure 82, bottom-left). Hence, the aim is to resolve this broken link in the proposed design. Based on the simulation for the proposed design, the aim is achieved through the implementation of the superblock concept (Figure 82, bottom-right). It is observed that the broken link is now connected through the superblock nodes, hence connecting the southern part of the site to the northern part of the site.

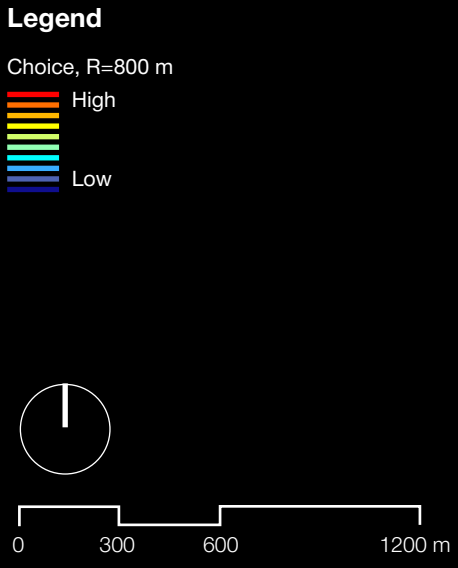
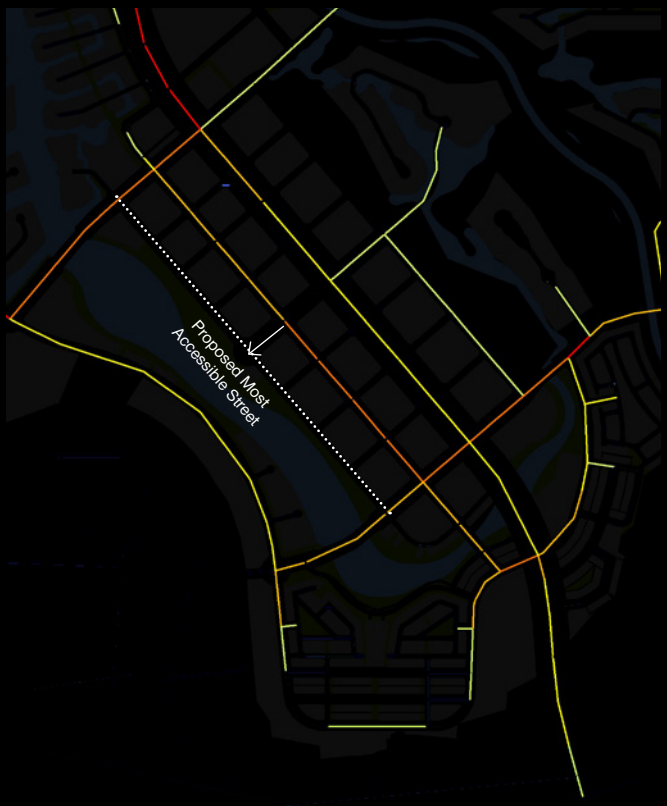


Figure 82. Pedestrian Accessibility (R800)

Original Design

Proposed Design

Highest Values (R=2700 m)



Highest Values (R=n)

Motorbike and Car Accessibility (R2700 & Rn)

For the motorbike accessibility (R2700) and car accessibility (Rn), the main aim is to complement the pedestrian accessibility. In the motorbike accessibility, the change is mainly shifting the most accessible street towards the major collector road on the waterfront side (West) and on the golf course side (East). This shift will create the central street only most accessible for pedestrian (Figure 83, top-left & top-right). As for the car accessibility, the aim is to link the street network to the surrounding villages as demonstrated in the contextual accessibility. Based on the simulation, the proposed design helped to connect the surrounding villages to the road system, gravitated towards the Eastern interprovincial highway (Figure 83, bottom-left & bottom-right).

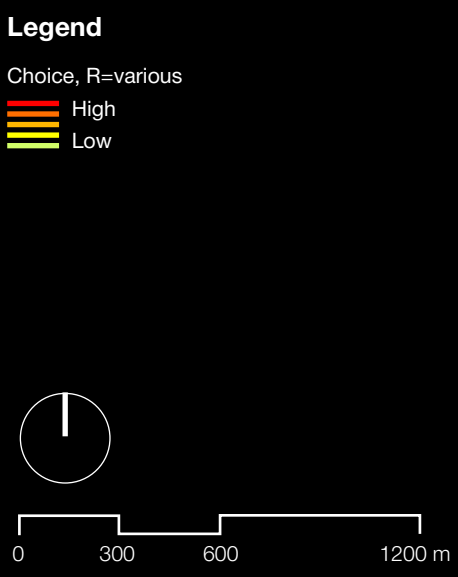


Figure 83. Motorbike and Car Accessibility (R2700 & Rn)

6.3 GATEWAY/PEOPLE

Persona A

Occupation : Architect
Condition : Young family moving from Hanoi
Demand : Low-cost housing
Office space near from home
Affordable day-to-day needs
Fun places to hang-out
Easy access to Hanoi

Persona B

Occupation : Industry Owner
Condition : Established family moving from Hung Yen
Demand : Mid-cost housing
Office space near from home
Affordable day-to-day needs
School for the kids
Easy access to his industry in Hung Yen

Persona C

Occupation : Retiree
Condition : Elderly family moving from Hanoi
Demand : Multiple housing types for investment
Places to linger during the day
Open green space for daily visit
Far from crowded spaces
Near to the hospital

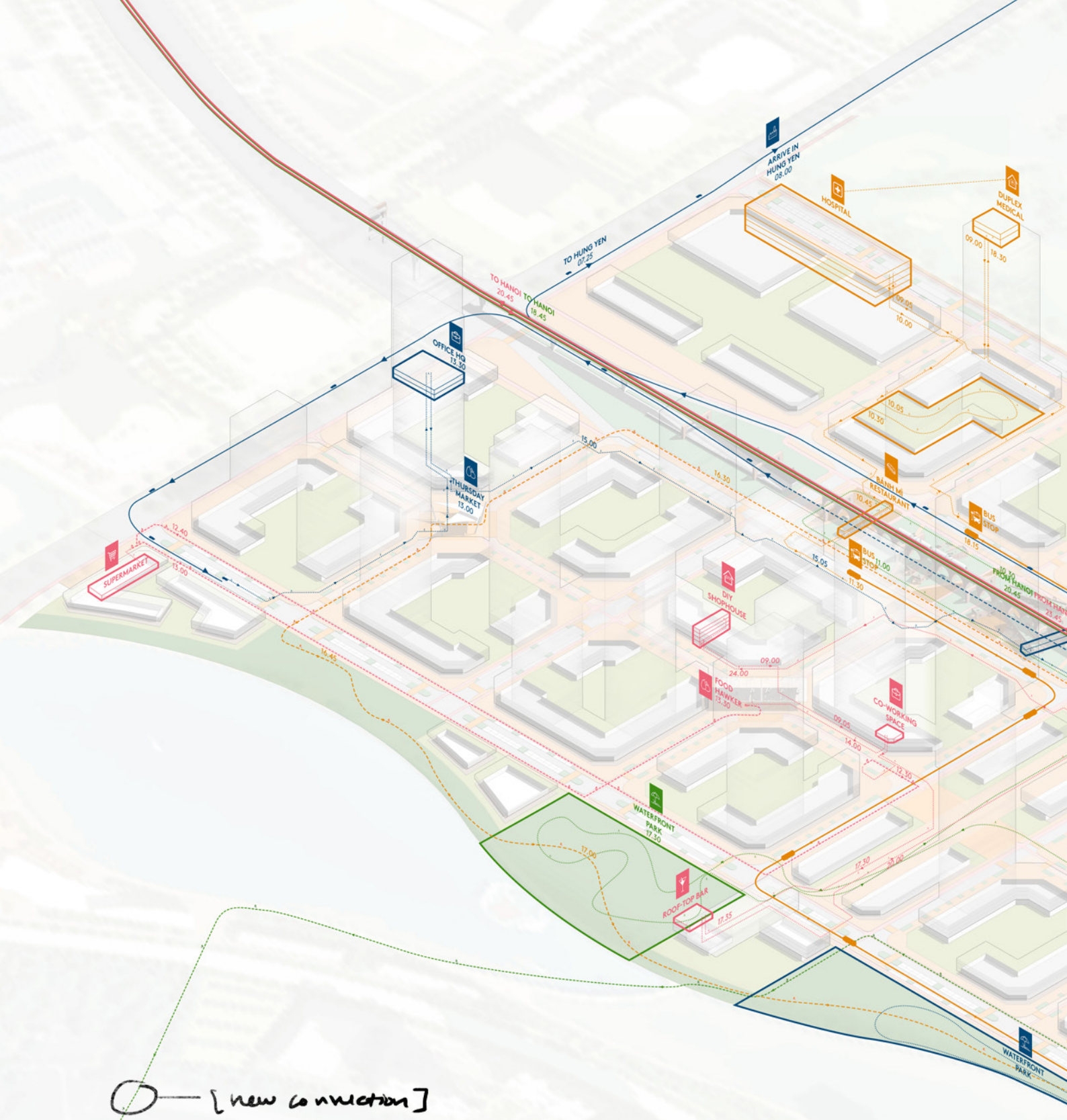
Persona D

Occupation : Landscape Worker of Ecopark
Condition : Living in the village beside Ecopark
Demand : Easy access to Ecopark
Places to hangout during break time
Affordable day-to-day needs
Opportunity to open her own Pho business
Recreation places to go during weekend

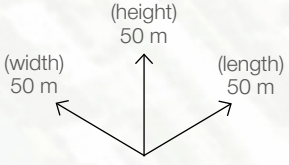
Social Composition Evaluation

For this aspect, the evaluation process will not be as quantifiable as the first two evaluations but rather a test to imagine how the design could catered different kind of needs from different kind of people. The evaluations will be demonstrated using 4 personas, each with specific occupation, specific living condition, and specific demands (Figure 84-87). The personas are young architect from Hanoi, industry owner from Hung Yen, old retiree from Hanoi who wants to invest, and landscape worker of Ecopark living in the village nearby. The compositions are consciously taken to the extreme to fully test the design. The evaluation will be demonstrated through how each persona will use the spaces in the city centre of Ecopark from the start of the day towards the end of the day.

Figure 84. Persona A (source: facebook.com)
Figure 85. Persona B (source: facebook.com)
Figure 86. Persona C
Figure 87. Persona D (source: http://vespaadventures.com/wp-content/uploads/2016/05/)



[new connection]



[there are many Ecopark's workers living in these villages]

drawing inspired by Monet's paintings, depicting 4 different people's activities in diffent times and places

Persona A

Architect, young family moving from Hanoi

Persona B

Industry owner, established family moving from Hung Yen

Persona C

Residential investor, elderly family moving from Hanoi

Persona D

Landscape worker, living in the village beside Ecopark

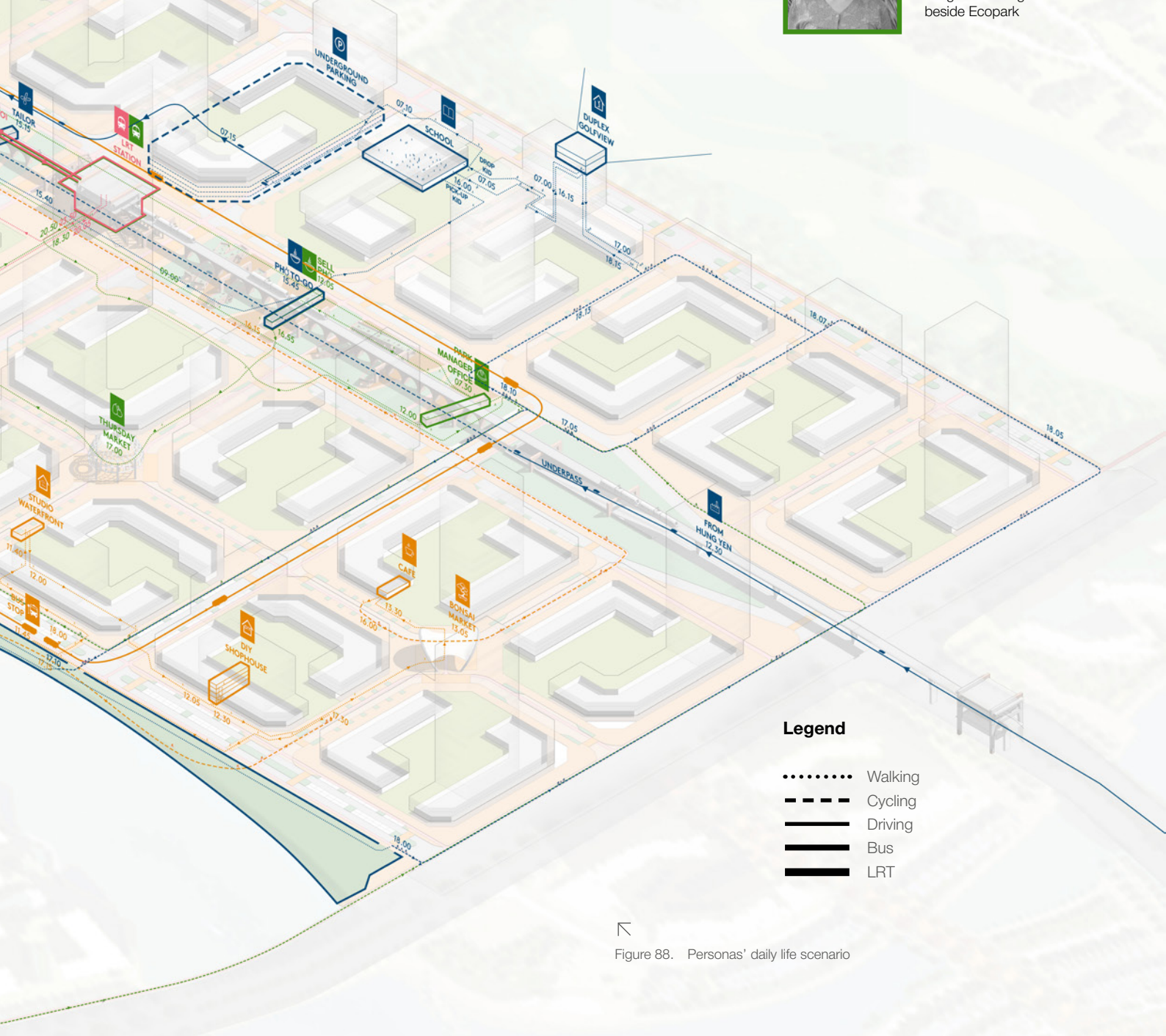
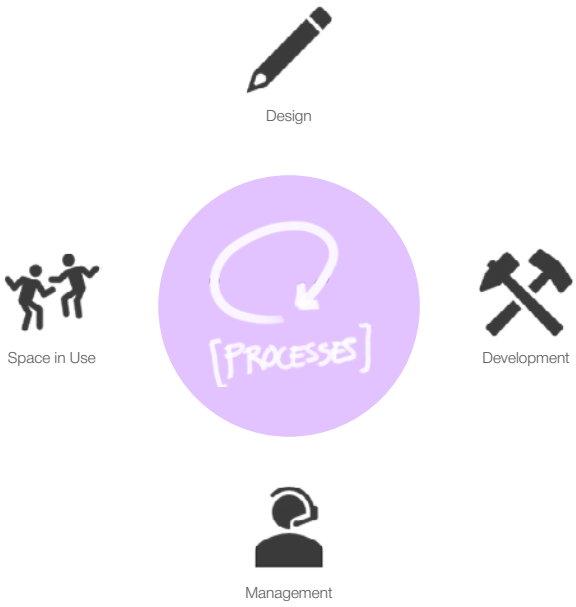


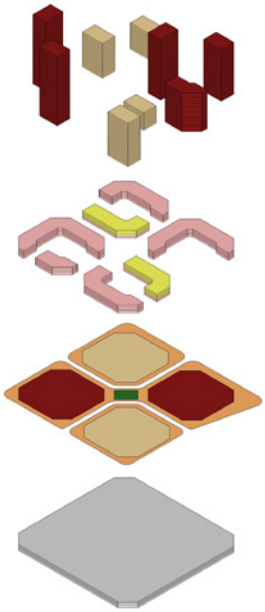
Figure 88. Personas' daily life scenario

6.4 MASTERPLANNING PROCESSES



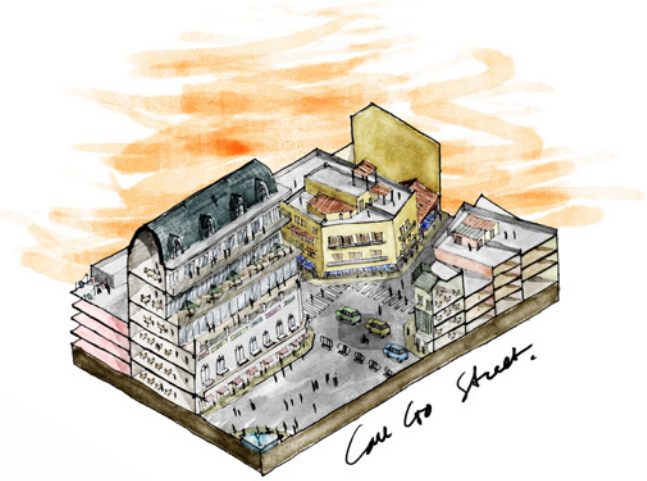
Masterplanning Process Continuum

The last aspect of the design evaluation is in relation to the masterplanning processes i.e., design, development, management, and space in use process. As elaborated earlier, one of the aim of this project is to produce design in process and process in design as Carmona (2016) elaborated as design governance. Based on the proposed design, a set of design governance is proposed. Design governance here interpreted as to answering the question, “what would be the most important features of the proposed design to be considered for each process/stakeholder?”. The answer to that question is then tailored for every process. These design governances will then be delivered through stakeholder engagement so that appropriate feedbacks can be taken.



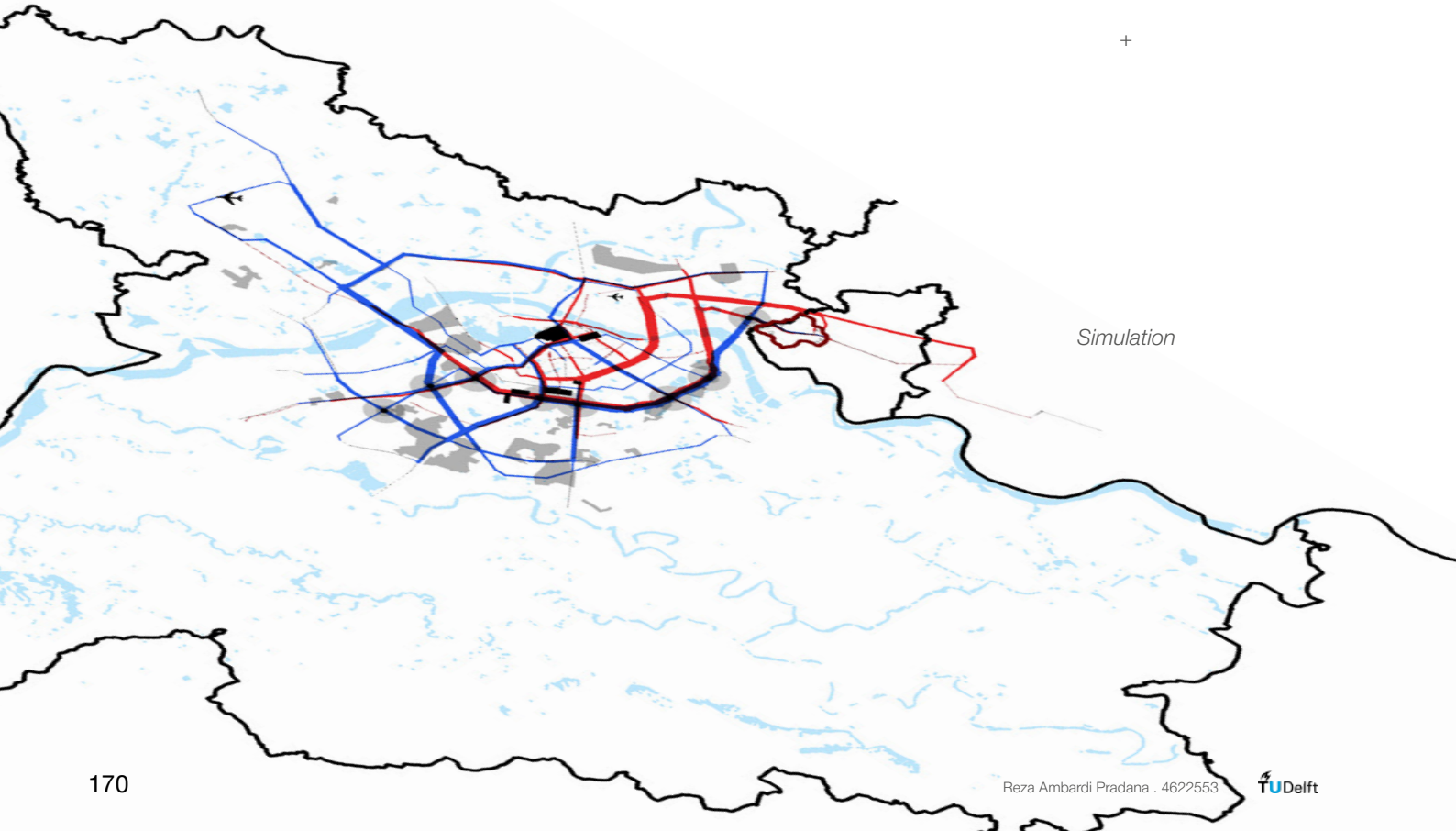
Modelling

+



Observation

+



Simulation

Design Process

For the design process, the proposed design governance is more about the overall approach towards the design itself i.e., the simulation-observation-modelling approach (Figure 89). The simulation in this case is referring to the Space Syntax simulation about the street accessibility. While the observation is referring to the Gehl Institute approach in understanding the public life that have been used in this project to understand Hanoi's public life. Lastly, the modelling is referring to the Modelur plugin that have been used in this project to model/ simulate the mixed of uses in space and density.

With the combination of the three approaches, the design can be objective (with simulation approach), interactive (with modelling approach) and in the same time still being subjective (with observation approach). Moreover, while these approaches are rare in the practice of masterplanning, through this project it is demonstrated that these approaches are effective in delivering a message while still time-effective. This type of design governance is consciously taken reflecting to the project aim that is more about exploring the design approaches rather than producing a complete design.

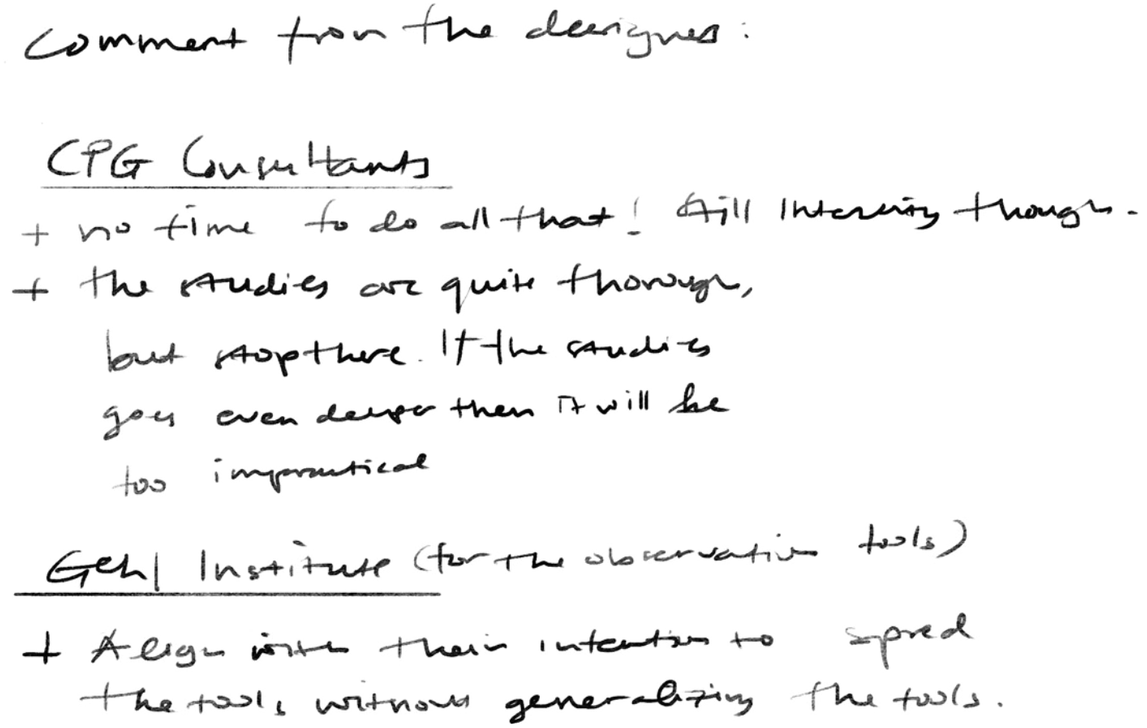


Figure 89. Design governance for design process

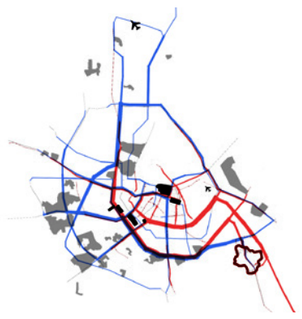
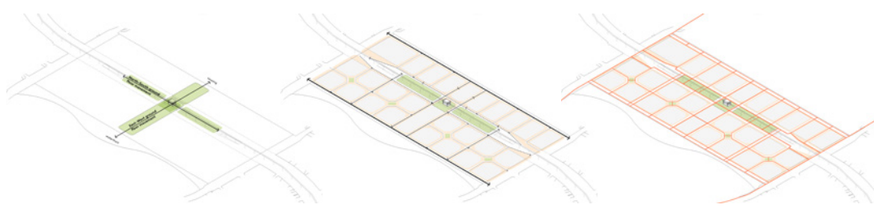
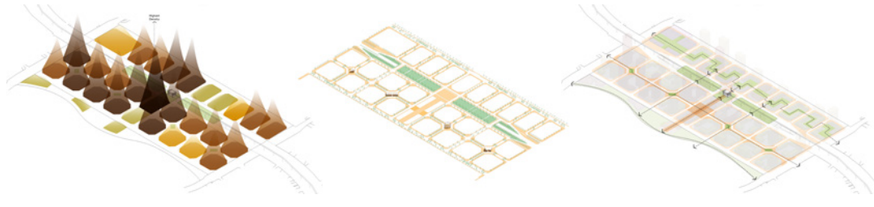
DESIGN DECISIONS THROUGH SCALES [PRODUCT X PROCESS]

Processes		Urban Vitality		
Design	Development	Place	People	Program
Management	Space in Use			

Regional & Masterplan Scale

The idea of this elaboration of design through scale is to link the intended product i.e., urban vitality and the process i.e., masterplanning process. In other words, is to make explicit what are the design decisions that needs to be taken in each scale for which urban vitality aspect and in which masterplanning process.

In the regional scale the design decisions are related to the proposed positioning of the project i.e., node, connect, and gateway. As it is on the largest scale, the design decisions are mostly related to the design process of the project which will be the earliest process. In the masterplanning scale, the design decisions are in conjunction to the proposed positioning and the design decisions taken in the regional scale. For example, with the node positioning, the design decision in the regional scale is to make Ecopark to be the place for not only live (like most of the other new town in Hanoi) but to also accommodate work and play activities. Hence, in the masterplan scale the design decisions taken are the decisions that will support the live + work + play idea i.e., mixed landuse, mixed building use and public uses corridor – each with different significant process. For example, the mixed land use idea can be proposed in the design process, but the mixed building uses idea will be more significant in the development process.

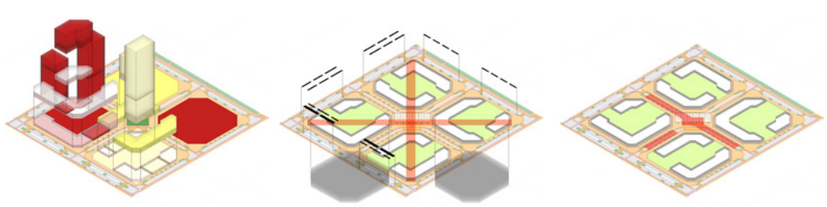
Urban Vitality \ Scale	Regional	Masterplan		
Program				
	Live + Work + Play Design	Mixed Land Uses Design	Mixed Building Uses Development	Public Uses Corridor Management
Place				
	Private + Public Transport Accessibility Design	Close Proximity to LRT Stations Design	Accessible Street Network Design	Cycling Infrastructure Provision Development
People				
	Hanoi + Hung Yen Complimentary City Centre Design	Higher Density towards LRT Stations Development	Private Initiative Event Spaces for Each Superblock Management	Public Spaces for Different Types of People Management

[to make explicit what are the decisions to be taken
in which scale, for which aspect of urban vitality (the product)
in which part of masterplan process (the process)

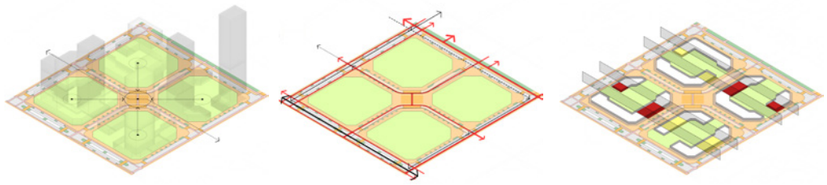
→ product x process

Design

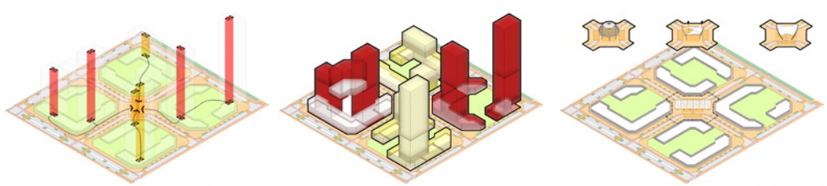
Superblock



Mixed of Land & Building Uses	Public Provision	Provisioned Informal Activities
Development	Management	Management

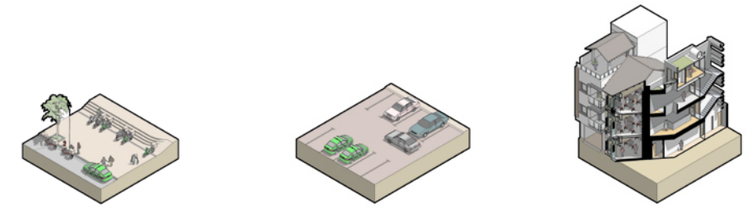


Superblock Nodes' Close Proximity to LRT Stations	Accessible & Integrated Street Network for Multi-transport Modes	Public-Private Transitional Place
Space in Use	Design	Space in Use

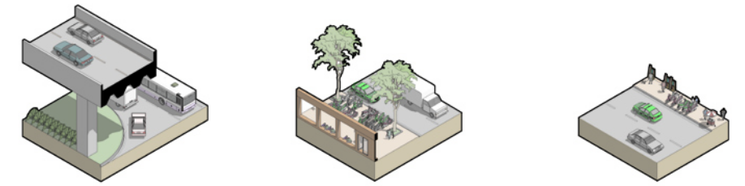


High Density of People Concentrated to Superblock Nodes	Mix Social Composition through Building Typology	Superblock Nodes for Flexible Private Initiative Events
Space in Use	Development	Management

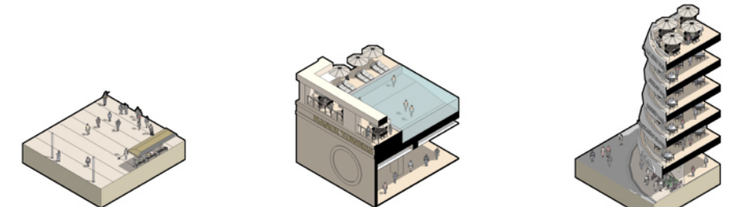
Street



Rn - Mixed Used Sidewalk	R2700 - Parking	R800 - Mixed of Uses
Space in Use	Development	Management



Rn - Accessible Street	R2700 - Pedestrian Motorbike Parking	R800 - Ground Floor Extension
Development	Management	Management

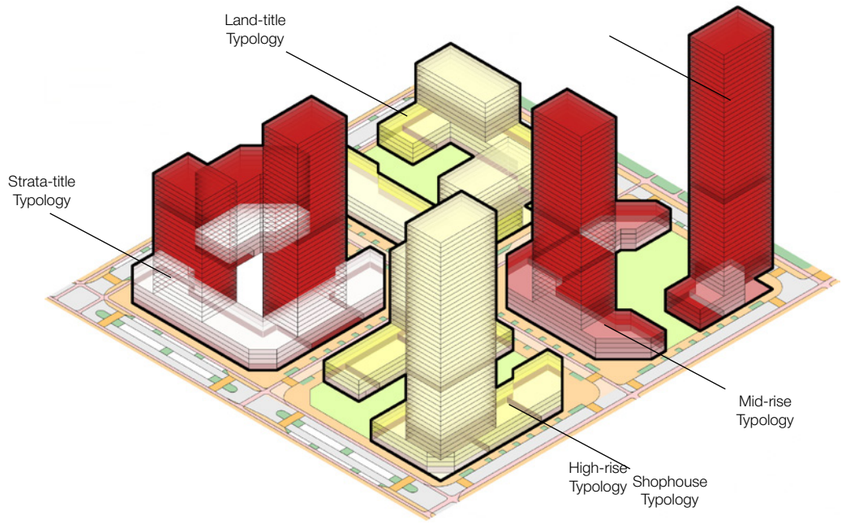


Rn - Triangulation	R2700 - Private Facility	R800 - Anchor Tenant
Space in Use	Design	Management

Superblock & Street Scale

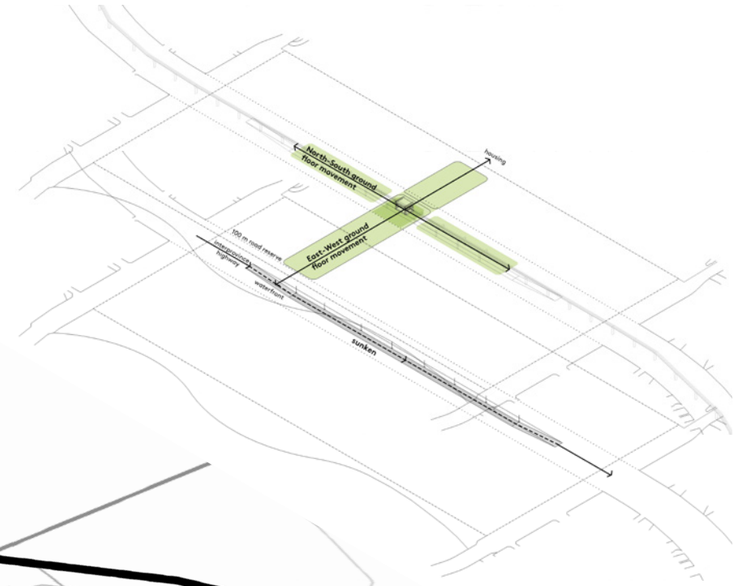
In the superblock scale, as the scale is getting smaller, the more significant process is in the management and space in use process with still link to the positioning and design decisions in the larger scale. For example, the superblock nodes as the place for the flexible private initiative events design decision will be more significant in the superblock scale and in the management process rather than in the larger scale as it will be related to the stakeholder in each superblock. As the street scale, the design decisions are more how the link to the urban vitality principles that are investigated in the site visit is being used in the design. For example, the principle of pedestrian motorbike parking principle learnt from the R2700 Hanoi city centre is implanted in the design with addition of bike parking. Hence the idea is not to directly implemented the principle as it is but to modify it to fit with the needs of the future city centre of Ecopark.

Figure 90. Design decisions through scales [product x process]



Social Composition

+



LRT

+

Underpass

+

Connection to Surrounding

Development Process

For the development process, the proposed design governance is rather practical in comparison to the design process. The intention is to propose and make explicit the most essential design decision to be considered by the stakeholder in the development process. The three design decisions are: connection to the surrounding villages; LRT and underpass provision; and diverse social composition (Figure 91).

First, the connection to the surrounding villages is a crucial step to ensure the vitality of Ecopark city centre. As demonstrated using the space syntax simulation, the added connection enhanced the tendency of people using the main roads flanking the northern and southern side of Ecopark city centre which will help enhance the vitality of the place.

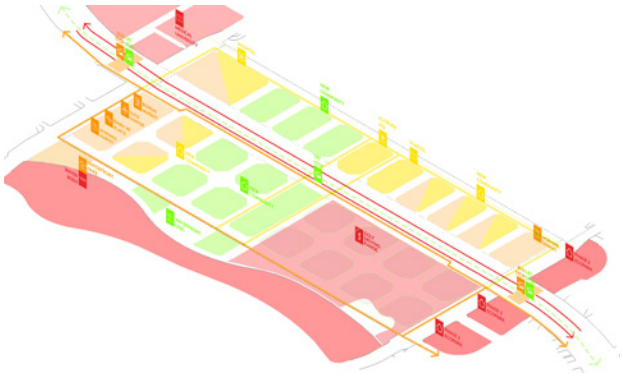
Second, the provision of LRT and underpass is crucial for the existence of East-West connection inside the city centre and enhanced massively the connectivity to Hanoi. By having these two as the core of the city centre, the vitality of the place can be maximized.

Third, the diverse social composition is essentially to combat the current status quo that a new town is only for a higher class of society. While having a rather non-diverse social composition still worked in the first phase of Ecopark (which is mostly housing), it is argued that it will not work in the city centre which require a much more diverse social composition to be vital.

Figure 91. Design governance for development process

Urban Vitality	Concept
Program	Knowledge + Residential
Place	Internal Ecopark-oriented
People	Existing Stakeholder-led

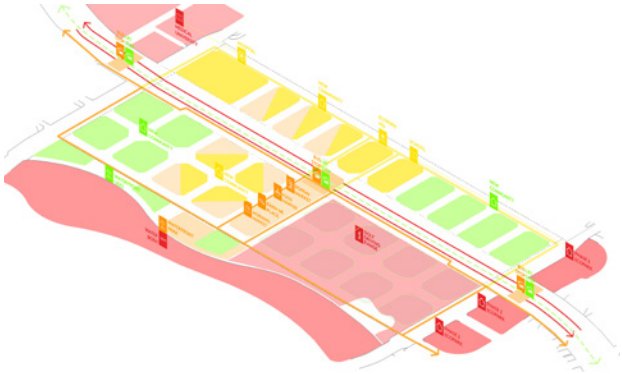
Processes	Significance
Design	
Development	
Management	
Space in Use	



Option A: Expansion of Existing Communities

Urban Vitality	Concept
Program	Leisure + Civic + Public Uses
Place	Vihajico's Ring of New Town
People	Vihajico-led

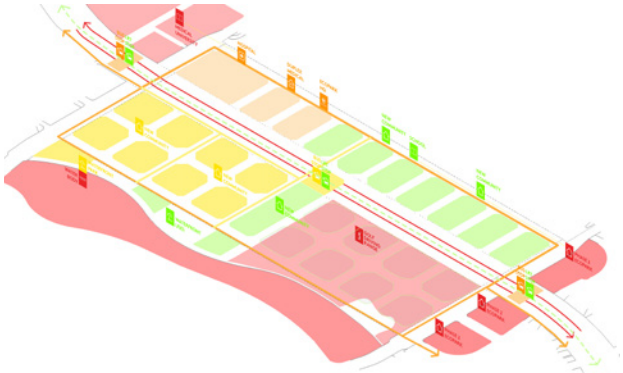
Processes	Significance
Design	
Development	
Management	
Space in Use	



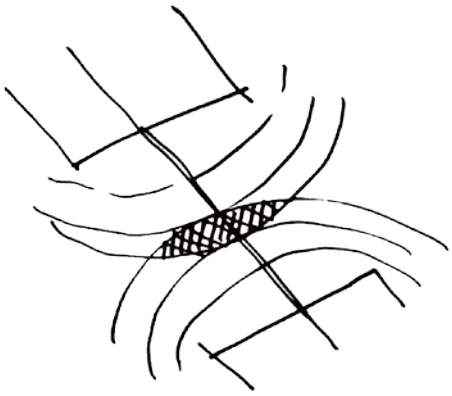
Option B: Forced New Centre

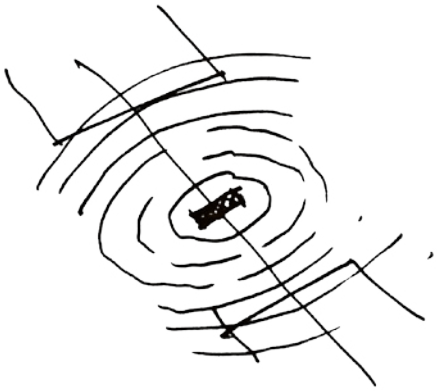
Urban Vitality	Concept
Program	Industry + Business
Place	Hung Yen's Industry HQs
People	External Developer-led

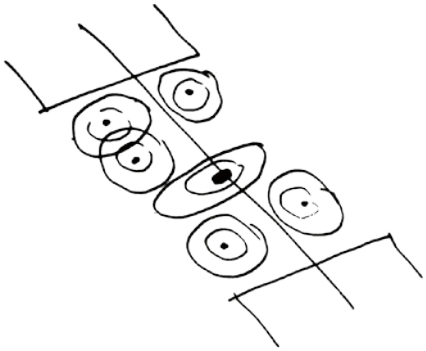
Processes	Significance
Design	
Development	
Management	
Space in Use	



Option C: Cookie-Cutter Development







Phasing Options

Apart from the design governance, phasing options are proposed for the development process. This phasing options are also in line with the idea of linking the product i.e., urban vitality and the process i.e., masterplanning process together. With this idea in mind, each phasing option is considered based on what kind of urban vitality concept that each phase is offering and the significance of each process. This consideration is made to show the range of options rather than to pick one option instead of the other.

The first option's (Figure 92, top) main idea is for the city centre to be the expansion of Ecopark's existing communities i.e., the university complex on the north side and phase 2 development on the south side. Hence, in this option the main concept of the program is in the theme of knowledge and residential uses. With the idea of linking to the existing communities, the most significant process will be in the space in use and management process. This option is preferred if the processes are envisioned to be a more bottom-up approach.

Option B's (Figure 92, middle) main idea is the opposite of Option A's idea, in which the development will be started from the middle of the city centre (where the LRT station will be). In this option, the main focus is to create a 'forced' city centre from the earliest phase although for it to become the ultimate city centre will be in the later phase. This step is consciously taken in line with the positioning idea of the project to be the node of Ecopark and also Vihajico's ring of new towns surrounding Ecopark. Hence, the steps that need to be taken in the earlier phase are to create temporary uses (related to leisure, civic and public uses) that can attract people to the area. With that in mind, the management process will be the most significant.

Lastly, in relation to the first two options, option C (Figure 92, bottom) is the quite different because the main idea is to 'chunk' the phasing into small pieces – cookie cutter. In this option, the small pieces constitute of cluster of developments with specific theme with the theme of industry and businesses. For example, in the earliest phase the first development is in relation to the medical university on the north. Hence, the type of development will be related to that e.g., hospital, medical suites, hospice, etc. With this idea, external developers will play the bigger role than Vihajico, hence the development process will be the most significant.

Next, each phasing option will be further elaborated.

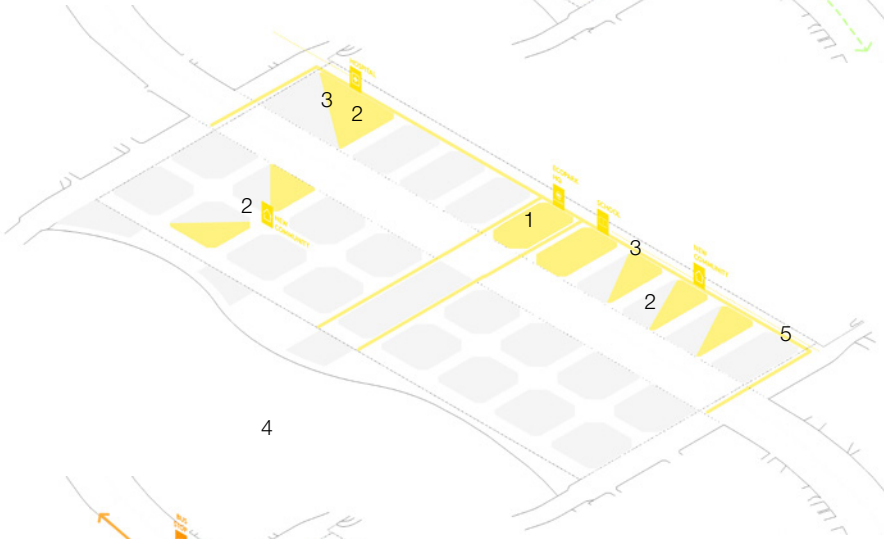
Legend

- Phase III (2025-2040)
- Phase II (2020-2025)
- Phase I (2018-2020)
- Phase 0 (Existing Condition)

Figure 92. The three phasing options

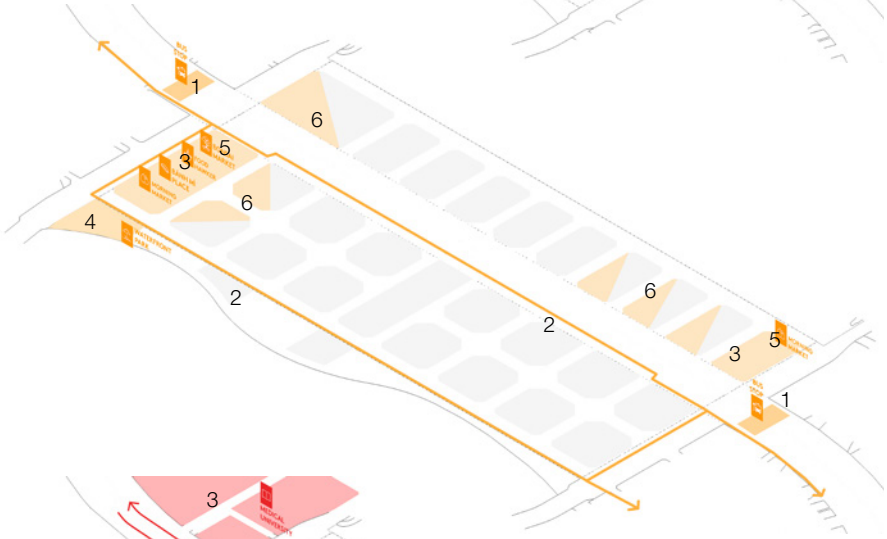
Phase III (2025-2040)

Processes	Significance
Design	
Development	
Management	
Space in Use	



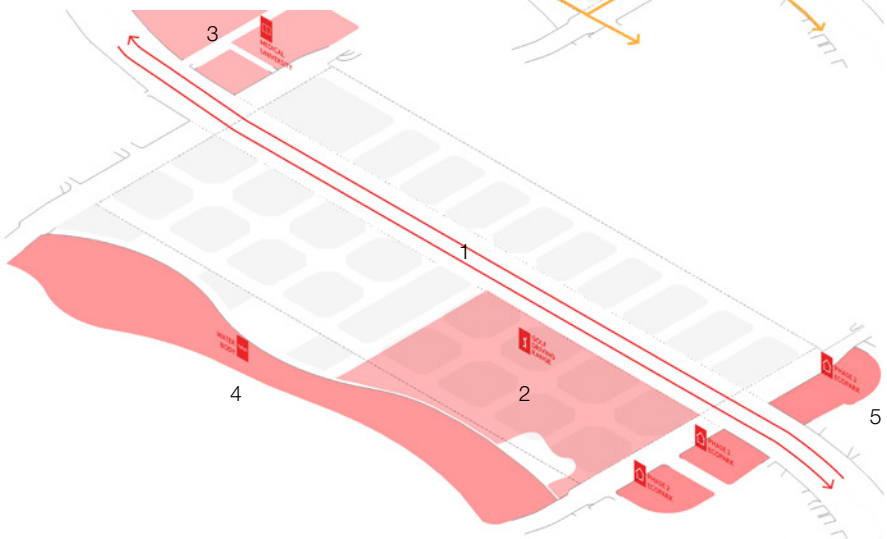
Phase II (2020-2025)

Processes	Significance
Design	
Development	
Management	
Space in Use	



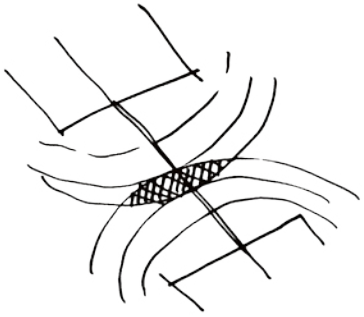
Phase I (2018-2020)

Processes	Significance
Design	
Development	
Management	
Space in Use	



Phase 0 (Existing Condition)

Processes	Significance
Design	
Development	
Management	
Space in Use	



Option A: Expansion of
Existing Communities

Phase III (2025-2040)

1. Develop the LRT system and highway underpass
2. Develop the waterfront park and waterfront plots
3. Develop the remaining superblocks

Phase II (2020-2025)

1. Make the area as the centre of the proposed chain of new towns around Ecopark by relocating Ecopark HQ to the area
2. Develop the neighbourhood with mix products and development timeline (short tern & long term)
3. Link to the existing Ecopark neighbourhood: hospital to university (medical) & school to phase 2 residential area
4. Develop ties with the surrounding villages
5. Extent the cycling infrastructure

Phase I (2018-2020)

1. Make new public transport stops with Bus in the future LRT station for the residents getting used to using public transport
2. Make a proper cycling infrastructure from phase 1 and 2 of Ecopark
3. Create a regular event (e.g., weekly market) nearby the future LRT station and connected to the waterfront
4. Activate waterfront
5. Test out some informality (controlled) e.g., small businesses from the villages to the on the event area
6. Set up the superblocks, plan the business model and potential uses & target market

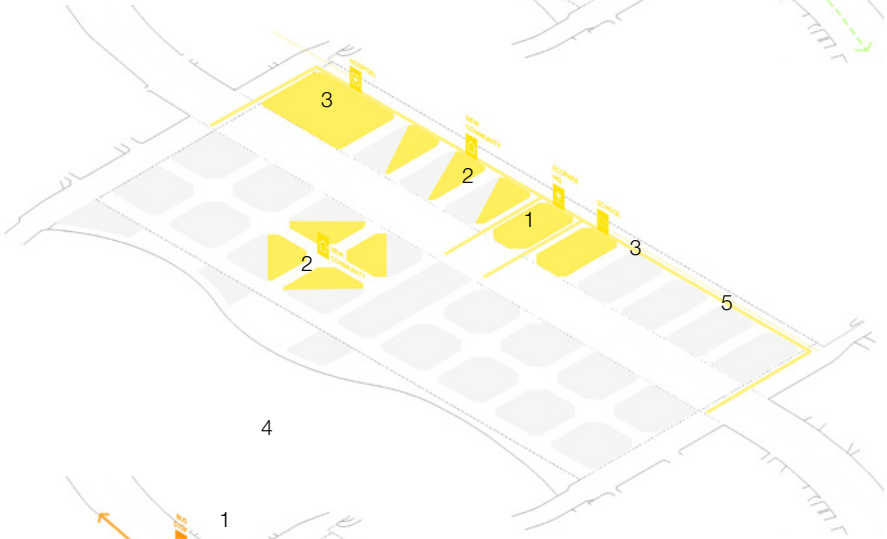
Existing Condition

1. Main road North-South in the middle of the city centre, traffic to phase 2 and Hung Yen
2. Small Driving Range Golf course
3. University (Medical)
4. Waterbody + Waterfront
5. Phase 2 Ecopark (near completion)

Figure 93. Option A Phasing plan

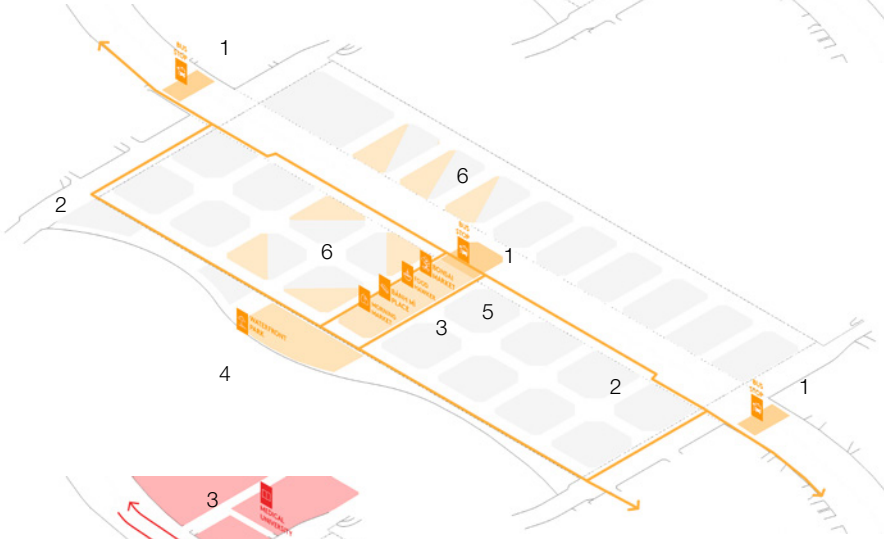
Phase III (2025-2040)

Processes	Significance
Design	
Development	
Management	
Space in Use	



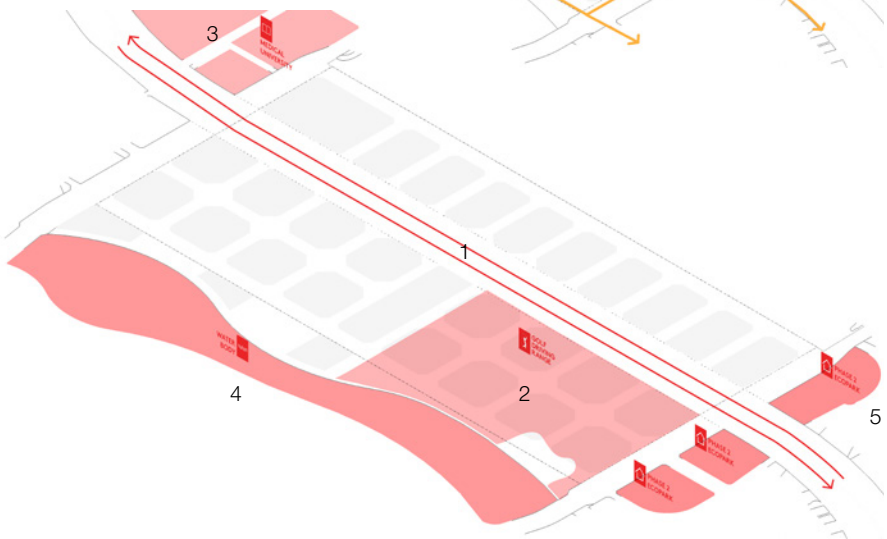
Phase II (2020-2025)

Processes	Significance
Design	
Development	
Management	
Space in Use	



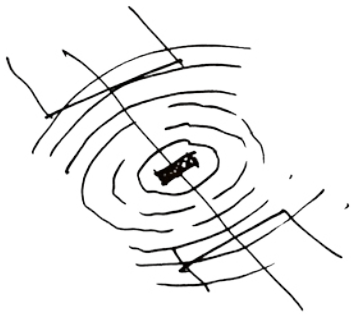
Phase I (2018-2020)

Processes	Significance
Design	
Development	
Management	
Space in Use	



Phase 0 (Existing Condition)

Processes	Significance
Design	
Development	
Management	
Space in Use	



Option B: Forced New Centre

Phase III (2025-2040)

1. Develop the LRT system and highway underpass
2. Develop the waterfront park and waterfront plots
3. Develop the remaining superblocks

Phase II (2020-2025)

1. Make the area as the centre of the proposed chain of new towns around Ecopark by relocating Ecopark HQ to the area
2. Develop the neighbourhood with mix products and development timeline (short tern & long term)
3. Link to the existing Ecopark neighbourhood: hospital to university (medical) & school to phase 2 residential area
4. Develop ties with the surrounding villages
5. Extent the cycling infrastructure

Phase I (2018-2020)

1. Make new public transport stops with Bus in the future LRT station for the residents getting used to using public transport
2. Make a proper cycling infrastructure from phase 1 and 2 of Ecopark
3. Create a regular event (e.g., weekly market) nearby the future LRT station and connected to the waterfront
4. Activate waterfront
5. Test out some informality (controlled) e.g., small businesses from the villages to the on the event area
6. Set up the superblocks, plan the business model and potential uses & target market

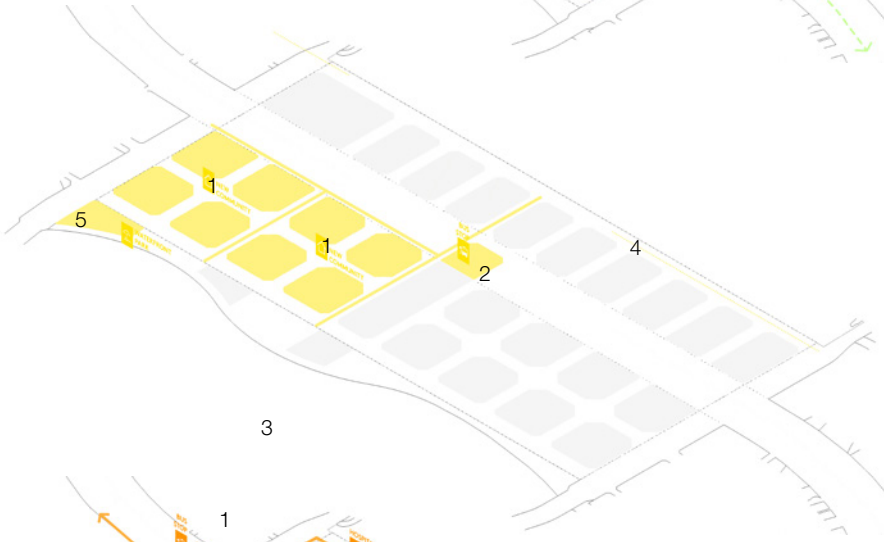
Existing Condition

1. Main road North-South in the middle of the city centre, traffic to phase 2 and Hung Yen
2. Small Driving Range Golf course
3. University (Medical)
4. Waterbody + Waterfront
5. Phase 2 Ecopark (near completion)

Figure 94. Option B Phasing plan

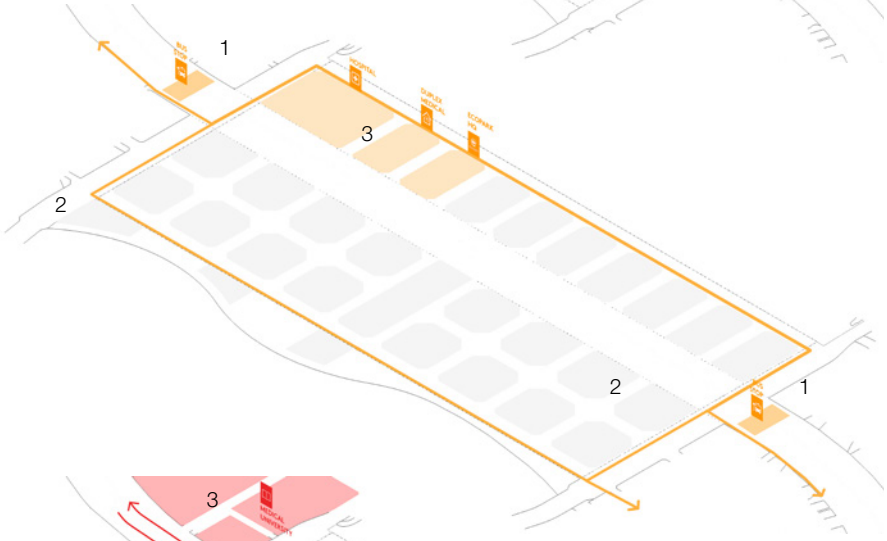
Phase III (2025-2040)

Processes	Significance
Design	
Development	
Management	
Space in Use	



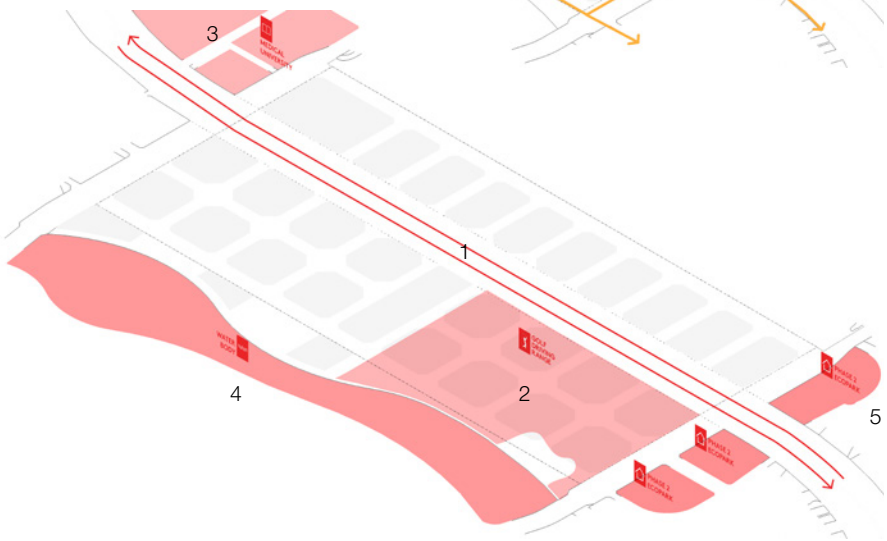
Phase II (2020-2025)

Processes	Significance
Design	
Development	
Management	
Space in Use	



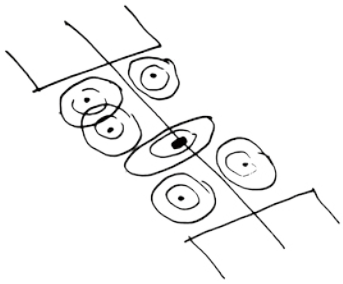
Phase I (2018-2020)

Processes	Significance
Design	
Development	
Management	
Space in Use	



Phase 0 (Existing Condition)

Processes	Significance
Design	
Development	
Management	
Space in Use	



Option C: Cookie-Cutter Development

Phase III (2025-2040)

1. Develop the LRT system and highway underpass
2. Develop the waterfront park and waterfront plots
3. Develop the central superblock oriented towards the LRT station
4. Develop the remaining superblocks in the theme of housing

Phase II (2020-2025)

1. Develop the second set of superblocks oriented towards office uses
2. Develop new public transport stop in the centre
3. Develop ties with the surrounding villages
4. Extent the cycling infrastructure
5. Develop waterfront plot

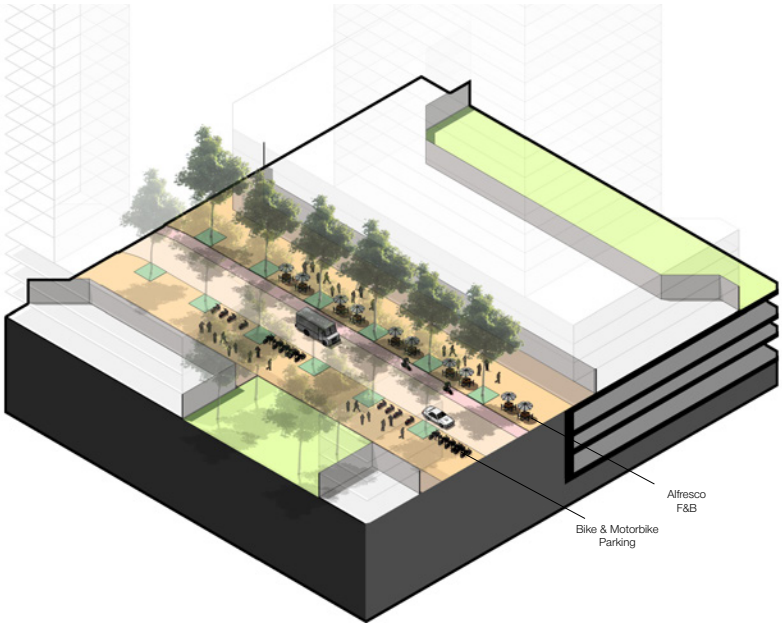
Phase I (2018-2020)

1. Make new public transport stops with Bus in the future LRT station for the residents getting used to using public transport
2. Make a proper cycling infrastructure from phase 1 and 2 of Ecopark
3. Set up one superblock in relation to the medical theme, plan the business model and potential uses & target market

Existing Condition

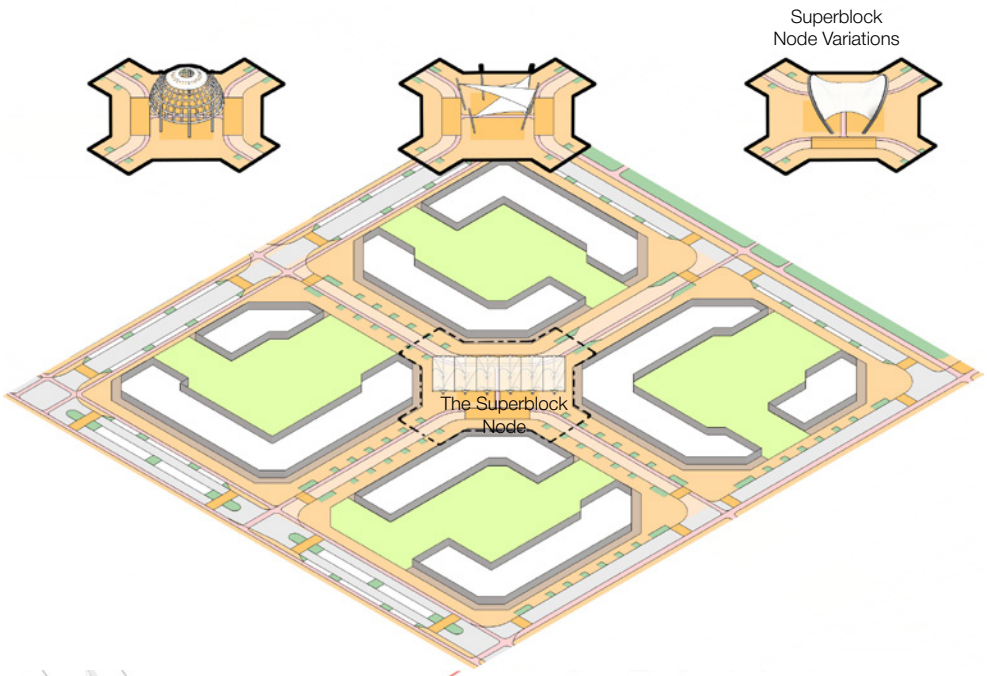
1. Main road North-South in the middle of the city centre, traffic to phase 2 and Hung Yen
2. Small Driving Range Golf course
3. University (Medical)
4. Waterbody + Waterfront
5. Phase 2 Ecopark (near completion)

Figure 95. Option C Phasing plan



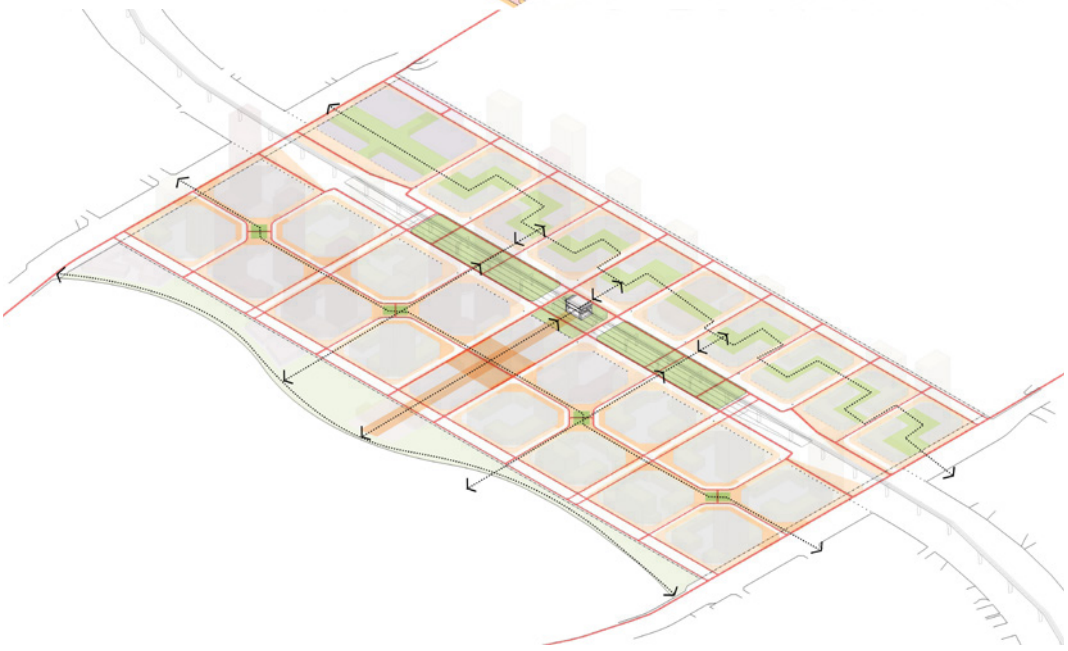
Informality

+



*Private
Events*

+

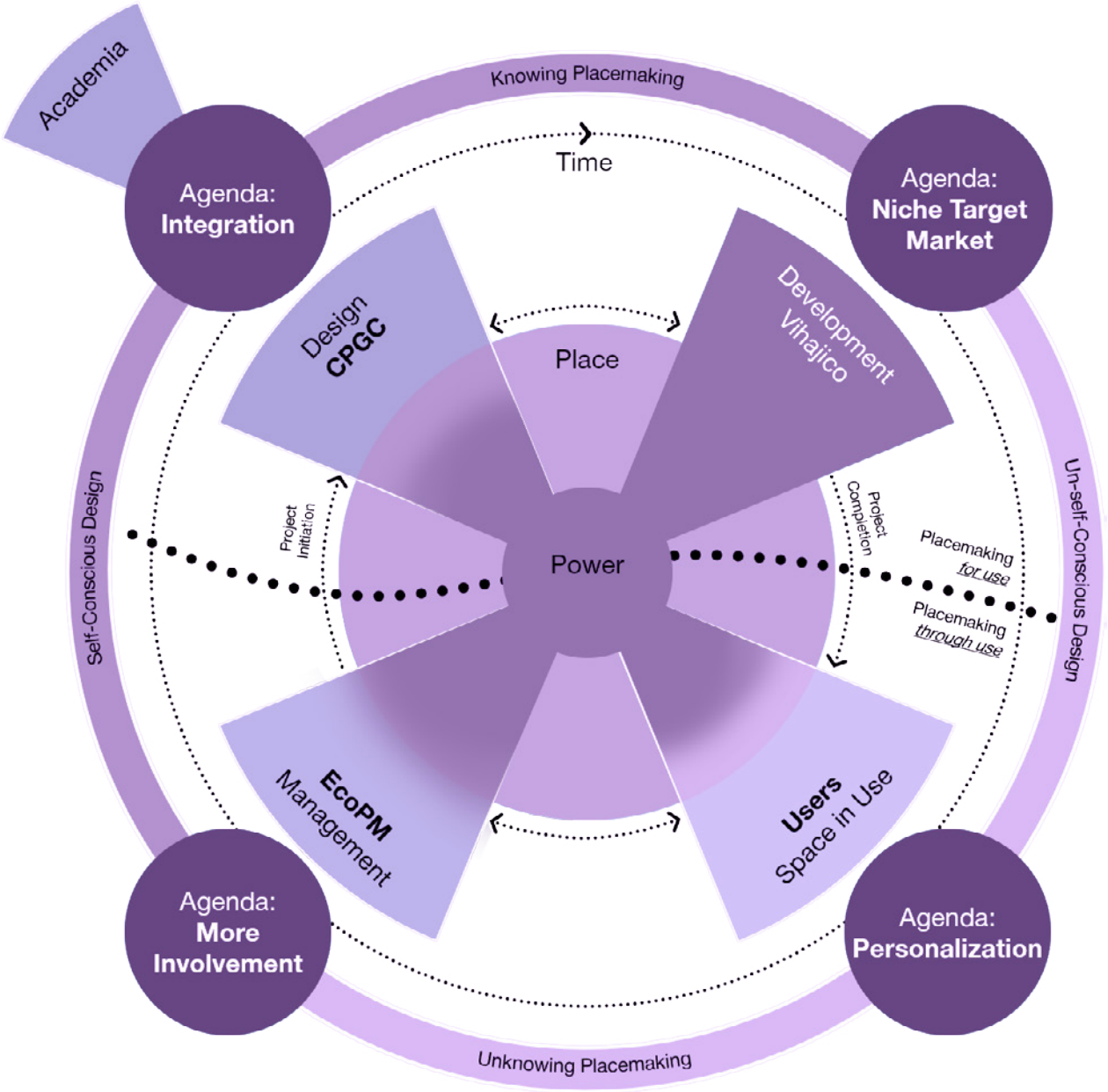


*Public
Uses*

Management Process

For the management process, the design governance is related to the operation of the place i.e., public uses, private events, and informality (Figure 96). The first one is related to the series of public spaces and public uses that are planned in the city centre. The operation of this spaces especially in the relation to the openness (accessible for whom, when and where) and privacy (degree of publicness) of the place is crucial for the vitality of the space. The second one is related to the private events that are planned to be accommodated on the designated spaces e.g., the superblock nodes. While there is no specific program planned for the space, the operator/ manager of the place is encouraged to proposed appropriate events e.g., night market, festival, small concert, etc. which Ecopark is already famous for. Lastly, informality is proposed to be encouraged in Ecopark city centre. Informality here does not mean that the space is open for everyone to open their informal economic activity but rather still guided by the operator/manager. This will be a big change as in the existing development of Ecopark, there any kind of informality is forbidden. This informality is argued to be one of the most crucial point for the vitality of the place, especially learning from how Hanoi city centres are currently performed.

Figure 96. Design governance for management process


Academia
Knowing Placemaking
Time
Agenda:
Integration
Agenda:
Niche Target
Market
Design
CPGC
Development
Vihajico
Place
Power
Project
Initiation
Project
Completion
Placemaking
for use
Placemaking
through use
Self-Conscious Design
Un-self-Conscious Design
EcoPM
Management
Users
Space in Use
Agenda:
More
Involvement
Agenda:
Personalization
Unknowing Placemaking

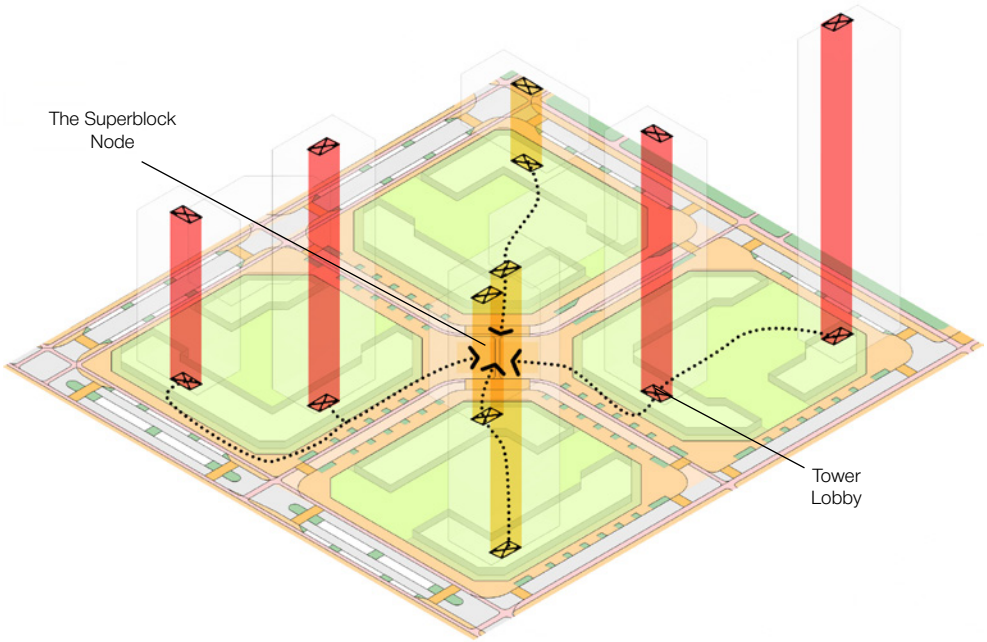
Management Scheme: Power Distribution

Apart from the design governance, management scheme is proposed for the management process. This is in line especially with the outcome of the stakeholder engagement during the site visit. Based on the engagement, the major missing link in the masterplanning process of Ecopark is in the link between development and management process. The missing link is mainly about the distribution of power that Vihajico as the developer have and how the manager is not really involve in the design and development processes. This link is critical because the phases that Ecopark have been developed until now is mainly residential, so the manager's role is mainly in terms of maintenance while the city centre will possess more complexity in the manager's role. The involvement can be for example in relation to the proposed guided informality, where in the current phase is all guided directly by the developer, so for the future city centre, the manager should take charge.

Figure 97. Distribution of power in the management scheme

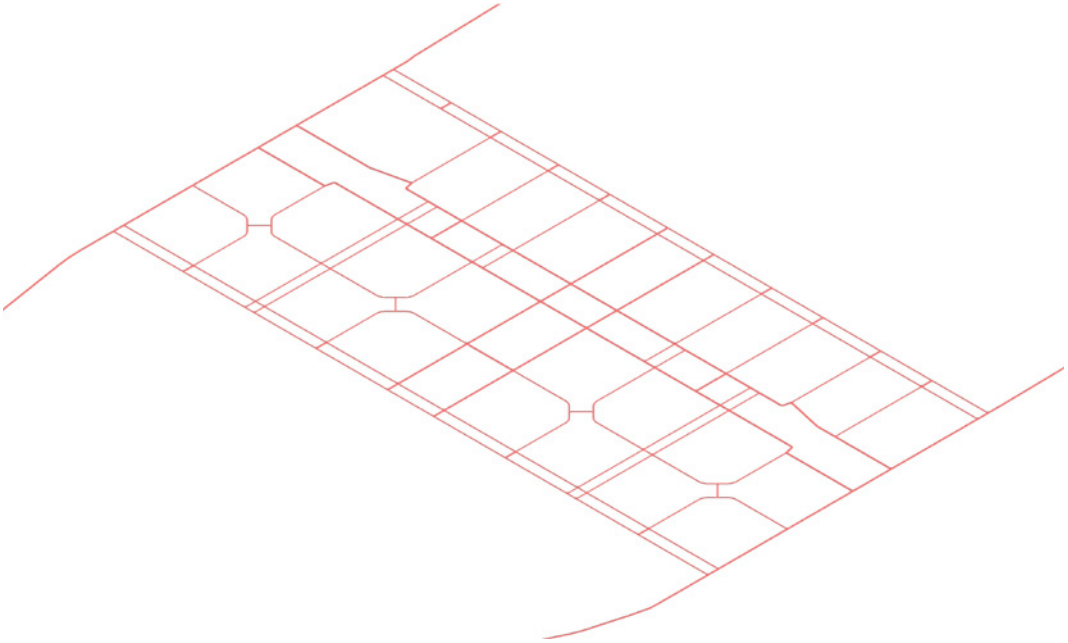
Be Hanoian

+



Superblock Community

+

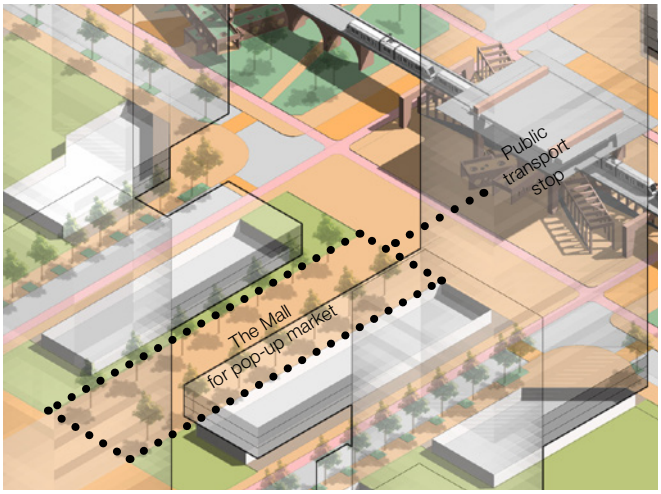


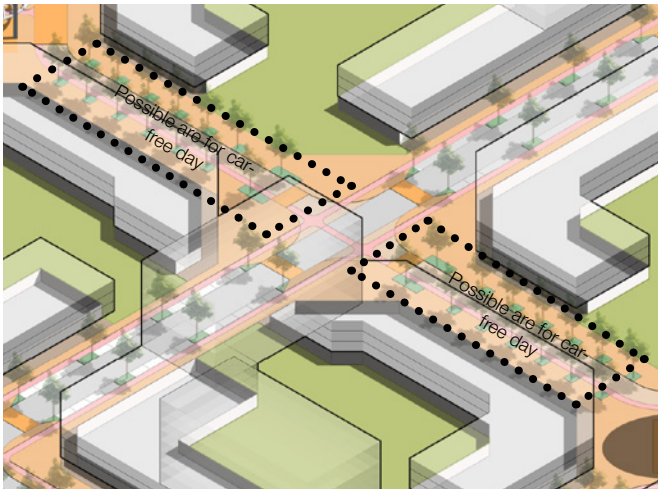
Use the Bike!

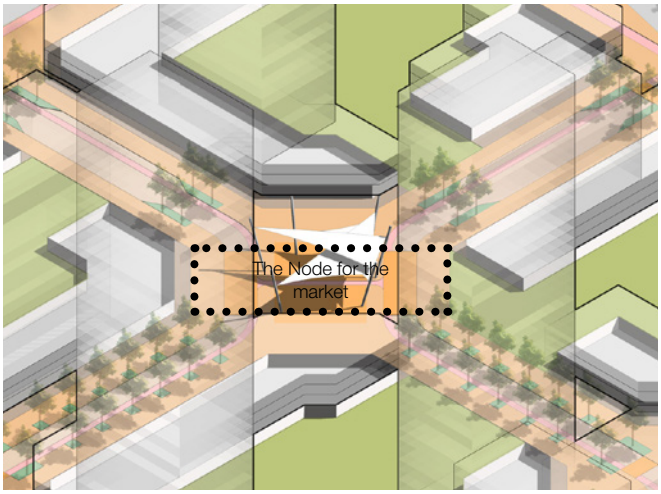
Space in Use

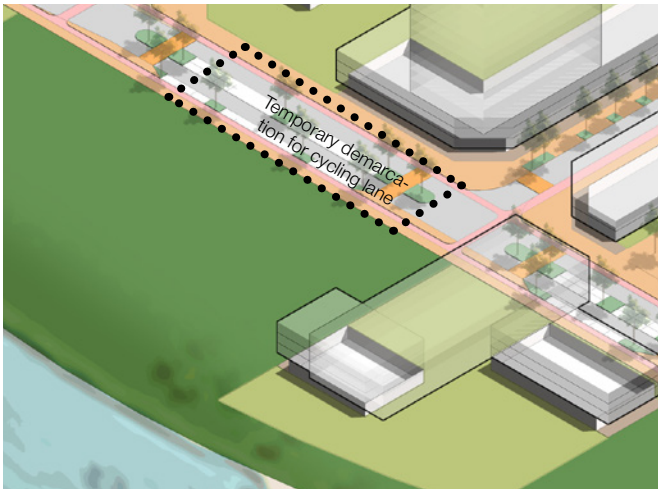
For the space in use process, the design governance is more about the lifestyle that the future residents of Ecopark city centre should expect i.e., cycling oriented transit, superblock community, and the new Hanoian way of living (Figure 98). The first one is related to the cycling infrastructure that have been provisioned in the proposed design. This cycling culture is not proposed merely for the good effect for the health or to the environment but rather to reflect the way Hanoian/ Vietnamese have used to the culture of cycling. Hence, the key is to revive this culture with the support of an integrated cycling infrastructure. Secondly, the superblock community is not a new thing for Hanoian with many residential high-rises flourishing in Hanoi. The key here is the combination between the high-rises, the mid-rises, the superblock nodes, and the surrounding superblocks which called for a new kind of community arrangement. Lastly, this project proposed that residents of Ecopark should be the front-runner in showing that a new town can still be reflect the Hanoian rather than reflecting foreign cultures.

Figure 98. Design governance for space in use process


Public transport stop
The Mall for pop-up market


Possible are for car-free day
Possible are for car-free day


The Node for the market


Temporary demarca-tion for cycling lane

Pop-up Market

Car-free Day

The Node

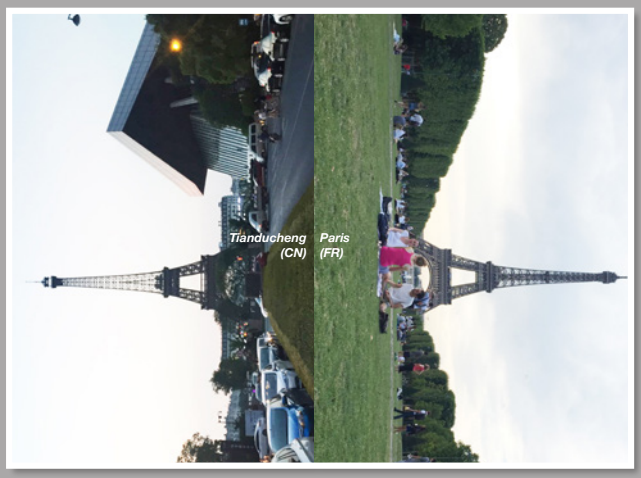
Temporary Bike Lane

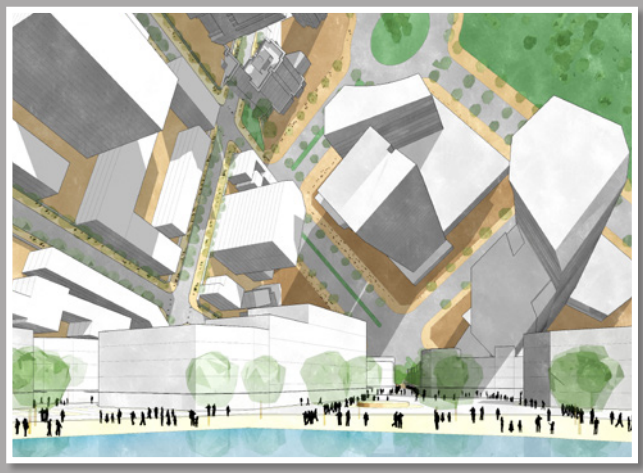
Design Action

Still in the idea of reflecting on the product and the process, in terms of space in use process, the question is on what would be the incremental steps to reach the intended final product. These incremental steps are proposed to be the design action i.e., design interventions to test out the intended effect with temporary uses. One of the famous example of design action is car-free day event where section(s) of particular road is closed for a duration of time in a specific time of the day. With this design action the intention is to test out if the place is to be fully pedestrianized, how the traffic flow would be, how the pedestrian traffic would be and so on. With similar intention, four example of design actions are proposed.

First, is a pop-up market linked to a public transport stop (Figure 99). This design action is intended to be the test-out step of the ultimate LRT stop in the city centre. The idea is for the people to get used to the idea of using public transport to reach certain activities (in this case is the market). The second design action is the car-free day (Figure 100). With this design action the idea is to test-out the pedestrian friendly street proposed in the design (in the superblocks). The good thing about this design action is that it is already happening periodically in Hanoi in the Hoan Kiem area so that the people are already used to the idea. The third design action is the demarcated area for The Node (Figure 101). As proposed in the design, each superblock will have The Node as the centre of activities. This idea needs to be tested-out especially in knowing what kind of activities can be accommodated specifically for people in Hanoi. Lastly, is the temporary bike lane design action (Figure 102). With the proposed cycling infrastructure, the culture of using a bike as daily mode of transport needs to be tested-out. One of the way to do it is to create temporary bike lane (with paint) in the street leading to major functions that most people will use. As the culture change will not happen overnight, the idea is to build it up slowly.

Figure 99. Pop-up market (source: http://mikadospeelgoed.nl/)
Figure 100. Car free day in Hanoi around Hoan Kiem Lake
Figure 101. Demarkation for informal market with installation (source: http://www.bloodyloud.com)
Figure 102. Bike lane with paint (source: http://farm9.staticflickr.com/)


Tianducheng
(CN)
Paris
(FR)



REFLECTIONS

7.1 PROJECT REFLECTION

7.1 PROJECT REFLECTION

Aspect 1: The relationship between research and design

For this aspect, the approach that I took for this project is rather the iterations of research-design-presentation, as put forward by Prof. Rients Dijkstra in the beginning of our projects. The presentation approach is really crucial for this project as one of the project aim is to bridge the gap between the realm of masterplanning professionals to the academic realm. By constantly complementing the presentation aspect to the research and design aspects of the project, I was able to understand the demands of each realm. The professional realm needs practicality while the academic realm needs evidence – both are approached through design (the practicality) and research (the evidence).

This approach of research-design-presentation was done for each stage of the project. Reflecting back to the process, the relationship among research, design and presentation varies for each stage. In the beginning, when the project was heavier on the research approach, presenting the project to external parties e.g., the designer (CPG Consultant (SG)) and the experts in new town (International New Town Institute (NL), Harry der Hartog (NL)), the departure points of the research were able to be narrowed down. While in the latter stage of the project when the design approach was heavier, presenting the projects to various stakeholders (e.g., the designers, the developers, the managers, the users), urban design experts (e.g., Gehl Institute (US), KCAP (NL), Maxwan (NL), Lizzie Hirsch (US)), and academia (e.g., NUCE Hanoi (VN), Stephanie Geertman (NL)) helped the design to be more thorough.
In summary, the combination of the three approaches of research-design-presentation is crucial for the project and will be the main distinct capability of the TU Delft Urbanism graduates.

Aspect 2: The relationship between the graduation topic, the studio topic, and Urbanism master track

This graduation project is part of the Design of the Urban Fabric Studio in Urbanism track. In relation to this studio, this graduation project expanded the study about urban growth to the growth in a new town setting as city extensions, particularly in Asian context. Although this new town setting is seen as the unpopular topic among academia in the faculty – which is understandable since new town is a product from the 60s, I argued that this topic is still relevant to be explored. Especially because of my personal experience in dealing with this topic in the professional realm and feeling the need to understand how new town masterplanning should be ideally approached or in this sense academically. I also observed that the plan-making/ masterplanning approach is relatively absent in the academic curriculum – at least from what I have experienced since the first quarter. Hence, this graduation topic about new town masterplanning is taken.

Apart from the New Town topic, the other topic that I explored in my graduation project is the topic of urban vitality especially in relation to Gehl's (2013) cities for people approach. I have tried to investigate this topic through my projects since the beginning of the Urbanism master track in TU Delft. Hence, to be able to finally investigate this topic and combining it with the topic of new town was immensely useful and fruitful experience for me. Moreover, the studio's attitude in the unrestricted approach was also helpful to tailormade my project to fit with my needs and passions.

Aspect 3: The chosen research method and approach in relation to the graduation studio methodical line of inquiry

The two topics in my graduation project is new town masterplanning and urban vitality. Based on my experience in this project, these two topics required a slightly different kind of research method and approach. New town masterplanning required a more case-study research method (as the nature of creating a town from scratch) and a more prescriptive design approach e.g., building density, footprint, height, etc. On the other hand, urban vitality topic required a more on-site observational research method (to really see what happened on the ground) and a more non-prescriptive design approach e.g., program, informality, movement, etc. Hence, to be able to combine the two contrasting topics in my graduation project was my contribution in enriching the Design of the Urban Fabric studio's amalgam of methods.

Through the method varieties that the studio offered, this project was able to combine various methods through various stages and scales of the project. For example, in this project the method of spatial analysis using Space Syntax simulation (Javadi et al, 2017) which is quite common in the studio was combined with the on-site observation from Gehl Institute (see: https://gehlinstitute.org/public-life-tools/). The results from this analysis were then used as the input for the design which also used different approach i.e., the real time urban design simulation by Modelur (Vidmar, 2013). Moreover, the designs are then being self-evaluated with the assigned analysis method. In summary, all these approaches helped me to enrich the design aspect of the project, which is the focus of this studio.

Aspect 4: The relationship between the graduation project and the wider social, professional and scientific framework

One of the aim of this graduation project is to bridge the gap between the scientific academic realm, to the social and professional realm. First, for the wider academic realm, this project has added to the body of knowledge of the study about new town. Various contacts to the experts in new town have shaped this project significantly. Through those contacts also, I have given the impression that this project has brought a unique view in the new town study e.g., the juxtaposition to the urban vitality topic, the use of Space Syntax simulation to investigate the local context of the new town, and the use of Carmona's (2014) Place-Shaping Continuum model to understand the new town masterplanning process.

Second, for the wider professional realm, this project has tap into the realm of new town development's stakeholder i.e., the designer, the developer, and manager. With the addition of the two-aspect other than the designer, this project has viewed the new town masterplanning realm from a more integrated view – not only from the designer point of view.

Lastly, in terms of the social realm, by linking the research with the local stakeholders through site visit collaboration, interest meetings, and direct on-site observation, this project has brought up the aspect that the usual masterplanning scheme does not considered. All in all, the conscious decision to approach the three realms for has made this project to be more integrative.

Aspect 5: The ethical issues and dilemmas encountered in doing the research

The ethical issues that I encountered during the process of this project is mostly related to the objective position that we as academia has to put forward. This issue occurred especially in researching about the various stakeholders which have varies kind of demands with the nature of new town masterplanning towards a market-driven development. While the feedbacks from these parties are valuable to be more relevant to the real situation, the project had to stay objective in delivering the results.

In elaborating the design, the ethical issues are more about balancing to incorporate the lesson learnt from the local context, the principles learnt from case studies, and the design language from my own personal experience and my personal ties to the project. For example, the robust example of a dense-low rise-mixed use urban blocks of Hanoi, mixed with the idea of superblock learnt from the case study of Barcelona, mixed with the knowledge of what the client like, what the designer wants, and what the users demand.

As for the potential application in practice, this project has been personally helpful in shaping my own expertise combining the realm of masterplanning and the urban vitality aspect. Apart from my own expertise, through close contacts with the expertise in practice, this project has demonstrated some valuable approaches that will be applicable in the realm of urban design and masterplanning.

8 APPENDIX

8.1 BIBLIOGRAPHY

Anderson, A., & Law, L. (2015). Putting Carmona's Place-shaping Continuum to use in research practice. *Journal of Urban Design*, 20(5), 545-562. doi:10.1080/13574809.2015.1071656

Banerjee, T., & Loukaitou-Sideris, A. (2011). *Companion to urban design*: Routledge.

Barnett, J. (2017). Can we extend design governance to the big urban design decisions? *Journal of Urban Design*, 22(1), 37-39. doi:10.1080/13574809.2016.1274537

Calabrese, L. M., Qu, L., & Van Faassen, W. (2015). Re-Framing Resilient Urbanism. *A Smart Alternative to Generic New Towns Development in South-East Asia: The Case of Hanoi (Vietnam).* Paper presented at the Proceedings of the 8th Conference of the International Forum Urbanism, Incheon, Korea, 22–24 June 2015.

Carmona, M. (2009). Design coding and the creative, market and regulatory tyrannies of practice. *Urban Studies*, 46(12), 2643-2667.

Carmona, M. (2014). The place-shaping continuum: A theory of urban design process. *Journal of Urban Design*, 19(1), 2-36.

Carmona, M. (2016). Design governance: theorizing an urban design sub-field. *Journal of Urban Design*, 21(6), 705-730.

Carmona, M. (2017). The formal and informal tools of design governance. *Journal of Urban Design*, 22(1), 1-36.

Consultants, C. (2016). *Ecopark Masterplan Revision: Van Giang Commercial and Tourism Urban Development (Ecopark) 2016 Master Plan Revision Scale 1/500*.

Den Hartog, H. (2010). *Shanghai new towns: searching for community and identity in a sprawling metropolis*: 010 Publishers.

Dick, H. W., & Rimmer, P. J. (1998). Beyond the third world city: the new urban geography of South-east Asia. *Urban Studies*, 35(12), 2303-2321.

Ellis, C. (2014). Process and Principles in Urban Design. *Journal of Urban Design*, 19(1), 47-48. doi:10.1080/13574809.2014.854680

Firman, T., & Fahmi, F. Z. (2017). The Privatization of Metropolitan Jakarta's (Jabodetabek) Urban Fringes: The Early Stages of "Post-Suburbanization" in Indonesia. *Journal of the American Planning Association*, 83(1), 68-79.

Geertman, S. (2003). Who will build the Vietnamese City in the 21st century? Globalization and tradition in land and housing in Hanoi. *The Journal of Comparative Asian Development*, 2(1), 169-190.

Geertman, S. S. (2007). *The self-organizing city in Vietnam: processes of change and transformation in housing in Hanoi.* Technische Universiteit Eindhoven,

Hillier, B. (1996). Cities as movement economies. *Urban Design International*, 1(1), 41-60.

Gehl, J. (2011). *Life between buildings: using public space*: Island Press.

Gehl, J. (2013). *Cities for people*: Island press.

Gehl, J., & Svarre, B. (2013). *How to study public life*: Island Press.

Hillier, B. (1996). Cities as movement economies. U*rban Design International*, 1(1), 41-60.

Jacobs, J. (1961). *The Death and life of great american cities.*

Javadi, A.-H., Emo, B., Howard, L. R., Zisch, F. E., Yu, Y., Knight, R., . . . Spiers, H. J. (2017). Hippocampal and prefrontal processing of network topology to simulate the future. *Nature Communications*, 8, 14652.

Keeton, R. (2011). *Rising in the East: Contemporary New Towns in Asia*: International New Town Institute, SUN.

Kim, A. M. (2012). The Mixed-Use Sidewalk. *Journal of the American Planning Association*, 78(3), 225-238. doi:10.1080/01944363.2012.715504

Labbe, D., Collin, J.-P., & Boudreau, J.-A. (2010). *Facing the urban transition in Hanoi: recent urban planning issues and initiatives*: INRS Centre-Urbanisation Culture Societe.

Lang, J. (2017). The generic and the specific in urban design. *Journal of Urban Design*, 22(1), 39-41. doi:10.1080/13574809.2016.1274538

Lang, J. T. (2005). *Urban design: A typology of procedures and products*: Routledge.

Le, C. (1947). *City of tomorrow and its planning.*

Lim, W. S. (2013). *Public space in urban Asia*: World Scientific.

Luan, T. D. (2014). Living In\"New Urban Areas": Towards Sustainable Urban Communities In Hanoi, Vietnam. *WIT Transactions on Ecology and the Environment*, 181, 333-344.

Montgomery, J. (1998). Making a city: Urbanity, vitality and urban design. *Journal of Urban Design*, 3(1), 93-116. doi:10.1080/13574809808724418

Nations, U. (2014). World Urbanization Prospects: The 2014 Revision, Highlights. Department of Economic and Social Affairs. *Population Division, United Nations*.

Provoost, M., Keeton, R., & Gerson, T. (2010). *New towns for the 21st century: the planned vs. the unplanned city*: Uitgeverij Boom/SUN.

Robinson, I. M. (2011). *Mega Urban Regions of Southeast Asia*: UBC Press.

Roy, A. (2005). Urban Informality: Toward an Epistemology of Planning. *Journal of the American Planning Association*, 71(2), 147-158. doi:10.1080/01944360508976689

Tunas, D. (2008). *The spatial economy in the urban informal settlement*.

Un-Habitat. (2004). The challenge of slums: global report on human settlements 2003. *Management of Environmental Quality: An International Journal*, 15(3), 337-338.

van Faassen, W. D. F. (2014). *Flexibility: an alternative development strategy in new urban areas in Hanoi*. Retrieved from repository.tudelft.nl:

Vidmar, J. (2013). *Parametric Maps for Performance-Based Urban Design.*

Vien, T. D., Quang, N. V., & Van Dung, N. (2005). Rural-urban land use changes in peri-urban Hanoi. *Hanoi, The Hague: Hanoi Agricultural University and Wageningen University and Research Centre*.

Whyte, W. H. (1980). *The social life of small urban spaces.*

Winarso, H., Hudalah, D., & Firman, T. (2015). Peri-urban transformation in the Jakarta metropolitan area. *Habitat International*, 49, 221-229.

Yatmo, Y. A. (2008). Street Vendors as 'Out of Place' Urban Elements. *Journal of Urban Design*, 13(3), 387-402. doi:10.1080/13574800802320889

Zhou, J. (2012). *Urban Vitality in Dutch and Chinese New Towns*: A Comparative Study Between Almere and Tongzhou: TU Delft.

Interviews:

Dung, N. D. (2017, October 25) */Interviewer: R. A. Pradana.*

Karkal, K., & Fowler, A. (2018, January 31) */Interviewer: R. A. Pradana.*

Karkal, K., & Suhrawadi, F. A. (2017, December 4) / *Interviewer: R. A. Pradana.*

Karkal, K., & Suhrawadi, F. A. (2018, February 13) / *Interviewer: R. A. Pradana.*

Provoost, M. (2017, October 23) */Interviewer: R. A. Pradana.*

Tung, N.T. (2018, February 2) */Interviewer: R. A. Pradana.*

Websites:

Metro map: http://hanoimetro.net.vn/

Observation tools: https://gehlinstitute.org/public-life-tools/

ACKNOWLEDGMENT

The completion of this graduation project could not have been possible without the assistance and participation of so many people whose names may not all be mentioned. Their contributions are sincerely appreciated and gratefully acknowledged. However, I would like to express my gratitude particularly to the people as follows:

To Els and Gregory for their endless helps, insights and supports as my mentors. Their constant assistance has brought up the best of me in finishing this project with big ambitions, excitements, and lots of fun.

To colleagues in CPG Consultants Urban Planning Division and Vihajico especially Karthik, Dung, Fahry, Adam and Minh for their continuous supports in making the project to be as close as possible to the real condition in Hanoi.

To colleagues in National University of Civil Engineering Hanoi especially Tu, My, and Ly for the assistance during my site visit in Hanoi.

To all experts that have been kind enough to share their thoughts on my project especially Darrel (KCAP), Stephanie, Michelle (INTI), Riley (Gehl Institute) and Harry (Tongji University).

To all Urbanism Department's staffs especially Prof. Rients, Birgit, Rachel, Lizzy, and Boram, for their time in assisting and giving feedbacks for the project.

To all my colleagues in Urbanism master track for all the supports especially Atlantis Magazine for letting me share my project in their publication.

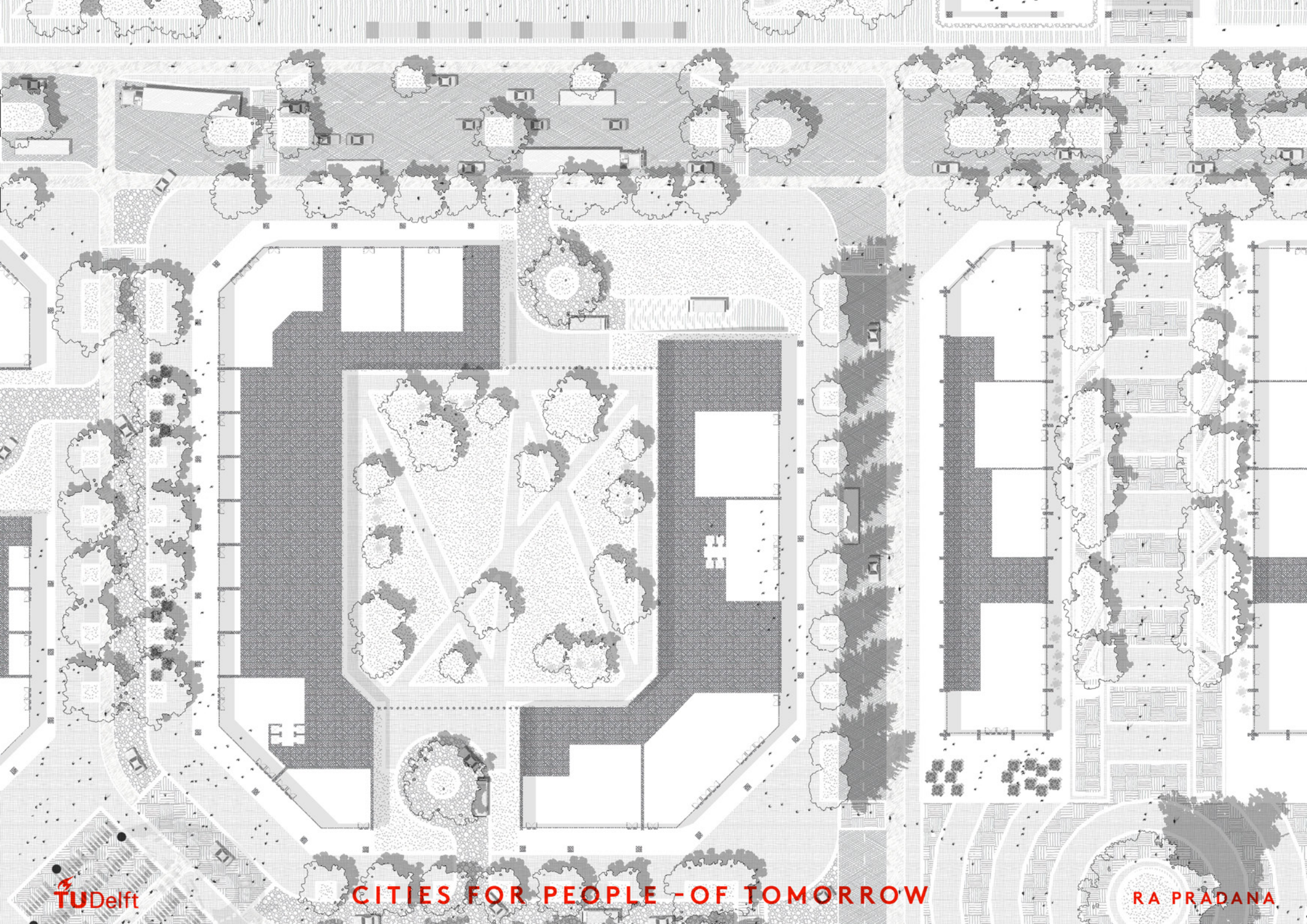
To LPDP Scholarship for the funding support of my entire study in TU Delft.

And finally, to my lovely wife, Amna and to my family for the unconditional loving support.

I thank you all.

Reza Ambardi Pradana

July 2nd, 2018



TUDelft

CITIES FOR PEOPLE -OF TOMORROW

RA PRADANA