

NORMATIVE POSITION

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RESEARCH FIELD:	URBAN INFRASTRUCTURE + INEQUALITY
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The foundation of this project is based on the conviction that the transport sector plays a vital role in integrating isolated and historically segregated spaces, as well as connecting people to vast opportunities. This follows the 1996 White Paper on National Land Transport Policy recognizing transport as one of its five main priority areas for socio economic development (Jennings, 2015: 767). However, state efforts at strengthening this sector with resources in the aims of reducing inequality have not been met, following the World Bank's acknowledgment that South Africa is the most unequal country (World Bank, 2022: 11). Such a complex matter calls for interventions that go beyond the provision of hard infrastructure, but instead providing soft infrastructures, capable mobilizing people out of systemic inequalities.

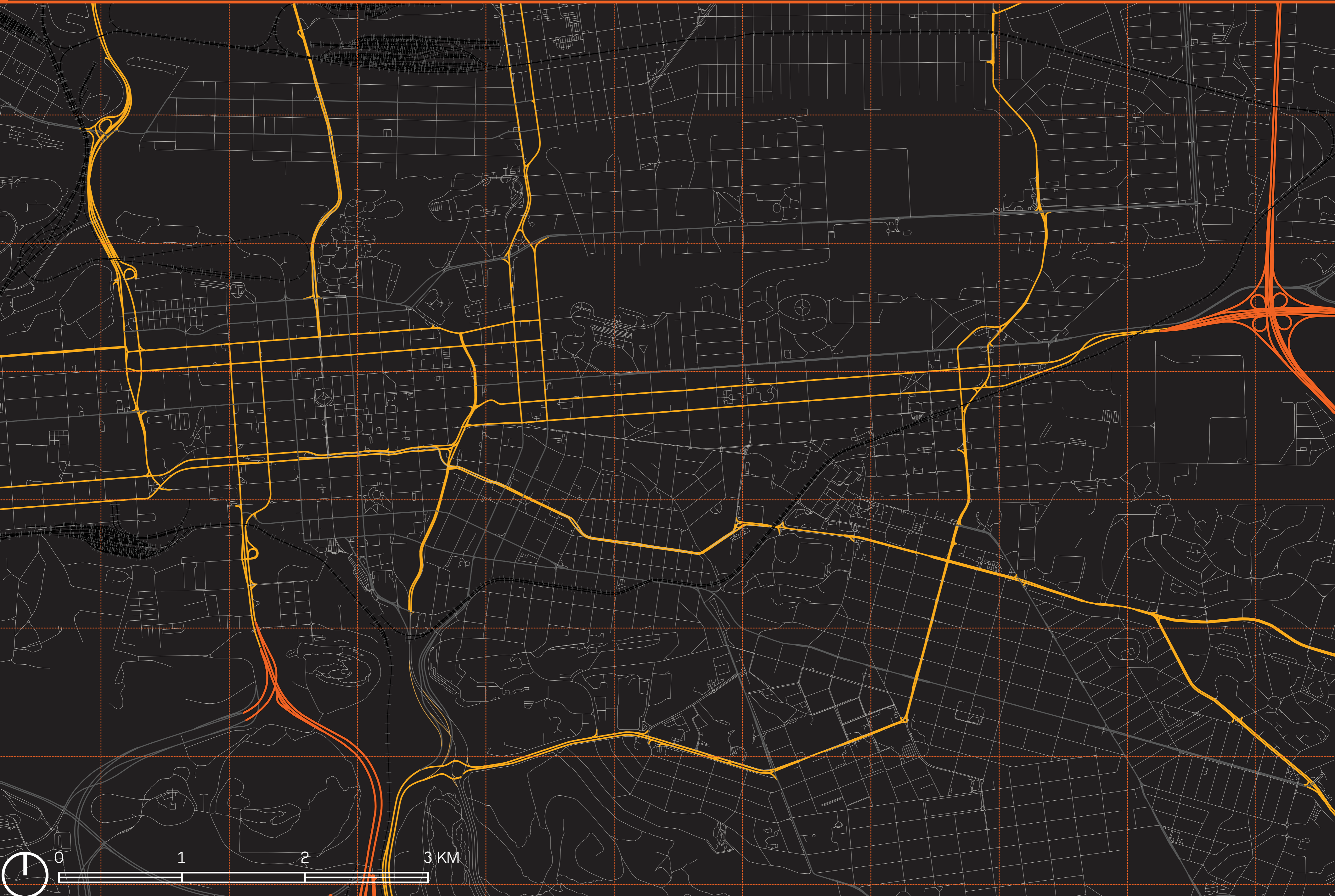
Consequently to shift the narrative of transport infrastructure to one of mobility, city planning should adopt cross disciplinary influences that could transcribe different outlooks of infrastructure from an urban scale to a human/pedestrian scale. Encouraging movements from the urban to the domestic scale, we should understand that it is vital to make spatial designer more flexible to mediate between scales to conclude with more trans-disciplinary design solutions. In doing so, the [spatial] designer can improve their understanding of other disciplines and the cross influential effect spatial decisions have on surrounding environments and well-being.



MOBILITY AS THIRD SPACE:

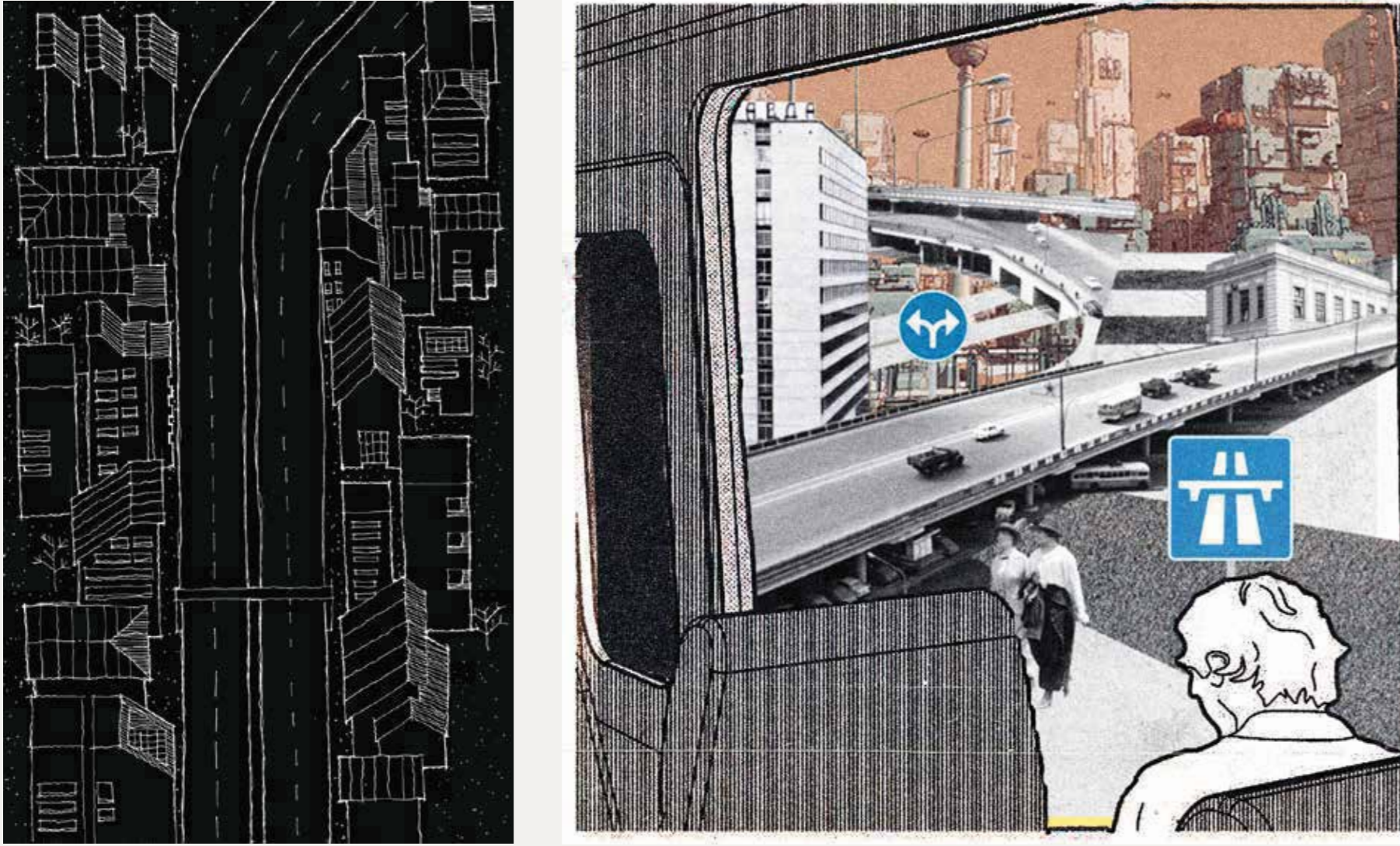
CAN TRANSITION ISLANDS BE PRE-DESTINATION

M (INT) PROF T.MAJA_17160155



01 INTRODUCTION

GENERAL ISSUE



HIGHWAY DEVELOPMENT + POOR DEVELOPMENT CONTROL AND LANDUSE PLANNING ALONG WITH HIGH DEMAND FOR HOUSING IN TURN LEADS TO HIGH DENSITY METROS AND SPLINTERED URBANISM

Mode of Transport for Workers, by Provinces, 2013

Province	Public Transport	Main Mode(%)		Walking All the Way	Other
		Car/Truck Driver	Car/Truck Passenger		
WesternCape	35.7	34.3	10.9	17.7	1.4
EasternCape	32.6	24.5	8.3	34.1	0.5
NorthernCape	15.5	24.7	14.1	43.4	2
FreeState	29.7	26.7	7.1	33.7	2.7
KwaZulu Natal	44.4	25.2	7.1	21.6	0.9
North West	40.2	22.5	7.7	26.2	2.4
Gauteng	42.4	38.2	5.9	12.5	1.0
Mpumalanga	31.7	24.8	6.9	25.9	1.5
Limpopo	29.8	24.8	8.4	34.8	2.1
RSA	38.8	30.7	7.6	21.6	1.3

GAUTENG RECORDS A CUMULATIVE TOTAL OF 54% OF WORKERS USE PUBLIC TRANSPORT OR WALK TO THEIR DESTINATION

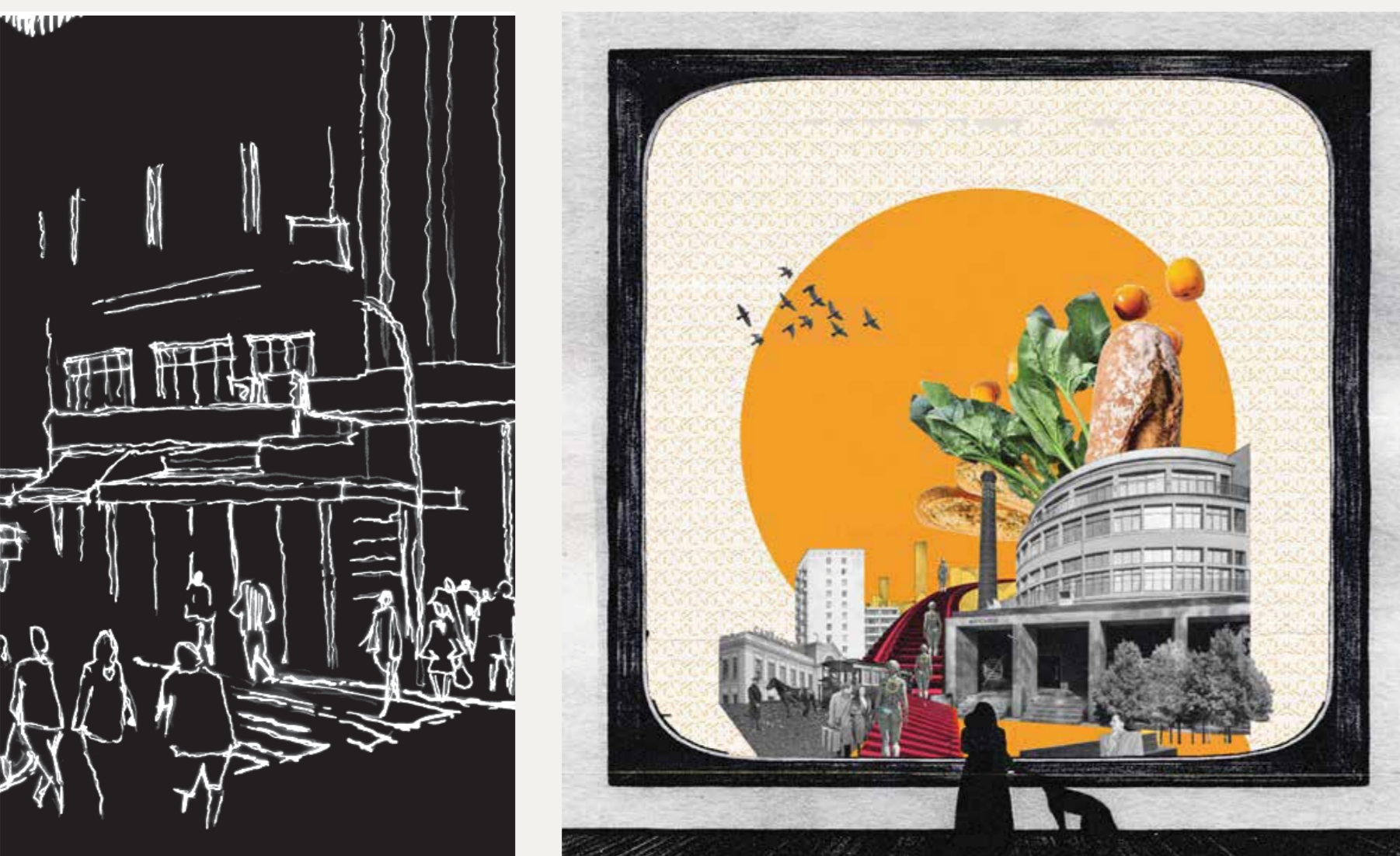
Dept. of Transport, 2014 Source: STATSSA, 2013

MOBILITY ISSUE



PAST SPATIAL PLANNING PRACTICES LEAVE CITIZENS ON URBAN FRINGES COMMUTING DAILY AT CONSIDERABLE COSTS AND DISTANCES FOR ACCESS

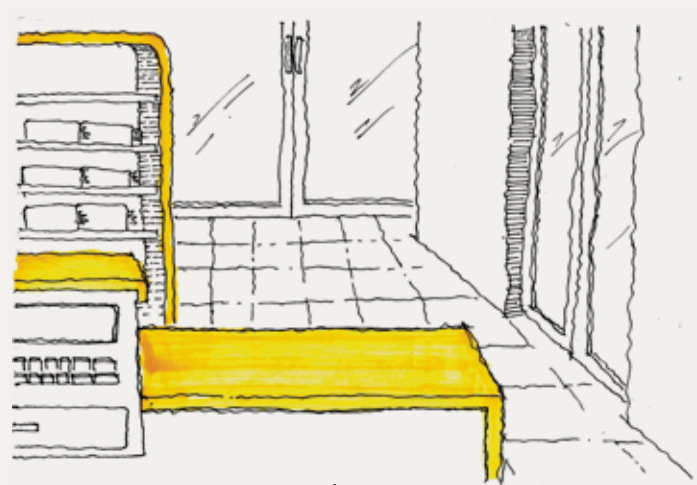
COMMUTING ISSUE



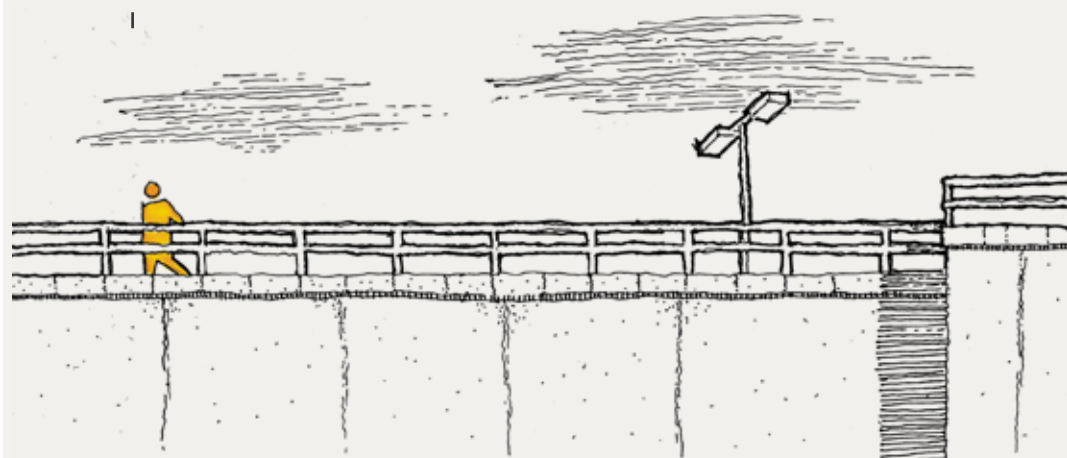
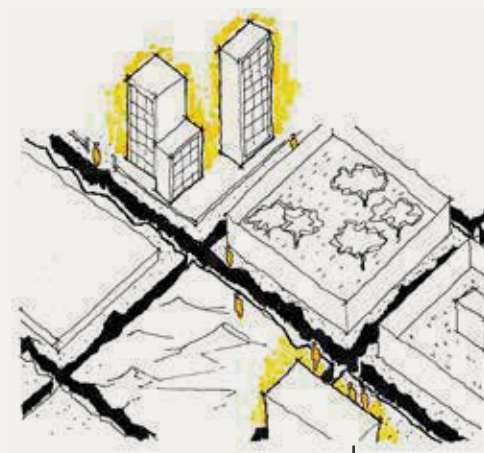
PERMEABLE GATED DEVELOPMENT ALONG TRANSPORT ROUTES PRESENT MOBILITY CHALLENGES AS THEY DOUBLE OR TRIPLE DISTANCE FOR CONVIENCE

01 INTRODUCTION

CURRENT MOBILITY NARRATIVE

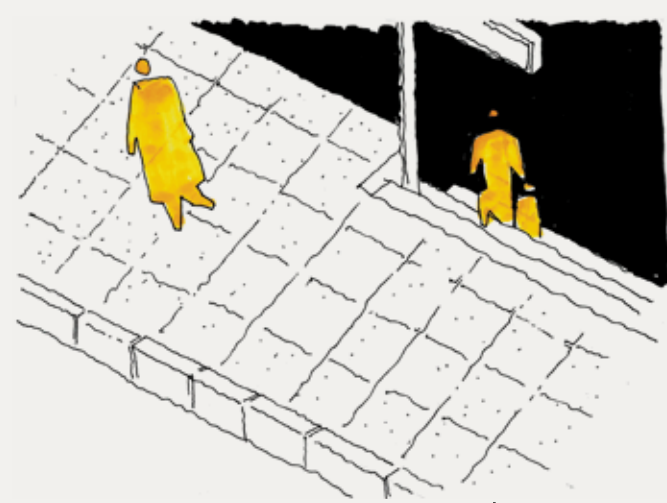


IN AN EFFORT TO ACCESS
GOODS AND AMMENITIES



TO WALK ALL THE WAY
AROUND PERMEABLE
DEVELOPMENT TO ACCESS
THE RECENTLY DEVELOPED
LOFTUS PARK

THE COMMUTER HAS TO
TRAVEL LENGTHY AND
CUMBERSOME DISTANCES



THE COMMUTER UPON
EXITING THE LOFTUS
METRORAIL STATION ON
UNIVERSITY ROAD



02 SITUATING PROJECT

TRANSIT ORIENTED DEVELOPMENT - TOD

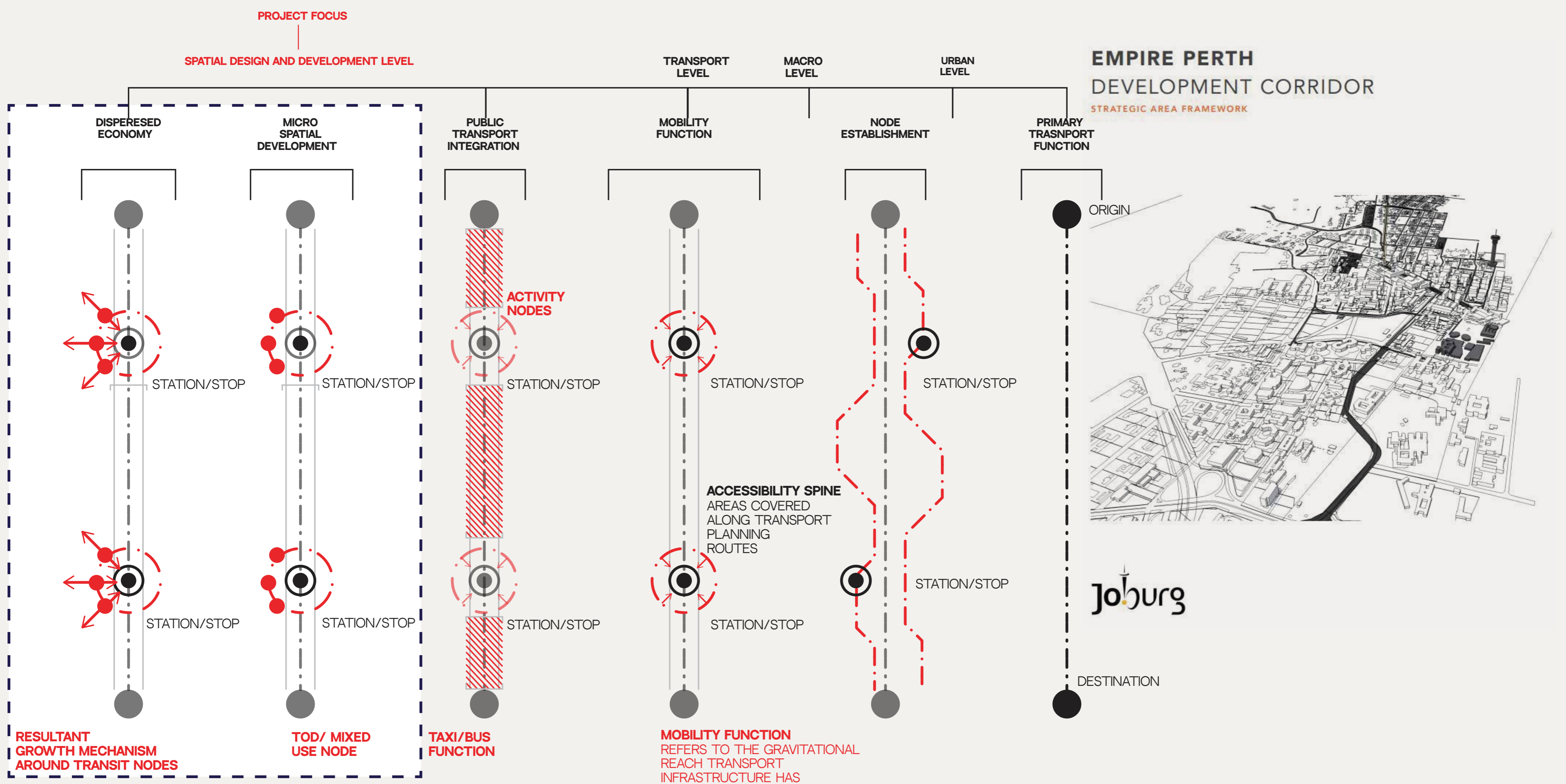


VAN HULZEN & G2K, 2016

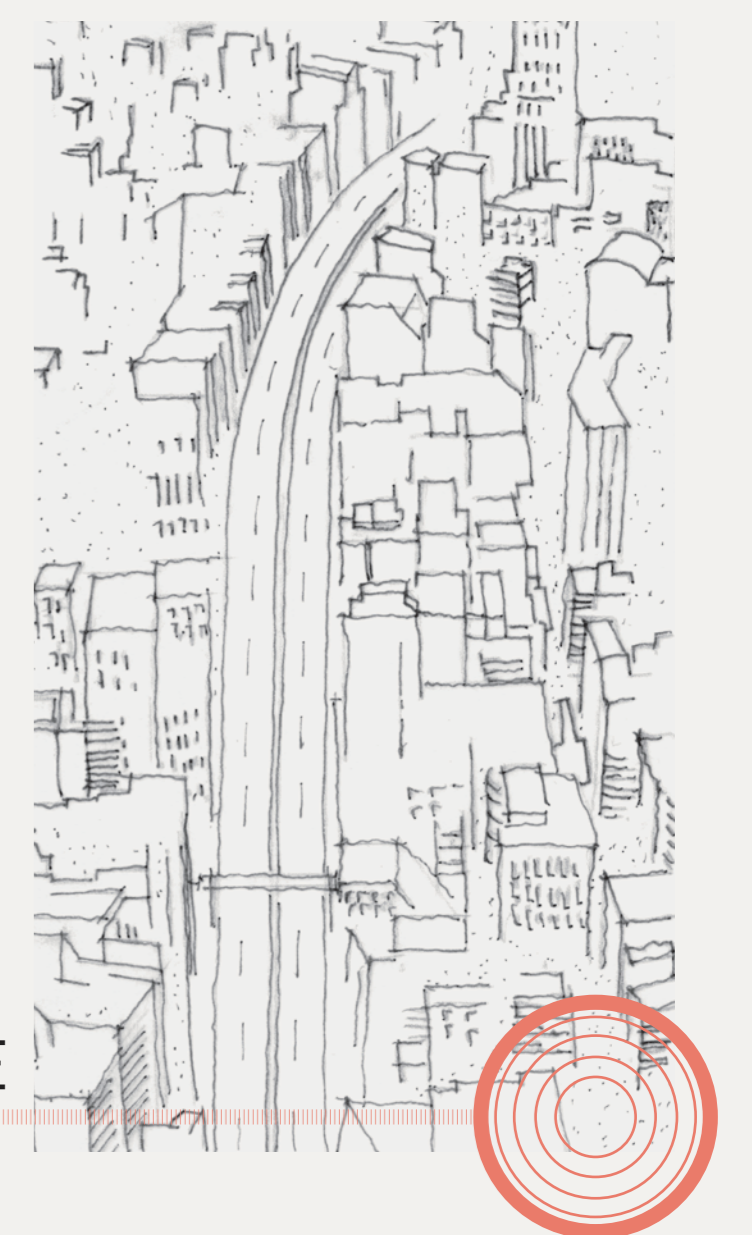
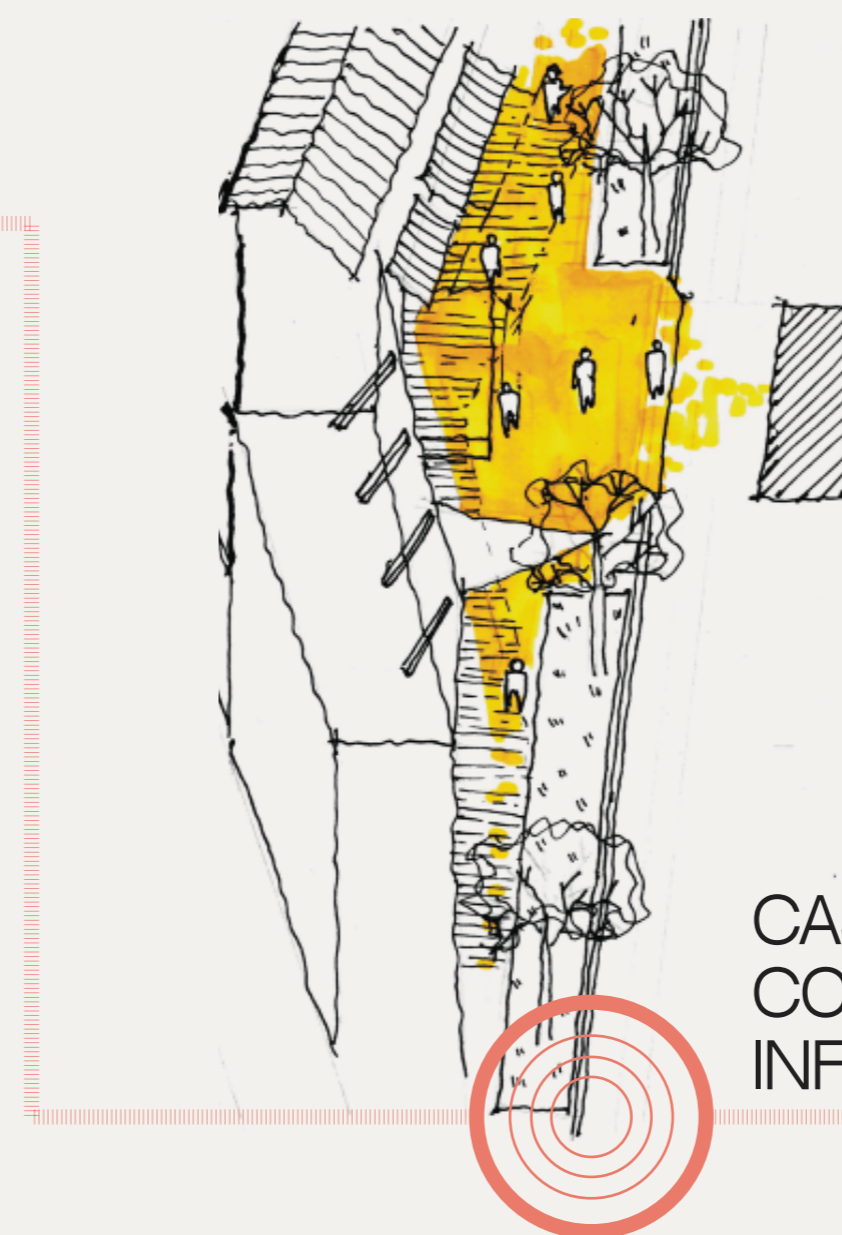
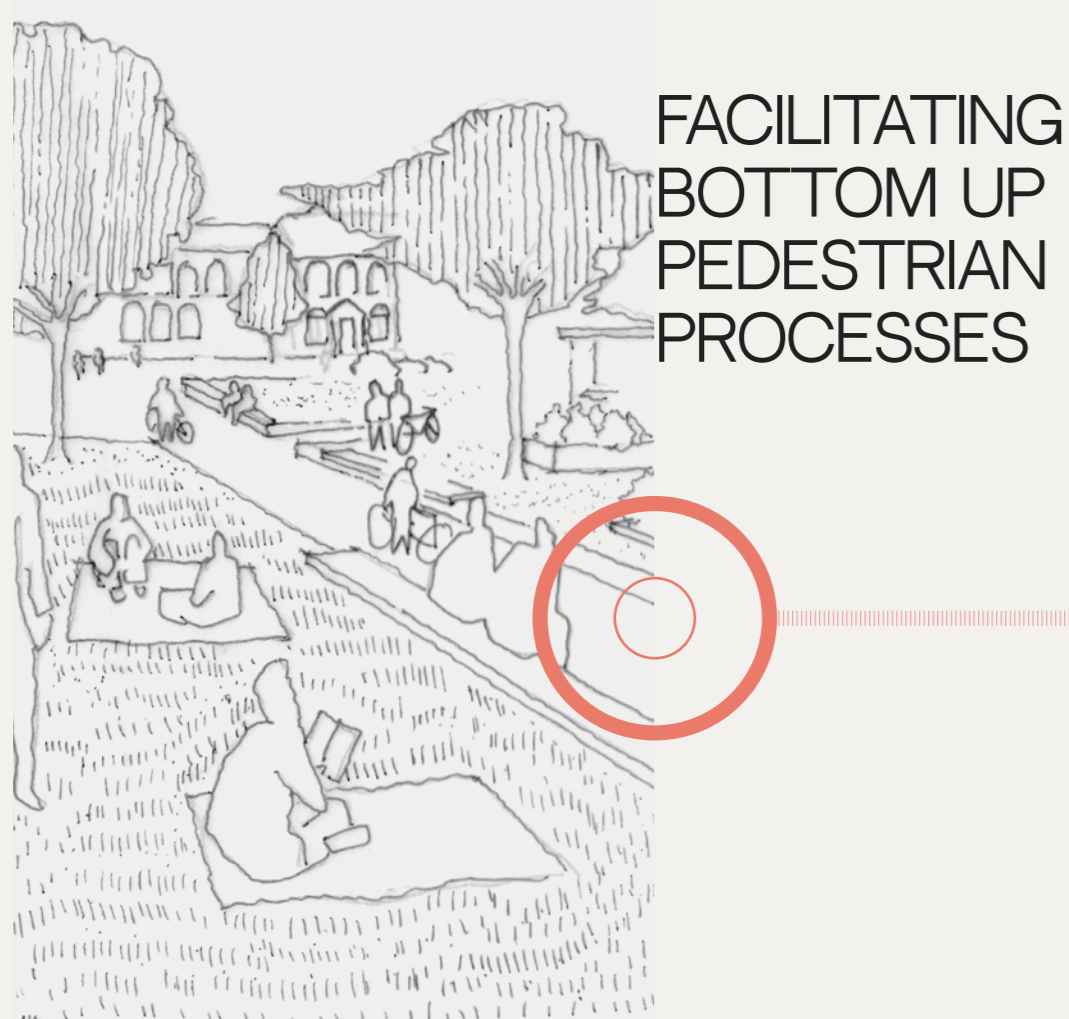
MOSSAKOWSKA, M. 2017

DU PLESSIS, A. 2023.

JOHANNESBURG CORRIDOR DEVELOPMENT



URBAN INTERIORS

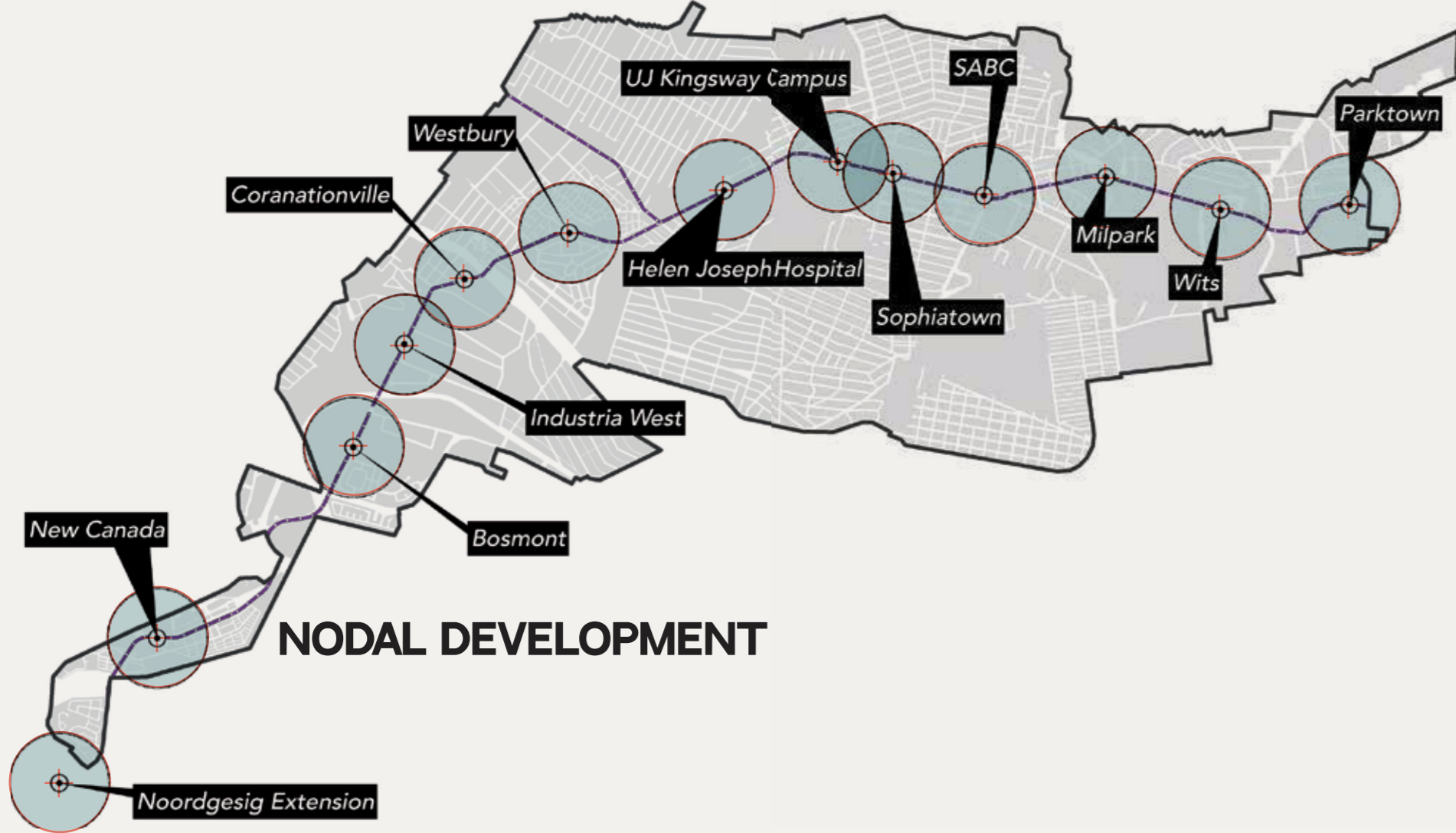


02 SITUATING PROJECT

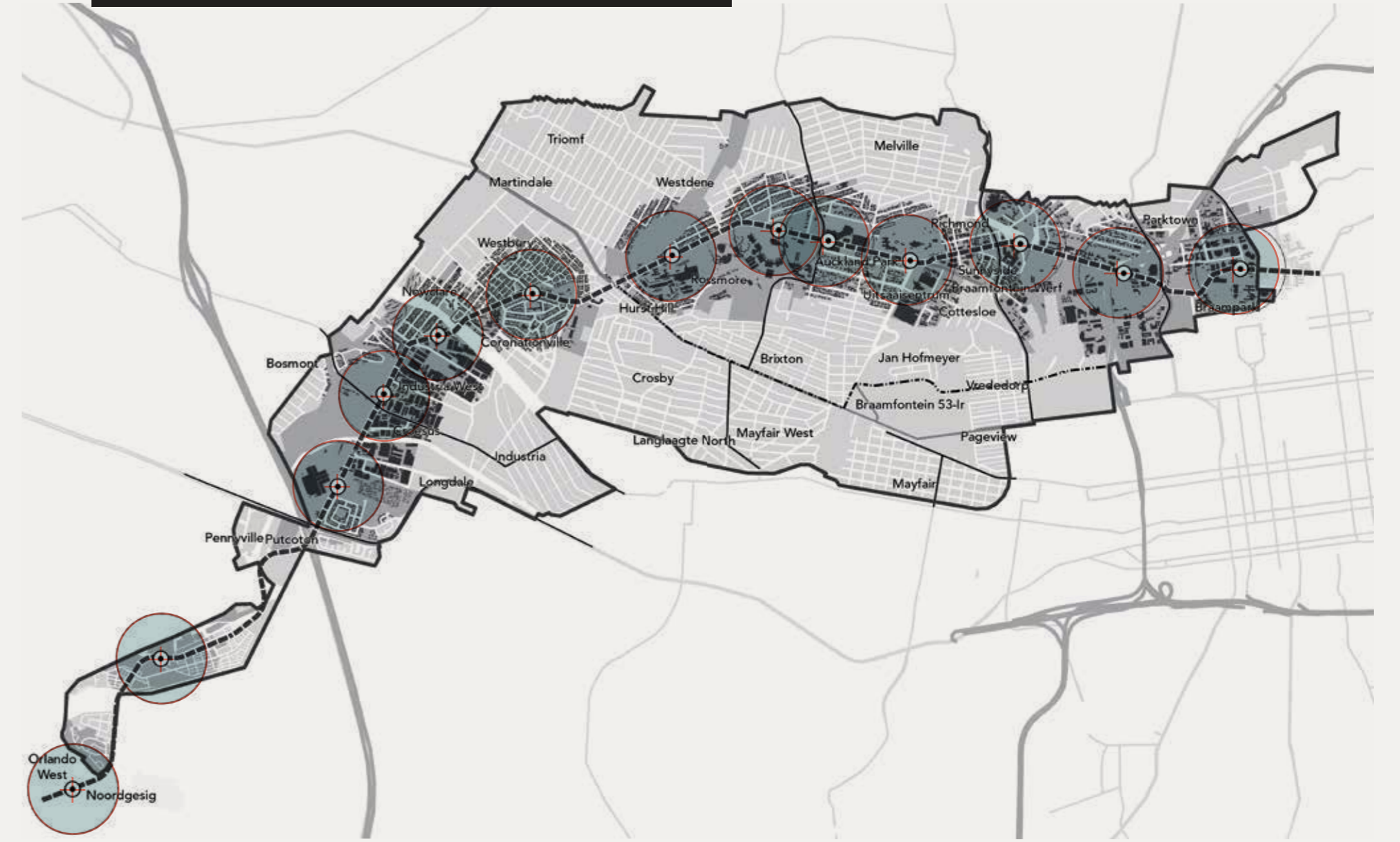
JOHANNESBURG CORRIDOR DEVELOPMENT

CITY OF JOBURG, 2018: 30-33

REA VAYA PHASE 1B STATIONS



REA VAYA PHASE 1B STATIONS



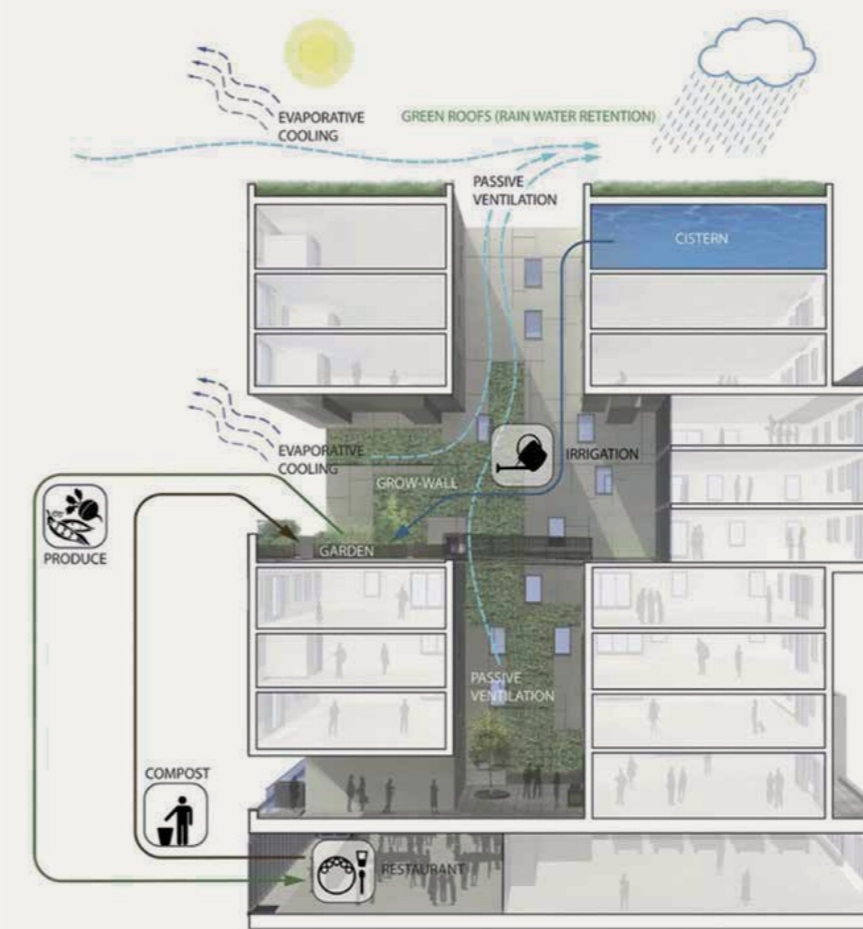
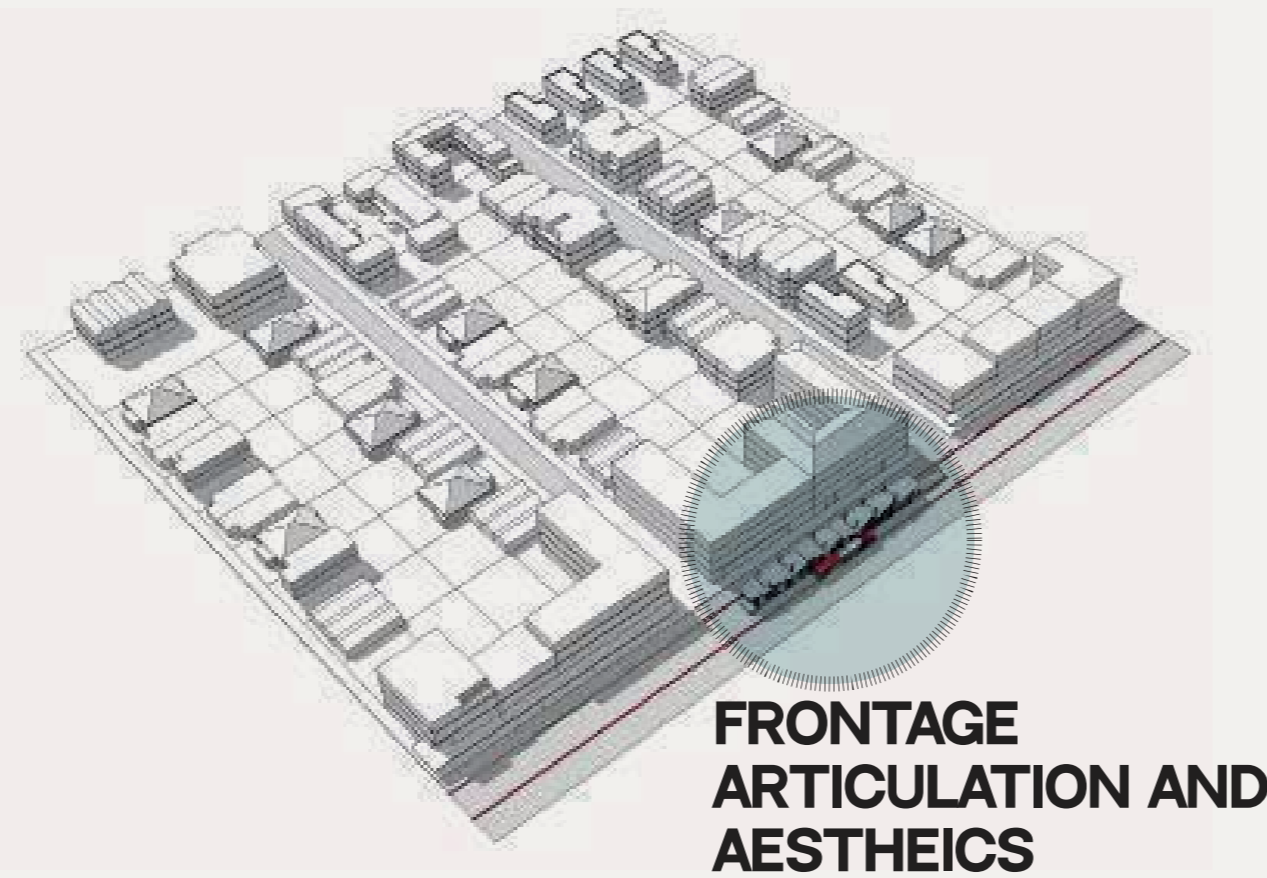
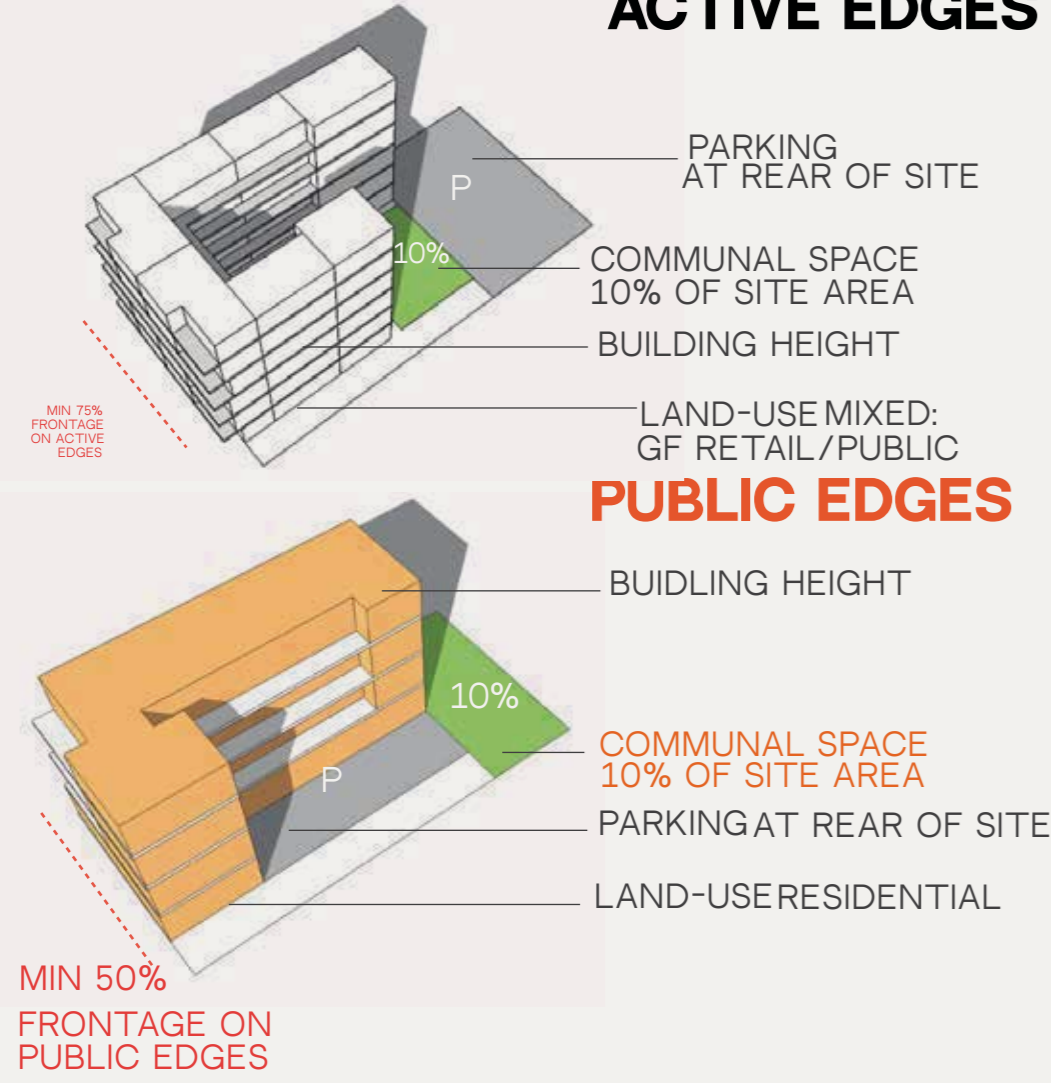
TRANSPORT SPINE WORKS AS A MEANS OF COMPLEMENTING CONVENTUONAL MODES OF TRANSIT, SUCH AS BUS NETWORKS AND TAXI ROUTES

HIGH DENSITY MIXED USE DEVELOPMENT ALONG THE NODAL CATCHMENT AREA OF 400M

DEVELOPMENT GUIDELINES

CITY OF JOBURG, 2018: 68-79

ACTIVE EDGES



SUSTAINABLE + INNOVATIVE URBAN SOLUTIONS, INFRASTRUCTURE AND SERVICES

ACTIVE EDGES - MIXED USE STREET ZONES

LAND USE

PUBLIC SPACE

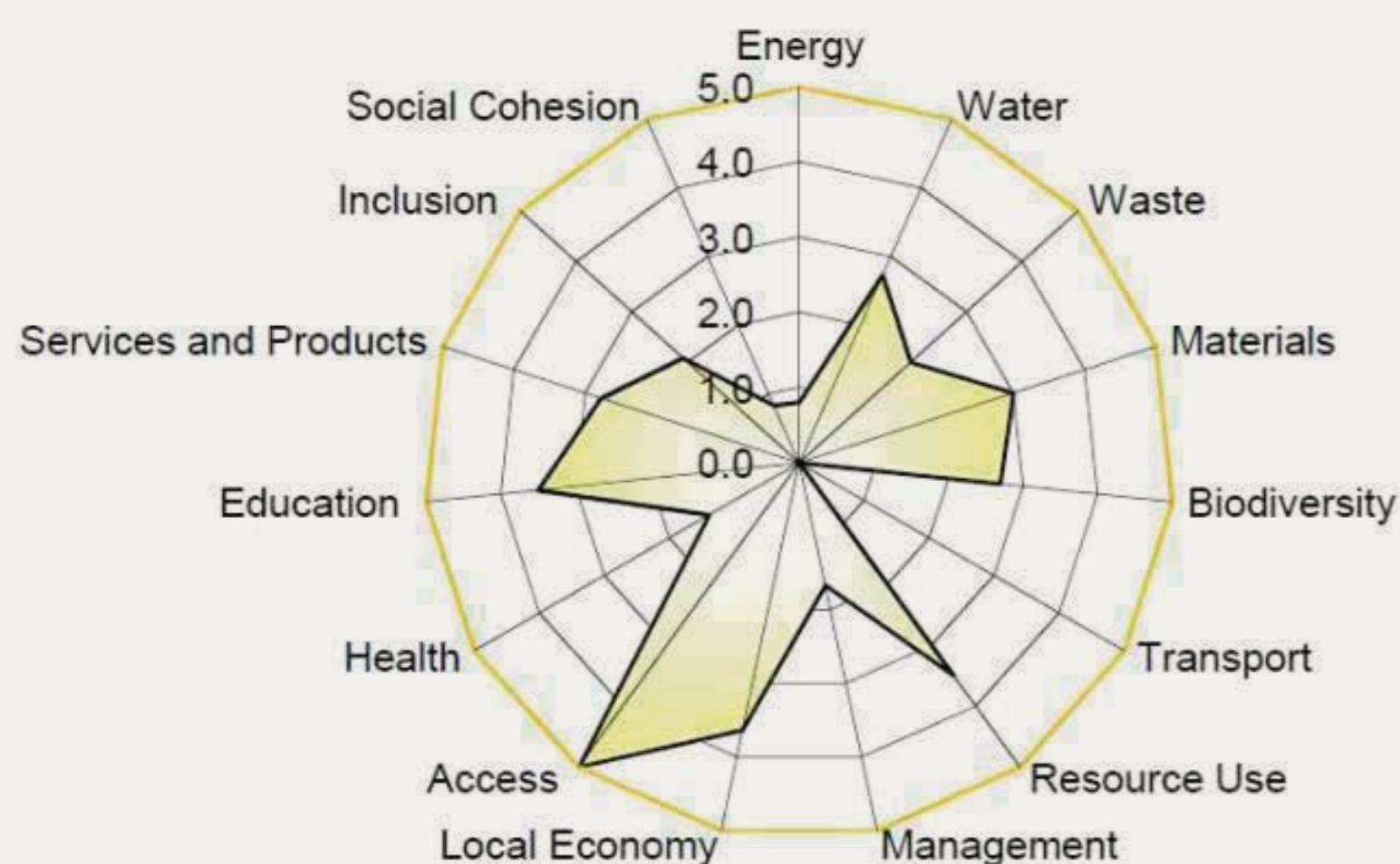
MATERIALS

INTERVENTION ARTICULATION

STORM WATER MANAGEMENT

INFRASTRUCTURE

SBAT - SUSTAINABLE DEVELOPMENT



CRITERIA FOR INTERVENTION

GENERAL	ACTIVE EDGES	LAND USE	INTERVENTION ARTICULATION	COMMUTER BEHAVIOUR	MATERIALS
INTERVENTION SHOULD BE DIRECTLY ACCESSIBLE FROM SIDEWALKS	INTERVENTION SHOULD BE SITUATED AT FRONT OF PROPERTY LINE (BUILD TO LINE)	INTERACTIVE USES ARE TO BE PROVIDED AT STREET LEVEL, IN SMALLER UNIT	PROPERTIES SHOULD PROVIDE DETAILING CONTROLS THAT PROVIDE OPTIMAL INTERFACE	INTERVENTION SHOULD TAKE COGNISANCE OF DOMINANT MOVEMENT PATH	MATERIALS SHOULD BE CHOSEN FOR THEIR FUNCTIONAL EFFICIENCY AND AESTHETIC QUALITY AS WELL AS ENERGY MAINTANCE AND EFFICIENCY
INTERVENTION SHOULD FRAME ABUTTING STREETS	SHADE PROTECTION FROM RAIL SHOULD BE PROVIDED BY MEANS IF CONTINUOUS CANOPIES OVER SIDEWALKS	INDUSTRIAL USES, MOTOR WORKSHOPS MOTOR SHOWROOMS, DEPOTS, WAREHOUSES, SCRAP YARDS, BIG CHAIN RETAIL SUPERMARKETS/SHOPS, OFFICE PARKS ETC. ARE NOT CONSIDERED INTERACTIVE USES	CORNER INTERVENTIONS AT INTERSECTIONS SHOULD EMPHASISE FOCAL NATURE AND VISIBILITY OF TRANSPORT STATIONS THROUGH PROJECTIONS, BAY WINDOWS, RECESSES, MATERIAL USE ETC.	INTERVENTION SHOULD INTEGRATE RESTING AND PAUSE AREAS ALONG PROPOSED MIXED USE TYPOLOGY	ACTIVE ZONES SHOULD INCORPORATE A MINIMUM OF 60% GLAZING TO ENHANCE SAFETY THROUGH SURVEILLANCE
	THE EDGE ZONE MUST BE INVITING AND RICH IN DETAIL ON THE GROUND FLOOR	RESTRICTED INDUSTRIAL USES SUCH AS BAKERIES, ARTISANS WORKSHOPS ETC. ARE PERMITTED ON ACTIVE EDGES.		INTERVENTION SHOULD BE DETAILED SO AS TO SLOW DOWN VEHICULAR MOVEMENT	MATERIALS SHOULD ALSO REFLECT THE AESTHETIC QUALITY OF THE BRT STATION

CONSOLIDATED INFORMANTS

KEY QUESTION

HOW DOES THE PROJECT IMPROVE THE QUALITY OF WALKABILITY AND SOCIABILITY OF PUBLIC COLLECTIVE SPACES?

RESOURCE

TSHWANE NMT

KEY QUESTION

HOW DOES THE PROJECT DRIVE QUALITATIVE SOCIO -ECONOMIC MOBILITY?

RESOURCE

EMPIRE PERTH CORRIDOR
GUIDELINES

KEY QUESTION

HOW DOES THE PROJECT SUPPORT LONG TERM SUSTAINABILITY OUTPUTS?

RESOURCE

SBAT

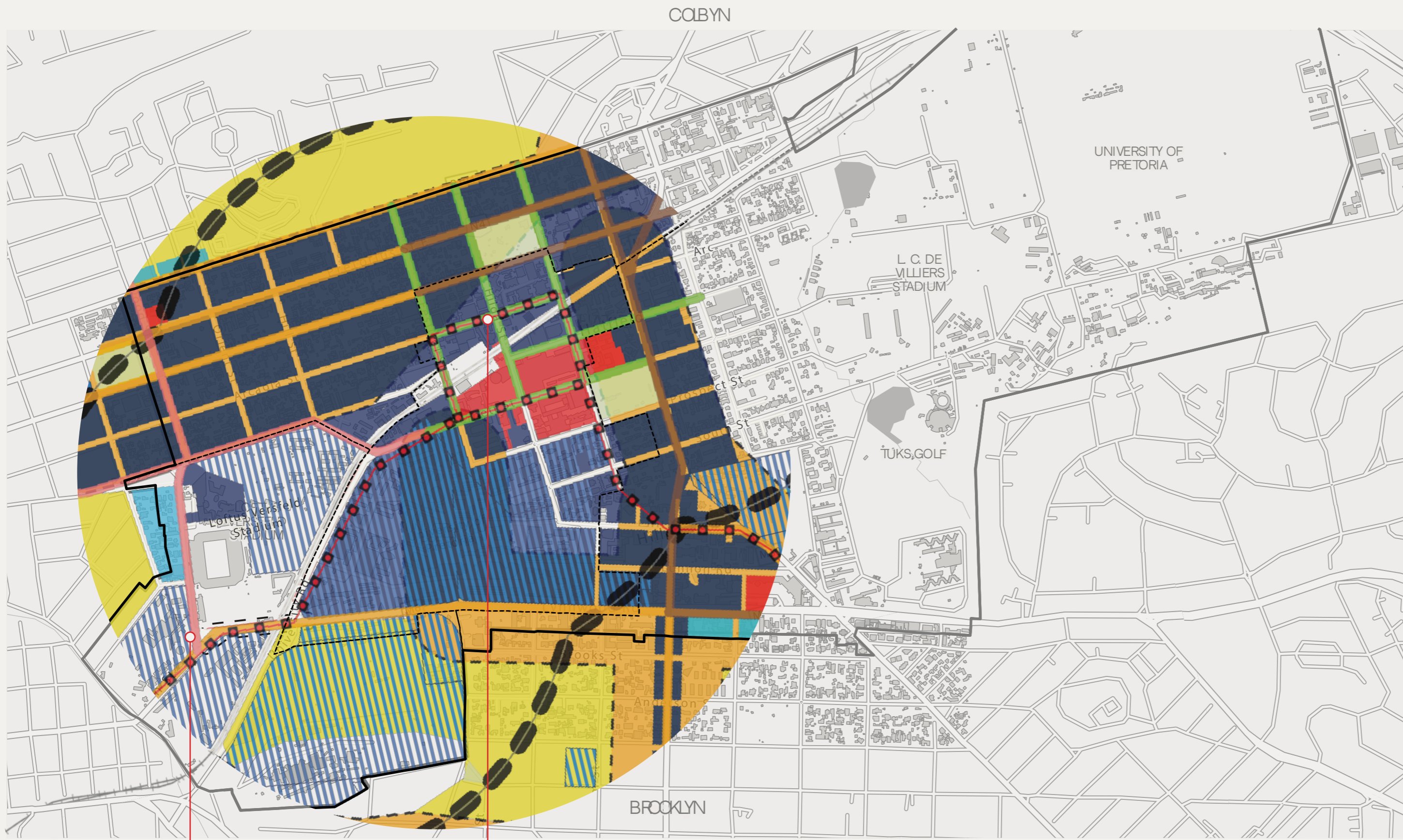
KEY QUESTION

HOW DOES THE PROJECT REDUCE THE TEMPORALITY OF TRANSIT?

RESOURCE

MAPPED DATA

04 SITE JUSTIFICATION



**A RE YENG -
LOFTUS STATION**

**A RE YENG -
HATFIELD STATION**

RESEARCH BOUNDARY
PROPOSED IRPTN

LANDUSE
EDUCATIONAL
MIXED USE
PROPOSED
CORES/NODE

ACTIVITY STREET
EXISTING
PROPOSED

ACTIVITY SPINE
EXISTING
MOBILITY ROADS
EXISTING
PROPOSED

HIGHWAYS
EXISTING
PROPOSED
MOBILITY SPINE
EXISTING
PROPOSED

1:20,708
0 0.17 0.35 0.7 MI
0 0.28 0.55 1.1 KM
4/1/2023



- TRANSIENT COMMUNITY
- COSMOPOLITAN USER PROFILE
- 250 BUSINESSES WITHIN THE AREA
- MIXED USE LAND TYPOLOGY SUPPORTS DEVELOPMENT
- PRECINCT HAS NEIGHBOURHOOD FACILITIES

URBAN FABRIC



LOFTUS STATION SURROUNDS



HATFIELD STATION ARTWORK



HATFIELD GAUTRAIN BUS



A RE YENG LANE DIVIDER



LOFTUS STATION ISLAND



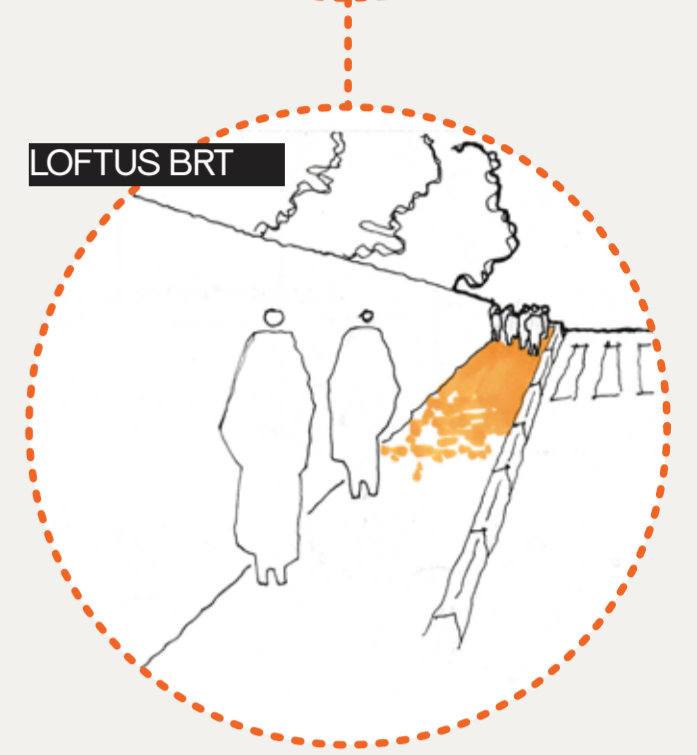
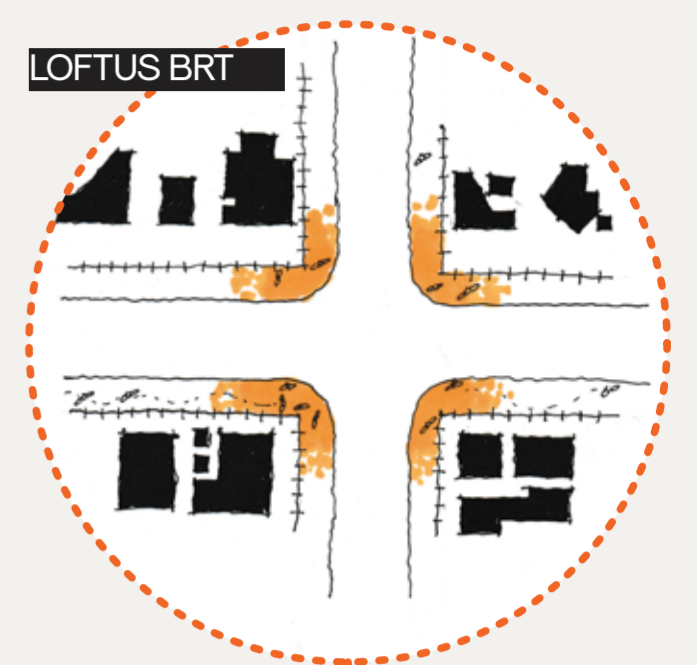
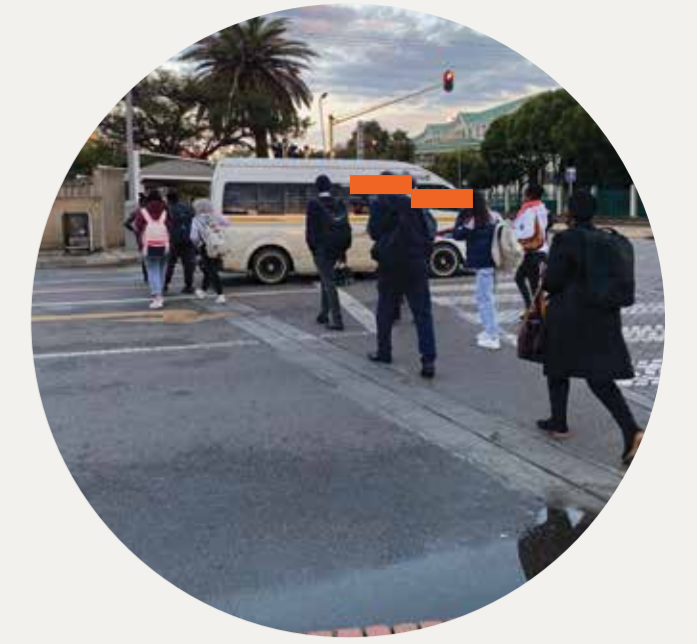
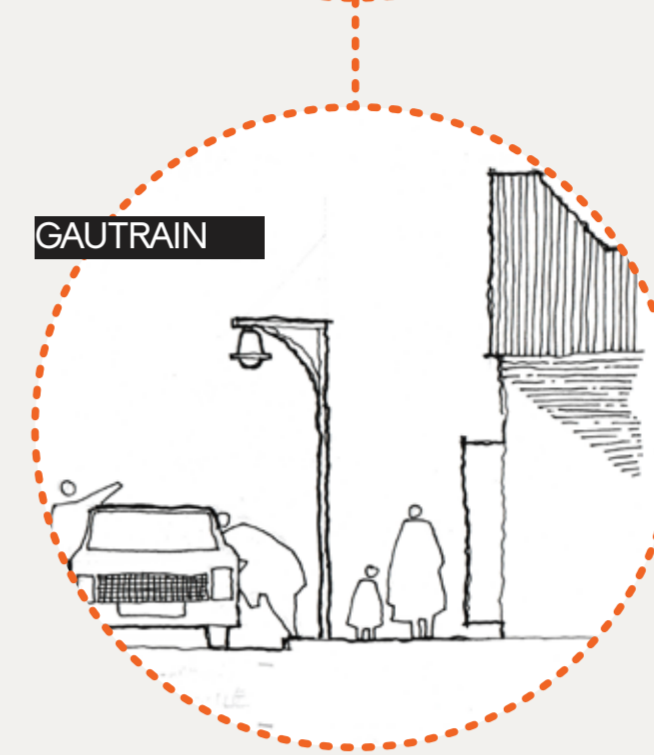
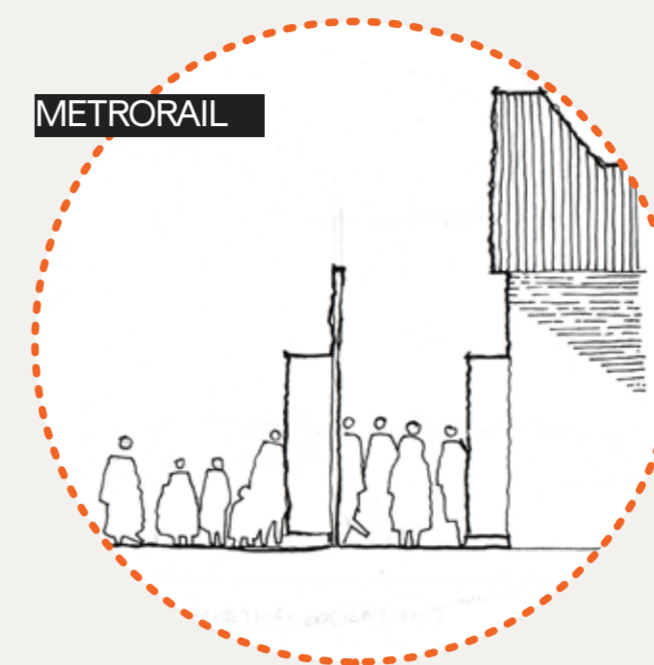
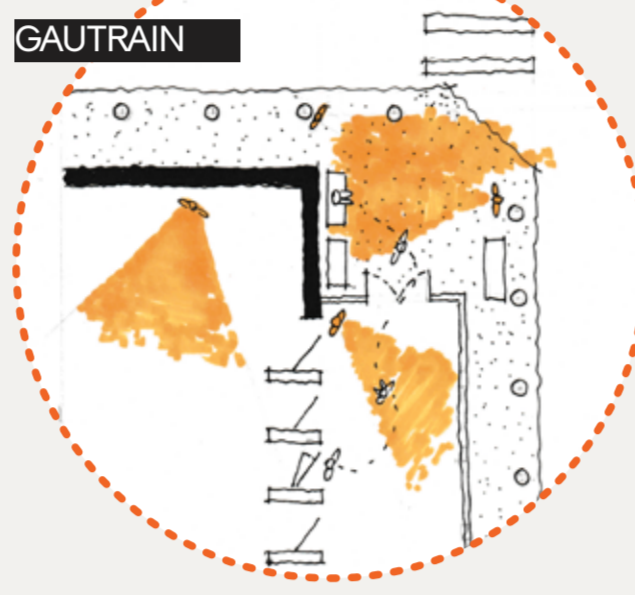
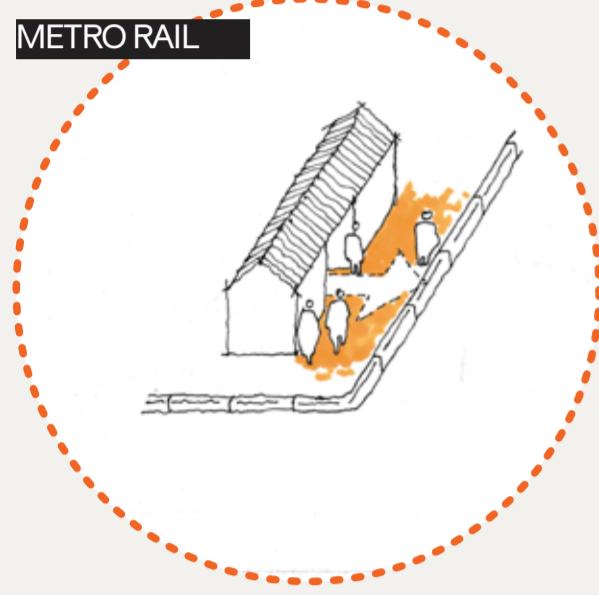
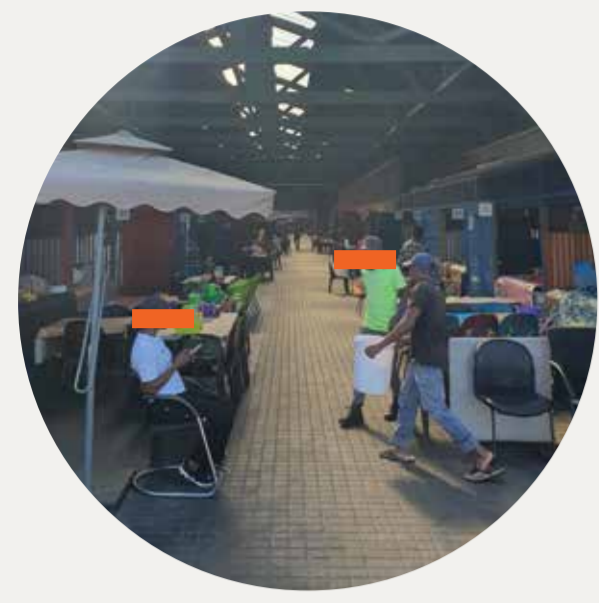
HATFIELD GAUTRAIN AND A RE YENG STATIONS

05 SITE OBSERVATIONS

SITE MORPHOLOGY

PEDESTRAIN MORPHOLOGY

VENDOR MORPHOLOGY



SINGLE ENTRY AND EXIT POINTS PROVIDE TRADERS WITH MEANS OF ESTABLISHING SERVICE LOCATION

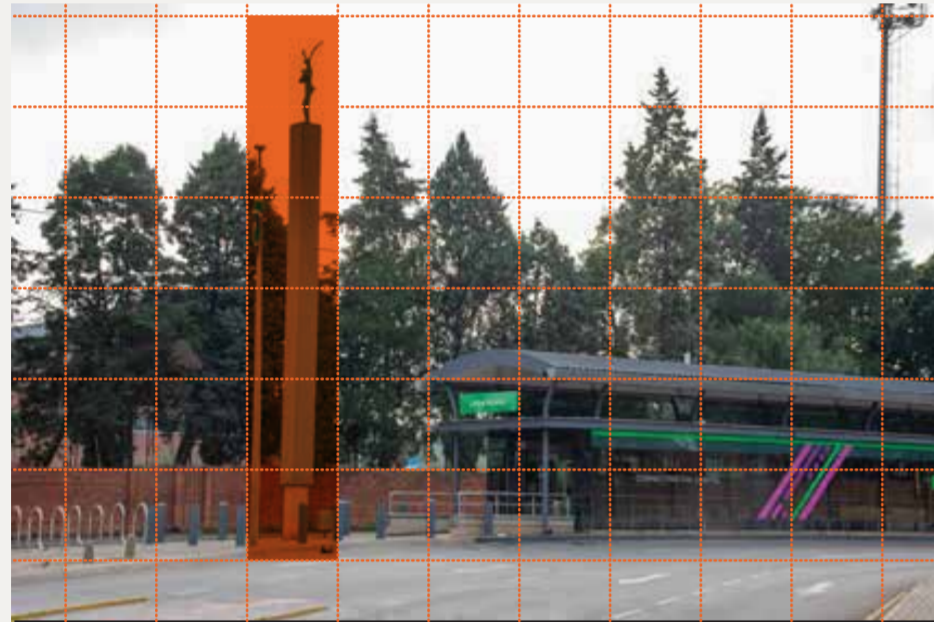
TRADERS NEAR TRANSPORT AREAS LATCH ONTO PUBLIC FACILITIES SUCH AS STREET LIGHTING, TREES AND DESIGNATED DROP OFF ZONES.

SECURITY PRESENCE IN AND AROUND GAUTRAINS PUBLIC SPHERES PROVIDES A SENSE OF HOSTILITY AND RETREAT INTO PRIVATE SPHERES (GHEL, 2013: 97), MAKING THE PUBLIC SPACE LESS ACTIVE.

GREATER VOLUME OF CONGREGANTS IDLING AROUND METRO RAIL THAN GAUTRAIN

INTERSECTIONS ATTRACT MORE PEDESTRIAN CONCENTRATIONS THAN STREET CORRIDORS

SITE CONDITION



PLACEMAKING IDENTITY

USING A TALL SQUARE PILLAR WITH ART AT THE TERMINUS OF EVERY STATION TO LOCATE AND LANDMARK TO EACH STATION



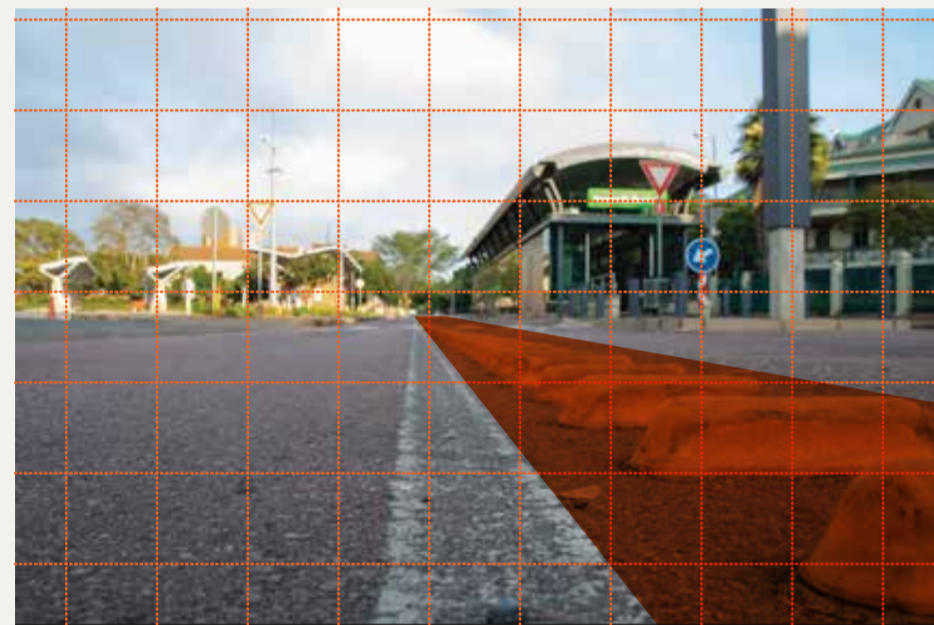
NAVIGATION AND WAYFINDING

INSUFFICIENT TRAVEL INFORMATION ACCESS WHEN ON BOARD THE STATION AND LACK OF ON STREET INFORMATION



LOFTUS WALL NICHE

NUMEROUS FENCING DETAILS AND NICHE ALONG LOFTUS PERIMETER, HISTORICALLY MEANT TO SUPPORT PEDESTRIANS



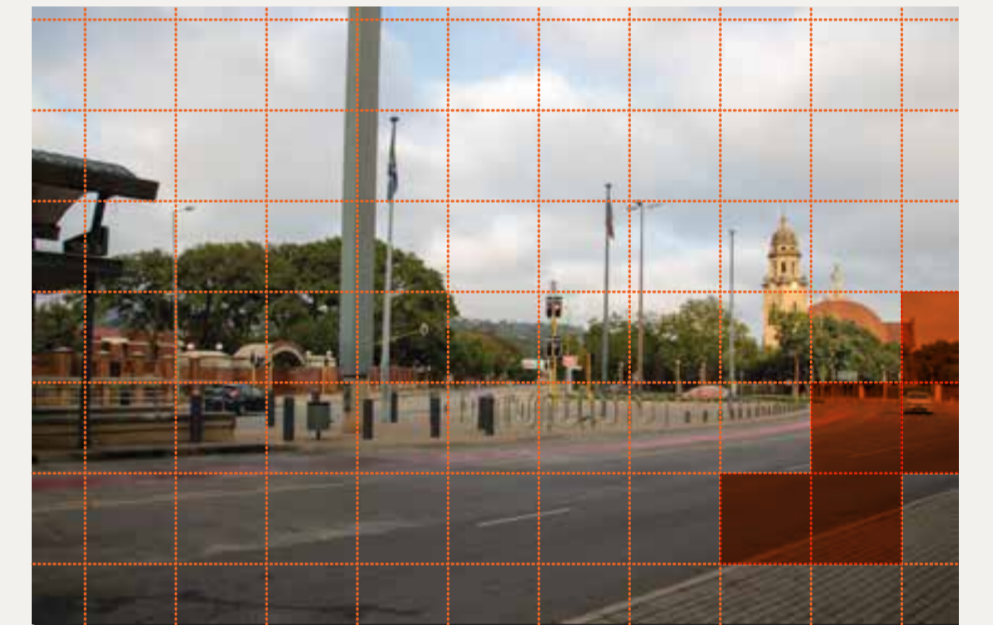
ISOLATION BARRIER

DEDICATED LANE CREATES DISCOMFORT FOR PEDESTRIANS WHEN CROSSING



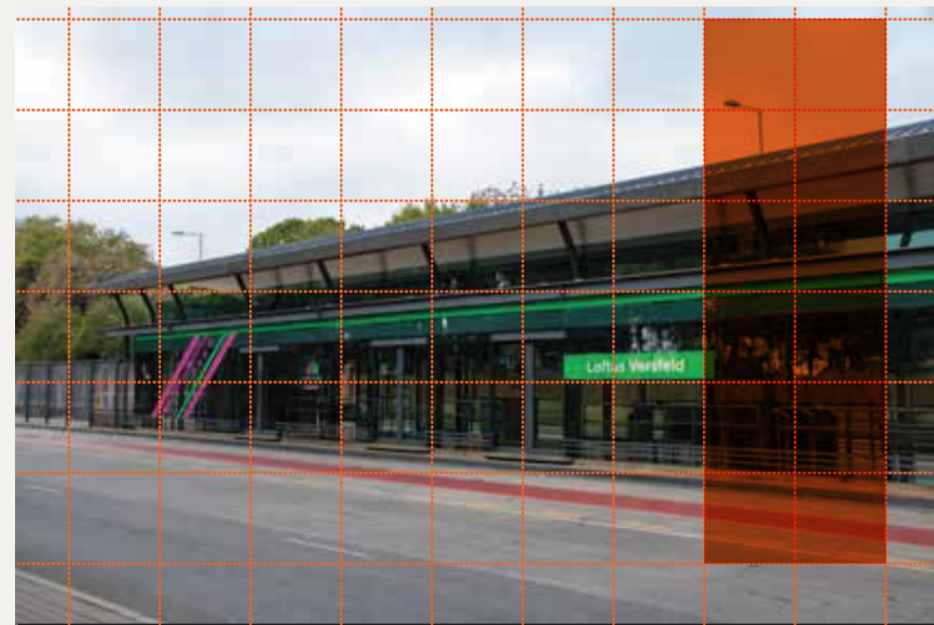
HATFIELD TRANSPORT INTERCHANGE

SITE OFFERS PASSAGES TO EXCHANGE BETWEEN VARIOUS DIFFERENT PUBLIC TRANSPORT GATEWAYS



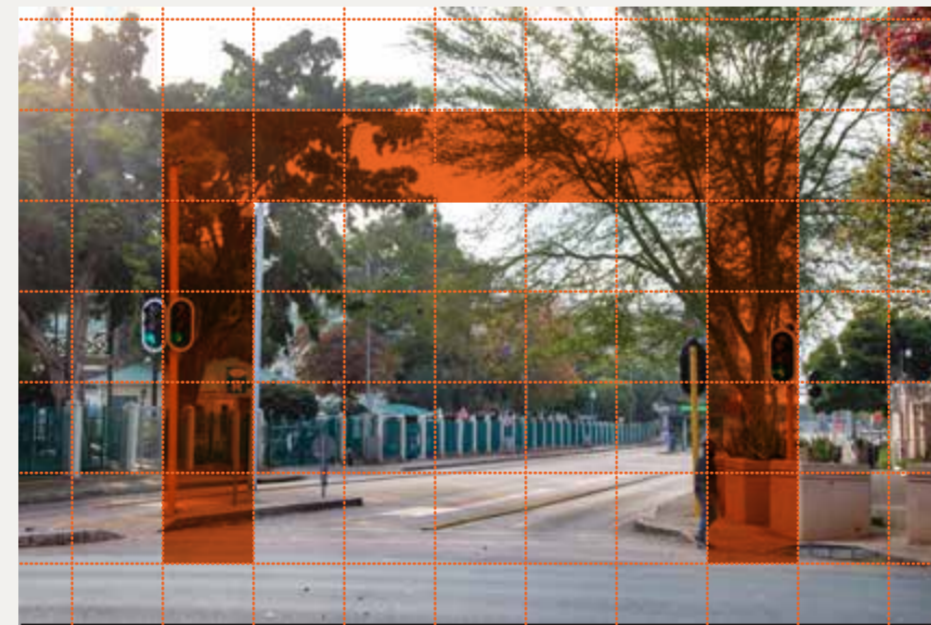
PEDESTRIAN CROSSING HAZARD

CONVERGING AND DIVERGING LANES PRESENT DIFFICULTY FOR PEDESTRIANS



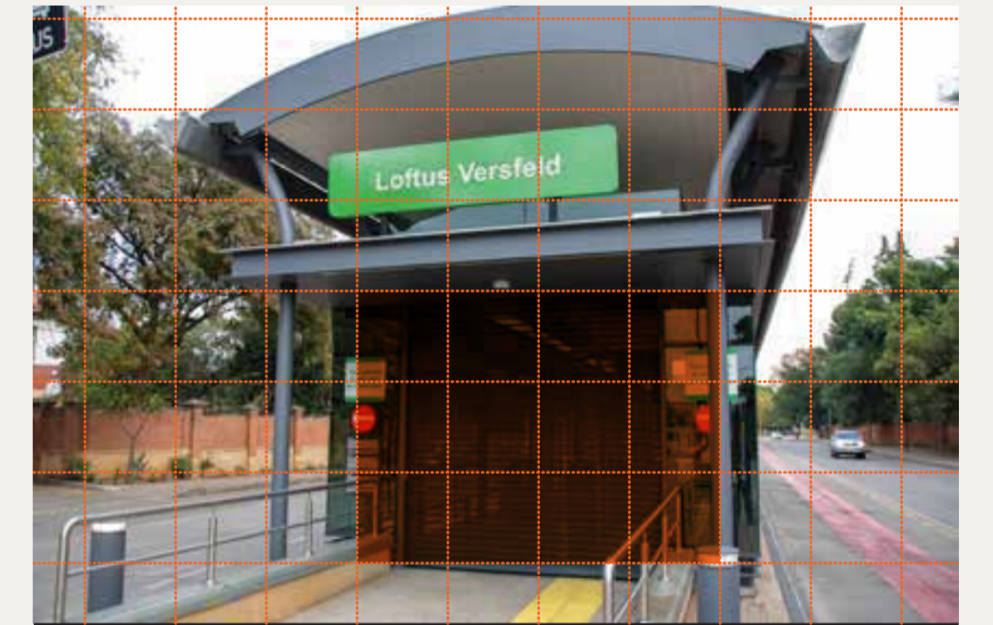
STREAMLINED PREFABRICATION

EXTENSIVE USE OF A GLASS FORM AND PREFABRICATED TECTONICS EMPHASISE BRANDING



CORRIDOR ENTRYWAY

ROAD LAYOUT AND STREET CONFIGURATION SUGGESTS CORRIDOR INTERCHANGE PROMENADE

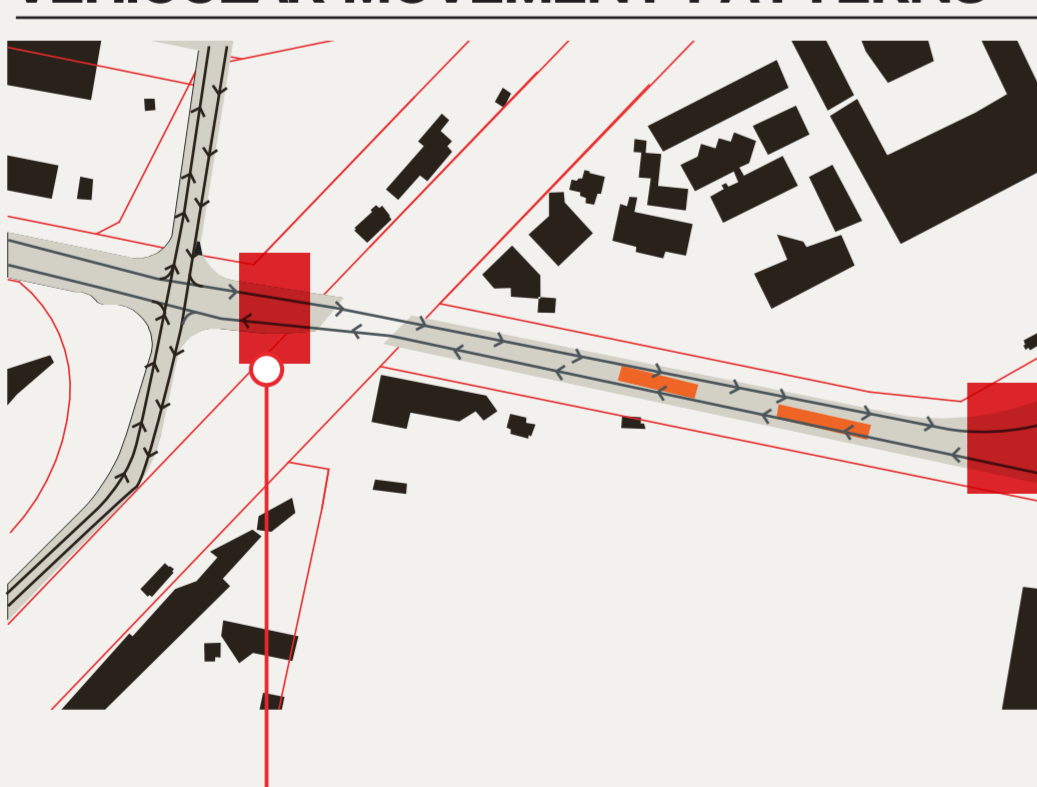


CLOSED OFF STATION POD

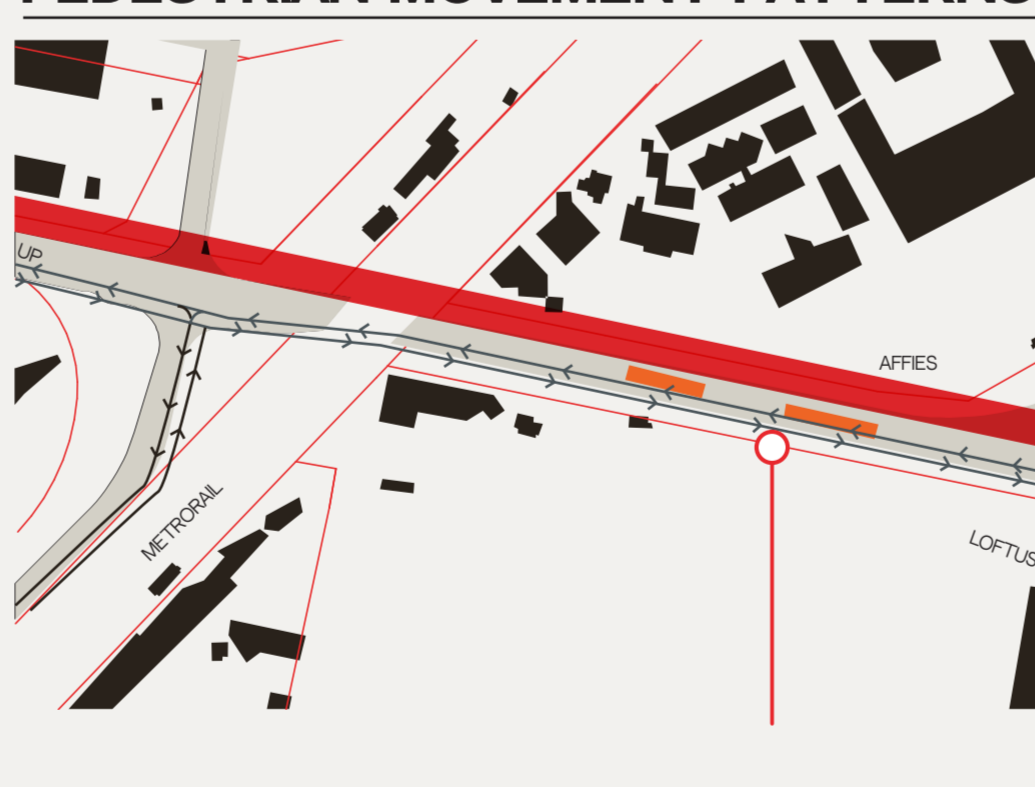
1 POD RESERVED FOR MATCH DAYS PRESENTS SIGNIFICANT INVESTMENT LOSS

MOVEMENT

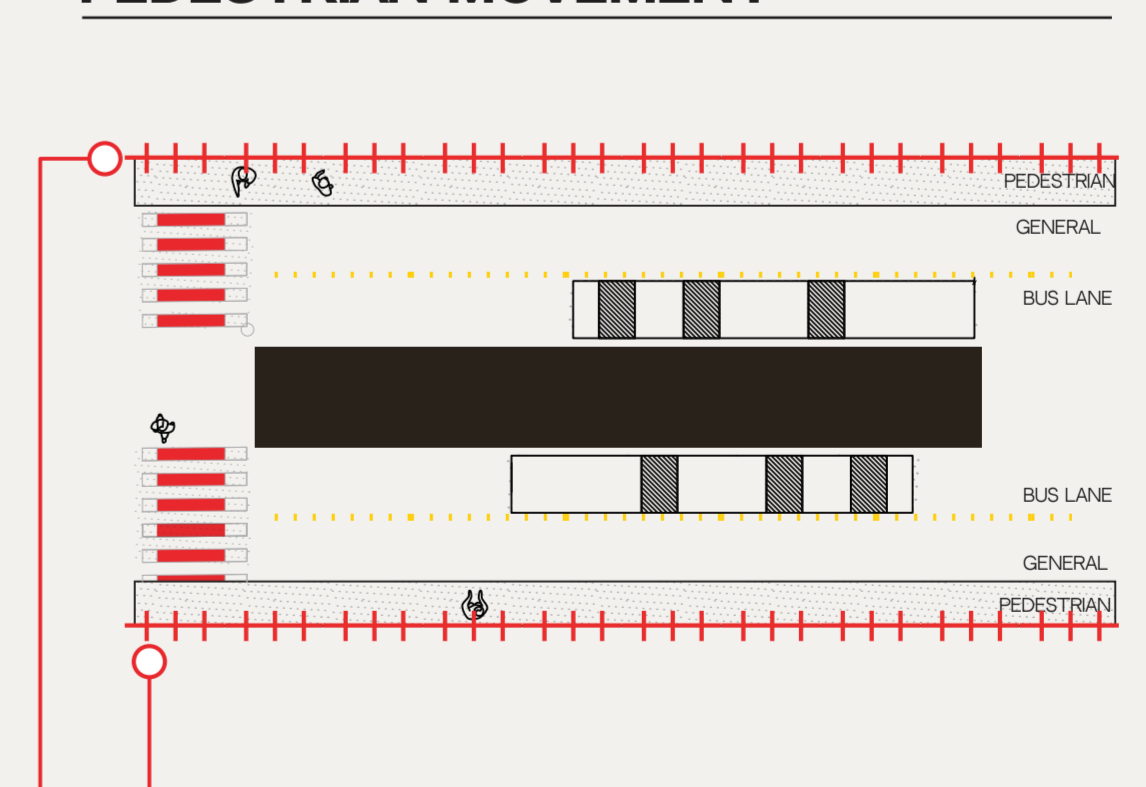
VEHICULAR MOVEMENT PATTERNS



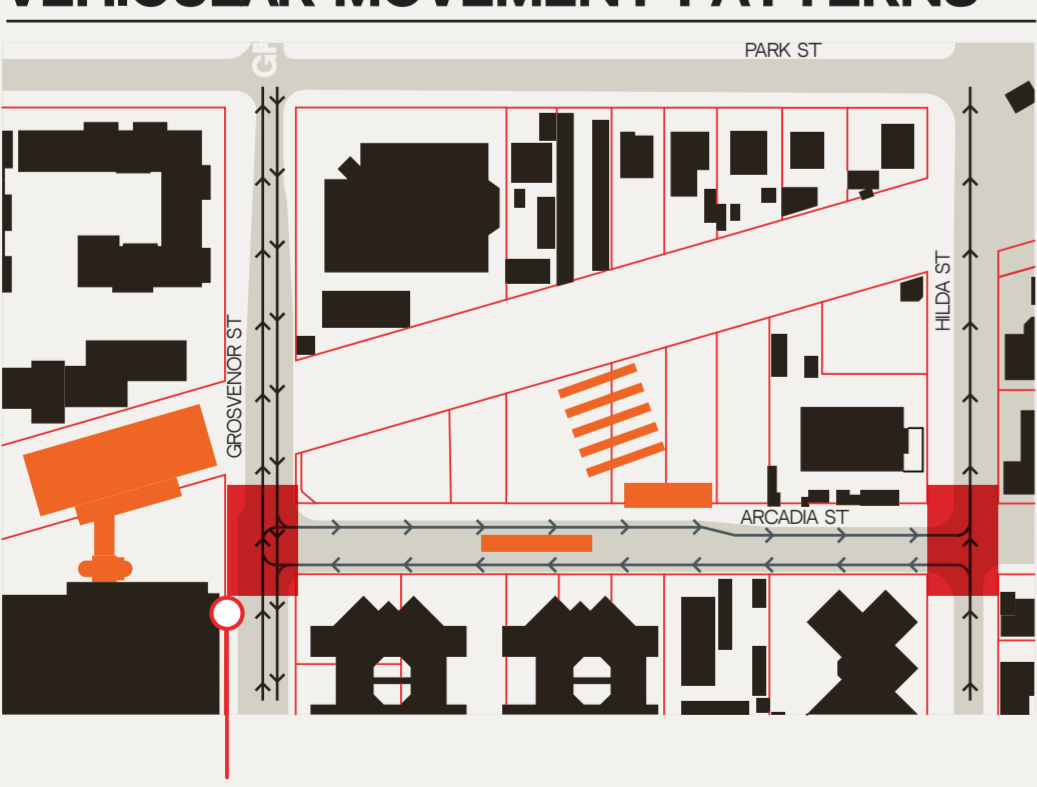
PEDESTRIAN MOVEMENT PATTERNS



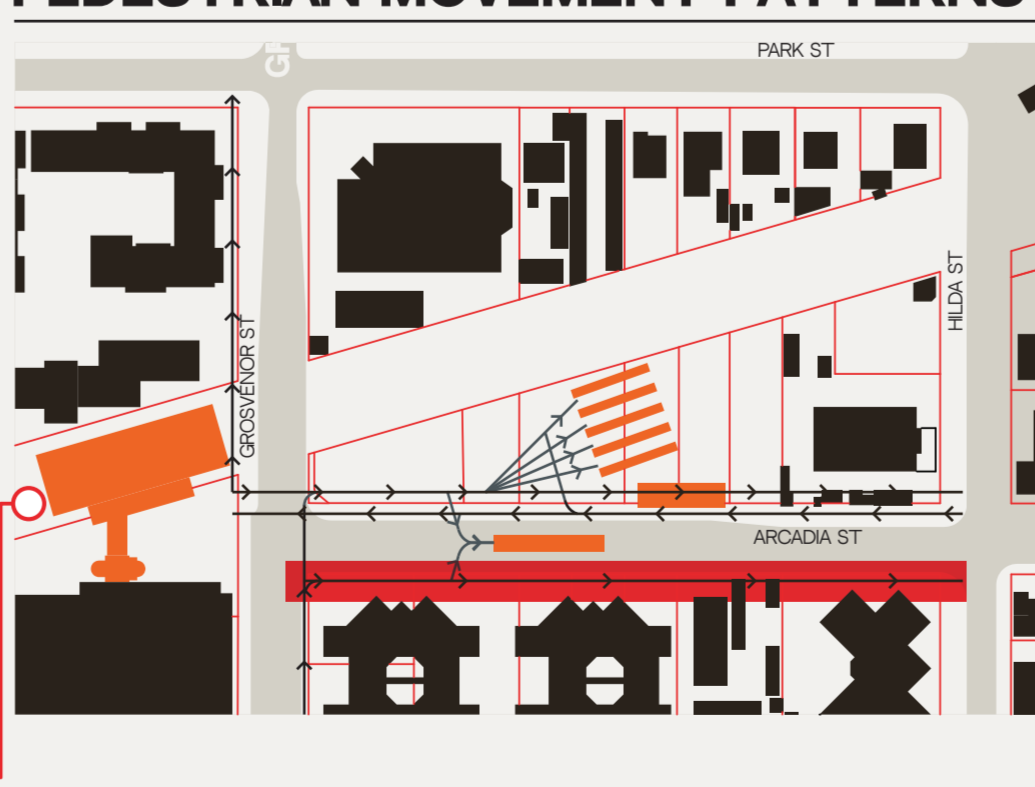
PEDESTRIAN MOVEMENT



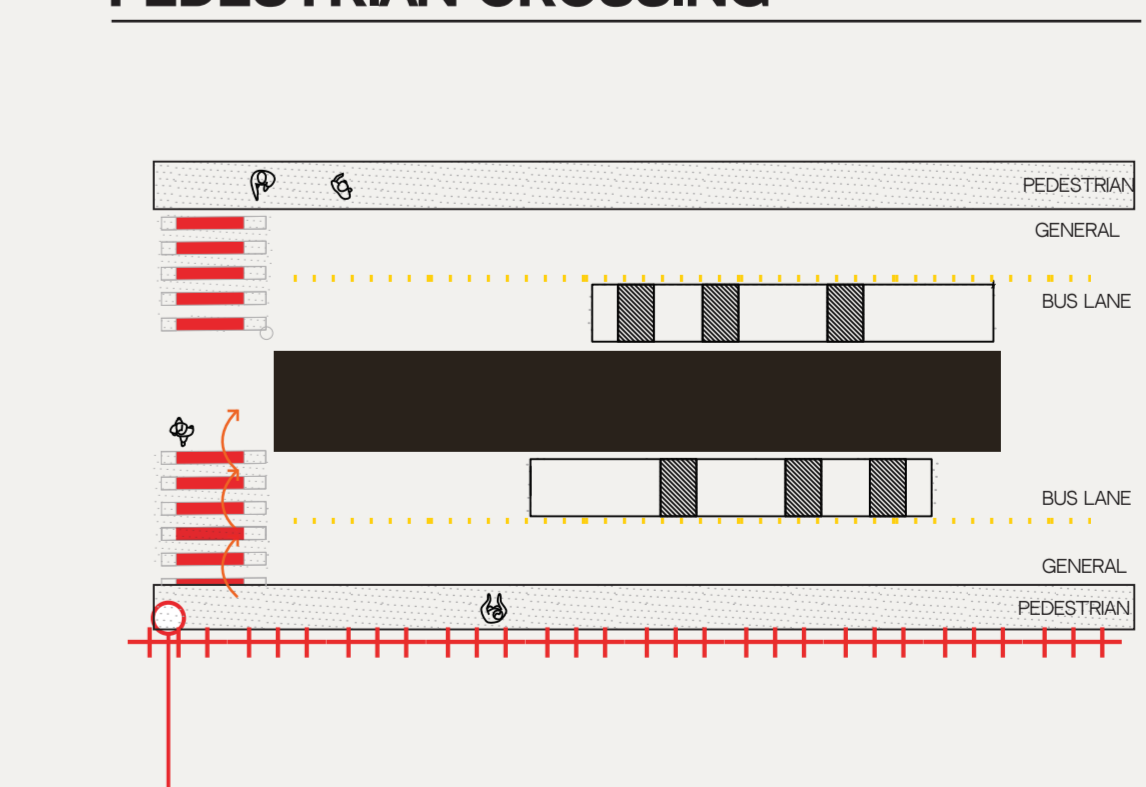
VEHICULAR MOVEMENT PATTERNS



PEDESTRIAN MOVEMENT PATTERNS



PEDESTRIAN CROSSING

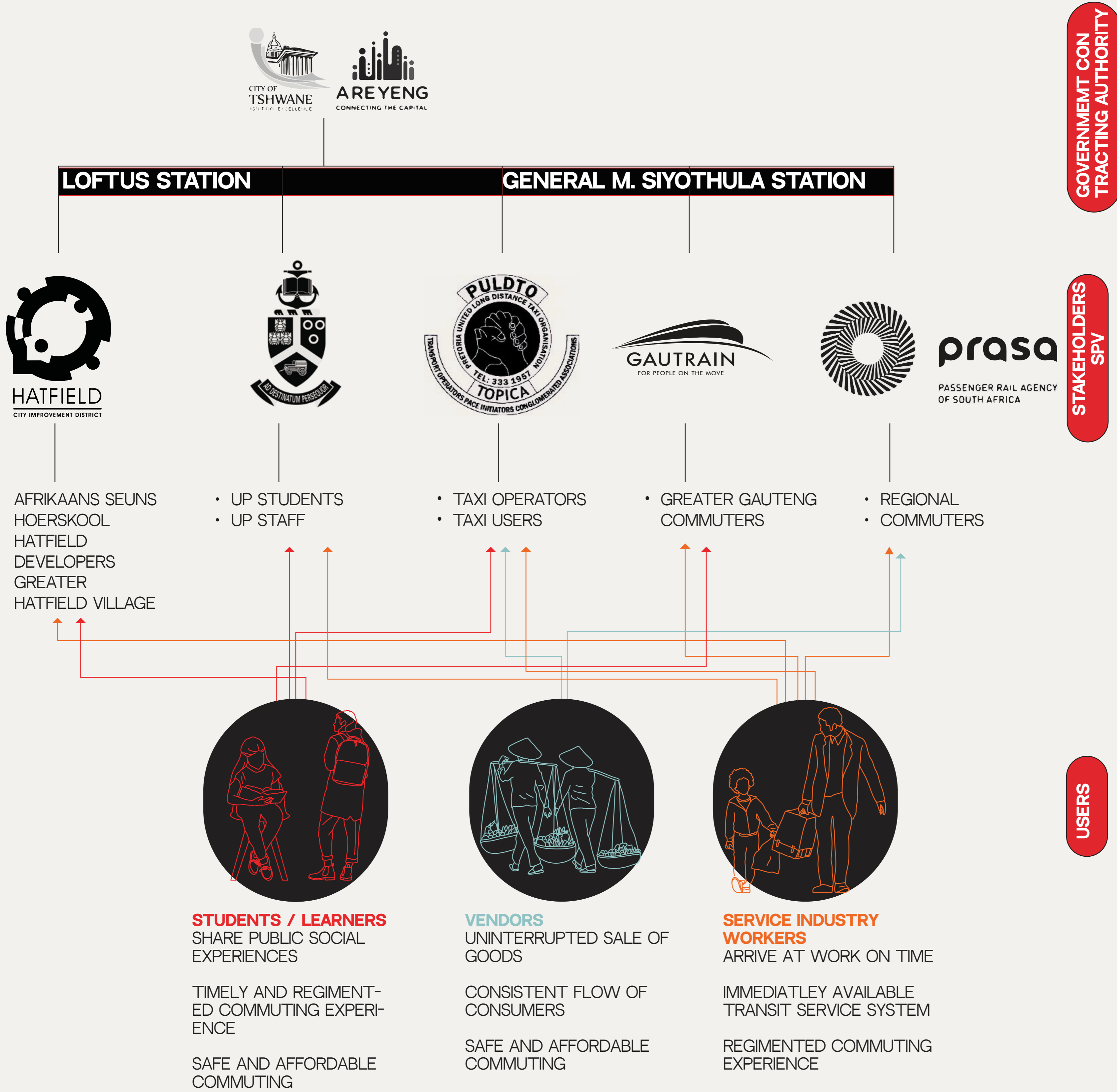


TRAFFIC JUNCTIONS CREATE ENTRY AND EXIT POINTS WITHIN ROAD CORRIDOR

DOMINANT PEDESTRIAN PATH LEADING TO OTHER AVENUES OF DEVELOPMENT

IMPERMEABLE DEVELOPMENT LIMITS PEDESTRIAN MOVEMENT

06 CLIENT/ STAKEHOLDERS



MARKET ANALYSIS

