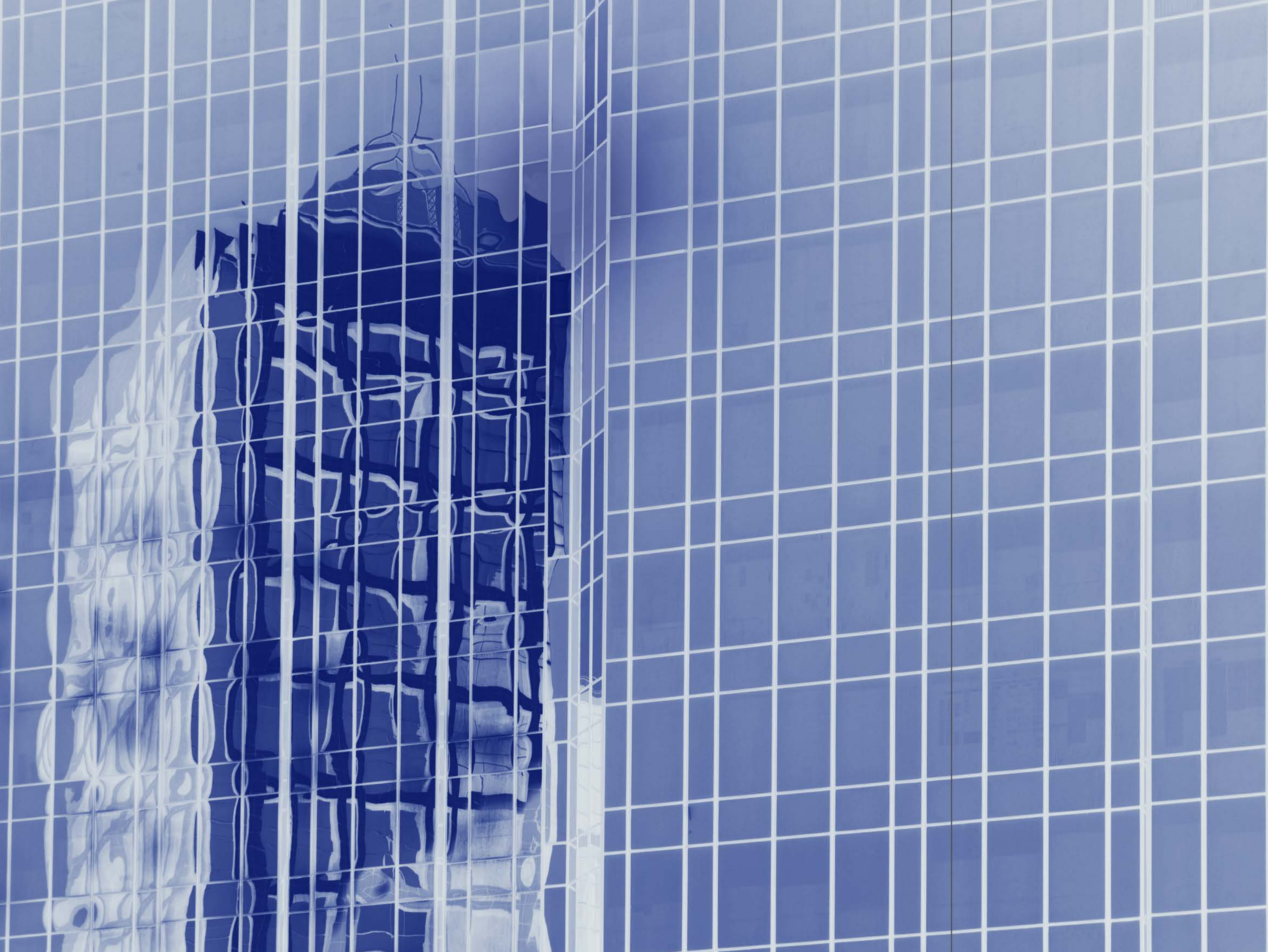


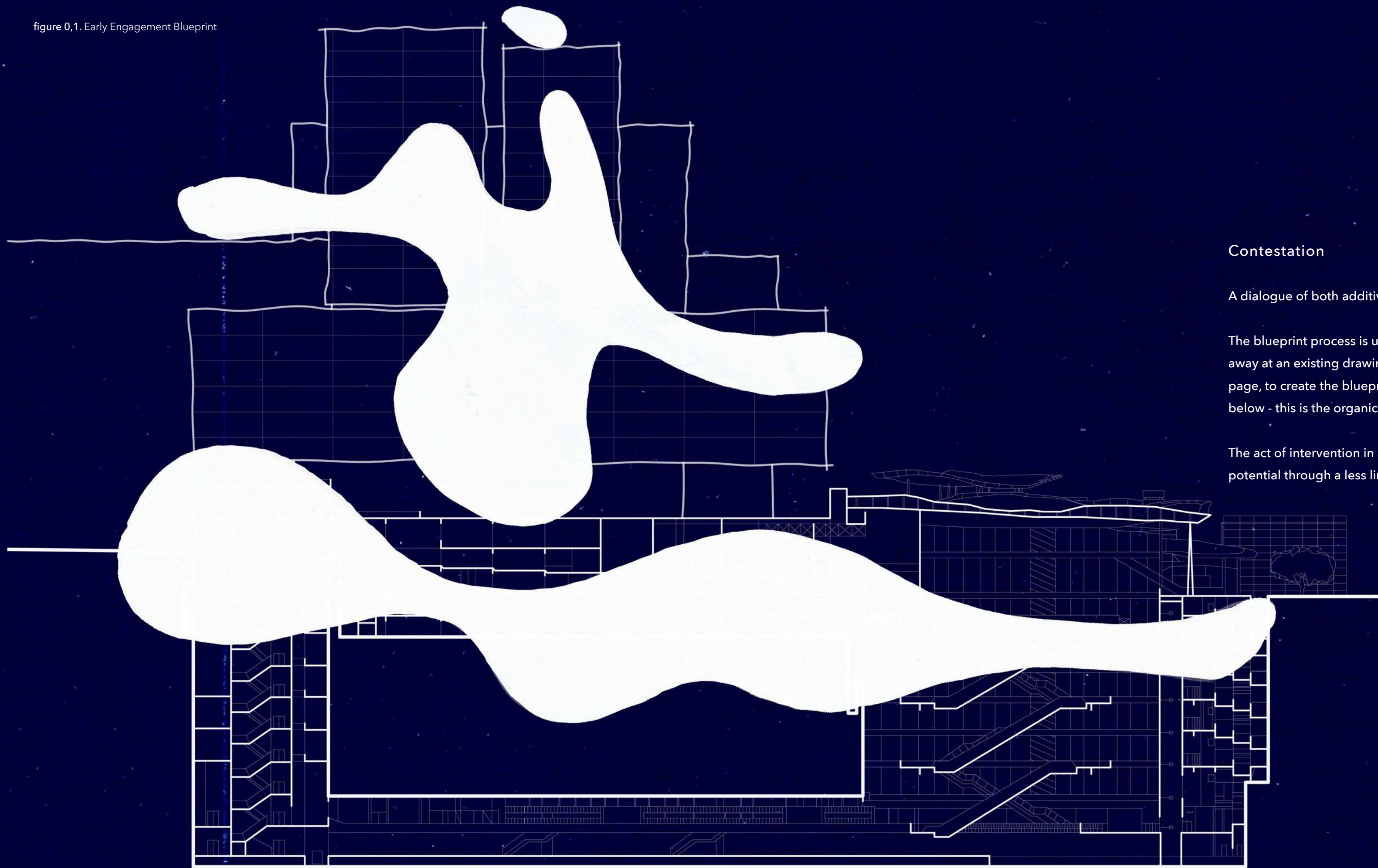


CAPITAL CAPITOL

The Reconceptualisation of State Infrastructure to Maintain a Productive
and Progressive Equilibrium in the Sandton Business District

Benjamin Kollenberg [6 6 9 7 7 9]

figure 0,1. Early Engagement Blueprint



Contestation

A dialogue of both additive and subtractive design within an imagined space.

The blueprint process is utilized to simultaneously create a new positive form while carving away at an existing drawing. The potentially haphazard disruption of ultra violet rays on the page, to create the blueprint affords a powerful intervention within the controlled drawing below - this is the organic white form imposed onto the existing context.

The act of intervention in an existing yet speculative space creates a dialogue of unrealised potential through a less limited set of parameters.

figure 0,2. Conceptual Imposition Blueprint



Declaration

I, Benjamin Kollenberg [student number 669779] am a student registered for the course Master of Architecture [Professional] in the year 2018. I hereby declare the following:

I am aware that plagiarism [i.e. the use of someone else's work without permission and/or without acknowledging the original sources] is wrong. I confirm that the work submitted for assessment for the above course is my own unaided work except where I have stated explicitly otherwise. I have followed the required conventions in referencing thoughts, ideas, and visual materials of others. I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my unaided work or that I have failed to acknowledge the source of the ideas or words in my own work.

Benjamin Kollenberg
05 February 2019

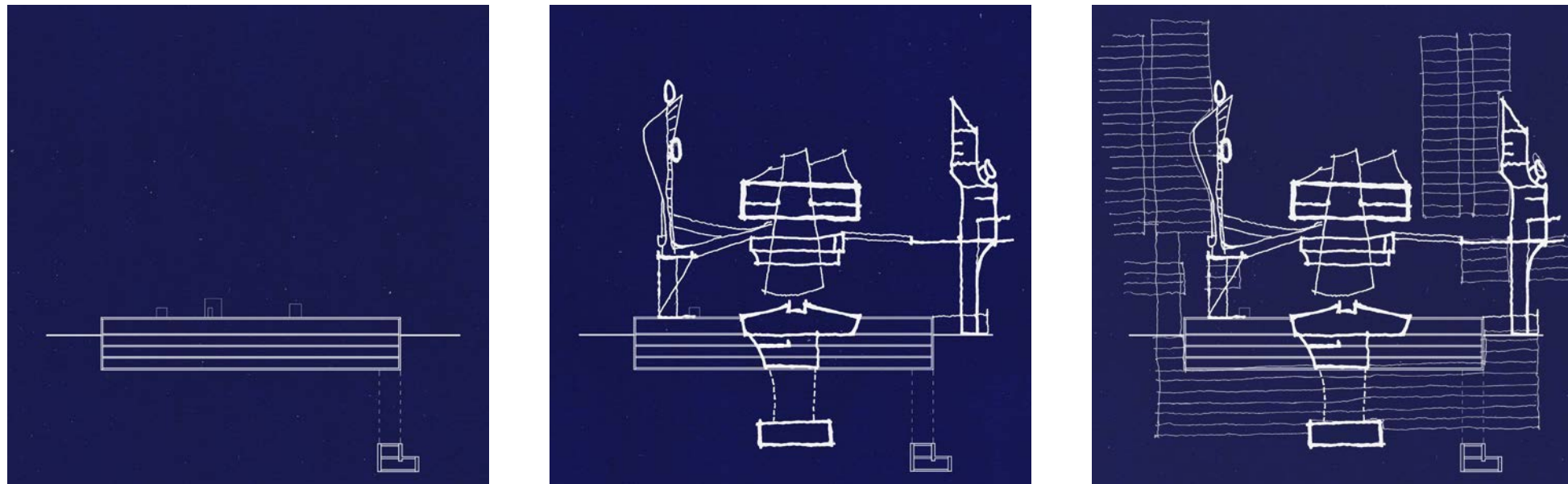


figure 0,3-0,5. Existing, Proposed & Future Blueprints

Abstract

City centres exist not only to facilitate the people working in air-conditioned offices, but also those cleaning and protecting them. This infrastructure should, in fact, prioritize the general majority over the wealthy minority as a means to propagate a balanced power dynamic within the city. The proposed Civic Centre will be inherently antagonistic to the existing order of the privatized, central business district of Sandton, to facilitate productive and progressive future development. This report begins a dialogue with the resultant architectural trend of “*Form Follows Finance*” and aims to utilize the Sandton “*Society of Spectacle*” to manipulate these ideals for a post-capitalist democratic future.

Sandton’s inequality manifests in an exclusivity such that a vast majority of the population’s potential is perpetually disregarded. Although there are a number of innovative transportation proposals of an increasingly informal nature, these primarily function to provide a service to the Sandton white collar workforce. However, there is as yet still no vision to provide a civic destination point, or sense of belonging for these many servicing layers of Sandton society. The proposed intervention of a new infrastructure of movement is therefore twofold; firstly, through the recognition and celebration of an informal transport mechanism of minibus taxis and public buses, and secondly as an inclusive business interface for an evolving workforce. An architectural dialogue of potential urbanity lies in blurring the lines between the movement of people and ideas.

The proposed site sits in the physical and ideological centre of the rapidly developing CBD, as a “super-basement” for a mixed-use precinct envisaged, but never realised, above. The basement is already partially built and currently houses the Gautrain station. However, the mixed-use precinct and buildings above exists as a speculative landscape – having been planned almost ten years ago but currently locked in a political “*tug of war*”. The proposed intervention seeks to take control of both of these contexts, working within the structure, to break away from the current design model and formulate a comprehensive alternative proposal to unlock the site’s inherent potential – sociologically as well as economically. This new cumulative context will offer an invaluable opportunity for a meaningful insertion of a multiplicity of new urban players into the existing fabric of possibilities – physical and conceptual – in order to unlock the potential of the many missing layers.

A new collective infrastructure of movement in the agglomeration of Sandton has the potential for radical social change as well as accelerated economic development throughout the city. A development which no longer ignores inequality through the Sandton spatial constructs as it has come to a point where this neglect is no longer feasible.

T A B L E O F C O N T E N T S

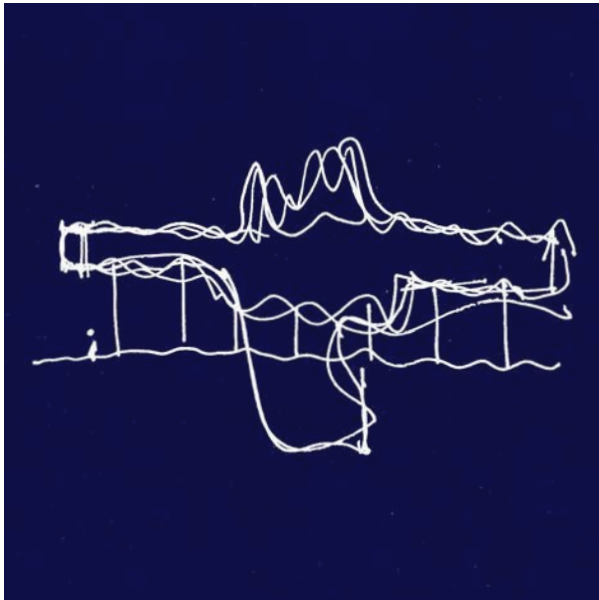
1	2	3	4
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figure 1,1. Conceptual Section Sketch Blueprint



Acknowledgements

I have always joked that growing up as the first child of two architects, I had never been given a choice in what to study. First of all, this is untrue, but more importantly unfair as my parent have unwaveringly supported me in absolutely everything I have pursued.

Mom and Dad, thank you. Your support and encouragement seems to make everything possible. I so desperately appreciate our daily interactions, from productive late night crits to uncontrollable laughter. You somehow make this architectural journey unbelievably fun while still relevant and meaningful. To my siblings, Eve and Jo, I cherish our close, yet unusual respective relationships. You have both taught me so much about myself and the world around us. I am so excited to continue through this journey as a team. Thank you all for inspiring and supporting me every step I take.

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This document is wholly dedicated to my family.

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Preface

What are the economic and social repercussions of a truly pluralist central business district?
Does a contemporarily reconceptualised structure have the potential to heighten productivity and efficiency through the mediation of the public and private sectors, for a mutually beneficial result?

The research contained in this dissertation began with a desire to further open a dialogue for an increasingly progressive future. Johannesburg has rapidly evolved in to the economic powerhouse of South Africa and the Sandton suburb exists at the heart of this development. However, the function of the thriving Sandton business district is fraught with systematic issues in a context where inequality in unacceptable high. This document addresses these dichotomies with a hypothetical realisation of seemingly disregarded opportunities present in the business district. This resolution proposes a symbiotic solution to further develop the socio-economic state of the nation.

The capitalist system currently in place has resulted in a pioneering spirit surging the economy forward. However, there is an increase in societal unrest as a result of a decreasing accessibility

of the benefits offered by the system. This has manifested as monetary divides throughout the country - epitomized in Johannesburg. These issues are exacerbated by monetary means and are therefore proposed to be addressed through the same manner. The Capitalist system, already adapted within the trade laws of South Africa, is a far more malleable entity than often perceived. A re-envisaged system therefore has the potential to redefine focus and thereby accessibility for money as well as for the monetary incentives of Capitalism already advancing the economy. The hypothesis argues that an increase in range of human resources will optimise the productivity of the system, whilst simultaneously providing an increasingly democratic socio-economy. The Capital Capitol exists as an interface into the business district opening it up for the spread of opportunity. Once the reach is increased far more thought processes can utilised for a diversity spanning the segmentation of society. Political, economic and social structures are all embedded within each other and vital to be combined for a sustainable development. Architecture and urban design thereafter provide the facilitation for this mediating force as a spatial communication of an alternative direction for governance within the socio-economy.

Reader's Note

The proposed context for investigation is located at the centre of the Sandton business district in a failed capitalist development - this will be further explained and investigated as an informative of a proposed way forward. The development was heavily invested in and yet remains unrealised. This provides an unusual context existing partially through the site and built structures as well as predominantly through an unrealised speculative proposal. This document refers to the two realities as 'existing' despite only a small component being physically present - the unbuilt component will further be referred to as the '*existing speculative proposal*'.

figure 1,2. Conceptual collage of the city as seen through its citizens.



2 FORM FOLLOWS FINANCE



figure 2,1.

Sandton 1974, at the opening of Sandton City Mall.

2 FORM FOLLOWS FINANCE

Development of a Capital Spatial Economy

The architectural development of Sandton has acted as a catalyst for an evolving contemporary construction practice throughout Johannesburg, South Africa and in many ways the rest of Africa. This is evident in examples of similar commercial hubs arising throughout the continent (Chipkin, 2009). This movement was initiated by a corporate elite migrating from the changing historical city centre, as Apartheid era spatial planning spread. The spatial development has since been maintained by this specific group of predominantly white wealthy elites. In 1969 the Johannesburg Town Council proclaimed ‘Sandton’ as a new municipality for development from a semi-rural farmland to a contemporary urban centre (Anon, 2018a). The ensuing shift in wealth that enabled a re-evaluation of the nature of a ‘city centre’ and the development of the Sandton central business district (CBD) has rapidly progressed from that day forward. There has been minimal change in the direction of the function and purpose of the central business district since this last reconfiguration and the 1969 ideals are often tangible in the built environment today. From its proclamation, the cadence of rapid development was described by town planner, Barry Bristow as being propagated by a “community of 30 000 whites, and 15 000 horses” (Chipkin, 2009) as a new city centre arose.



figure 2,2. The developers and architect looking through Sandton City plans on site.

[1]
Rapp and Maister later merged into the contemporary Liberty Holdings, who still own and manage the ever-growing development forty-four years later.

The construction of Sandton City Mall began in 1974, by Rapp and Maister [1] as an extravagant shopping centre, including lavish retail facilities and office space in the development. The new commercial centre was initially received with uncertainty from many members of the property development community but was soon embraced by a new generation of wealthy suburban consumers. A reconceptualised assemblage point for an advancing Sandton elite developed as the result.

figure 2.3. Aerial view of Sandton looking west

The particular site under investigation and Sandton CBD are highlighted in the below image. Please note the surrounding contemporary architecture and excavations awaiting future development.



Four and a half decades later, the progression of Sandton continues to push the boundaries of a materialistic consumerism as the suburb has developed into what is considered “the most prosperous commercial hub in Africa” (Chipkin, 2009).

Sandton urbanity evolved with the movement of many financial institutes into the emergent fabric of wealth. As “47 of the top 300 companies had their national headquarters [relocated] to Sandton in the 1990’s” (GCC, 2018), the nature of the suburb quickly changed and this evolution became increasingly tangible.

In 2000 the Johannesburg Stock Exchange too relocated to Sandton and dealt a final blow to the Johannesburg central business district. This acted as a validation of the new commercial capital and a recognition of an urban decay creeping through the historical CBD. A direct link can be made to the simultaneous spread of insecurity through the upper and middle economic population brackets as their aspirations of a Eurocentric lifestyle faltered. At this point in time, these classes of society were made up almost exclusively of members of the white population, whose perceptions were significantly affected by an uncertainty of future social change as the Apartheid administration deteriorated.

[2]

These decisions aren’t always singular in their aims, but where collaboration occurs, the multiple parties are typically within the same bracket and solely cooperating for mutual financial gains.

[3]

The notion of an unconsidered resultant social order is particularly concerning and yet, even more distressing is its intrinsic ability for sudden change.

[4]

This mixed model is made up of a variety of private freedoms, state ownership directionalised by centralised economic planning and government regulation

(Harris, 1989)

[5]

The contestations of history were majority socio-political in conceptualisation with unavoidable economic repercussions

The legacy of the wealthy elite as key players in the creation of a consumerist Sandton is still tangible today. The vision for evolution has been wholly determined by a white monopoly of businesses and it is through this development that Sandton has remained a society operating through the individualised profits of private players. This resulted in the rapid emergence of an economically-orientated socio-political ecosystem created through a specific set of contemporary profit-based structures. The governing factors within the new order are continually reiterated through singular decisions made by those with the greatest financial force from an inherently limited perspective [2].

The combination of a number of individual entities making self-centred decisions has resulted in a confusion of theories constantly changing as a result of opportunistic business models. These are limited in both scope and longevity, however encompass the ongoing potential for desired social, economic and even political transformation [3].

The resultant *mixed economic model* [4] of particular privatised interests has been recurring since the early development of the Sandton business district. In addition, South Africa’s tumultuous history [5], has contributed to a modern-day monetary structure in which the vast majority of South Africa’s inhabitants are unable to participate. This may have arisen from socio-political circumstances, but manifests itself in economic repercussions.

figure 2.4. Timeline of Sandton Instigation and Development

The earliest developments in the area soon to become Sandton were small scale farmhouses, separated by wide expanses of open land. This was a particularly wealthy area of predominantly white members of the population and their cattle

Sandton City Mall and Office Tower was built and subsequently scale as well as operating pace began to change as people started to flock to the suburb from a wide range of surrounding areas. This is the beginning of a large and medium scale development.

The Sandton City mall grew and as a result of the growing population of private vehicles rapidly expanded their surrounding parking. As this was happening, many surrounding commercial site are developed as confidence grows in the new business district.

The millennium marked a series of high-rise developments within the suburb as density rapidly grew and the section shows this. The suburb is solidified as a new powerhouse economy as the Sandton Convention Centre, The JSE, Investec, Alexander Forbes and more relocated from the traditional CBD.

The suburb continues to increase in pace of densification through development. The Michelangelo hotel towering over the suburb is an indication of the symbolism through development. The Sandton Office Tower too, redesigns the roof for a higher extension.

At this point in time Sandton exists at the centre of the South African economy, boasting idealised examples of contemporary architecture - evident in scale increase depicted by the above drawings. This snapshot in time also shows a series of empty plots about to be developed as evolution seems to be a daily occurrence within the suburb.

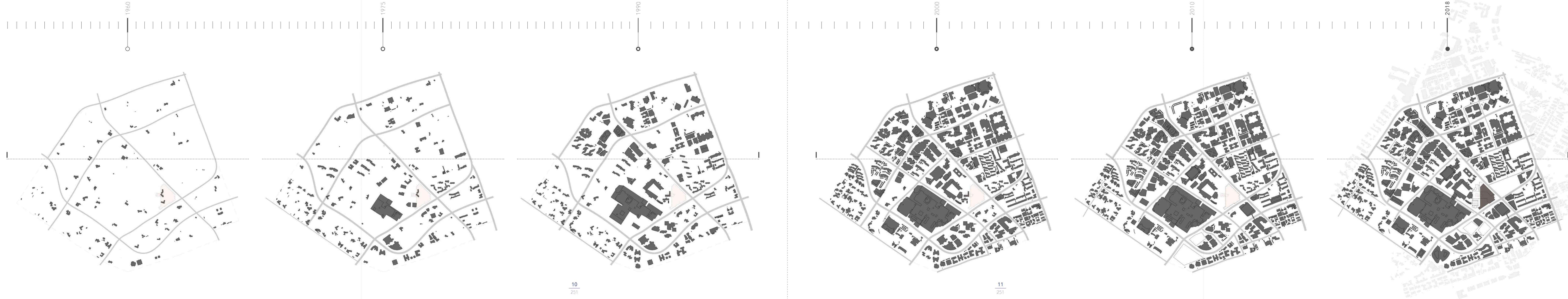




figure 2,5. [above] Sandton Drive Link Bridge, between the American Embassy (left), Sandton City (right), No.1 Sandton Drive (top) and integrated with the Rea Vaya BRT system

figure 2,6. [right] A man previously seen begging naps in the Sandton Library during the heat of the day



The Sandton Average Annual Income is **R225 000**
R57 500 is average income across Gauteng
R30 000 is average income across South Africa

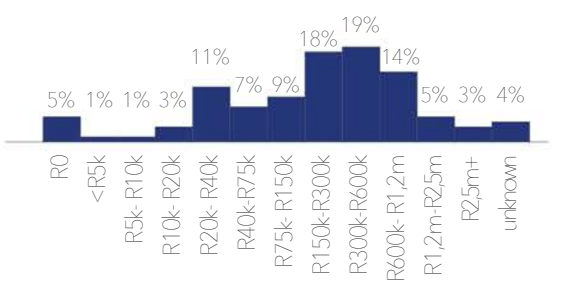


figure 2,7. Sandton Income Statistics

[6]
The comparison with Victoria Islands is particularly pertinent as they share unexpected similarities of exclusivities. Victoria Island contains almost all the above average medical and education facilities in Lagos despite functioning as an exclusive and elitist expatriate community.

[7]
We are constantly progressing as we and the world around us evolves, however the vast majority of the time, this becomes a routine activity and thereby limited in its innovation.

[8]
A relevant example of collaboration would be the culmination cycle bridge from the Growthpoint office block into Sandton City, funded by Growthpoint and Liberty for their collective, but also a public gain.

An economic exclusivity is emphasised through existing systems prioritising private development, especially within the built environment. Inaccessibility creates a vicious cycle and this exclusivity is further enhanced through financial, social and spatial dimensions – each reinforcing the other. A muddle of concepts illustrates the negative potential of selective appropriation from random components of a capitalist economic system. The built environment then further echoes this incidental exclusivity, as the practice of architecture has too remained reserved for the elite – systematically disregarding the majority of those affected. These self-perpetuating cycles are detrimental to a free and fair society and further hinder our transformation to a productive spatial democracy.

If Johannesburg is considered *'The City of Gold'*, Sandton must be *'The Suburb of Money'*. This is evident by the influx of labour from all over the city, country and increasingly the continent, as people attempt to tap into this context of wealth (Asmal 2015). However, this affluent image is not necessarily a holistic representation of daily experience. It is more accurately a tool utilised as advertisement of the desired perception of status within the combined context of physical landscape, daily occurrences and accepted value systems. This society of monetary value is in fact far more complex and intricate than the image so purposefully portrayed by those using facilitating and endorsing the suburb. It functions as an agglomeration point for a variety of class tiers, from a diversity of origins, all pulled together by profit-based incentives. These origins range from the geographically immediate yet incongruous Alexandra township to the distant but not so different Victoria Island in Lagos, Nigeria [6].

The distance travelled into a context has a great effect on the nature of the context as people have the potential to bring with them a variety of alternative knowledge and perspectives – ranging from trials of daily experience to a future collaborative productivity. These manifestations of foreign influence and expertise are invaluable in establishing progressive and diverse spatial development within society. This occurs by challenging the prevailing methods of progress [7], either reinforcing accepted systems or contributing to the creation of a new hybrid improvement.

In addition to this, there exists a myriad of activities congregating in the ever-expanding Sandton business precinct, offering and incessantly counter-offering the possibility for unexpected collaboration and permutation, through the many cracks for opportunity. These are sometimes unexpected but always revolutionary. The unanticipated collisions exist between formalised institutions in a controlled manifestation [8], but the unexpected and unprecedented collaborations are far more fascinating. This occurs when an up-and-coming BMW-business-man asks a homeless car guard for street directions, or when one finds that same guard later relaxing and reading in the Public Library away from the midday heat. These moments of contestation

are filled with opportunity and it is through this diversity that we begin to realise the enormity of potential within the Sandton ‘fabric of wealth’.

A township spatial economy is often fetishized by the manner in which a combination of knowledge and experience exist through the city streets. This is representative of an embodied informality of intrinsic value for any contemporary context. There is the unavoidable presence of ‘*social capital*’ [9] already on site but currently unconsidered and often repressed. This proposal aims to identify and overcome such spatial repression by capitalising on the human nature for mutual advances – both socially and economically. Sandton is a context epitomizing profiteering, yet one of the most valuable resources in the abundance of social capital, is largely ignored. The glorification of a township spatial economy is not a resolution but an exploration of the concept provides a collaborative opportunity for increased future productivity.

A multitude of similar examples can be found presenting unrealised possibilities through the cooperation of contrasting circumstances. The polarisation of Sandton is inherently undesirable and disadvantageous to its function, yet it has allowed many dichotomies to develop concurrently. Although generally unproductive, this does provide a rarely afforded opportunity to combine polar opposites embedded within the same context. When exploring the archetype of Sandton, it becomes apparent that its character has been defined by the amalgamation of traditional and modern perspectives merged with the combination of foreign influence in defining a local identity [10]. This confusion has provided a unique architectural character concurrent to the intellectual, political and social concepts of which the context is made up, all existent is a state of constant contestation. One fascinating juxtaposition so present within Sandton, is the discrepancy between what is ‘*legal*’, ‘*illegal*’ and potentially that which is ‘*extralegal*’. This ‘*extralegal*’ refers to “an action or situation beyond the province of the law” (Anon, 2018b), and yet is so often legitimized by common understanding and human everyday approval. The extra-legalities present on site are pertinent examples of the human validation of embodied, potentially illegal, informalities, where a collective acceptance rationalises the act. This culture has the potential to develop far quicker than any law or regulations as it is constantly being redefined by those with the most immediate access to the experience. Cases and cultures of both the illegal and extralegal exist across countless scales and means within Sandton. They connect the corrupt CEO and the pickpocketing homeless child, through socio-spatial ideologies. However, these human practices are invisible and therefore specifically directionalised in the relative interests of the protagonist. A sociocracy of governance [11] emerges through the spatial manifestation of the suburb, where a shift in perspective provides additional power to agencies backed by group reasoning. This provides insight into the manner in which the built environment has been constructed as well as the manner in which it is governed.

[9]

This refers to the value associated within human interactions. This will be further discussed in *Form Follows Finance: Capital Manifestations and Classifications*

[10]

This is demonstrated by the simultaneous construction of the neoclassical Leonardo Towers, the contemporary glass Hogan Lovells Headquarters and the golden calabash component of The MARC, all located less than 500m from each other. as is pictured on opposite oage

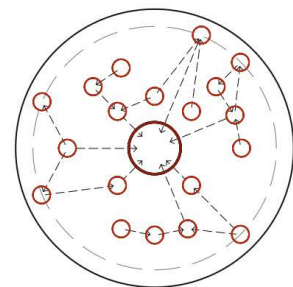


figure 2,8. Sociocracy Illustrated

[11]

Sociocracy refers to a system of governance according to a collective ideology (Anon, 2018e). It shares many values with a democracy, but also exists as a means through which the values can be implemented. This happens from the bottom up as a collection of people on-the-ground determine rules and regulations for a society.

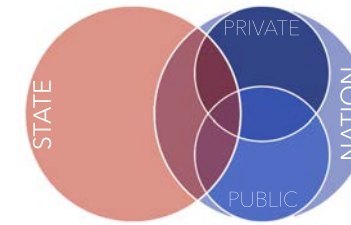


figure 2,9. Venn diagram of the complex relationship between the state the nation, the public and the private

figure 2,10 - 2,11. The MARC calabash, Hogan Lovells Headquarters and The Leonardo towers



Where opposing forces combine and interact – rich and poor, legal and illegal, beggar and businessman – a form of intra-contextual governance is invaluable in facilitating their mediation. There is a multifaceted relationship between the contradictions and ideological collisions of the State and the Nation, the public and the private as well as the added complexity of the formal and informal. All of these oppositions and overlaps create a dynamic that determines the spatial construct of the city.

These intersections create a certain ‘*friction*’ accounting for the diversity contained within Sandton’s fabric of wealth – both socially and spatially. The navigation and mediation of this alternative fabric, far richer than the deliberately one-dimensional image portrayed, is a rare opportunity. Through this intercession the existing knowledge and information contained within the intense human influx can be productively utilised with drastic socio-spatial effects. Furthermore, this collaboration and cooperation can be monetarily remunerated as its effects on the economy are realised. These advantages need to be considered in the short term for the feasibility of a proposed project and in the long term, where a facilitation of evolution is vital.

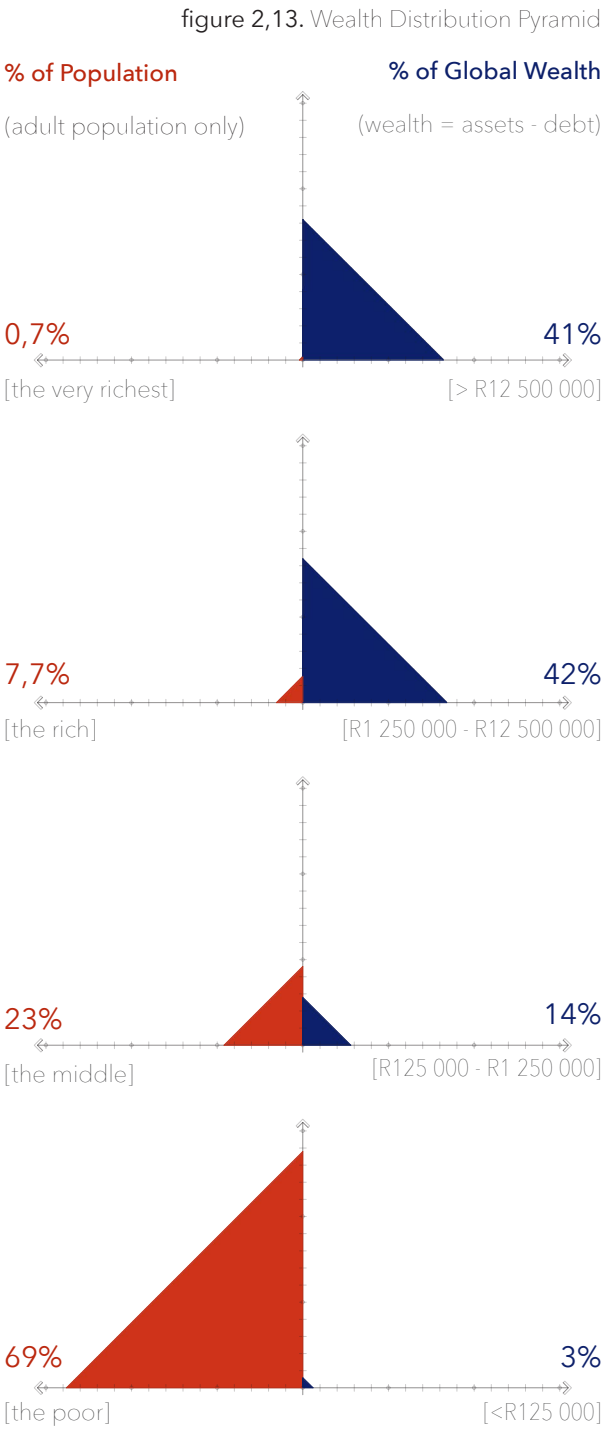
Money to Divide or Money to Connect?

In his 1950 publication, “The Sociology of Georg Simmel”, Simmel describes the abstraction of money in practical life as the “ideal of natural science: to transform the world by mathematical formulas”. He continues to explain how “only a money economy has filled the days of so many people ... with a reduction of qualitative values to quantitative ones” (1950). It is precisely through these theoretical modes that Sandton has developed into a thriving business hub and it is through similar methods that this society can be sustainably altered.

If Sandton is accepted as the suburb of money, we can further this quantitative means of existence to manipulate and transform it in an alternative qualitative manner. Through Simmel’s abstraction of money, one can begin to envisage monetary means as an ongoing tool for sustainable socio-spatial change. Money cannot be classified as either good nor bad but rather as a place holder for association. It is a passive means for change, wholly influenced by an agent in a position of power and the contemporary concept of exchange provides for that power. Money simply presents an opportunity for substantial change, either to divide or to connect. Every member of society reinforces the value system assigned to our currency, by engaging in daily transactions. *Rands* and *Cents* are our means for money’s “pure form of exchangeability” (Frisby 2002). It is through this pure form that it is possible to manipulate the interactions of exchange by treating the root of the problems as opposed to the repercussions.

[12]

The GINI coefficient is the measure of inequality of monetary distribution, ranging from 0 to 1. 0 is the perfectly equal society, while 1 represents the perfectly unequal society. South Africa's GINI coefficient is estimated at 0,69 based on income data. The poorest 20% of the South African population consume less than 3% of the total expenditure, while the wealthiest 20% consume 65% (Bhorat, 2015).



In the current state of the nation, almost everyone is getting richer (Pieterse, 2013). However, the intense differences in this rate of change is propagating a rapid growth in inequality, more so than ever before. This means that the wealthiest minorities are getting richer at a rate far out of proportion to the rest of the country. This has been the case since the socio-political changes ending Apartheid as a bankrupt country attempted to deal with a massive inherited economic disparity whilst simultaneously developing a democratic system. South Africa simply did not have the capacity to develop a new socio-economic infrastructure concurrent to entrenching the new political system. As a result of this, South Africa currently has the highest GINI coefficient of all countries with measurable data in the world today [12]. Inequality in South Africa is unacceptably high and a series of cognisant responses need to be developed, beginning with systematic monetary interventions. An evolution of the system begins with the democratisation of the means to make money. Sandton provides a highly relevant context for substantial impact from within the “richest square kilometre” in the country (Liberty Life, 2018). “We have plucked all the low hanging fruits since the great successes of 1994” (Habib 2015) but now have the capacity to advance the country and economy into a new and productive future.

The capitalist system bases the viability of any development on its lifecycle and return cost, before it can begin. Too often are invisible potentials overlooked and thereby disregarded. Sandton currently provides a sense of belonging for an estimated of 5% of the South African population and thereby productively utilizes the most innovative thought processes of this minority. Imagine the potential of increasing that percentage, by considering the many missing tiers of society that are already present but not acknowledged.

If money represents interaction in its purest form (Simmel, 1950) then surely through the mediation of these quantitative structures one can facilitate the opportunity to encourage the democratisation of our contemporary economic system, for the benefit of both the richest five percent as well as the remaining ninety five percent. The issue of inequality has manifested itself through monetary means and it is only through the same system that it can begin to be resolved.

figure 2,14. Top & bottom 5 countries on the GINI Index

[The GINI Coefficient is a ratio of the area between the line of perfect equality in a country and the Lorenz curve]

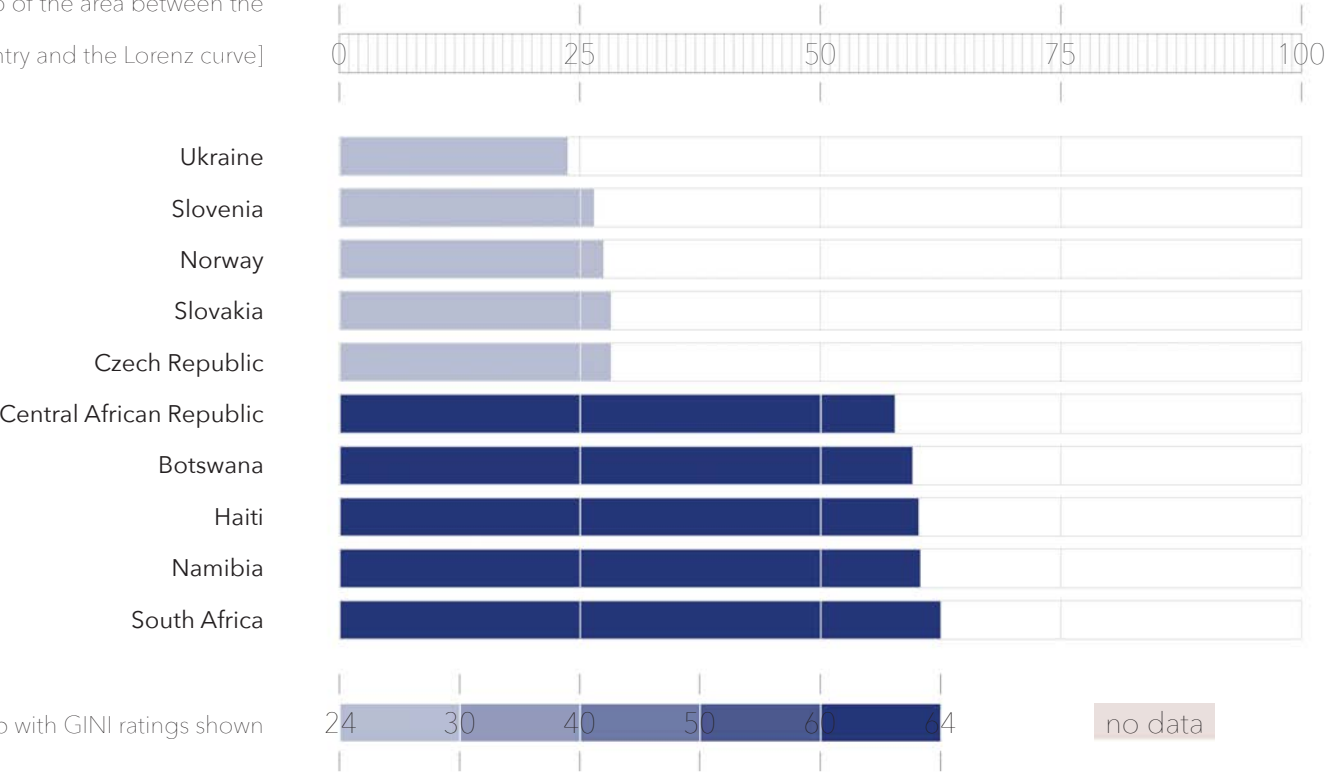
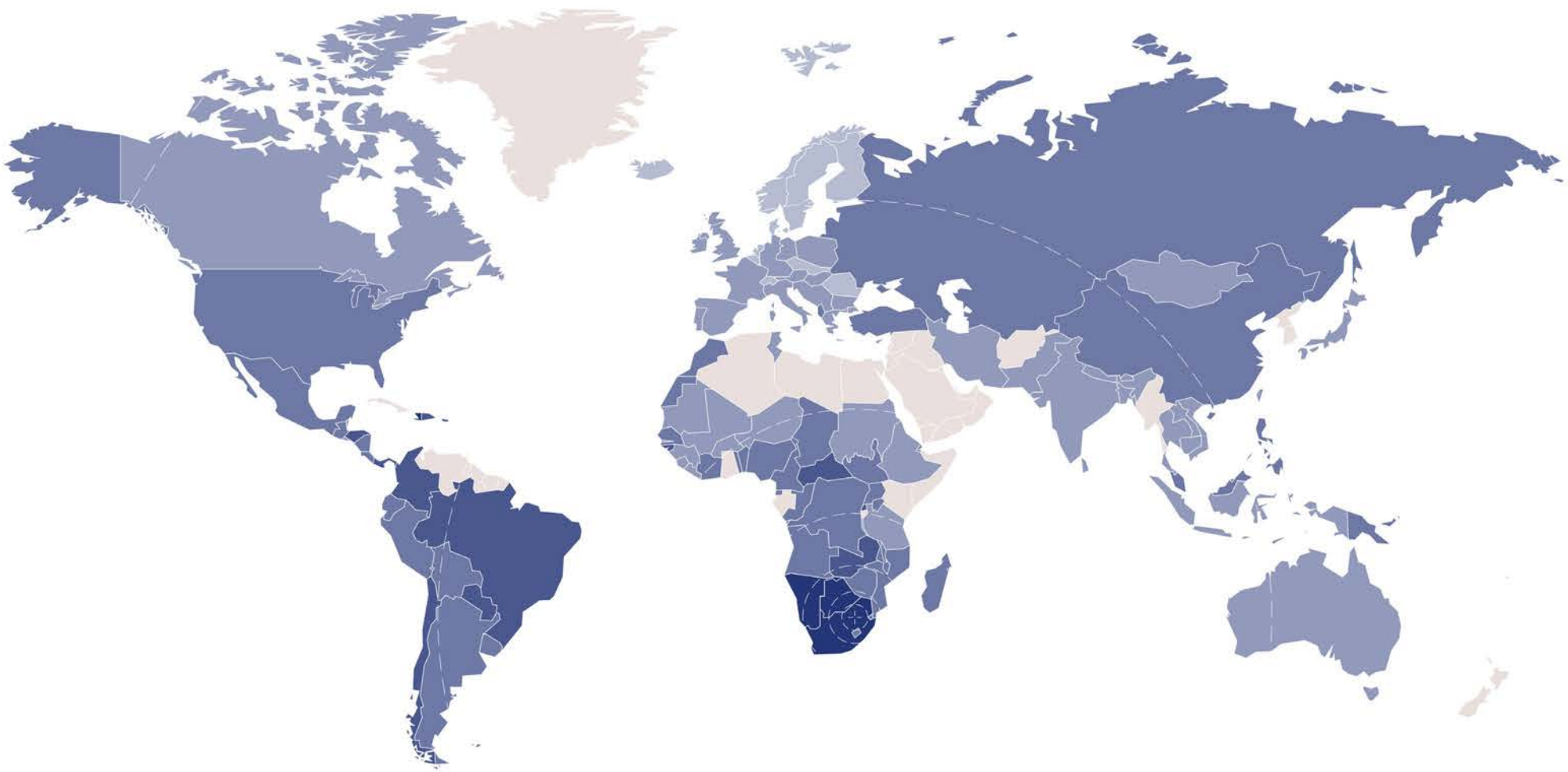


figure 2,15. [below] World Map with GINI ratings shown



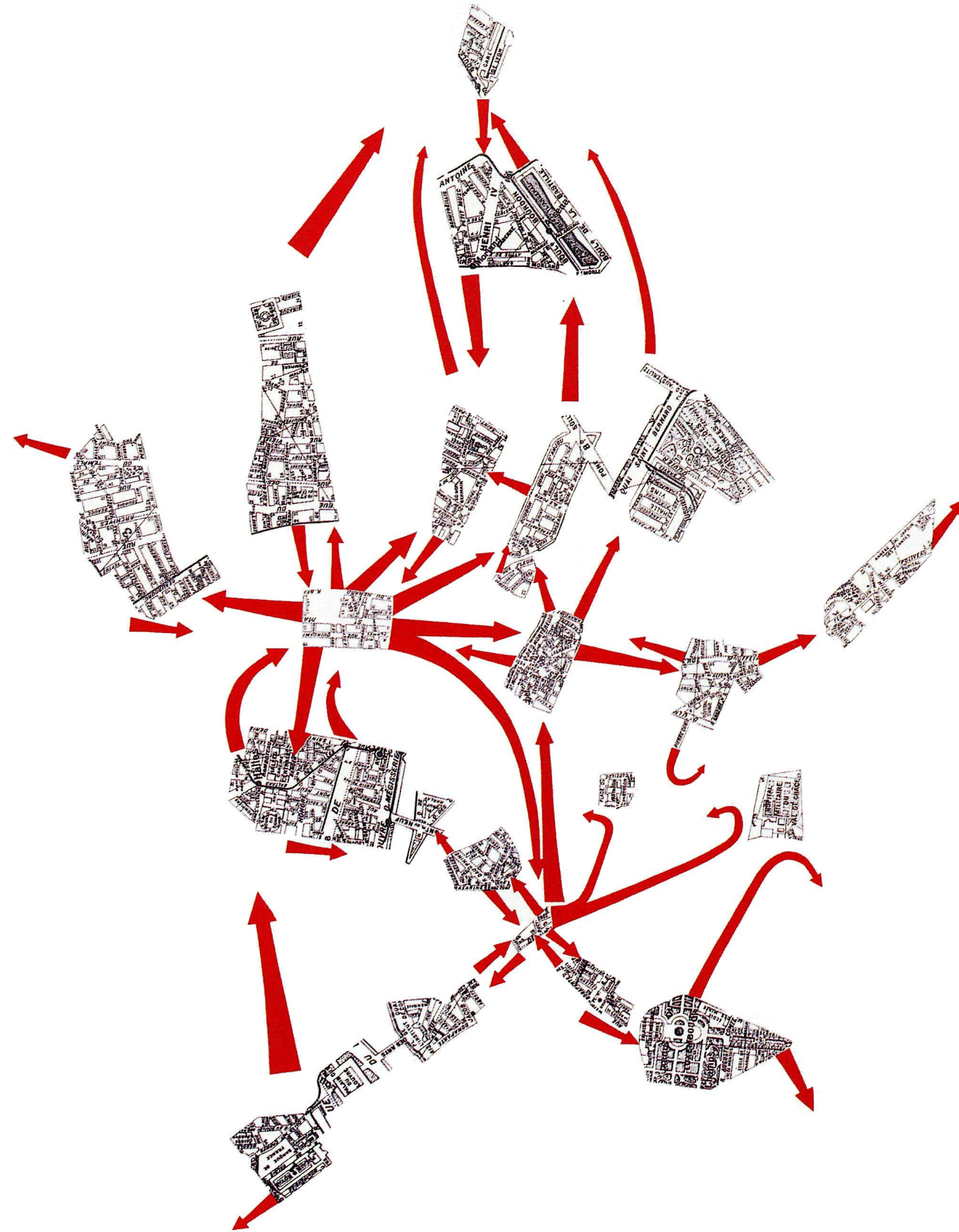


figure 2,16. [left] members of the 'Society of the Spectacle'

figure 2,17. [right] Naked City. A guide to the Situationist City, by Guy Debord

The Contemporary Society of Spectacle

"What if the physicality of architecture could make the abstractions of money systems more legible?" asks De Villers in her Alexandra "Idea Bank" proposal (2014).

The socio-spatial structures surrounding us reflect the degrees of accessibility to the available financial systems and Sandton is the prime example of this. When moving through the suburb of money there is a spatial syntax tangible in the built form, demarcating people and spaces according to their respective functions. This is further experienced according to the different modes of movement through the suburb. It is these same structures that are constantly produced and reproduced and thus necessarily must be considered in improving access to existing systems. An abundance of monetary means contribute to the existing Sandton 'fabric of wealth' although it is the resultant conceptual connections that define it. These are the perceptions of those using, facilitating, exploiting and overseeing the systems in place and carry a substantial weight in shaping the context.

Sandton provides a contemporary epitome of The Situationists' 'Society of the Spectacle' (Debord 1957). The 'Spectacle' is not a collection of images representing ideas but is rather an expression of a series of "social relations among people mediated by images" (Debord 1957). The manifestation of 'sloganeering' and 'evocative language' has powerfully permeated the consciousness of the majority of people throughout the continent. A direct impact of this spread of ideas is that Sandton exists as a gathering point for those attempting to engage in the opportunities afforded by the suburb of money. It now provides the opportunity for wide-spread societal change.

The ongoing evolution of the Sandton context relies on a unique engagement with the population. Beautifully rendered drawings, feasibility studies and speculative designs are the tools used to convince those in positions of power of the *optimal* direction for future development. Within the capitalist system, a confidence in monetary returns directionalises investment and persuades engagement in new ventures. These two instances are vital for the success of any contemporary intervention into the suburb and it is into this speculative context that this dissertation is proposed. The nature of the speculative notion is to define what is to come, by playing on the emotions and human nature of the current population.

Debord's 'Situationists' sought to fundamentally change the human condition by changing the everyday perceived experience. A change in perception is not the author's desired outcome of this architectural proposal, but rather a *means* to achieve the desired intervention. These notions continue to shape the context and so the proposal fits into the existing structure for a meaningful change. The aim is not the creation of a new central business district as if from a

blank slate. What is needed is rather an insertion into the existing CBD, in order to manipulate it now and in the future, through the continued counter-balancing of the equilibrium within the ‘*society of spectacle*’. With this intervention an increased range of population is given agency to continue to reproduce the current socio-spatial environment – or not.

The insertion is a mediation point to facilitate social reconstruction from within the city centre. The Situationist movement is a useful precedent, where the greatest result is arguably achieved from a disruption *within* a system. This internal development can have a far more meaningful and widespread impact than an external incursion onto a system. An increased engagement for production is important as the socio-spatial realities are validated by the general public on a variety of levels - from the consumer to the client and from the manager to the facilitator. Herein lies the true capability of a mediator of public to private opinion [13].

Facebook is just one example of an artificial social structure in which an abundance of potential exists. The fact that it is artificial is neither good nor bad, but rather just a reminder of the power of a collective social capital. This is as a result of the agency given to any system by the population, in a fashion not unlike the social construct of a city. In the same manner in which the potential associated to a city will increase with an increase in resources, so too will an increase in social audiences provide a greater power within an artificial system. This is all attributed to the notion of collective opinion and influenced perceptions. A new network of ‘influencers’ emphasise the value of human exposure as companies partner up with individuals prominent on social media to advertise to a semi-controlled market. There is certainly an exclusivity retained for those who hold influence, however this exclusivity has been exponentially diversified as the online platforms reach far further than any previous spread of information. In a digital network, the poorer majority wield a far greater power, than in the physical manifestation of the city and as technology progresses the two networks are becoming increasingly co-dependant.

The shift to combining the physical and digital networks is contextualised by Paul Daugherty in Accenture’s 2018 Vision. Daugherty describes a “future technology [to be used] in a different way, that amplifies the power of humans, where we have smarter machines to allow humans to do more” (Daugherty, 2017). Society will soon require an investment into the common man. The efficiency of technological development is, once again dependant on the humans on the ground and the potential therein. It is the time to embrace the shift from the industrial age model – where technology alleviates humans from work and responsibility – to a collective new model for a truly progressive future. Daugherty describes “the one trend that never changes are the economics of technology” (Daugherty, 2017) and in its current state of redefinition it is not viable to ignore the human population.



figure 2,18. The perception of Capital

[14]
This is traditionally the generally accepted definition in Sandton.

Capital Manifestations and Classifications

Socio-economic policies and the built infrastructure housing them are changing constantly. These changes are the result of an evolving perspective heavily influenced by surrounding people and circumstances. This change occurs at different rates, which can be purposefully manipulated as is increasingly often the case – the alternative being the natural progression of human nature. The perceived truths are evident in the generally accepted value systems and ideologies for investment into what is considered a ‘*suitable capital*’.

Capital is traditionally envisaged as the symbolic accumulation of monetary wealth. This is not necessarily in the physical form of money, but rather as symbols of money. Pierre Bourdieu, a French sociologist and anthropologist, redefined the notion of capital from its traditional economic form. Bourdieu divides and categorises different types of capital into the two primary categories of “Social” and “Cultural” (1986). The material perspective [14] falls under the concept of “Cultural” capital and is termed “Objectified Capital” (Bourdieu 1986). These are one’s material belongings, emblematic of the *symbols* of monetary wealth. The perception in the contemporary Sandton CBD is that the *objectified* capital definition seems to act as a means of facilitating Bourdieu’s second subset of *cultural* capital; “Institutionalised Capital” (Bourdieu 1986). An *institutionalised* capital refers to the value associated with one’s credentials or qualifications, based on the institution or platform through which these are achieved. This is almost seen as a component of one’s monetary wealth in terms of attributed value. These attributes above seem to be utilized in isolation to quantify value in the business district. Bourdieu continues to discuss an additional subcategory of the “Cultural Capital” and this is the “Embodied Capital” (1986). This typifies the idea of any action to reaction. It is the notion of mind and body through which all encounters take place and are then defined by society (Bourdieu 1986). The last and arguably the most important definition would be “Social Capital”. This is currently more significant than ever before to the development of a progressive and productive society. “Social capital” refers to the people you know and have access to. This exists as a result of a combination of transferable resources, with the spread and collaboration of ideas being a vital resource for contemporary development. These definitions are complimentary and intrinsically linked to the theoretical quantification of value. This abstraction originates from the power that exists within our daily human experiences, from immediate and basic interactions to the long-term relationships developed.

The reality within the Sandton context is a very specific set of inherited values, based on an institutionalised historical status quo. The existing viewpoint comprises of an unjust set of biased values, and as a result is a unduly specific and therefore limited perspective. The widening of this definition can offer additional opportunity for development of the additional capital values, through which we can begin to foster a more meaningful and productive socio-economy.



figure 2,19. [left]

Bending a capitalist landscape for an increasingly productive and progressive space.

[15]

Investigation and hypotheses for Sandton as the proposed context for meaningful change.



figure 2,20. A big hole awaiting construction

[16]

blank slate architecture

[17]

The new Discovery building is a relevant example of this. It simply made more immediate financial sense to evacuate the 2006 building to move into a new built headquarters just eleven years later.

The proposed intervention, to follow, is based on realising this holistic view of value and dispersing it through the everyday lives of the surrounding inhabitants. If these quantifications of value can be manipulated to form a thorough and contemporary perspective of capital the result will be mutually beneficial for both the wealthy minority as well as the overlooked, poorer majority.

To Beat Capitalism with Capitalism

Is it possible to beat Capitalism with Capitalism?

What manipulations can occur within the system to bend Capitalism for an alternative future?

The nature of the ‘*Spectacle of Sandton*’ is a primary motive for this investigation [15]. It exemplifies a very specific definition of value which the built environment continues to propagate through the contemporary architectural trend of ‘*Form Follows Finance*’. The proposed change from these self-perpetuating trends is systematic and of a scale far greater than a singular piece of architecture. However, an architectural intervention introducing a relevant programme has the potential to instigate a dialogue for development. The discussion begins with the insertion of a reconceptualised governmental structure to mediate antagonistic forces within the existing system. It is vital to evolve from the existing capitalist structure, however the “mad capitalist tendencies” rampant in the contemporary development of Sandton need to be challenged (de Villers, 2014). In a similar manner to the Situationist manifesto, the current misconstrued capitalism is to be overcome with a future capitalism changing from within. This is the beginning of a “Post-Capitalist” system (Srnicke & Williams, 2015).

Johannesburg based urban rights lawyer, Thomas Coggin describes “contest [as] an indispensable ingredient for the preservation of innovation” (Coggin, 2015) and this is particularly relevant within the development of the city structure. The notions of ‘tabula rasa’ [16] are outdated and unsustainable in the development of new progressive infrastructure. Contemporary property development in Johannesburg typically calls for the destruction of existing buildings in order to make way for future construction [17]. German philosopher, Walter Benjamin describes these destructive characters as knowing “only one watchword: make room. And only one activity: clearing away.” (1999). It is this nature that exemplifies a fundamental problem with the ‘*blank slate*’ creation of city space. It is completely unsustainable and misaligned in focus. Plans for future development should investigate more than just the next 8 years, or simply up until the point where the construction process is paid for. This short-sightedness cannot form the foundation of any city’s evolution. Three consecutive Green Star Rated buildings built in thirty years – each building replaced by the next – is neither ‘green’ nor ‘efficient’ (Swanepoel, 2018).

[18]

The reconceptualization of the housing prototype was envisaged here to redefine the city through Le Corbusier's free space and 'pilotis' (Le Corbusier, 1985).

[19]

In certain instances this is not an exaggeration as the old Werksmans, Discovery, and Bowmans buildings currently sit empty (Silver, 2018).

[20]

These places are semi-devisive as a result of an enclosed commitment to one identity over any other.

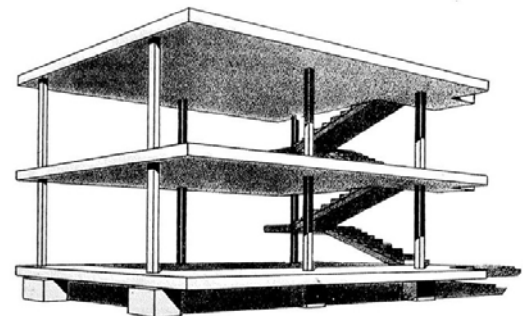


figure 2,21. Maison Dom-ino pioneering *free space* and *pilotis*



figure 2,22. The new Webber Wentzel Headquarters contemporarily displaying the same *free space* and *pilotis*

A relevant precedent of the contemporary Sandton *clean sweep construction* is the legacy of Le Corbusier's Maison Dom-ino. Le Corbusier made the proposal in 1914 amidst a period of intense destruction during World War 1 (Aureli, 2013). The resultant theories were relevant and pertinent for the reconstruction of the cities and the subsequent redefinition of the social order was necessary [18]. However, a century later the new Johannesburg business district is still defined by empty open floor plates divided only by a supporting column structure [19]. This "sober language of tabula rasa" (Aureli, 2013) lacks a spatial identity. Many inhabitants therefore spend the minimum number of hours present before moving to an alternative space for greater engagement – usually homes, religious dwellings or even semi-divisive community centres [20]. As Ray Oldenburg terms it, the "Third Place" (1989) – other than the space to live and the place to work – is a vital component of civil society. It encourages a civil engagement with both the city as well as other inhabitants therein. Without this sense of place, the social economy presents itself in a "state of constant uncertainty, always about to disappear" (Aureli, 2013). This is particularly unproductive for a Capitalist system, limiting engagement and thereby consumption within the city, resulting in a lack of confidence in the prevailing social structures.

The instability in Georg Simmel's proposed power relations is portrayed in this contemporary manifestation of society and provides a window of opportunity for an incursion on the practiced Capitalism. A semi-permanence of built structures for new clean sweep constructions reflects a social system far more malleable than commonly perceived. There are a series of underlying social institutions and practices embedded within the hierarchies of society that are often more significant than economic structures. The prevailing influential potential arises in the interface between social structures and monetary incentives.

An example of a contestation of these two notions occurred last year – on the 17th May 2017 – when a series of Huawei employees' contracts ended and were not renewed. The ex-employees returned their company cars at a '*snail's pace*' through Sandton, disrupting traffic flows and incapacitating the business district for the day (Mulaudzi & Modise, 2017). It was a simple and almost pointless protest, that quickly crippled the transport infrastructure of the economic capital. This is a soft example of a socio-economic conflict, however power relations governed by monetary repercussions have historically been a catalyst for the vast majority of major wars (Goodman, 2018). Similar to the unsustainable construction practices in Sandton, these are directly motivated by money. This motivation acts across a variety of scales and has been attributed substantial power within the current capitalist system.

However, these financial incentives need to be carefully considered, with both the immediate as well as long term repercussions in mind. In a developing context, the economy grows much faster than established Eurocentric countries. There is the possibility of overtaking

these traditional powers in the transition to increasingly productive and innovative means. However, "knee-jerk" (Keynes 1936) solutions to immediate problems often act as a deterrent of innovation and desperately need to be avoided. This can occur in a welfare economy, where rash solutions stagnate wages, propagate unemployment and discourage innovation. The Capital Capitol intervention conversely needs to instil a sense of confidence in the public with meaningful actions taken to accelerate the socio-economy rather than merely prop it up.

The Accelerationist Manifesto (Srnicsek & Williams, 2015) is a contemporary movement challenging a resultant Capitalist system motivated merely by institutionalised profits. It calls for a conscious and ambitious engagement with the process of business. This opposes the Johannesburg corporate tendencies to proliferate Neoliberalism with a sense of complacency. Although the introduction of a neoliberal approach was necessary, and perhaps even subconscious, it is currently providing the possibility of a guilt free autonomy for the most significant powers in the private sector. This encourages continuous reinvestment in businesses of wealthy elites without a nagging conscience. The current manifestation of Neoliberalism is not the efficient progression of capitalism it claims to be (Spencer, 2016) and although the theories were introduced 30 years ago Neoliberalist tendencies are still considered a guide for contemporary business ventures (Mason, 2015). It is important to note that these theories cannot be used to continuously advance society as this evolution should not be conceived within a set of premeditated and outdated parameters. Srnicsek and Williams [21] describe '*Accelerationism*' as an "experimental process of discovery within a universal space of possibility" (2013). This realm provides a more conducive environment for progress to occur, particularly relevant for developing countries with the potential to 'leapfrog' traditional and outdated systems.

[21]

Nick Srnicsek and Alex Williams are two early writers hypothesizing a post capitalist future. They opened the discussion with 'ACCELERATE; Manifesto for an Accelerationist Politics'.

figure 2,23. Sandton City Tower, Sandton Library and Michelangelo Tower contend for a statement



The built environment is the physical manifestations of social and political processes as, fundamentally, “social order requires spatial order” (Schumacher, 2017). A Post-Capitalist architecture is only as functional as the processes within the spatial manifestation, however, an architecture of governance can no longer be simply conceptualised as the financially viable “decorated shed” [22] (Venturi, Scott-Brown & Izenour, 1972). Alternatively, this architecture needs to actively engage in the dialogue of complex social orders. The physical manifestations of the city are constantly communicating societal structure to the population engaging within them – particularly prominent in the character of Sandton. The architecture acts as an interface between developers, inhabitants and the public, with the inherent agency to define the nature of their respective relationships. This interface needs to be carefully considered in both the short and long-term vision. It is through this duality that the immediate requirements are catered for while over time issues could be addressed at their source. This continues the accelerationist process while fitting into the complacency of an existing system.

Keynes and The Multiplier Effect

A reconceptualised city infrastructure needs to convey the message that the Neoliberal “shrinkage of state and public services in favour of privatisation” is not the vehicle to directionalise socio-economic structures for the future (Gilbert, 2016). This became evident during the 2008 economic crash, where policy makers across the globe were jolted to consider alternatives to certain neoliberal thinking (Reddy, 2009). In fact, many countries reverted aspects of their economic structures back to the Keynesian model previously in place [23]. The combination and evolution of theories is necessary in the developing economy and the Keynesian model has the potential to once again be beneficial through a state insertion into the developing business district. However, to realise the potential within the Sandton context, one must first acknowledge the basic principles of the model and select that which is to be utilized [24].

John Maynard Keynes proposed a strategy where the state played a fundamental role in mediating and stimulating a country's economy. This was achieved through an increase in government expenditure, especially at difficult times, as a means to smooth out and mitigate “economic troughs” (Keynes 1936). This economic model advised the state to raise loans for financing public works in order to create jobs in the short term, but also instil a sense of confidence through a lasting legacy thereafter (1936). When the boost trickled down through the scales of the economy, there would be increases in expenditure from the population, resulting in the spread and proliferation of wealth, and ultimately monetary returns for the state in the exponential increases in tax revenue and boost in consumption spending (Keynes 1936).

Keynes called the cycle of economic prosperity the “multiplier effect” (1936). This effect is a prominent feature in the economics of contemporary developing cities, although its definition has been expanded. The ‘*multiplier effect*’ further refers to the manner in which wealth is spread and proliferated. In the same manner in which government spending would boost private spending, an individual spending larger sums of money than those surrounding him/her, will create an increase in wealth for their surrounds. This is a significant notion for the Sandton context as it is known as the richest square kilometre in Africa (Liberty Life, 2018), and therefore the quantity of money distributed is comparatively greater than its Johannesburg surrounds. If we could encourage a greater portion of the population’s involvement in Sandton, the wealth created could be spread further and grow with an increased reach through the city. The ‘*multiplier effect*’ is the facilitator of a catalytic result for any proposal within the business district.

In a capitalist system there is a natural progression of ‘*booms*’ and ‘*busts*’ however very few members of the population can wait for the markets to correct themselves before thriving off of the next boom (Keynes 1936). The South African socio-economy is the epitome of this, where a majority of the population will be forced to act immediately to make money. The possibility of waiting for a bust to end does not exist and nor is there any guarantee that wealth generation will spread sufficiently once this happens. Within economic theory it is essential to consider the human nature propagating patterns of individual daily expenditures. Keynes proclaimed “in the long run, we are all dead” (1936) epitomising the importance of the immediate collective human experience on a macro-economic scale. No individual is going to accept his suffering as a mere event in an economic cycle. The resultant capitalist structure therefore needs to take this into consideration as the system cannot thrive as growing inequality stunts economic progress.

A restricted selection of theories only limits the flexibility of economic development and it has come to a point where different schools of thought are to be combined. The reintroduction of a Keynesian macro-economic architecture has the potential for the state to empower the existing vital neoliberal context by helping to increase expenditure, boost financial returns for a greater population within the suburb and thereafter spread this increase of wealth.

An altered spatial order is proposed to unlock these limitations through the reimagined value of the individual and role of governing body. The proposed new platform provides a prioritisation of a greater range of the population contributing both financially and through increased opportunities for collective innovation. Although a reconceptualization can use existing Capitalist structures to bend the Capitalist system, traditional perceptions of the system will linger. This calls for the introduction of a *Post Capitalist* system.

[22] A decorated shed as the most conventional architecture of an identity-free space with signage communicating its function. This is in comparison to a “duck” where the architecture itself communicates the symbol.

[23] The phenomenon of “Stagflation” previously discredited Keynesian economics and led to the rise of Neoliberalism. This occurs when the inflation rate is high, economic growth slows, while unemployment remains high and this could not be explained by the past structures of Keynesian theories.

[24] Both the positives as well as the negatives of any model need to be considered to adapt and develop the system



figure 2,24. ZHA's Galaxy Soho development in Beijing, and a privatisation of public space for attempted mutual benefit

figure 2,25. [left] The award-winning Alexander Forbes
figure 2,26. [centre] Entrances into the Alexander Forbes and EY headquarters
figure 2,27. [right] The award-winning EY building



Governmentality for Semi-Autonomy

Patrik Schumacher, principle director of Zaha Hadid Architects, refers to private development as “architectural amorphous spills” (2017) as they flood business districts with an aggressive portrayal of the privatised priorities defining on-site social orders. Schumacher would be mortified to have his quote arguing *against* privatisation, since his argument actually campaigns a total privatisation of the city for greater productivity through a controlled synergy between the private and public. This bears resemblance to the purpose of this dissertation and resultant intervention, as the two approaches aim to resolve a similar issue, through opposite means to achieve the same result - heightened productivity for future social synergy. Town planning practices seem to have developed to either restrain construction or rezone for redevelopment, both solely dealing with tendencies of rampant capitalists.

The glamorous ‘glazed spills’ of the new Alexander Forbes and EY Headquarters, petering out into a dark alleyway between are an ideal embodiment of a lack of collective urban vision. The two buildings were built around the same time and are particularly preoccupied with “employee comfort for productivity” says Jonathon Ferrer – an Alexander Forbes actuary (2017). However, the respective approaches are primarily insular and the resultant spaces are “definitely underutilized ... [and] ... closed off to each other” (Ferrer, 2017), limiting the possibility of shared facilities which could potentially result in a greater efficiency and reduced cost. This depicts a missed opportunity between private entities. Furthermore, both the office interfaces emerge between six and twelve meters above the street level on a parking plinth - another relevant example of missed. According to Elaine Jack of the Sandton Improvement District, three fundamental principles in developing the business district are “heightened efficiency”, “reduced costs” and “engagement in a collective identity” (2017). These are all ignored through the above competitive vision for future development.



The role of a conscious designer is of vital importance, providing an opportunity to take full advantage of the context and propose a more productive future through the means of intervention. This designer comes in a variety of disciplines through the hierarchies of formal development and each possesses respective potential – amplified through a collective vision. It is for the creation of this collective vision that an overseeing local authority becomes vital. The ongoing governance of this authority is proposed as a new Post Capitalist reimagined infrastructure for progressive change – this is the ‘*Capital Capitol*’.

In a contemporary context, the social structure within a city is typically more important than the physical structure. The reimagined infrastructure herein proposed is to facilitate a maintenance of the city centre, through the focus on a human acceleration of social capital. This is a means by which the physical and social structures can be combined sustainably and optimized for future growth. It is to mark a definitive beginning of the investment in many individuals, as opposed to the traditional investment in a conglomerate. Architect and philosopher, Yona Friedman re-enforces the role of the individual in the creation of an urban context proclaiming;

“An architect does not create a city, only an accumulation of objects. It is the inhabitants who ‘invent’ the city. An uninhabited city, even if new, is only a ‘ruin.’” (1956)

This notion refers to the collective creation of an urban equilibrium. The state of equilibrium is neither desirable nor objectionable but is inevitable and constantly changing (Friedman 1956). As a result of this, a shift in power will need to act as a continuous incursion constantly re-balancing the socio-economic equilibrium as the context evolves. The intervention is envisaged for effect now, but also aims to continuously redefine the overall precinct, each time redefining the surrounding status quo. A self-perpetuating evolution prioritising the agency of the individual is not a revolutionary concept. It is rather the acceptance and proliferation of an existing movement but utilizing it in a new manner for a radical acceleration of progress. This is made possible by the existing availability of open source information as well as the free and delocalised flow of value, facilitated by the internet and blockchain systems respectively.

An alternative perspective of the Capital Capitol vision is as a spatial actualisation of the blockchain. This is the delocalisation of value, from the grasp of private players, and the increase in the reach of value, by a means of benefitting those sharing. Each participant is remunerated for facilitation of the process. New systems have the potential to impact individuals at a far greater scale, regardless of status. This is an opportunity to redefine the accessibility of financial systems, as the current structures have already begun to shift.

Therefore, an architecture of blockchain has two primary functions. It has to provide the space for a programme of explanation and facilitation for value sharing platforms. This is through economic consultations, banking services, internet access and spaces for a human interface. These places have the potential to be financially sustainable. This is possible as a percentage of fee from a customer profit after reaching a certain return bracket [25] The second primary function of the architecture of blockchain will be more accurately prescribed through the designed spaces. These are to provide opportunities for exchange, interaction and collaboration. The most innovative inventions and thought streams are increasingly arising from cross-disciplinary discussions and a diversity of dialogue will inevitably aid in this. A platform for discussion and debate is proposed, with a workshop and associated connections provided to realise the best of ideas. This brings together many different notions of *capital* for a comprehensive perspective.

An Athenian Agora placed within the Silicon Valley, providing a gathering for a diversity of schools of thought, depicts an image for the architecture of blockchain.

In the state mediation of this space, and in assembling the necessary ingredients, the perceptions of bureaucratic law can be shifted towards the role of public servant. With an ongoing mediation, this can be maintained, reiterating public engagement necessary for the collaboration. The role of the architect [26] is to provide a space for a definitive city infrastructure with an empowered autonomy for the general population. It is in essence the design of a spatial system to facilitate a management of the social system.

The proposed vision is opposed to a notion of outright autonomy, [27] and rather aims for the line between autonomy and state governance to be blurred for the two to function together. The resultant grey space has the potential to oscillate according to the dynamic properties of an equilibrium and this is important to consider. It is the aim for a governance to facilitate a “relative autonomy” (Frampton, 1995), a pure practice confused in the real world of materiality and society. [28]

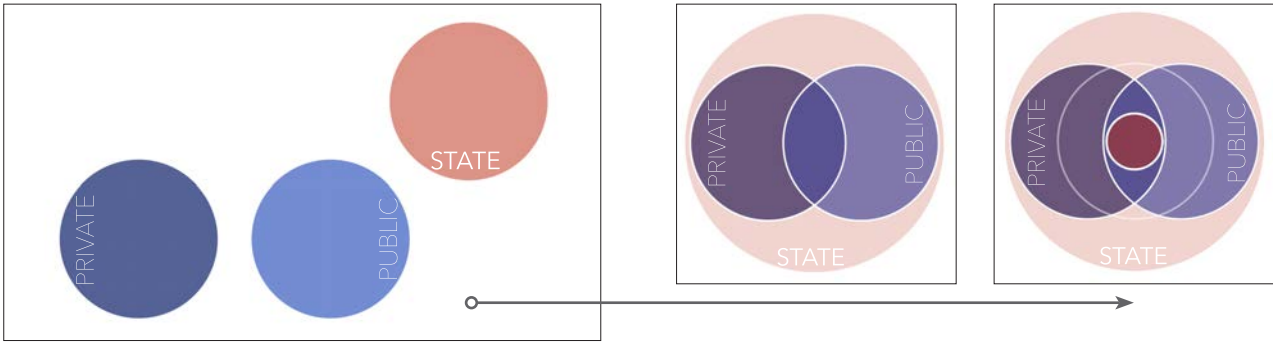
This is not a new concept, but rather a revolutionary catalyst for innovative progress. The three contestations existing on site – discussion, financial investment and a diversity of thought – are all vital for an optimised future. The intervention simply proposes to harness these energies in an isolated ‘no-mans-land’ to start the spread of belonging through an acknowledgement and celebration of the many individuals.

The Citizen

If we could “redefine density as the number of social exchanges rather than objects” (Cruz, 2014) or constructions per square kilometre, what would the repercussions of a current trend of intense densification be?

The vision of densification is lost when the public private interface exists ten meters above street level. The time has come to ‘redefine’ (Wainer, 1999) [29] the boundaries between the public and the private, and utilize local authority as the means. This collaboration and public prioritisation is to be facilitated by a series of new commissions and committees, already proposed by Cyril Ramaphosa in the 2018 *State of the Nation* address in February. These commissions begin to engage with the future of living and working as technology rapidly progresses but simultaneously must deal with a protection of the public. This is vital since the concurrent Third and Fourth Industrial Revolutions are already in motion and the gap between demographics could be exponentially increased – between those who can take advantage of these developments and those that cannot and are taken advantage of. This is where a mediating interface becomes vital.

figure 2,29. A local authority as an interface between citizens as well as the collective force surrounding them.



The value of a general public is often diminished and thus often disregarded but moreover it is this utter waste of human resources that will be addressed and utilized through the Capital Capitol intervention. There is knowledge carried through the streets, more meaningful than can be communicated through any artificial means. The Sandton streets are alive twenty hours of the day, as inhabitants change before beginning the daily cycle once more.

figure 2,30. Daily 21 hour Sandton Cycle





figure 2,31. [left] One in an estimated thousand individuals in the process of building the new tallest building in Africa.

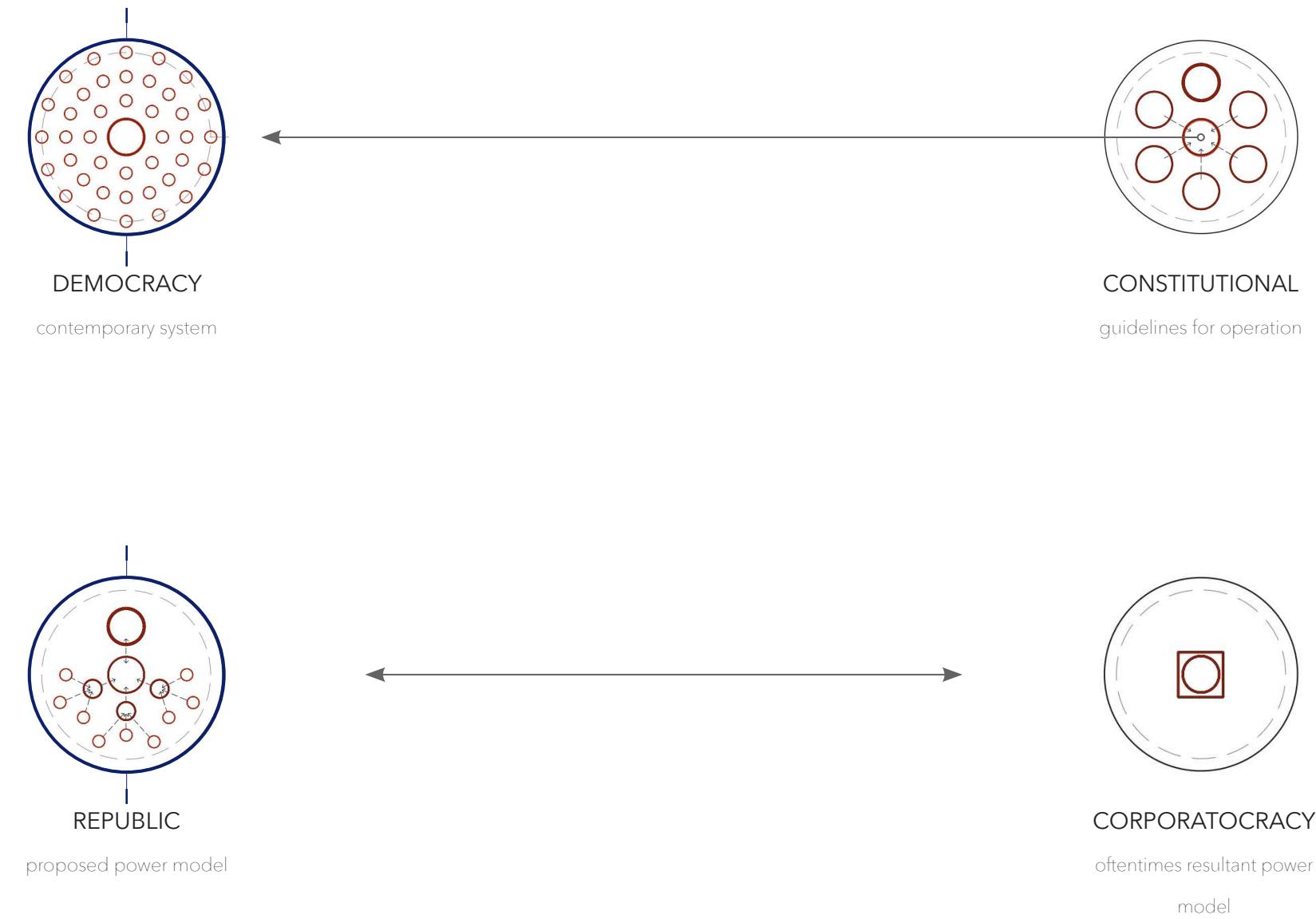
[30]
This is also inherently political and it is important as the three are mutually dependant

Human interactions have the potential to be the most efficient and effective micro-economy, thereafter feeding into the formalised nature of business. The combination and celebration of these systems will continuously develop an increasingly diverse economy.

This begins the evolution to a truly democratic socio-economic system [30] engaging with inequalities rather than only monetary gains. The proposed reconceptualised system is the beginning of a greater inclusivity than ever before. A system where the eventual result will be the utilization of the best resources from a demographic tending towards one hundred percent of Johannesburg's human innovation, progressing from the minority percentage belonging in Sandton today. This is a fundamental means to development, of utmost importance and value. This is the next big investment.

"If the 19th century gave birth to the horizontal city and the 20th century ... to the vertical city, then the 21st must be for the diagonal city; one that cuts across social divisions"
(Brillembourg A, 2014)

figure 2,32. Theoretical sources in traditional Johannesburg based power dynamics

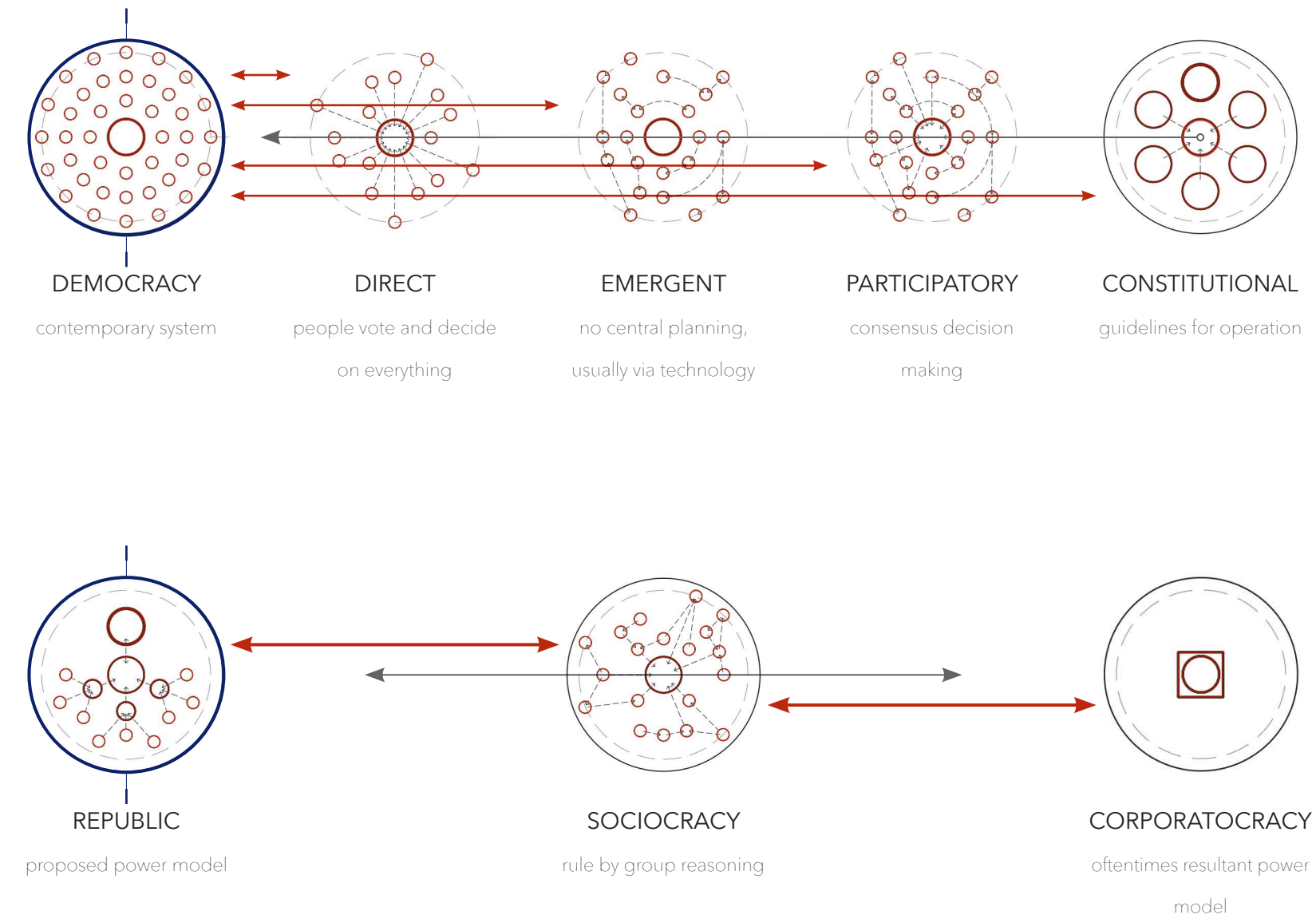


A recognition and celebration of everyday social phenomena enables individual members of a company, society, city or country to collectively determine the social structure - prioritising an equality of individuals rights within the social order.

A sociocratic system is therefore more dynamic and quicker to adapt than a traditional governance. Policies are never in place forever and need to continuously evolve. A dynamic system has the ability to instantaneously shift and develop, while informal and extralegal activities begin to occur in the time taken for traditional policy to shift. These are generally accepted - and authenticated - but have not yet been catered for and as a result are never fully realised.

An acceptance of a constant evolution propagated by a collective governance creates a resilient and coherent structure based on the way people live. This system is typically more accepted and supported within society as it constantly adapts to achieve this. Sociocracy ultimately prioritises an inclusivity where the people are tasked with determining policies to affect and be carried out by themselves.

figure 2,33. Shift in considered dynamics as proposed by author



3 CONTESTATION SERIES

figure 3,1.
'exposed'



3 CONTESTATION SERIES

Photo Essay of Contestations in the Landscape

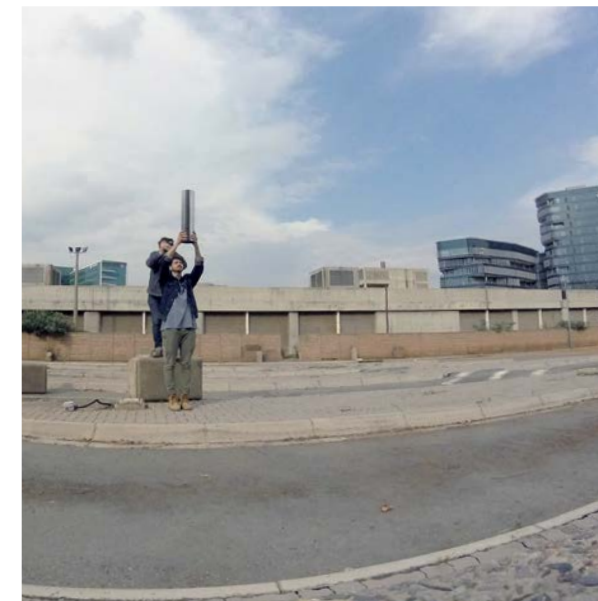


figure 3,2.

[31]

Jake Nudelman pictured with document author in the process of creating the series.

[32]

It is for this reason that none of the perspectives have been photoshopped and altered in any ways as the on-site distortion was proposed as the only manipulation.

The Contestation series began as a site investigation before ultimately producing an experiment translating and creating interesting and unusual correlations within the surrounding Sandton context. There are a variety of fascinating reciprocal dichotomies present in the everyday lived experience within the business district and Contestations aims to highlight these as a snapshot in time.

The photographs were all taken from a range within 200m of the Sandton Gautrain station, but often face inwards and outward simultaneously, prioritising a distorted perspective of distance. Two mirrors were brought to site for the experiment of combining what was already there. One mirror was a square planar panel and was used to geometrically fold space combining perspectives, while the other mirror was a circular cylinder and utilized to bend and distort the context. Furthermore, the surrounding architecture of 'glazed spills' was also incorporated to capture existing reflections and refractions changing throughout the day.

Photographer and friend, Jake Nudelman [31] was asked to assist in the creation of the series and provided an additional set of hands as well as an alternative perspective to be combined in the photography. The process was planned beforehand by the author, however remained malleable on site in order to capture a unique and instantaneous representation of that particular day through a series of moments.

The representation of the subject matter is vital in highlighting common objects and considered banal in order to portray them in an alternative manner. A photographic medium is chosen as it depicts a universal understanding of reality and when antagonised in real time challenges the viewer in their experience [32]. The reflection and refraction displace the well-known iconic Sandton images before replacing elements with an alternative perspective.

This is confusing to a viewer familiar with the landscape and the meaning of the architectural symbols are challenged and even changed when juxtaposed against substituted imagery. This highlights the depth and variety within the context and why it is proposed as a *'fabric of wealth'*. The richness of the context is often considered monetary and the Contestation series provides an alternative perspective. By portraying the texture and variety of the landscape the potential of a hybrid identity is exposed.

The above-mentioned notion of time is also a vital component within the series. The spatial manifestations of the Sandton business district are so rapidly changing and evolving that often time is distorted. In addition to this there is no unified vision for development and as a result there are neoclassical constructions arising alongside contemporary glazed developments. The pace of development is typically ignored through singular photographs, although when two

Full mound of sand with mirror through half of it.
The mirror reflects the sand above and so a full mound is still seen, despite half being covered.

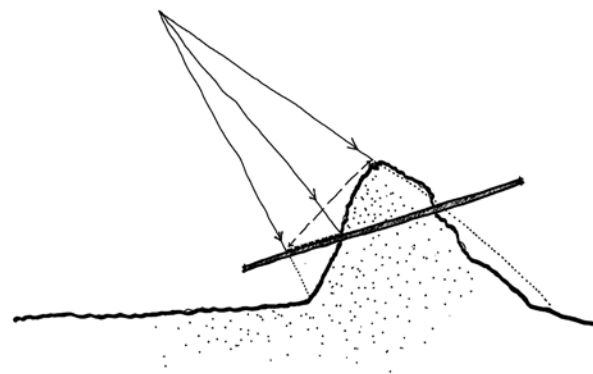


figure 3,3. Sketch Analysis



figure 3,4. Smithson in Yucatan



figure 3,5. Yucatan Displacement at the Solomon R. Guggenheim

or more contrasting conditions are juxtaposed in a present process within the same frame, this rate of change becomes the primary subject matter. This process opens an additional temporal dialogue between the temporary and permanent – the existing pace constantly changing and the photograph freezing this moment in time.

The idea of uninhabited architecture as a ruin is also proliferated through the images. The site proposed for intervention, upon which this series was captured, is currently a closed off and landlocked area empty within the bustling Sandton context. An architectural landscape without inhabitants can only be considered as a contemporary ruin (Friedman, 1956). Perhaps these images represent a “ruin in reverse” (Smithson, 1969) as the surrounding context rapidly develops while this site, at the centre of it all, slowly decays.

figure 3,6 & 3,7. Yucatan Displacement Extract



Robert Smithson investigates these notions of ruin through his examination of the phenomenon of entropy on the cultural landscape (Spector 1969). This entropy refers to the eventual lack of order through social structures. Similar to a thermodynamic system, this social state of being will gradually decline into disorder (Smithson, 1969). The Yucatan Mirror Displacement Series portrays Smithson's means to discovery and investigation of these contrasting notions. Fragments of the unpredictable landscape are photographed in the Yucatan Peninsula with the imposition of seemingly random placed mirrors, only to be framed and exhibited within a gallery. This breaks down the notions of order and disorder eventually combining the opposing ideas to create a third notion of both (Spector, 1969). It was through the displacement of the landscape both within the photographs and then subsequently with the photographs in a gallery, that Smithson challenged its forms and shattered the perceptions of it.

Contestations aims to do exactly this and it exposes the unrealised potential by challenging the preconceived perceptions. The series is an active engagement in the landscape, ultimately resulting in both an investigation and exhibition of the site. The following photographs are a subjective interpretation of the landscape and this is their purpose. In physically manipulating the surrounding landscape by positioning mirrors a sense of agency is represented through the images. This is vital for this proposal as it is through this perspective – my perspective – that the Capital Capitol is ultimately realised.



figure 3,8.
'extended'

figure 3,9.
'centered'



figure 3,10.
'prohibited'



figure 3,11.
'gnarled'



figure 3,12.
'valued'

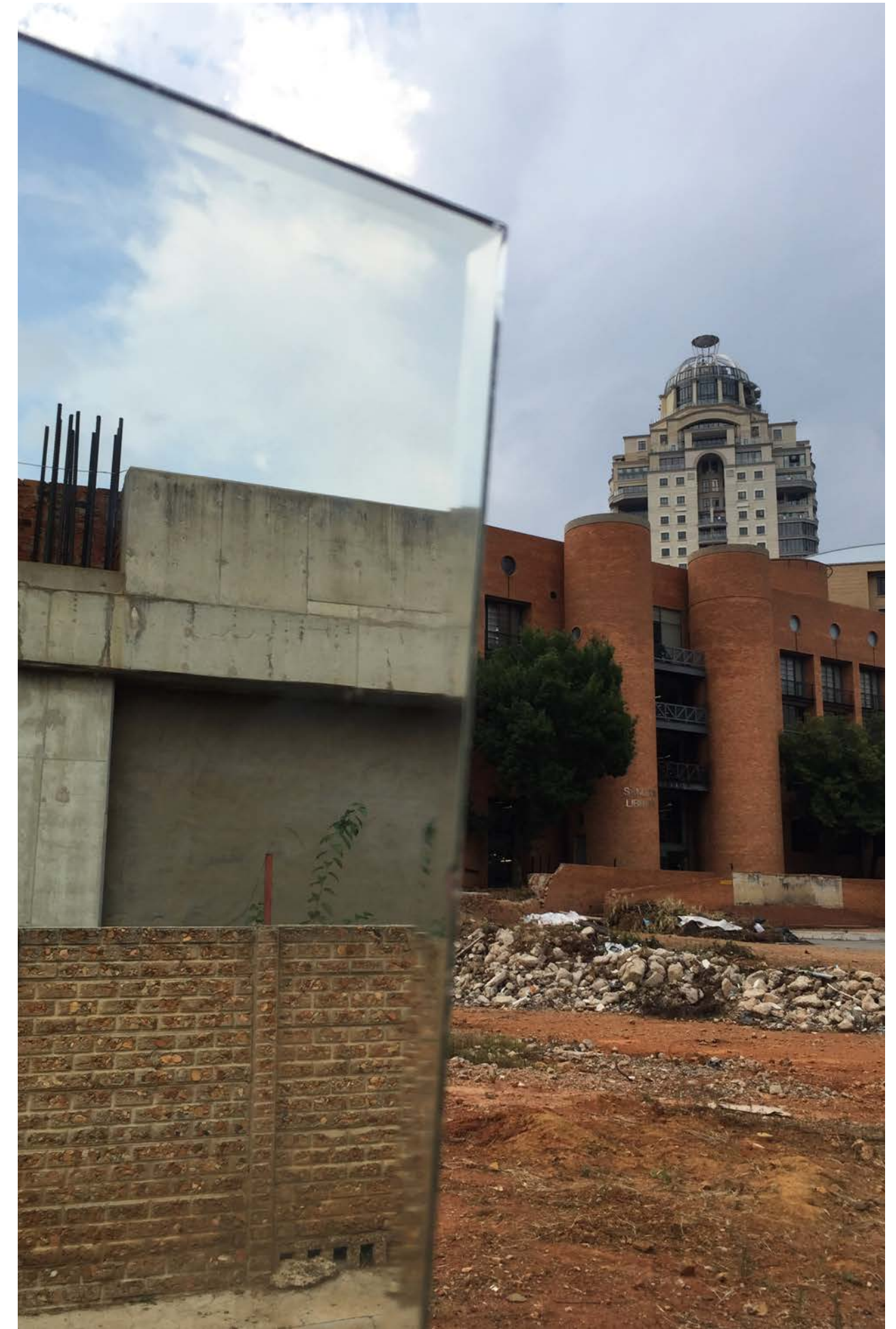


figure 3,13.
'revealed'



figure 3,14.
'excavated'



figure 3,15.
'cluttered'



figure 3,16.
'inserted'



figure 3,17.
'shifted'

4 MOBILITY OF PEOPLE & IDEAS

figure 4,1. Waiting for the Sandton Gautrain

What actually is the Gautrain 'Infrastructure'?
Is it the train, the users or the surrounding built
environment?



4 MOBILITY OF PEOPLE & IDEAS

A Re-imagined Infrastructure

A new city infrastructure to connect and spread the intrinsic capital of social interaction has the potential for meaningful social change through radical economic development. This infrastructure can act as a mediator for integration, empowering the many excluded members of the Sandton public.

The urbanist, Edgar Pieterse, describes how infrastructure is manifested in a two-fold existence, of the “sociocultural” and the “biophysical” (2013). This is the case, regardless of whether either is implemented or not. The “sociocultural” refers to the social development investment impacting the identities as well as relationships within and between communities (Pieterse, 2013). The investment in public space would exist within the sociocultural as it promotes social exchanges within the public domain. There are many examples of this definition, including education, health services, libraries, food gardens, green spaces and public arts. The “biophysical” is the more commonly perceived infrastructural investment within a contemporary developing society (Pieterse, 2013). This refers to the material development of urban life and connections between and within cities. Examples of the biophysical are the creation of roads and transportation networks, intercommunication technologies, energy, sanitation, water and food. The two definitions resonate in the manner through which one provides a sense of place while the other connects the space and facilitates its function. This symbiotic relationship is not always the case and this can become problematic in a partial provision of services for the city.

The disjunction between the two notions [33] act as primary drivers of large-scale service deficits within rapidly developing cities. Johannesburg, with its short history is a prime example of this. In many instances, the implementation of a functional transport infrastructure will be prioritized in certain *sociocultural* hubs with already available resources to maintain the new infrastructure [34] already substantial. The extent of this is visible through the combined

[33]
This occurs both between the understanding and
implementation of the two.

[34]
The Sandton CBD is a relevant example of this. The
suburb is continually has the capacity to maintain this.
However, there is a disjuncture in the service provision
as the sociocultural infrastructure is severely lacking and
there is no force within the context to mediate between
inhabitants



figure 4.2. The above three images provide three difference perspectives for city infrastructure, all important in their own rights, although imperative for combination.

investment of both local authorities and private sectors, for infrastructure within thriving areas. The rapid development of the Johannesburg CBD is indicative of the collaborative investment resulting in certain semi-private public spaces. Ghandi Square as well as Bank City are two examples, where the public spaces are managed by private developers through a leasehold agreement (Victor, 2018). These agreements can be detrimental to a public democracy if not carefully considered as the private entity retains power to change the public environment as they believe fit – potentially problematic as epitomized by the spatial prescriptions of an Apartheid South Africa.

Similar agreements openly exist in Sandton, where each new development applies for planning relaxations on the condition they provide certain ‘bulk service contributions’. These are usually in the form of semi-private streetscapes and a semi-public interface for the new constructions. An incoherence develops where there is not a comprehensive agreement to the infrastructure needed or a lack of reference to a holistic urban design strategy. This tends to cater for only a very specific group of private interests [34].

At present, government forces are heavily influenced by the rampant force of globalisation and the “powerhouse private sector” (de Boeck 2013). This is increasingly tangible in the everyday fabric of a Johannesburg lived experience. Sandton currently maintains its own biophysical infrastructure [35], where sociological issues continue to arise because *sociocultural* requirements of infrastructural projects are not being maintained. This is stagnating the rate of growth of the nevertheless “flourishing hub” (Jack, 2017) [36]. A public orientated socio-cultural approach from the municipal government coupled with an everyday presence of local authority is now essential for Sandton to continue to ‘flourish’, with a necessary increase to the rate of growth.

As the head of the Sandton Improvement District, this is Elaine Jack’s primary concern

Movement of People

By virtue of its existence, the intervention begins a dialogue with invisible and undisputed social hierarchies. Primarily, this acts as a statement for a counter balance of equilibrium, just by virtue of its being. South Africa’s unfortunate historical belief systems have been spatially communicated, embedded within the city layout and many of these expressions have led to barriers impeding progress. Johannesburg exists as the largest city in South Africa, arguably as a result of a segregated planning strategy. Apartheid spatial planning used both the physical features in the landscape as well as formal infrastructures to create divided demarcations for the population. There have been many projects developed and even more proposed to breach these buffer zones to connect the different parts of the city. Two examples of these projects are the ‘Great Walk’ pedestrian bridge, connecting Alexandra township to Sandton and the ‘Corridors of Freedom’ public transport connections of peripheral suburbs into the metropolitan centres [37].

[37] These have been further analysed in ‘Spatial Analysis: Urban Catalysts’

figures 4,3 - 4,6. Menu and Context of Informal food strip [above] & Menu and Context of Big Mouth formal restaurant [below], less than 150m away from each other.



GRILLS	
CHICKEN PAILLARD Lemon thyme vinaigrette, sweet potato	145
GRILLED CALAMARI Chargrilled, lemon butter, fries	192
PERI-PERI CHARCOAL CHICKEN Chargrilled, Maldon salt, fresh thyme, fries	120/175
CHARGRILLED FILLET Lightly basted, fries	220/335
T-BONE Lightly basted, fries, 500g	235
LAMB CHOPS Maldon salt, fresh lemon, fries	229
RIB EYE Mustard sauce, fries, 300g	220
SIRLOIN ON THE BONE Tender Sirloin on the bone, Maldon salt, herb butter	220
RIBS Beef 880 maple glazed ribs, fries	205/295
Half/Full	
PANS	
FISH & CHIPS Flash-fried, beer battered, fries, malt vinegar	
PANNO CHICKEN Crispy chicken breast, Asian bread crumbs, lemon wedges, Parmesan mash	
CURRY Fresh tomato, garlic, ginger, fragrant curry spices, coconut milk, fresh chilli, sambals, rice	
LAMB SHANK Slow roasted, red wine gravy, carrots, peas, Parmesan mash	
CALAMARI PASTA Roasted garlic, tomato, fresh calamari, spaghetti	
TOMATO PASTA Roasted Napoli tomato sauce, fresh basil, spaghetti	
SEAFOOD PASTA Mussels, prawns, calamari, white fish, peas, chilli, garlic, white wine, splash of cream	
Chicken Kingklip Prawn	
BUNS	

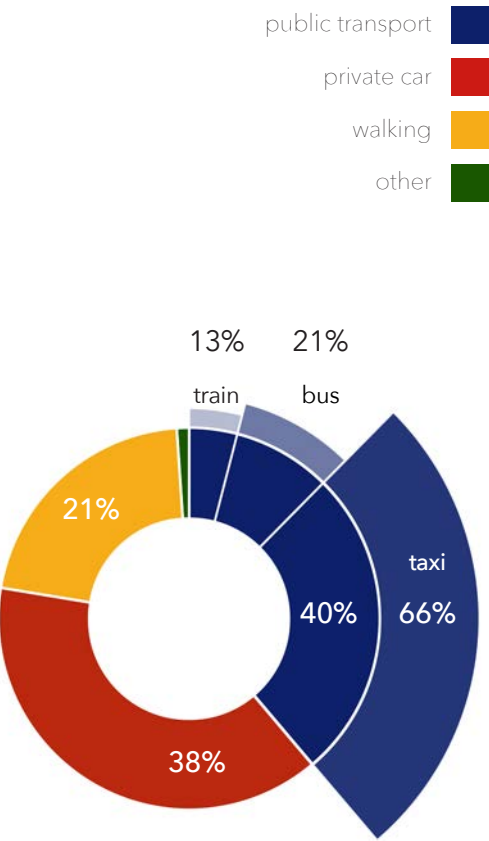


[38]
Waiters can seldom eat at their restaurants. Cashiers can hardly buy from their shops. Car cleaners cannot even afford to park in the lots they maintain.

[39]
This is delved further into in *'Production for Reproduction: A New Political Point'*

[40]
This is emblematic of a certain contempt of the poor by wealthier elites. A division between the two ends of the spectrum is curated as a means to foster a sense of an affluent context.

figure 4,7. Johannesburg transport means



These are both inspiring statement projects, although limited in effect. The ‘Great Walk’ pedestrian bridge is a feat of showmanship connecting the township and economic centre, whilst simultaneously conceptually dividing them though a singular point of access. Although a positive addition, the bridge exists to facilitate the current workforce of the corporate powerhouse and there is still a very clear distinction between the *serviced* and the *servicing*. This is evident through the heavy investment in connecting the two suburbs, while no contribution is made to create any sense of belonging for the ‘*servicing*’ population once they are in Sandton. This occurs to the extent where they cannot engage in the institutions they are facilitating, nor benefit from the surrounding institutions [38]. There is a single informal strip of hawkers selling foods and drinks along West Street, along which a change of atmosphere is tangible. This is potentially the only space for this particular population of Sandton to feel comfortable.

This feeling is further aggravated by the Sandton developing powers’ contempt for the minibus taxi service [39] as the predominant mode of transport for thousands of people from poorer contexts [40]. The mechanism is being phased out of the context one development at a time. The proposed site for intervention previously hosted a minibus taxi holding facility, introduced in the early 1980’s as a part of a council precinct – the other components being the Sandton Council, the original public library and a public square (van der Retief, 2012). The holding zone was used for the storage of the taxis during the middle hours of the day between the morning and evening routes. During this time, the vehicles were cleaned and maintained before heading out to pick up customers once more. Soon after the new Sandton Library opened in 1994, there were complaints regarding the noise and activity on site at the holding zone and eventually the facility was moved from the centre of Sandton (Sandton Chronicle, 1994). Despite this move, the initial holding facility still stands as it was, completely closed off from the public, awaiting development.

figure 4,8. Taxi waiting outside of a construction site on Katherine Street

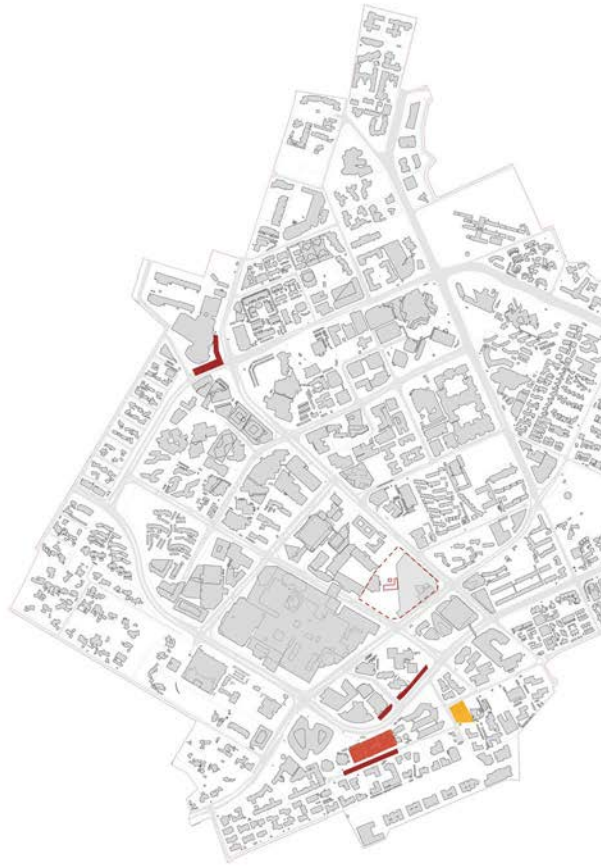


figure 4,9. Taxi relocation within the Sandton CBD

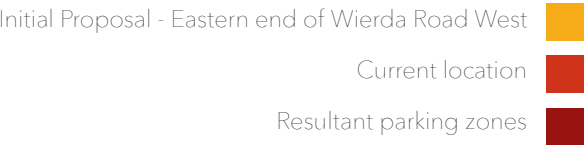
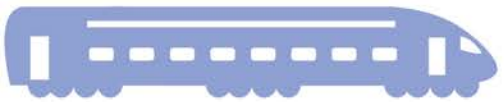


figure 4,10. Johannesburg Public Transport

Trains
Government Subsidised



3180 kms of National Network
550 Train Stations



Buses
Government Subsidised

19 000 Registered Buses
100 Train Stations



Minibus Taxis
Commercially Sustainable

200 000 Taxis
2600 Taxi Ranks

There have been a series of bases for taxi holding areas ever since the move from Sandton Central. The facilities were located at the eastern end of Wierda Road West, until Sasol began developing their new Sandton Headquarters. The developers of these new offices, Alchemy, then provided an alternative location for holding at the other end of Wierda Road West, further from the Sandton Centre. This site is still used as the official holding facility, although this is too far out for many taxi drivers. In these instances, the informality of development has provided another solution as these drivers have found a way to continue parking within Sandton, alongside sites in the process of being built. There are far less stringent security measures to prevent these informal holding zones, and many taxis now reside within the central business district during off-peak hours.

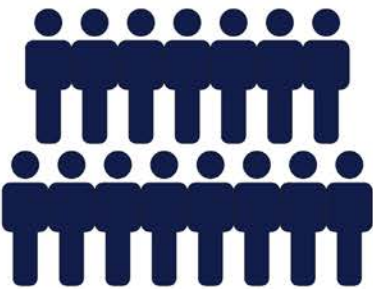
This is the nature of suppressing an essential service. The taxi mechanism is constantly legitimised by its sheer necessity for transporting a majority of the population. Although a marginalisation is often attempted by those in power, the service is proving resilient in catering



2 million Daily Commuter Trips



9 million Daily Commuter Trips



15 million Daily Commuter Trips

for many people as the predominant means of public transport. It continues to be reinforced as such by the widening gap of inequality and the ever-increasing need for affordable transport. It is apparent from precedent circumstances that the minibus structure does not fit the desired Sandton aesthetic and exists in constant conflict with it, despite its fundamental existence in catering for an abundance of layers within the suburb – typically the ‘missing tiers’ neglected within the context. Through these contestations, the taxi infrastructure will continue to prevail due to its necessity and future spatial planning will be forced to acknowledge this. The real progressive possibility arises when future developments *choose* to incorporate and celebrate the diversity.

A reconceptualised infrastructure is therefore needed to break down the social barriers in this context. These barriers are substantially more intricate to comprehend and contend than those of a physical buffer, as although they are tangible, they are not always visible. These notions impact society in a far greater manner, spreading further than that of a physical barrier. The divisions and connections need to be considered as a synergetic relationship with a productive resolution as a union between “radical urban planning reform ... [with] ... on the ground practices” (De Boeck 2013). The radical planning reforms have already begun in a series of new Sandton mixed use precincts, however careful consideration is now needed to unlock the lived experience. David Adjaye suggests a conceptual resolution for Johannesburg in the “democratisation of the movement of ideas” (2015). This free flow of knowledge and accessibility to information is invaluable for increased participation in the future of the city and it is fundamental to combine this infrastructural resolution with the existing contemporary biophysical infrastructure. The democratisation of ideas will inevitably benefit the economy of businesses, by mere virtue of a greater percentage of available resources being brought to the table as well as through increasingly developed ideas. This results in the architecture of blockchain where a contribution to collective conceptualisation can be encouraged and previously disregarded thought processes can be remunerated all while accelerating the reproduction of a socio-economy [41].

[41] The architecture of blockchain is further discussed in *Form Follow Finance, Governmentality for Semi-Autonomy*.

Cyril Ramaphosa, the current president of South Africa, gave the 2018 State of the Nation address and brought to South Africa’s attention a number of previously neglected notions. He discussed the introduction of a series of means for economic growth as well as the supervision thereof, to move the country forward in a rapidly developing global context (Ramaphosa, 2018). Ramaphosa introduced the new ‘*Digital Industrial Revolution Commission*’ and ‘*The Presidential Economic Advisory Council*’ as an indication of a future model for business. However, this dissertation argues the necessity for an additional agency to be established and this is ‘*The Technosocial Ethics Commission*’. The primary mandate of the proposed agency is the consideration and principled preservation of the population in the current age of technological

development. Ideas and means for development are currently evolving faster than ever before and the productive maintenance of this process requires a definitive commitment – including a substantial investment of a new nature. It will be significantly more difficult to calculate a traditional return-cost estimate for this newfound investment and this acts as a deterrent for traditional investors. However, while it may be near impossible to invest in the unknown, it will also not be feasible to ignore it. A Keynesian state investment is thus required for public confidence [42].

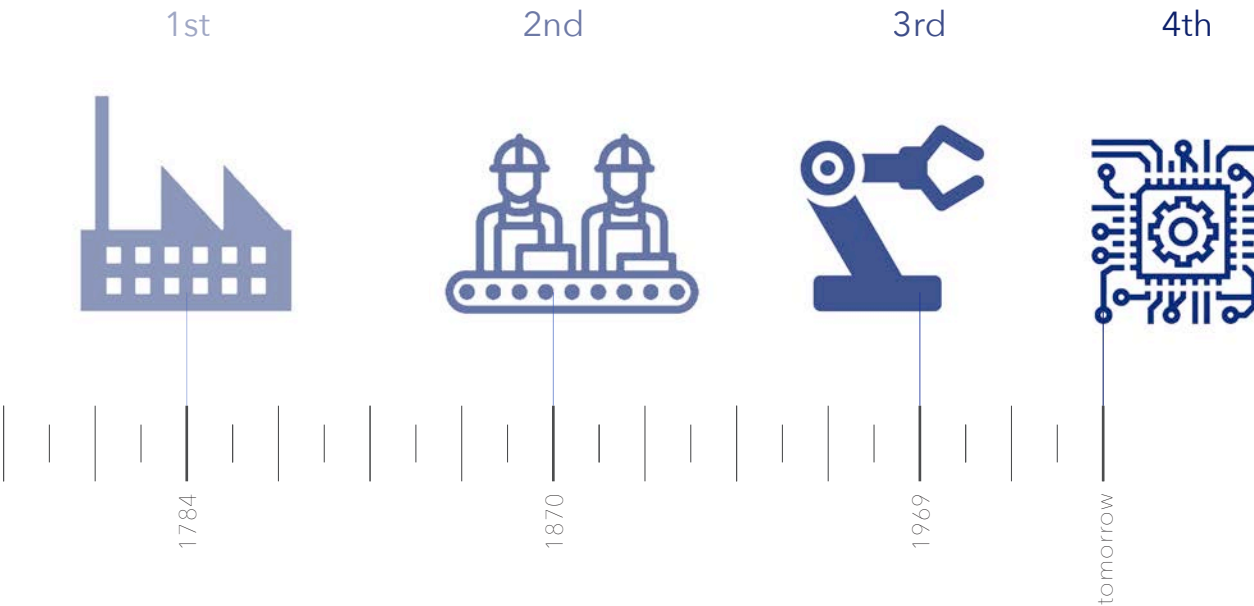
[42] Keynesian investments are further unpacked in ‘*Form Follow Function; To Beat Capitalism with Capitalism*’.

New agencies founded to develop and monitor future innovations should not simply slot into existing structures – this is quite literally the opposite of their purpose for redefinition within the system. A new physical design “existent beyond these means” is required both as an investment into future processes but also as a declaration for an increased consideration of the people within these (Robinson 2010). The required infrastructure of movement therefore exists as a duality. It is a future created by the conscious combination of the biophysical and sociocultural – the infrastructural movement of people and ideas.

Evolution through Revolution

The latest movement of globalised development is referred to as the Fourth Industrial Revolution. Each industrial revolution fundamentally changes the nature of living on a global scale. The First Revolution was the invention of the steam engine, the Second was the development of the production line and the Third Revolution was the recent rise of digital technology (Rifkin 2011). The fact that we are still currently establishing the parameters of the Third Revolution, while embarking on the Fourth, speaks to the rate at which life and technology are constantly accelerating.

figure 4,11. Industrial Revolution Timeline



[43]

This refers to the internet of things and thereafter to the blockchain (Rifkin 2011)

[44]

Schwab is the founder and executive chairman of the World Economic Forum (WEF). The WEF were the first to describe the Fourth Industrial Revolution, but the movement has since rapidly gained recognition and support.

figure 4,12. A CAT Scanner present in almost every hospital.



figure 4,13. Dolosse along the Cape Town harbour



The Fourth Industrial Revolution currently exists as the integration of automation into our daily lives, as well as the facilitation of exchanging information and values [43]. Contemporary developments are evolving from the Third Revolution, however, according to Klaus Schwab [44], the fundamental differences between the Fourth and Third Revolution are “velocity, scope and systems impacted” (2016). These ideas define the difference of development and further explain the extent of revolution. At their core, all movements revolve around a newfound innovative means of thinking and doing and the current movement epitomizes this while developing towards ongoing sustained evolution – through the increasingly shared nature of information. The vast majority of repercussions are speculative, although what is certain is that the revolution is unavoidable and it will drastically change the way we live and in particular the way we work (Schwab, 2016). This will involve everyone equally, from public to private sector and from academic department to civil servant.

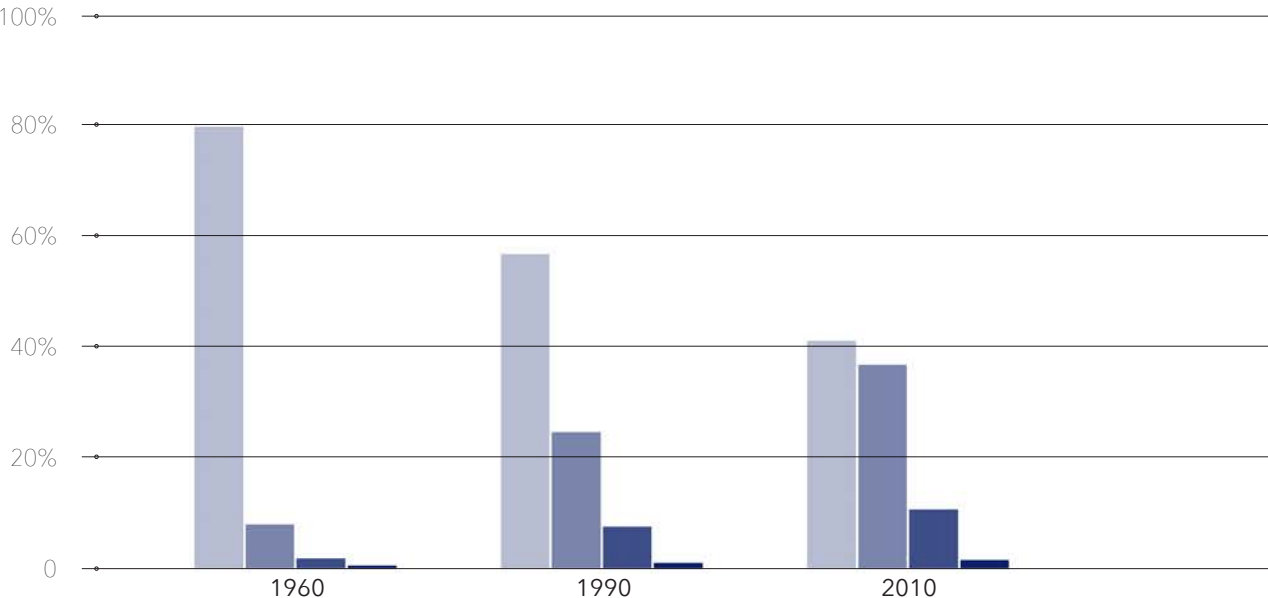
Throughout its history, South Africa boasts a surprisingly impressive history of technological innovation. The CAT Scan and Dolos are two inventions most commonly flaunted, however South Africa also boasts the invention of one of the first commercially available robots – the Kreepy Krauly pool cleaner (Potgieter, 2017). These examples of innovative thinking can also be seen in the development of Johannesburg – bursting forth from a mining town to an economic powerhouse of the African continent. The rate of Johannesburg’s growth however, seems to have slowed to a routine development – decelerating although still growing. In the same manner in which the gold industry and thereafter the stock exchange were so heavily invested in, now is the time to focus a substantial effort on research and innovation. Simmel’s abstraction of money allows for this investment to manifest through a multiplicity of scales, time periods and thereafter revolve around the social capital of the population.

figure 4,14. A Kreepy Krauly, along its own trajectory cleaning up a swimming pool



figure 4,15. Percentages of skilled and unskilled labour in Southern Africa (population over 15 years)

Unskilled
Low Skill
Medium Skill
Highly Skilled



The work structure of the Fourth Industrial Revolution, provides an opportunity to simultaneously invest in the individual businessmen/women, whilst focusing on the greater South African future of innovation. The revolution is currently disrupting almost all industries, blurring the lines between the physical and theoretical practices. This restructuring of work affords the opportunity to begin a challenge on traditional means, until now have been commonly accepted without an alternative. As a result of technological advances, the reach of any incursion, architectural or other, has increased exponentially as people and information is moving further and easier than ever before – through improved transport and digital networks respectively. Significant development is easier to achieve, drastically increases the potential for change and as a result additional regulation and monitoring is required. The nature of this sharing economy has the potential to decrease inequality, yet it can easily be directed toward benefitting only the wealthiest few. Schwab describes this duality as the “greatest societal concern associated with the Fourth Industrial Revolution” (2016). Although this detrimental potential exists, it is not the primary focus. In recent times, worst case scenario hypotheses are too often the focus of revolution in order to prevent these scenarios from happening, and these considerations seldom focus on the positive possibilities. This culture of critique is particularly prominent within those of an academic left position and as a result, there are very few progressive future proposals being made (Williams & Srnicek 2013). Although challenging to propose – as they are easy to critique – positive proposals are vital to instigate discussion and thereafter a direction for an increasingly free and fair future. As the business model changes, there is a shift in accumulated wealth from corporations to smaller businesses and entrepreneurs. This needs to be further diversified through continued evolution of the current trends diversifying power. While this shift has been occurring, scenarios have arisen where certain small businesses and individuals are increasingly marginalised. This is happening through partially skilled workers becoming obsolete as a result of technological advances.

[45]
These jobs are most probably replaced by an instance of automation (Schwab 2016).

Practices and professions are developing quicker than ever and it is perceived to be inefficient to re-train staff every few years. As a result of this the individuals making up this workforce practise in the same manner since their initial training until their skills become obsolete [45] in the developing industries. They are then retrenched and thereafter one of three instances can occur.

Firstly, an individual may seek another opportunity for unskilled labour although due to the increasing number of people looking for such opportunities, the wages associated are steadily decreasing. Should a worker find a new unskilled job, they may receive far lower wages, yet are lucky to have received the position due to increasing quantities of applicants. The manner in which they are considered easily replaceable renders unskilled workers vulnerable to exploitation and terrible treatment.

[46]
This is a conservative estimation, considering the difficulty in monitoring employees in the informal sector.

The second scenario exists where an individual retrains and gains higher skills for a new job. The demand for retraining then rapidly increases and as a result so too does the cost. This is the typical view for future development, although it is not sustainable. According to a report released by Accenture at the beginning of 2018, 35% of all jobs in South Africa are at risk of total automation in the next 8 years (Accenture, 2018). If the number of people employed is estimated at 10 000 000 people (Ferrer, 2018), [46] then 3 500 000 people will lose their jobs to automation. Even if retraining is free and accessible, meticulous attention is required to predict what skills are needed in order to ensure employment for this extensive percentage of the population.

[47]
The major obstacle is the awareness to access and interpret this data.

The third, and final possible scenario, is an unemployed majority with an obsolete skill set. This is a fundamental problem to the entire economy as it simply wastes resources at a time where every means is precious. This detrimental evolution can be avoided, but it requires a constant and conscious effort. A future prediction of skills is now necessary, and it is becoming increasingly achievable due to a growing abundance of available data. A simple and relevant example of a monitoring system is the LinkedIn platform. With limited resources, almost anyone can access the trends of what skills are available, and what skills are being sought after [47]. A retraining program is then vital, whether run internally by private enterprises or externally run by a local authority. [48] A ‘*meta-skills*’ development centre is required, where individuals are trained in learning the skill of adapting, evolving and continuing to learn.

[48]
This must be prioritised or incentivised by the government.

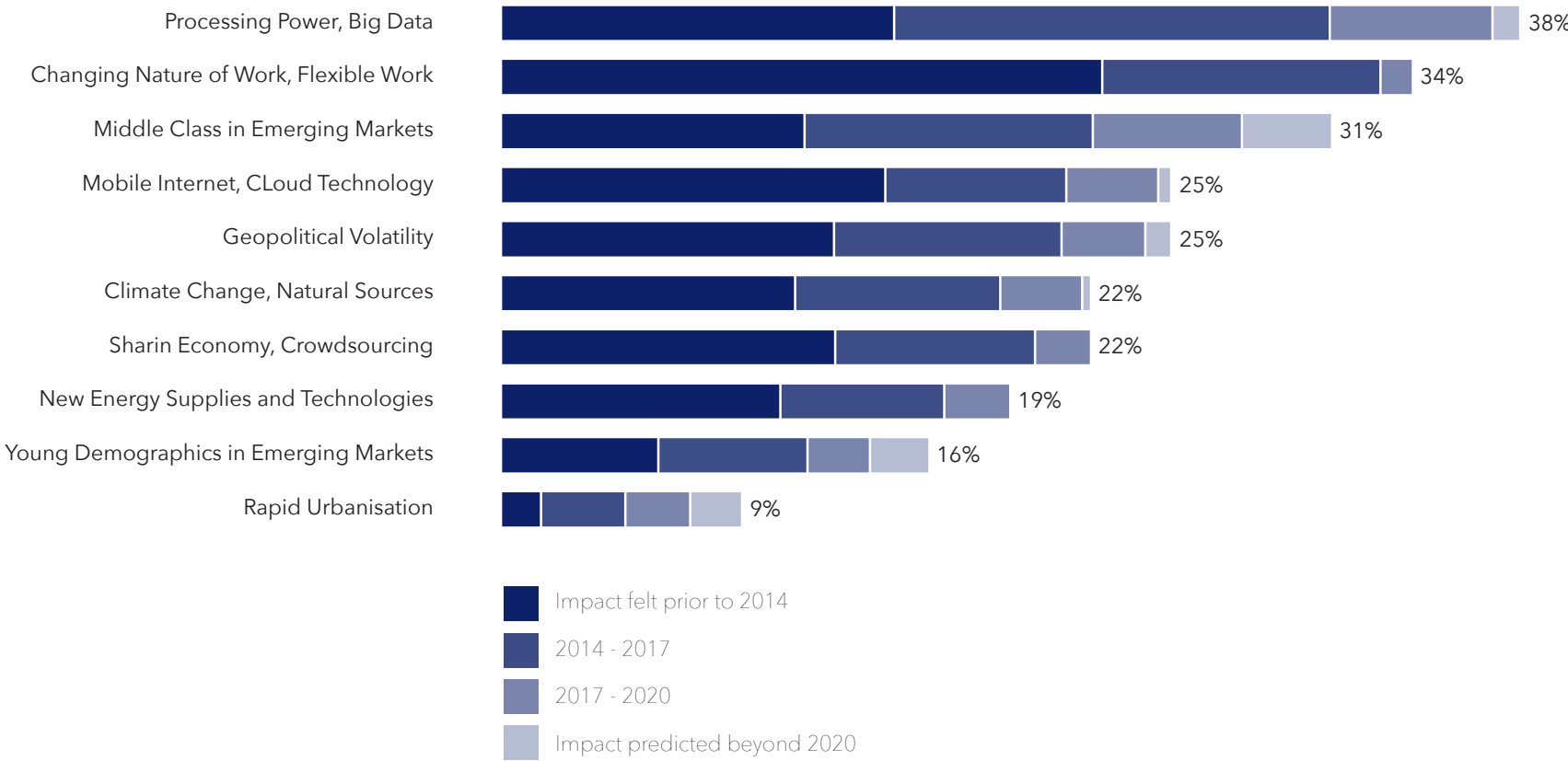
Maintenance of ‘*meta-skills*’ should come from two perspectives; the first one being an incentivised education system and the second being an investment in the existing individuals already a part of the company. The value of human work will need to shift as people are prioritised over machines. Automation and artificial intelligence are undoubtedly a component

of our future, although it is a human future regardless. Technological developments are to aid in productivity, but to act in empowering the human.

These considerations bring up the necessary role of future governance, where a local authority is increasingly significant as a mediator – between technology and humans as well as those developing the technology and those affected by it. New platforms will easier “enable citizens to engage with [their] governments” (Schwab, 2016) and governments will have increased access to individuals within the population. A connection will simply need a smartphone and the appropriate marketing to collectively challenge a systemic inaccessibility. An interface of people and processes has the power to shape the revolution to reflect common objectives and values. It will be defined by the mediation of the many influences and this is the role of a future governing body.

“Our prosperity as a nation depends on our ability to take full advantage of rapid change [and adapt accordingly]”
(Ramaphosa 2018)

figure 4,16. Disruption to the Labour Market in South Africa - Existing and Predicted Disruption.



Movement of Ideas

The proposed Capital Capitol intervention is the beginning of an architectural dialogue with a number of contemporary South African issues. The proposal for a physical incursion acts as a manifestation of the dialogue. Architectural historian, Manfredo Tafuri refers to Mendelsohn’s designs as “Advertising Architecture” portraying the expression an architectural intervention can communicate (Spencer, 2016). This symbolic image tends towards the marketing possible within a ‘*Society of Spectacle*’, however can also be utilized for empowering the unassuming audience. Architecture, and specifically an architecture of governance, has the ability to simplify complexities within a social structure and thereby create a seemingly unachievable inclusivity. The altered spatial structure acts in universally communicating radical changes to a social system and therefore requires a conscious effort to avoid oversimplification, fully engaging in an honest shift of power.

The law and democracy are in a constant contest with the Sandton conglomerate and individual private corporates – both of whom are key players in the suburb’s development [49]. The powerful private entities utilize wealth as a means to determine results, or accumulate additional forms of power (Foucault, 1966). This has historically provided the fiscal means for rapid growth, as well as the societal means to act as a governing force. The limitation of this force in the power dynamics is the lack of collective investment, in terms of money, public opinion and support. At times there are certain collaborations between key players, although this is only for an immediate mutual benefit and a profit-based incentive that often lacks a comprehensive foresight. The intrinsic power of a democratic local authority provides the collective power in numbers. This has the potential for “normalising power” within the society as well as creating additional financial opportunities through these general perceptions (Foucault, 1966). Normalisation refers to the process in which ideas and actions become apparent and referred to as ‘*the thing to do because everyone is doing it*’ (Foucault, 1966). In “Discipline and Punish”, Foucault (1975) uses this notion to identify a regimented means for control over the many – prisoners in particular – by exerting the least force possible. However, in the same manner in which this collective dynamic provides social control, it also portrays the power of a collective adhesion within social structures. This normalisation of power can effect substantial positive change by ‘*convincing*’ society to invest in itself – both individually and cumulatively [50]. An example of the potential of normalisation is not stealing, because society’s rules have inculcated in us a decreased desire to steal. A movement of a majority has such potential in defining accepted norms, which tend to govern the way in which members of a society act. Historically investigations have been carried out on the control placed within the theory, however the accepted perception of the wealthiest to give charity on Mandela Day is an example of the way normalisation can act in an opposite positive manner. This is encouragement to be proactive, rather than seeing it as a mechanism for restriction or deterrence.

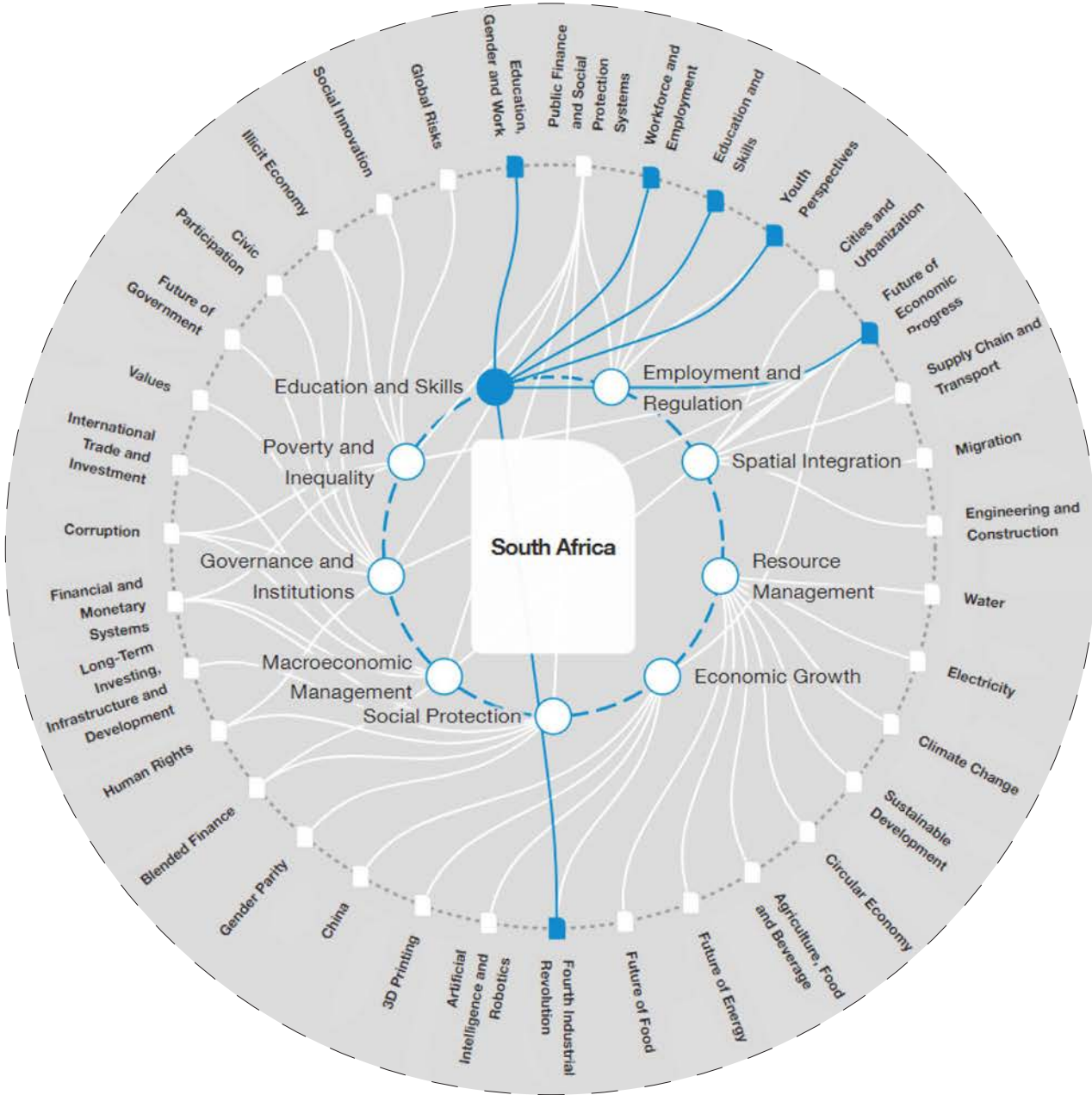
[51]

The Situationist Movement is discussed in ‘*Form Follow Finance; The Spectacle*’

The second motivator of increased financial opportunities is a ‘*Situationist*’ [51] necessity for sustainable change. This comes from collective power in numbers. In a particularly volatile economy, a smaller investment by many is far more desirable than a larger investment by a few, as a result of the potential rapid change this could create (Walker, 2012). This collective power, can then shift the dynamic away from a few powerful entities, empowering a local authority to serve many people.

The convoluted evolution and alleged corruption of the speculative ‘*Kgoro Central*’ precinct is a clear example of the unsustainable nature of isolated power dynamics.

figure 4,17. Model from the World Economic Forum, showing focus points for a productive future.



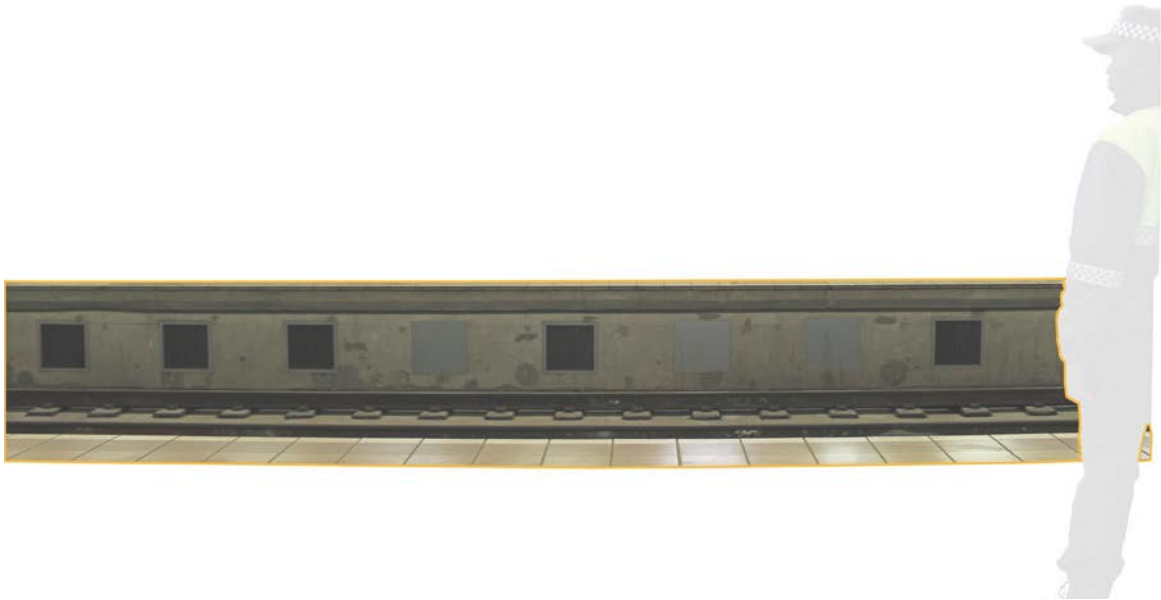


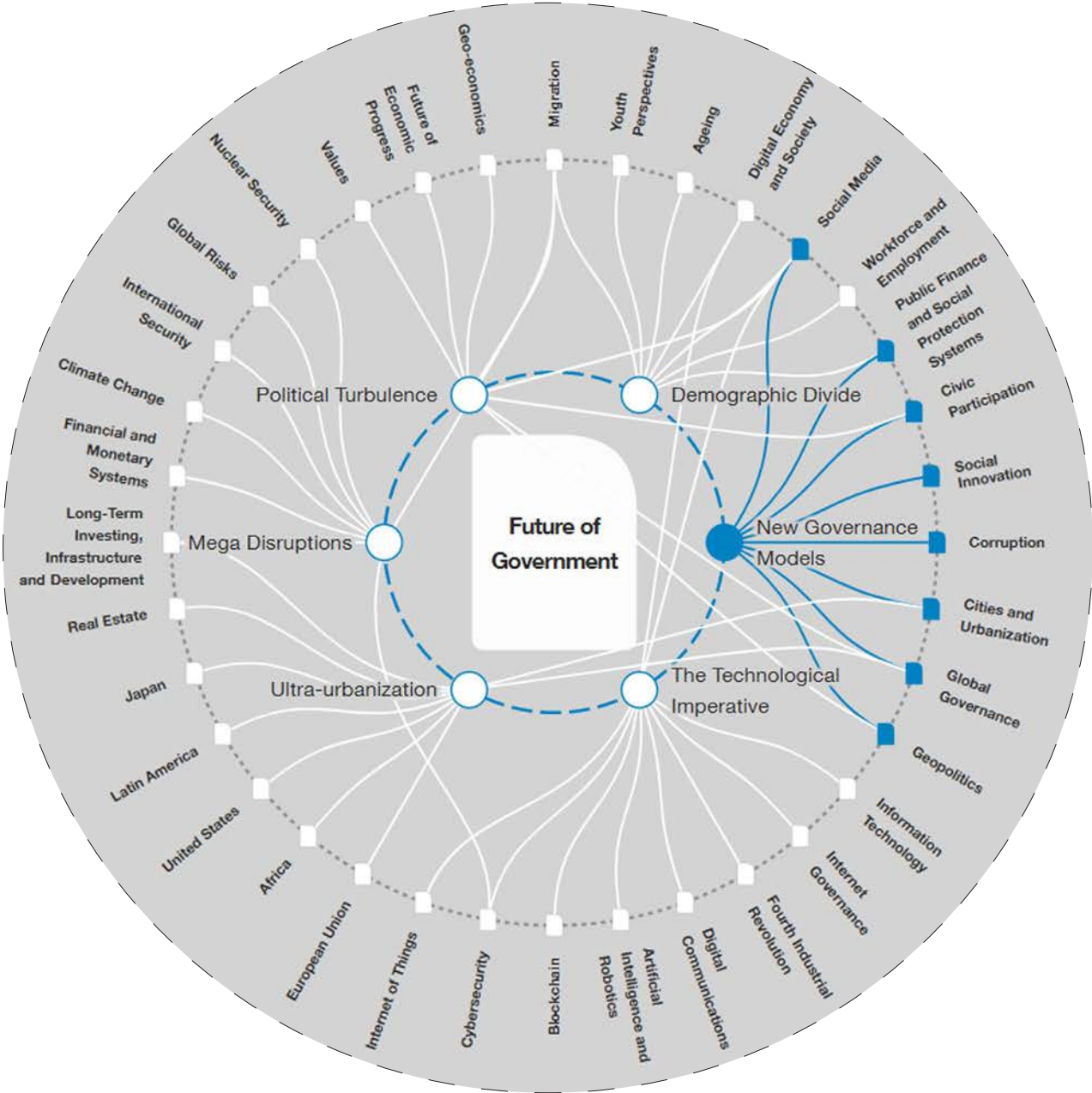
figure 4,18. A Shifted Priority of Infrastructural Development for a Holistic Result.

Through the prioritisation of a socio-cultural infrastructure focusing on the people and collective experience, a truly progressive infrastrcture can be achieved.

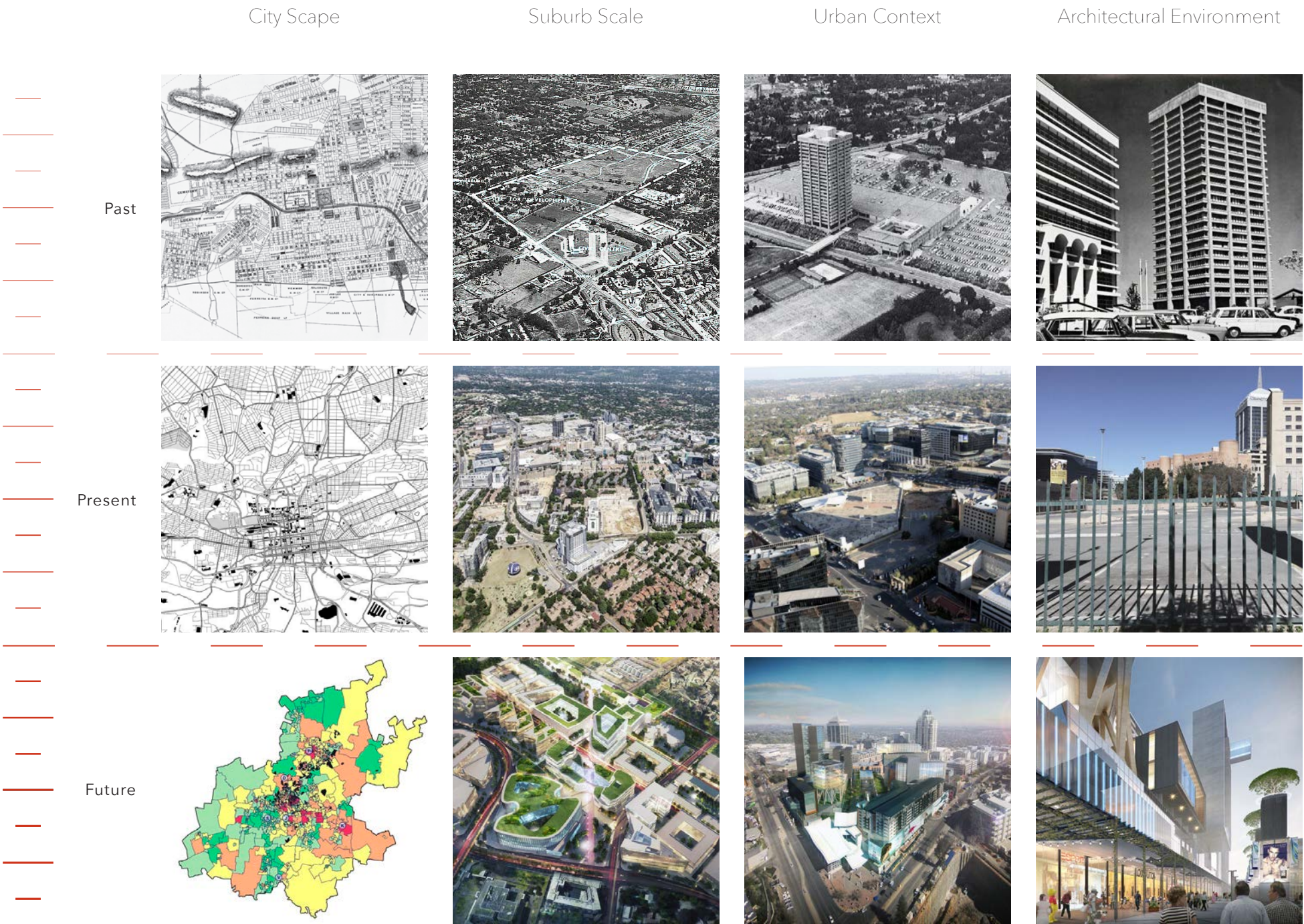
The image above depicts the biophysical infrastructure of the train and tracks, the middle image shows the potential arena for a socio-cultural infrastructure and below is the combined image - the possibility of an integrated and increasingly productive system.



figure 4,19. Model from the World Economic Forum, discussing a productive future for



5 PRODUCTION FOR REPRODUCTION



5 PRODUCTION FOR REPRODUCTION

A New Agglomeration Point [Past]

figure 5,1. Site and surrounding context through time and scale.
The future shown is the speculative proposal prior to author's intervention.

'Kgoro Central' is a speculative development proposed in the Sandton central business district and is the current context for this research investigation. The term 'kgoro' originates from the Sotho and Tswana languages meaning 'a place of entry'. The development has been envisaged as the new gateway into the Sandton business district (Swanepoel, 2018).

The precinct is proposed on one of the last city council properties in Sandton. It was previously utilised as a civic centre, although currently only accommodates the Public Library and adjacent museum. This past civic precinct consisted of The Sandton Municipality Headquarters, a minibus holding facility, a transport museum, public parking and a public square. The current managing librarian at the Sandton Library, JW van der Retief, describes the 1994 construction of the new facilities as a reinvestment in this past civic precinct (2012). However, at time of its construction, a holistic reconceptualization of the precinct was already in motion – this has determined the past and present nature of the site [52].

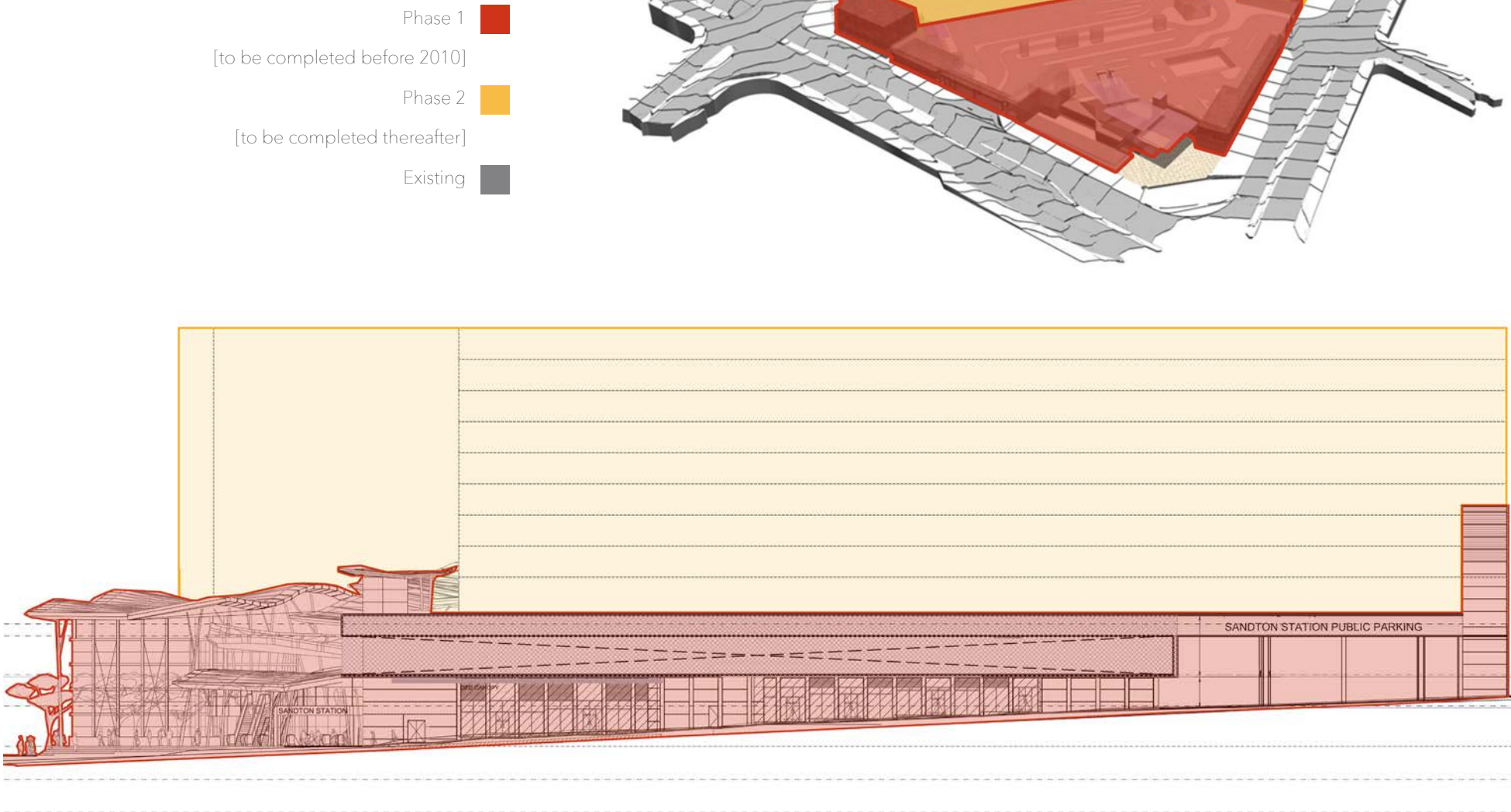
Changes to the civic precinct were instigated in the late 1980s through the consolidation of the Johannesburg and Sandton Municipalities, after which the municipal offices were slowly combined in Braamfontein (Silver, 2018). At the same time, rapid developments were beginning to create a new central business district in the surrounding suburb. These changes brought about an exponential increase in land value and resulted in methodical engagements from corporate powers, who would later determine the vision for the precinct.

Through the early years of the 2000s, the Gauteng Provincial Government began to plan a new modern transport mechanism for the province – the Gautrain [53]. This site was determined to be the nexus of the system as it was located at the epicentre of the OR Tambo International

[52]
The Capital Capitol intervention is proposed as a new approach and the next step in this evolution.

[53]
In 2005, the South African Government gave authorisation for the project and in 2006 Bombela were appointed to design, build and manage the Gautrain system (Bombela 2018).

figure 5.2. [left] 2008 Baseline Document,
Axonometric of Street Level
figure5.3. [below] 2008 Baseline Document,
Elevation from West Street



[54]
This is occurring in a context of existing rapid growth
within the new CBD.

[55]
This is still one of the largest meeting centres in Africa
(GCC, 2018).

[56]
There was a R150 million incentive to have the Gautrain
completed by the World Cup although this deadline was
not met (Mail and Guardian, 2006).

figure 5.4. Artist Impression from 2008 Baseline
Document of Gautrain Station connecting to the
Sandton Library



Airport, the traditional Johannesburg CBD and Pretoria, as well as within a burgeoning new city centre (Swanepoel, 2018). It was decided that the Gautrain station would be located on the eastern half of the existing civic precinct, on the corner of Rivonia Road and West Street. This central point for the new transport system began to generate excitement in the surrounding areas, as well as along the proposed routes, with surrounding property prices increasing exponentially [54]. Many prolific contemporary buildings were rising providing a self-confident alternative to the traditional business district and challenging the scale of the surrounding suburb. The Sandton Convention Centre [55] was built in 2001 and acted as a significant investment into the business nature of Sandton. The Michelangelo Tower Hotel was just a year later built across the road, perhaps capitalising on the opportunity to facilitate this business boom. Regardless of its initial intent, the hotel has become an icon in the landscape, depicting wealth, opportunity and opulence for the suburb. Sandton continued to develop quicker than ever before, especially in the build up to the 2010 FIFA World Cup.

The Gautrain system was planned to launch for the 2010 FIFA World Cup to distribute travellers throughout the greater Johannesburg area (Bombela, 2018). In June 2010 the first Gautrain line from the airport to the Sandton Station opened to the public, just three days prior to the World Cup *Kickoff* (Bombela, 2018). According to the mechanism managers, Bombela, the opening of all stations was delayed as a result of unforeseen waterproofing challenges in the tunnels, although the Sandton-Airport link was a priority connection and was very heavily invested in from an early stage [56]. The sites surrounding this new transport nexus become extremely desirable and quickly incentivised iconic developments surrounding the station – and to some extent along the new transport routes. In the next two years, the new Alexander Forbes and EY head offices as well as the Radisson Blu hotel were all built opposite the Sandton Station. The station location resulted in a reshuffling and extension of the Sandton Central district, from Grayston Drive surrounds to include areas up until Sandton Drive, with “Kgoro Precinct” close to its centre. This is still evident in the contemporary continued development, as at the time of printing, Old Mutual completes their new headquarters opposite the station.

The Gautrain system captures a segment of the economy that does not yet engage with public transport. Although it was initially perceived as a revolution in its accessibility, the system is unaffordable for the vast majority of those frequenting public transport. The resultant target market of white collar workers is reinforced in its Sandton Central location and as Forbes actuary Jonathon Ferrer describes “it has been catalytic to a very specific kind of development in the area” (2018).

[Past & Present]

A New Political Point

In 2008 the Johannesburg Property Company (JPC) released a baseline document outlining the future civic precinct for development. This project went out to tender for a public private partnership development and in that same year the project was awarded to Cedar Park Properties – primarily led by Regiments Capital – for their “Kgoro Central” proposal. Due to a series of early disputes the contract was only signed the following year in June 2009 [57] (Speckman, 2018).

From the very beginning there were certain considerations crucial for the awarding of the tender, however, other than Cedar Park Properties being a broad-based black economic empowerment company incorporated in 2008 (Bloomberg 2018), the company profile is inexperienced and empty. According to Bloomberg, the company does not have any Executives,



figure 5.5. 2016 Baseline Document Aerial for the Kgoro Central Proposal

- Gautrain Station and Streetshops
- West Block Residential
- Rivonia Block Residential
- North Tower Residential
- South Tower Residential
- 5th Street Tower
- Central Tower Hotel
- Art Gallery

Board Members or Committee Members as well as no available transaction information (2018). It is therefore apparent that Cedar Park Properties is a shelf company formulated for the sole purpose of developing and managing Kgoro Central.

This is compelling for a number of reasons. It is not clear who exactly is behind the company, although Regiments Capital are accredited with leading the development and are the only other entity involved as client for the project. The Kgoro Proposal is currently estimated at costing between R4 – R6 billion (Speckman 2018) so the developing company would have to already have substantial capital, yet since Cedar Park Properties were very recently founded, they must be receiving funding from elsewhere. This also illustrates an unusual case of an inexperienced and unknown company being awarded a prolific project to develop for the City of Johannesburg. Neither Regiments Capital [58] or the Cedar Park Properties had any prior property development experience upon winning the tender. However, Regiments were becoming increasingly politically connected and this was “just the beginning” (Hofstatter for BusinessLive, 2017).

Regiments [59] secured the site through a 99-year leasehold agreement and Sharp Shop Architects – the BEE component of A3 Architects – began to develop their 200 000m² winning proposal (Mofu 2018). The precinct vision drastically changed from the original ‘new’ civic centre which began with the public library in 1994 (van der Riet, 2012). Although discussed as a public-private partnership, the resultant tender provided a different perspective for development. It seemed to be closer aligned to using the public land for private gain as there was little prescription from the City of Johannesburg for civic space as well as a prolonged lease period for the private developers [60]. The new Kgoro precinct was described by JPC Senior Manager, Alan Dinnie as new offices revolving around a “[private] residential and hotel development as well as a new contemporary art museum and private gallery” (Ujuh, 2015). The Kgoro Central precinct proposal is developed as 200 000m² of new built bulk sitting around and above the newly complete Gautrain Station, with the Sandton Public Library as the only existing building remaining on site.

In the early stages of planning, there were a series of minor disagreements and struggles for shared vision and in 2014 Sharp Shop Architects were dismissed from the project. StudioMAS Architects and Urban Designers, were subsequently appointed to revise the Kgoro Central proposal as well as to complete the Regiments Capital new head offices to be built in 2015 [61] (Mofu, 2018).

[58] Regiments have a history of financial advisory and fund management and this would be the first project of its kind for the company.

[59] Regiments Capital will henceforth be referred to as the client as this is the manner in which the development was handled from the time the tender was awarded (Mofu, 2018).

[60] The longer the lease agreement, the more can be rationalised for spending on the development as it has the potential for an extended period for return costs (Reddy, 2009).

[61] These are to be the first two property development projects by Regiments Capital.



figure 5,6. The temporary taxi holding zone along Katherine Street

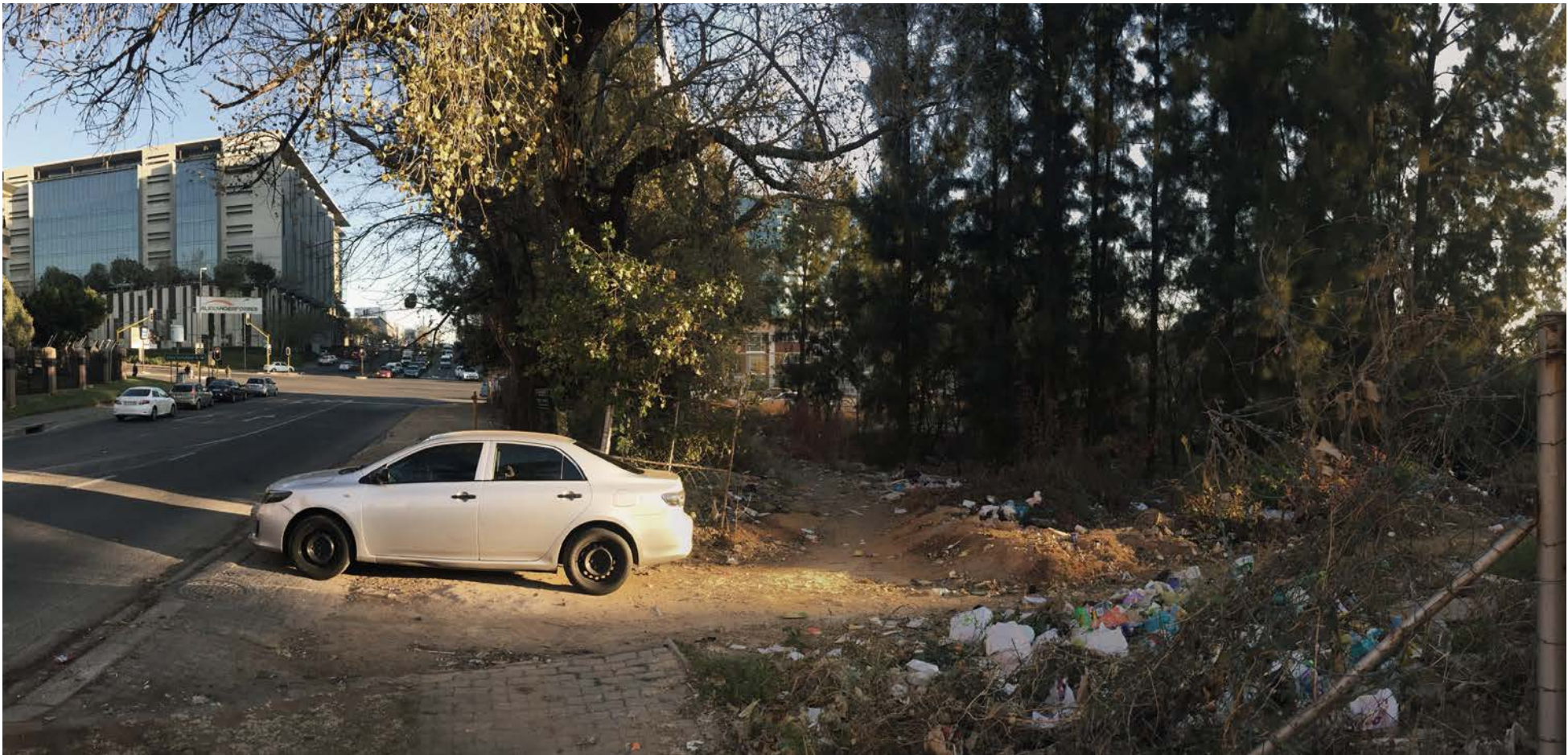
The next five years, from 2010 to 2015, were fraught with low profile, but intense battles between the JPC, Regiments Capital and the Sandton Council Taxi Rank. From the very inception of the Kgoro Central proposal, the taxi holding zone was planned to be relocated as it was not conceptualised as a part of the new development. However, the taxi operating representatives were hardly included in the planning process. This led to a series of disputes as to how and where the taxis were to be relocated. Through these five years, multiple solutions were proposed, attempted and argued but no mutual agreement was achieved. The closest resolution, as discussed on the ‘City of Johannesburg Newsroom’, was halted in 2015 after JPC carried out 90% of the development process, as the High Court delivered an interdict against the proposed location (CoJ, 2015). The ‘City of Johannesburg Newsroom’ however, does not mention this proposed location.

In 2015, a short-term plan was reached with a temporary relocation of the Taxi Rank in Wierda Road West until a JPC owned retention pond on the borders of Sandton could be converted into a permanent rank for the future. However, this short-term solution was shorter than anticipated, as Sasol were currently in the process of building their new Headquarters adjacent to this temporary proposed site. Sasol raised their concerns of the lack of time frame for the temporary solution as this solution could potentially go on for the next ten years while the JPC struggled to find partners for the retention pond development [62] (Swanepoel, 2018). Fortunately for Regiments Capital and the JPC, Sasol’s new landlords, Alchemy, provided a new temporary holding zone for the taxi rank. This is located at 41 Wierda Rd West, on the peripheries of the business district (Silver, 2018). It is not surprising therefore that many minibus taxi’s do not use this holding zone, but rather drift around Sandton central, loitering outside construction sites. At the time of printing there is a prominent holding zone developed along Katherine Street from Pybus to 5th Street – while there are no corporate tenants present to oppose the taxis. The tendency of gathering around construction sites, depicts the necessity for the minibuses’ proximity to the suburb centre, close to where the clients work in order to minimize ‘dead mileage’ [63]. This is a perfect example of normalisation of power. The taxis are needed in numbers, close to the suburb centre and as a result this is currently commonly accepted.

Soon after the ‘temporary before permanent’ minibus taxi holding zone agreement was reached, the Sandton Taxi Rank was closed and once again the development received a green light. Things began to move forward quickly and on November 2015 the Sandton Municipality building was imploded, leaving the site bare and ready for construction (Mofu, 2018).

[64] Investigative Journalist Stephan Hofstatter wrote an expose on Salim Essa, McKinsey and Trillian which was published on the 5th of October 2017, in BusinessLive. There is substantial correlation between the build up of the two stories and so Hofstatter is often referenced.

figure 5,7. An Uber driver naps at the entrance to the City of Joburg retention pond currently proposed for the future taxi holding zone



Regiments Capital – the resultant developers – is a relatively young company formed in just 2004 by Niven Pillay, Litha Nyonyha and Eric Wood (Regiments, 2017). The company rapidly evolved and in 2010, the appointment as the leading developer for the Kgoro precinct was undoubtedly a major milestone in the company profile. However, the years to come were fraught with a series of power struggles and conflicts both internally as well as externally. These affected the Kgoro development in two ways. Primarily the internal conflicts undermine the company which is detrimental to the everyday function and a direct, unified vision. Thereafter the external repercussions to these contests showed the public and many private institutions losing the trust of and confidence in Regiments Capital.

The company partners were always well-established and respected, although in 2012 Pillay’s golfing partner allegedly introduced the politically connected Salim Essa to the Regiments Capital office, which resulted in connections of a new calibre (Hofstatter 2017) [64]. Essa was “a close business associate of the Gupta family and President Jacob Zuma’s son” and through this introduction, a series of controversial although particularly lucrative collaborations began (Hofstatter 2017). The most prominent introduction by Essa was made between Regiments and the international consulting firm, McKinsey & Company as this opened the door to a series of relationships with State Owned Enterprises resulting in astronomical returns (Speckman, 2018). Among these parastatals are the currently controversial Transnet and Eskom companies.

In 2014 there were a series of exposing emails obtained by the Financial Mail known as “The Gupta Leaks”, in which correspondence came to light showing that the Gupta family planned to buy a 50% stake in Regiments (Financial Mail, 2017). The details are disputed although the three Regiments partners were never all present at one time in a series of secret Saxonwold meetings [65] discussing the future for the company (Hofstatter, 2017). Tensions rose within the company as this collusion was taking place and a sense of distrust began to grow both within the company as well as in the public eye. According to the Financial Mail the Gupta’s plan to take control of Regiments “fell through after a meeting held at Saxonwold in April 2015, attended by Pillay, Wood and [Rajesh] Tony Gupta” (Madonsela, 2016). At this point, tensions were high between partners and after “several acrimonious meetings” the cracks began to show and the partners split in two directions (Hofstatter, 2017). Nyonyha and Pillay remained to continue Regiments, while Wood and Essa left to take over the – existing but small – financial advisory firm, Trillian. Pillay had been in charge of the property development for the company and remained in charge of the Kgoro Central development. It was at this point in time that the project surged forward with the implosion of the municipal buildings.

Although there were several corroboration cases against Regiments Capital, these were temporarily eclipsed during the next few years as Trillian began to flourish. After the Regiments split, Eric Wood and Salim Essa took the major parastatals with them to Trillian and just a few months later, in December 2015, Trillian received its first deposit from Transnet of R93 million [66] somewhat distracting from the previous corruption cases (Hofstatter, 2017). Regiments suffered from this split as the parastatals were no longer paying for any further advisory roles – contractual or otherwise. Hofstatter reported this to have contributed between R200 million and R300 million to the company’s annual revenue and it disappeared in an instant. The company was still caught up in the investigations following the “Gupta Leaks” emails and the emerging shock of a potential State Capture against the Gupta family (Munusamy, 2016). These legal proceedings were allegedly heavily taxing on Regiments both in terms of public opinion as well as legal fees and preoccupation with the cases. At the beginning of 2018, journalist Asha Speckman, reports that Regiments have “retrenched just more than a quarter of its 66 staff members, and more cuts are possible” (2018).

Although the Gupta story took the country by storm, it was not the only deterrent to the development's progress, as partner Nyonyha describes, "we've just been having endless uphill" (2018). At the same time as the Regiments-Trillian turmoil, the project team was struggling to obtain an approval of the Site Development Plan [67] (Anon, 2018e). There were issues with both the development's neighbours Liberty Holdings, owning and operating Nelson Mandela Square, as well as the tenants of the Gautrain Management Agency. According to an anonymous member of the Kgoro professional team, the speculative basement encroached

[65]

These were meetings at the Gupta family house in Saxonwold, out of public scrutiny.

[66]

According to Madonsela's *'Report of the Public Protector'*, this is more than the total company's revenue from the last two years combined (2016).

[67]

Anon, 2018e refers to a member of the Kgoro Central professional team requesting to remain anonymous.

on the Nelson Mandela access roads and as a result Liberty opposed the SDP. This occurred in 2015, relatively far into the approval process and caused a substantial obstacle. This was eventually resolved through a legal process although the following year, in 2016, the Gautrain Management Agency also protested the structures prescribed in the Site Development Plan (SDP) and too, refused to consent to the document (Anon, 2018e). There had been countless discussions had with Bombela – the private operations management company – although the provincial local operations authority – Gautrain Management Agency – were seldom included and understandably took offense to this (Anon, 2018e). They therefore required amendments to the SDP before giving consent.

These delays to the SDP approval process were costly in both money and time. There is the possibility that the time delays provided the greatest obstacle for approvals when in August 2016, the Democratic Alliance won control of Johannesburg in the local elections (Macharia, 2016). There is little evidence publicly available, although there is the opinion that the SDP plan would have been easier and quicker approved by ANC ruled officials than by the new DA ruling authority (Hofstatter, 2017). This may be as a result of the connections made through the Gupta family, the relationships with State Owned Enterprises and certain members of the ANC party, discussed in the Public Protector's "State Capture Report" (Madonsela, 2016). There really have been "endless uphill" for the Kgoro Central Development (Nyonyha, 2018).

[Present]

Current State of Context

The power struggles over the last few years have had the potential to bankrupt Regiments and challenge the means for a development as big as Kgoro Central. Furthermore, the court processes are still ongoing and there has not yet been clarity released on the extent of corruption within the respective parties. However, the process has defaced the Regiments Capital brand name and reputation (Hofstatter, 2017). Speckmann reported in BusinessLive, that the banks recently approached for loans in the last two years were reluctant to lend "citing [Regiment's] lack of property development experience" (2018). There were also certain property development companies interested in a partnership for funding, but wanting to "take over and give the consortium a managerial fee for construction", to which Regiments refused (Speckman, 2018). The lack of trust makes it increasingly difficult to begin a joint venture for development.

All of the above circumstances have substantially influenced the fact that the proposed site is still empty, locked behind a palisade fence in one of the most valuable locations in the country. This value is both monetary and societal – there is a constant demand for space surrounding the transport centre and there is inherent value in the future socio-spatial potential. An abundance of people surround the site daily and a presence across classes and demographics exists around this “no man’s land” (de Villers, 2018). The nature of unoccupied territory brings about

additional possibility as the space is undefined and almost unlimited. The land is currently locked in a socio-political struggle and the longer the development is stalled, the more difficult it will become to release it. There have been years of input and millions of rands invested into this grey zone and it needs to be unlocked.

If Regiments Capital received the tender out of political connections, it seems they have split with Trillian. If this is the case, the current development faction would be out of political favour. This is major incentive for a politically orientated municipal power to take control of the project and unlock the speculative development. A collaborative reconceptualization of the precinct is necessary, to favour the civic centre once more whilst simultaneously developing an increasingly productive private arena surrounding. A reimagined *Kgoro Central* proposal has the potential for public support and the necessary political ties once again.

[Present & Future]

The Capital Capitol

In a contemporary context, Kgoro Central has hit a series of major obstacles and as a result the development process has come to a standstill. The manner in which the project developed has left Regiments Capital seeking a partner for future collaboration and this affords a local authority an ideal opportunity for meaningful intervention. This intervention engages with 200 000m² of new built bulk with the potential for a far-reaching impact across many layers of society. This is the opportunity to engage with the source of issues rather than treating the symptoms. The legal battles following allegations of ‘State Capture’ and Gupta corruption will continue to unfold, however these deal with the manifestations of past issues. Disciplinary action will still occur for the relevant parties but this process cannot stagnate the rare opportunity that is the Kgoro Development.



figure 5,8. Current State of site, as seen from the Sandton Library. One of the greenest sites in Sandton.

[68]

The Sandton Public Library, Nelson Mandela Square and newbuilt Gautrain super-basement are the only built structures on site.

The site is currently landlocked by conflict and withholds its inherent potential. Although it currently looks like a scrapyard, there is so much more to the site than immediately meets the eye. The Kgoro Development has taken ten years to progress to its current point, and the precinct now exists in a speculative world between the existing structures on site [68] and the future plans for construction. There has been ten years of time and money placed in the creation of a potential energy for the development with its future undefined. This potential energy cannot be ignored in the reconceptualization, both for the possibility of public-private collaboration, but also for the attempt to minimize wastage of available resources. The richness of the future proposal is the many layers through which the development already exists.

The opportunity exists in two different contexts from which to draw influence and engage with. On the one hand there is already a burgeoning speculative capitalist development envisaged to bring in an estimate of 12 000 people (Swanepoel, 2016) every day to inhabit the space. These speculative spaces have already been developed and considered, as well as heavily invested in. However, on the other hand, there is also the opportunity to manipulate this existing context to a substantial extent. There is hardly ever the means for a new development to fully take control and re-envisage an existing precinct, although in the proposed scenario this is a necessity. It provides a true opportunity for an actual public private partnership both for development as well as operation. Although Regiments Capital have put in the vast majority of legwork, the involvement of a local authority is still required.

The proposed intervention aims to take control of the speculative landscape but only as a means to improve it for both the private as well as the public interests. This is achieved through the prioritisation of collective spaces through a range of accessibility. Privatised interests have an increase of resources from which to choose and as a result there is an increase in opportunity for the general public. This opportunity is meaningful, but far more significant than merely business orientated. The manifestation of a sense of place and belonging with the potential for engagement into the capitalist system is the beginning of a dialogue for greater inclusivity.

Rapid development forces the conscious architect to change focus in terms of planning and evaluate the long-term investments while realising the immediate necessities. Architecture and the built environment has the potential to mould social interactions through the physicality of social orders. Even through the digital revolution, sociocultural space will remain necessary to utilize the value of social capital in physical human interactions. This is the opportunity for an immediate positive impact to be shared between the private players and the general public, especially those currently excluded and ignored.

There is no such thing as a simple context anymore, every “landscape is politicized” says urban artist, Julie Mehretu (2017) and the resultant architecture needs to engage in this. The Capital Capitol takes the form of a state mediator, to facilitate progressive socio-economic development at the centre of the emerging Sandton CBD. The force of governance has been slowly pushed away, by privatised profit-based incentives. However, a turning point has been reached where traditional feasibility studies based on a ten or twenty year return are no longer a viable method for calculation within an economy increasing in its rate of productive change. The scope now has to broaden and this is where the role of a progressive interface will be vital.

figure 5,9. Stadia, I, 2004, Julie Mehretu, depicting the complexities of a politicized landscape.

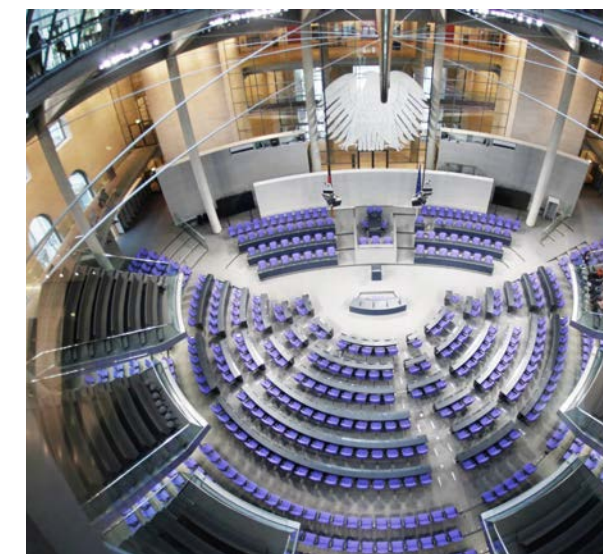
Artwork further edited and landlocked by author.



figure 5,10. The Reichstag dome viewed from the parliamentary seating below



figure 5,11. The German Parliament viewed from the public terrace above



The city hall and taxi rank are known and established typologies, however need to be confronted for reintroduction into the Sandton business context. These two programmes historically acted as a mediating force for equilibrium in the rapid state of Sandton’s development, but were phased out as they were perceived to be wasting precious resources available for growth. In this instance, the land occupied by the council precinct was the most immediate of resources, exponentially increasing in potential value – monetary value and opportunity cost. The reproduction of these spaces therefore, acts as a politicized statement for the redistribution of resources and a redefining of priorities within the ‘suburb of wealth’. Members of the population will be prioritized by the reinvestment in public facilities and the creation of truly public space as facilitated by the holistic transport interchange and city hall respectively – as well as in the new combined hybrid programme. These typologies were removed for what was deemed a productive revolution, however the limitations of this singular business perspective are increasingly evident. It is ironic and unfortunate for all involved, that the pursuit to optimise space by privatisation has resulted in a landlocked zone for none.

There is now a necessity to invest in human value, across the tiers of society and the reintroduction, and celebration of these politicised mechanisms - the previously phased out civic centre and taxi rank – denote a power shift in the business district. A politicised statement is also made in the combination of the two new anchor tenants – the transport interchange and city hall. Traditionally there has been a very clear distinction between those ‘governing’ and those ‘governed’. This is an outdated notion that has been challenged many times in the last two decades. Novelist, Alan Moore, epitomised this in writing; “People shouldn’t be afraid of their government, governments should be afraid of their people” (1988). This was a provocation for an anarchist vision, although these post-war tendencies have revolutionised political thinking for a progressive future (Moore, 1988).

This is already evident in the German Parliament, Reichstag renovation in 1995 by Foster + Partners. After a tumultuous sociological history in Berlin, the new vision for the Parliament Building presented an alternative perspective. The public and politicians now enter the building together, through the same celebrated entrance before the public rise up to the rooftop looking down onto the parliamentary proceedings (Foster + Partners, 2018). Ongoing shifts in perspective are currently taking place. The combination of city hall and transport interchange re-engage in this dialogue discussing how dissimilar layers of society can be combined for a revitalised confidence in the City of Johannesburg’s mandate to provide for all its people (City of Joburg Property Company, 2018). All of this occurs within the integral capitalist context, with an ability for meaningful change.

The proposed discussion comes at a time, where capitalist forces have stumbled and require alternative direction in realising the inherent potential of a precinct development. This can now be reconceptualised for a dialogue of new social order in Sandton. “New social relations demand a new space” and in a society of increasing inaccessibility, the new spatial order can communicate intrinsic governing theories (Lefebvre, 1991).

figure 5,12. The current landlocked state of the site.
No man’s land behind the palisade.



[Future]

[69]
Keynesian economics is further discussed in ‘*Form Follows Finance: To Beat Capitalism with Capitalism*’ and refers to the use of government spending as an instigator for general consumption and investment within the economy

Conclusion

A new civic infrastructure is therefore proposed. The resultant three-dimensional landscape is imagined as an extension of the public realm both up and downwards, challenging the traditional vertical boundaries between public and private. A public building has the potential to take control of the privatised precinct and create a sense of belonging for all within a traditionally semi-private realm. A Keynesian reinvestment [69] by local authority is the proposed manifestation to stimulate the general public, acting as a catalyst for holistic reinvestment from the surrounding population. The architectural manifestation acts as the Keynesian investment and a politicised statement for inclusivity as well as to empower the general public through their respective self-interests.

The insertion of ‘The Capital Capitol’ into the speculative ‘Kgoro Central’ precinct begins a future dialogue at a grand scale and the comprehensive intervention must therefore take advantage of all contemporary tools available. A pioneering approach is required for a contemporary project reimagining a Post-Capitalist future architecture. There are countless technological advances constantly developing and to ignore these would simply be counterproductive. The rapid rate of change within the architects’ toolbox, should be exploited in the conceptualisation of something new. Computation design, additive manufacturing and material engineering are a few of these indispensable tools to be utilised (Larson, 2018). Additionally, a shift in the people and workforce will be an equally important consideration when discussing the shape and form of the future. This is the politicised statement necessary to be made by private developers and a local authority to instil a new sense of confidence in the public domain.

Due to the nature of the programme and future vision for the development, there is a necessary level of sustainability required for construction and operation. The optimisation of materials and processes are vital in order to reflect the rationale for intervention – the progressive inclusion of the maximum human resources available. This heightened productivity will provide the development with its main aspect of sustainability, as people are reiteratively invested in, with a minimum ongoing exertion.

Transport infrastructure is a primary focus and an irrefutable requirement to be considered. An efficient agglomeration for all tiers of society at the civic centre is vital. An integrated transport system, beginning and ending at the precinct is possible since the vast majority of infrastructure is already present. Furthermore, the people and monetary rationalisation for the introduction of new systems is already in place. The taxi rank and transport interchange merely act to consolidate the existing with a new potential, tying a comprehensive system together and celebrating it.



figure 5,13. [left] The 2016 and current development proposal with the author's conceptual intervention indicated and inserted into the centre of the precinct while spreading out from within

A public transport system not only gives access to the poorer few but provides an increasingly valuable service to all layers of society, by increasing efficiency within a context strangled by congestion. The prioritisation of the comprehensive system is necessary both to incentivise alternative modes of transport as well as to optimise the routes and systems in place.

The overall precinct also needs to consider the passive provision of comfort for its inhabitants in order to maximise productivity. This is achievable through a multiplicity of considerations for synergetic relationships between new materials and existing conditions. Massing of the programme is fundamental to the resultant performance requirements and provides additional rationale for the submersion of programme below the natural ground. The nature of massing within the overall precinct is also significant for the external space between and within the internal facilities.

The overall development of 200 000 m² offers the opportunity to integrate various systems for a fully integrated solution. A trigeneration plant is proposed to provide electricity, heating and cooling for the entire precinct. While trigeneration plants have historically been considered more efficient than functioning off the grid, this efficiency is still limited in the requirement that the building's power needs to remain on 24 hours of the day [70]. The Kgoro Precinct is the perfect candidate for the introduction of a plant as power is needed across the different programmes at all hours of the day. From the office opening at 7am, to the end of the hotel night shift at 7am, the plant will shift usages between programmes, drastically decreasing consumption. A trigeneration plant is not the only way in which to optimise energy between the buildings, but it is the beginning of an integrated system sharing the respective loads. This integration is critical to the future of energy in both the Kgoro Precinct as well as surrounding Sandton development.

In the production of a new civic centre, it is vital to provide a robust and sustainable landscape with the potential to further adapt semi-autonomously. The nature of the precinct provides an oscillating future potential as the various building develop at slightly differing rates for dissimilar means. The Capital Capitol is proposed as the anchor for the civic precinct and will be necessary to act as a statement reinforcing the progressive and productive future vision. A reconceptualised sustainability comprises a vital component of this vision. This is to include an ecological and energy efficient approach to construction and operation as well as the continued social feasibility for a full range of the population. The combination of these two notions and an increasing productivity for economic development provides the City of Johannesburg a necessary development plan for a synergistic vision. It has come to the point, where the socio-economy can no longer afford to ignore existing potential for future revolution.

[70] Trigeration plants have traditionally been used for commercial office developments. The first two instances in South Africa are the MTN Fairland offices and the Standard Bank head offices – both of which have their lights on all 24 hours of the day (Moodley, 2013)

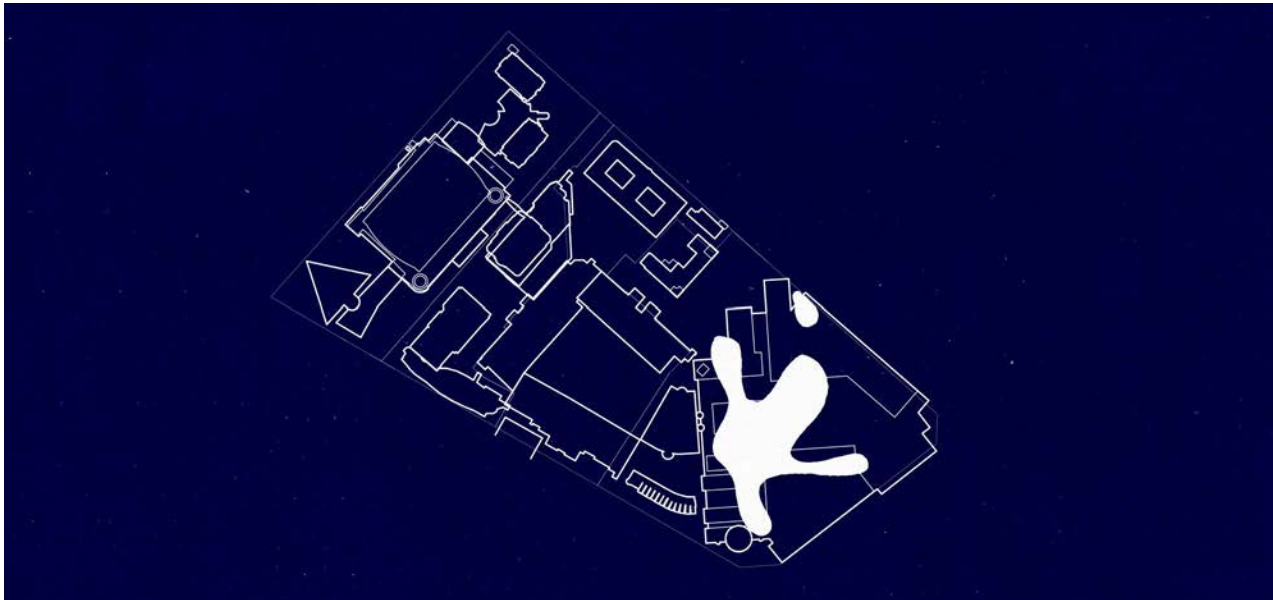
figure 6,1. The people in a city provide identity within the glazed context and as a result are the primary informants within the design brief.



6 DESIGN BRIEF



figure 6,2. An early blueprint sketch imposing the Capital Capitol concept into the surrounding landscape



6 DESIGN BRIEF

Design Objectives

From its inception, the Capital Capitol was proposed to be inserted into the Kgoro Central speculative development. It is to enable and unlock the inherent potential within the precinct and the property, both physically and conceptually.

The incursion into the speculative development therefore sits predominantly within the existing parameters, only in certain instances breaking away from and reconfiguring aspects of it. Redefinition occurs primarily with regard to communal spaces and the interface between the public and private. The existing programme and respective areas of both the speculative and physical structures on site will remain the same but are to be supplemented in a manner complimentary both to their respective function, but also for a comprehensive integration within the rest of the precinct. The added facilities include a variety of spaces ranging from purely public to semi-private throughout the development, extending vertically upwards and into the buildings.

The public instances are to connect the different ends of the spectrum of Sandton inhabitants, as a means to provide the poorer ends with greater opportunities and the corporate opposite with the necessary access to a diversity of thought. These connections are vital for a future productivity, especially with regard to innovation, and the proposed '*third place*' provides a spatial investment for both the economic growth as well as a challenge on the vicious cycle of inequality. The semi-private spaces added thereafter provide a junction for collaboration between the separate programmes within the private development. This is an investment in efficiency for the overall precinct and an opportunity to be seized at this early stage of planning.

Considerations are to be made for the respective profit-driven private developers in an attempt to portray a productive manner for collaboration. However, the resultant precinct is still proposed to exist as a civic centre sitting at the heart of a semi-private mixed-use development.

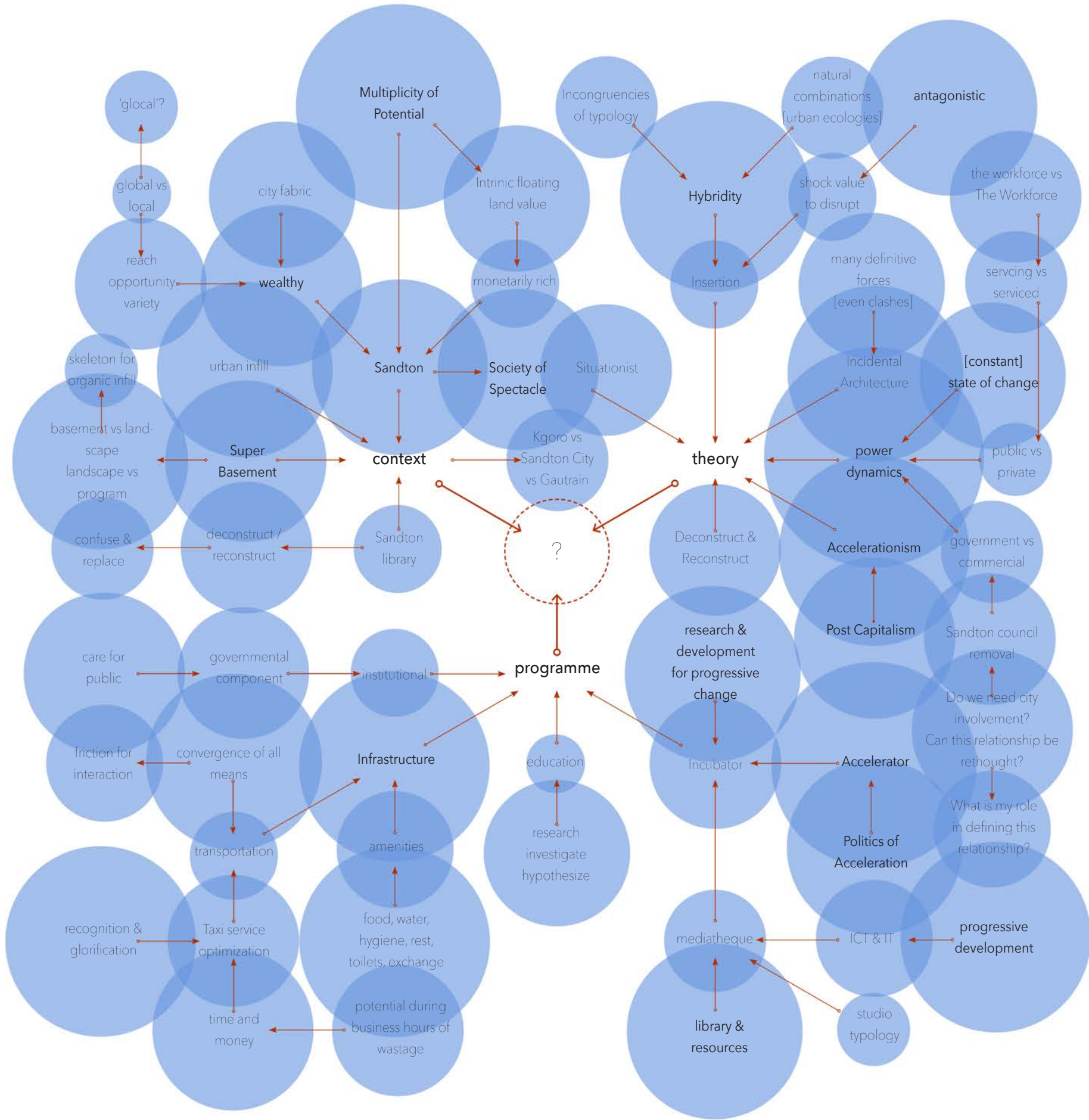


figure 6,3. [left] An early mind map from April 2018 depicting concept and approach.

At this point in the process the project was undefined and the anchor programme was still unknown. The brief was fully defined by the desired outcome for a challenge on the existing system for meaningful change. Connections between concepts are shown here as well as the importance of the notion - as indicated by size of surrounding circle.

[71] An existent social capital to be invested in and thereafter capitalised upon resulting in mutual benefit.

[72] 'Production for Reproduction: Conclusion' discusses the notions of an inclusive society resulting in a productive and innovative economy.

[73] These are newly proposed administrative offices, without facilities in the old centre.

The nature of the civic programme aims to cater for a general public previously disregarded and in this respect the vision of the Kgoro Central proposal will be challenged. These two above approaches are to be combined for an increased inclusivity for heightened productivity within Sandton [71].

The Capital Capitol is ultimately a reconceptualization of city infrastructure within the reimagining of a significant unbuilt development. It is a symbol of support for a democratic civil society within the business district and symbolic of a place of belonging for all. The design brief is therefore an insertion to combine civic place and corporate interests for both public and private Sandton inhabitants.

Design Scope

The proposal aims to achieve the above objectives through the maintenance of the socio-economic equilibrium for a fairer experience surrounding the site today. There are a multiplicity of corporate powers rapidly growing the Sandton business district, however the city governance is fast disappearing. This marginalisation of local authority for private interest puts pressure on the nature of a democratic civil society and this has become tangible in the lived experience of Sandton today [72]. The scope for the proposed intervention is therefore a civic insertion to provide for the tiers of society currently ignored. The location and nature of this insertion will create an incursion to the socio-economic equilibrium for those less powerful within the context. Corporate powers will inevitably be challenged although retain the capacity to assert themselves back into the balance. These private powers are predominantly self-sufficient in their operations and growth.

The Capital Capitol intervention is a single building within the precinct, but placed at the heart of the development to influence its surrounds for public benefit as well as widen the limited corporate perspective for evolution. The design also considers the public space created and affords this a far greater contribution than previously proposed. The public space is to be lowered to street level for a greater accessibility and reduced boundaries for the public. The design scope is above all for a statement. A project in favour of the public individual within the increasingly privatised capitalist system.

Spatial Programme

In Johannesburg, there already exists a traditional civic centre located in Braamfontein - housing the administrative headquarters of the city. The function of the existing centre is not proposed to be relocated but rather supplemented by a new building with additional services. The new civic centre is to accommodate a series of overflowing facilities from the Braamfontein headquarters [73] but moreover to shift the city's focus to a human scale and prioritise the democratisation of



figure 6,4. [left] A developed mindmap depicting design brief from June 2018.

As the programme developed so did the mindmap in illustrating more specific goals and focusing the brief for an optimized outcome. This map depicts the inception of the Civic Centre as the anchor to combine and achieve the surrounding notions.

[74]

This is Sandton, Alexandra and their surrounds

socio-economic means. This will alleviate pressure from the existing centre as well as begin a dialogue with the development of a better future. The Sandton location is vital for the necessary economic restructuring as the suburb continues to rapidly develop. The two locations are to function individually but collectively, spreading the presence of a conscious local authority through the city. The City of Johannesburg Region E [74] offices are currently located on the outskirts of the suburb in a shared office park complex. The offices mainly contain departments offering payments, enquiries and applications for new connections. The marginalised location of these services is not necessarily an issue, but the fact that the city presence does not seem to have a place within the central business district has proven problematic. In addition to this the old Sandton Building Council building was demolished when the offices relocated to Braamfontein and the Sandton Central Management District currently rents office space from ERIS Property Group. These are two symbols of the local governance being pushed out and becoming irrelevant – or at least perceived to be so. As a result, the existing Region E offices are proposed to remain as and where they are while the Sandton Building Council and the Sandton Central Management District are to be relocated to the centre of the suburb – within the Capital Capitol.

The primary function of the Capital Capitol is to provide Johannesburg with a reconceptualised infrastructure. This is the infrastructure of movement, in the traditional sense regarding the movement of people as well as in the future orientated vision through the movement of ideas. Vital components of these two infrastructures seem to be disregarded or ignored within the city, even though a comprehensive infrastructure is an integral part of any functional society. A holistic public transport infrastructure that facilitates movement all people in a city is a necessary and a celebrating the intersection of transport mechanisms has the potential to unite a variety of people within society. Sandton and the Kgoro Central site in particular are located at the socio-economic centre of the country and so beginning a new infrastructure here will have profound repercussions.

The core programme to celebrate the movement of people exists in the interface between transport means. The Sandton Station has begun to integrate the Gautrain with the Gaubuses and is currently providing for a temporary inclusion of the minibus taxis. If this were to be solidified the future result would be a full interchange slowly spanning throughout the tiers of society. The Rea Vaya bus route has also been proposed with a stop right outside the station and there is still a plan to provide cycle lanes throughout the suburb. As a result, Sandton Central should soon be accessible from almost all corners of the city. This intersectional space is therefore something to be celebrated. The Gautrain super-basement is proposed to be renovated for the integration of the above-mentioned transport means. In addition to this a series of amenities and resources are to be provided to encourage interaction, optimise time spent within the interchange and provide a comfortable experience within this agglomeration point.

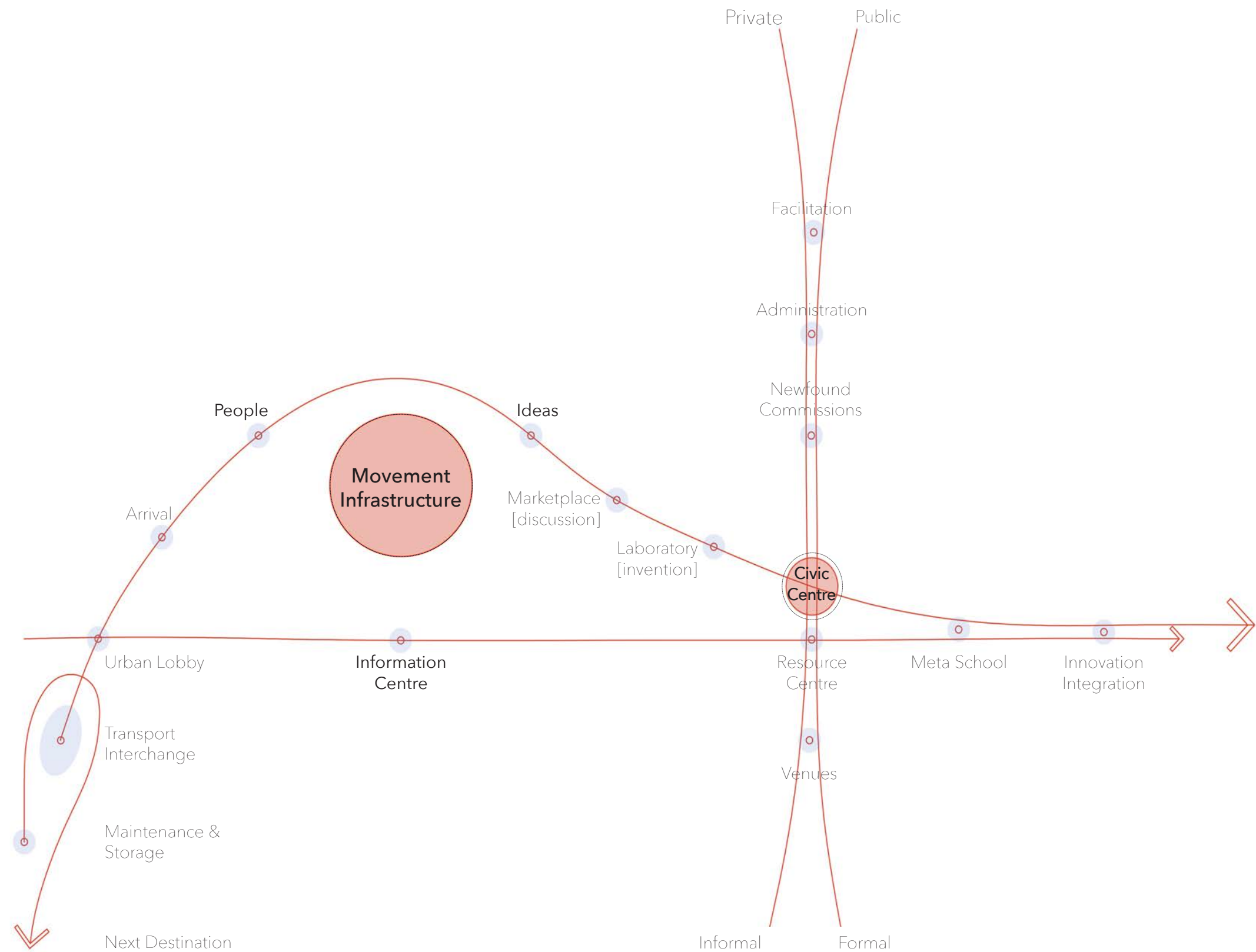


figure 6.5. [left] The refined mindmap for the Infrastructure of Movement, July 2018.

The Mindmap is further simplified in order to gain clarity for the project and the programme - both practically as well as conceptually - is defined as a reconceptualised infrastructure anchored by a new civic centre,

[75] It will essentially be reliant to the DHET and imperative to the GEDA. This investment is fundamental to the economy's continued growth as it further expounded upon in '*Mobility of Ideas: Evolution through Revolution*'.

[76] These are discussed further in '*Mobility of Ideas: Movement of People*'

A transport interchange is therefore the first core programme for this Capital Capitol proposal.

Once the transport interchange has been established the proposed precinct will be the first thing many people experience within Sandton, Johannesburg or even South Africa. The first facility to begin the spread of knowledge is an *information centre*. This is envisaged as both an experience as well as an informative exchange. The information centre is multifaceted for a variety of purposes and people, and is managed by the City of Joburg (CoJ) as part of the Capital Capitol.

The next component to the Capital Capitol is a government Meta School. This is an educational facility for the short-term courses where one can go to learn the skills to adapt and develop - necessary within the rapidly evolving context. The Meta School is proposed to function through a joint venture between The Department of Higher Education and Training (DHET) and The Gauteng Economic Development Agency (GEDA) [75].

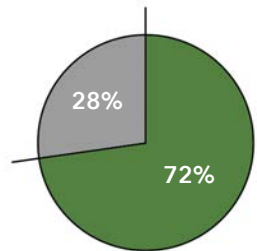
Those managing the above facilities are not merely teachers nor receptionists - in the cases of the School and Information Centre respectively - but rather public servants in creation of a new infrastructure. As mentioned, these individuals will come from the CoJ, DHET and from the GEDA and will require offices as part of the compound. These offices will also facilitate a series of new economic and future orientated commissions established in the State of the Nation 2018 [76]. Office typologies are constantly changing and the local authorities to advance our society cannot be hindered by outdated facilities. The proposed offices are therefore designed specifically for the productivity and collaboration between tenants and form another core component of the programme.

In order to continue to develop and progress society from a governing perspective, there will also be a new sector established within the Capital Capitol. This is a 'Think Tank' and is tasked with operating a Marketplace Laboratory for discussion, collaboration and innovation. It is a component of the office programme, but with its own individual mandate and far greater accessibility.

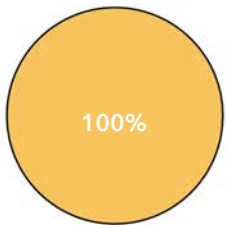
However, the anchor tenant of the Capital Capitol is a new City Hall facility. This is the piece of infrastructure to bind everything together through a collective presence within the precinct. A series of discussion halls for a variety of uses and inhabitants portrays a depiction of the future incursion. Once again this is not a traditional city hall and is to provide a tangibility to the prioritisation of the public individual. This holds everything together and provides the substructure for the various infrastructures to be created and operated within the precinct.

There are two types of work for the realisation of the Capitol;
Alterations of existing space and new-built structures.

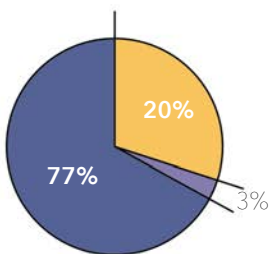
Alterations and incorporations of existing
Existing Function



Future Inhabitants [clients]
Johannesbug Property Company [CoJ]



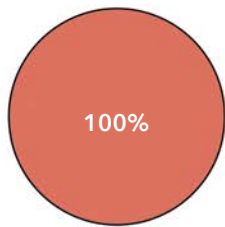
Future Inhabitants [clients]
Gauteng Economic Development Agency [GEDA]
Johannesbug Property Company [CoJ]
Sandton City Improvement District



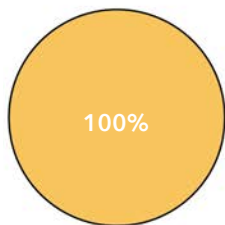
Accomodation Schedule

	People	Area	Total
Transport Interchange			12000m ²
Taxi Holding and Maintenance		2200m ²	
Terminals - Arrival and Departure		1500m ²	
Police Station		500m ²	
Information & Reception		600m ²	
Fabrication Workshop		850m ²	
Internal Roads		3000m ²	
Retail		1650m ²	
Ablutions		200m ²	
Waiting Space		1500m ²	
Existing Infrastructure to be utilised			4500m ²
Gautrain Station ground floor interface			
Retail facilities, Streetshops			
Existing Internal Roads			
Total Existing Spatial Programming			16500m ²
Cityhall			1735m ²
Foyer	-	50m ²	
Reception	-	50m ²	
Security Control Point	2	15m ²	
Multipurpose Hall	300	500m ²	
Plenary Hall	100	300m ²	
Commission Hall	20	50m ²	
Outdoor Venue	500	500m ²	
Political Activity Meeting	50	100m ² (x2)	
Press Room	50	70m ²	
Offices			1790m ²
Ward Councillor	1	20m ²	
Councillor for Public Works	1	20m ²	
Councillors Reception	2	15m ² (x2)	
Councillors Lobby	-	100m ²	
Administration	2	15m ² (x6)	
City Planner Advisory	5	15m ² (x5)	
Legal Advisory	5	15m ² (x5)	
New Commissions:			
Digital Industrial Revolution	10	50m ²	
Presidential Economic Advisory	10	50m ²	
Technosocial Ethics Committee	10	50m ²	
Sandton City Improvement District	12	50m ²	
Commissions Reception	5	50m ²	
Auxiliary Workspace:			
Individual	25	250m ²	
Collective	25	150m ²	
Meeting Facilities	-	40m ² (x4)	
Communal Lounge	25	20m ² (x4)	
Library	25	250m ²	
IT & ICT Centre	15	100m ²	
Kitchen		80m ²	
Toilet		15m ² (x4)	

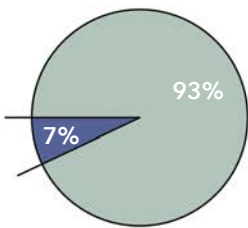
Clients / Future Inhabitants [clients]
'Think Tank'



Clients / Future Inhabitants [clients]
Johannesbug Property Company [CoJ]



Clients / Future Inhabitants [clients]
Gauteng Economic Development Agency [GEDA]
Department of Higher Education & Training



	People	Area	Total
Market & Laboratory			3800m ²
Discussion Hall	100	500m ²	
Listening Rooms	50	75m ² (x2)	
Reading Rooms	20	50m ² (x2)	
Coffee Shop & Canteen	50	500m ²	
Exhibition Space	100	750m ²	
Studio [formal collaboration]	50	500m ²	
Lounge [informal collaboration]	75	50m ² (x4)	
Workshop	10	1000m ²	
Digital Fabrication	5	100m ²	
Information Centre			2305m ²
Reception	2	100m ²	
Gallery	5 - 150	1000m ²	
Consultation	4	20m ² (x4)	
Administration	2	50m ²	
Hot Desk Studio	20	150m ²	
Storage:			
Controlled archives	-	150m ²	
Accessible practical	-	250m ²	
Resource Centre	20	250m ²	
Youth Information Office	4	30m ²	
Social Work Consultancy	4	30m ²	
Economic Consultancy	12	75m ²	
Legal Aid	4	30m ²	
Police Outpost:			
Offices	10	50m ²	
Detention rooms	4	5m ² (x4)	
Clinic:			
Waiting Rooms	10	20m ²	
Reception	1	5m ²	
Examination Rooms	2	7.5m ² (x2)	
Meta School			1905m ²
Auditorium	250	300m ²	
Lecture Halls	30	50m ² (x4)	
Reception	2	100m ²	
Administration	10	30m ²	
Meeting Room	40	20m ² (x4)	
Communal Space [including a lounge area]		300m ²	
Leadership (directors) Office		20m ² (x2)	
Auxiliary Staff Offices		60m ²	
Staff Lounge		100m ²	
Studios [for staff & students]		100m ²	
Library		150m ²	
Canteen		150m ²	
Kitchen:			
Semi-public		15m ² (x2)	
Semi-private		75m ²	
Bathroom		50m ²	
Linked In Local Office		40m ²	
Recruitment Centre		100m ²	
Total New Build			11535m ²

7 SPATIAL INVESTIGATION



7 SPATIAL INVESTIGATION

Accessibility Studies

As previously mentioned Sandton and the business district in particular, are magnetic gathering points for individuals throughout South Africa. This fabric of wealth holds within it an abundance of opportunities and proximity to the district has the potential to further optimise the benefits. The *Capital Capitol* proposes an inclusive space of belonging within the centre of the district as a means for a wider reach of its resultant benefits. Furthermore the proposed site sits at the nexus of a variety of transportation means. This provides the challenge of accomodating and combining the many means, whilst simultaneously denoting a sense of arrival and orientation upon entering the place.

figure 7,1. Johannesburg highlighted in South Africa

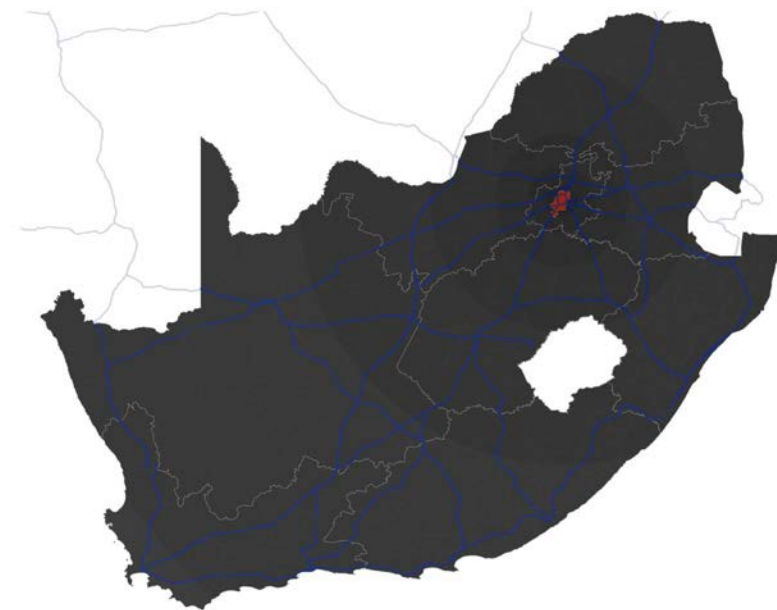


figure 7,2. Sandton outlined within Johannesburg

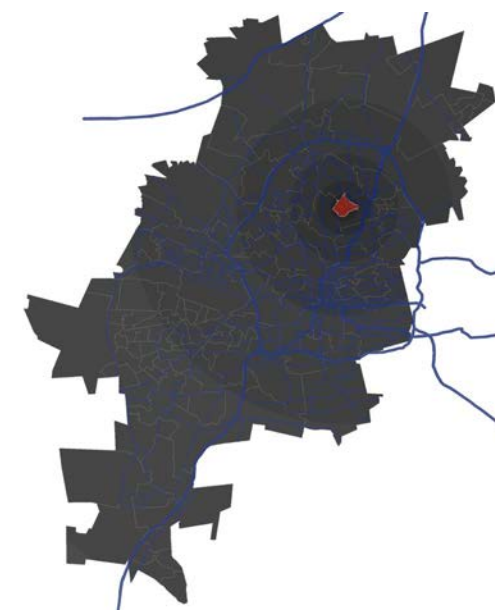


figure 7,3. Sandton CBD outlined in the overall suburb

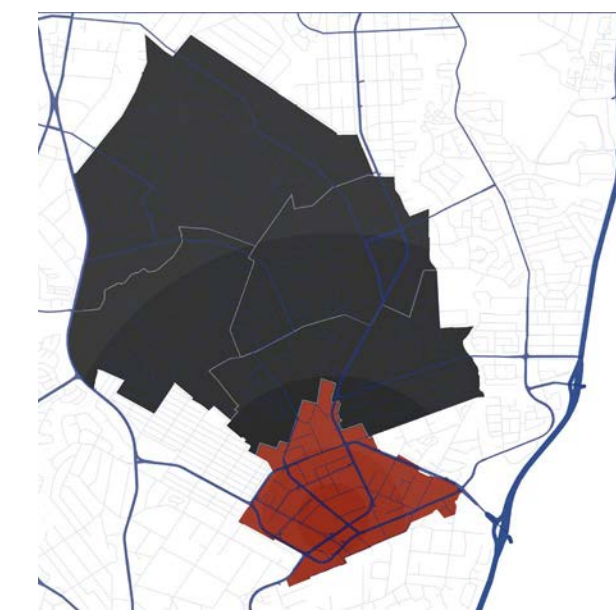
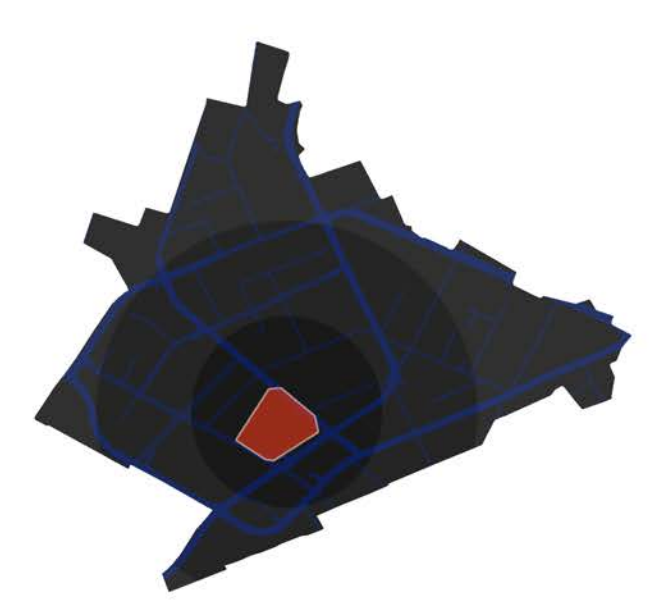


figure 7,4. Proposed Site within the Sandton CBD



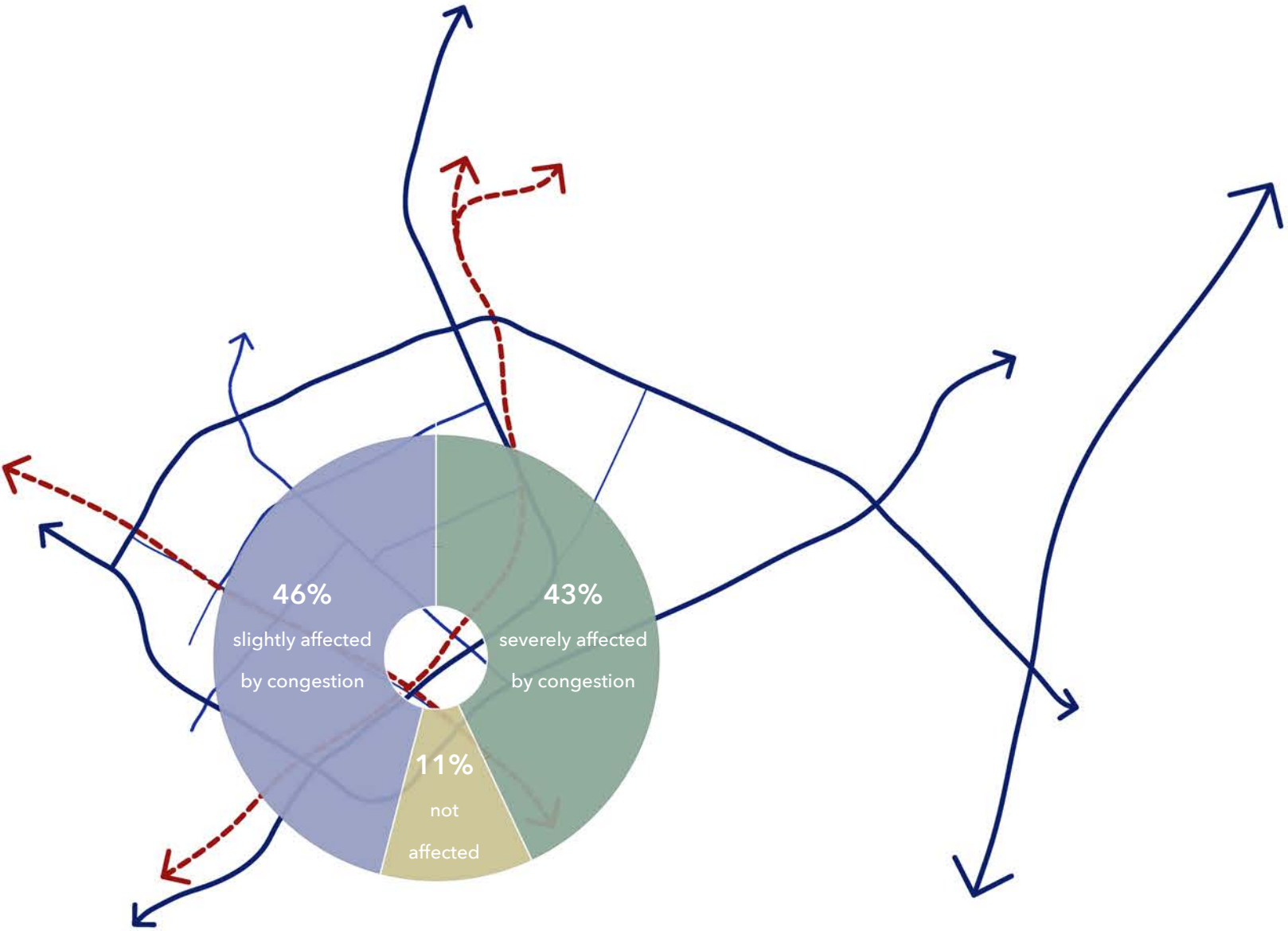


figure 7.5. Traffic studies show the ever increasing congestion in the suburb as building continuously increases.

The new discovery headquarters alone have brought in an additional 8000 people on a series of sites, previously housing less than 1000 (Silver 2018). This is already tangible throughout the day but unbearable aduring peak hours.



figure 7.6. Hierarchy of Roads in Sandton Central

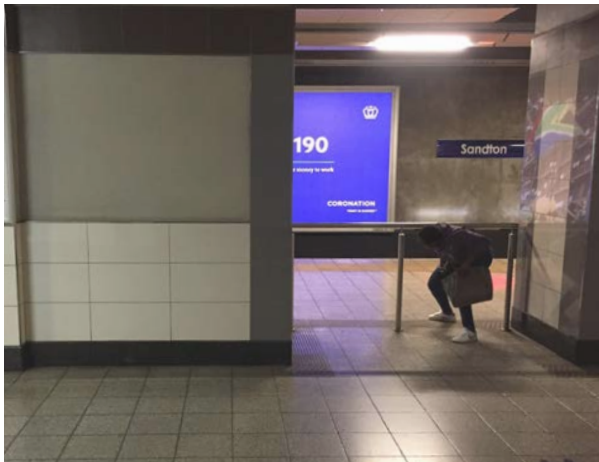


figure 7.7. Sandton Gautrain Movement
[in] human design
2 second intervals

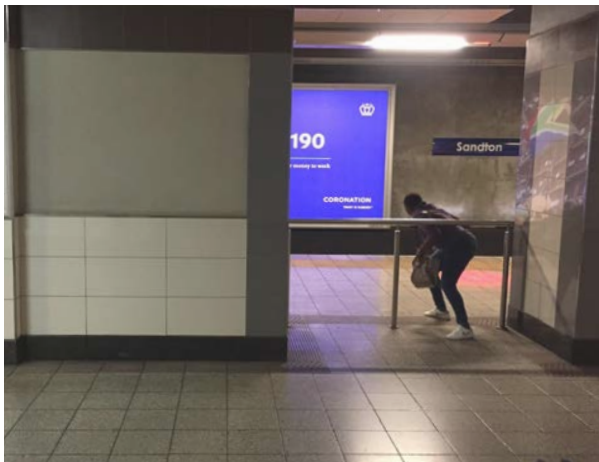


figure 7.8. Train and Bus Stops in Sandon Central
1:10 000

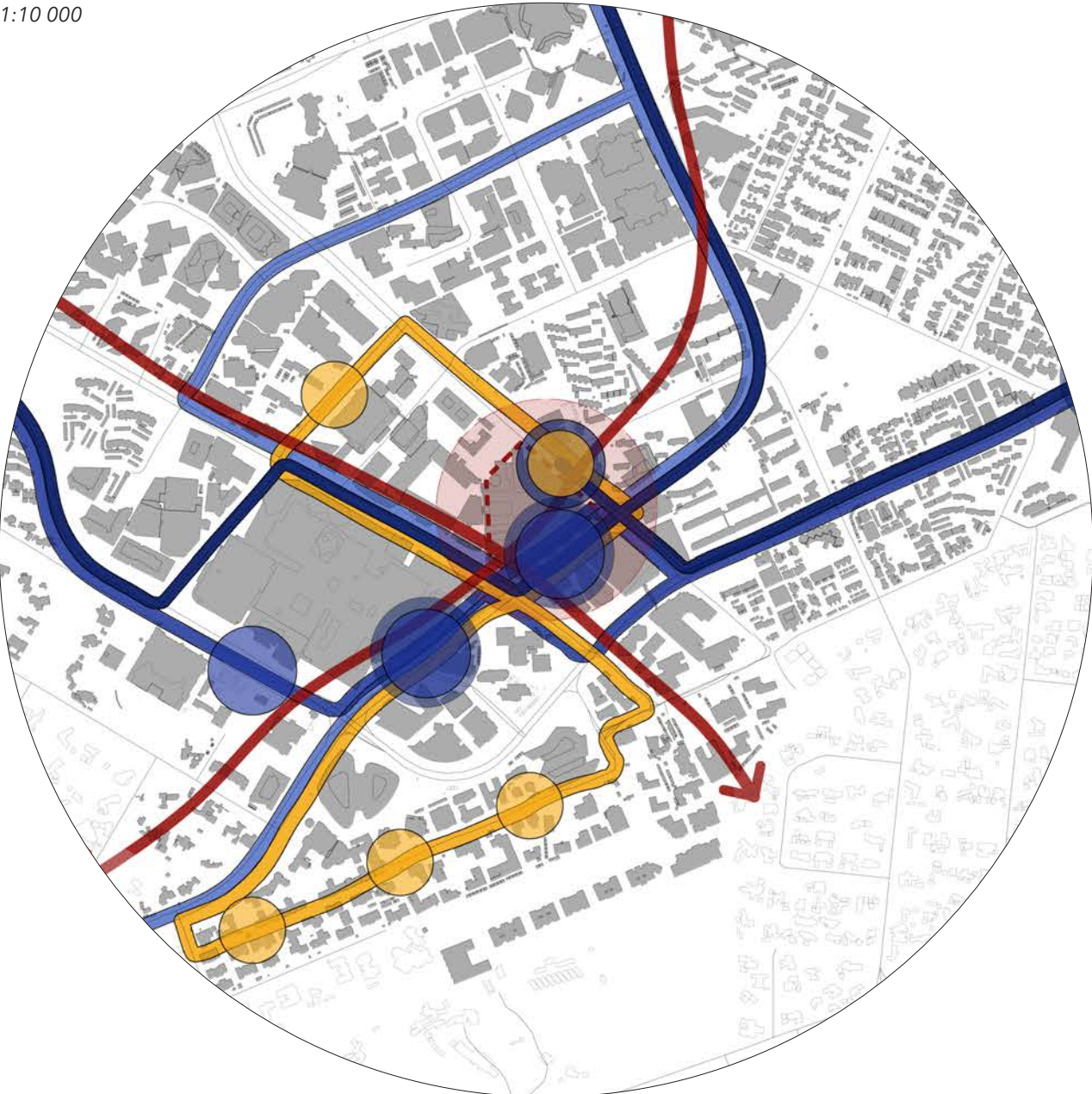
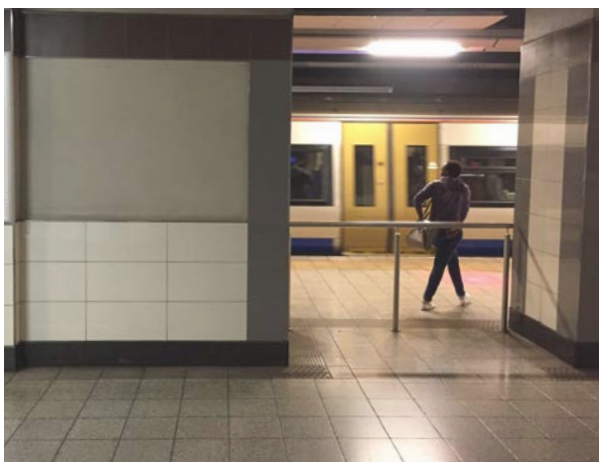
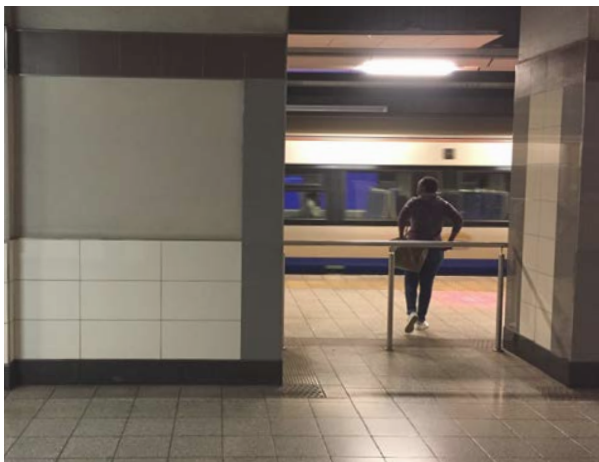


figure 7.9. Train and Bus Routes
1:20 000

- Gautrain Bus
- Rea Vaya BRT Trunk Route
- BRT Feeder Route (kerbside stop)
- Speculative BRT Route
- Gautrain Route



ARRIVAL



07:30:27



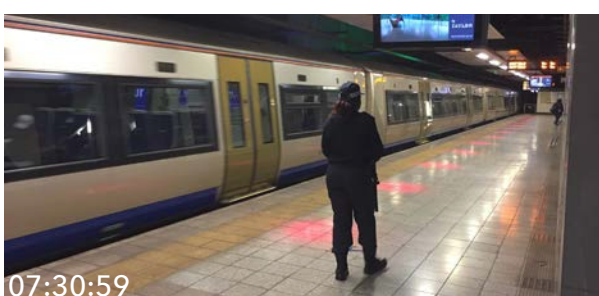
07:30:35



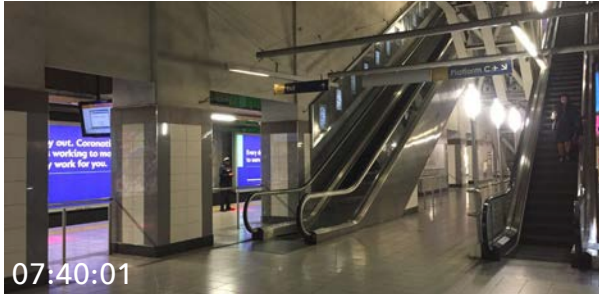
07:30:43



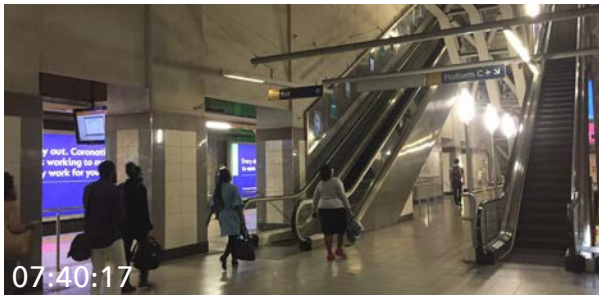
07:30:51



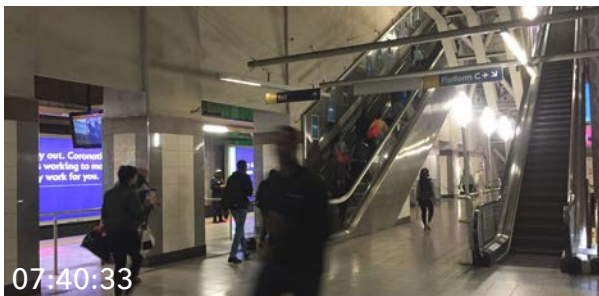
07:30:59



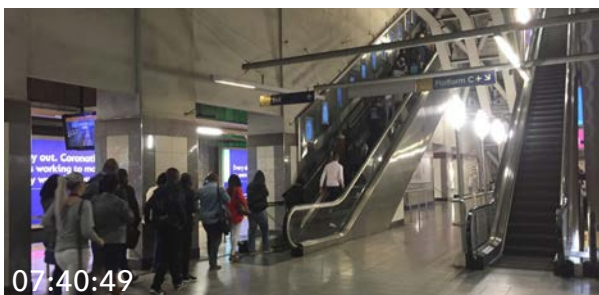
TRANSITION



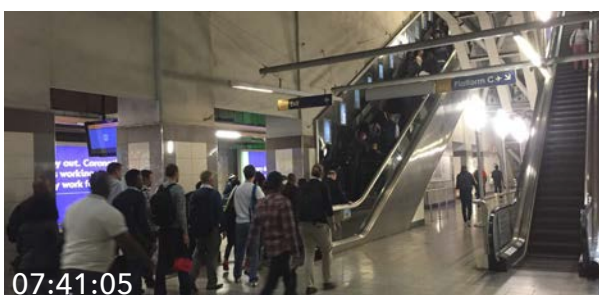
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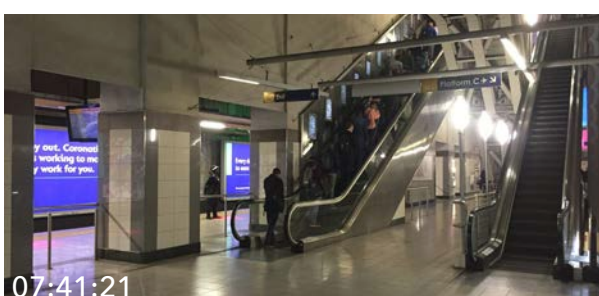
07:40:33



07:40:49



07:41:05



07:41:21



DEPARTURE



07:57:38



07:58:10



07:58:42



07:59:14



07:59:46

figure 7,10 - 7,12. Sandton Gautrain Movement
Friday 4 May 2018

[LEFT] Arrival into Sandton
8 second intervals
very faced paced

[MIDDLE] Transition through
16 second intervals
fast paced

[RIGHT] Departure into Sandton
32 second intervals
medium pace

figure 7,13. Graph depicting the passage paces
determined
by an average of 96 people passing through [04.05.2018]

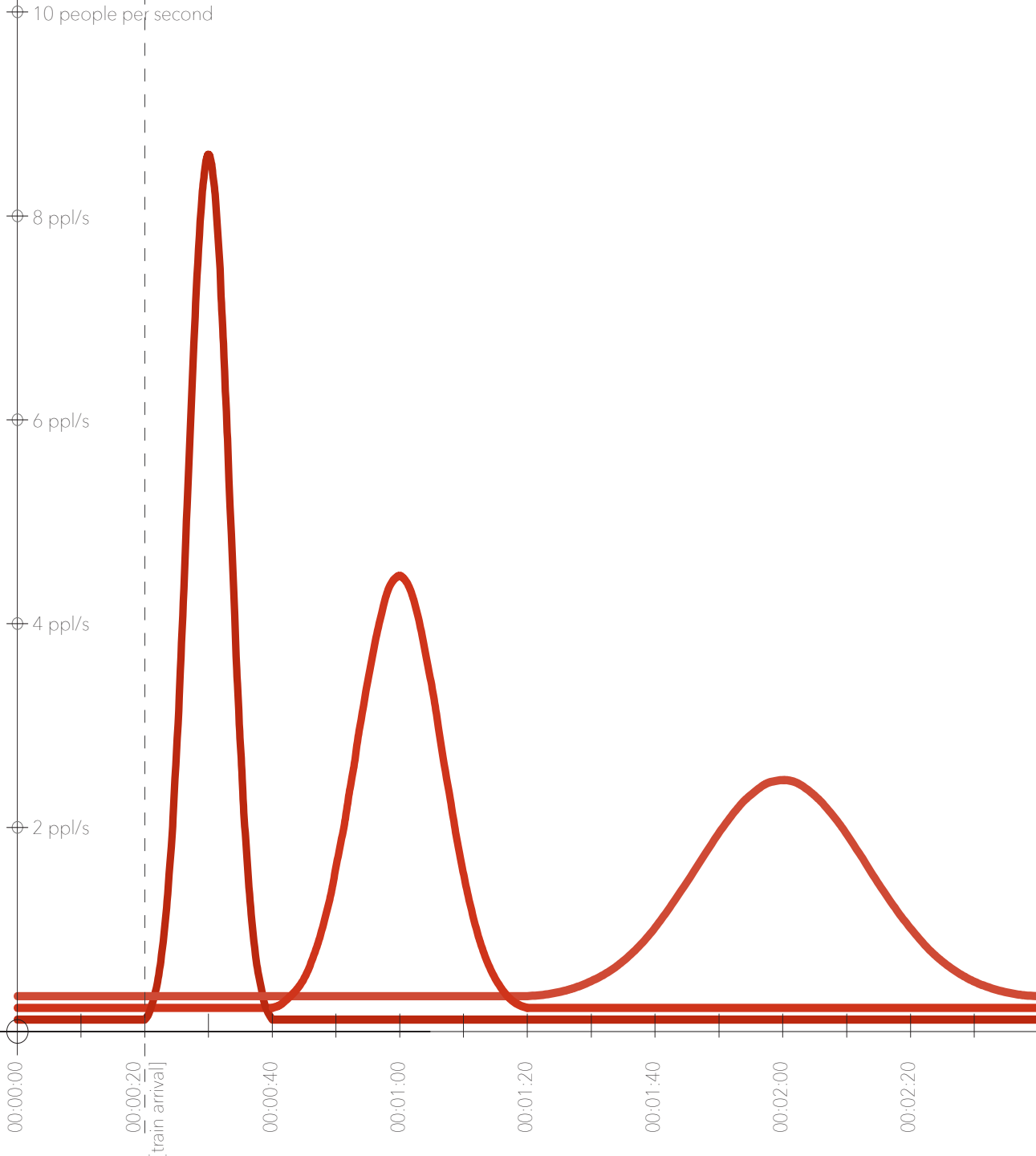


figure 7,14. Stationary man and accelerating Gautrain



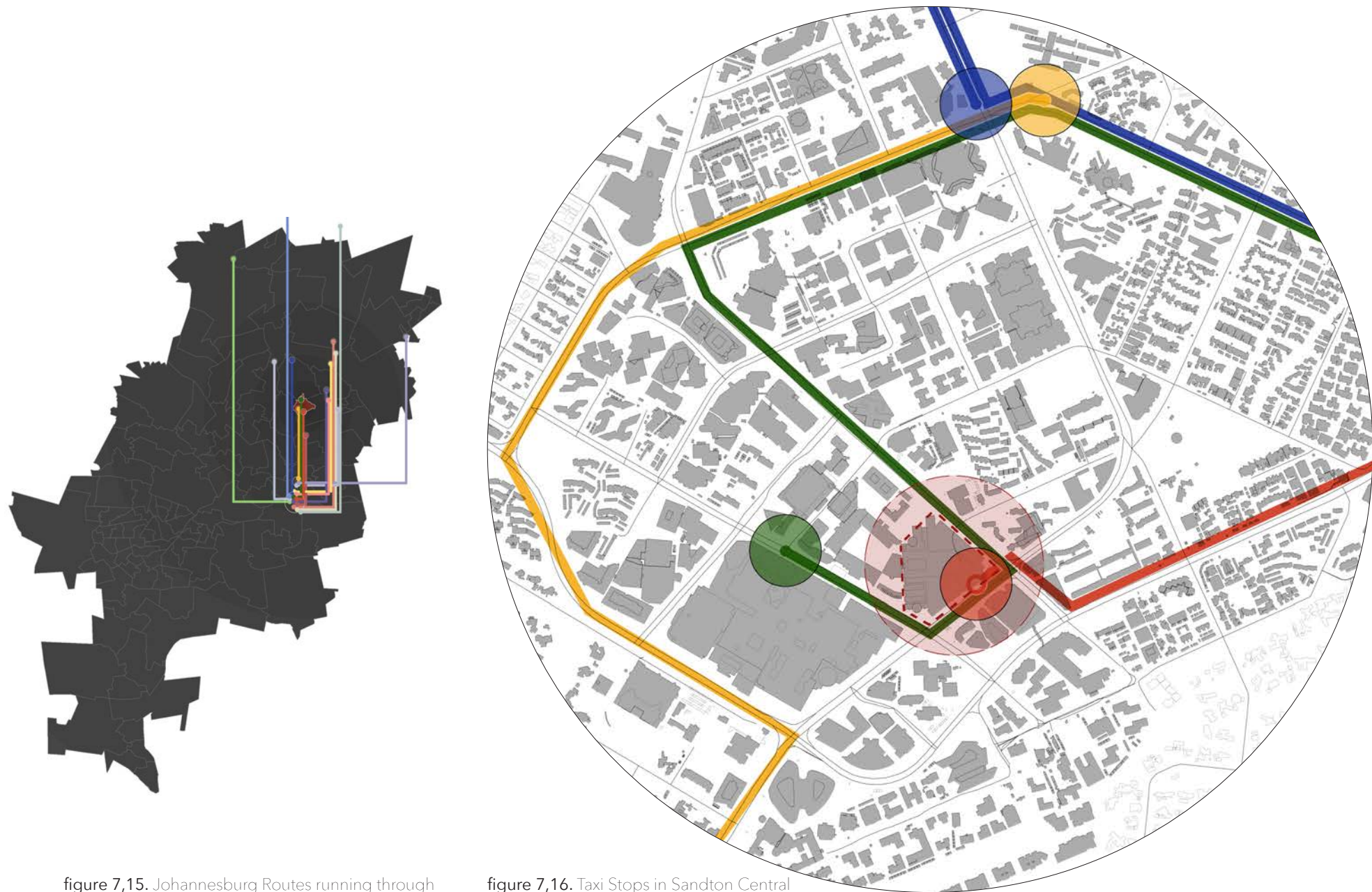


figure 7,15. Johannesburg Routes running through Sandton

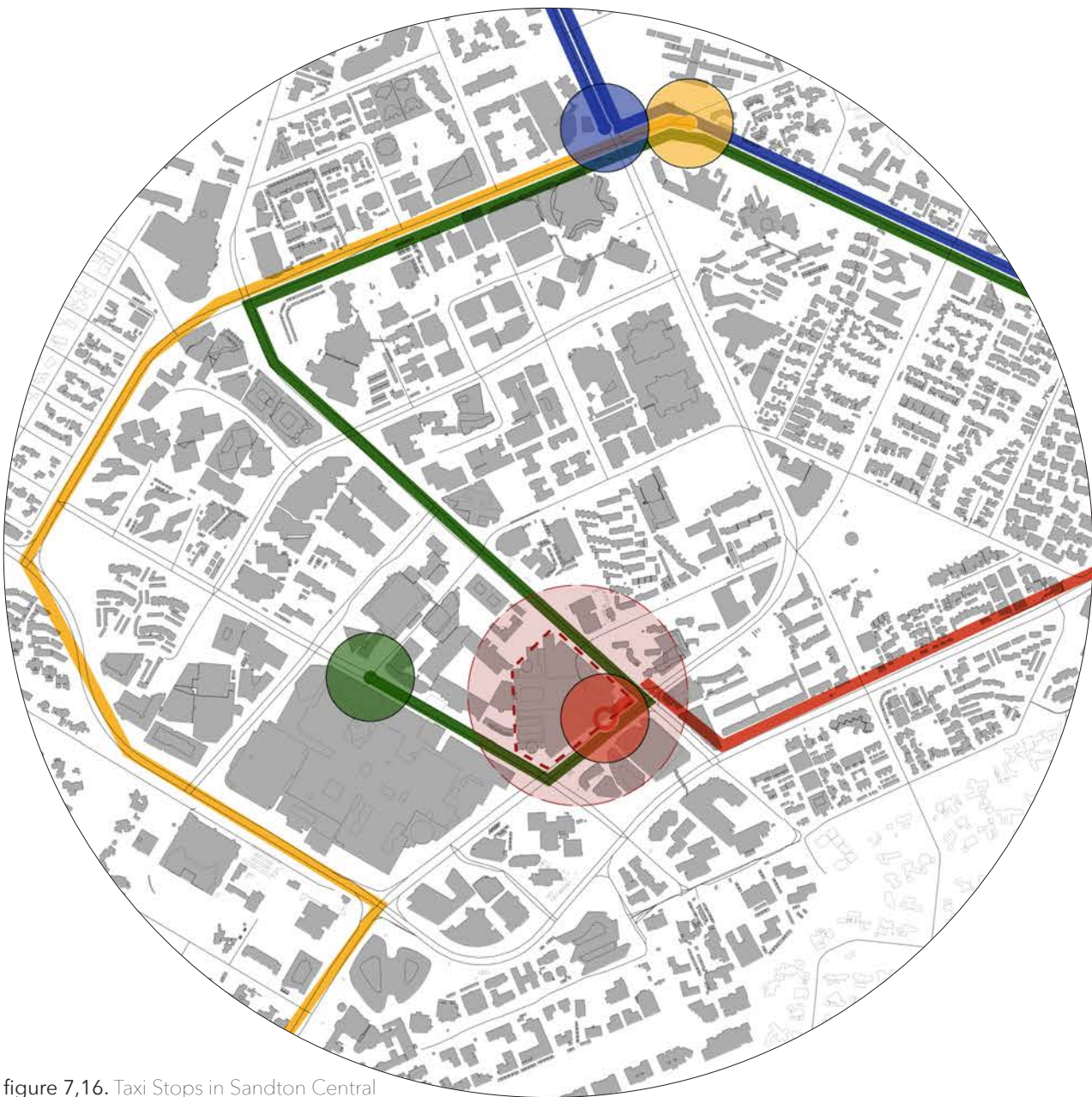


figure 7,16. Taxi Stops in Sandton Central
1:10 000

Alexandra Taxi Association	JHB CBD, MTN Park Central to Illovo	R11.00 / 05h00 - 19h00 / 25 mins (peak) or 15 mins (off peak)
	JHB CBD, MTN Park Central to Alexandra	R11.00 / 05h00 - 19h30 / 35 mins (peak) or 20 mins (off peak)
	JHB CBD, MTN Park Central to Gallo Manor	R12.50 / 05h00 - 20h00 / 35 mins (peak) or 20 mins (off peak)
	JHB CBD, MTN Park Central to Bryanston	R13.00 / 05h00 - 20h00 / 35 mins (peak) or 20 mins (off peak)
	JHB CBD, MTN Park Central to Woodmead	R12.50 / 05h00 - 20h00 / 35 mins (peak) or 20 mins (off peak)
	JHB CBD, MTN Park Central to Diepsloot	R17.00 / 05h00 - 20h00 / 50 mins (peak) or 45 mins (off peak)
AMSTA Association	JHB CBD, MTN Park Central to Sunninghill	R12.50 / 05h00 - 20h00 / 35 mins (peak) or 20 mins (off peak)
	JHB CBD, MTN Park Central to Olivenhoutbosch	R17.00 / 05h00 - 21h00 / 40 mins (peak) or 25 mins (off peak)
Faraday Taxi Association	JHB CBD, MTN Park Central to Pretoria	R40.00 / 04h00 - 20h30 / 60 mins (peak) or 40 mins (off peak)
JITA Association	Tembisa, Olifantsfontein to JHB CBD Park Central	R17.50 / 05h30 - 19h00 / 45 mins (peak) or 35 mins (off peak)
Tembisa Alex Association	Alexandra Pan Africa Centre to JHB CBD Wanderers	R11.00 / 05h00 - 20h00 / 40 mins (peak) or 35 mins (off peak)

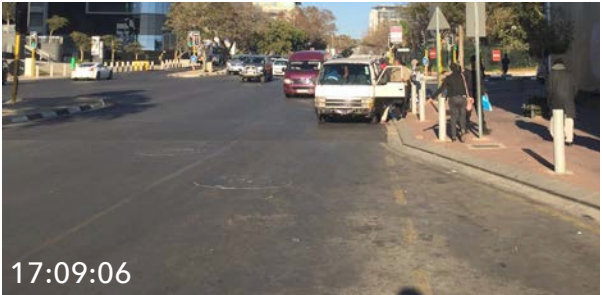


figure 7,17. Minibus Taxi Routes in and around Sandton Central
1:20 000

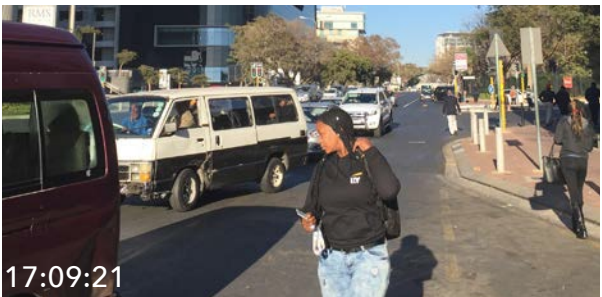
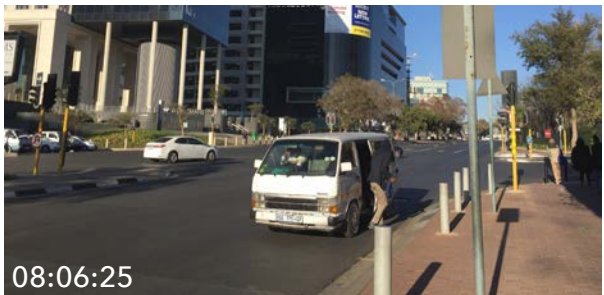
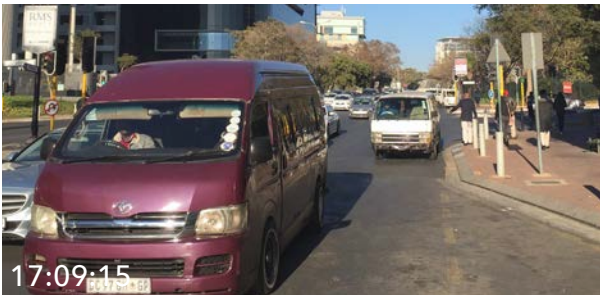
Sandton City Mall to JHB CBD, Park Central	R12.00 / 05h00 - 22h00 / 35 mins (peak) or 20 mins (off peak)	Alexandra Taxi Association
JHB CBD, MTN Park Central to Sandton City Mall	R12.00 / 05h00 - 20h00 / 35 mins (peak) or 20 mins (off peak)	
JHB CBD, MTN Park Central to Morningside	R12.50 / 05h00 - 20h00 / 35 mins (peak) or 20 mins (off peak)	
JHB CBD, MTN Park Central to Kramerville	R13.00 / 05h00 - 20h00 / 35 mins (peak) or 20 mins (off peak)	
JHB CBD, MTN Park Central to Sandton	R12.00 / 05h00 - 20h00 / 35 mins (peak) or 20 mins (off peak)	

figure 7,18 & 7,19. Sandton Minibus Movement
Friday 4 May 2018

[LEFT] Arrival into Sandton
6 second intervals
fast pace



[RIGHT] Departure from Sandton (& 1 sneaky arrival)
3 second intervals
very fast pace



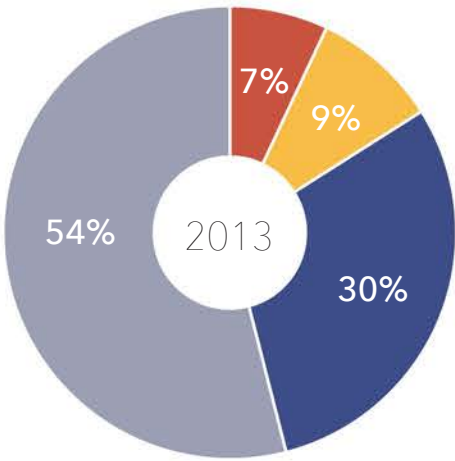
It is important to note that during the morning the vast majority of people are arriving, whereas in the afternoon the majority of trips are picking people up to leave the suburb. There also seems to be an designated pickup point in the same location as the drop off, with people waiting to leave.

figure 7,20. Sandton Taxi's during the middle hours of the day. This extends from 5th Street to Pybus Road along Katherine Street



figure 7,21. Predicted evolution of private vehicles speeds

- 0 - 20 km/h
- 20 - 40 km/h
- 40 - 60 km/h
- 60 + km/h



Private Vehicles in the Business District

The ratio of private vehicles in Sandton to people in Sandton is set to almost double from 2013 to 2017 - from 6.6 vehicle population to 3.6 vehicle population. This is predicted to result in the exponential increase of daily trips. The increase is estimated to change from 2,2 million peak hours trips per day (with an average speed of 34km/hr) to 3.89 million peak hour trips per day (with an average speed of 10km/hr).

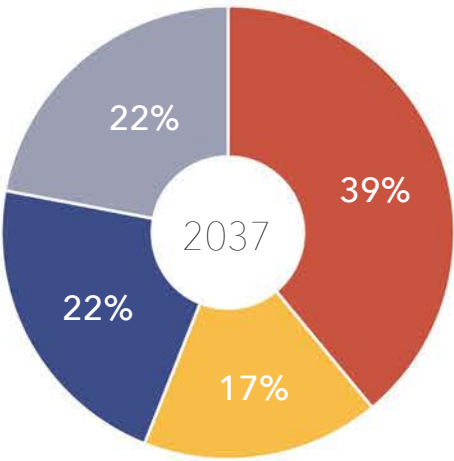
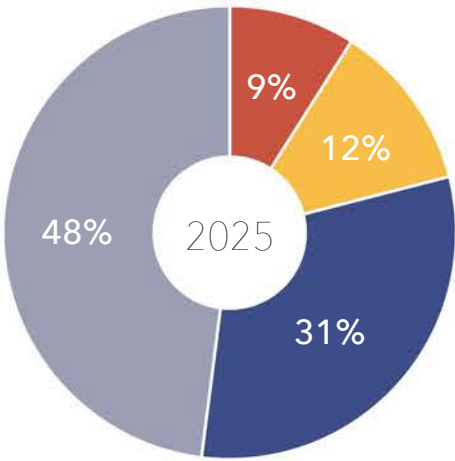
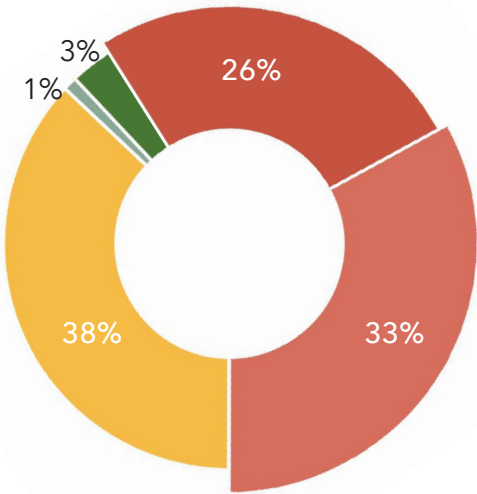


figure 7,22. South African Road Fatalities 2017

- Motorcar Drivers
- Motorcar Passengers
- Pedestrians
- Cyclists
- Unknown



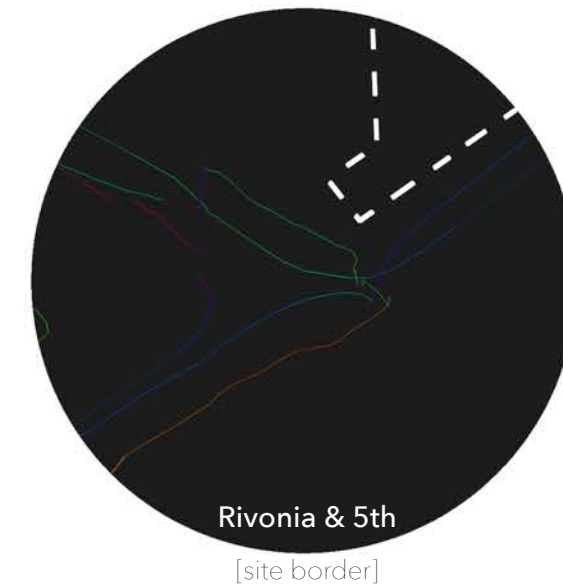
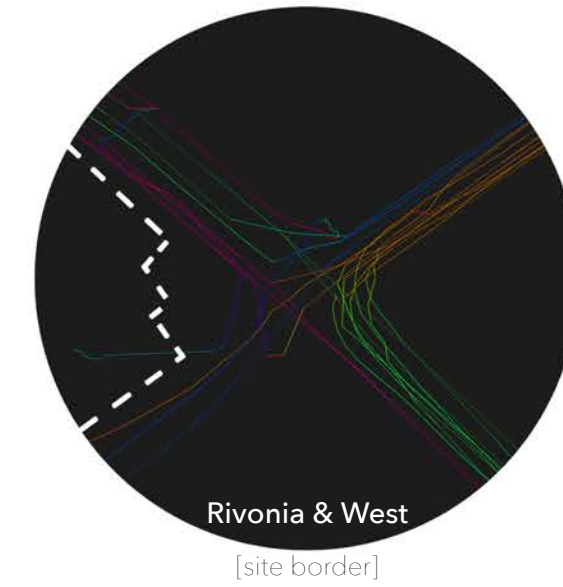
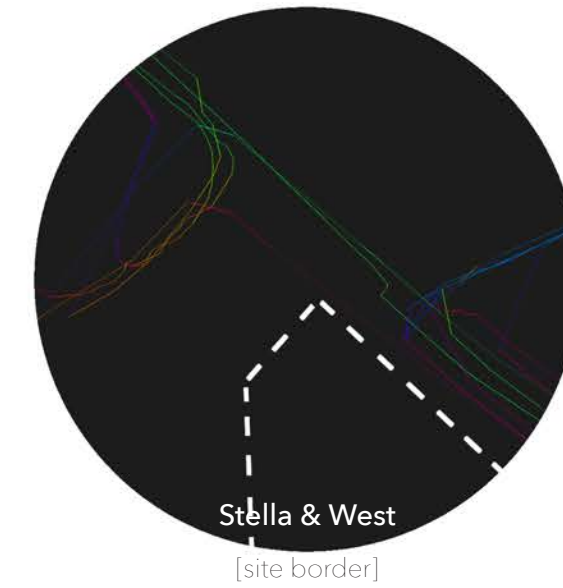
Bicycles in the Business District

There is a particularly large variation with regards to an average commuter cycle speed. According to Strava, the GPS tracking app, an elderly cyclist on an upright road bike might cycle less than 10km/h, while a younger [fitter] commuter would very possibly cycle at twice the speed on the same bike. In Amsterdam the average speed is 25,8km/h, although this is a flat city where the inhabitants grow up commuting on a bicycle. On the other end of the spectrum is Sao Paolo, with a slower 19.3km/h average speed. This is substantially closer aligned to Johannesburg with regard to the elevation one would have to cycle as well as the accessibility of bicycles throughout the population.

Cycling is not yet a particularly common mode of transport in the Sandton CBD, although as traffic continues to worsen, a bicycle offers an increasingly efficient means of transport. While many - especially the Sandton demographic - are concerned about the safety of cycling, statistic show that it is continually becoming safer with a constant increase of cyclists. The increase in traffic provides the perfect opportunity for a shift in mentality with regards to cycling and challenges the generally accepted individual transport in a private vehicle.



figure 7,23. Provisioned Bicycle Routes



Mapping of Flow Direction and Intensity

At almost every intersection within the Sandton business district there are people busy about their day, however there are certain movements through the suburb that flow in specific directions. A pertinent example of this would be the fact that every morning substantially more people arrive from the Gautrain station than depart from it. They are therefore moving away from the station and spreading throughout the suburb, before the opposite occurs after the working day.

This investigation maps the quantity of individual movement through the suburb, but it furthermore identifies the specific directions of flow of people. This is achieved through the manipulation of open source GPS traced geo data received through members of the public travelling with a GPS unit. This means that the flows consider those in a private vehicle, on foot or amongst 30 other individuals in a vehicle equally. This data is collected by the OpenStreetMaps project and owned by ever contributor.

In Sandton and surrounding the proposed site in particular, it is interesting to note that there are certain routes used in one direction with a far greater frequency than others. A pertinent example – as can be seen from corner Rivonia and West – is that West street is used more often to exit the suburb than enter it.

figures 7,25 - 7,27. Intersections surrounding the proposed site are highlighted for closer inspection.

figure 7,28. *Unequal Scenes*

Johnny Miller, 2016

The photograph below depicts the divide between Sandton on the left with Wynberg and Alexandra on the right. The M1 highway cuts a clear division between the different worlds. On the left there are spacious houses and offices divided by tree-lined roads, while on the right there are industrial structures creating an additional barrier to the township in the distance. There is not a tree in sight in Alex – past the Wynberg industrial buffer – with an overwhelming contrast in scale and density.

In the centre of the image The Great Walk pedestrian bridge can be seen in the middle of construction. The bridge is an attempt to bridge the gap between contexts, by improving the accessibility between suburbs. This is significant especially with regard to the safety of the commuters, although it probably cannot alone connect the contexts.

Unequal Scenes

The journey into Sandton is a common daily occurrence for thousands incoming from all corners of the greater Johannesburg surrounds. The business district is, however, dissimilar to almost all of these surrounding contexts – often differing dramatically from each other, although all gathering in the suburb of wealth. Incoming commuters consist of both the Servicing and Serviced contingent of the population [77] with an absolute incongruity of starting points for the journey. Soweto, Diepsloot and Alexandra provide thousands of members for the Servicing needs of the Sandton suburb, while Midrand, Atholl, Houghton and Fourways provide an archetype for the Serviced population. The mere distances between the suburbs on either side of this spectrum depicts a tangible inequality, with the exception of Alexandra. This suburb is sited less than a kilometre from Sandton, although exists in different world.

[77]
As discussed in *‘Mobility of People and Ideas: Movement of Ideas’*

figure 7,29. The journey from Alexandra to Sandton



A daily commute into the business district is estimated to be made by 10 000 people – into Sandton in the morning and out of Sandton in the evening, after completing the prescribed task at hand. This commute only takes on the above-mentioned direction of flow emphasising the singular direction of the relationship in place. The conceptual distance and intense inequality between Alexandra and Sandton will be expounded upon in investigating the duality of overall context and utilized as a case study to increase accessibility in the Sandton suburb.

figure 7,30. District Statistics

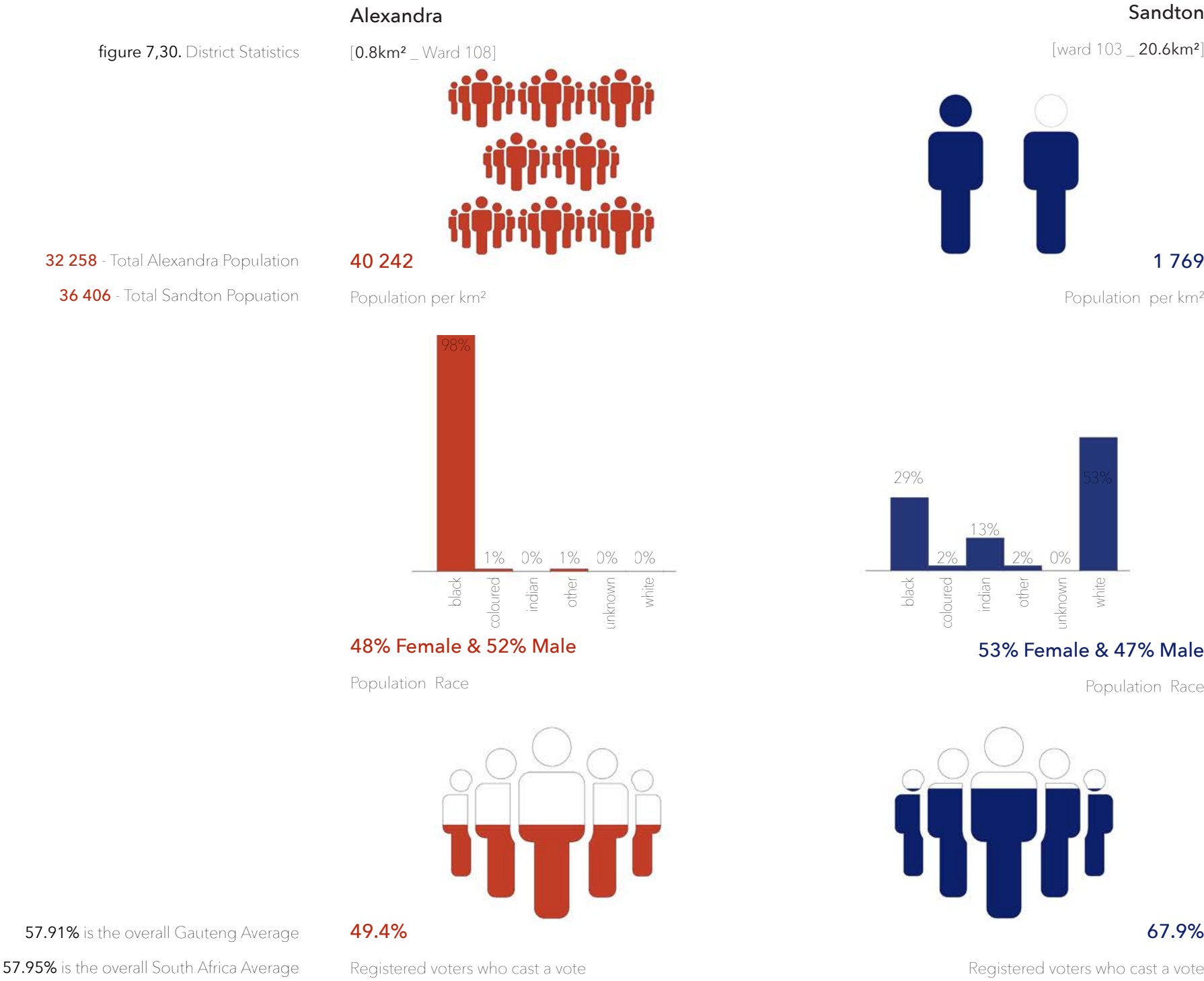


figure 7,31 & 7,32. Tangible Daily Experience

The nature of walking through Sandton [City], above, as opposed to walking through Alexandra, below.

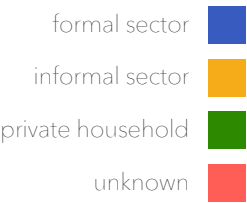
There is a very specific set of perceptions regarding the two suburbs and these define the inhabitants present as well as the manner through which they act. The image above depicts the Diamond Walk within the Sandton City Mall – an almost constantly deserted section of the shopping centre. This houses international brands at an astronomical price.

The following image is an Alexandra streetscape with the Nelson Mandela Interpretation Centre in the background. The immediate difference in landscape is the life on the streets. The photographer did not need to locate any people for a sense of reality to the experience.

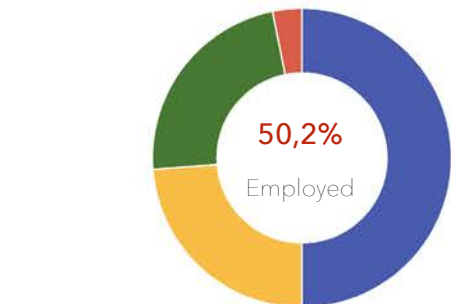
The lack of human density within Sandton is not as extreme as depicted but it is often viewed as such. This is repellent and detrimental to an accessible landscape wherein many people do not – perhaps even *cannot* – engage.



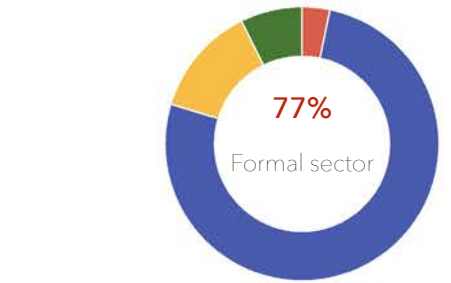
figure 7,30. District Statistics



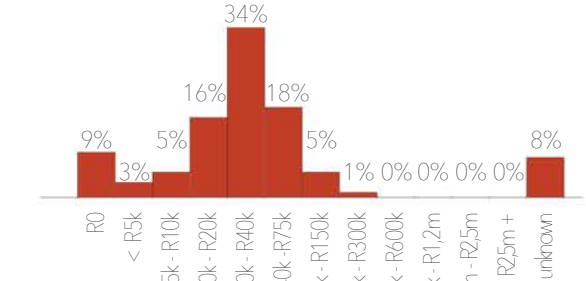
Alexandra



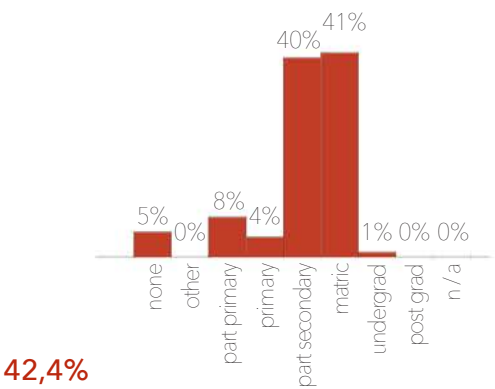
Jobs occupied and available



Occupation Location

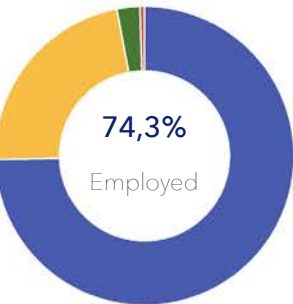


R57 500 is average income across Gauteng
R30 000 is average income across South Africa

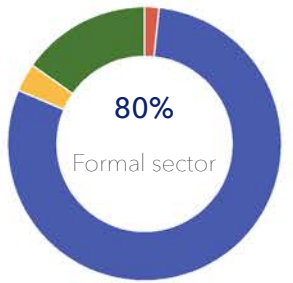


50.82% is the Gauteng Average
39.34% is the South Africa Average

Sandton



Jobs occupied and available



Occupation Location

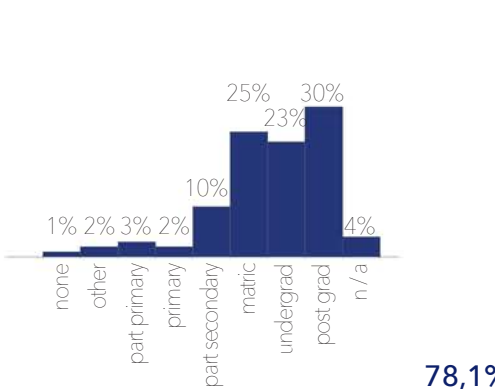
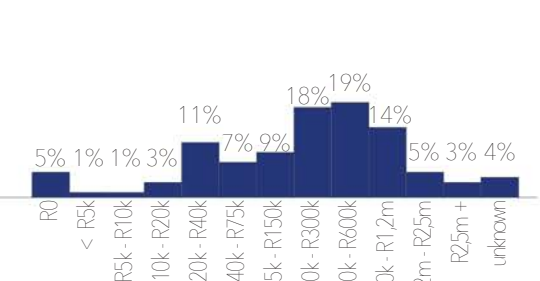
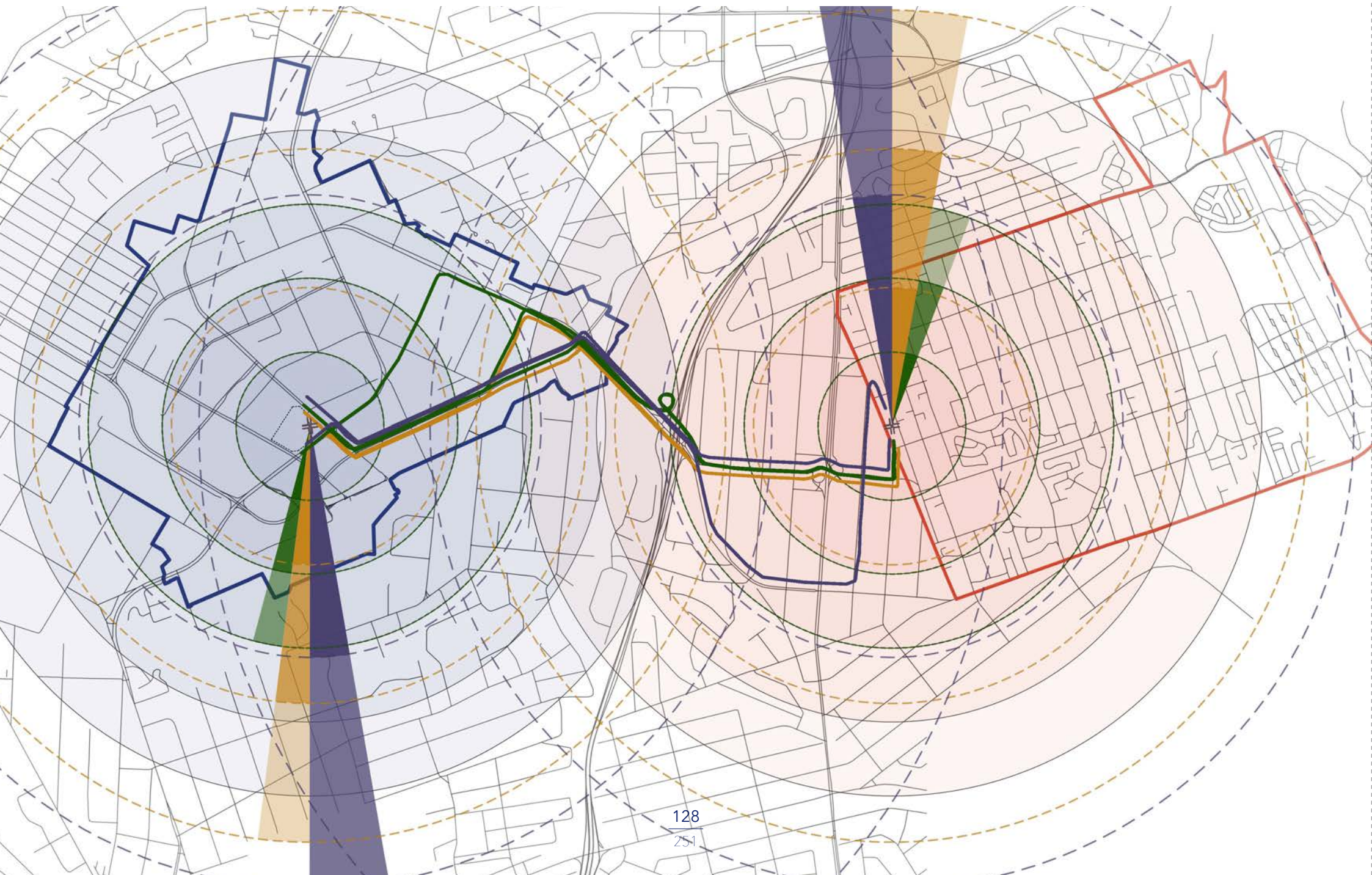


figure 7,33. Transportational connections between Sandton and Alex are compared below. Each concentric circle represents 6 minutes of respective travel time.

1:25 000

Alexandra - Sandton - Alexandra	Alexandra - Sandton - Alexandra	Sandton - Alexandra
Walk	Cycle	Drive
GoogleMaps estimates 1 hour and 4 minutes	19 minutes based on a conservative speed of 15km/hr	GoogleMaps estimates 14 minutes
This is by far the most common means of transport for those from Alex and working in Sandton and a twice a day commute for more than 10 000 people.	Although GoogleMaps insists there is no cycle route between Sandton and Alexandra, this is still a very common means of transport between suburbs.	Driving is the means more accommodated for as one commutes into and through Sandton. However, this is the least common means between Sandton and Alexandra.



Urban Catalysts

Corridors of Freedom

This initiative was introduced in 2013 to physically reconnect Johannesburg through transport infrastructure by creating accessible connections from isolated poorer contexts to major hubs of opportunity. The transport infrastructure primarily exists as the Rea Vaya bus network with a major focus being built along Louis Botha – connecting the Johannesburg CBD to Alexandra Township and thereafter Sandton.

The Rea Vaya is proposed to run directly past the Kgoro Central site to connect into the Gautrain network. This integrated system is vital for the inclusive function of the proposed intervention and a progressive future of the Sandton CBD. The Capitol therefore proposes a statement arrival space for either interchange or as the destination.

figure 7,34. A significant investment has been made in the connection of Sandton and Alexandra both physically and conceptually with two statement bridges built connecting either side of the M1 highway. These can be seen in the image below.



Urban Catalysts

World Ecomobility Festival 2015

According the City of Joburg's Ecomobility Festival Proposal, there are 85 000 motor vehicles moving only 120 000 people in and out of Sandton daily. This proves the notion of private vehicles for individual commuters and is completely unsustainable.

The World Ecomobility Festival was held in Sandton in 2015 in an attempt to promote an 'ecomobile' future within South Africa. It was held in Sandton as the business district provides a pertinent example of rapid growth resulting in intense congestion. As show in *Accessibility Studies* the pace of motorcars is steadily slowing as a result of inadequate infrastructure for a culture of individual private commuters – this is in a context of 6-lane roads to provide for the abundance of vehicle. The only possible future therefore lies in a series of alternative means of transport reducing traffic and increasing efficiency. This was a major aim of the 2015 Ecomobility Festival.

However, sustainability cannot only be a technical intervention as was proven at the festival.

Alternative transport was proposed to be prioritised by limiting the use of private vehicles. The notion of a 'car-free' day was extended and proposed to last a month. During this time no private



figure 7,35. An artist's rendering of an 'ecomobile' future for Sandton



figure 7,36. A sign for a Park and Ride during the festival



figure 7.37. Advertisement for alternative festival transport and activities within the CBD.

vehicles would be allowed into the business district and inhabitants would be forced to use the abundance of promoted public or non-motorised transport.

There was much animosity within the business district as corporates were sceptical of the change to and simply could not afford to waste time or energy for the month. The new Webber Wentzel head offices are positioned right on the border of the business district and petitioned for the 'car-free' area to begin, just after their property (Silver, 2018). This was the beginning of the end as the 'car-free' zone shrunk as more corporate powers removed their premises from the festival. Eventually the zone was insignificant and it was decided that cars would be allowed into the district, but the Sandton inhabitants were rather encouraged to make use of the public transport. As a result of this progression, the impact of the Ecomobility Festival was diminished and life in the most congested South African suburb continues as normal. The power of ecological change is only meaningful if it is socially sustainable. The fact that the big businesses opted out of the festival led to its demise. If one is to change the manner of daily life, the incursion must come from within. The Ecomobility Festival was not a failure as there were certain large events promoting an important message. However, the lessons available to avoid a diminished future movement are more valuable than the change the festival brought about.

figure 7,38. Resultant Ecomobility Festival
1:25 000



figure 7,39. Vegetation and Open Space in Sandton
1:10 000

Open Urban Space



- Public Accessible Open Space
- Semi Public Open Squares
- Planted Zones

- Kgoro Precinct [1]
- COJ Retention pond [2]
- Mushroom Farm Park [3]
- Sandton Central Park [4]
- Inanda Golf Club [5]
- City Servitude - enclosed [6]
- Sandton City Embankment [7]
- The Chamber Lawn & Sandton Signage [8]
- City Servitude- open [9]
- Sandown High School Fields [10]
- City Servitude - open [11]
- Apple Landscaped Lawns [12]
- Intercontinental Hotel [13]
- Alexander Forbes Lawns [14]
- Private Residence Courtyard [15]
- City Servitude - enclosed [16]
- Office Block Courtyard [17]
- Nelson Mandela Square [18]



figure 7,40. Public open space in the City of Joburg Retention Pond - Space 2



figure 7,41. Semi-public square, with security guards patrolling and monitoring activity - Space 18

figure 7,42. [left] Planted Zone semi-private garden & figure 7,43. [right] Planted Zone used as Buffer - Space 7



figure 7,44. Accessibility to Public Space in Sandton
1:10 000



- Influential
- Accessible
- Influential & Accessible
- Enclosed

- Kgoro Precinct [1]
- COJ Retention pond [2]
- Mushroom Farm Park [3]
- Sandton Central Park [4]
- Inanda Golf Club [5]
- City Servitude - enclosed [6]
- Sandton City Embankment [7]
- The Chamber Lawn & Sandton Signage [8]
- City Servitude- open [9]
- Sandown High School Fields [10]
- City Servitude - open [11]
- Apple Landscaped Lawns [12]
- Intercontinental Hotel [13]
- Alexander Forbes Lawns [14]
- Private Residence Courtyard [15]
- City Servitude - enclosed [16]
- Office Block Courtyard [17]
- Nelson Mandela Square [18]

figure 7,45. Accessible Connections of Space
1:40 000



What would the repercussions be of the creation of a new network of accessible open space throughout the central business district?

An acknowledgement and refinement of public, semi-public and semi-private shared space can potentially facilitate a dialogue between users of the suburb for a communal and collective identity. This can also lead to unexpected collaborations between a variety of participants present within the suburb

figure 7,46. Prevalent Connections of Space
1:40 000



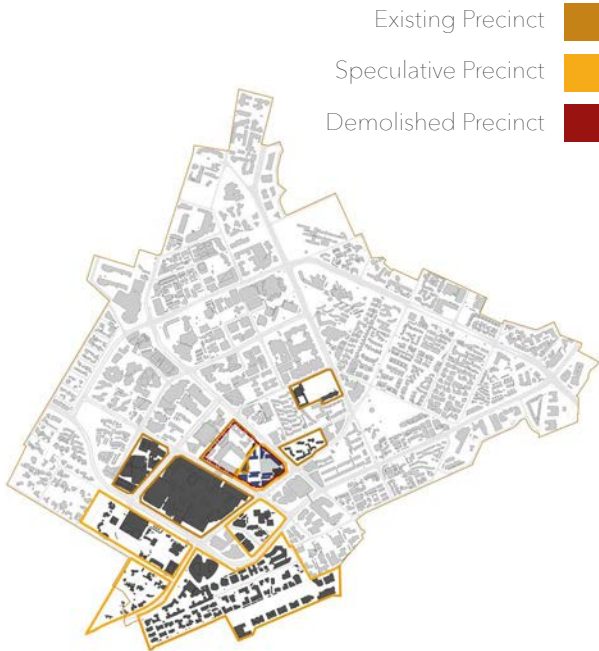
figure 7,47. The potential future fabric of connectivity
1:40 000





figure 7,48. [top] Public Space in Bank City Courtyard
figure 7,49. [below] Semi Public Space in Melrose Arch.

figure 7,50. Surrounding Sandton precincts built as well
as proposed by various developers



Core Inhabitants

Precinct Nature of Sandton and the Necessary Network Between

The Sandton business district development has evolved along with a trend throughout Johannesburg of maintenance through control. This has resulted in a compartmentalisation of facilities in a precinct. Bank City and Melrose Arch are two early examples of the nature of programmatic combination as a precinct.

As discussed in '*Development of a Capital Spatial Economy*', the evolution of the suburb was largely propagated by the development of Sandton City, which has now progressed into its own ecosystem within the district. Village walk – both the previous manifestation as well as the plan for the future – and the Alice Lane precinct followed this precedent from an early phase, defining the way for what appears to be the future within the context. This has the potential to be problematic as the precinct can become increasingly enclosed but with a holistic and democratic operational management it can also become extremely productive.

The Southern Sandton Summit, Arrow Precinct, Core Group and Core Precinct are yet to be developed. The Kgoro Central development thus has the opportunity to propose this functional manner of operation for productive precincts within the city centre – simultaneously self-sufficient



Dissolution and Relocation of Civic Precinct

As discussed in '*Reproduction for Production*', the past civic precinct has been dissolved for the Kgoro development, and as a result various components have been displaced or disregarded.

figure 7,51. [right] After the civic precinct was dissolved
the taxi rank and council facilities were demolished and
relocated as shown
Video footage of the demolition can be viewed here
<https://www.youtube.com/watch?v=UY0e8f014p4>



figure 7,52. [below] An aerial view of the civic precinct
from 2012 prior to demolition.

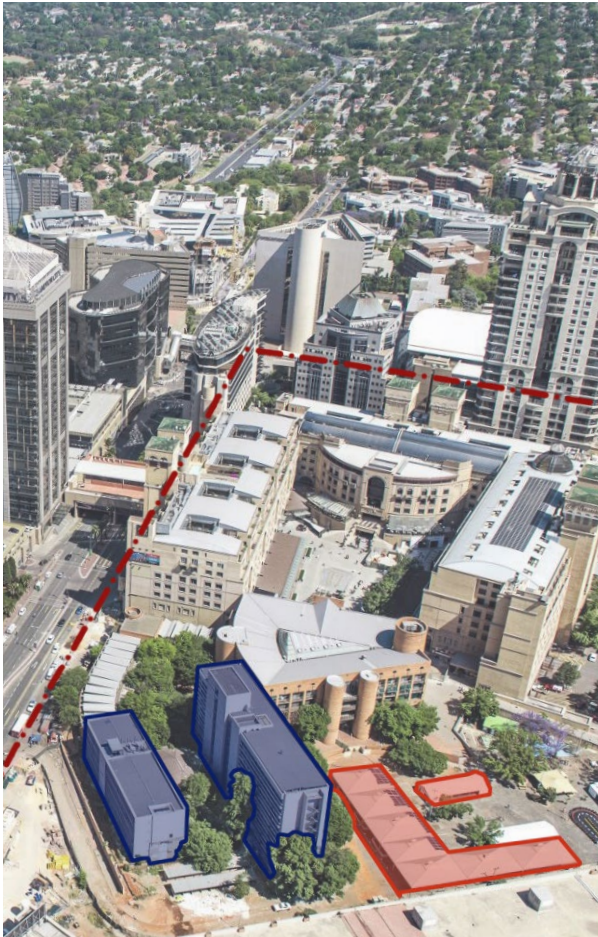


figure 7,53. Anchor Tenants in the CBD
1:10 000

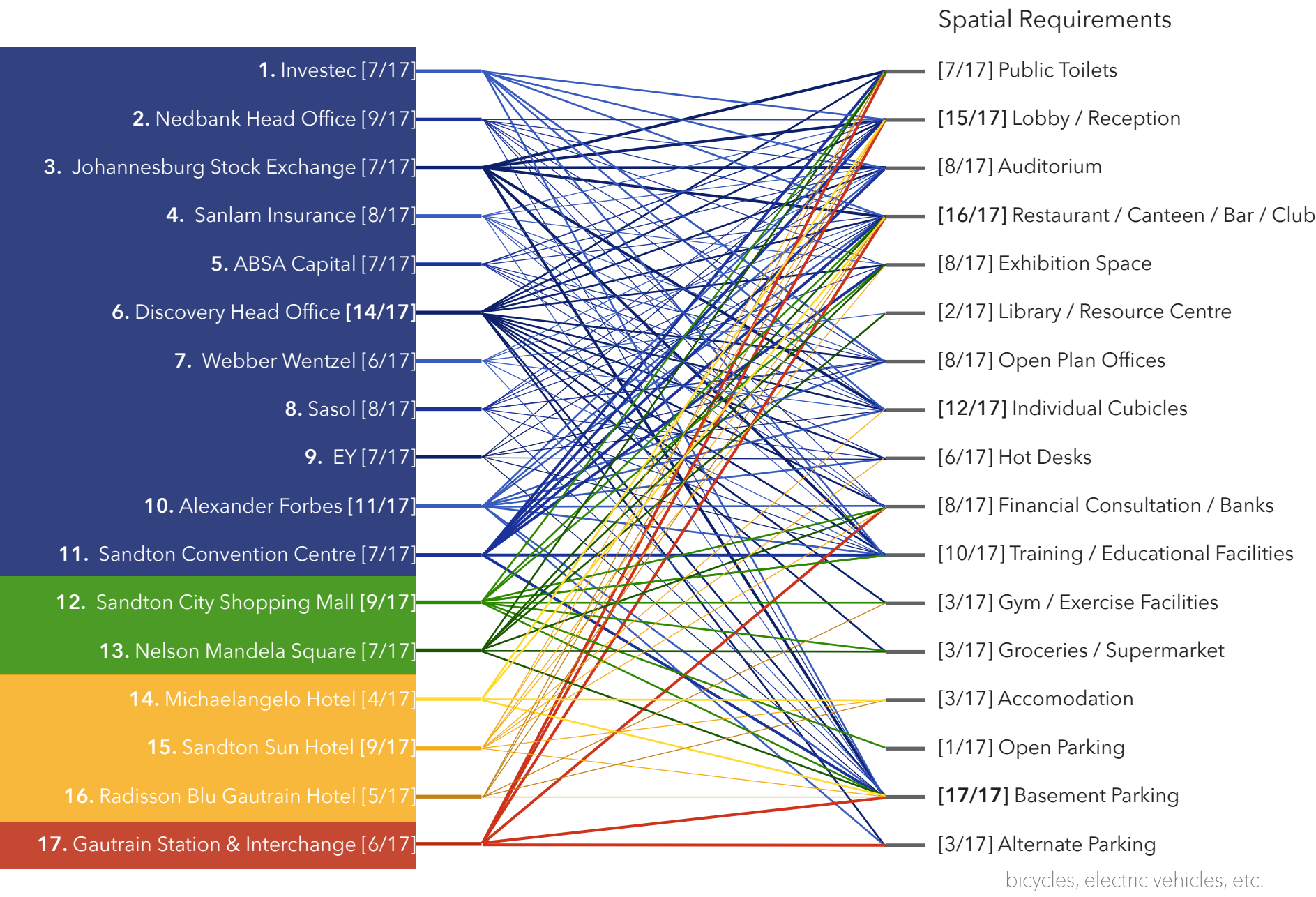


figure 7,54. Matrix of Sandton inhabitants and the respective spatial facilities

Only projects currently completed and operational at the time of printing (August 2018) are included, however there are predicted anchor tenants currently in construction.

- 18. Old Mutual Head Office
- 19. The Marc Mixed Use Centre
- 20. The Leonardo

The quantity of corporate and hotel anchors is completely out of proportion to the scale of the suburb. There is not even a single residential anchor and only a single semi-public infrastructure in the Gautrain Station.

The greatest number of amenities are found in the Discovery and Alexander Forbes Offices, both within the corporate facilitating category. Besides the Gautrain Station, these offices are the only instances in Sandton where alternative parking is provided for. This is juxtaposed with the notion that every anchor in the suburb provides vehicular basement parking! The fact that the two leading facilitators are corporate offices shows the manner in which private business is prioritised. However, these two examples also depict the way in which the collective working experience is being considered within the corporate - having been built relatively recently and attempting to provide optimal working environments for the inhabitants.

figure 7.55. Site Plan of Speculative Development
1:5 000

Locality

The location of Kgoro Central within the Johannesburg and Sandton context has been discussed through this dissertation and is decidedly an invaluable opportunity. The positioning within the Kgoro precinct however is fundamental to the success of the Capital Capitol. The existing edge conditions surrounding the site as well as those within the precinct, both built and speculative, must be considered to successfully connect the Capitol inwards as well as outwards. The architectural intervention is proposed to sit in the centre of the speculative square although raised above the ground. This divides an open space, far too big for the nature of the precinct and thereby psychologically imposing. Through the introduction of disruption and stimulation into the space, the inhabitants from surrounding facilities will be more easily encouraged to mix and meet in the middle.

The greater site has a 12.7m incline from the lowest point at the Gautrain Station to the highest, in front of the Public Library. The speculative proposal includes a podium base sitting at the highest level as a means to easily integrate the precinct into the Nelson Mandela Square. However, the author challenges this as a limited and unnecessarily exclusive solution. The proposed height of the square can potentially change through the site in order to cater for the changing street level. A close relationship with the street is important for a truly integrated public space.

Despite being 'landlocked' behind a fence - and a corporate bureaucracy - the site surrounds are teeming with a variety of everyday interactions. The site is a hotbed of activity and these experiences must be considered in order to optimise social engagements. The landscape provides as interesting a context as when viewed at a macro scale. It is through a symbiotic relationship of the macro-spatial, the micro-spatial, the economic resultant and the societal equilibrium, that this project is to be conceptualised.

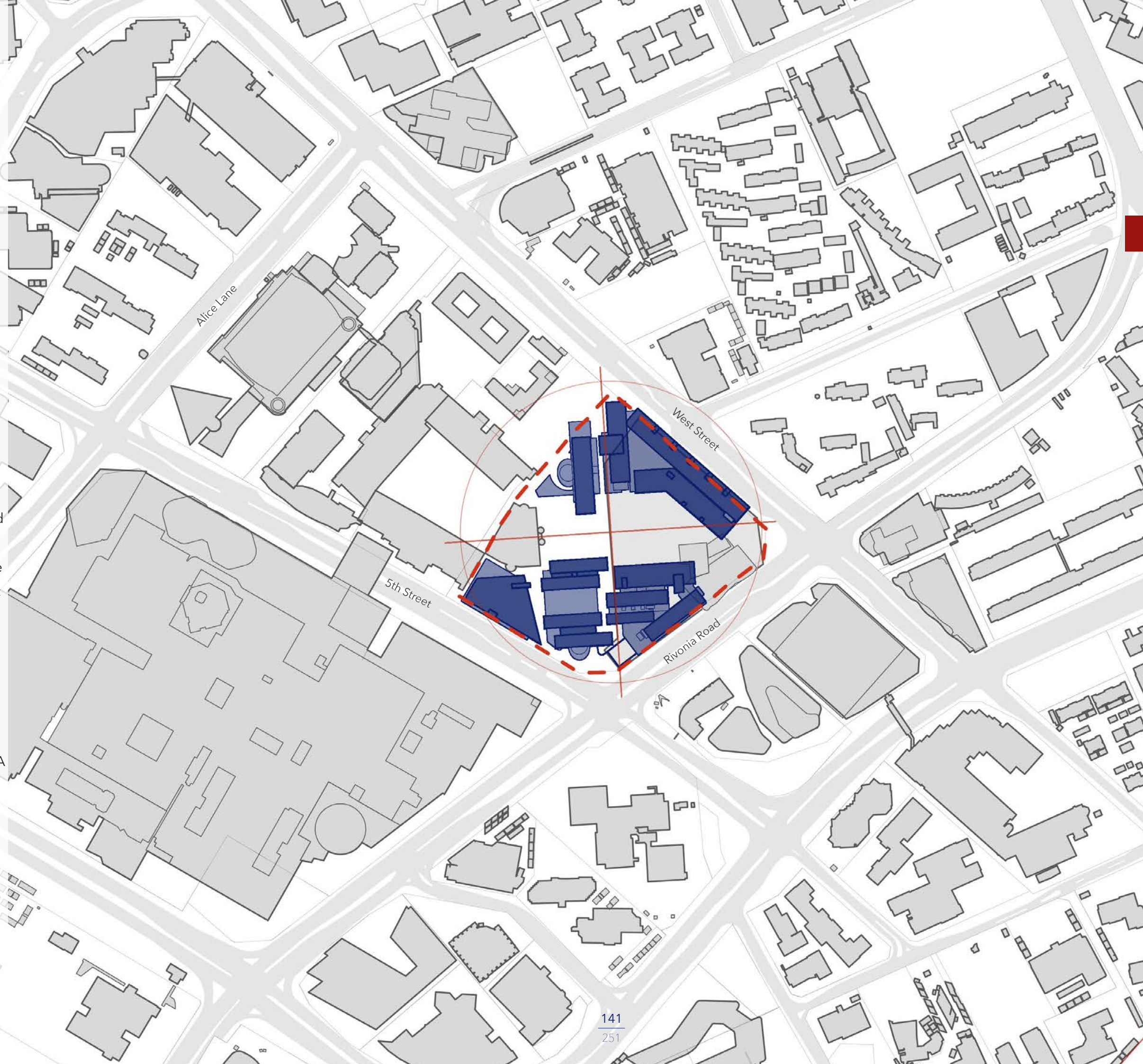
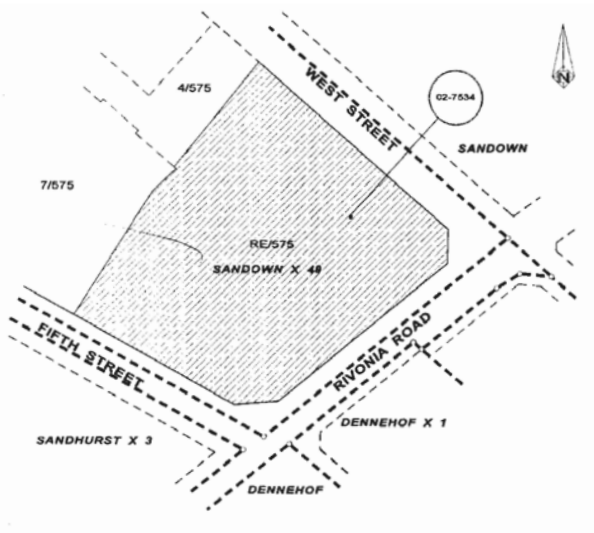


figure 7,56. 'Creating Economic Opportunities'

Site Boundary

The history of ownership and developers is further discussed in “*Production for Reproduction: A New Political Point*”.

Figure 7,57. Site Development Plan



Zoning Information

The proposed site was rezoned as “Special” in 2007 by the Johannesburg Property Company (JPC) in order to develop a new central precinct.

The *Primary Rights* for development are; business, retail shops, residential dwelling units, municipal purposes, social halls, private open spaces, places of refreshment, theatres, bioscopes, public and private transportation facilities (including a station) and uses ancillary thereto.

There are also *Consent Rights* - where additional concessions are possible with consent - stipulated defining an increase in shop or retail floor area above the permitted 16 000m2. There are no rights exist for Noxious Industries. This classification is determined by industrial facilities producing or discharging harmful substances including gasses, smells, noise, dust or smoke (Anon, 2012).

The *Total Area* of the site is 39112m2 and the given *Floor Area Ratio* is 5,0. 50% of the area is stipulated for coverage, with the possibility for a higher percentage to be approved by the Local Authority.

There is *no height limitation* – as per scheme: height zone 0.

There are *no servitudes*.

No building lines are applicable along any boundary. There are *no density* restrictions.

The property is both large, with very few limitations imposed onto it. A Strategic Public Transport Network (SPTN) is being constructed surrounding the site, with Rivonia Road – running along the site’s longest edge – as the “mobility spine for a future transport” (Swanepoel, 2018). Rivonia Road is already a major arterial route for transport and the introduction of further means will only provide a greater accessibility. It can be concluded that the proposed site provides an invaluable opportunity for almost unrestricted development, and yet it still sits empty.



figure 7.58. Diamond Dealer [1]



figure 7.59. Funeral Cover Salesman [2]



figure 7.60. Steak Restaurant [3]



figure 7.61. Doughnuts and Coffee [4]

Immediate Context and Surrounding Circumstances

Informal trade spills out and away from the catalysts whereas Formal trade is often very insular and contained. The formal trade can be seen to spill out in very certain and controlled instances, evident in the example of Nelson Mandela square. The restaurants surrounding the square extend out into the semi public space, however this result in a heightened control of the square. In contrast to this, the informal trade facilities often extend out into the street and public spaces surrounding. This way the formal or informal spreads is evident through the transparency and positioning of colour in the map.

figure 7.62. Informal & Formal Trade Surrounding Site

The graphic depicts instances of trade were mapped out and are shown as solid circles, however the effects of the trade are far further reaching than the immediate location and as a result the effect is too mapped as a pixelated spread.

1:5 000

- formal
- informal

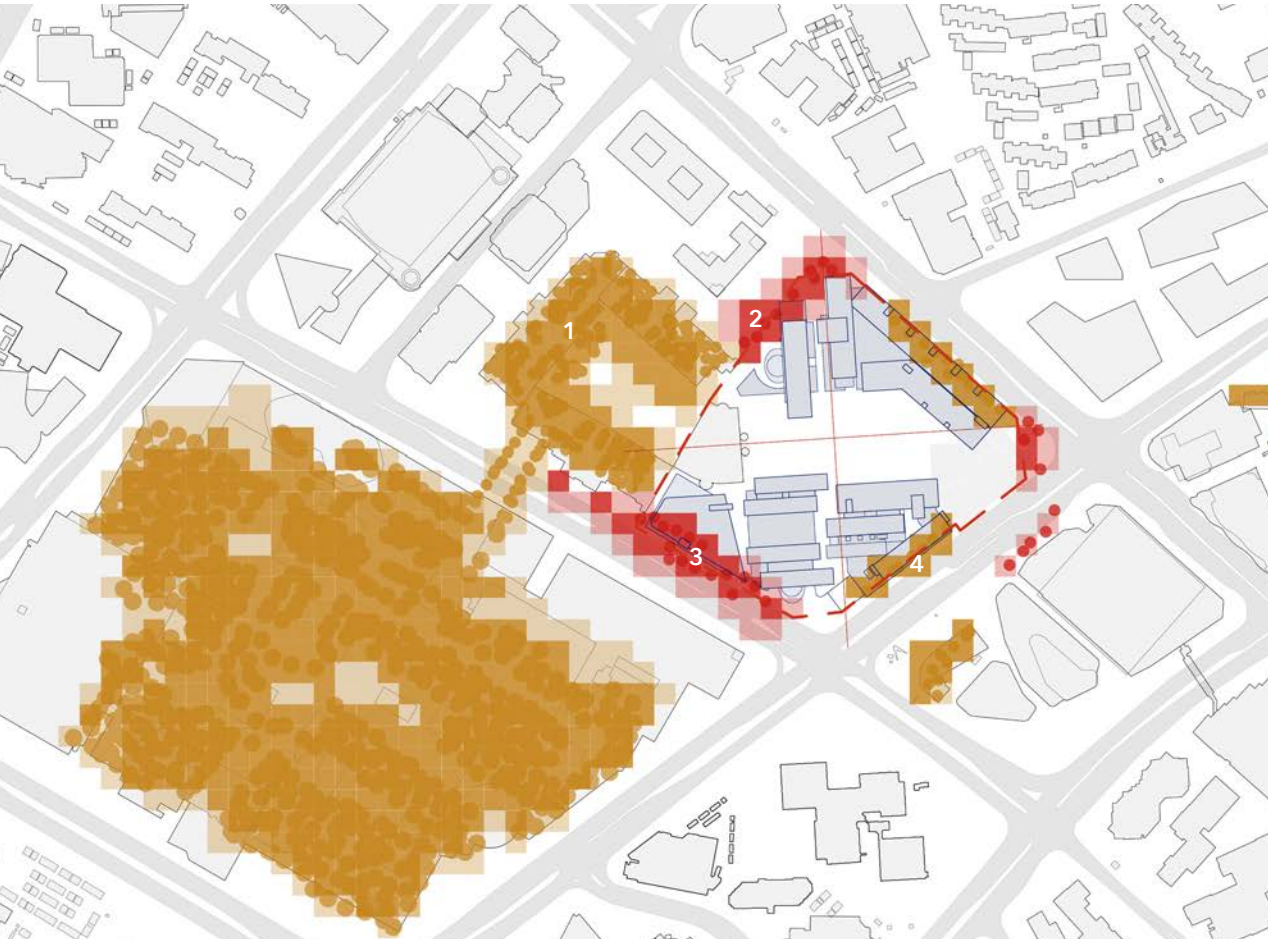


figure 7.63. Surrounding Building Heights
1:5 000

As indicated in the Zoning information, there are no height restrictions imposed on the Kgoro Central development. Through this zoning the City Council are trying to drastically increase the density surrounding the Gautrain station. There is a big discrepancy in the heights of surrounding buildings although as of yet - July 2018 - nothing surpasses the 34 floors of the Michelangelo Tower. The tallest tower in the speculative Kgoro development sits at 28 floors on the southern corner of the site.

- 0 - 5m
- 5 - 15m
- 15 - 25m
- 25 - 50m
- 50 - 75m
- 75 - 150m



figure 7.64. Surrounding Programme and Amenities
1:5 000

- Train Station
- Bus Stop
- Taxi Holding
- Car Rental
- Conference Centre
- Residential
- Hotel or Hospitality
- Retail
- Recreational
- Corporate Commercial
- Tourist
- Medical Clinic





figure 7,65. [above] The combined 'fabric of wealth' in terms of diversity of socio-economic activity. A combination of the three tiers of activity depict the overlaps as well as the unused spaces.

figures 7,66 - 7,68. [right] Isolated depiction of socio-economic activity in the site city block as well as predicted within the future proposed speculative development.

1:5 000

Low Income Activity

This activity typically takes place surrounding the formal facilities. These spaces are usually to provide a place for engagement or amenities for the 'Servicing' population of Sandton or alternatively functions as traders selling to inhabitants moving to and from the anchoring facilities.

Medium Income Activity

These are often formalised boundary amenities surrounding the formal anchor block - for example the Gautrain streetshops. These provide for the largest range of society and as a result are most frequently busy.

High Income Activity

The socio-economic provisions within Nelson Mandela Square cater for a substantially higher income bracket within society. These activities often take place within the enclosed and insulated facilities in the shopping centre spilling out onto the semi-public square.

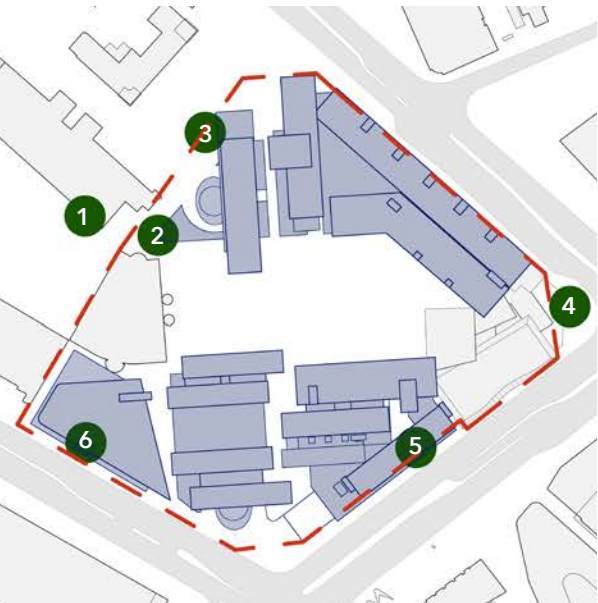
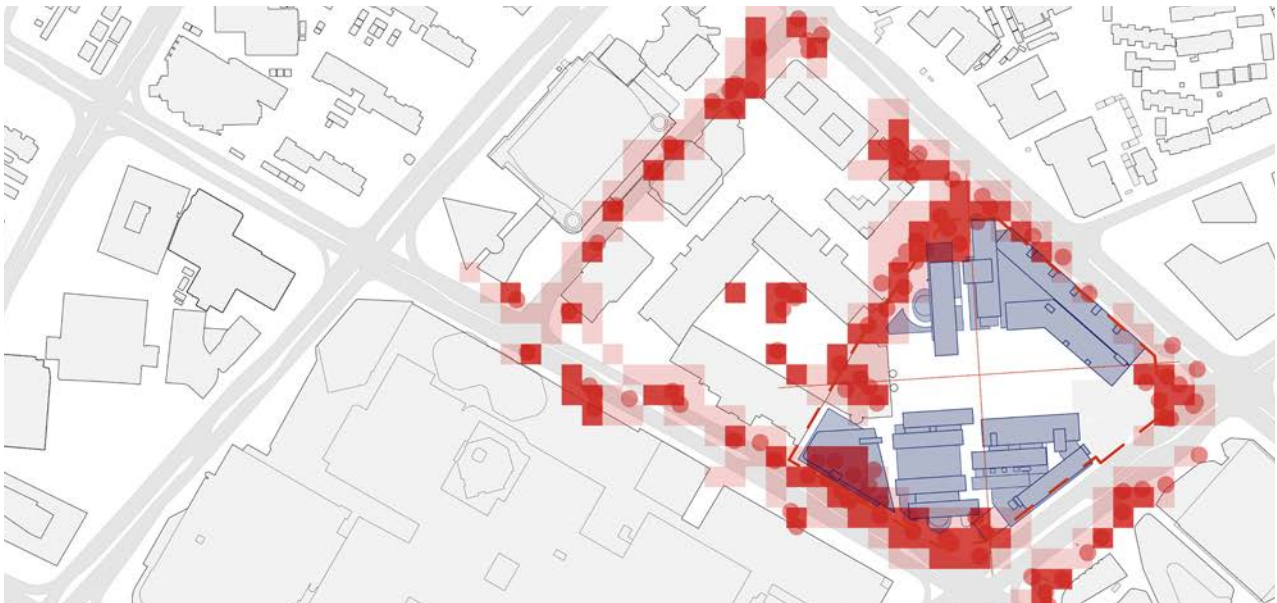


figure 7,69. Social Interactions Around Proposed Site
1:5 000

- Nelson Mandela Square [1]
- Sandton Library Corner [2]
- Ramp to Nelson Mandela Square [3]
- Gautrain Entrance [4]
- Street Shops [5]
- Informal Trade Strip [6]

There is an abundance of people surrounding the site - commuters, workers, tourists and bystanders - although not all areas seem to be conducive to social interaction. The liveliest examples appear to be the passage routes and in typically in between spaces. The street shops and Informal food strip are two examples of this. In contrast to this, the public square seems to discourage interaction as individuals stand along. This occurs in and around the Nelson Mandela Square as well as in front on the Gautrain Station. Perhaps activation is more important than the area it occupies for engagement in a public arena.

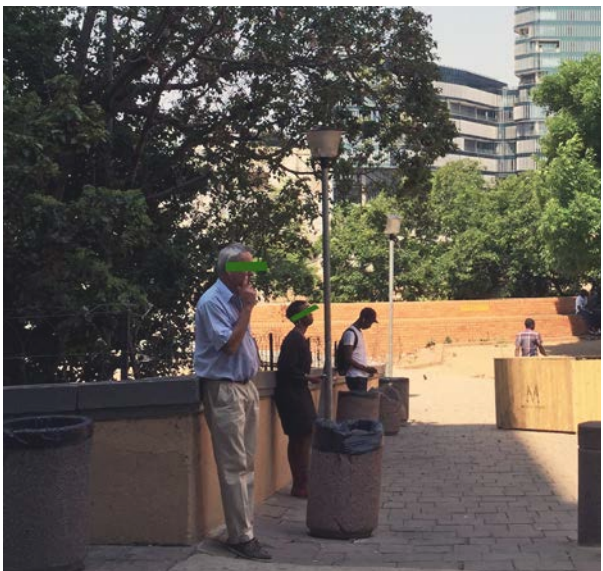


figure 7,70. People smoke individually beside the Library [2]



figure 7,71. Three guys seek shade outside of the square [3]



figure 7,72. Two women on phones, a man and his orange [1]



figure 7,73. Four women sit back to back, waiting [4]



figure 7,74. Men laughing outside an informal food stall [6]



figure 7,75. Three men eat and joke on the street edge [5]



Movement Mapping

A closer investigation of the movement surrounding the proposed site shows different picture for each means of transport. The vast majority of movement means is the same, although this is a potential problem in the incentivising alternative transport. The pedestrian and cyclist can no longer be treated in the same fashion as the taxi and bus. The increased detail of the surrounding movement portrays the power dynamics designed for on site.

figure 7,76. [left] Pedestrian Movement into and within the site.

figure 7,77 - 7,79. [below] from left to right the diagrams show movement of private vehicles, bicycles and tuk tuks in and around the site.

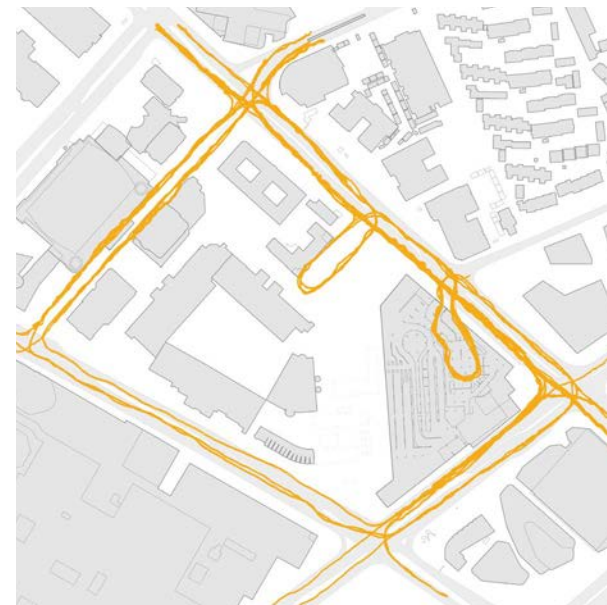
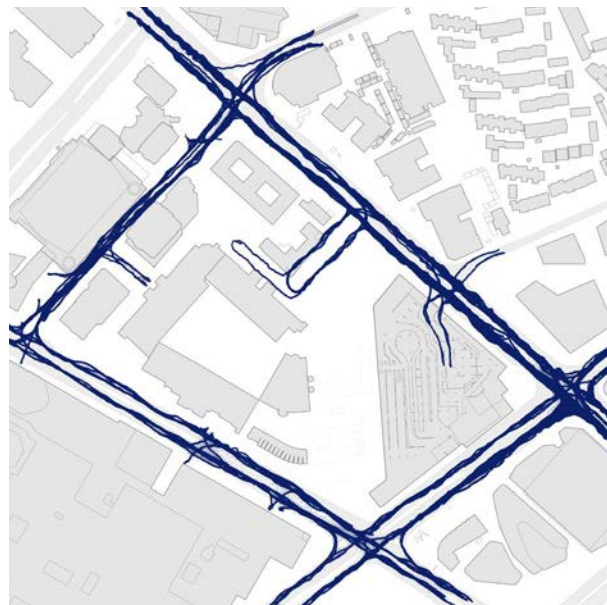
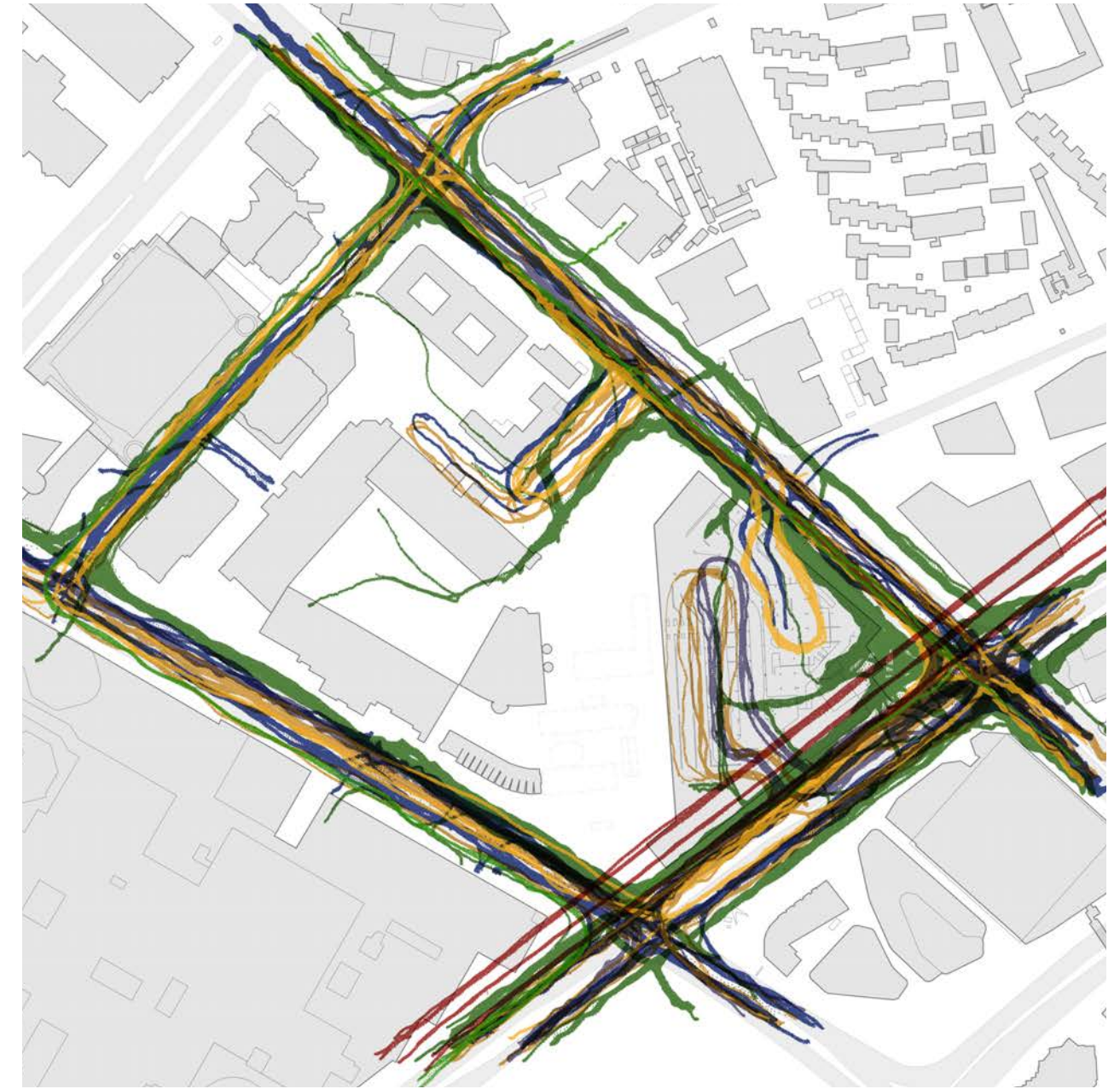


figure 7,80. [right] Combined Movement map showing modes and intensities.

figure 7,81 - 7,83. [below from left to right] The diagrams show movement of minibus taxis, public buses and the Gautrain movement surrounding the site proposed



Precedent Analysis

Walter Sisulu Square of Dedication

Public space

Kliptown, Soweto, South Africa

Completed in 2005

StudioMAS Architecture and Urban Design

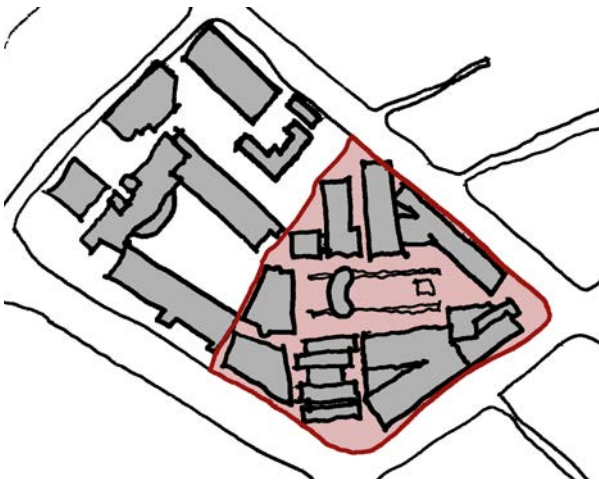
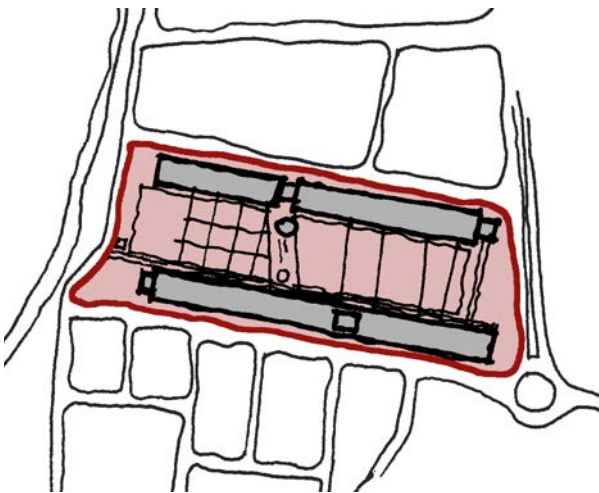


figure 7,84. [above] The size of WSSD in comparison to Kgoro speculative square

figure 7,85 & 7,86. [below] Bustling peripheries of WSSD in comparison to empty and enormous square.



The Walter Sisulu Square of Dedication (WSSD) is a significant public space celebrating democracy in South Africa, built on the square where the Freedom Charter was signed in 1955. It has been conceptualised as a place for daily usage, with a series of surrounding retail opportunities, as well as for facilities for large gatherings.

The space has been designed in two halves. On the western side the square pays tribute to those who fought for freedom and equality, while the eastern half celebrates the contemporary democratic society. A future orientated approach provides a recognition in the current user, empowering individuals to continue to progress, rather than a mere celebration of the past. This is significant as society still needs to progress and a recognition of this facilitates the discussion. The WSSD, however, fails to activate the space for individual engagement. This is possibly due to the scale of the square, far bigger and more open than comfortable to the individual using it. In the middle of the square there is a constant feeling of being watched – a strange societal construct differing from the centre to its peripheries.

These dynamics are vital to either empower or disempower individuals and this is fundamental to the public space within the proposed Capitol. StudioMAS has designed both the WSSD as well as the existing Kgoro framework and this scale cannot be repeated if the precinct is to provide for a progressive and productive future.



Precedent Analysis

Elbphilharmonie

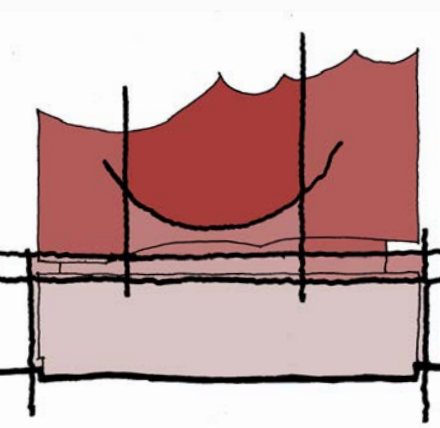
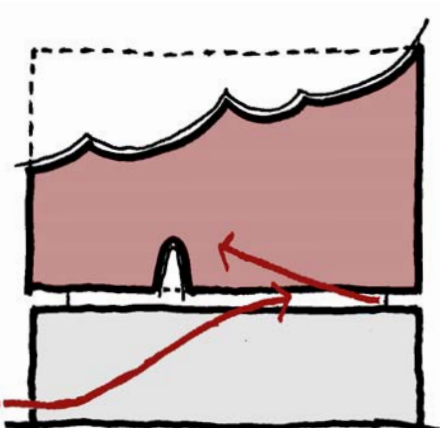
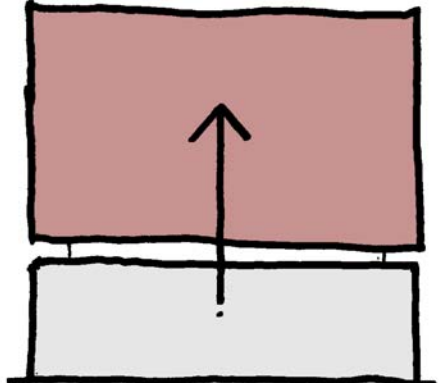
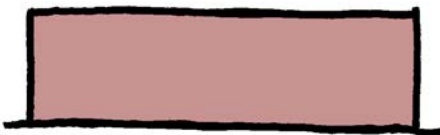
Theatre and Public Arena

Hamburg, Germany

Completed in 2017

Herzog & de Meuron Architekten

figure 7,87 - 7,90. The development of the Elbphilharmonie.
The building evolves vertically manipulating accessibilities and catering for a certain exclusivity.



This final figure illustrates the resultant boundaries within the building - red ranging from semi public to private.

The Elbphilharmonie is a newly completed intervention to act as a catalyst for urban regeneration in the surrounding harbour context. The new addition sits above the existing Kaispeicher brick factory, which has been converted into parking for the facility. The old and new forms are emphasised and separated by a public terrace. The project acts as a statement within the city as a result of the immense cost for construction as well as its physical spatial relationship with the city – visually intriguing while isolated horizontally and protruding vertically.

The Elbphilharmonie is particularly relevant in two ways, for its positive and negative manifestations. The addition to the factory stands out and provides an important presence within the harbour for a reinvestment in civil society. However, the placement of the public terrace 7 storeys up above the parking creates a severe disconnect between the public street and the new ‘public square’, with just a single pedestrian route through – as indicated in figure 3.

The concept of an elevated public space is an important one with the Capital Capitol as a means to prioritise the general public through the built environment. However, this needs to be achieved through a continuous public space to maintain the conceptual connection, without the vertical controls utilized in the Elbphilharmonie.

figure 7,91. The Elbphilharmonie towering over the surrounding docks



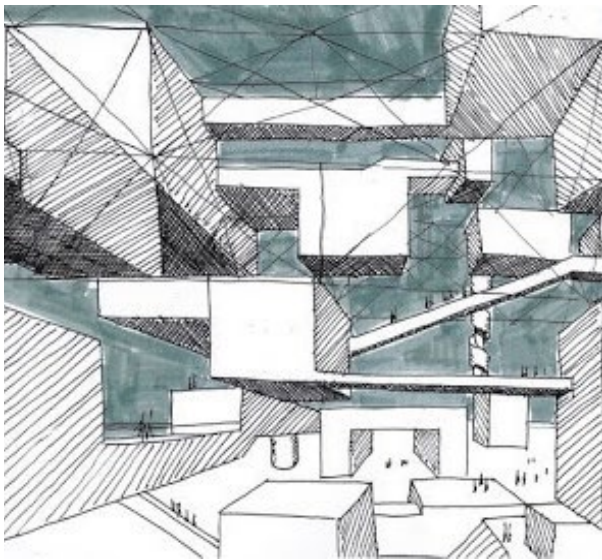
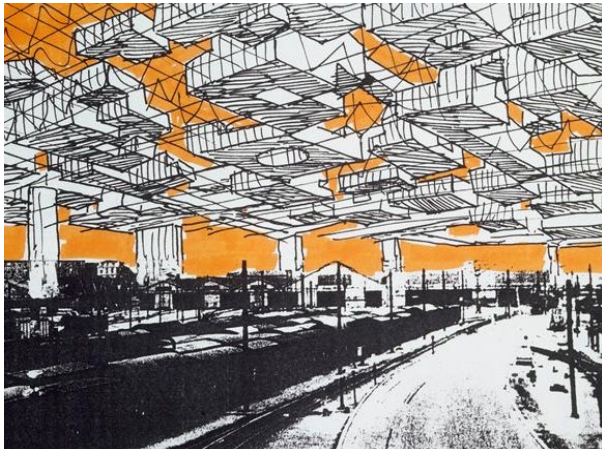


figure 7,92 & 7,93. [above] Drawings depicting manners of infill within the city structure and versatility for scale of insertions

figure 7,94. Sketch by author of an insertion into the structure of the existing Kgoro grid - both built and speculative.

The rigidity of a solid spatial infrastructure affords the people utilising it a certain freedom for usage within the space. A versatility for public and semi-public space is fundamental to its democratic function.

Precedent Analysis

Villa Spatale

Planning Principles

Designed for lesser used areas in any city

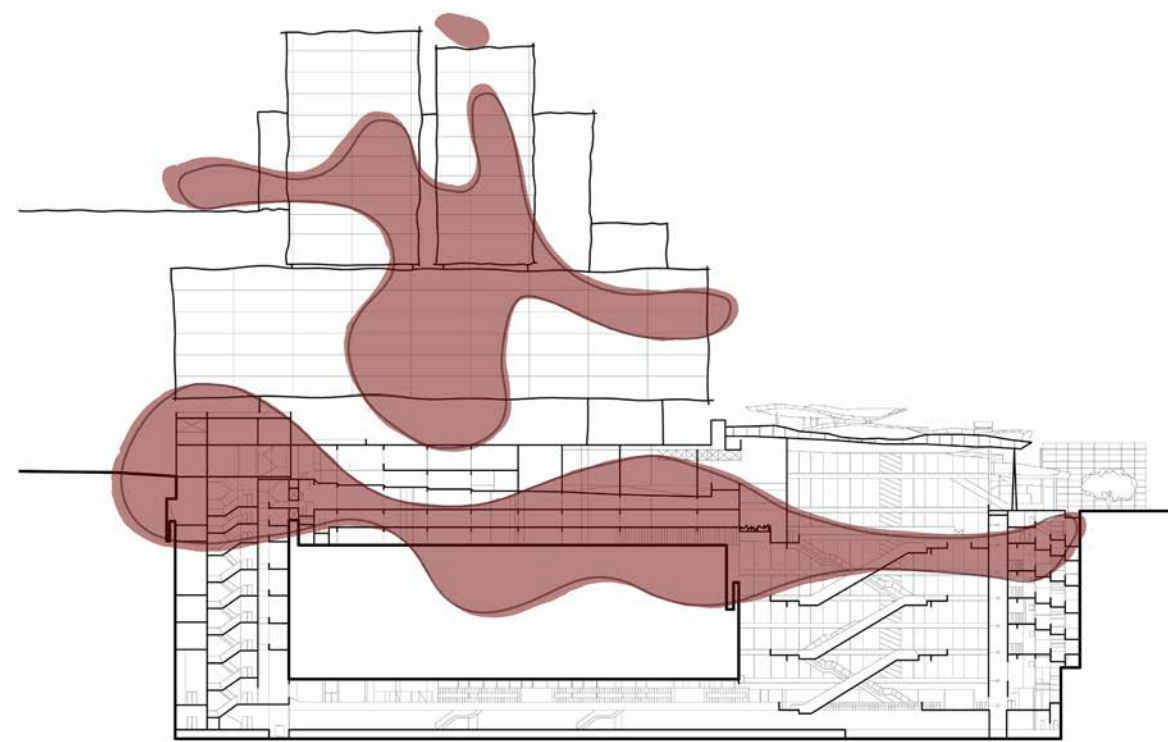
1958 - 2006

Yona Friedman

The Villa Spatale proposal is a structural skeleton into which useable space can be inserted. Friedman initially envisaged the infill for housing but later discusses the variety of functions possible to be inserted as well as the benefit for a combination of programmes within the system.

The thought processes behind the Villa Spatale are particularly relevant for several reasons. This first and most practical is the alteration within a skeletal structure, providing a sense of freedom and flexibility afforded by the structural rigidity. In the Kgoro development, into which the Capitol is proposed to be inserted, there is already an existing structure partially built, but wholly designed. This provides an invaluable opportunity to simultaneously work within the system as well as break away from it for a heightened result emphasized by the potentially ignored elasticity of a grid.

The Villa Spatale proposal also provides an archetype for development within the city. These structures were proposed to be placed in disregarded and underutilised areas to reinvigorate them. A landlocked empty plot in Sandton provides the evolution of this notion of underutilised land, with the inherent potential to act as a catalyst for rapid development surrounding the site.



Precedent Analysis

Lenin Tribune

Socio Spatial Hierarchy

Communist Russian Context

Conceived in 1920

El Lissitzky

The Tribune was for the Russian Revolutionary, Lenin, to address the public. It was conceived as a moving podium to create a definite spatial dynamic empowering the leader for the propagation of Communist ideas. The power dynamic created as well as the notion that a defined dynamic was necessary is significant for analysis when conceptualising a design challenging contemporary relationships between a local authority and the general public.

The Lenin Tribune exists as a spatial manifestation of respect and power. Through the raised podium and directional architecture, the singular person at the focal point holds all the power – actively disconnecting the speaker from the public. Similar to the Russian Revolution, the Capital Capitol also aims to begin a dialogue for a new and alternative future, and significant gravitas is required in communicating any new direction.

The architecture of the Tribune revolves entirely around this notion and is communicated through the exclusive circulatory means. Lenin is the only individual who could stand at the top and address the surrounds – there is no facilities for a debate or discussion. The restricted movement through and up the construction provides this control.

Although it is an important dynamic, a sense of respect for a leader is not the only relationship necessary for a productive society. Additional relationship can similarly be defined and created spatially for their verification as a dynamic within society. These include a tangible accountability for those in power – perhaps where the Lenin Tribune is turned upside down – as well as an open passage for discussion – possibly emphasized through greater and more public route through the space.

figure 7,95. The Lenin Tribune, El Lissitzky





figure 7,96. Brochures from 2016 Kgoro re-launch



Precedent Analysis

Kgoro Central

Mixed Use Development

Sandton, Johannesburg, South Africa

Started in 2008, not yet completed

StudioMAS Architects and Urban Designers

The Kgoro Precinct, as discussed in Chapter 5: Production for Reproduction, was conceptualised in 2006 as a new mixed-use development with the intention of redefining public space in Sandton. The extensive combination of programme has resulted in a distinct opportunity for collaboration and a heightened density within the commercial hub. This is envisaged to prioritise the general public and create a new attitude toward the individual man, whilst acting as a ‘gateway’ into Sandton.



figure 7,98. [top left] Predicted movement into and within the speculative development, by author

figure 7,99. [top right] Artists rendering of activity in square

figure 7,100. [bottom left] Physical barriers surrounding site

figure 7,101. [bottom right] Perspective render showing entrance off 5th Street and level change up to square



Precincts are becoming an increasingly common design model, especially within the business district. This affords substantial opportunity for impact and further reaching effects than individual stand-alone approaches. This therefore needs to be fully utilized. The Kgoro precinct has manifested as a truly capitalist construction similar to the development occurring in Sandton for the last 35 years. However, through a deviation to the surrounding norms, a substantial potential presents itself to truly redefine a public attitude.

The resultant mixed-use programme has maintained an unproductive exclusivity through its hierarchies. On the first floor of each building retail facilities have been specified although the scale and vision for this usage is of a similar nature to the rest of neighbouring Sandton City. Furthermore, the only level access into the precinct is from the Nelson Mandela square. This defines the demographic prioritised through ease of access and creates both physical as well as – more significant – implied boundaries between space and people.





IMAGINE THE POSSIBILITIES

In the reimagining of the precinct an alternative capitalism is proposed, and also relies on a monetary return - although with a far greater range of scales. The Capital Capitol is proposed to be inserted into Kgoro precinct to realise the potential of redefining public space, with a predominant motive of creating an increasingly productive society by increasing its progressive nature. The Kgoro precinct was ultimately designed to be built and this has not yet happened despite countless factors pushing for its existence. This is a fundamental problem within the Sandton district as there is an abundance of embedded potential within the project very necessary to be unlocked. At this current point in time, Kgoro Central is a particularly unsuccessful development, although this does not have to be the case.

figure 7,102. Internal Render of the speculative Kgoro development - for sales purposes - with the author's conceptual intervention indicated to be inserted within the precinct.



8 DESIGN DEVELOPMENT

figure 8.1. [Existing] Streetshops and Gautrain Station



figure 8.2. 5th Street Tower Offices



figure 8.3. West Block Residential



figure 8.4. North Tower Residential



figure 8.5. Rivonia Block Residential



figure 8.6. South Tower Residential & Central Tower



8 DESIGN DEVELOPMENT

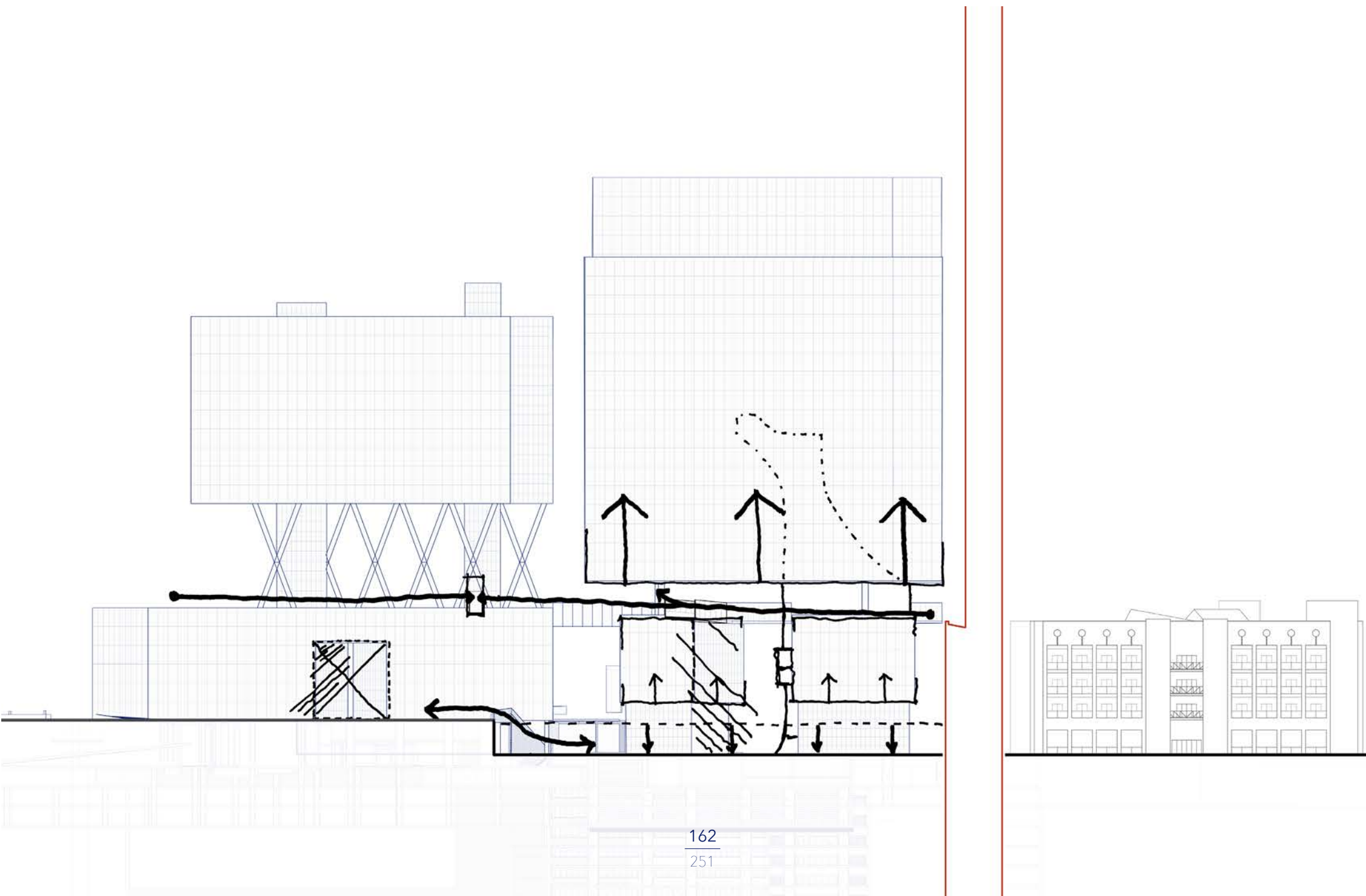
Precinct Development

The speculative nature of the proposed context provides a fascinating reality into which the design will develop. There is an exciting urban design plan as well as existing frameworks for the surrounding buildings, however only the Gautrain station and the Streetshops have been built. This allows for a degree of manipulation as the *Capital Capitol* wedges itself into the development and spreads its effect outwards.

Additions and Alteration to Speculative Form

There have been a series of alterations made to the speculative Kgoro buildings. These have been done in order to optimise a collaborative nature of a mixed-use development as well as increase the free and accessible notions within the precinct. Public and semi-public space is therefore prioritised through the development, connecting the differing buildings in order to encourage dialogue between the respective inhabitants.

Proposed connections range from bridges between buildings to new facades acting as a secondary semi-public interface between the building and the square. Although the interfaces differ in connection and means, their combination contributes to a collective function within the precinct. Furthermore, the spaces always connect down to the ground in extending the public square into the air whilst bringing the 'higher level' experiences down to earth.



Speculative development to be built in the future

Proposed Intervention

Existing structures on site

An additional public square has been created above and surrounding the central proposed space and this simultaneously divides programmes vertically while connecting it horizontally. This is effective for a greater public interface below this divide with a maintained control for the private programme above.

Finally, the unbuilt portion of the podium is dropped back down to street level. This increases accessibility both physically as well as conceptually. It further creates a dynamic relationship dividing an enormous speculative public square to stimulate and activate the space.

figure 8.7. Full internal Kgoro elevation surrounding the public square, including design alterations by author

Edges shaved away, forms lifted, facades peeled up, ground plane dropped and a variety of new connections.

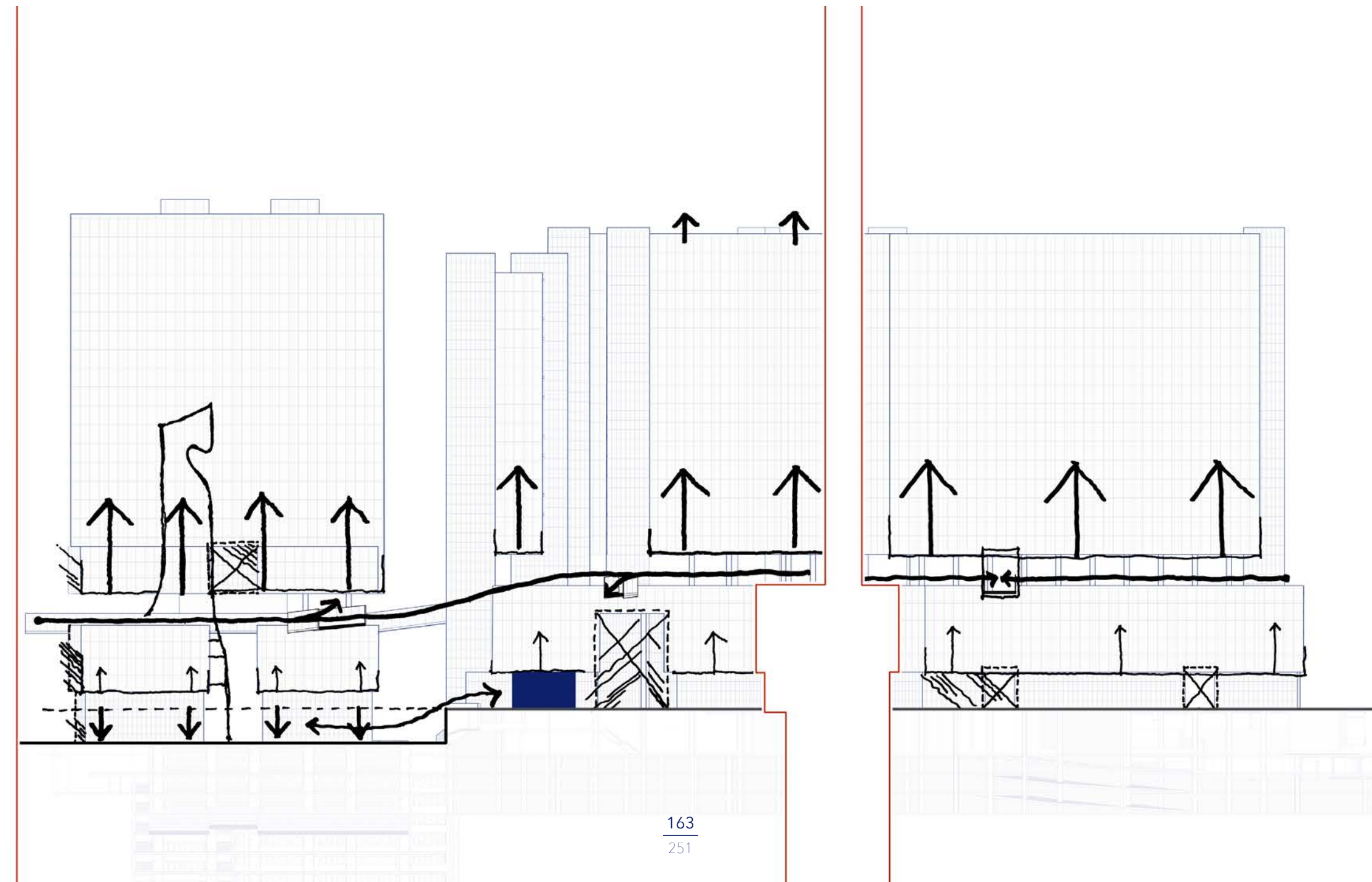
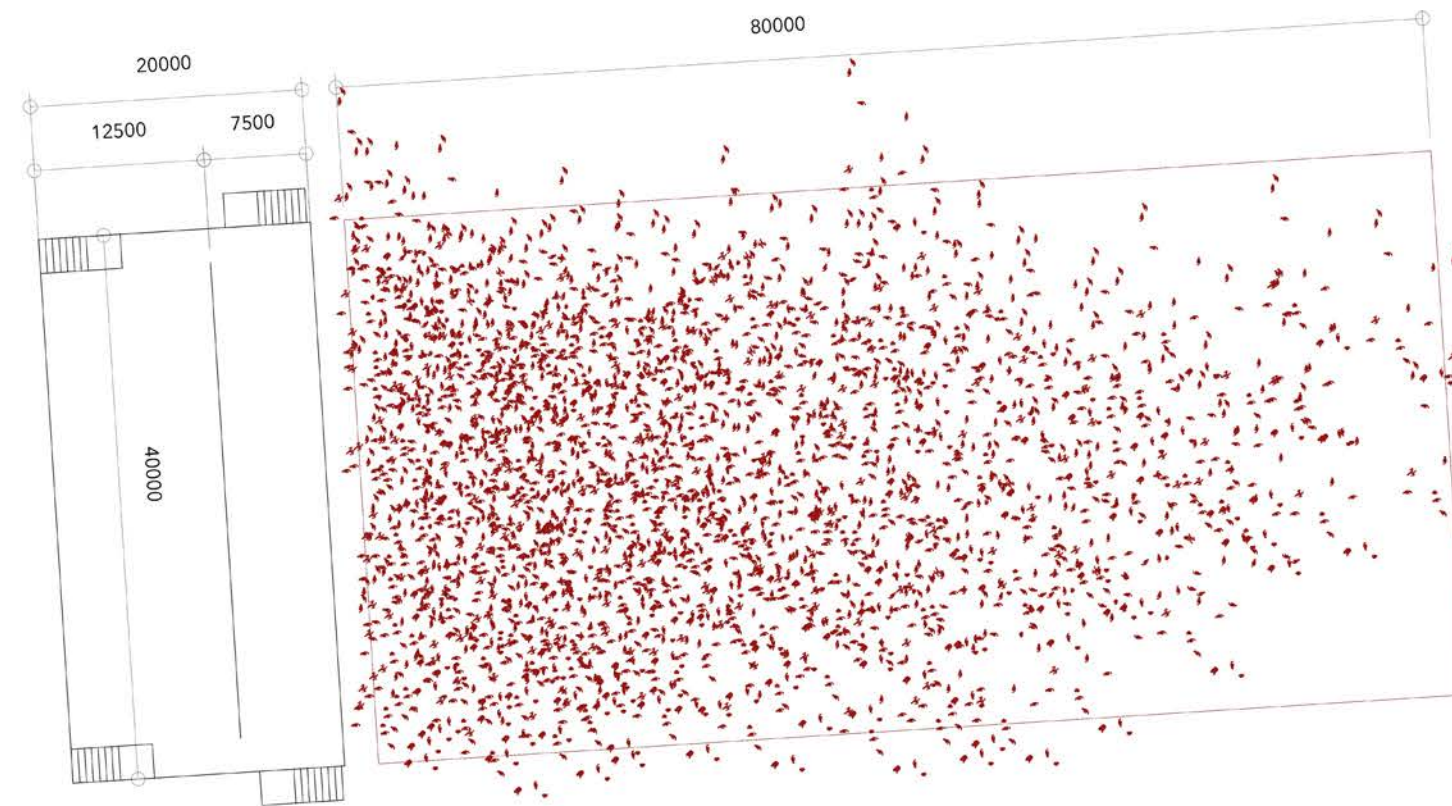




figure 8.8. [above] What does a crowd look like? What does a crowd feel like?

figure 8.9. [right] Political Rally design size and specifications.
1:500

A rally or even protest is a fundamental component of a democratic society. A mass political gathering is always a reminder of the power inherent within the population. What if this enormous gathering space could be designed into the architecture and celebrated through permanent provisions for gathering? This could be on the ground floor, rooftop or both! This lends itself to an important versatility for political confrontation and acts as an acknowledgement of the individuals comprising the general public.



Event Requirements

Weather protection for stage area, screens on either side of stage, sufficient sound and lighting equipment, electrical connection to trigeneration plant below, uninterrupted power supply and network, acoustic reverberation protection, potential for access control while maintaining a public square, surrounding amenities without utilizing the resources of surrounding buildings, available seating.

Facilities in Public Space

This investigation comprises of events possible through a variety of scale and the public facilities potential to accommodate a full range. This is envisaged to accommodate the mundane public requirements of a city [for example, walking the dog or having a cigarette] the spectacular potentials [necessary in a sports fan park or public celebration] as well as the political charged event.

figure 8.10. Political Rally [Extra Large Event Space]

1:1 000

Total Area of Speculative Square = 10 500m²

Facilitating Area (stage, backstage, storage, toilets and provision for kitchen) = 600m²

Area for crowd (without encroaching on surrounding restaurants and retail) = 3 200m²

Human density therefore is between 3200 people sitting and 16 000 people standing [between 1 and 5 people per m²]

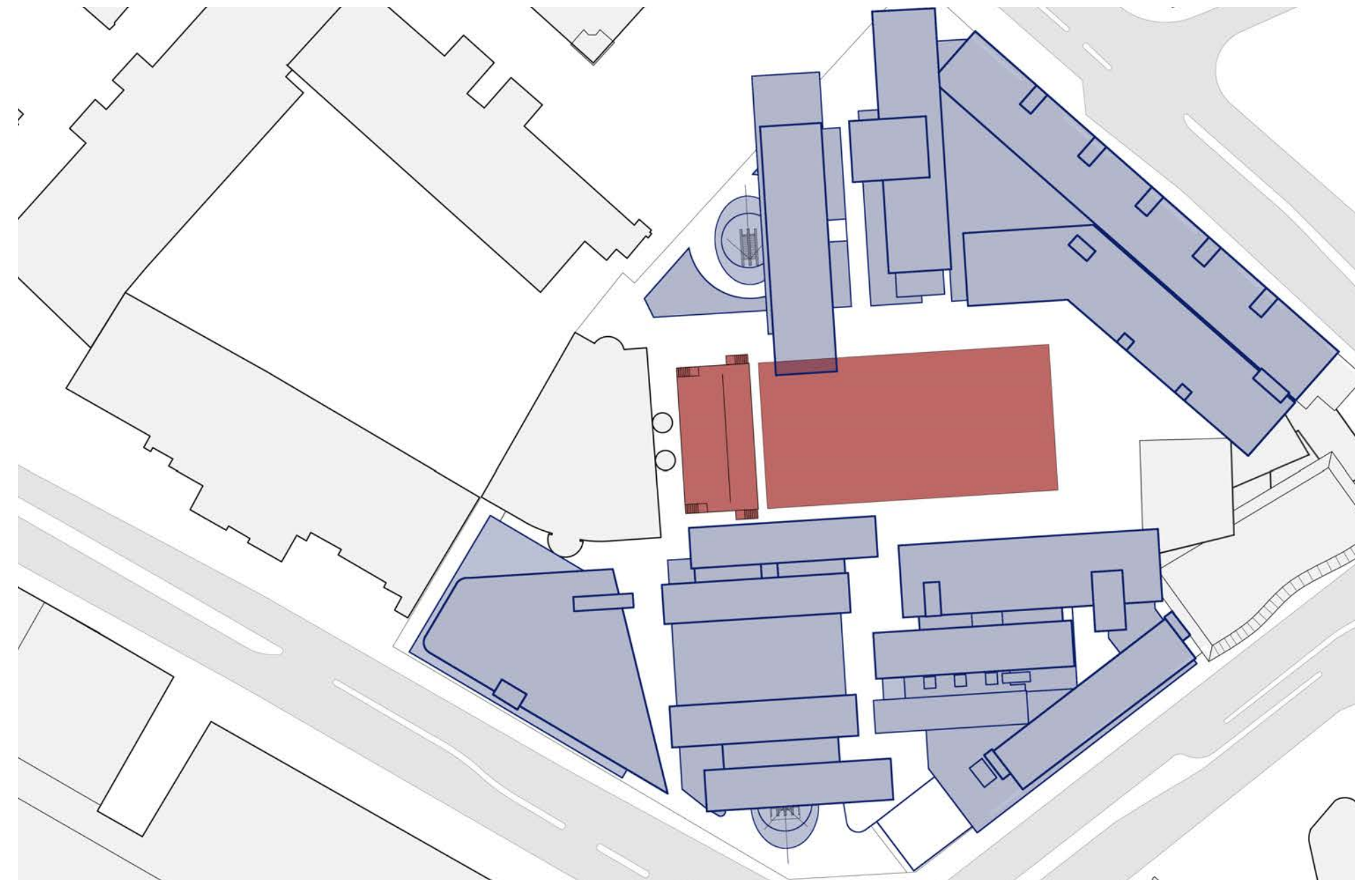


figure 8,11. Public Protest on pavement in Braamfontein



figure 8,13. Public Protest & Speech [Small to Large Event]

1:1 000

Public Protest

Facilitating Area [stage, storage, toilets and dressing rooms] = 25m² to 80m²

Area for crowd = 60m² [three rows surrounding] to 485m² [six rows surrounding]

Human density therefore is between 120 and 1940 people standing [between 2 and 4 people per m²]

Public Speech

Facilitating Area [stage, storage, toilets and dressing rooms] = 340m²

Area for crowd [without encroaching on surrounding restaurants and retail] = 500m²

Human density therefore is between 500 and 1 000 people sitting [1 or 2 people per m²]

Events Requirements

Weather protection for stage and at least sun shading for audience, audience chairs, sound and lighting equipment, technical control room, delivery access including to back of house and toilets

figure 8,12. Public Protest and Speech facility specifications

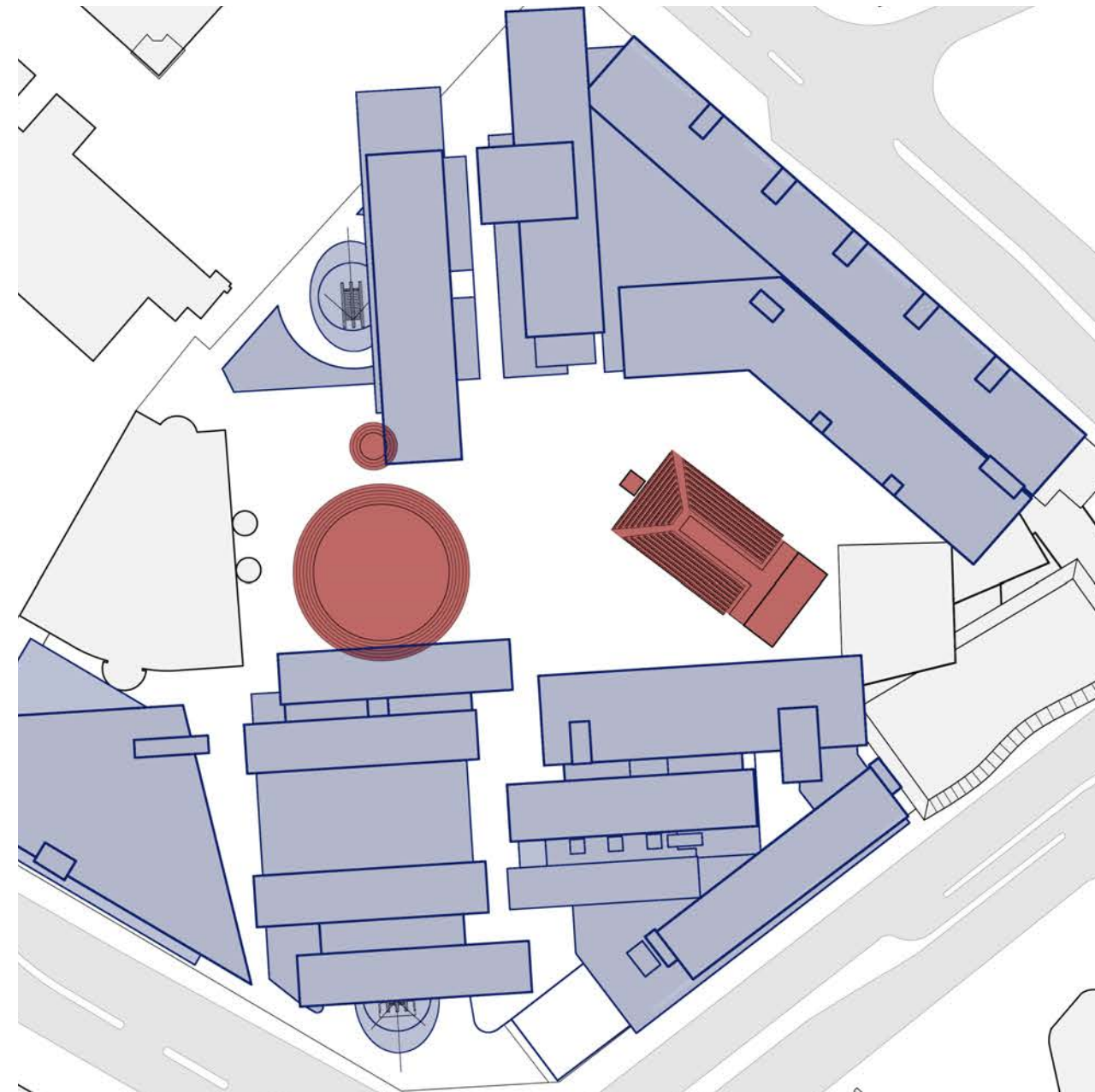
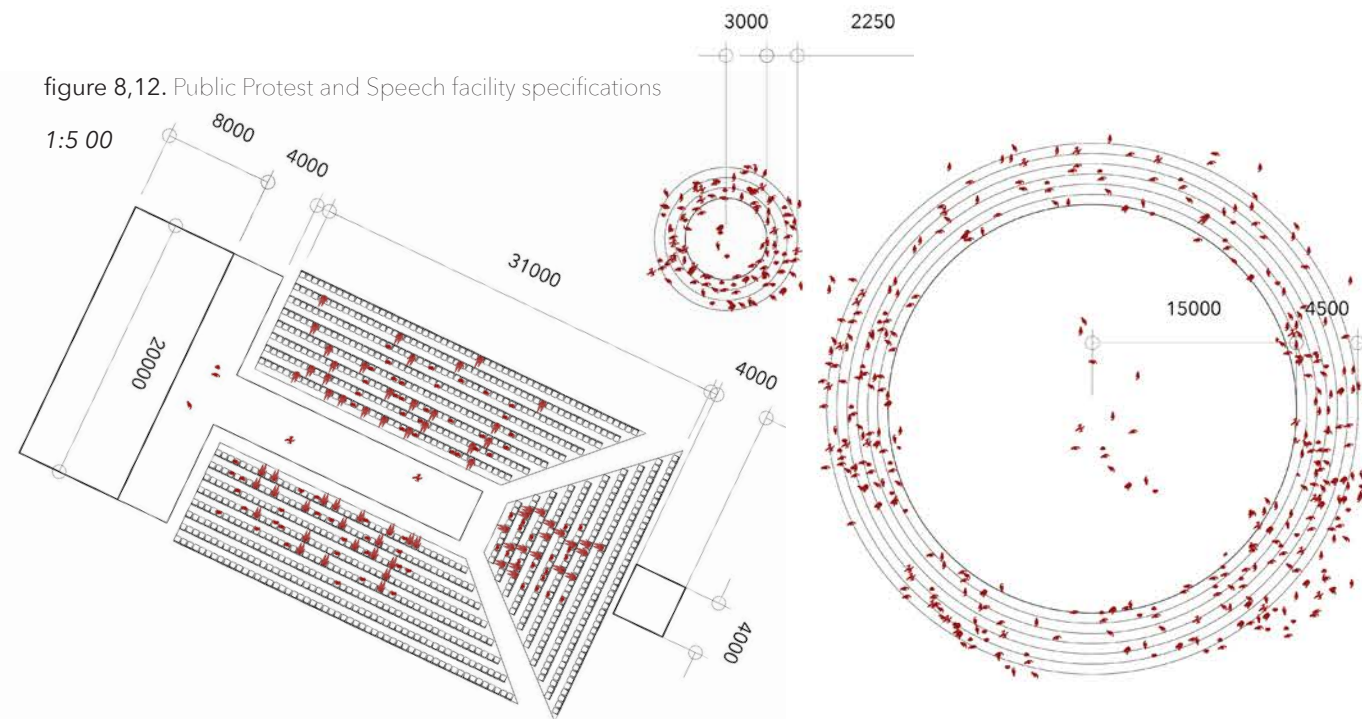


figure 8,14. A rooftop Cinema making use of previous disregarded space.



figure 8,17. Public Protest & Speech [Small to Large Event]

1:1 000

Outdoor Cinema Lecture

Facilitating Area [stage and screen] = 31,2m²

Area for crowd [without encroaching on surrounding restaurants and retail] = 360m²

Human density therefore is between 360 and 720 people sitting [1 or 2 people per m²]

Medical [or any other] Pop-Up

Total Area of Speculative Square = 10 500m²

Facilitating Area and crowd [admin and facilitation] = minimum 30m²

Human density therefore is 150 people sitting [in accordance with available facilities]

Event Requirements

Weather protection for podium and minimum sun shading for audience, chairs, podium sound and lighting equipment including microphones and speakers.
Necessary medical [or alternative] equipment

figure 8,15. A Cinema and Pop-Up facility specifications

1:5 00

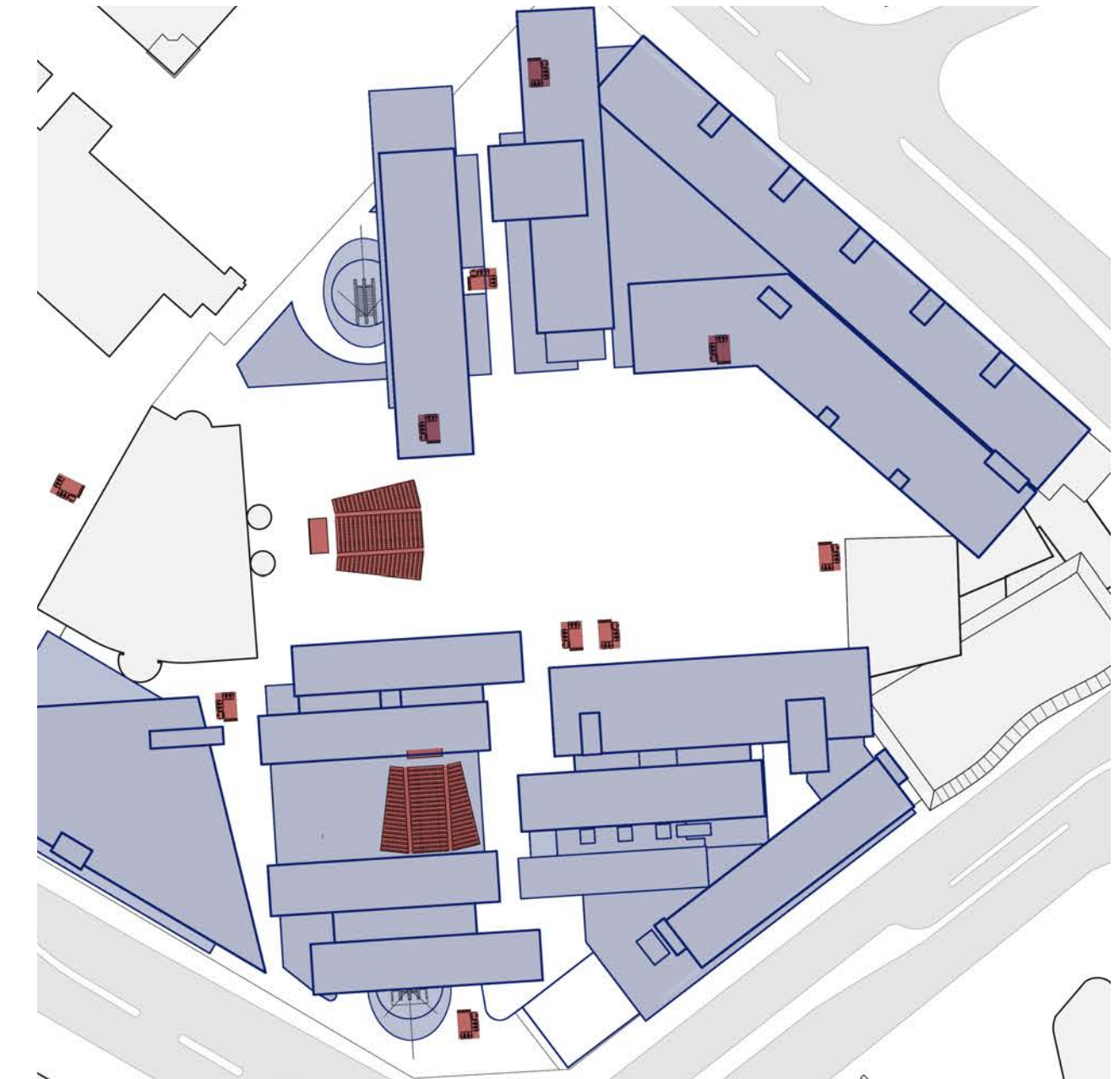
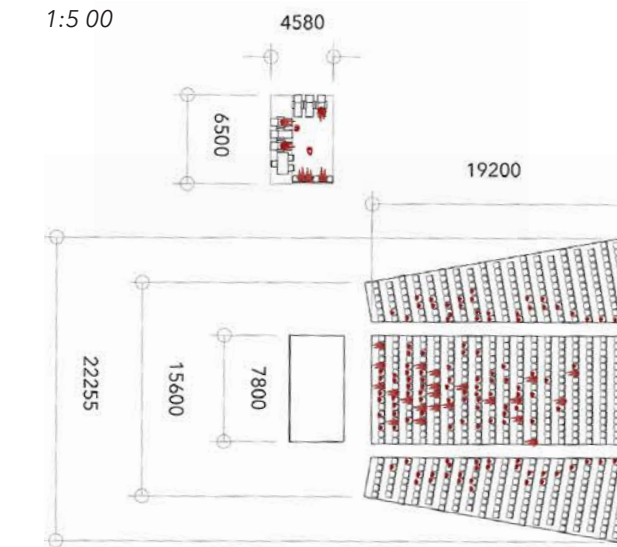


figure 8,16. A blood drive pop up, could be anywhere [or even anything].





figure 8,18. [above] Existing Trees on Site

figure 8,19. [below] Speculative Tree Treatment.

1:5000



figure 8,20. Proposed Tree Treatment in the Creation of the Capitol

1:2 500

- Existing Trees ●
- Trees to be Removed ●
- Speculative Trees ●
- Existing Trees to be Protected ●
- Existing Trees to be Relocated ●

The trees on the site are Quercus Palustris [Pin Oak] and need to be transplanted in winter in order for them to properly survive (Swanepoel, 2018).

Trees and Vegetation

Trees are typically an after-thought in Sandton. As a result of the failed nature of the project prepared for but not built there is little else remaining on site. Buildings, lighting, urban furniture, signage, garbage bins and even paving has been removed. The trees seem to be the last urban element to go, but as a result offers an opportunity to be reconsidered for a optimised development and surrounds.

Trees are proposed to be relocated to streets edge and instead of demolishing the informal market gathering the trees will be made to protect the market. This is achieved by retaining the existing gallery space and courtyard rather than demolishing it for a new gallery to be built in the centre of the square. The super basement takes up the whole site and so in the public square there have been trees proposed in planter boxes. The smaller of the existing trees are to continue the row of trees within the main square.

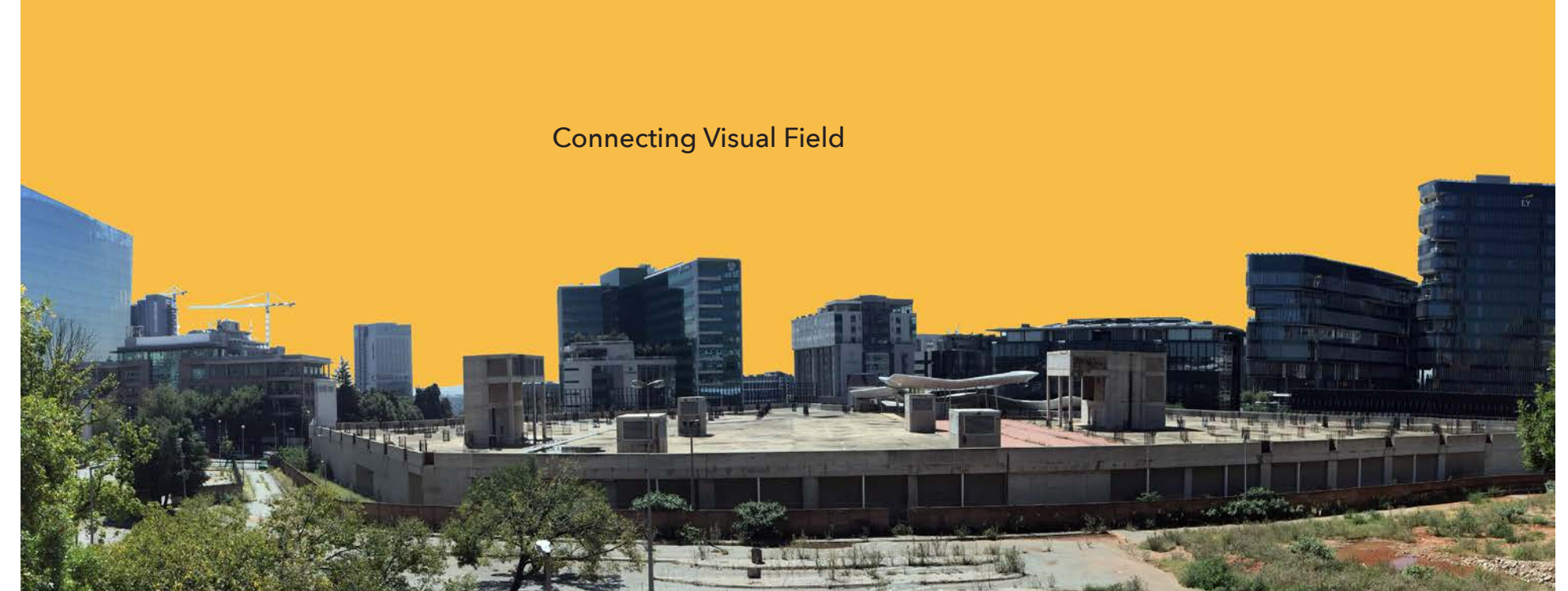


figure 8,21. [above] Current visual field through proposed site, from Sandton Library.

figure 8,22. [right] Existing Speculative Square Proposal
Small visual field relative to size of square

1:5000

figure 8,23. [below] Proposed Alterations through the Capitol. Larger visual field relative to size of square

1:5000



A larger visual field increases the accessibility of any public space, through the perception thereof. This attracts the public and provides a greater sense of comfort within the space. In addition to a enclosed and hidden space, a large and uninterrupted public forum can also be uncomfortable for the general public as those utilizing the square are made into a visual focal point. The proposed facility has therefore been broken up and individual components activated respectively whilst simultaneously opening up the square for a greater visual connection and inclusive accessibility.



figure 8,24 & 8,25. Arrival and Entry at the Public
Transport Interchange
Existing Speculative [left]
Proposed Civic Centre [right]
1:5000



figure 8,26 & 8,27. Circulation through the Public
Transport Interchange
Existing Speculative [left]
Proposed Civic Centre [right]
1:5000

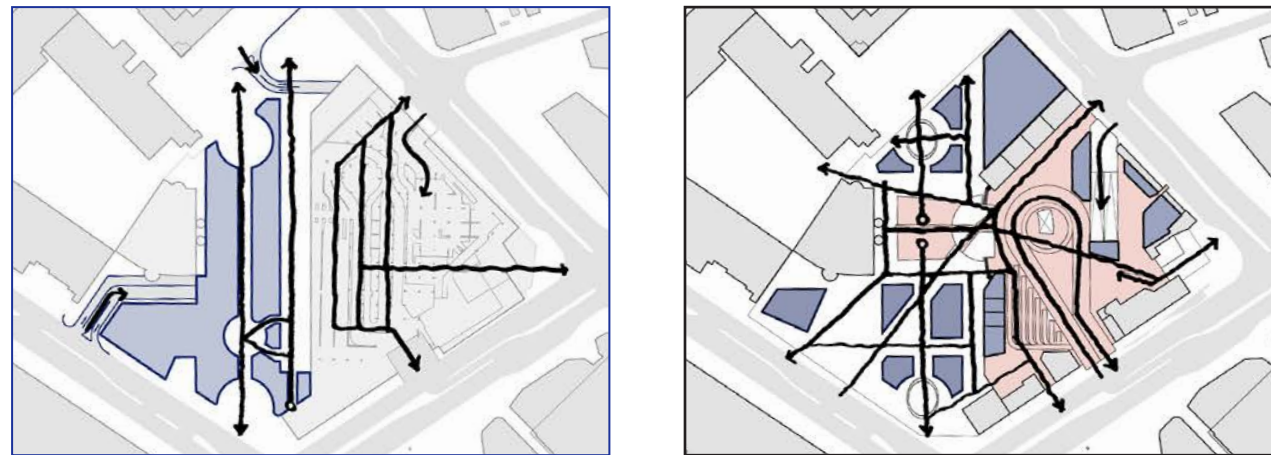


figure 8,28 & 8,29. Arrival and Entry at the Public Square
Existing Speculative [left]
Proposed Civic Centre [right]
1:5000

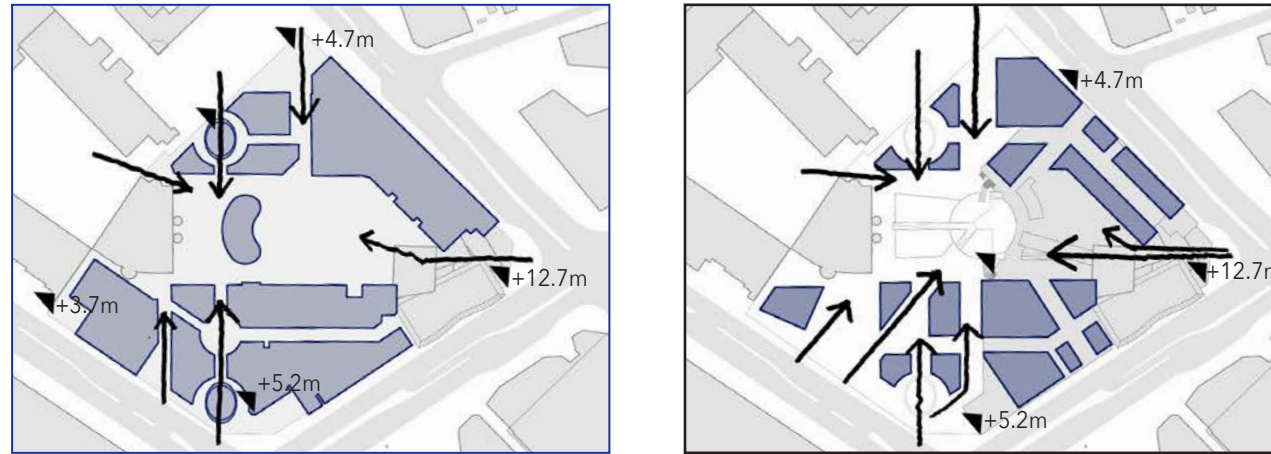


figure 8,30 & 8,31. Circulation through the Public Square
Existing Speculative [left]
Proposed Civic Centre [right]
1:5000

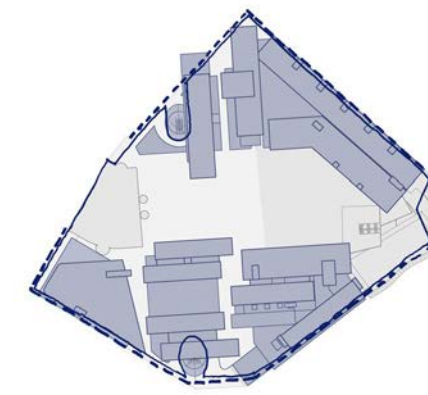
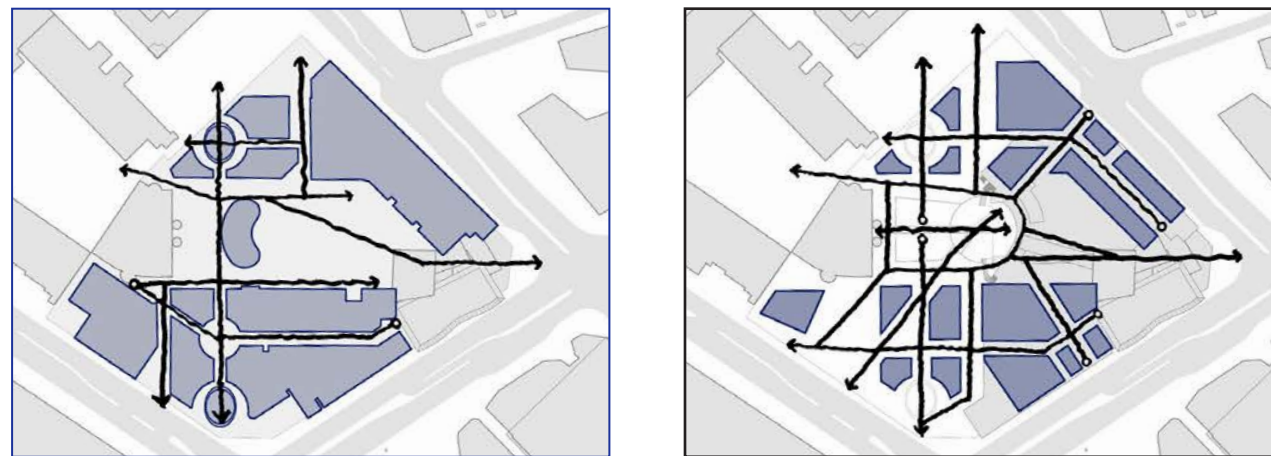


figure 8,32. [above] Existing speculative physical
boundaries surrounding site.
1:5000



figure 8,33. [right] Proposed alterations to physical
boundaries surrounding new civic centre.
1:2500



figure 8,34. [above] Existing speculative pedestrian flow
as a result of built structures.
1:5000



figure 8,35. [right] Proposed alterations to pedestrian
flow surrounding new civic centre.
1:2500



Experimentation

Design Charette

The notion of an insertion was an early concept for design experimentation and the Capital Capitol was conceptualised as an intervention into an existing precinct as a means to redefine it. This is achievable through a symbiotic insertion, where two foreign objects are combined for their separate function as well as a hybrid function where the whole is far more productive than a sum of its parts. The Contestation Series was an early instigator of experimentation into the notion of unexpected combination. The photographs [78] pull the surrounding contexts into the potential of the proposed site. However as can be seen from the image, *'insertion'* to the left, this can be done in a variety of ways. The new Werksmans Attorneys headquarters was wholly completed this year – 2018 – however, has been designed to portray the notion of new and old as a contemporary glass box is inserted into a neoclassical base. This alludes to the Sandton aesthetic of *'floating glass boxes of opportunity'*. This is not a hybrid product, nor a meaningful insertion, but rather a homogenous programme singular in its function. The insertion into the Kgoro precinct is decidedly the opposite. This must provide a contrast within the context to challenge the surrounding perceptions spatially communicated to the daily inhabitants. The ideas of combination and amalgamation were then further investigated in an attempt to define the point at which the two components lose their respective identities. This is relevant for both spatial manifestations as well as the communication thereof.

[78]

The full series can be found in Contestation Series.

figure 8,36. [left] *'inserted'*

figures 8,37 - 8,39. 'Plug in City'. This depicts an obscure sketch from the author's diary realised as a 3 dimensional form before being further abstracted for a new meaning entirely.

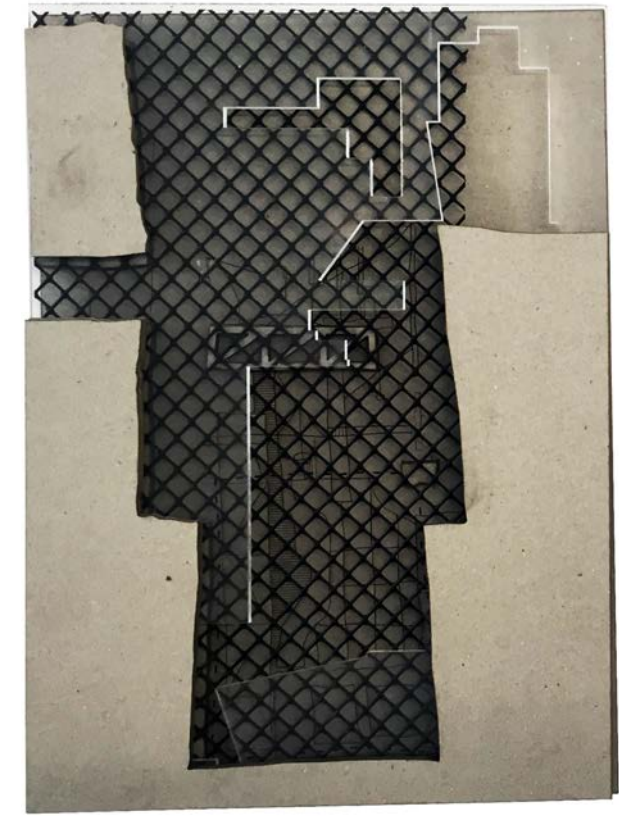
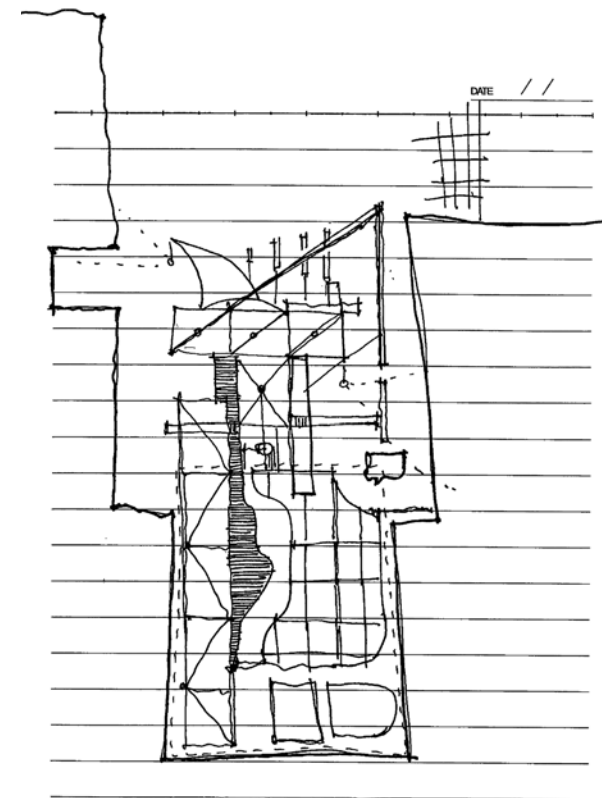


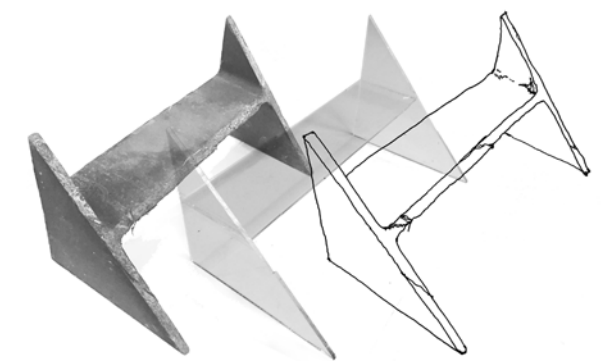
figure 8,40. Form finding experiment from plastic mesh found on site



figure 8,41. Existing basement grid created with mesh from site and new form created arising from existing.



figure 8,43. A steel offcut found on site, physically recreated in its physical form [out of perspex] and then further analysed in its definition in 2 dimensions



A juxtapositioning of space led to the conceptual contrasting of ideas. The proposed site retains a fascinating history of contestation and power struggles, yet simultaneously stands bare. It exists as a hotbed of conflict although remains unexpectedly calm and underwhelming at the physical centre of the Sandton chaos. There are a myriad of dichotomies defining this landscape and context, and perhaps the most interesting is the nature of real and unreal. There are existing built structures, rubble from previous buildings demolished, disregarded facilities and a detailed speculative future as the context for investigation. This provides the notion of a sliding scale of existence between what is 'real', 'speculative' and 'proposed' by the author. Experimentation was inspired by this notion and began on-site, with the collection of disregarded materials to use in the conceptualisation of the new proposed. This process speaks to the notion of time and the cycle of existence within the rapidly evolving architectural landscape of Sandton.

figure 8,42. New potential form arising from [recreated] existing basement grid.

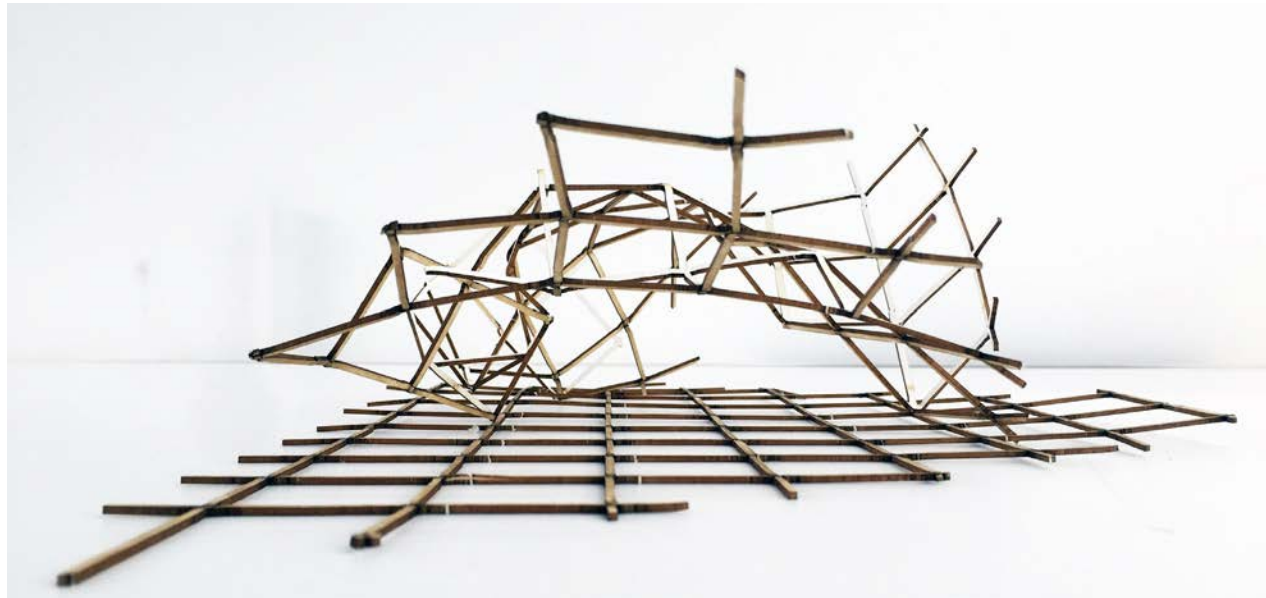


figure 8,44. [left] A disregarded mentis grid, recreated and further analysed through sketches.

figure 8,45. [right] This existing element is then designed for as a controlled element is created emerging through the incidental grid to support a new controlled grid replica.

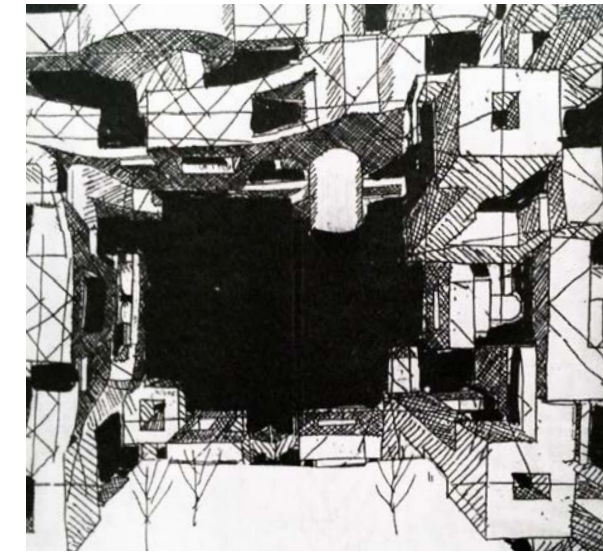
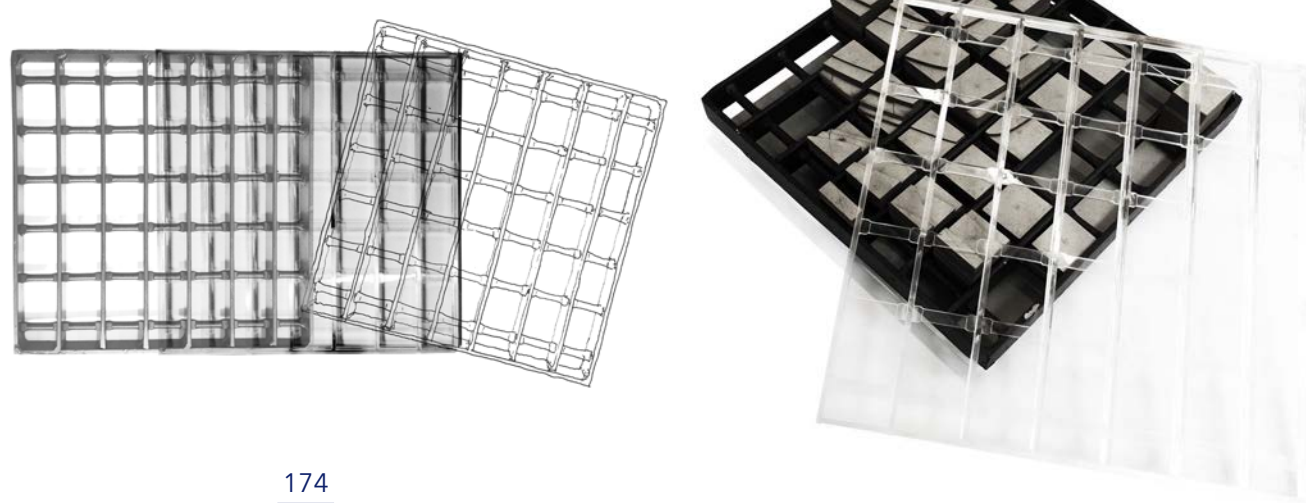
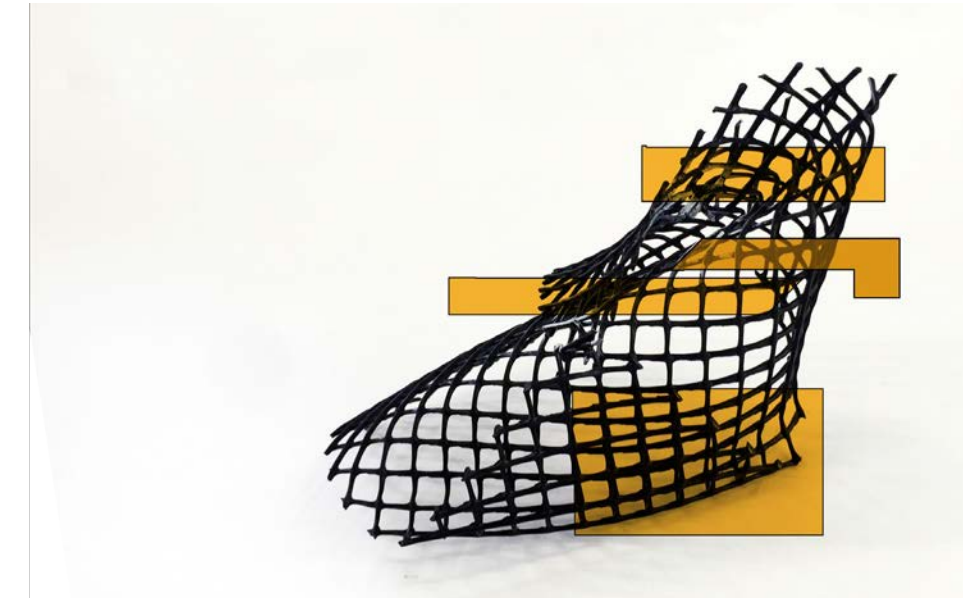


figure 8,46. Friedman's, *Villa Spatiale*, housing infill (1956)

It also combines a controlled process with an incidental space. In catering for a continually evolving population, an incidental architecture can be designed by lived experience and continually manipulated to remain relevant and contemporary; a reiterative process of creation from past version, but with an inherent potential to adapt alongside its future inhabitants. Yona Friedman discusses the versatility of the structural in affording the population an opportunity to infill as much as they deem necessary or possible (1956). This was conceptualised as quickly providing enormous quantities of individual homes for a rapidly growing population, but can also be applied to a variety of programmes and most importantly a continual change in programmes.

figure 8,47. [left] A potential grid created with found mesh, and infilled with the possibility of proposed programme.

figure 8,48. [right] A conical manipulation of mesh with potential programme filled throughout the core structure.



A speculative basement structure digging nine storeys into the ground provides the perfect opportunity for infill. The nature of a parking garage is essentially an evolving facility, and the manner in which we prioritise and utilize private vehicles is quickly changing. In the case of declining reserves of fossil fuels, the entire parking garage system can be altered and reconfigured for society's evolved necessities. This is a timeous process and as a result the predominant lifespan of a new basement exists in the reconfiguring process – infilling additional programme. The revolutionary capabilities are extensive in appropriating a vast three-dimensional grid for human function. The fact that this structure is still speculative thereafter provides an exponential increase in possibilities.



Form Finding

In addition to a future malleability, the proposal also needs to define its shorter term function. The conceptual notions of real versus speculative, and incidental as opposed to controlled have deeply influenced the process to developing a physical form for the proposal.

An experiment was carried out to determine what the result would be of a form inspired and determined by on site happenstance - however with the unavoidable agency of the author defining it. An ordinary disregarded piece of concrete was chosen purposefully at random and this became the instigator for carving into the speculative, and simultaneously constructing upward and out of it. This concrete form was extruded, at a scale of 1:10, from an exploded speculative basement at a scale of 1:1000 - even the protruding rebar was used to carve potential connections into the future context. Thereafter a positive form was created mimicking the negative below and extruding the space in a celebration of the continuation both upwards - additive - and downwards. The resultant architecture exists as a hard and angular form reminiscent of the current state of site. The imposition of this hard form in the future floating glass constructions acts as a statement in the process of *'becoming'* and actively opposes the blank slate construction mentality speculated for future construction.

figure 8,49. [top left] Image of rubble on site from which the concept of an incidental space contesting with a controlled context. A piece of the rubble is highlighted and indicated the form from which the model developed.

figure 8,50. [left] Carving into the site with the form of a rock found on site.

figure 8,51. [bottom left] The model is exploded as a means to engage with the different levels of basement context.

figure 8,52. [bottom middle] The basement grid forced into the negative incidental carvings on into the site

figure 8,53. [bottom right] The resultant positive form of a incidental experiment manipulating existing circumstances on site for potential future form.



figure 8,54. *The Contestation Series*, provided a means to conclude and reflect on the the process of site manipulation and experimentation
'disregarded'



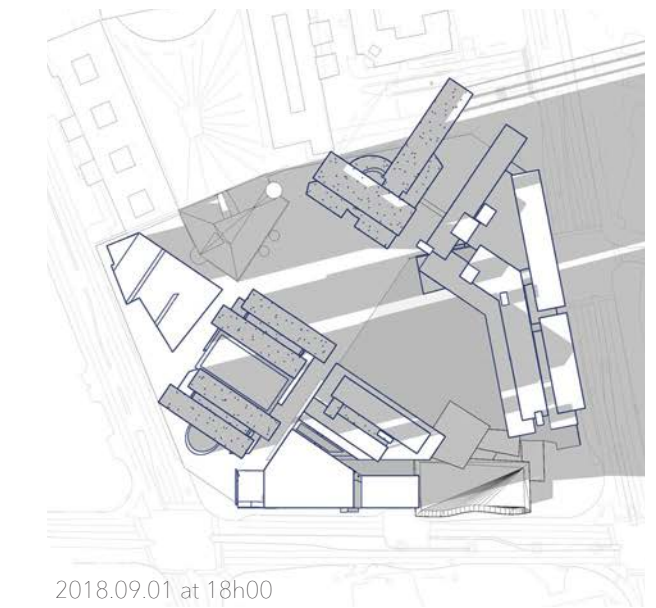
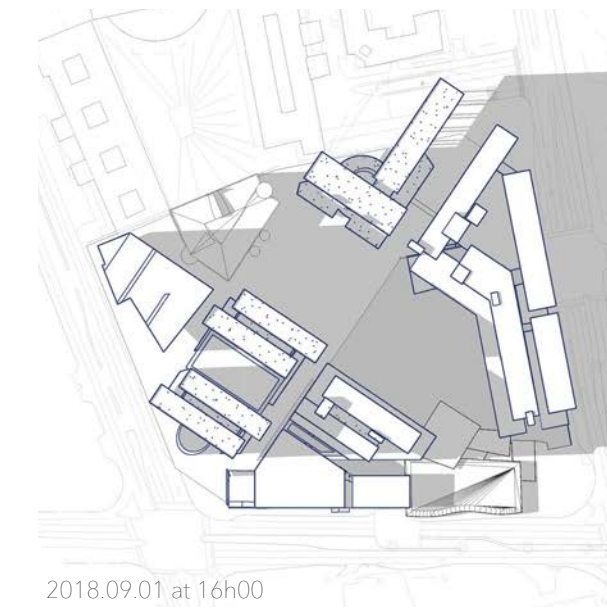
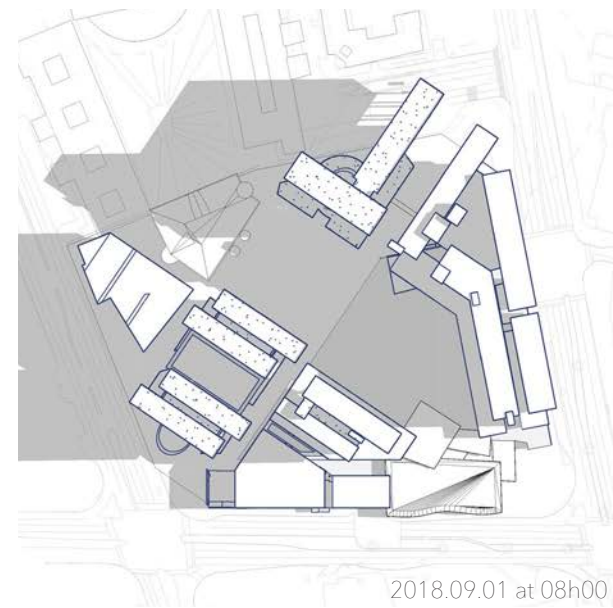
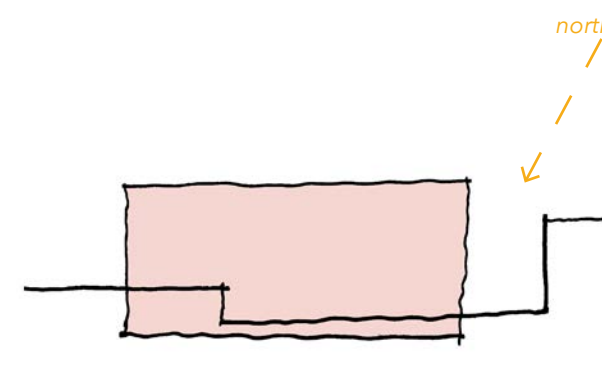
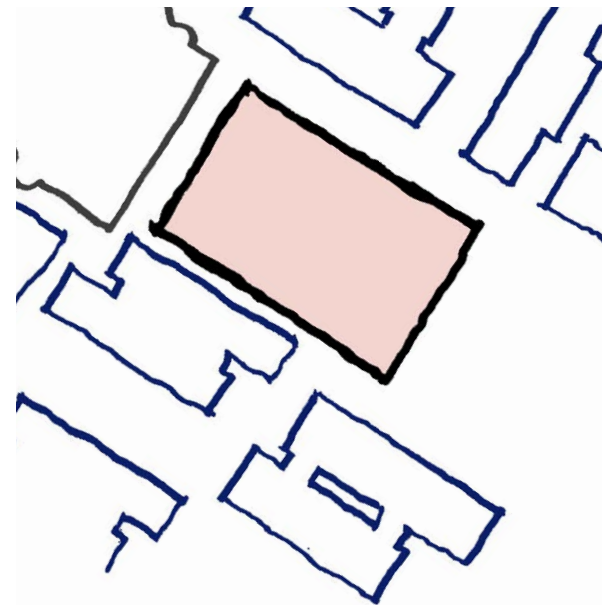


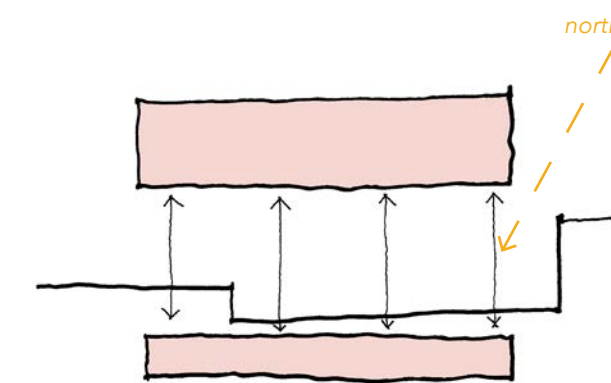
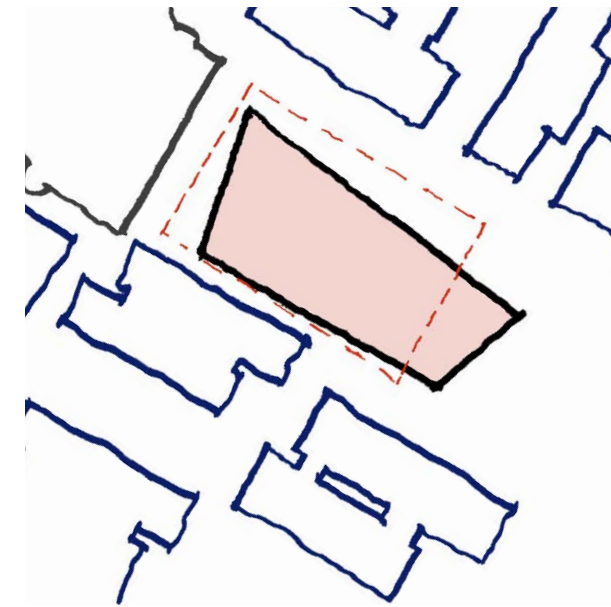
figure 8,55. [above] Sun studies of the public square of the reconfigured Kgoro speculative precinct
1:5000

figure 8,56. [above] Development of plan [above] and section [below] for optimal light and warmth to reach the public arena, despite the Kgoro towers
North is directly upwards on the page in plan view and indicated in the sections
1:2500

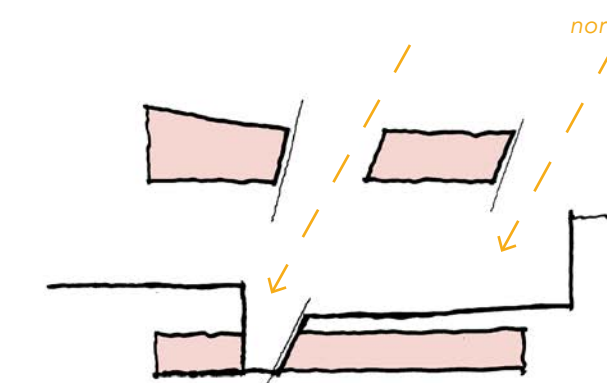
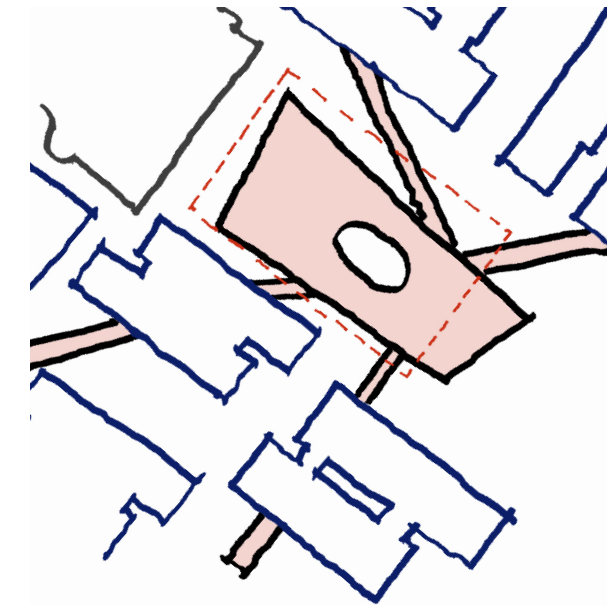
Speculative development to be built in the future
Proposed Intervention
Existing structures on site



Overall proposed site, with the massing of the proposed programme. The initial image is visually heavy and completely unfeasible in this configuration.



The plan is shaved inwards from the northern corner in order to provide the square with increased light. The Section is divided in two parts in order to decrease the bulk blocking the square.



The form is further carved into away to directionalise sunlight through the building. The square below is simultaneously cut into for increased light while, the bridges connecting public space are provided for by lightweight structures so as not to block any further light.

Spatial Development

Environmental Studies and Resultant Form

Densification is a vital component of an inclusive business district, although as this occurs buildings typically stretch upwards. This decreases light and warmth felt on the street level – typically the only public and shared space. This is an issue that needs substantial consideration through the development process and often requires a mediating guide or development plan. The form of the Capital Capitol was largely influenced by the space surrounding it and the degree of public interfaces with the surrounding buildings. The building has edges shaved away to increase northern light as well as large perforations through the massing. The form is divided and split into that which is raised about the street level and that which is dropped below it in order to minimise unwanted shade and optimise public space.

However, the Capital Capitol is not merely the addition of a programme to the development but exists largely as a statement within the development. In this reconceptualization, the public is prioritised throughout and the typical street level public forum is done away with. The public square extends right through the development to a grand arena on the rooftop, the height of which provides a truly public pedestal with warmth and light within the precinct. This challenges a vertically divided society whilst simultaneously dealing with the environmental conditions fundamental to the comfort of future inhabitants.

figure 8,57. Existing basement plan and structure.



figure 8,58. Speculative basement [1-3] plan and structure

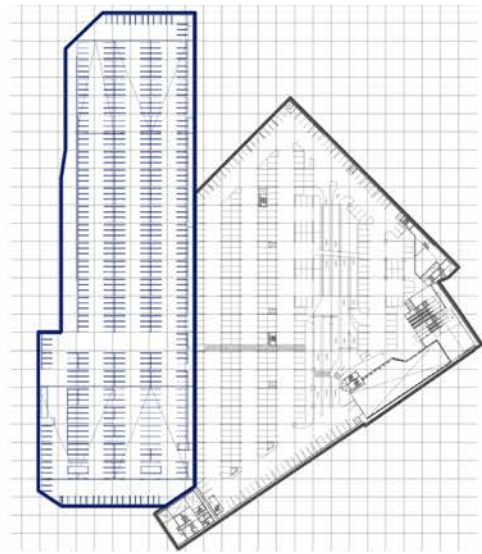
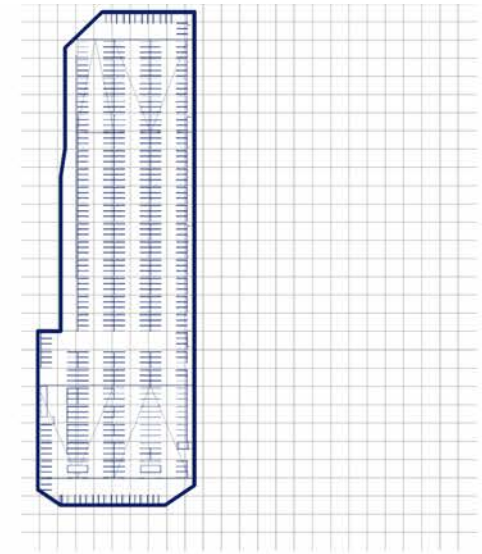


figure 8,59. Speculative basement [4-9] plan and structure



The horizontally conceptualised city structure is challenged. Sandton, and Johannesburg in particular, have extremely complex spatial spreads defining different zones for the many inhabiting demographics. This is an imminent challenge to urban cohesion and must be addressed especially from within an agglomerative area. The parallel horizontal landscape is disrupted with a vision of an increasingly dynamic socio-spatial relationship. There are public spaces that need to be elevated and simultaneously there are celebrated spaces with optimum conditions for being submerged. These are not typical relationships, although the intense culmination of a public private partnership in creating a mixed-use development provides a perfect opportunity to address this.

A formal basement structure is speculated and maintained as a means for order within, and surrounding, the prescribed chaos.

figures 8,60 & 8,61. Depiction of the order within the basement as currently envisaged and a reconceptualisation of this static order.



figures 8,62 & 8,63. This continuation of public space forms the primary circulation and is further solidified and celebrated with the funnel structures

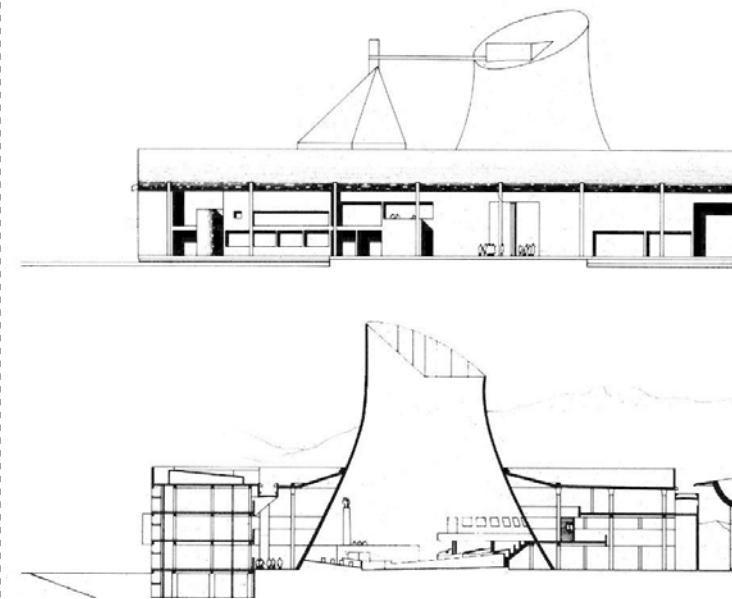
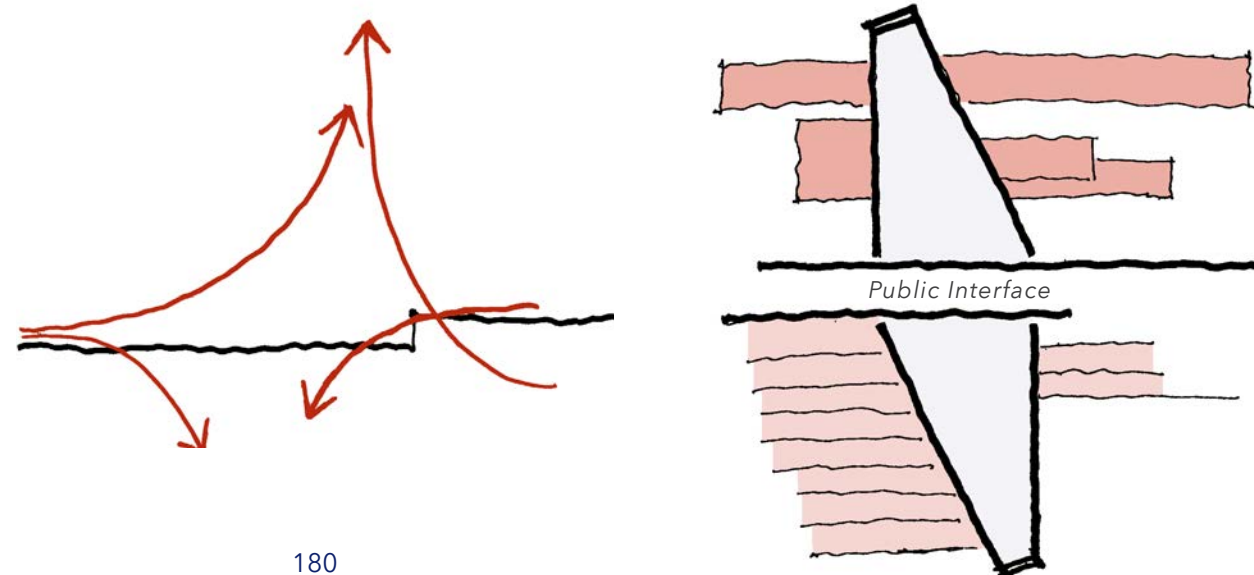


figure 8,64 & 8,65. The elevation and section of Le Corbusier's Chandigarh Assembly Hall portraying the experience from the outside as well as from within.

figures 8,66 & 8,67. The building is designed to act as its own circulatory means connecting an extensive variety of public to private spaces.

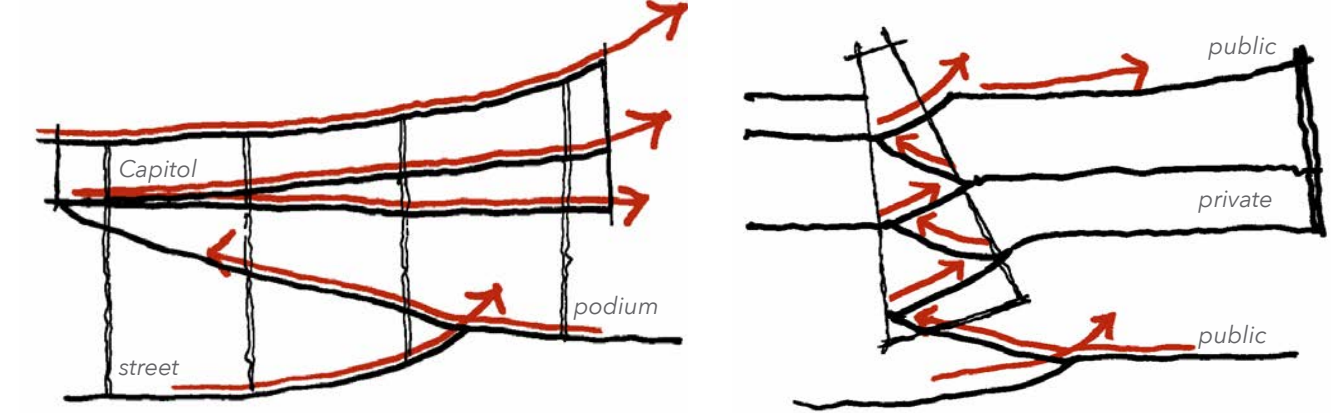
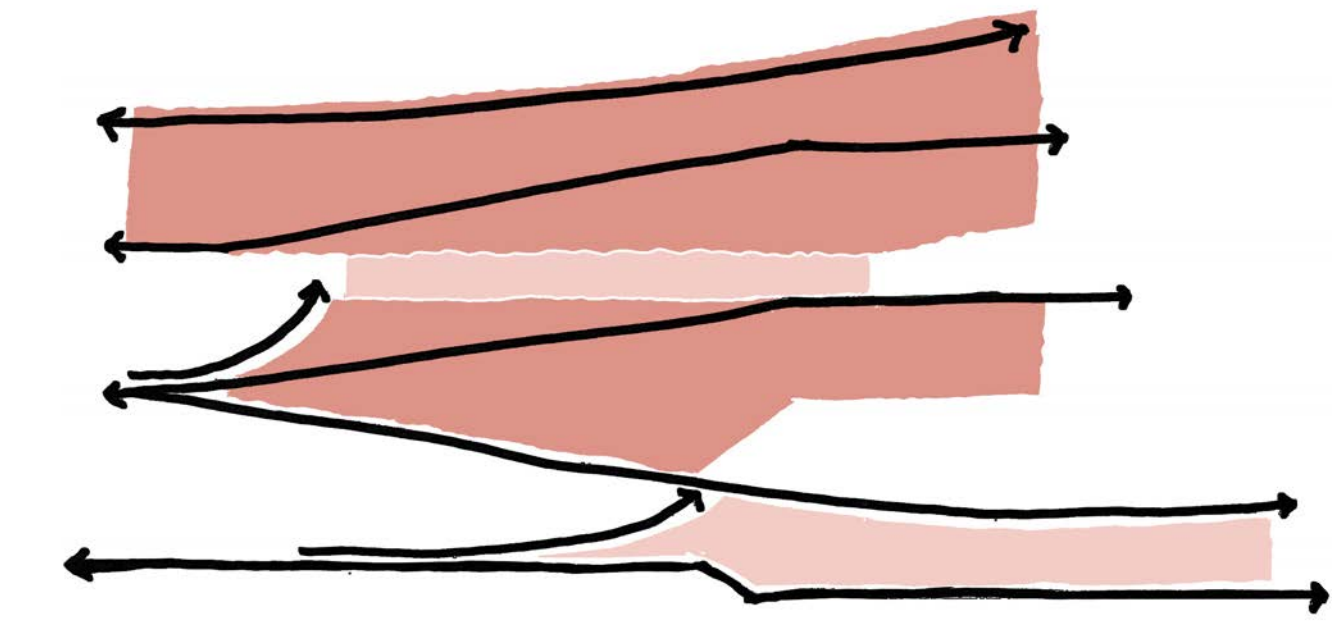


figure 8,68. The various programmes as well as routes through the building are to be clearly illustrated in the built form, such that major signage is seldom necessary. In doing so, the human experience articulates the infrastructure of movement and a dynamic space for interaction.

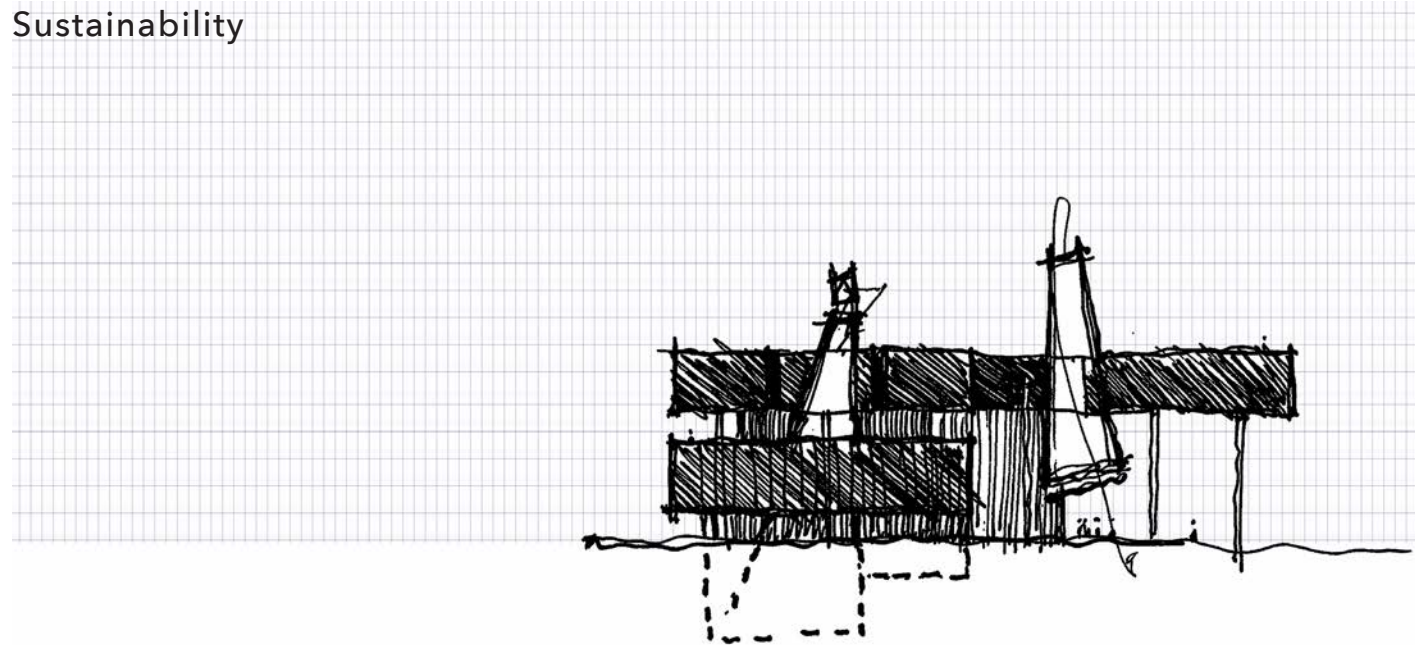


The structural rationality of an inherently capitalist development, governed by cars and costs, provides an opportunity to focus on the dynamic possibilities and allow them to surround – at times even permeate – the maintained functional structure.

A human orientated spatial syntax is prioritised and celebrated and the proposed form is a public communication of this. In the Chandigarh master plan, Le Corbusier utilised the conical shape to communicate a sense of occasion and hierarchy for the assembly hall. As can be seen below, this is experienced from within the hall and communicated to the surrounding public. A conical form is proposed for the Capital Capitol although envisaged in the opposite manner. The cone is proposed as a celebration of public circulation through the civic centre. The space created is also used to communicate the necessary value of the individual both to the general public and to those within the Capitol headquarters.

Sustainability

figure 8,69. An early sketch of a textured concrete facade proposed in contrast to the surrounding glazed reflections.



An integrated proposal is fundamental to the success of the Capital Capitol. The introduction of the civic centre is not only a disruption to the nature of Sandton, but more importantly is a proposal for an alternative direction for the future of the business district.

The sustainable nature of the project is multifaceted. There are a series of technological specifications proposed to conserve water and electricity in the continued operation of the entire precinct [79]. However, this sustainable technology must also be complimented by the overall design and usage. A social participation is vital for a sustainable ecological urbanism. Primary design elements are specified to provide the holistic plan for an integrated system. People and services are circulated through the same routes, defined by architectural features – also providing the structural support system. This combination optimises the construction process, but furthermore the lifespan of the building.

[79]

These are further discussed in *"Production for Reproduction: Conclusion"*

figure 8,70 & 8,71. Plan & Section showing the way in which light and heat are transferred through the various skin conditions

Sunlight
Indirect Light
Heat

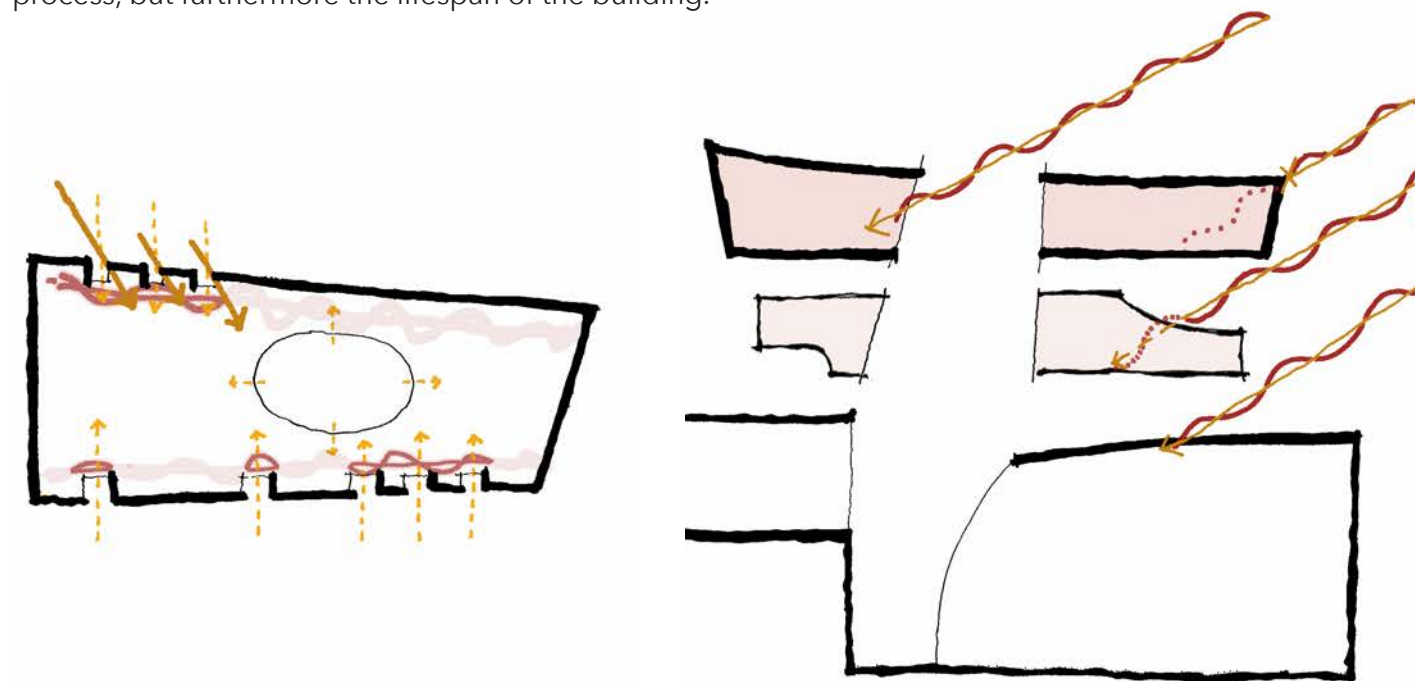


figure 8,72 & 8,73. [left to right] Circulation through a typical floor; Circulation through the proposed section; These two both are organised by the vertical and horizontal structural members.

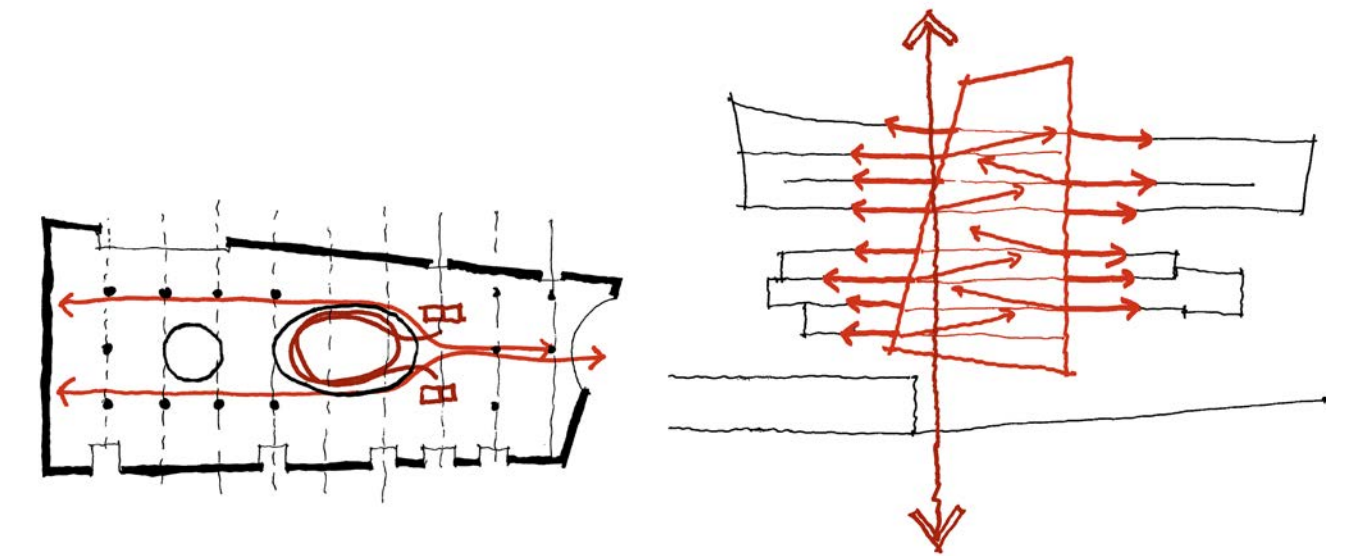
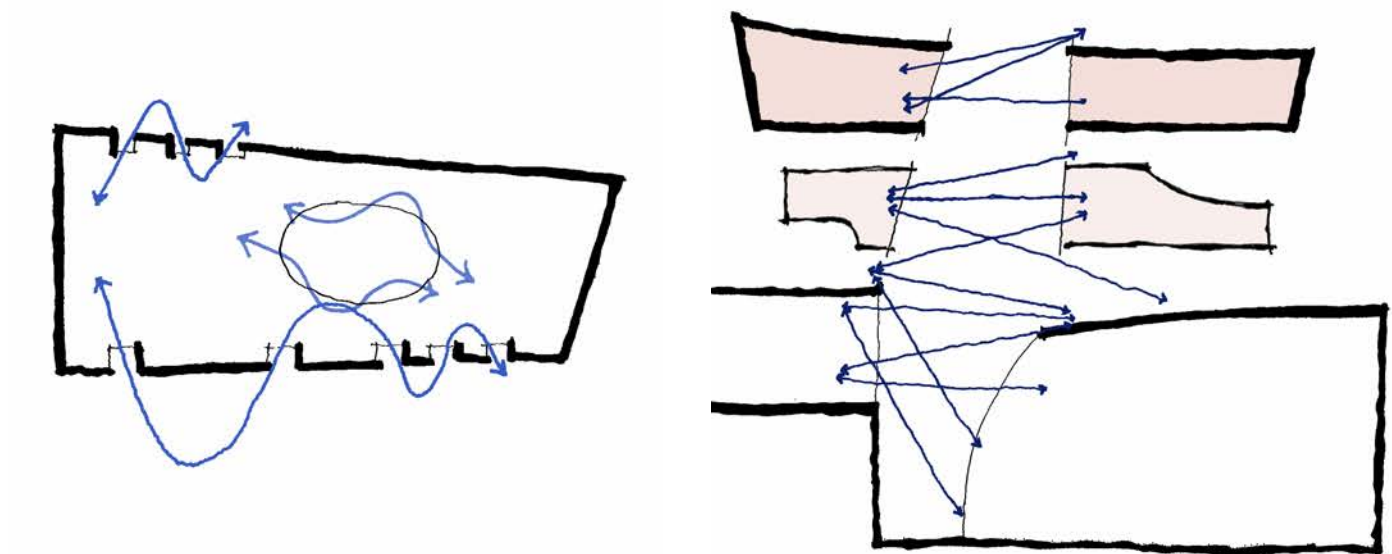


figure 8,74 & 8,75. Plan [left] showing ventilation through the hard edges and Section [right] showing human connectivity through the various skin conditions.

Ventilation
Inter & Intra Connectivity



In 10 years' time, when the technological support structure of an office has drastically changed, the paths of the necessary conduits are accessible within the hollow structural system. The supports in their own rights can carry far more than currently proposed as they rest on the same foundations as the neighbouring towers.

This is an important consideration for a prolonged positive effect within the precinct. There are various programmes and facilities provided for in the design and these require a variety of control and protection. This ranges from sunny public space to a light and air sensitive archive. In order to achieve this glass and concrete are proposed as the primary building materials to further optimise control and comfort.

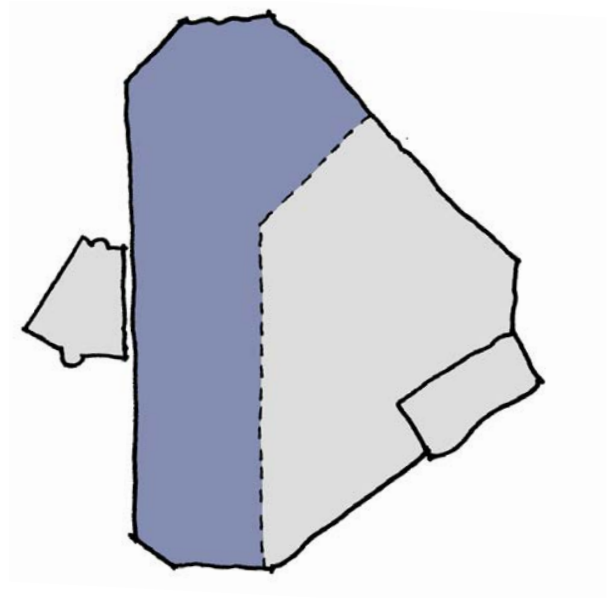


figure 8,76. Design Progression on the Podium as determined by the section below.

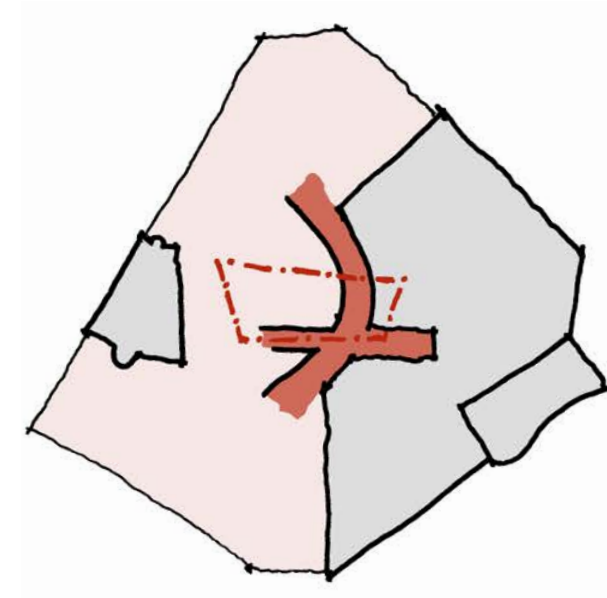
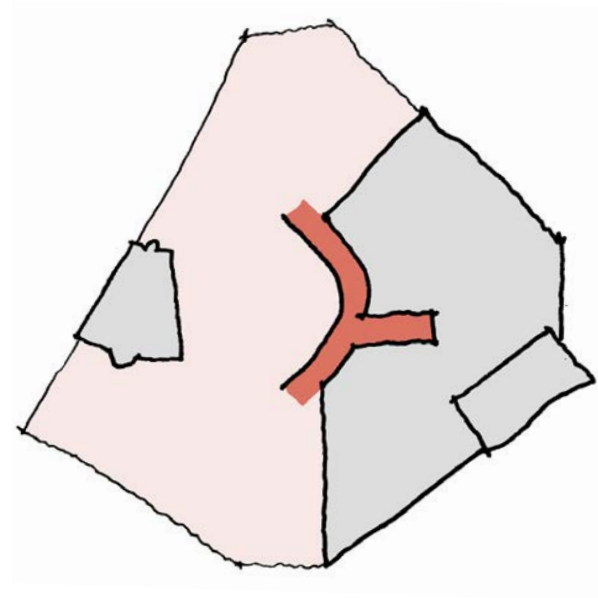


figure 8,77. Design Progression through the section
Initially there was just small existing basement with a substantially deeper speculative basement to come. On the podium that these two basements create, sits a speculative public square for future development

[2]

The speculative half of the podium is carved down to the existing street level in order to increase accessibility as well as create a more meaningful and stimulated public space.

[3]

This public space is the extended upwards breaking through the vertical barriers often imposed on the public. The programme is then proposed above this space.

[4]

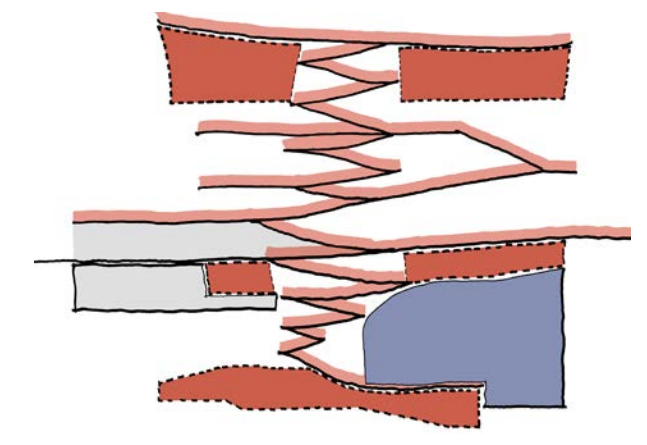
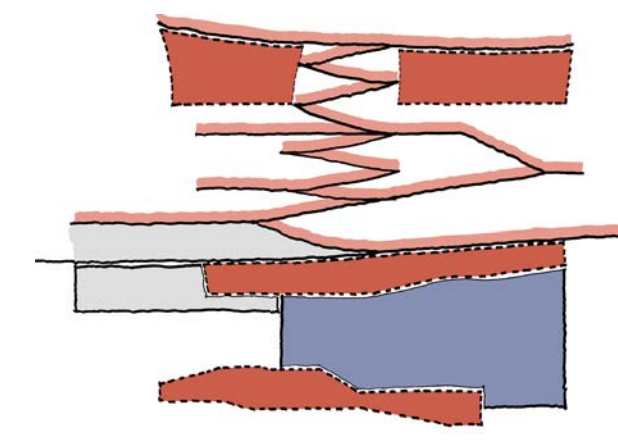
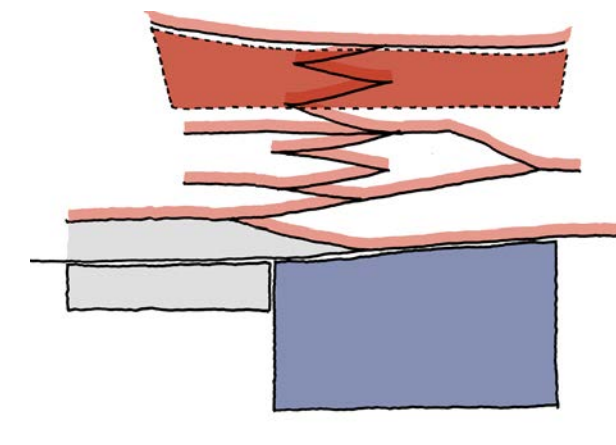
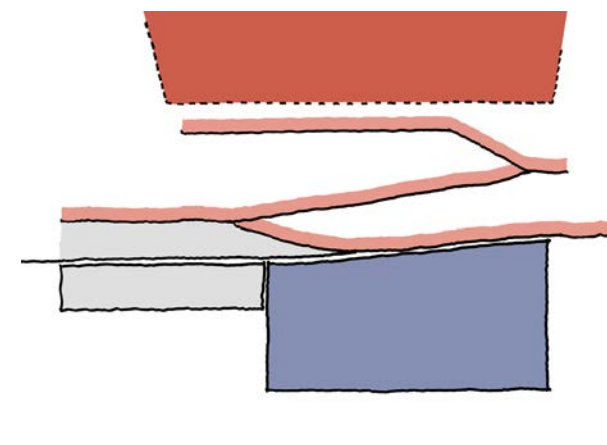
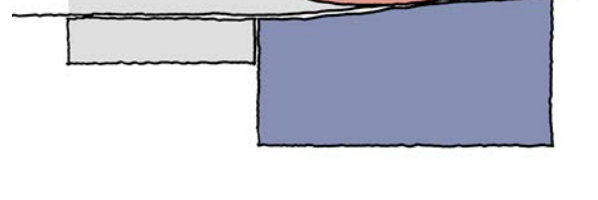
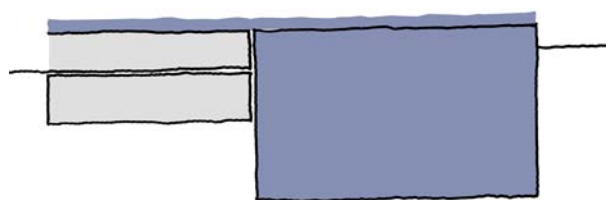
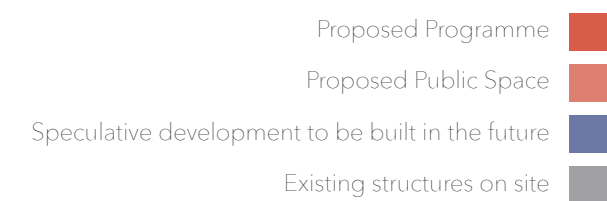
A rooftop plaza is provided above the building programme in a further continuation of public space. A glorified circulatory route is then provided to reach this.

[5]

The proposed office programme acknowledges and celebrates this extension of public space by opening up to the circulation and further providing a public transparency into the inner workings of the civic centre.

[6]

The additional programme removed for circulation is buried within the basement parking, however a public circulatory system reaching downwards celebrates this additional programme and provides an increased accessibility into the development.



The nature of alterations and additions into an unbuilt context provides an invaluable opportunity to redefine it. The reconceptualisation proposed therefore can occur on a multiplicity of levels simultaneously - from the suburb's public space, to the architectural definition. The section celebrates this notion as both the existing built structures and speculative proposed are challenged and stimulated, albeit to different degrees. The result is an additive extension upwards, with just as substantial an intervention carving downwards into the proposal.

Reflection

The practicalities of a suitable and sustainable impact on the suburb are vital for a civic centre. However, the Capital Capitol offers additional functionality in its spatial communication of future governance. The illustration below depicts two leaders addressing two potential gatherings in the provided public space but the spatial language of the communications differs fundamentally. Both instances are important for a reinvigorated confidence as well as assured accountability for future governance.

A truly revolutionary intervention to realise the potential of Sandton cannot be achieved by innovative economic policies alone, or by spatially addressing an intense societal inequality. It is only possible through the confrontation of both notions simultaneously. The Capital Capitol is proposed as a beginning point in this process toward what is a necessary and somewhat inevitable realisation of Sandton's evolution.

figure 8,78. Spatial Syntax, Leadership and Accountability

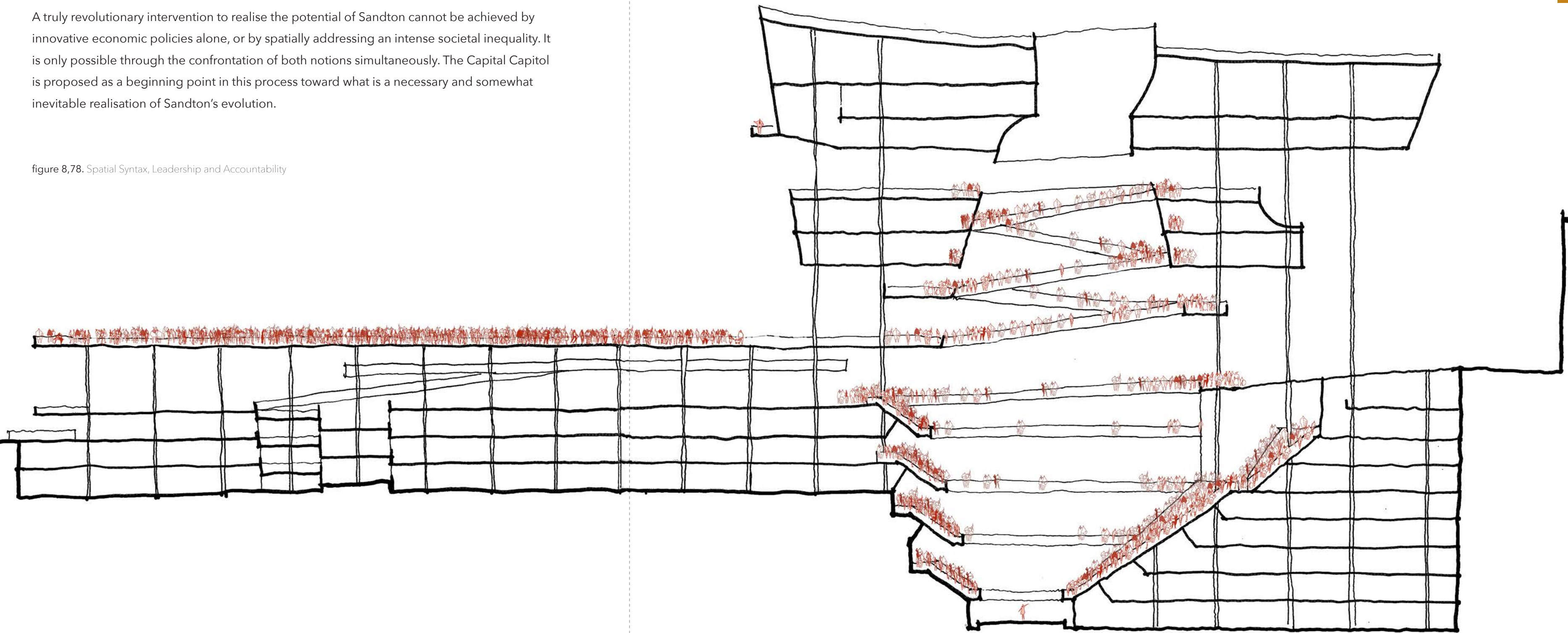
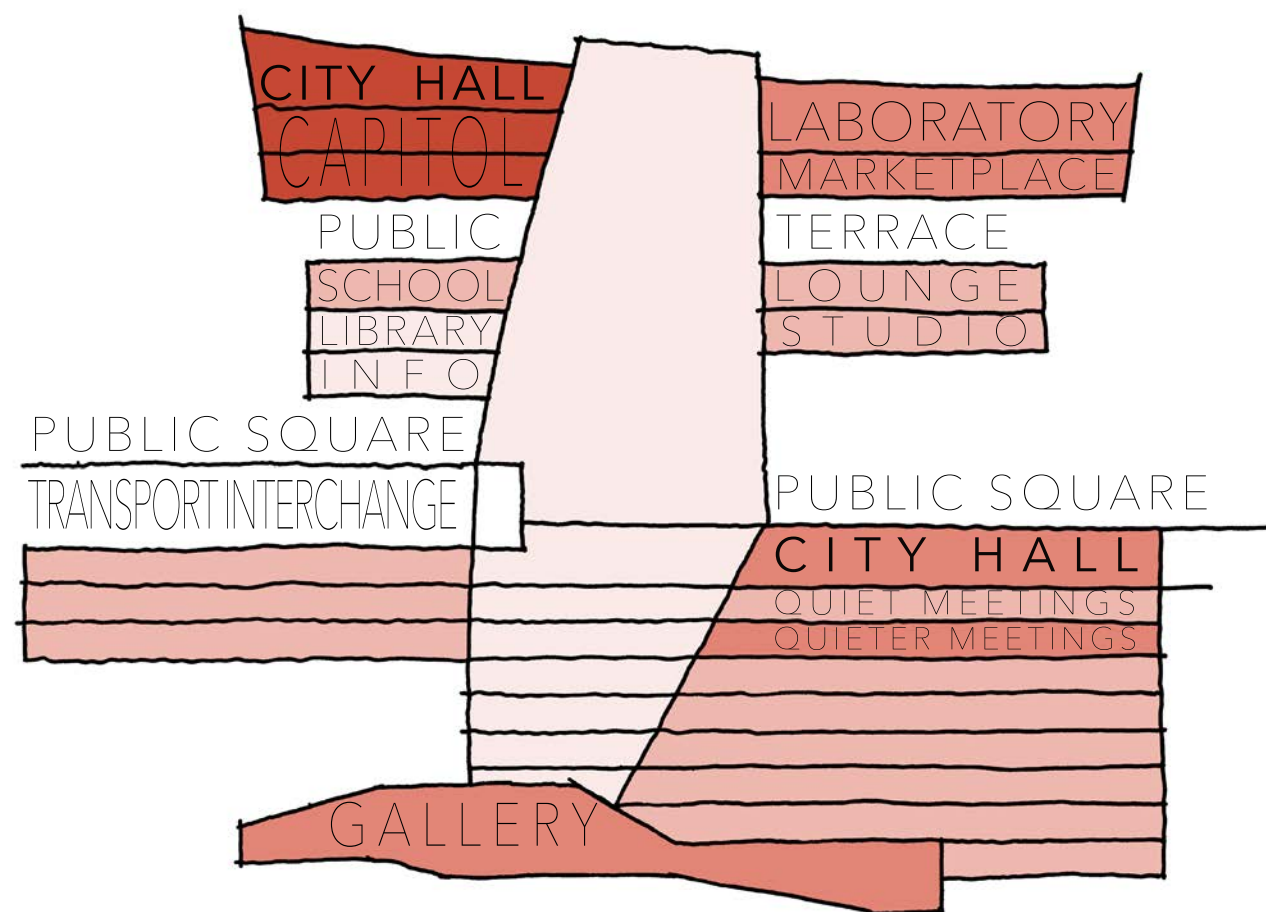
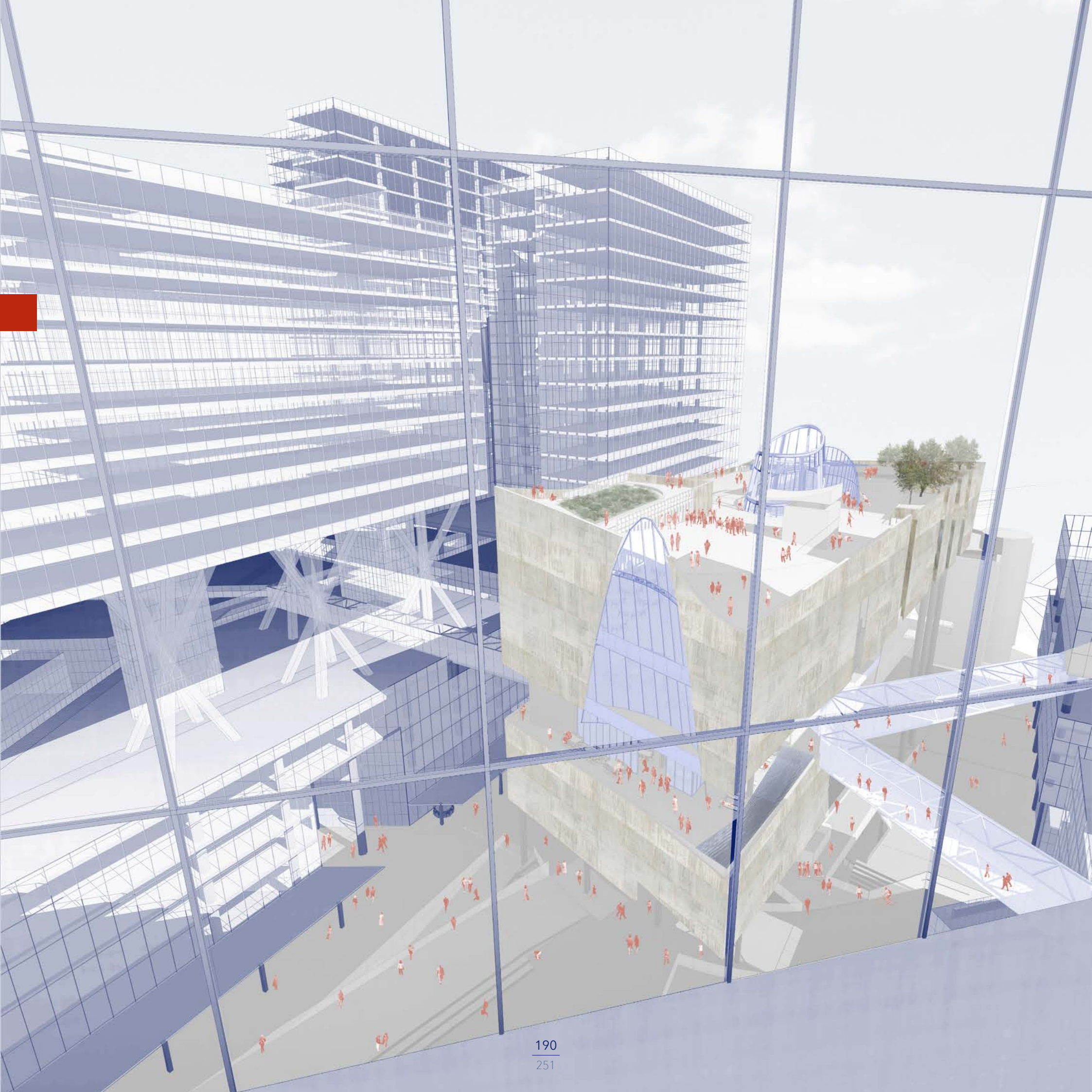


figure 9,1. Resultant Programme for The Capital Capitol



9 DESIGN PROPOSAL



9 DESIGN PROPOSAL

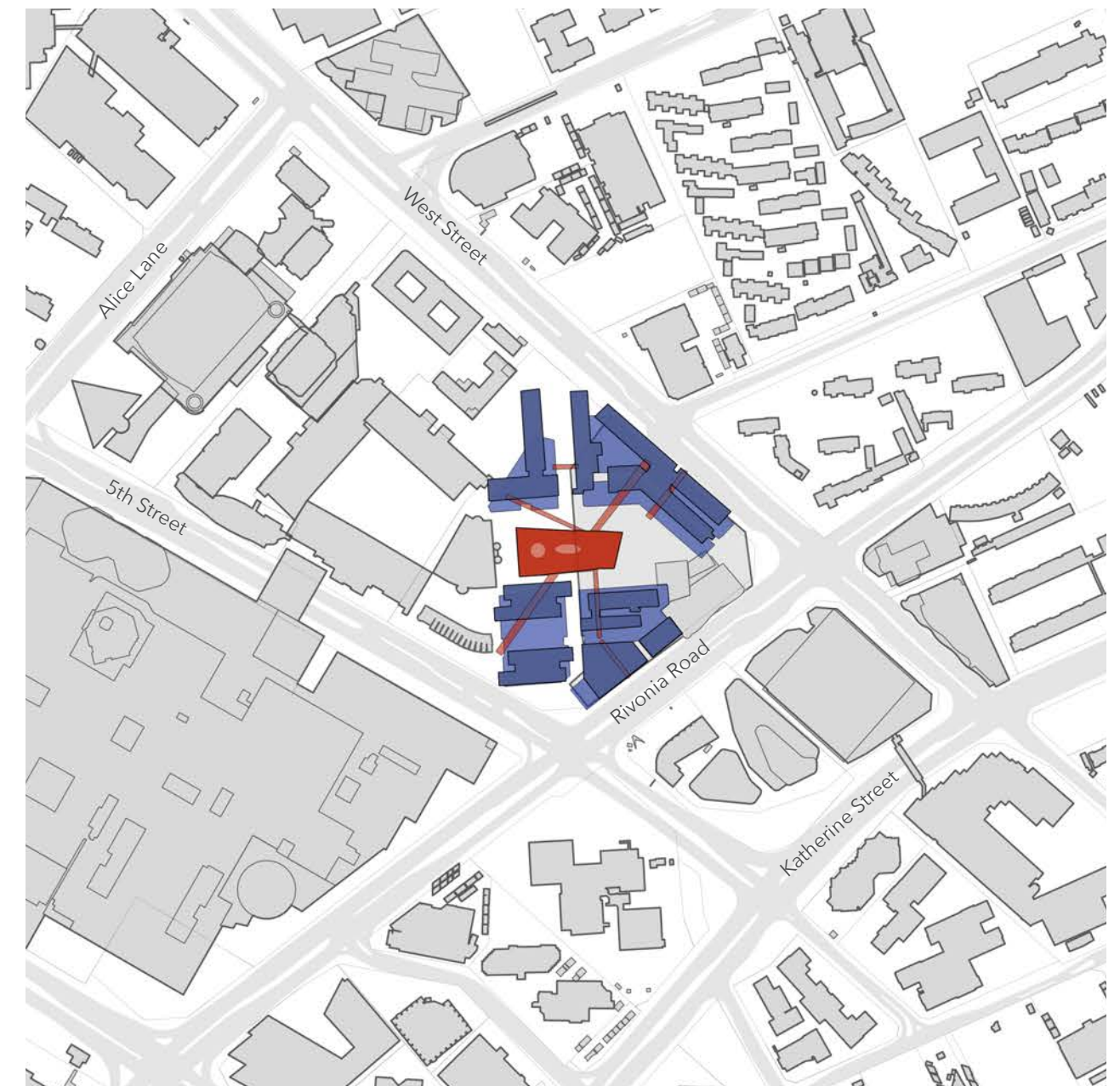
Advanced Drawings

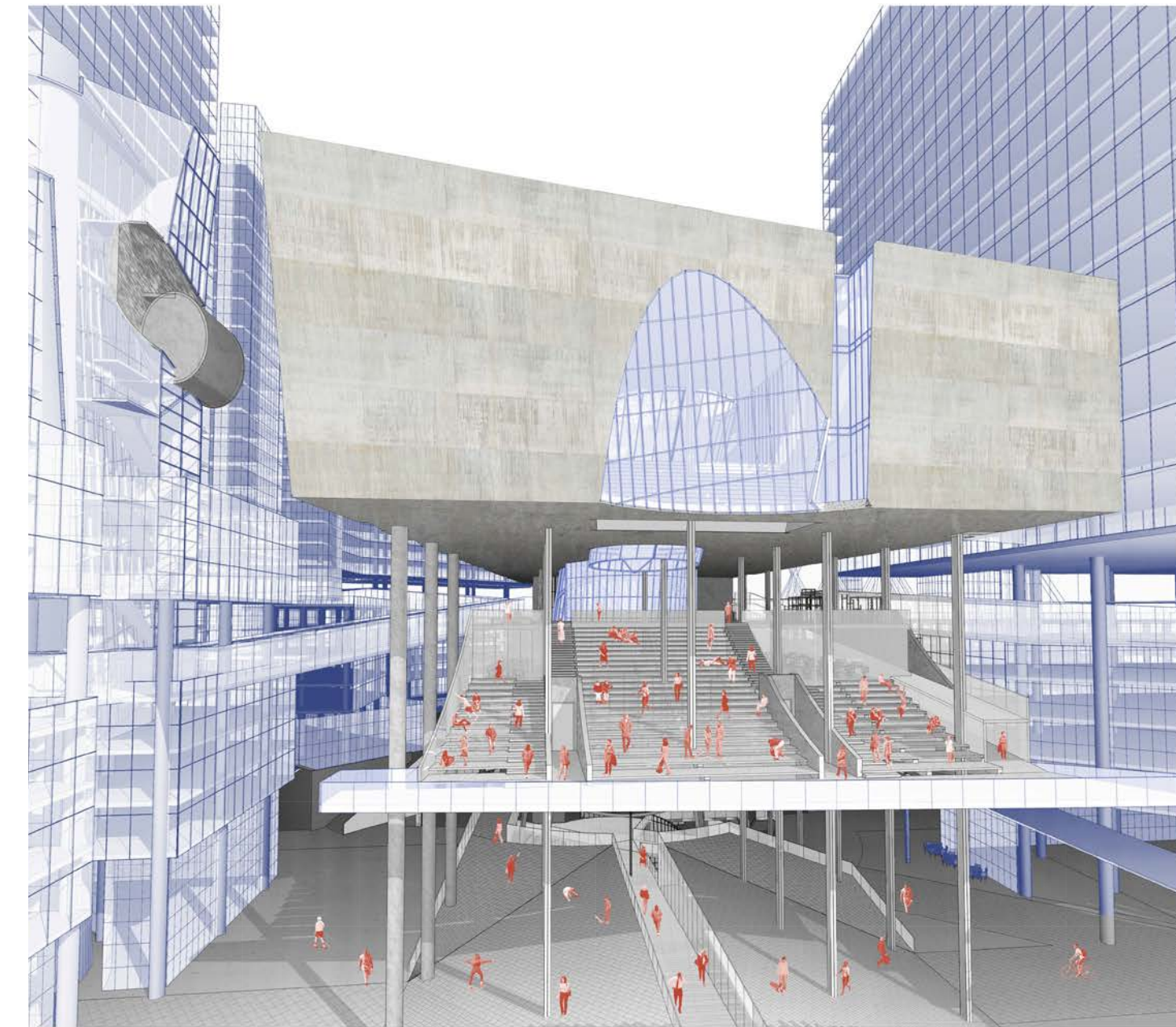
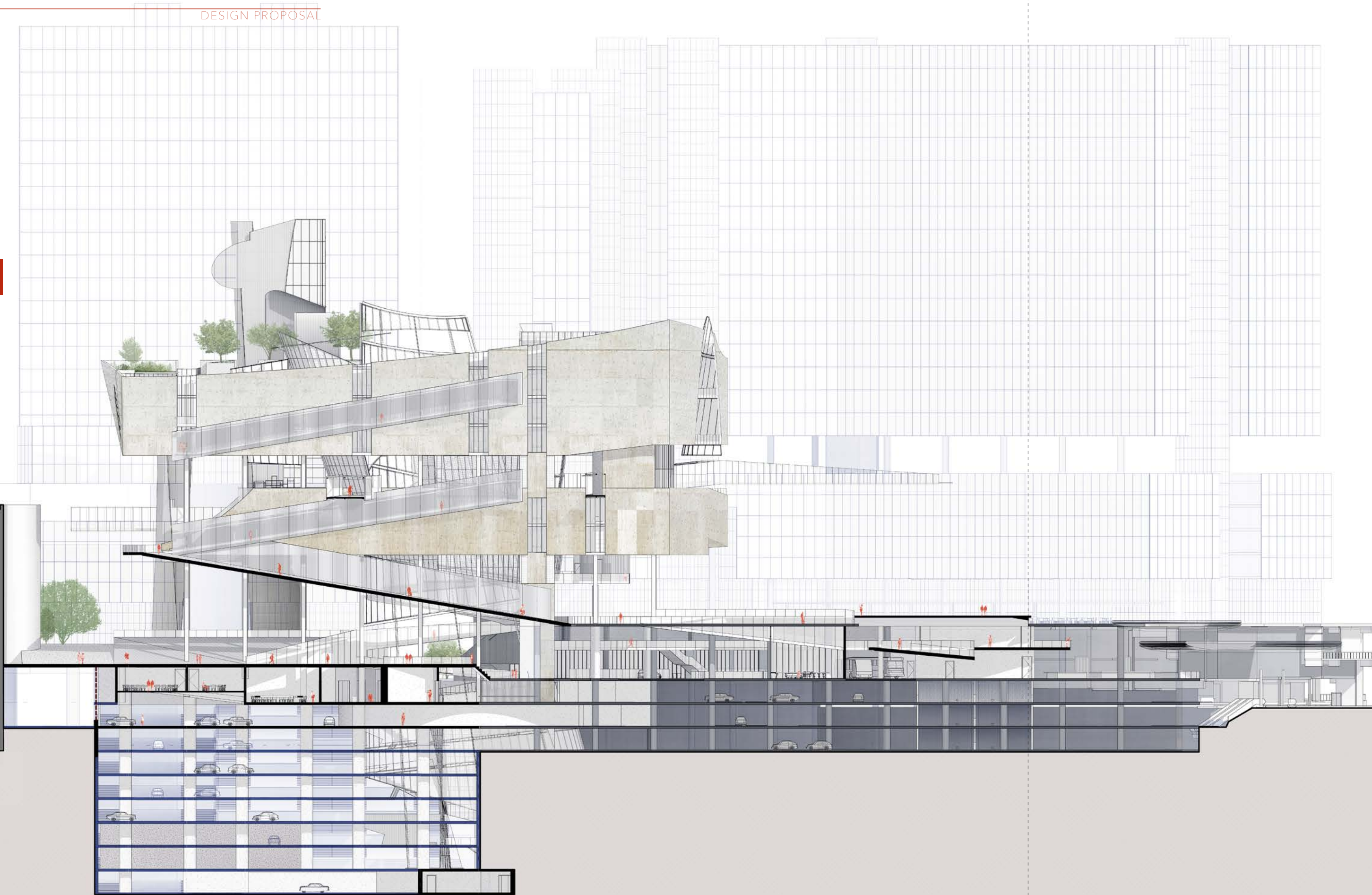
Aerial View of Civic Centre & Public Space

figure 9.2. [left] *The Predicted Perspective from
Neighbouring Offices*

Site Plan

figure 9.3. [right] *Context and Urban Integration*
1:5000





West Elevation
figure 9.4. [above] *Elevated Public Spaces*
As viewed from the Sandton Library Balcony

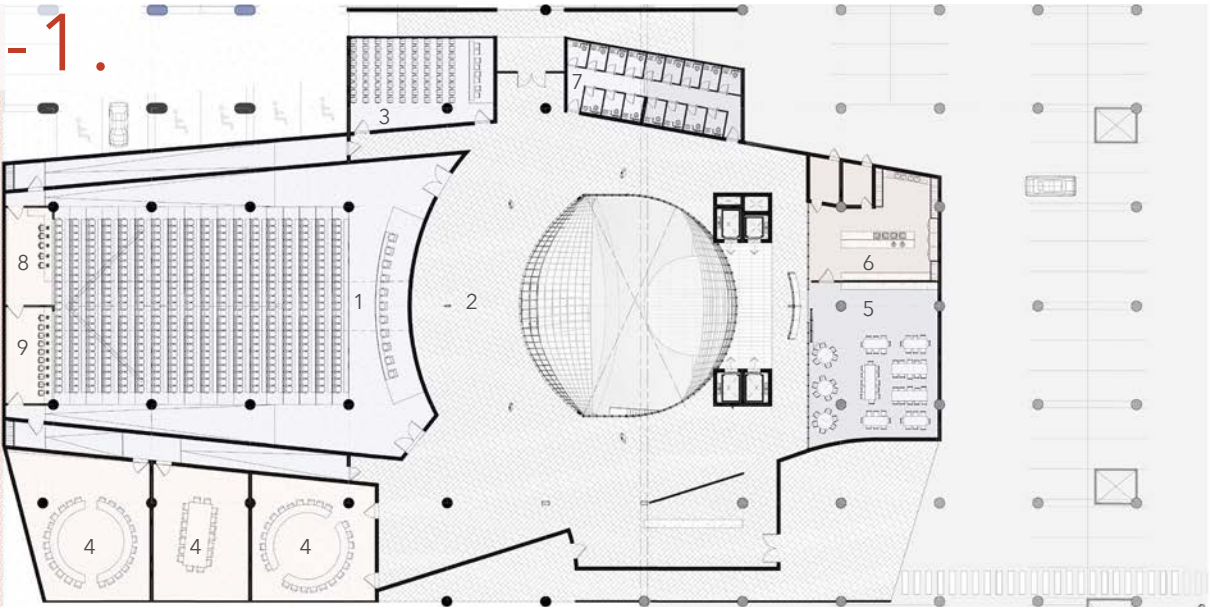
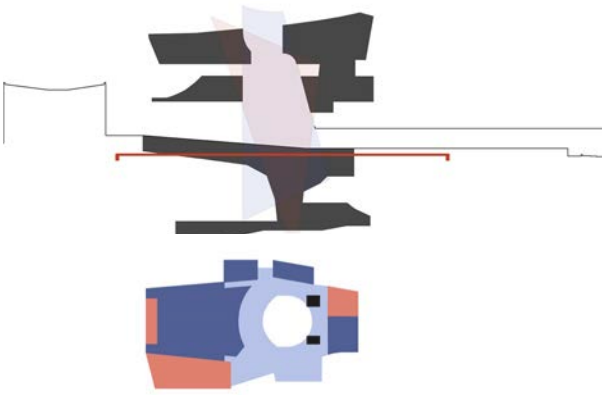
South Elevation through Basement
figure 9.5. [left] *Building As Movement*
1:500



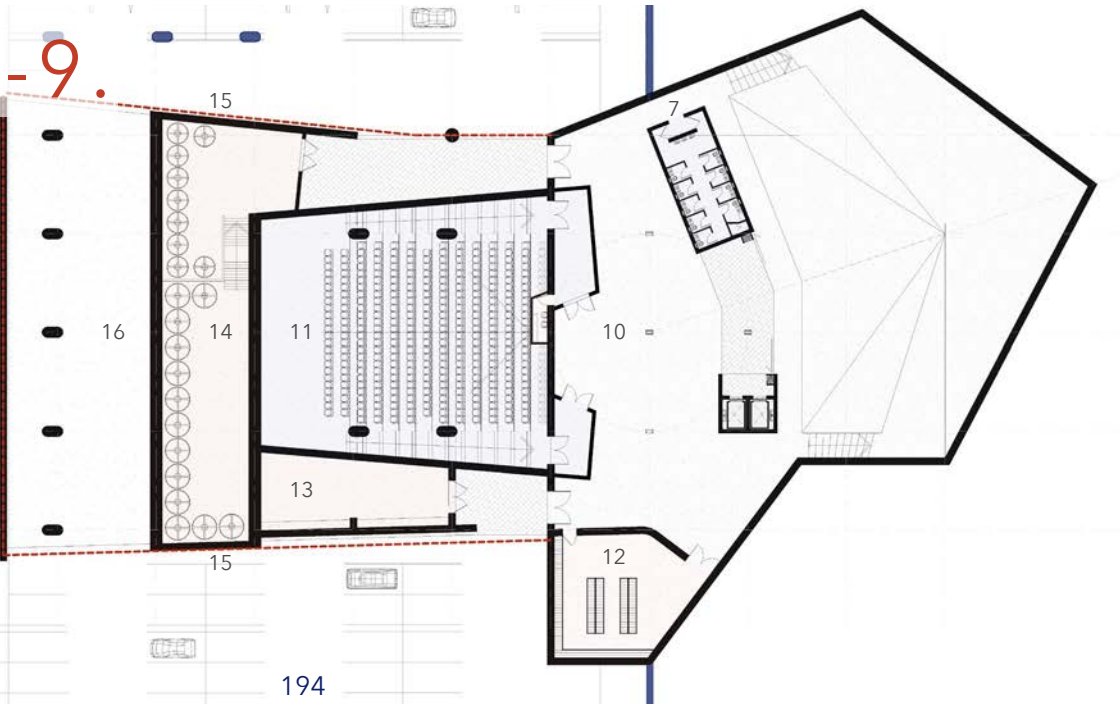
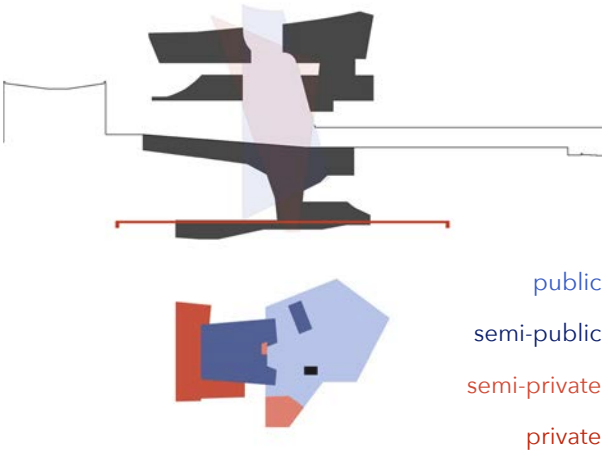
The proposal fits within the precinct plan, but simultaneously redefines it however, there is a constant equilibrium being negotiated as *The Capitol* takes control of the existing design. A series of spaces are proposed below the ground within the speculative parking. This is through an architecture of subtraction as space is forced into the existing design as well as being created alongside it - proposed in the usual additive manner.

The basement becomes something far greater than intially envisaged. As private vehicles are slowly strangled out of the business district new opportunities will arise for enormous existing parking structures. This proposal utilizes specific programmatic requirements - a range of spaces from open, naturally lit to buried, controlled and protected - to embed a functionality into the basement. Contemporary perspectives are challenged through a particularly effortless public engagement - playing on a lazy mentality of parking as close as possible to a destination space. This is both for a future vision as well as a contemporary practical usage.

Basement -1 Plan
figure 9,6. City Plenary Hall
1:500

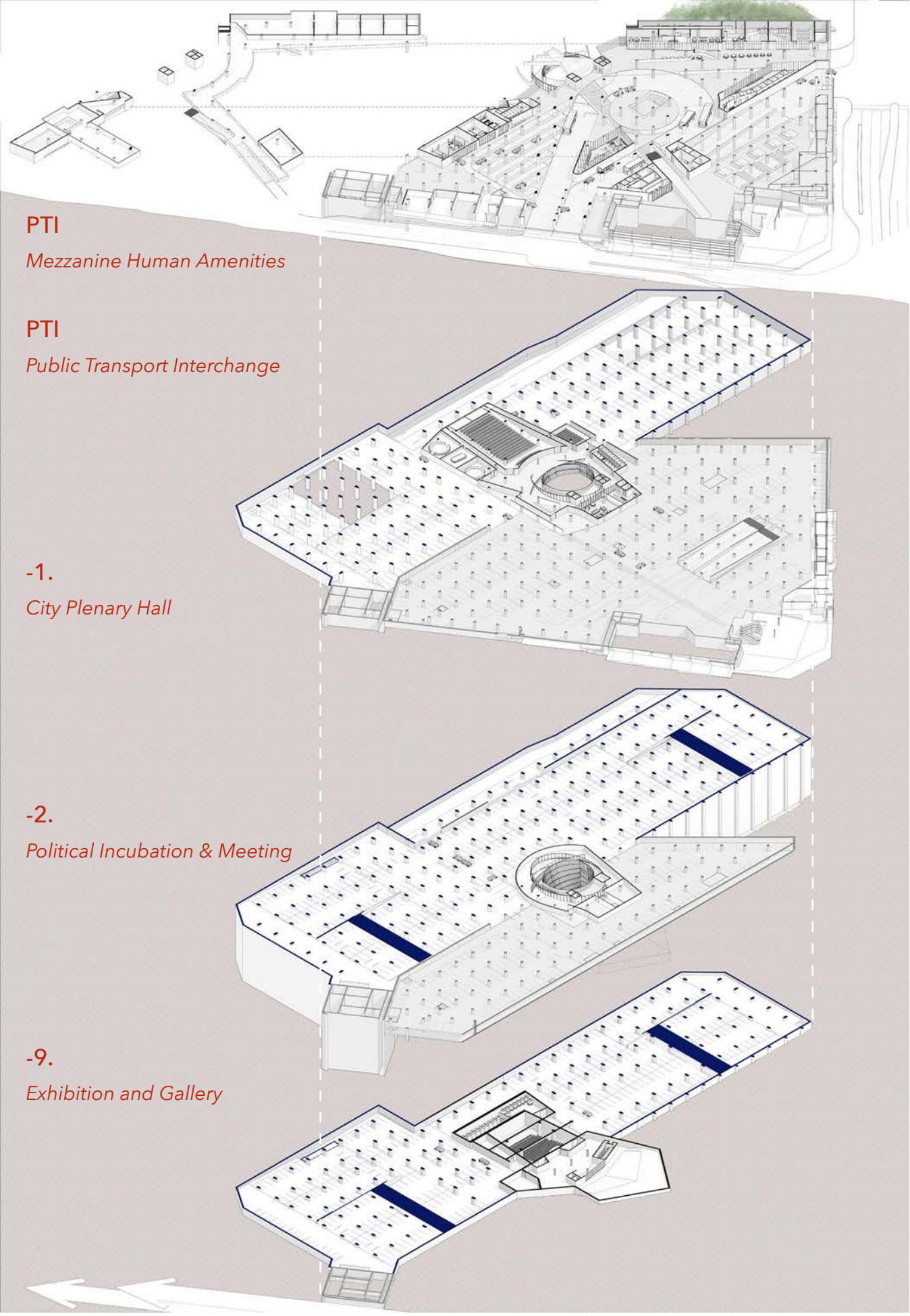


Basement -9 Plan
figure 9,7. Exhibition and Gallery
1:500



Exploded Axonometric
figure 9,8. The wedge Inserted into the
Basement Landscape
1:2000

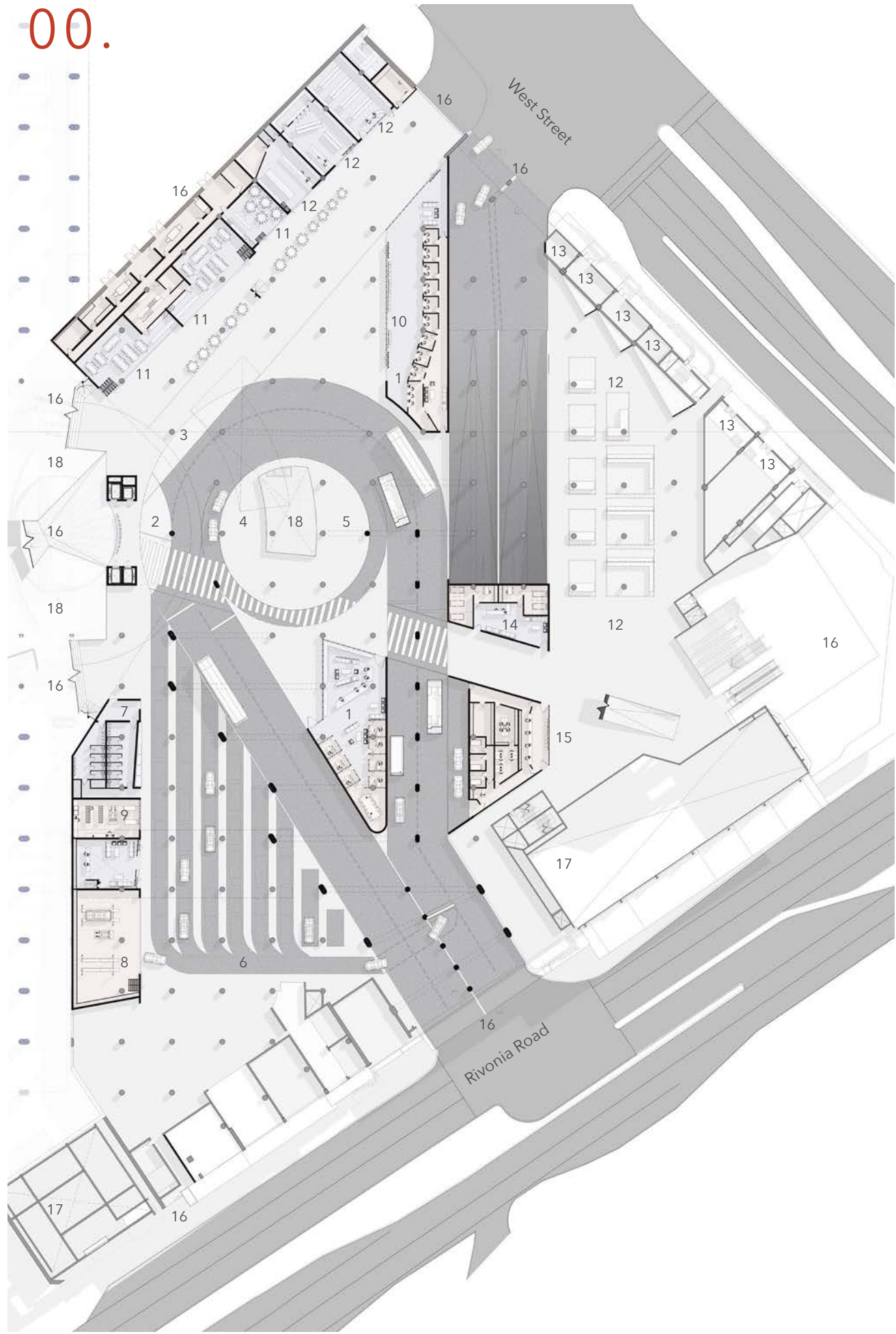
- Programme Legend
- City Plenary Hall [1]
 - Plenary Lobby [2]
 - Press Room [3]
 - Committee Room [4]
 - Public Eatery [5]
 - Kitchen [6]
 - WC - unisex & universally accessible [7]
 - Television Control Room [8]
 - Translator Booth [9]
 - Exhibition & Gallery [10]
 - Cinema [11]
 - Controlled Exhibition & Archives [12]
 - Workshop [13]
 - Water Filtration Plant [14]
 - Line of Initial Evacuation [15]
 - Temp. Water Collection Point & Future Parking [16]



Public Transport Interchange
Lower Street Level
figure 9.9. [right] *Movement of People*
1:1000



public
semi-public
semi-private
private



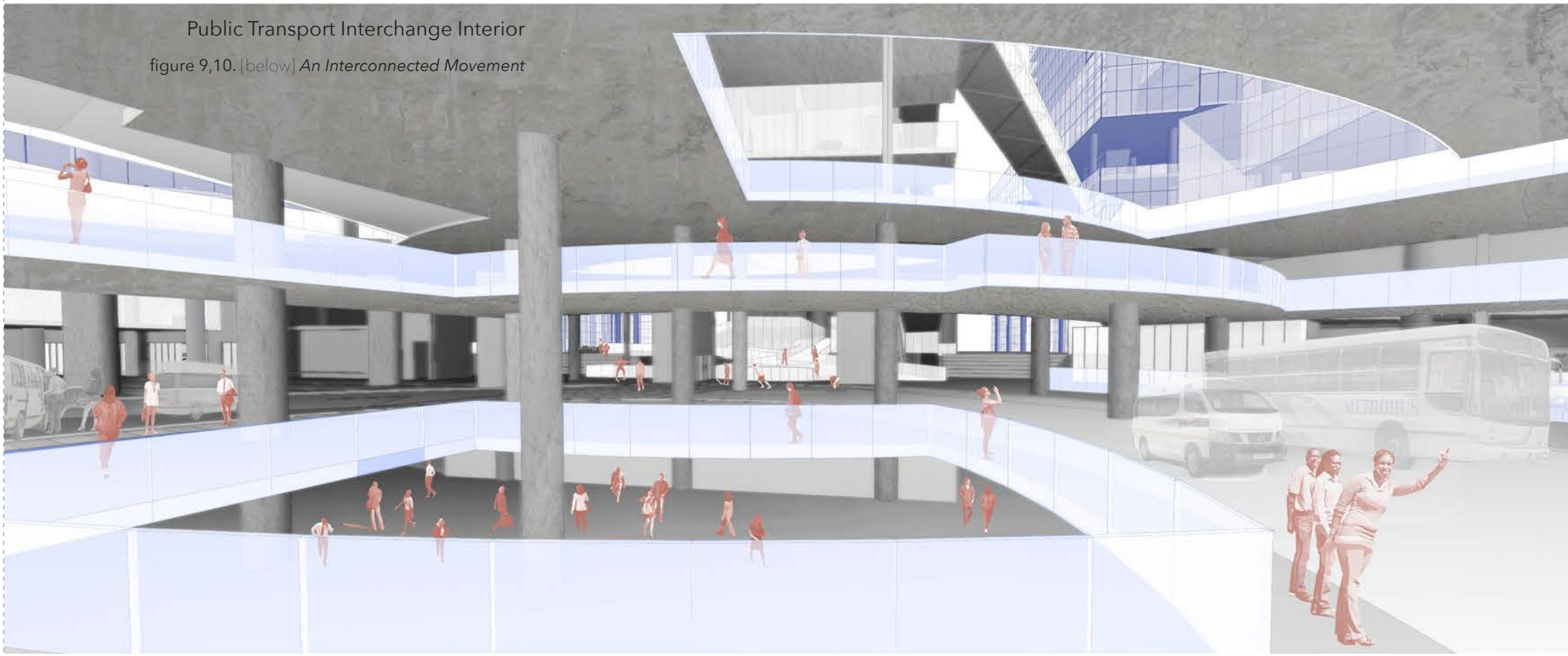
- Programme Legend
- Information Centre [1]
 - Bus Arrivals [2]
 - Bus Departures [3]
 - Taxi Arrivals [4]
 - Taxi Departures [5]
 - Taxi Holding Zone [6]
 - WC [7]
 - Maintenance Workshop [8]
 - Digital Fabrication [9]
 - Ticket Sales [10]
 - New Restaurant [11]
 - New Retail [12]
 - Existing Retail [13]
 - Satelite Clinic [14]
 - Police Station [15]
 - Street Level Access [16]
 - Existing Gautrain Station [17]
 - Basement -1 below [18]

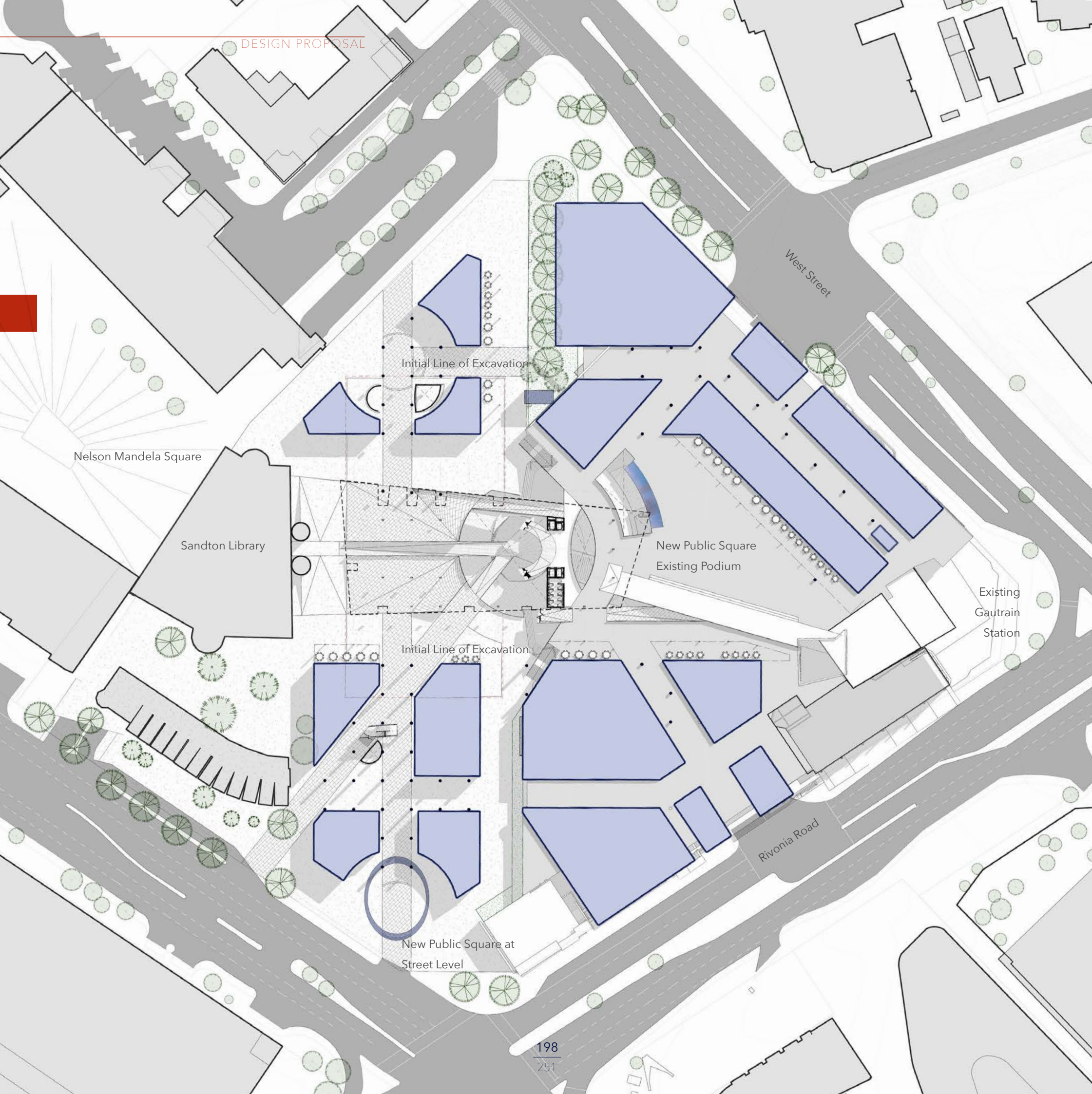
As previously discussed, the proposed infrastructure exists as the democratisation of ideas coupled with the movement of people. The physical access needs to be recognised but furthermore it must be integrated for meaningful connectivity.

The proposed Public Transport Interchange is an amalgamation of buses, minibuses, taxis, private vehicles and the Gautrain mechanism - ranging from local to international destinations. The variety of facilities create an agglomeration point with a range of people but also encourages an diverse combination of transport mechanisms - simply through convenience. The Interchange further provides a range of human amenities both as a transitional space and as potential for a destination place. These are public spaces created as a socio-cultural infrastructure. A sense of belonging is created through the free use of universal services - needed and available for all tiers of society. The police station is a pertinent example of this as it provides an active service for anyone in need, whilst simultaneously a passive protection to those surrounding.

The spaces provided are celebrated as existing slabs are cut into, to allow natural light, fresh air and visual connectivity through new and existing underground spaces. Furthermore new programme connects out into the context for a further accessibility. Uses are further communicated spatially and signage is often unnecessary. This results in an increasingly easy usage, especially valuable for first time inhabitants of Sandton, Johannesburg and even South Africa.

Public Transport Interchange Interior
figure 9.10. [below] *An Interconnected Movement*

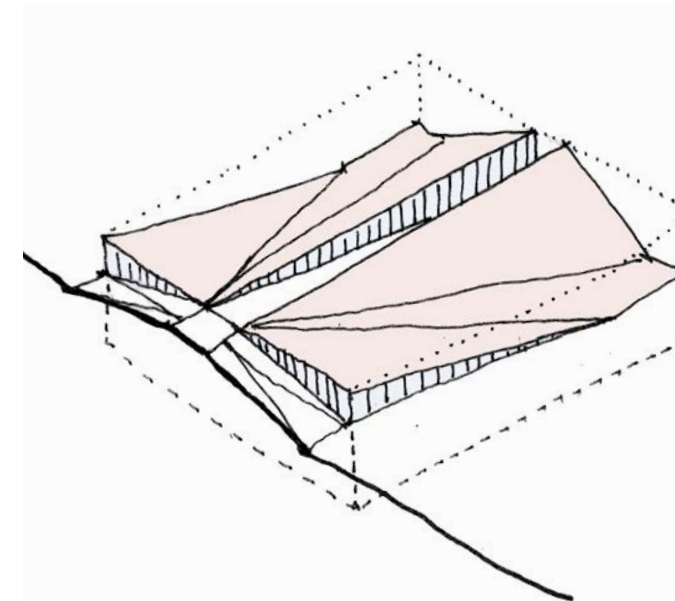




Ground Floor Plan
Upper Street Level

figure 9,11. [left] *Public Mediating Interface*

1:1000



Plenary Hall Diagrams

figure 9,12-9,14. *Peeling up the Public Square to Create Inhabitable Space Tangible within the Urban Fabric.*
The PTI connects to the Sandton Library through the proposed Plenary Hall with a public visual access down and in.

00.

Public Square Perspective

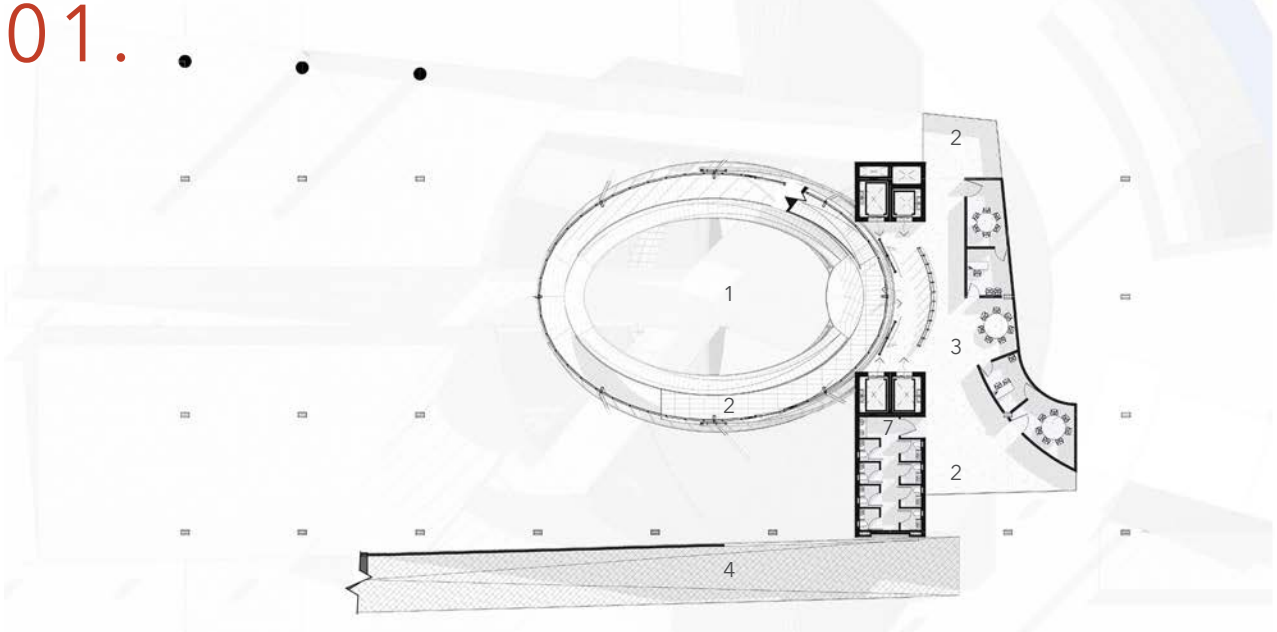
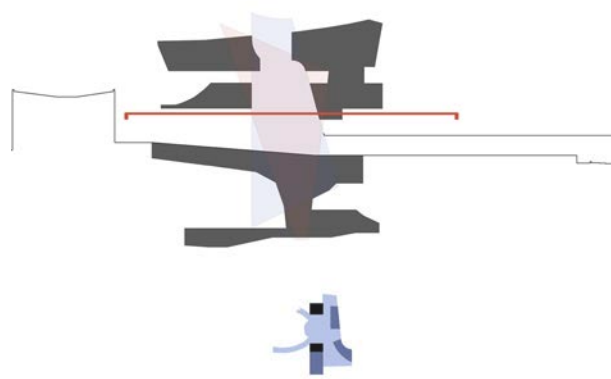
figure 9,15. [below] *A New Human Interface*



First Floor Plan

figure 9,16. Information Centre

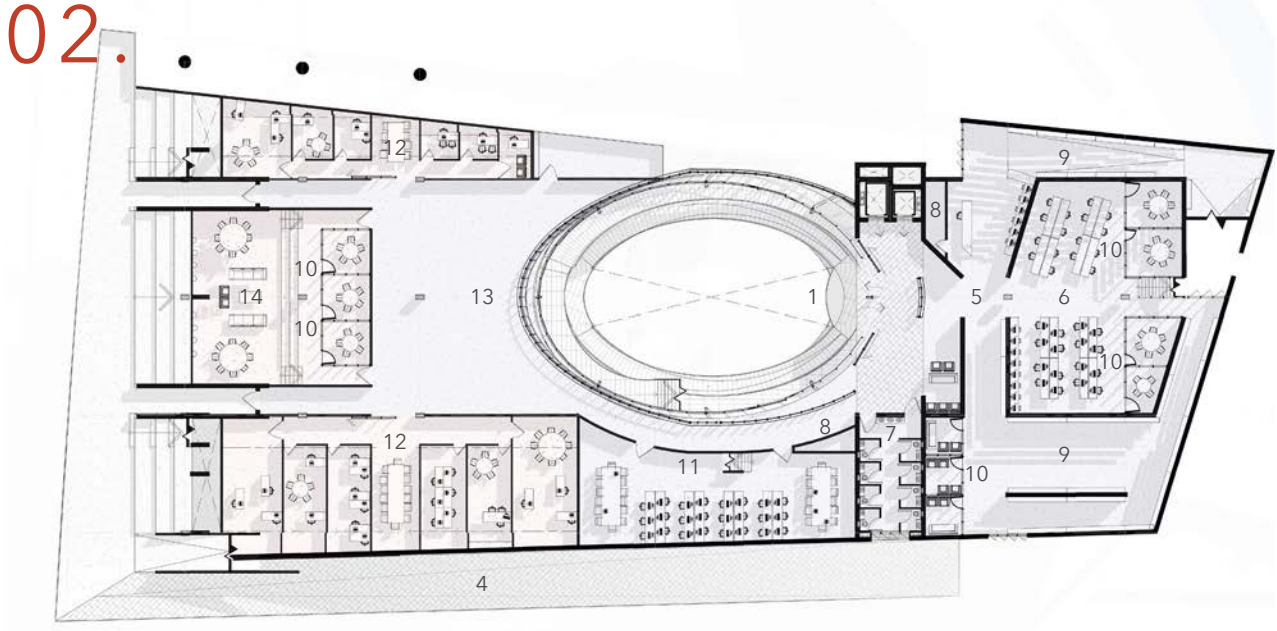
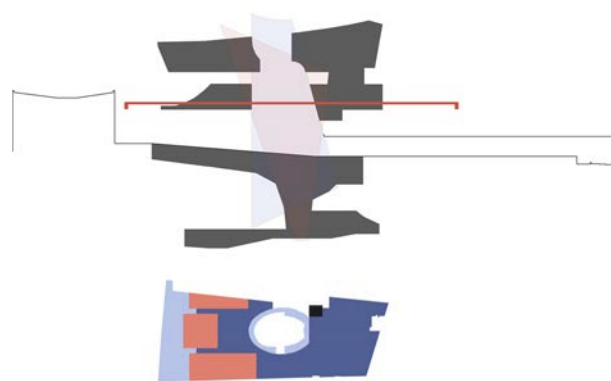
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Second Floor Plan

figure 9,17. Resource Centre

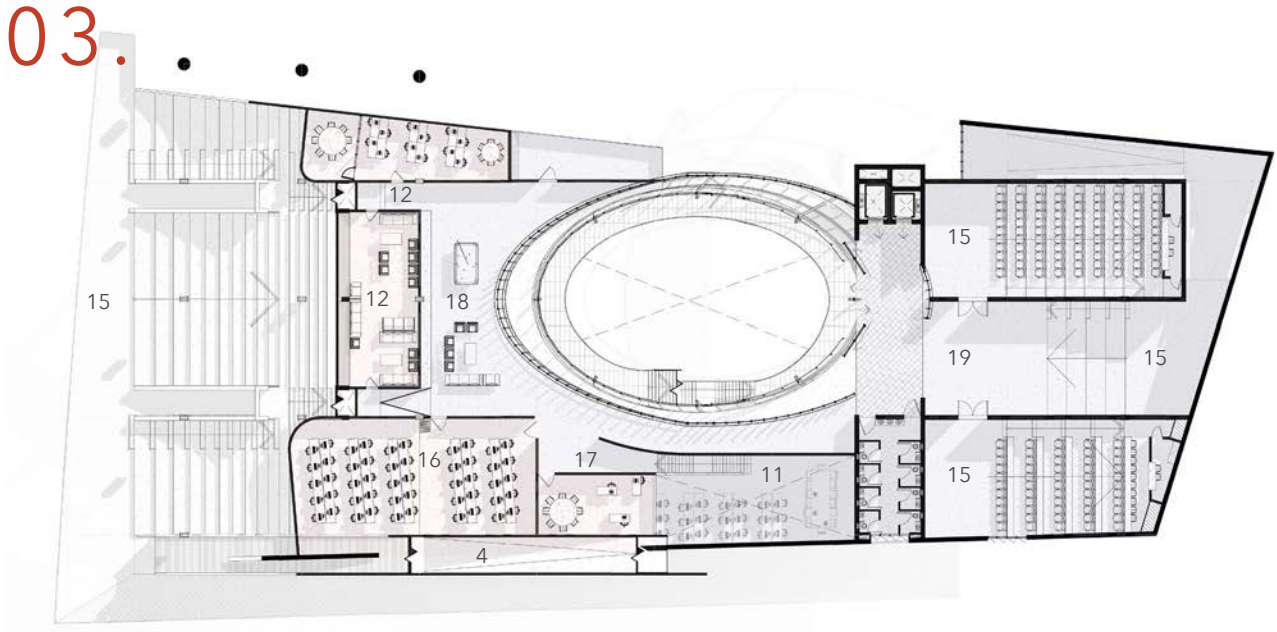
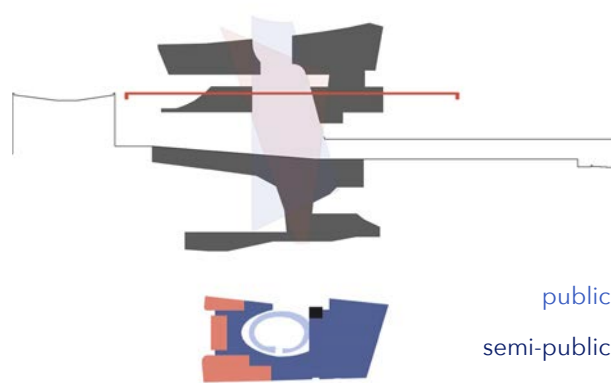
1:500



Third Floor Plan

figure 9,18. Meta School

1:500



public
semi-public
semi-private
private

Exploded Axonometric

figure 9,19. The Wedge Inserted into the

Basement Landscape

1:2000

Programme Legend

- Information Centre [1]
- Orientation Deck [2]
- Youth Information & Social Work [3]
- Public Ramp [4]
- Resource Centre [5]
- Workspaces & Research Facilities [6]
- WC - unisex & universally accessible [7]
- Server [8]
- Exhibition [9]
- Reading Booths [10]
- ICT Centre [11]
- Flexible Office Space [12]
- Open Studio [13]
- Recruitment Centre [14]
- Amphitheatre or Lecture Hall [15]
- IT Centre [16]
- IT Management [17]
- Lounge [18]
- Meta School [19]

08.

Elevated Public Square

07.

Multi Purpose City Hall

06.

Capitol Office

05.

Capitol Studio

04.

Public Terrace

03.

Meta School

02.

Resource Centre

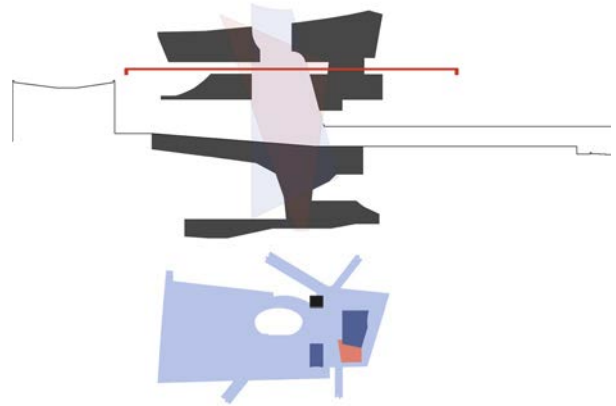
01.

Information Centre

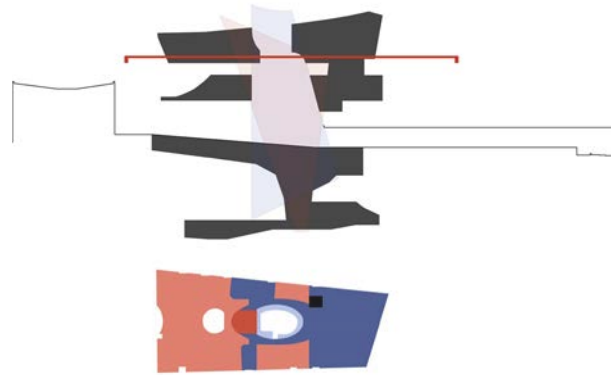
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Ground Floor Public Square

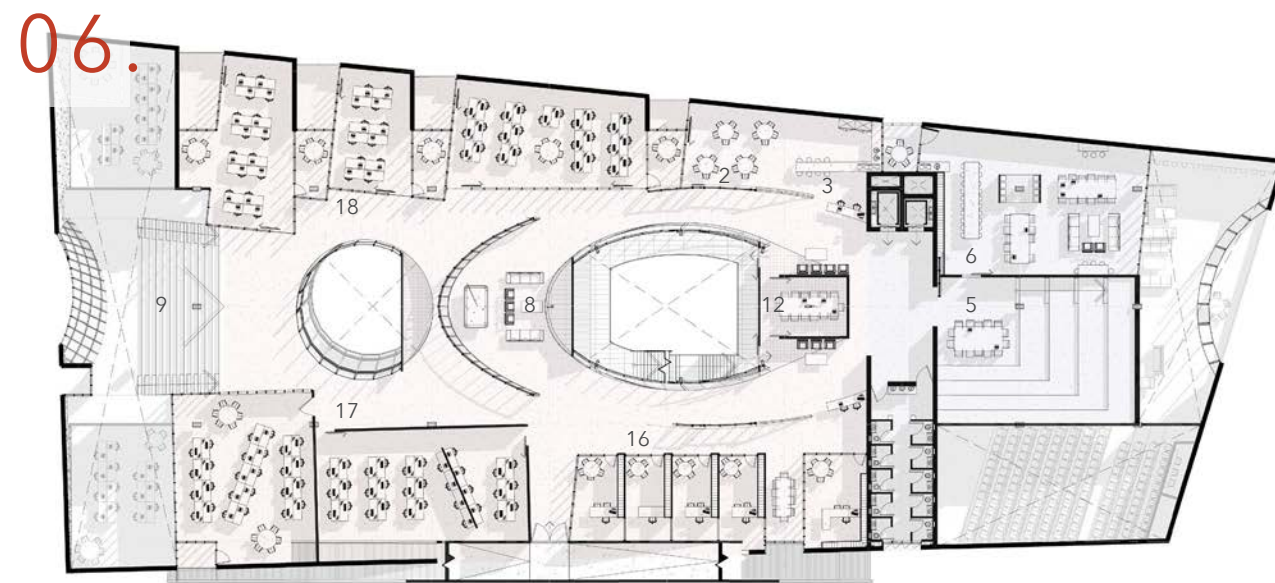
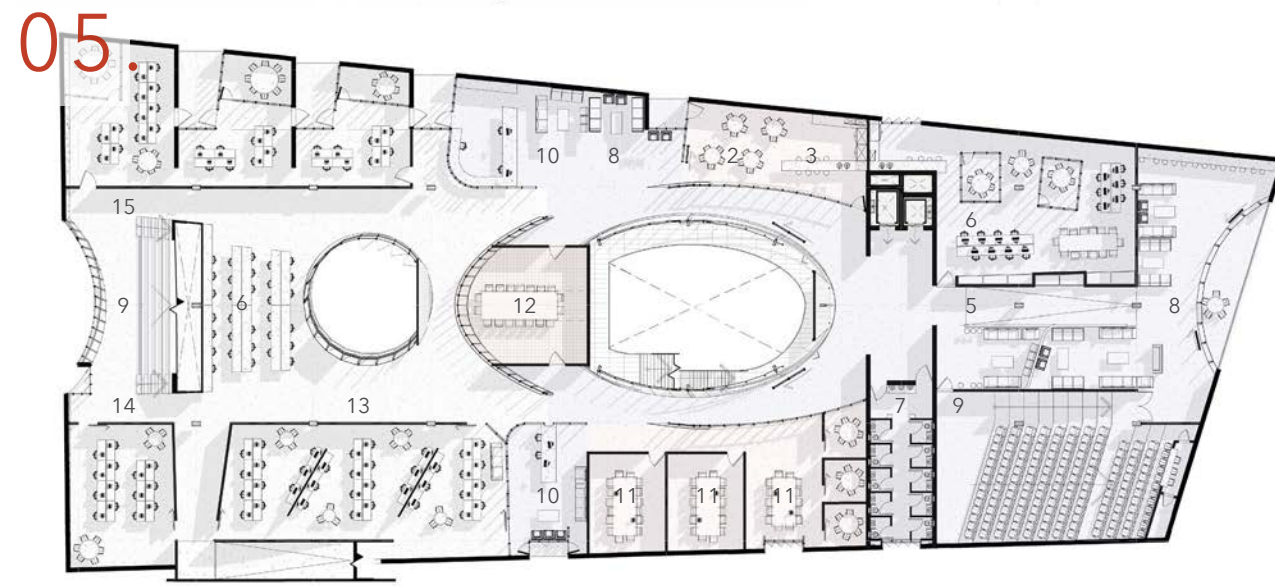
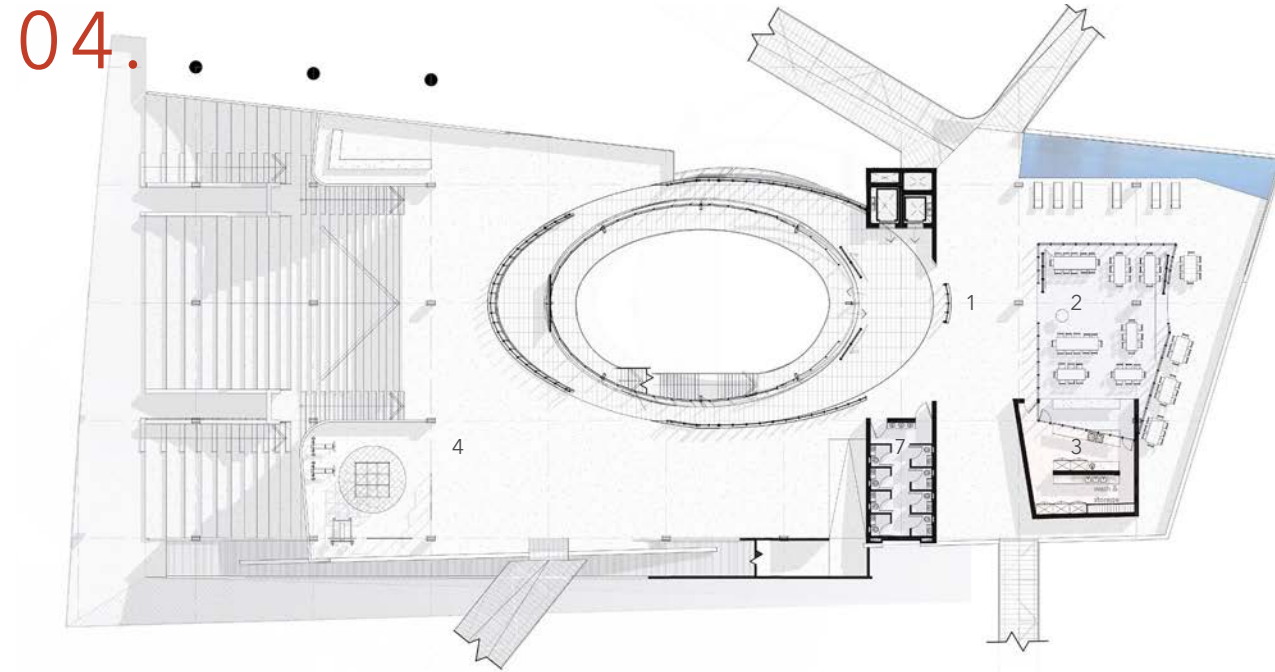
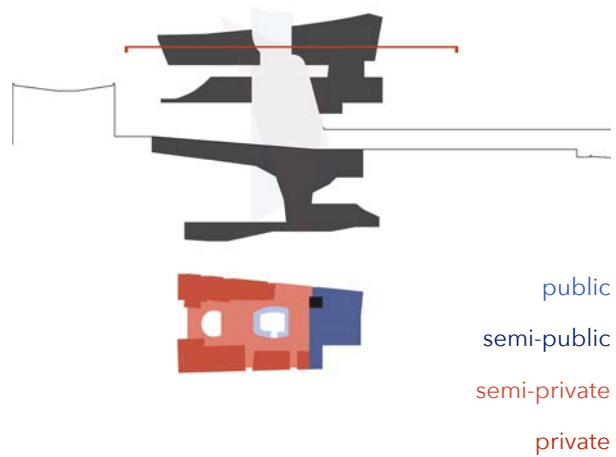
Fourth Floor Plan
figure 9,20. Public Terrace
1:500



Fifth Floor Plan
figure 9,21. Capitol Studio
1:500

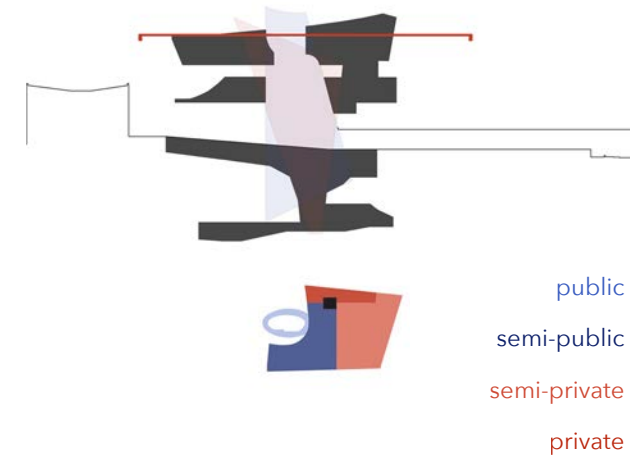


Sixth Floor Plan
figure 9,22. Capitol Offices
1:500

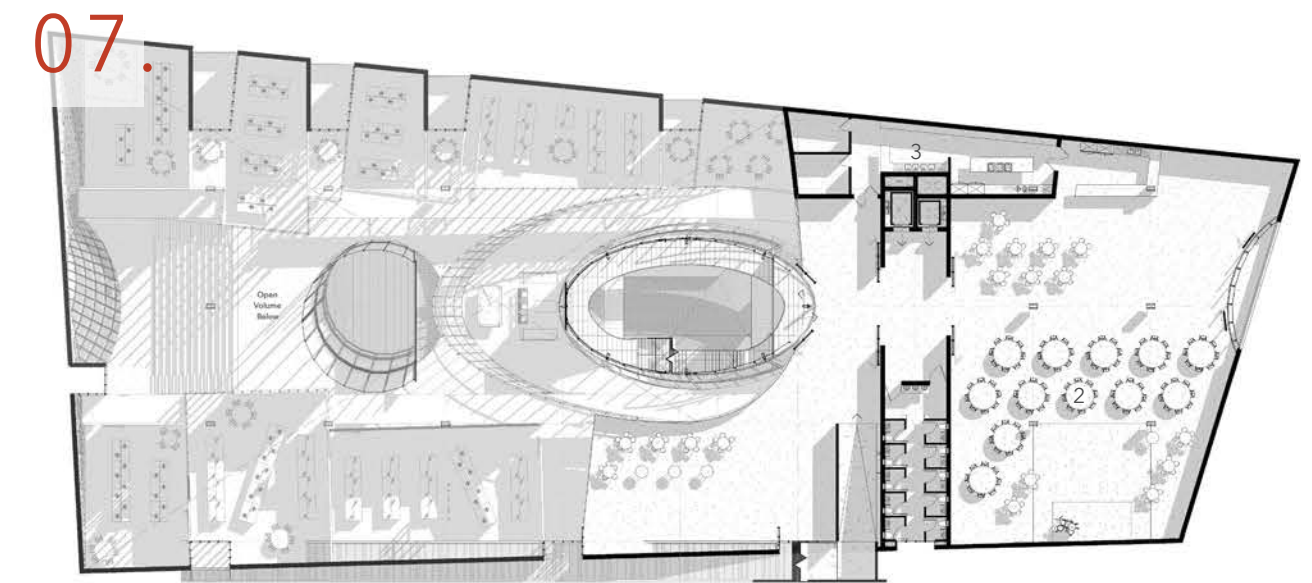


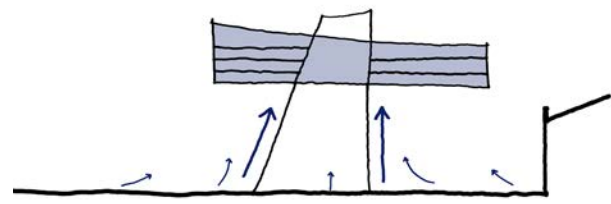
- Programme Legend
- Public Terrace; Vertical Extension of Public Square [1]
 - Canteen or Dining Hall [2]
 - Kitchen [3]
 - Outdoor Gym [4]
 - Capital Workshop [5]
 - Studio / Laboratory [6]
 - WC - unisex & universally accessible [7]
 - Lounge [8]
 - Auditorium / Lecture Hall [9]
 - Reception [10]
 - Shared Meeting Facilities [11]
 - Commissioner's Hall / Mayoral Meetings [12]
 - "Sandton Administration" [13]
 - Sandton City Improvement District* [14]
 - "Advice and Consultation" [15]
 - [left to right] *DHET* Satellite, Planners Advisory, Legal Aid
 - Mayoral Minister Offices [16]
 - [left to right] Economic Dev., Corporate & Shared Services, Infrastructural Services, CoJ CFO, Ward Councillor
 - "Capitol Offices" [17]
 - [left to right] *JPC*, *Dept. of Public Works*, Mayoral Assistants
 - "Capitol Commissions" [18]
 - [left to right] *Digital Industrial Revolution*, *Techno-Socio Ethics*, *Presidential Economic Development*

Seventh Floor Plan
figure 9,24. Multi Purpose City Hall
1:500



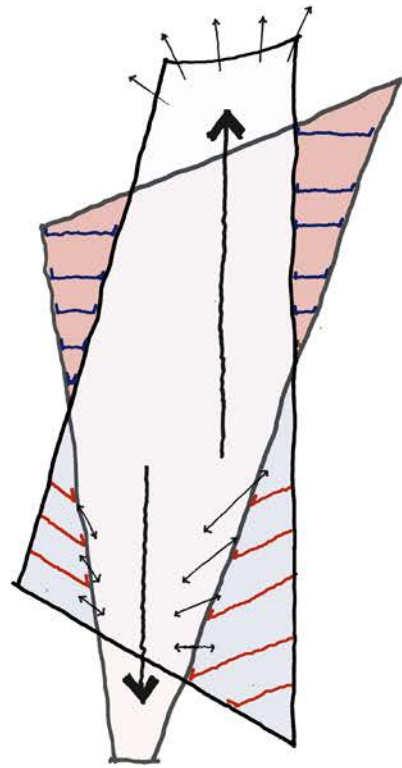
Perspective View into Public Cylinder
figure 9,23. [above] Capitol Lobby & Circulation
This is the connection and interface running all the way through the Capital Capitol



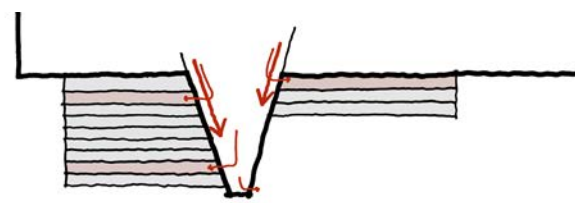


A firm and permanent presence, a statement reinforcing democratic provisions and a truly public belonging.

A mediating interface between opposing forces, for a new whole, more powerful than the sum of its parts.



A driving wedge into the Capitalist model, a forceful insertion into the Sandton business district.



Design Rationale Conceptual Sketches

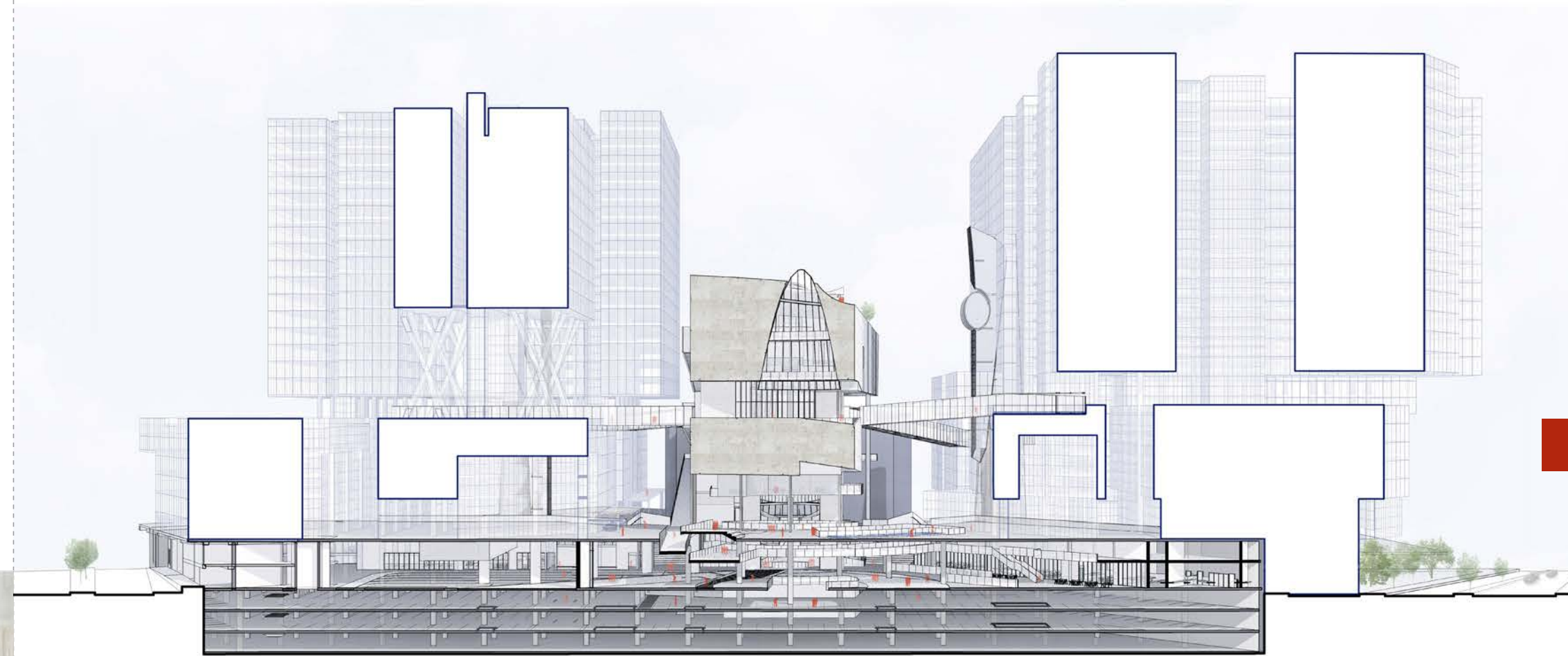
figure 9,25. [above] *Introduction of the Two Cylinders*

Approach from Connecting Bridge

figure 9,26. [right] *A Contrast of Facade Treatments*

Governmental headquarters require a variety of controls. This is achieved through two intersecting cones running up through the building and penetrating downwards into the parking lot. The structure tapering upwards pulls people in and through the building offering public insight into some of the more protected spaces, while the lower cone moves down into a series of subterranean spaces. There is an unusual phenomenological play within the two cones as transitional space is created - either semi public, semi private or blurring the line between the two.

This is also communicated through the materials used. The Capitol stands out in strong contrast to the surrounding glass boxes. This juxtaposition demarcates a different building in the Sandton context. The visible forms provide an honest engagement with the spaces behind them, providing a far greater transparency than a uniform glass facade. Even the textured concrete is far more reflective of the surrounding human fabric of diversity, than the glass boxes.



Balcony Perspective View

figure 9,28. [below] *A Social Sustainability*

East Elevation through Basement

figure 9,27. [above] *Future Urban Densities & Contrasts*

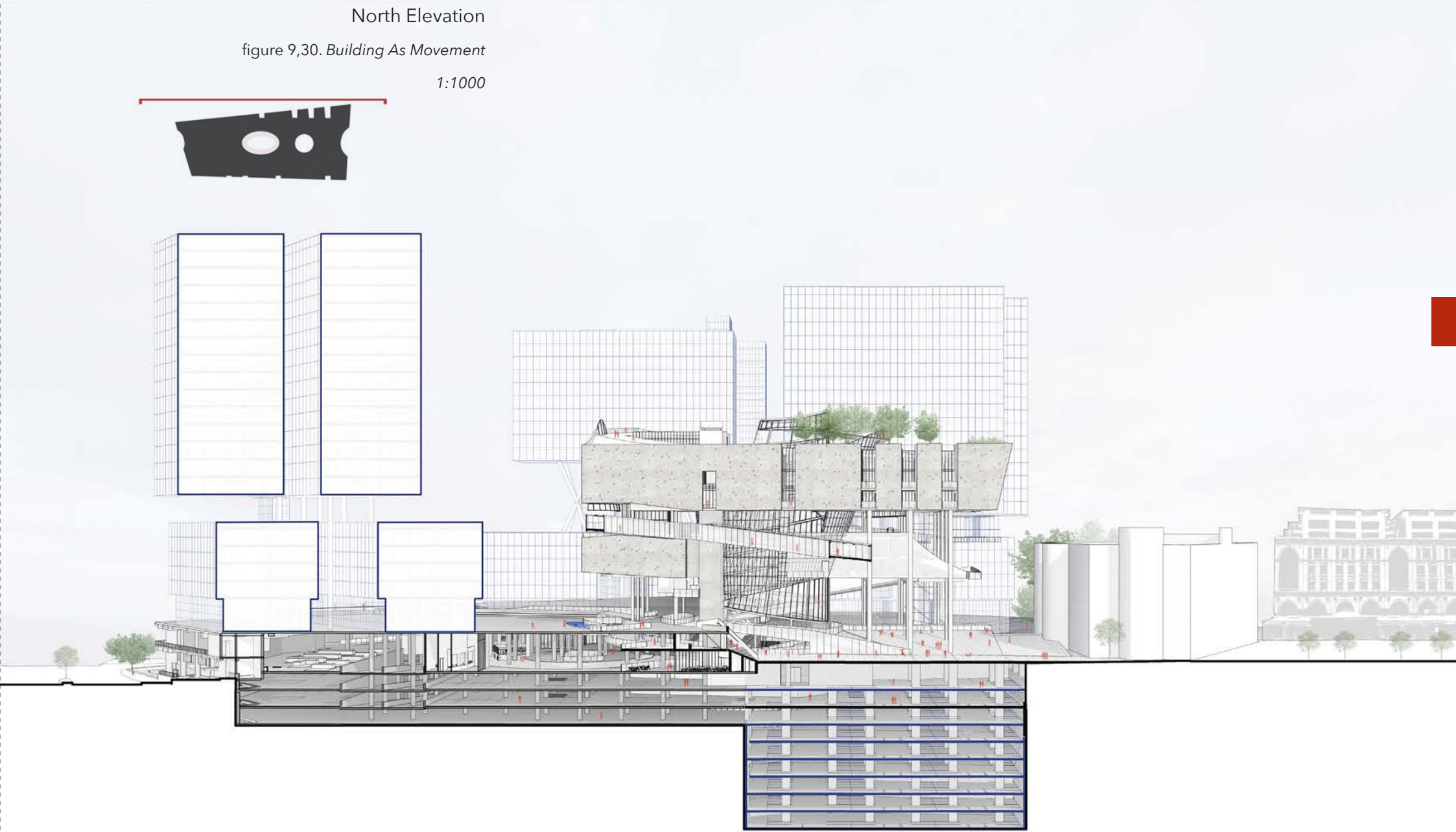
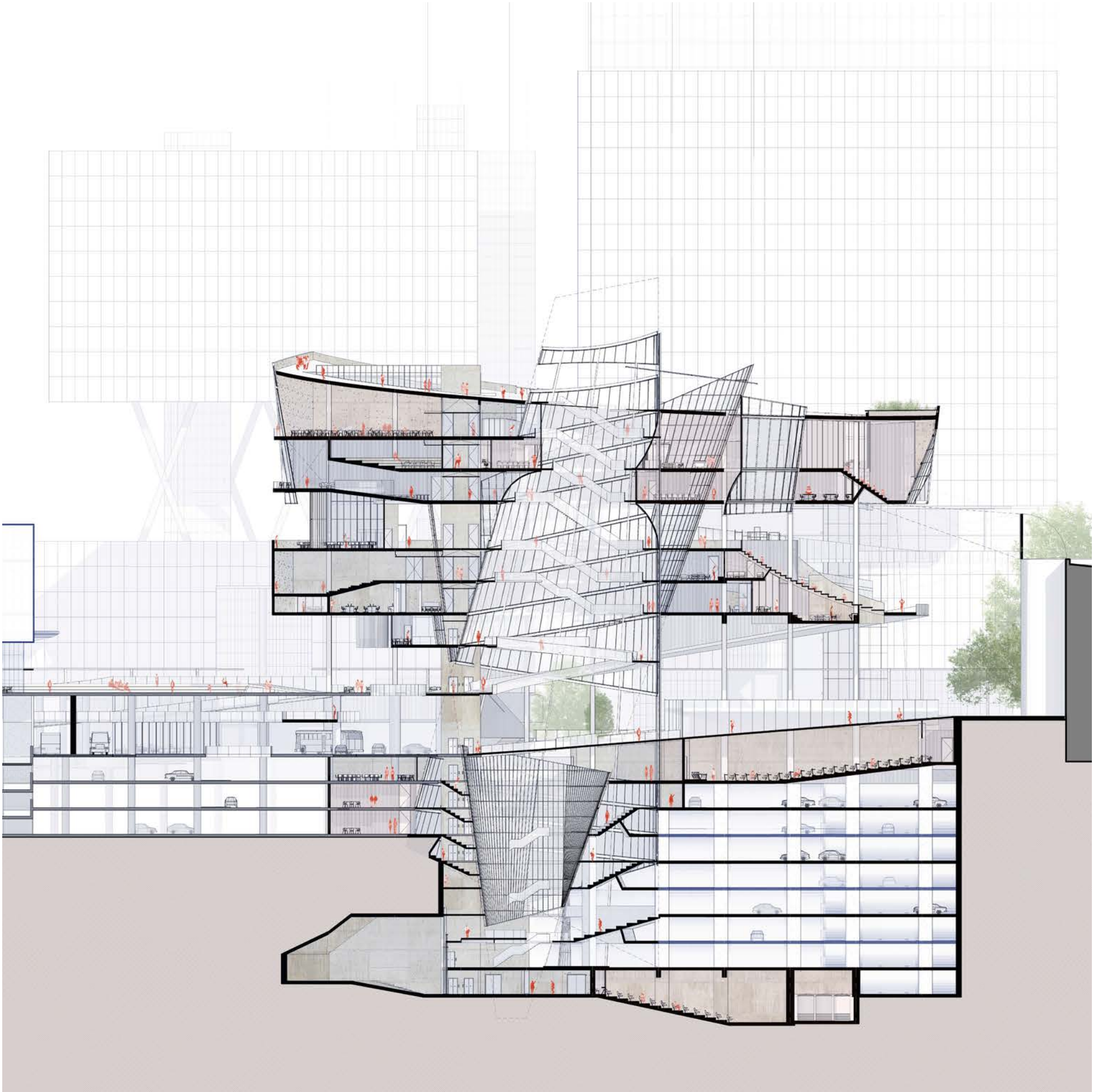
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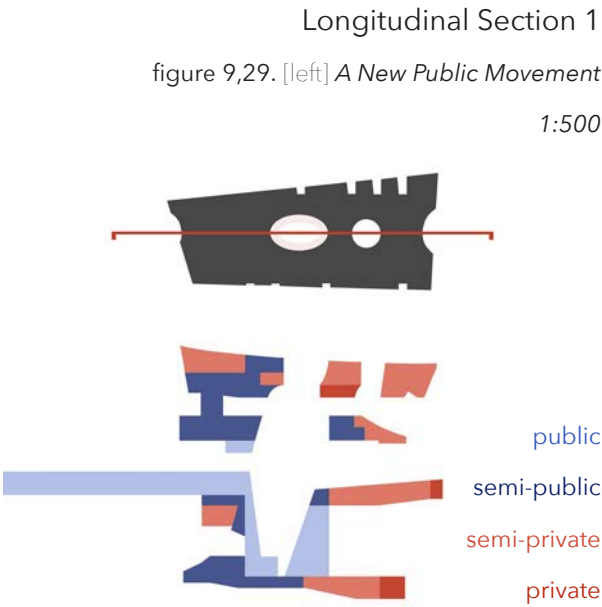
The materiality also speaks to notions of sustainability. All contemporary developments should be consciously considered, and the Capitol has the potential to act as a point of future reference. There are a variety of practical solutions proposed although the efficiency lies in the integration of the many systems. These include the shared trigeneration plant saving power throughout the precinct, an overall collection of both grey and black water to be recycled, stored and redistributed. The interior spaces are protected from the sun, with tall and narrow window openings, while the building is raised three storeys on the northern facade, acting as a giant eave for the public square below - providing shade in summer and sunlight in winter.

Furthermore legibility of reticulation provides an opportunity for future development. The circulation of the services are combined with the movement of people - as the services reduce, the spaces taper, opening up for the human experience.

However, the primary focus of the Capital Capitol is the social sustainability. This is the intervention necessary in Sandton as a means for continuous integration in society. An invaluable opportunity is currently afforded to the city to reinsert itself into the economic hub. This comes at a vital point in time to re-directionalise the social economy for truly meaningful and sustainable development.

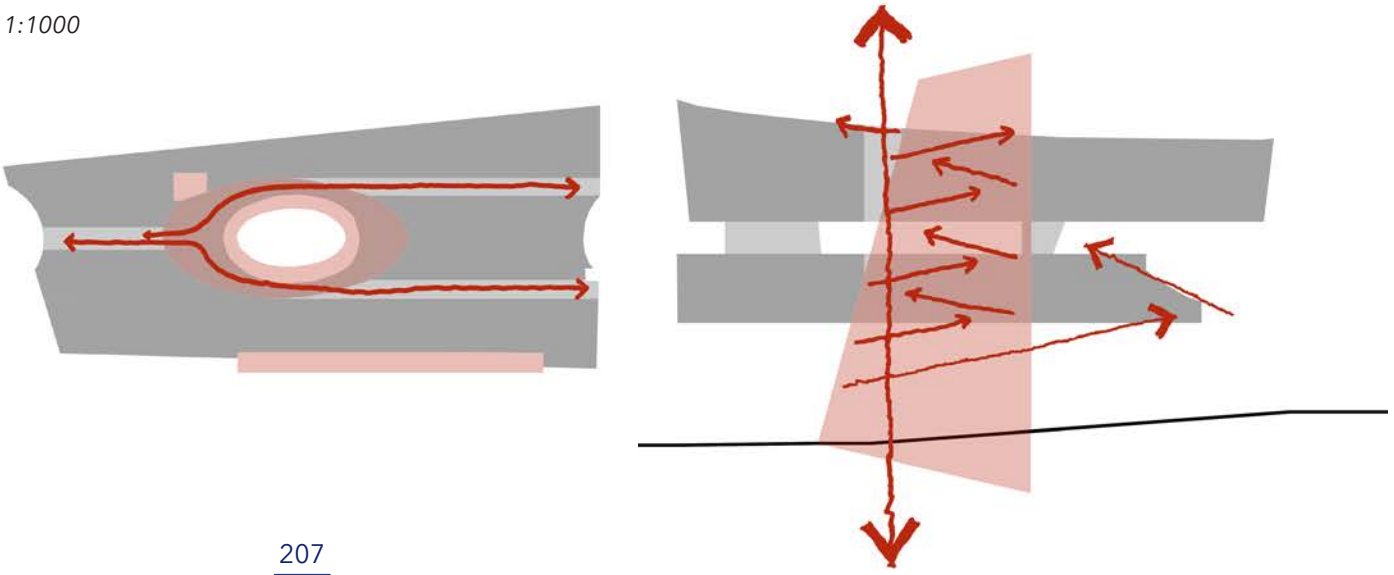


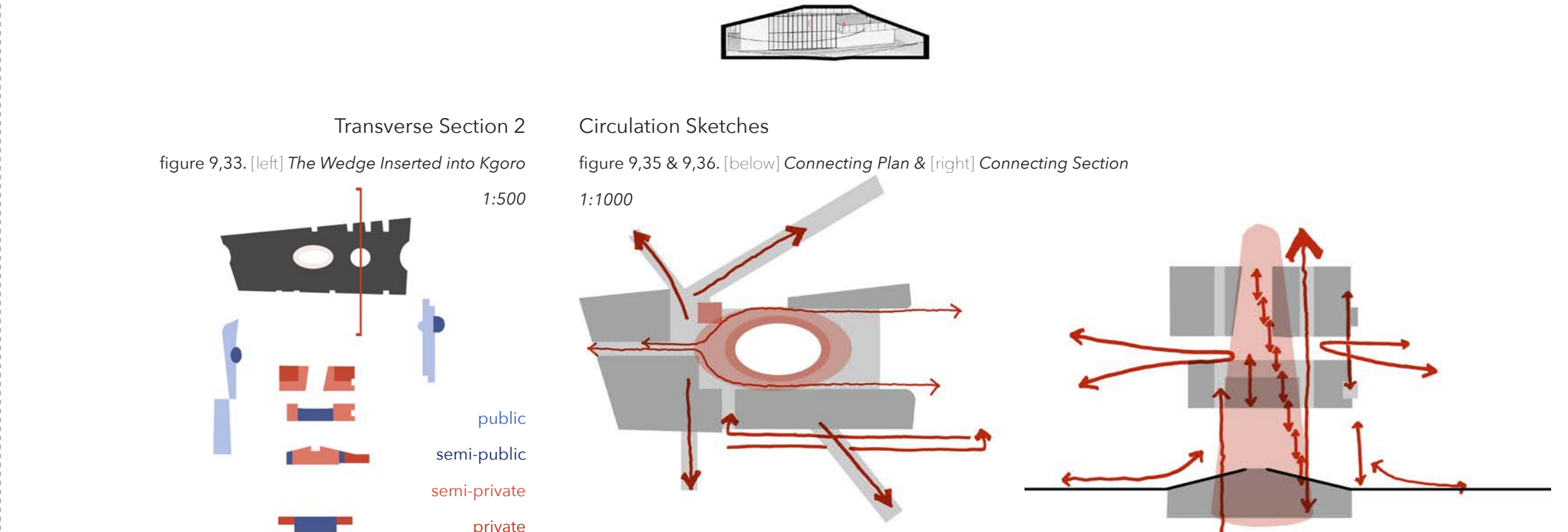
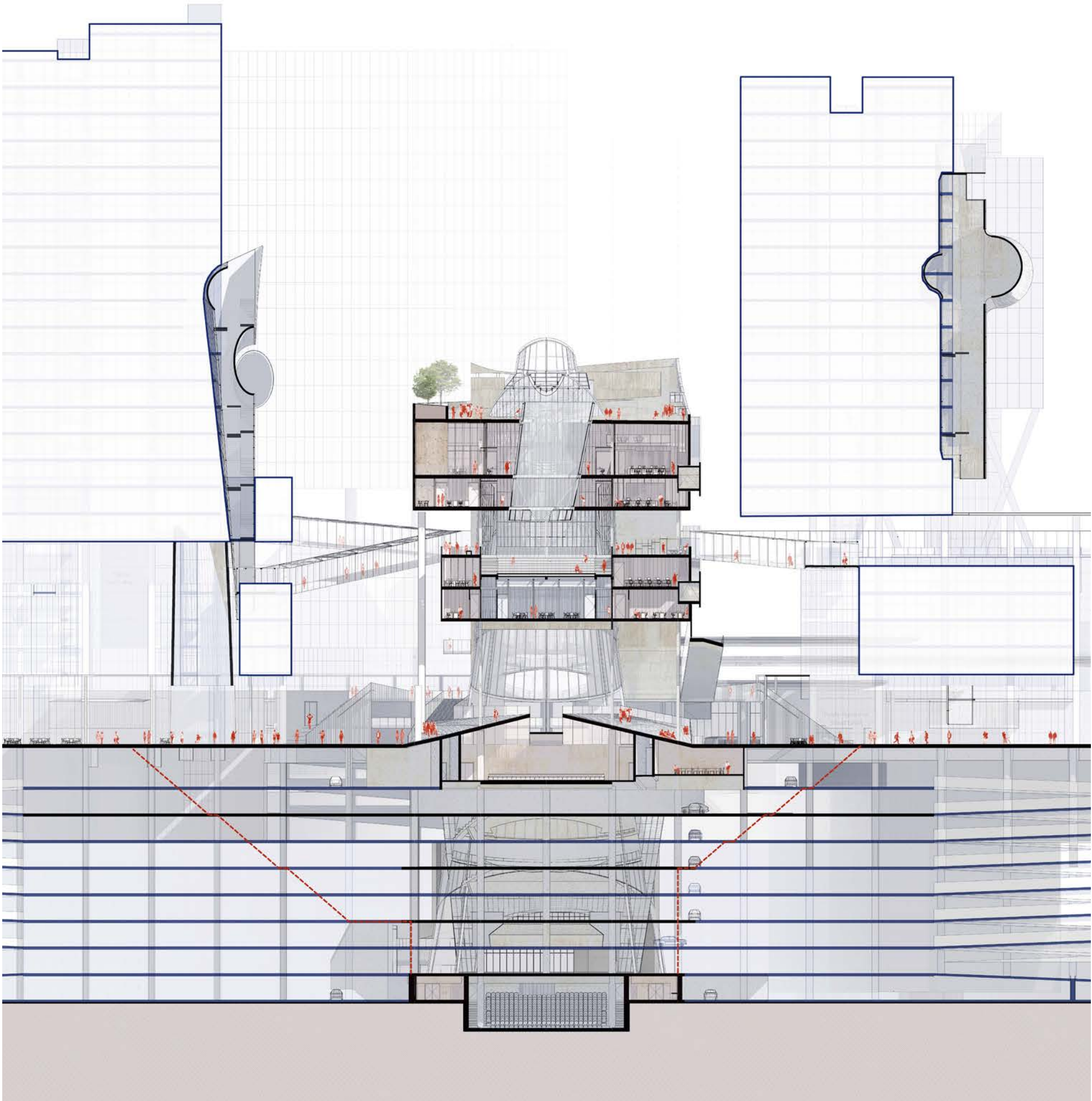
North Elevation
figure 9,30. Building As Movement
1:1000



Longitudinal Section 1
figure 9,29. [left] A New Public Movement
1:500

Circulation Sketches
figure 9,31 & 9,32. [below] Typical Plan & [right] Typical Section
1:1000





Legend

[1]

Composite steel structure - 50x25x3mm RHS and two 5mm steel plates, fixed off site - welded to 2mm steel tabs bolted into RC slab every 325mm c/c.

[2]

4mm glass panel, 12mm air gap and a 9,6mm laminated glass panel making up composite facade - fixed to 44,46x22,22x3,18mm aluminium angle frame, with min. 12mm structural silicone in factory. 6mm dbl-sided tape (black) fixing panels before applying silicone (also black).

[3]

85mm polished concrete screed, cast up to edge of prefabricated steel permanent shutter before being polished down flush with member and sealed with matt cobra wax.

[4]

Composite Steel beam, bolted into RC slab through 50x25x3mm RHS with oversized hole drilled through in factory, prefabricating the curved floor edge.

[5]

76x38x3,18mm Aluminium frame fixed to steel edging at 700mm c/c creating shadowline drip detail.

[6]

8mm HL SolarE toughened safety glass in standard 60x122mm Aluminium frame fixed into 100x60mm edging cast into 1020x609mm RC transfer beam with chamfered baton

[7]

32mm saligna timber desk fixed above transfer beam through 38,1x2,04mm Aluminium substructure.

[8]

44,46x44,46x 3,18mm Aluminium angle fixed to completed (& cleaned) 255mm RC slab through regulating timber prop block, to act as permanent shutter for 60mm screed to be cast into before being polished down flush with member. 15mm shadowline along wall filled with fine aggregate screed. RC slab cast onto 5mm steel permanent shutter with 50x50x3mm steel angle spot welded onto shutter to create shadowline and prevent cracking between materials.

Detail Design Drawings

figure 9,37. [top left] *Facade Detail Plan; Curved Facade Fixing*

1:10

figure 9,38. [top right] *Rooftop Parapet Detail; Waterproofing & Drainage*

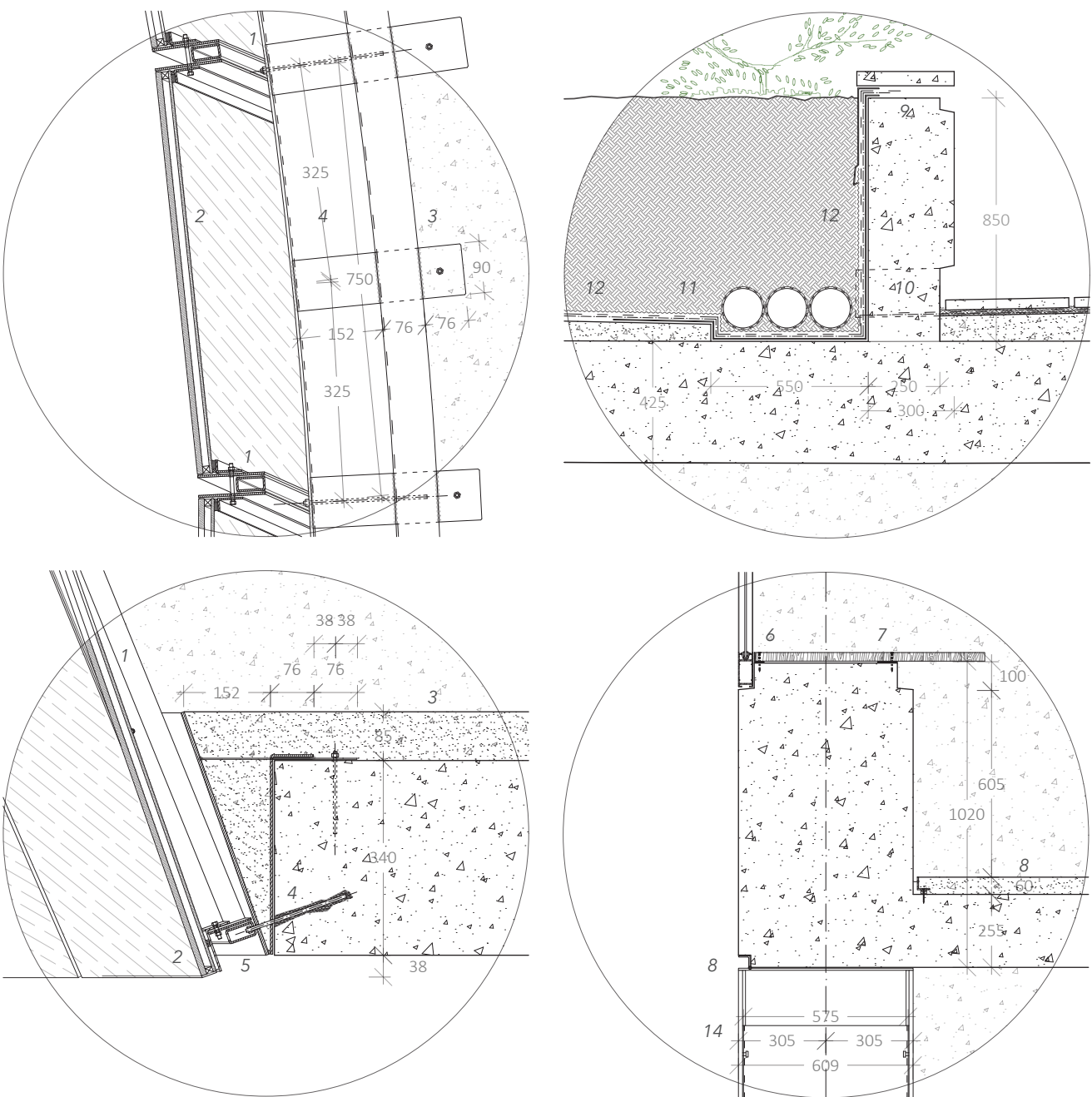
1:20

figure 9,39. [bottom left] *Facade Detail Section; Curved Facade Fixing*

1:10

figure 9,40. [bottom right] *Transfer Beam Section; Concrete to Steel Connection*

1:20



Perimeter Section

figure 9,41. *Construction Methodologies*

& Spatial Experience

1:100

[9]

340x50mm precast concrete square edge coping laid with fall into planter bed, above 50x50mm shadowline created with chamfered baton cast into 300mm RC upstand.

[10]

255x50mm shadowline at base of RC upstand beam with 350x85mm weepholes at 1400mm c/c into planter box with 850mm substrate planting soil, to detail specification..

[11]

450x50mm square loose lying concrete pavers with 20mm gaps between filled with coarse cementitious riversand mix, laid on min. 80mm screed to fall following 340mm RC catenary curve of rooftop to three 160mm Ø perforated PVC SW drainage pipe wrapped in bidden filtration cloth to min. 1:40 fall to 1 of 6 SW down pipes in planter box.

[12]

Delta MS 20P (horizontal) & 8P (vertical) drainage sheet laid onto 250 micron polythene sheeting taped to Derbigum CG4 horticultural waterproofing membrane on Derbigun CG3 membrane underlay. Waterproofing laid to cover min. 60mm screed at min. 1:80 fall to 550x85mm gutter cast in situ.

[13]

4mm folded steel plate permanent shutter for RC amphitheatre steps cast in situ, creating 50x50mm shadowline between treads & risers. Permanent shutter to provide 60mm frame for polished screed finish

[14]

Composite 609x178x67 Steel Ibeam column, with 3x3060mm cold rolled steel panels fixed onto pins welded to inside of structure at 700mm c/c, enclosing service duct within column

[NOTE]

All product specifications can be replaced with an equal approved product with architect authorisation.



Conclusion

This research has shown that the socio-economic context of the Sandton business district, has an equilibrium skewed by rampant capitalist forces. The nature of this economic model has manifested in only a tiny minority having any meaningful participation in the economy. The resulting growth in inequality has thereafter proved deeply damaging to a developing society - potentially even stunting economic growth. Inequality creates barriers to participation in the economy, and this is sociologically detrimental within any society. Furthermore, a dangerous byproduct of this inequality is a growing instability within the system as the population is increasingly agitated. Uncertainty in the economy results in slower growth and increasingly exclusive wealth generation and investment. This is a vicious cycle that needs to be undone.

The necessity for intervention is apparent. Progress is not only being hampered by the socio-economic trends above but also by the spatial manifestation of this phenomenon, which facilitates a subtle undertone of discrimination through the area. The Capital Capitol intervention is thus proposed to counter this - as a new city infrastructure at the very centre of the business district. Furthermore, the building is positioned at the heart of an existing speculative capitalist precinct, redefining the nature of the entire mixed-use development for an increasingly progressive future. By merely existing, the proposed insertion acts as a statement for change. The nature of a civic centre provides a space for everyone within the society, acting as an agglomerative point, encouraging time spent in the “third place” (Oldenburg, 1989). This directly challenges the existing context where only a small minority are catered for within the Sandton built environment. Furthermore, contemporary innovation is arising more and more from collaborative thought processes, and this diversity of thought can only really be achieved in a context of spatial inclusivity. The resulting egalitarian social capital has the potential to drastically bolster progress within the business district.

Eye Level View of Public Square

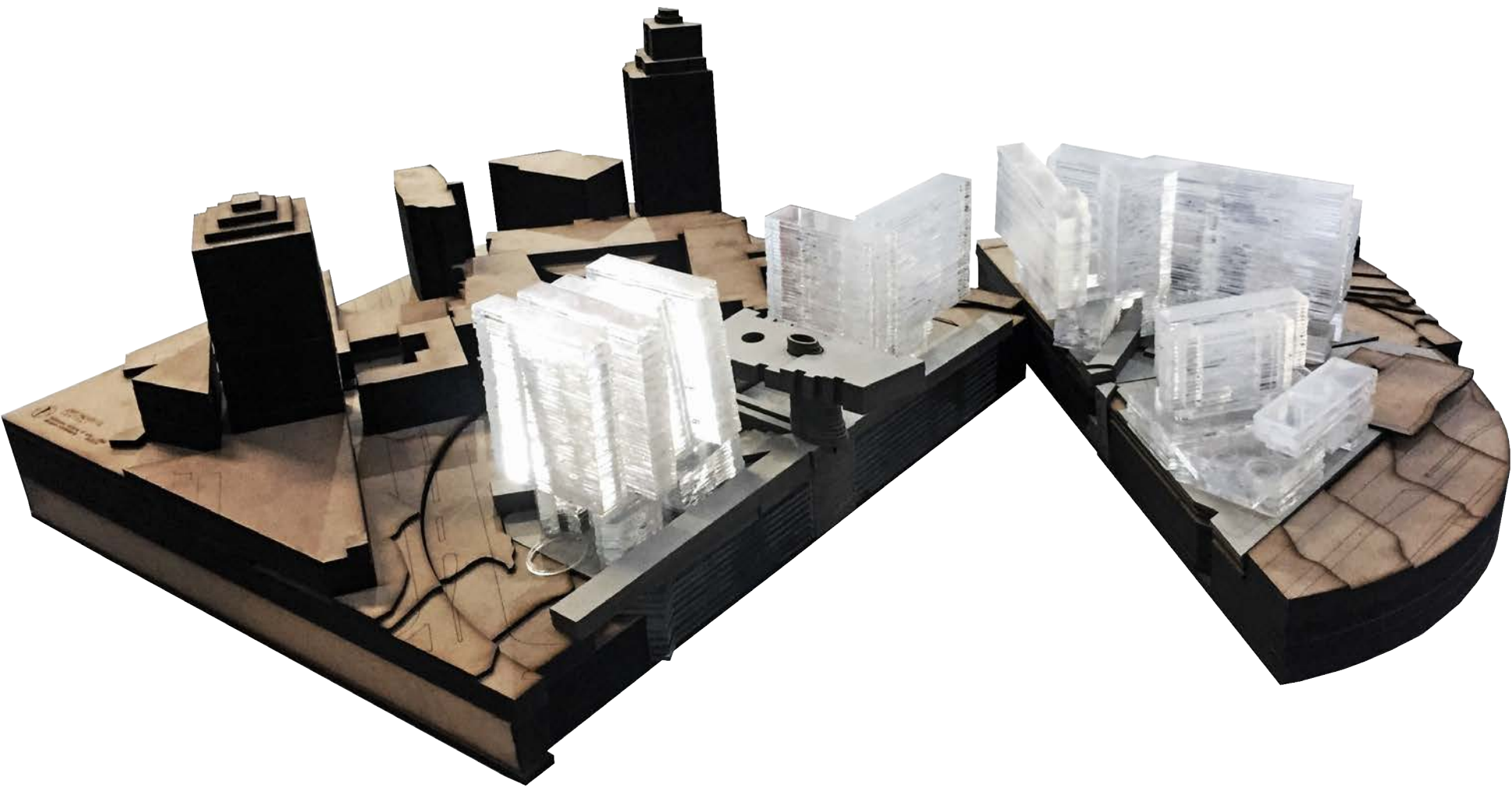
figure 9.42. A Likely Scenario for Implementation;
The Capitol is built while the Kgoro development
continues to be negotiated.



In addition to the statement of its existence in Sandton, the civic centre is proposed as a spatial cue for a renewed investment in the '*public*' man. The architectural communication of this notion is fundamental and achieved through an altered spatial syntax. The pedestrian is prioritised with a vertically extended public plane, breaking through imposed barriers as its moves directly through the governmental headquarters. This conceptual notion is carried through the design proposal as a renewed engagement with the city, and those who interact with it.

The Capital Capitol proposal begins a dialogue with the future spatial development of Sandton. The rate of evolution is rapidly increasing and this requires considerable re-evaluation and reconceptualisation of the existing order. This offers invaluable potential for significant economic growth in a city epitomized by a pioneering spirit. However, for a free and fair benefit to come from this evolution, a democratic and mediating body needs to oversee and facilitate this growth. This is envisaged as the local governing authority. The proposal outlines the necessity for this interface in the context of the business district and moreover, the document predicts the potential benefits for all parties if the district is reimagined as a more progressive, productive and collaborative space. The Capital Capitol therefore exists as an architectural provision, a physical starting point, for a redefinition of the socio-economic equilibrium within the business district.

10 Appendixes



Sectional Site Model

figure 10,1. The *Existing* is represented by the timber, *Speculative* by the clear perspex and the *Proposed* is made out of grey textured cardboard

10 Appendix A

Feasibility Study

Abridged Business Plan

Client - Constituency of Parties

[80]
This relationship is explicitly outlined in '*Stakeholder*'
Section

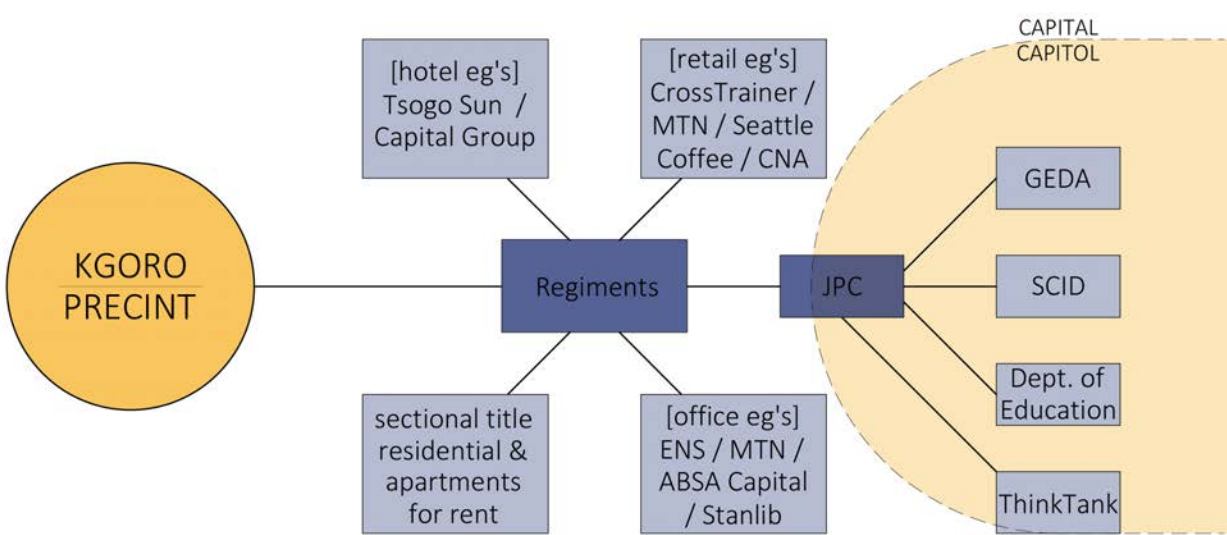
The project will be designed for two primary entities [80] of The Johannesburg Property Company SOC Ltd (JPC) and Regiments Capital (Pty) Ltd. The land onto which the precinct is proposed is owed by JPC with a 99-year leasehold agreement to Regiments Capital. The agreement specifies the rent to be paid annually and to escalate by 8% every year.

The JPC comprises of a board of directors, reporting to the Member of the Mayoral Committee of the Economic Development Cluster and is mandated to manage and develop the City of Johannesburg's [CoJ] property portfolio for both social and commercial purposes. Regiments Capital, on the other hand, began as a financial advisory team and recently entered the property development arena. The proposed Regiments model for development is a turn key package, where the 8 individual buildings will be completed in their entirety before being handed over to the new inhabitant.

Regiments are to act as the singular juristic entity for the entire Kgoro development, with the Real Estate division acting as the primary client. They are then to develop the new *Capital Capitol* for the City of Johannesburg, with the JPC acting as the primary tenant in the exchange. After the completion of *The Capitol*, the rent from the JPC will be offset against the overall land rent for the precinct development, paid by Regiments to the Council [81]. There is to exist a close relationship between the two entities throughout the design development and implementation process and the necessary approvals are to be stipulated in the contract.

[81]
This will be discussed in further depth in '*Projected*'
Income'

figure 10,2. Primary Stakeholders in the re-envisaged Kgoro Precinct



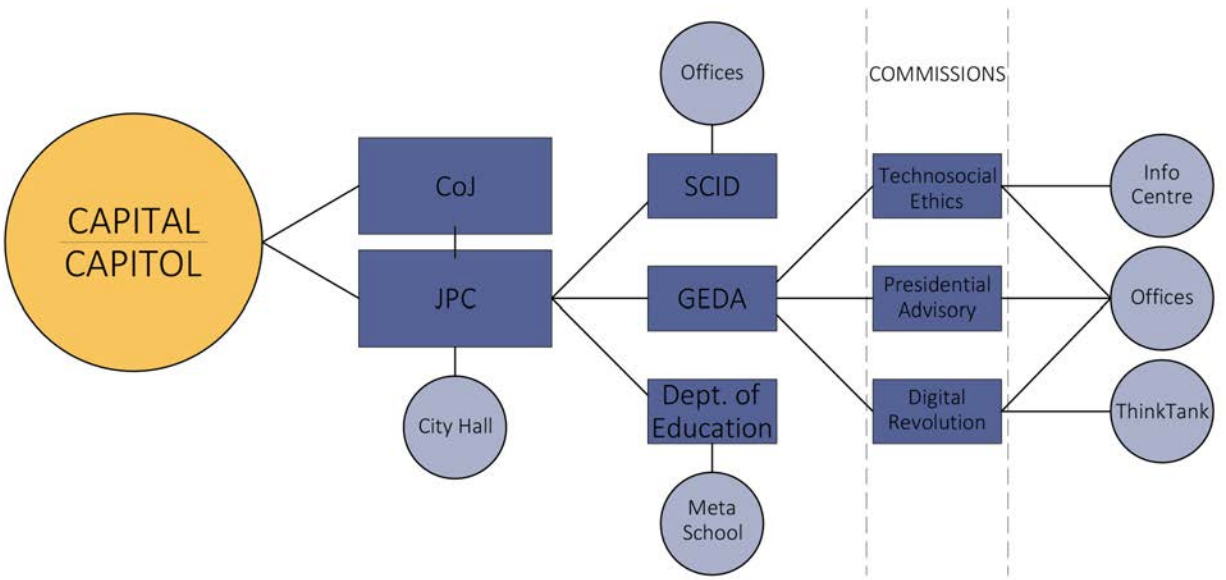
Stakeholders

The roles of the JPC and Regiments Capital will be defined as primary counterparties in the development and operation of the precinct. The aims and outcomes of the project are shared between the two as the development strives to increase the productivity within the CBD especially with the long-term goal of exponentially increasing economic systems in place. This is a future shared vision for both a capitalist motivated interest as well as for a holistic economic growth, however the collaboration will be mutually beneficial in the short term too. There will be an indirect synergy to the private and public functions to rationalise the nature of investment [82].

This will be further discussed in 'Initiation and Concept'

The financial relationship between the two entities is a complex one due the collaborative nature of the project, although in essence Regiments will be funding the development processes – offset against certain public contributions and remunerations for the land – and thereafter the individual buildings are to be maintained and operated according to separate business models according to the tenants. The Capitol Centre operations are to be managed primarily by the JPC [as an overseeing administrative body] and will be representative of the various stakeholders in The Gauteng Economic Development Agency [GEDA], The Sandton City Improvement District [SCID]and the Department of Higher Education and Training [DHET], in inhabiting and operating The Capitol. There are three new commissions currently being established within the GEDA to be accommodated within The Capitol – namely The Digital Industrial Revolution Commission, The Presidential Economic Advisory Council and The Technosocial Ethics Commission.

figure 10,3. Flow diagram of roles and responsibilities within client bodies.



The proposed programme insertion into the precinct consists of four principle entities – programmatically divided – to manage operations and these will sit under the overall governing body. These are the City Hall, the Capitol [including the headquarters of the newly established municipal commissions], a government Meta School and a semi private ‘ThinkTank’ Laboratory – facilitated by the Digital Industrial Revolution Commission. Once these individual programmes have been inhabited and are operational they will be split into 5 juristic entities acting as tenants for Regiments.

Funding

At this proposed nexus between the public and private collaboration for future development, there are a series of complications to an unconventional funding procedure but similarly there are also inherent opportunities. Regiments Capital is currently unable to build their proposed precinct due to certain political issues, lack of public support and ultimately a sense of distrust for the processes of the development. The municipal authorities on the other hand, struggle to gather the capital necessary to fund a meaningful intervention in the city and this would prove almost impossible within the Sandton CBD – here an intervention will arguably have the greatest impact but will be most expensive. The JPC however already possesses a prime property in the centre of the CBD and if they can incentivise the precinct development in return for a presence within it, the benefits will be hugely felt by both Regiments as well as the general public.

- Regiments can therefore develop their landlocked property and begin to make money from it and the municipal authority will have a building funded for them.
- Regiments will receive an increased cost per square meter as a result of the increase in people brought into the precinct by additional public facilities and a transport interchange.

- Through the proposed agreement Regiments will essentially fund a council building using the money they would have regardless paid in rent to the city council, while at the same time propagating their own profit-driven scheme.
- The municipal capital from budgetary allowances are far more accessible in many phased outputs than as a initial lump sum and as a result the local authorities can afford rent for the area but cannot afford to fund a construction – with the exception of a certain few instances every number of years. This proposal therefore affords the JPC a development without the initial capital sum, an invaluable opportunity.

The construction process will ultimately be funded by Regiments through a staged development bond, based on works completed – through the phasing of the construction. As a result of the nature of the project, Regiments is recommended to partner with a bank, such as Nedbank, advocating an image of civic social responsibility to take out the bond. Through a negotiation process an agreement is to be reached for a suitable interest rate [83] in exchange for the partnership of the creation of a socially aware environment within the most exclusive context in South Africa. Nedbank has a history of advertising its image as an educationally orientated socially responsible bank and should as a result benefit from the partnership in developing an incubation and integration facility for the poorer public, within the business district.

The JPC are to sign an extended lease agreement [84] prior to the bond application as this will aid in negotiating the prime minus 1,5 interest rate as this will be an indication of a prolonged security to the development.

Project Initiation

The Capital Capitol was conceived by the author, for The Gauteng Economic Development Agency [GEDA] – as a means for the public to re-engage in Sandton, for both sociological gains, but also increased productivity through economic avenues. This was realised after a series of studies were undertaken for the many new private developments to take place, however these began to show the absolute necessity for a local authority’s intervention.

There is also substantial research recently undertaken, especially relevant within *Developing Cities of the South*, showing the adverse effects of a growing domain of privatised space within urban contexts This has proven particularly detrimental to city life, but moreover completely unsustainable in its development [85].

Thereafter further local investigation begins to depict the order of magnitude of corruption and disparity manifested by development for solely profit based private interests. It is through these studies that the necessity for a reconceptualization of infrastructure was realised in order to

address the constant increase in inequality – quite simply unsustainable and increasingly limited in its productivity. The project was thereafter proposed as the reintroduction of a local authority to mediate and monitor the integration of public and private through a prototypical project.

Site

The proposed site sits above the Gautrain station, at the nexus of various bus routes and so the introduction of a taxi rank could fulfil a holistic accessibility in addition to the use of private vehicles. Although the land is currently empty and fundamentally underutilised. This provides opportunity at a far lesser cost than if the site was current occupied. It also offers monetary incentives for collaboration to begin the project. The business district surrounds the site and therefore provides an effective location for meaningful integration for greater inclusivity of our economic system.

Financial Considerations

The financial implications are a fundamental motivation for the project’s instigation through a variety of time frames – from the short-term perspective of individualised social empowerment to the macro-economic systemic benefits. The financial viability of this proposed development is vital as a means to propagate economic incursion to a rapidly growing inequality.

At present the property market is under a certain strain as investors, both locally and internationally, remain are cautious (Financial Mail, 2017). In true Keynesian fashion the present thus provides the invaluable opportunity for the governing authority to intervene with an investment into the city infrastructure. The first reason for this is that the existing project is not managing to commence as a result of a series of obstacles discussed above. The utter wastage increases the necessity for instigation but also provides the platform for a lenient negotiation process – where more will be available for less as up until now there has been no alternative solution. The second reason is that the increased input from the government will be aimed at long term economic repercussions but will too stimulate short term benefits. This will occur in the form of an increase in confidence as well as incentivising – and even providing – additional opportunities. This boost can have far reaching repercussions by the ‘multiplier effect’ [86] if directionalised correctly. The final reason is however, the simplest. As a result of the present being a bad time to buy property, the renting costs are constantly increasing. This results in the Kgoro development increasing in value through this investment with an offset to the full capital usually needed.

The Kgoro location of the project is not only important because of the impact as described above, but also because it is in one of the most visible intersections for business in South Africa. This provides heavy advertisement opportunities and increased gravitas to the statement it

aims to represent. This statement is ultimately the city council's investment in the general public as well as a future inclusive workforce. As a result of the prototypical nature of the project the recognised models available are limited in their accuracy as the proposed investment extends further than the return costs of the foreseeable future [87].

The visibility not only contributes to the public communication of a statement project but it also increases the marketability of the additional private *Kgoro* programmes – besides *The Capitol*.

Regiments are currently paying the JPC for the property a fee according to the built bulk – half of the first phase as a super basement. There is an agreement to be brokered in the collaboration between the JPC and Regiments with regards to increase rent with an increase of built structure. However, this document recommends that Regiments are not required to pay an increase in rent for any council property area developed. This bulk will provide a drastic increase in people and result in an increased square meter rate for rent within the surrounding retail components – currently proposed to occupy the first floor of all either of the Regiments buildings. This has the potential for rise from R115 per m² to R165 per m² and this is simply a single example of the potential benefits from day one. In addition to this, the construction of the Resource Centre, Meta School, Incubation and Integration facilities will rather have longer term effects for the surrounding office, with potential recruitment programs to be set up and run on site by a 3rd party.

Once the construction is complete the overall maintenance and running costs of The Capitol will be covered by Regiments as part of the overall Kgoro maintenance and ultimately recovered through the respective rentals – this recovery is included in the figures provided in the Financial Model. This reduction of running costs are to be prioritised through the cooperative nature of the precinct. This occurs through the integration of shared technology and environmentally aware principles – as are outlined in the ‘Rands and Sense’ document published by the Green Building Council.

The new GEDA commissions, Meta School as well as SCID will have respective budgetary allowances allocated by their corresponding sources [88] and this utilised to pay their respective rents as well as for their operational costs, including salaries. The JPC too will have budgetary allowances and as a result of their respective programmes’ rent being set-off from the overall Regiments rent there will be a substantial budget available for running additional programs and for active integration of the poorest majority into the business hub.

There is an additional proposed collaboration with the LinkedIn Local office and is to be incentivised for their relocation into the Capitol. This can be monetarily incentivised as well as for collaborative operations through the Meta School and GEDA. LinkedIn Local has the potential to provide invaluable information to the School and GEDA commissions in the monitoring of future

[87]

In order for private collaboration, this too needs to work
and this can be seen in Financial Modelling.

[88]

The new commissions budget will come from the
municipal treasury, Meta School from the provincial
Department of Higher Education and Training and the
SCID from internal funding.

trends for employment as a means to directionalise the programs as discussed above. LinkedIn has the public data of who is being trained in what, and which skills are being sought after – and this is immediate in its accuracy. This synergy between the GEDA, LinkedIn and the Meta School is to be incentivised by the local authorities as a means of investment into the future workforce.

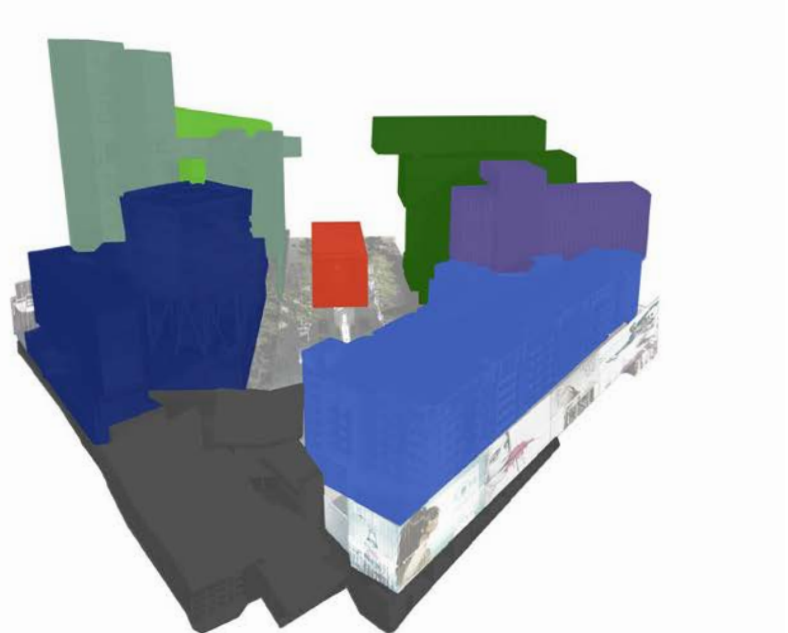
A substantial quantity of return costs will come to the City of Johannesburg through the returns of the research and innovation. As the global economy shifts, so too do our visions for productive development – a feasible proposal is no longer substantial for a municipal intervention. This investment in the social capital is tangible in a variety of manners, from an increase in population entering the tax bracket – almost immediately influenced by the incubation and integration – to the future potential of innovation for a more inclusive workforce – eventually tending towards using the best thinkers from the full populations potential as opposed to the current state of small percentage, elite.

Phasing

The overall development of the Kgoro precinct is to take place over approximately 6 years although through a series of phases. The construction of the Capital Capitol is to take place in conjunction with the Fifth Street Tower in the next of the phases – the ‘superbasement’ having already been built. The two projects are to be constructed and open simultaneously in 18 months. The Fifth Street Tower consists of 6 000 m² of retail and 30 000 m² offices which will benefit directly from The Capitol – in terms of human influx as well as synergetic collaboration of working programme. In addition to this, the two buildings need to be built simultaneously, so as to rent out the individual spaces as a component of a precinct – with a collective identity created between the dissimilar programmes – as opposed to a stand-alone building. The exact phasing period of the entire precinct will be determined by external factors too, including the pre-emptive sale of residential units or securing tenants for the office, before construction can commence.

figure 10,4. Kgoro Central Aerial Perspective and
Development Key

- Phase 1 [completed] - Gautrain & Streetshops
- Transport and Retail
- Phase 1 - 5th Street Towers: Offices
- Phase 2 - Rivonia Block: Offices and Residential
- Phase 3 - Central Tower: Hotel
- Phase 4 - South Block: Residential
- Phase 5 - North Block: Residential
- Phase 6 - West Block: Residential
- Phase 7 - Art Gallery: Special Use

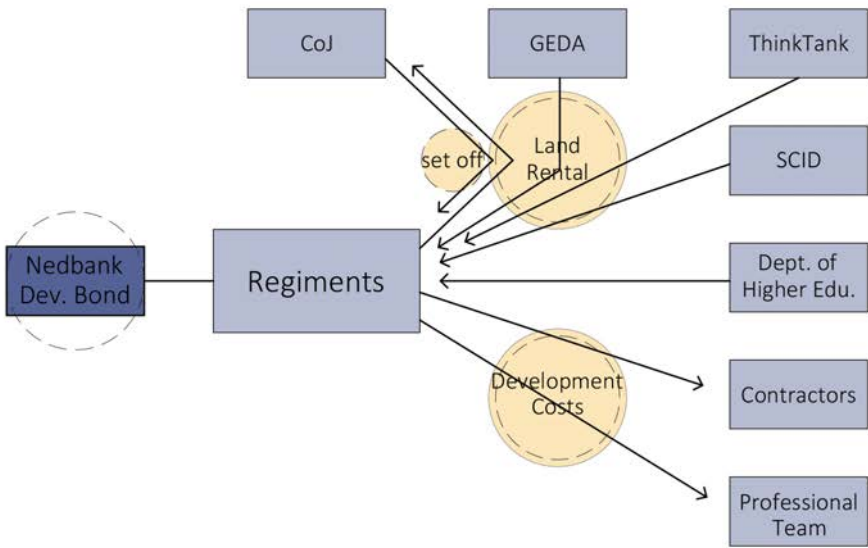


Funding

The Capitol building is proposed to be built at the same time as Fifth Street Tower in the following phase of the project. The bulk built for Fifth Street Tower will result in Regiments paying the Council R1 200 000 a month in rental [89]. The JPC will too begin to pay Regiments rent once the Capitol is completed, although these figures can be set off against each other. There will thereby be particularly low rents paid in the initial phase of the construction aiding in the funding of the first few phases. The two building are also built in conjunction as a means for increased cost of rental as the relationship between the two will form a precinct from the very beginning. The potential increase in return costs is highlighted in the *Financial Consideration* section with the cost per square meter drastically increasing for the 6 000 m² of retail as The Capitol brings about an abundance of foot traffic through the site.

The costing is to be based on an estimated schedule of rates according to the cost per square meter of the respective spaces. This is to maintain a high level of control over the cost of the development with an easier documentation process. This is to provide an increasingly transparent costing mechanism for the Regiment development managers. Each space has been unpacked in the *Design Brief* Chapter and a market related rate has been used in order to increase the accuracy from a very early stage. In addition to this, the building of the Capitol does not require any excavations and so unforeseen circumstances are limited too. However, a contingency figure will need to be added to the overall cost in order to deal with the case of changes the unavoidable chance of the above-mentioned unforeseen circumstances. There is already a super basement, containing a small retail component already on site. This will aid in the creation and marketing of the future construction, continually making the following phase increasingly sellable. This is important as everything on site should be utilized to help finance that which is to come, including the people present raising the rental costs and monetary returns thereafter. This is the Keynesian model proposed.

figure 10,5 Proposed Funding Model



Financial Model

Although the Capital Capitol was initially proposed by the JPC, the financial model revolves around Regiments as they will be funding the project as a component of their greater Kgoro scheme. In essence the inhabitants of The Capitol - Department of Higher Education and Training, 'Think Tank' Laboratory, The Sandton Improvement District, Gauteng Economic Development Agency as well as the City Council - will act as a tenant to Regiments, whilst Regiment is still leasing the land from the City Council. A large component of the overall proposal exists in the fact that although the project is sociologically vital, it too is economically beneficial. The feasibility of this begins with a realistic estimation of the construction costs per square meter according to their individual programs and quality of space. It is important to note that as a public insertion into the Sandton business district the quality of spaces cannot be seen as sub-par as this will merely contribute to the perceived divide. As a result of this, similar figures were used in comparison to the estimate used in the contemporary architectural trends in Sandton.

The total area of the proposed construction sits at 12 990m² and the preliminary estimated cost, based on construction alone is R180 385 000. In order for this figure to be utilised a provisional sum needs to be added for changes and unforeseen circumstances - as discussed in Funding Sources. The contingency provided is 2,5% in accordance with a market related value (AECOM, 2016).

TOTAL					12990			180 385 000,00
Contingency	2,50%						4 509 625,00	
TOTAL								184 894 625,00

An estimation of professional fees is thereafter taken from this above estimate. Due to the complex nature of the project there are a substantial quantity of professionals and as a result the percentage figure estimated is 12,65% [or R23 389 170,06]. This then bring the total cost to R208 283 795,06

Professional Fees	architect	3,00%					5 546 838,75
	urban designer	0,25%					462 236,56
	structural	2,50%					4 622 365,63
	mechanical	1,00%					1 848 946,25
	electrical	0,75%					1 386 709,69
	façade	0,30%					554 683,88
	project manager	2,00%					3 697 892,50
	quantity surveyor	2,50%					4 622 365,63
	wet services	0,20%					369 789,25
	landscaping	0,15%					277 341,94
	Total Fees	12,65%					23 389 170,06
TOTAL Including prof. fees.							208 283 795,06

As a result of the leasehold agreement between Regiments and the JPC, there is actually no land purchase cost to factor into the equation. The rent costs will rather be accounted for in relation to the overall income per month.

There are also a series of sundry costs to factor into the study as these are inherent to the process of development. These are important to consider as can be seen below, equate to over R1 000 000 and bring up the overall costs to R29 335 555,76.

Land Cost							-	
TOTAL (cumulative)								208 283 795,06
Additional Costs	Plan submission fees			(Cost per m²)	R16,50		214 335,00	
	legal fees						250 000,00	
	land surveyor						25 000,00	
	marketing						250 000,00	
	bond raising fees	0,15%	(of cost after prof. fees)				312 425,69	
TOTAL (cumulative)								209 335 555,76

The final sum to consider is the cost of the funds used to finance the construction. This is the capitalized interest throughout the payment process – the interest on progress payments – as the quantity payable per month varies throughout the construction period. There is a market related factor of 0,35 (AECOM, 2016) to consider the difference in costs across the process. This is necessary as the costs of finishes [at the end of the process] are substantially higher per month than excavation [at the beginning of the process] – and this is why the figure is less at 0,5 as this would mean halfway through, half of the costs are incurred.

Capitalized interest therefore = total value x construction period x interest rate x market factor

Capitalised Interest		8,5%	0,35		(value x period x interest	9 341 599,18	
(18 month cons. period)		(interest rate)	(market related factor)		rate x market factor)		
TOTAL COST							218 677 154,93

Projected Income

The total development cost estimated is therefore R218 667 154,93 and so the projected income for Regiments would have to rationalise this investment. The income generated will be split accordingly between the 5 operating tenants – The City of Johannesburg [CoJ], Gauteng Economic Development Agency [GEDA], Sandton City Improvement District [SCID], ‘Think Tank’ Laboratory and The Department of Higher Education. This is according to a rate per square meter, varying according to the quality of the space and market related rate, with a monetary incentivization considered for certain spaces. The relevant breakdowns are then as follows

TOTAL INCOME	(per month)				12990				1 956 800,00
Total rent paid	City of Joburg							672 700,00	
	Gauteng Economic Development Agency							201 600,00	
	Department of Higher Education							308 250,00	
	Collaborative Workspace, ThinkTank Operator							767 250,00	
	Santon City Improvement District							7 000,00	
TOTAL INCOME									1 956 800,00

The resultant income from the various tenants will then equate to R1 956 800, however R324 750 is predicted to be used in the maintenance of the building. This comes from a market related figure of R25 per square meter and is used by Regiments to operate the facilities.

This all results in an annual net income of R19 584 600 which produces an 8,93% yield. If the prime minus 1.25 [8,5% as prime lending is 10% as of printing – 20.11.2018] rate is achieved as predicted in the Stakeholder section. The full 100% construction costs will therefore be paid off in 11 years and Regiments can begin to make a profit.

Expenses	(per month)				12990	(m²)	25	(Rand per m²)	324 750,00
Net Income	(per month)								1 632 050,00
Net Income	(per year)								19 584 600,00
Yield									8,96%

Although there is no cost of land purchase factored in Regiments will be paying the Council for the land as a part of the leasehold agreement. The related market price of land purchase in Sandton is R4000 per m² [annually], and therefore we can assume the leasehold rental will be 10% of that and R4000 per m² [annually]. The is the incentivized agreement that Regiments will not pay an increase rate for new built bulk for the City but as they are also building their first office block simultaneously, the rent will escalate according to the new built private bulk.

Leasehold Land Rental			cost per m²					
(payable by Regiment to Council)		Current land value in Sandton	4000					
		(per bulk square meter)						
		Leasehold Rental - 10% returr	400					
		(annually)						
		Leasehold Rental	33,33					
		(monthly)						
	(Fifth Street Tower Bulk)	First Phase is 36 000m²						1 200 000
	(This is Fifth Street Tower Bulk only)							

[90]
R33.33/ m² monthly x 36000 m² bulk

Therefore, if Regiments are to pay R1 200 000 [90] to the JPC and the JPC is to pay R672 000 to Regiments monthly, the latter can be offset against the first sum to be paid. This will result in Regiments merely paying the JPC R527 300 per month and this is to be utilized as operational costs.

Conclusion

The financial model of The Capitol is therefore feasible, with the building able to be paid off in just 11 years. This is a necessary requirement for the construction of any project, however The Capitol aims to do substantially more than this. The implementation revolves around a far greater economic impact to be incurred within Sandton as well as dissipating throughout its surrounding areas. The modelling costs of future innovation are increasingly difficult to quantify, however these are becoming more important than ever before.

The Capitol benefits all stakeholders respectively – including the general public. This is an attempt to open the dialogue to the possibilities within collaboration – in this instance the collective development has an inherent reduced risk and increased feasibility. If successful The Capitol has the potential for far reaching repercussions as a prototypical model for a public and private interface for the future. Although regardless of whether this is the case or not, the project will be financially stable after just 11 years and will begin to empower the surrounding public.

Appendix B Research Proposal

Introduction and Context

The physical location of the research revolves around the rapidly developing Sandton Central Business District (CBD). The suburb has such a rich history for such a variety of different reasons, but moreover through a multiplicity of different definitions of the word. The context has currently manifested itself as an economic powerhouse driving South Africa forward, although too emblematic throughout Africa. It was recently concluded that the area within the extents of the CBD is currently the monetarily richest square kilometre in Africa.

There is far more to Sandton than its existence as an economic powerhouse. The suburb too provides a fascinating insight into a profit-driven socio-political system, developed by an extremely wealthy minority and yet reflected by the context as a whole. The fact of the matter is, there exists a multiplicity of inhabitants working and functioning within the suburb – from a myriad of circumstances, contexts and classes – and yet there is such a specific few for whom the programmes of the built environment cater for. The rest of the inhabitants are typically present as a means to cater for the few or alternatively attempting to benefit from private profits generated by this minority. This research aims to focus on the relationships between those present to service and those being serviced – and predominantly catered for. This also begins to discuss the maintenance of this relationship by the state as opposed to by private profit-based companies.

Topical Position

The present manifestation of the Sandton CBD presents an unavoidably unjust microcosm of society, although the structures have also created a thriving body of wealth. This wealth typifies the CBD, but the inherent potential of the capital – both social and cultural – is often ignored. This potential is to be investigated through the Research Report and a proposal will be made as a means to begin a discussion of how to unlock intrinsic available opportunities, for an increasingly democratic distribution thereafter. The Report will focus on the agency of the state in the democratisation of these opportunities as a means to develop the current economic system. The research component will also focus on the Infrastructure of transport in Johannesburg – a notion vital to an inclusive central business district. There is such potential within the infrastructure of movement for far reaching impact and this notion of movement will be engaged with throughout the research and will constitute a component of the ultimate proposal. Ultimately it will be necessary for multiple contexts and ecologies to be investigated as a means of thorough understanding before theorizing how to combine the many in the creation of a greater whole.

Research Theme

The Research Report as well as architectural intervention proposed as a response, both aim to open a dialogue on the intense inequality surrounding daily life in South Africa, Johannesburg and Sandton. Sandton is arguably a catalytic context in propagating this inequality by a certain minority creating systemic structures to benefit the wealthiest by utilizing the workforce of the poorer majorities. The richest few use the many, by still paying more than ever before securing their abundance of services, however although there is more money being paid, the rate of increase is completely incongruous to the manner in which the earnings of the richest few is increasing. As a result of this, Sandton thereafter exists as the ideal context to open the discussion regarding the future socio-economic structures.

This intervention will need to be rationalised through the existing manner in which Sandton is function, in order for it to be realistic and thereafter sustainable. The focus of addressing the growing inequality therefore relies on the manner in which an inclusive business district can only benefit the economy, especially in striving for an integrated and innovative future. Sandton, Johannesburg and South Africa in general is currently on the verge of engaging with a new technological revolution and the only way in which these contexts keep up is if they can optimise on the best thinkers present and harness this innovation. Simply put, the best thinkers from a inclusive group (tending towards 100% of the available population) is substantially more promising a resource than the mere 5% being catered for at present.

Research Questions

The questions asked in the thesis all revolve around the central theme of a new and progressive means of social, economic and political existence in Sandton – although acting as a case study and perhaps even catalyst for dialogue throughout South Africa.

How can one define the existence of those present on Sandton to service the remainder of those presently being catered for within the district? How did this existence manifest? Is it possible to blur the lines between the serviced and those servicing? Can this thereafter propagate an increase in future productivity through the utilization of a new inclusivity? Would this utilization for economic advance be ethical, if ultimately everyone is benefitting?

The question of politics of perception and limitations of language are inherent in this discussion and through the research into these questions this research report will attempt to break down the barriers these perceptions create. A fundamental question through this report comes down to, who makes these decisions and thereafter monitor them. This eventually tends towards an intervention for and by the state coming in to mediate as a democratic interface.This then leads to further questions regarding the state’s proposed involvement.

How will the resurgence of a governmentality affect the context current being run by private profits? Can this new governance shift the equilibrium in favour of the individual as opposed to the corporation? How can this increasingly democratic equilibrium continue to be maintained?

Ultimately these questions come full circle in terms of implementing this new governance.
How will an inclusive central business district function in comparison to a directionalised private one? Will this pluralist agenda, through a capitalist lens have substantial effect? What would the economic and social repercussions be, of a truly pluralist central business district?

Aims and Objectives

This research aims to identity and illustrate the monetary divides existent in our society, but then further examine the socio-economic repercussions of these. Ultimately the objective of this will be an attempt to bridge the divide by means of inserting one side into the other and then retracting the other back to this first – utilizing economic principles of the multiplier effect. These barriers are envisaged as the primary cause for the growing illegibility of South Africa’s monetary system, simply propagating intense inequality. The inaccessibility is often as a result of a specificity of definition within the socio-economic structures in place. This research report further wishes to challenge these definitions, affording greater opportunity for future development. The concepts of Capital are a particularly relevant example of this as it is celebrated as an ‘object’ based quantification system, used to rationalise ones ‘credentials’. This is both unjust as well as short sighted and in a revolutionary future of democratic human evolution a ‘social’ capital is of utmost importance. This is the value system currently ignored in our economic structures and has tangibly manifested itself within the Sandton context. This report aims to identity these shortcomings, with the primary objective of challenging the preconceived manner in establishing these ideals. Through the establishment of a holistic perspective, we can begin to truly capitalise on this for far greater, social as well as economic productivity.

Significance and Conclusion

There is such a wealth of potential within the Sandton context and the distribution of these opportunities could prove invaluable to such a much greater portion of the population. On the other hand, we could all progress and develop substantially quicker – and especially more meaningfully – if we were to utilize more of our intellectual resources. Sandton is currently catering for a maximum of 5% of the population. Imagine the potential of an inclusivity, where everyone has the access to the opportunity in the realisation of a great idea. This is the investigation of a new way forward at a time where it is becoming increasingly evident we cannot just continue through the current outdated routine. There is such a growth as well as development in human population and consciousness, which results in inherent challenges for a democratic society. However, this growth also provides an abundance of opportunity and this research is aimed at realising and then further utilizing it.

Appendix C Ethics Clearance

SCHOOL OF ARCHITECTURE AND PLANNING
HUMAN RESERCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE
PROTOCOL NUMBER: SOAP014/04/2018

PROJECT TITLE:

Capital Capitol: The Reconceptualization of a City Hall Infrastructure to Maintain a Productive and Progressive within the Richest Square Kilometre of Africa

INVESTIGATOR/S:

Benjamin Kollenberg (Student No: 669779)

SCHOOL:

Architecture and Planning

DEGREE PROGRAMME:

Masters of Architecture Professional (MArch Prof)

DATE CONSIDERED:

12 June 2018

EXPIRY DATE:

12 June 2019

DECISION OF THE COMMITTEE:

Approved

CHAIRPERSON

(Professor Daniel Irurah)

DATE:

18-06-2018

cc: Supervisor/s:

Hilton Judin

DECLARATION OF INVESTIGATORS

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to endure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

Signature

Date 26.9.18

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Appendix D Title Change Approval

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG



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Reference: Ms Olga Ndlovu
E-mail: olga.ndlovu@wits.ac.za
10 September 2018
Person No: 669779
TAA

Mr B Kollenberg
25 2nd Street
Abbotsford
2192
South Africa

Dear Mr Benjamin Kollenberg

Master of Architecture: Change of title of research

I am pleased to inform you that the following change in the title of your Research Report for the degree of Master of Architecture has been approved:

From:

The Reconceptualization of a City Hall Infrastructure to Maintain a Productive Progressive Equilibrium within the Richest Square Kilometre of Africa

To:

CAPITAL CAPITOL: A reconceptualization of state infrastructure to maintain a productive and progressive equilibrium in the Sandton business district

Yours sincerely



Mrs Tania dal Mas
Faculty Registrar
Faculty of Engineering and the Built Environment

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[Chapter 9]

Design Proposal

[Chapter 10]

Appendixes & References

figure 10.6. Early Engagement Blueprint for extensive redevelopment of Sandton City as well as Kgoro. Perhaps future research can continue with the investigation of a contemporary reconceptualisation of a supermall within the business district

