

4. PUBLIC REALM STRATEGY

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PUBLIC REALM STRATEGY

4.1. INTRODUCTION

4.1.1. Introduction and Purpose

This section of the Public Realm Study focuses on the strategies for the development of the public spaces and streets of District Six. Rather than a top-down master plan for development, this work sets up strategies for the implementation of projects within the public realm.

The outcomes are heavily influenced by the inputs from the Public Participation Process described in the previous section (See 3. Public Participation Process). The vision, spatial systems, location of spaces and various other strategies are the culmination of work done by the professional team alongside the City of Cape Town, and the Caretaker Group involved in the Co-Design Workshops held over the course of a year.

The spatial strategies provide an urban structure, indicating location and systems that define the sense of place and guide future projects. These systems affect the characteristics of the spaces linked to them. Spaces along an educational route or business spine will inevitably be shaped by the nature of the system it interacts with. The typology of space, whether it be a square or a small park, also defines the use and character of the space. These spatial systems and spaces located along them are described in the following pages.

High level strategies for intervention in the landscape are discussed.

The **Culture and Memory Strategy** outlines principles that incorporate living memorialisation into urban space, imbuing the site with meaning beyond its physicality and ensuring that heritage and memory are incorporated throughout the site.

The **Public Space Activation Strategies** highlight the importance of an active urban landscape in which public life is prioritised. Principles are suggested as an approach to development, activities and intervention in Public Spaces in District Six. Some strategies and ideas are then highlighted for the activation of public space. The public realm, as the setting for public life, needs to promote vibrancy, interaction, integration and diversity in all senses.

The **Landscape Strategy** illustrates a holistic approach to the public realm, demonstrating the interconnectedness and mutual interdependence of humans and ecology. It identifies elements that are present in the public realm and describes their role at different scales.

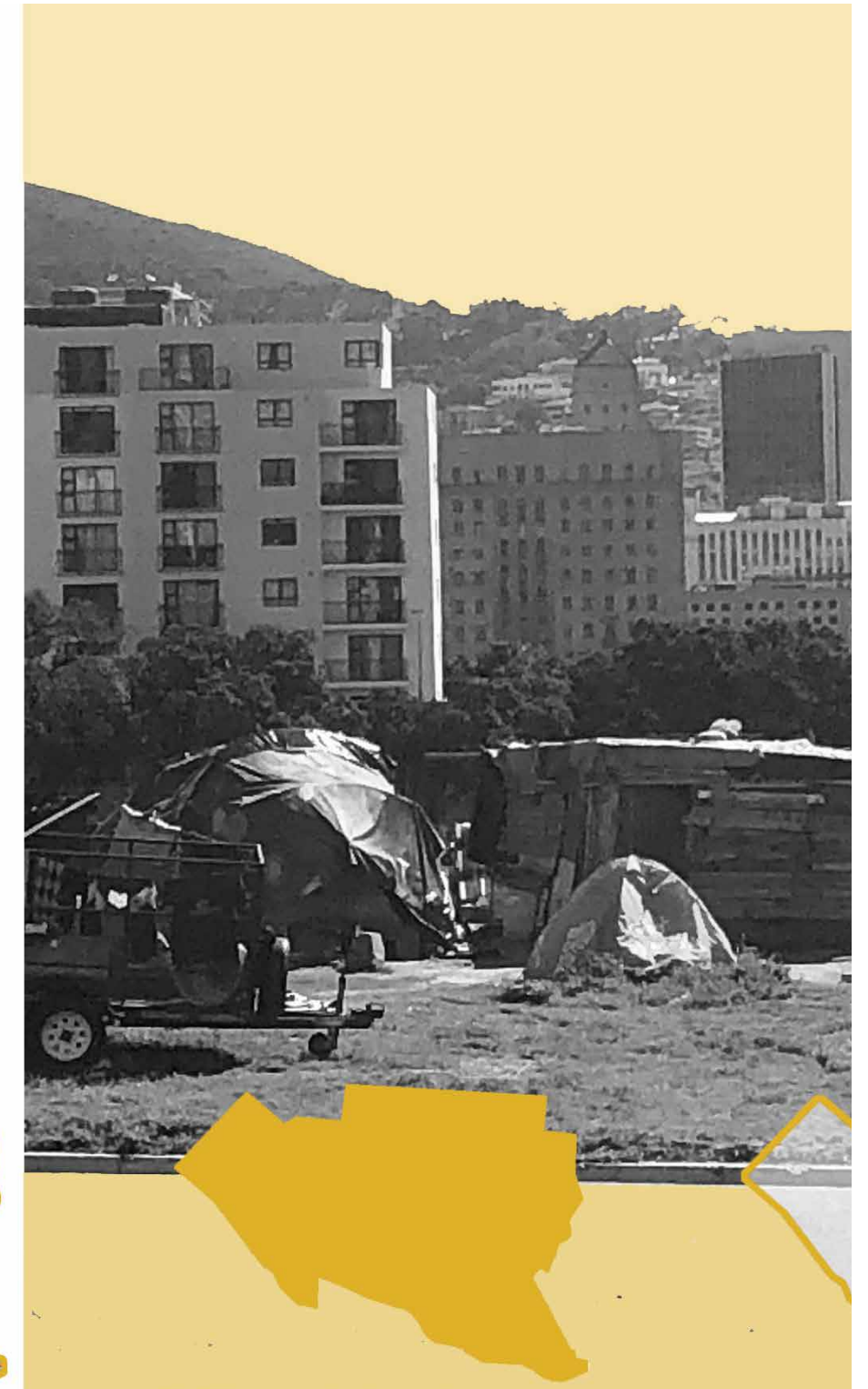


Fig. 4.1. Present day District Six - Conditions of the Site



4.1.2. The Role of the Public Realm

The public realm relates to the spaces of the urban environment that the public has free access to. Cities are comprised of more than the concrete and bricks that shape our buildings; our cities are shaped by the public life that exists within the spaces between our buildings and private residences. Public life, which is essential to the cultural production of our cities, takes place within the physical space.

In Cape Town, the streets and public spaces are often owned by municipal, provincial and national governments, where government acts as a custodian on behalf of the public. While private spaces and residences are owned by individuals, but the public realm is usually publicly owned and managed. It thus follows that the City needs to ensure these spaces are planned for in order to ensure a positive built environment for all its citizens.

Open spaces are vital to the functioning of our cities. In a physical sense, they accommodate people, activities, pedestrian movement, vehicular movement, cyclists, and allow for the distribution of services throughout the city – the systems that allow our cities to function are often located in our public realm networks.

These spaces perform tasks beyond simply serving as spaces of circulation. They fulfill the role of providing “everyday spaces” where urban life can play out. Ordinary everyday spaces are used by people to play, work, gather, socialise, transact and engage with a community beyond their own household. The public realm thus provides amenities to people which impact their daily lives is the most basic sense.

The public realm plays a role in supporting the mental and physical wellbeing of communities, through the provision of social spaces (cultivating connections within communities), as well as green spaces (establishing a connection with nature).

Research shows the value of provision of open spaces from a health perspective. Open spaces can, when designed sensitively, improve mental health and wellness, provide relief from the bustle of urban life and improve quality of life (Roe and McCay, 2021). In addition, green space provides ecological services, promoting biodiversity, sustainable water systems and ecological connectivity within urban contexts. In a context such as Cape Town, where the majority of people live on the margins, and private space comes at a high cost, access to quality public spaces becomes part of our city’s social infrastructure for all. These spaces for recreation, relaxation and respite have increased importance in creating

equitable living environments and elevating the quality of life for more people (Mammon and Paterson, 2005:13).

When considering public space, it is not only monumental or large public squares or parks that need consideration; the full hierarchy of typologies, scales and uses contribute to the larger system of spaces; smaller parks provide vital services by providing play spaces; streets provide passage for many different types of users; the threshold of a corner store can provide a lively pausing space to chat to a neighbour. Urban life is comprised not only of the large events, but the small interactions that shape the culture of the city.

They provide opportunities for people to gather and engage as a society, encouraging and shaping urban culture and active citizenship. The “right to the city” as framed by Lefebvre in 1968 places great importance on the public realm as an arena for civil society and as the spaces that shape society on an individual, interpersonal and community level. Space becomes a signifier of democracy, solidarity and the common ground we share. “The role of public space can be significant in promoting social integration and tolerance, facilitating the co-presence of diverse groups who otherwise may not even be aware of each other” (Madanipour, 2006:13) and (Madanipour 2016:9; Mammon and Paterson, 2005:13). The culture and memory of a city and its “sense of place” are shaped predominantly within this public domain, rather than in private residences. The way in which our urban projects intervene in these spaces is thus crucial for shaping of both the narrative of our society and the experiences that residents and visitors will have in District Six.



Fig. 4.2. Present day District Six - Play and Recreation



4.1.3. Creating representational space and processes

Public space provides the opportunity for visible representation within a city. Representation in space goes beyond the physical imagery or project, but works to establish a sense of ownership for those who can see themselves and their own stories reflected in the city's fabric. These spaces can form the basis from which an inclusive city is fostered.

Within a South African context, changes to the urban context and to public spaces have historically been imposed by those in power. Intervention in the landscape have more often served to dominate or tell a predominantly colonial narrative of those who have or continue to hold power.

District Six holds a unique and rich oral history that is both specific to place, and representative of the story of the country as a whole. The forced removals during apartheid were atrocities enacted on individuals, communities and the nation as a whole. The demolition of an entire district of a city yields, not only a physical erasure, but an erasure of many emotional ecosystems (Fullilove, 2016: 11) and social ecosystems and the removal of lives and stories from the urban landscape. The narrative of our city cannot be a shared collective narrative without people living in-, visible in- and participating in the production of their city. Public space (and public life) in District Six is a significant space holding collective memory and narrative within our city, with the potential to allow people to engage or participate meaningfully with this collective narrative.

The right to the city includes not only the physical access to spaces and amenities, but also the right to be part of the democratic transformative processes of city-making. The goal is to create representative spaces, where communities can see their own stories reflected in the built fabric, but to do so with communities rather than as a top-down approach. Public participation is not merely a consultative process, but is a process of co-design, where the community gains access to and participates in the creation of the public realm. That process should not end at any single project. The city is not a static site, but an ever-evolving cultural landscape. This project thus builds on the foundational work already produced. Place-making is a continuous process of iteration, negotiation and creation. Many other future actors will come after this project, and will be able to influence and leave their imprints on the city.

4.1.4. What does public space have to do with restitution?

If public space provides a visible stage for urban life and a democratic society, it is not surprising that denying people's right to the city became one of the most effective methods of dividing and silencing portions of the civil society during apartheid. The public realm is where transformational moments in society most visibly play out. District Six was no different, as a neighbourhood with an active public life, intensity, paradox, dissent and political complexity. During its demolition, the landscape itself became apartheid's ideological canvas, leaving its devastating imprint on our city.

The history of the site can be made visible through the projects that intervene in this landscape. As has been described through our contextual reading, District Six is a space of many stories providing the opportunity to reflect multiple nuanced narratives. These stories have the power to hold room for the intricacies, contestation and contradictions of a complex landscape. While the trauma of its history cannot be fully healed or erased, there is a need to respond to issues around memorialisation within the public realm, to ensure stories are heard and to provide dignified restitution.

The relationship between the Public Realm and restitution can thus be framed as a wider issue, working alongside the buildings it surrounds:

"The role of the public realm in cities as a means of holding collective value that can unlock the means of, not only healing and reconciliation, but also promote active engagement in a context marked by highly stratified relations."

(Mammon and Paterson, 2005:1)

The Public Realm Strategy sees restitution as the provision of a dignified living environment in a much broader sense. While national government's restitution process focuses on the delivery of individual housing units, this process aims to ensure that the wider environment in which people are located is not neglected, but is celebrated. A holistic built environment (complete with housing, streets and public spaces) will need to be provided in order to produce a meaningful urban landscape.

These elements of the built environment support one another; they are mutually beneficial and vital to the success of a livable neighbourhood. Public spaces have the power to serve as more than merely aesthetic representations of a single unchanging narrative. Rather, the design and public life of the public realm can be seen as a process whereby social input, can leave its imprints, through its conceptualisation, participatory processes and also later through the everyday experiences of people.



Fig. 4.3. Present day District Six - remnants of the old city grid



PUBLIC REALM STRATEGY

4.2. SPATIAL STRATEGY

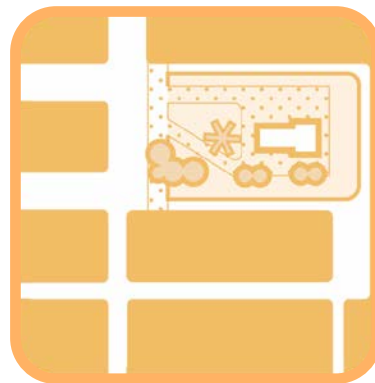
4.2. Spatial Principles and Vision

Spatial considerations have been incorporated that are, to a large degree, influenced by previous work done by others. This includes the Draft Spatial Development Framework (2012), and the Draft Heritage Impact Assessment (2003). These are a set of guiding ideas behind the structure of the urban environment. The structuring of these plans are based on sound principles that form the departure point for the Public Realm Strategy and the way in which the professional team approached this project.



Connectivity across barriers and reinstating historic grids

Enhancing continuity of movement through breaking down or connecting across spatial barriers. Stitching together the segregated landscape through the public realm, streets and open spaces. Support the reinstatement of the historic fine grained street grid of District Six.



Institutions and Historically significant sites as anchor points in the urban fabric

Use historically significant sites and existing institutions as anchor points or landmarks to structure the public space system. Celebrate institutions through enhancing their presence in the public realm.



Water and sustainable green networks

Water and green systems need to be integrated into the system of public spaces. The Public realm should be seen as a system of green linkages.



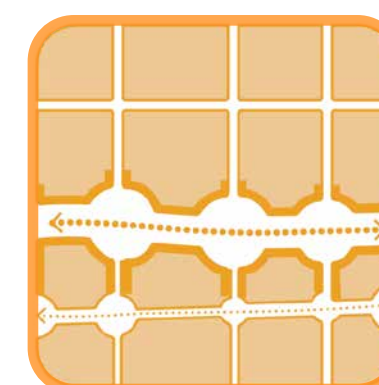
Networks of public open spaces

Public spaces are to be connected to the larger public realm network. Each part of a system can have its own characteristics and function, and yet, each part ties into the surrounding network to form a whole.



Celebrate Culture and Memory

District Six is a space of collective memory and culture. Consider innovative means of memorialisation and living memory throughout the public realm.



Active spine[s] at the centre

The public realm network includes several systems that run as spines within District Six. This includes activity spines such as New and Old Hanover Streets. Care should be taken to support the functions and characteristics of each of these systems.



4.1.2. Vision for the Public Realm

While this project contributes to the narratives of District Six from the preservative of the public realm, the work was not produced in a void. Various influences have had an impact on the project. The City of Cape Town, the Public Participation Process and the study of previous work done to date have guided the professional team.

During Workshop 1, groups were asked to talk through the existing challenges and focus on a future vision for the public realm. A set of issues can be distilled from the discussions we had and were used to inform the subsequent workshops.

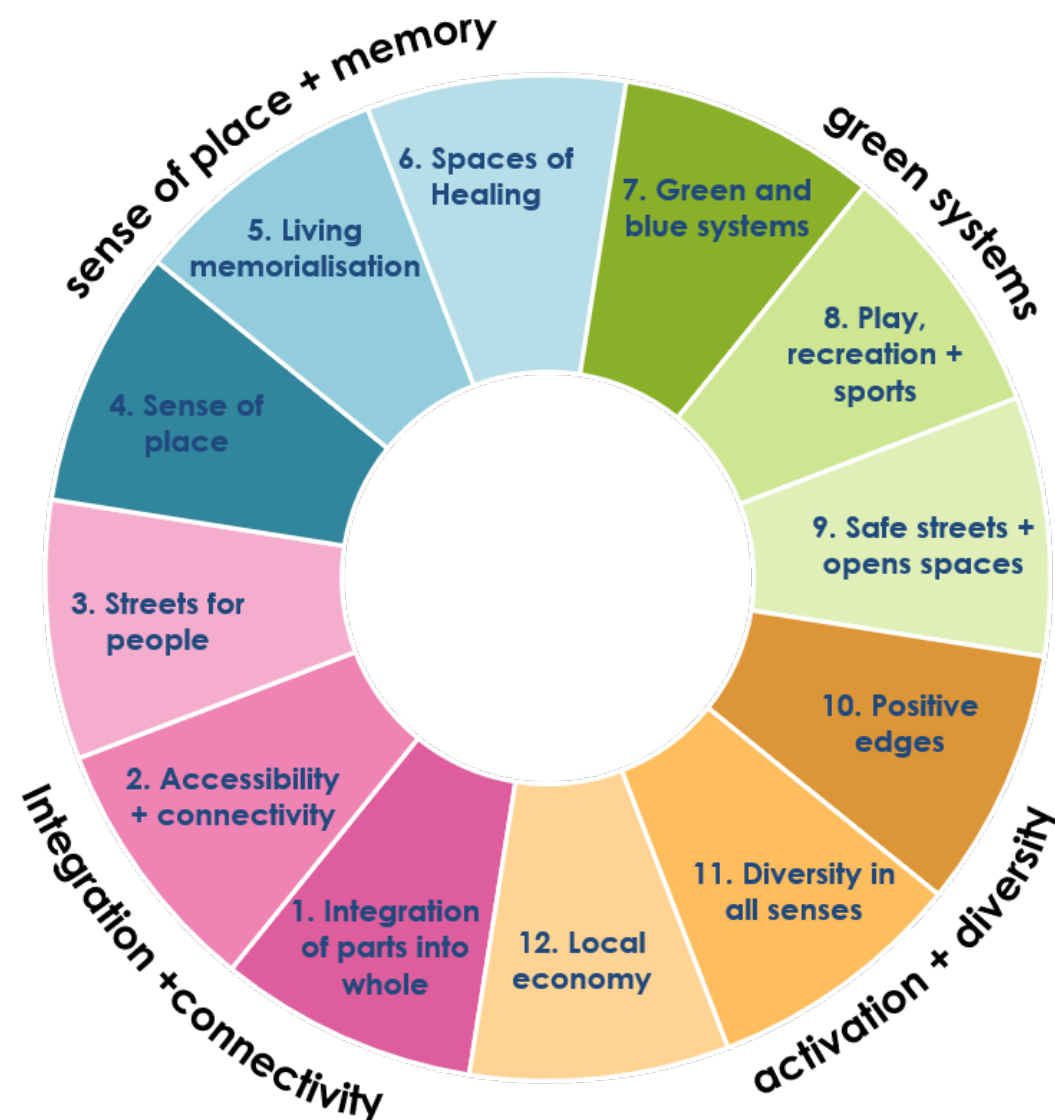


Fig. 4.4. Visioning Diagram - Workshop 1



Integration + Connectivity

1. Integration of parts into the whole

District Six should not be considered in isolation, but needs to be incorporated, integrated and connected to existing parts of District Six and the wider city context.

2. Accessibility and Connectivity

Access and connectivity throughout District Six and with other parts of the city aids in integration and also enables mobility allowing people free movement within the city. The network of streets and spaces needs to facilitate access to amenities to live, work and play.

3. Streets for People

Streets need to be designed for people, rather than merely conduits for vehicular access. They need to be safe and pedestrian friendly. They need to promote safety and be designed to be inclusive for all, and consider the needs of people using the space, including people with disabilities, children and elderly people.



Sense of Place + Memory

4. Sense of Place

"Sense of place" refers to the experience that a person has in a space. This experience is shaped by the character of a place as well as the meaning people give to it. It is also shaped by the quality of the place, the materials, the form and the design. The public realm needs to enhance and celebrate the character of District Six through thoughtful interventions and the creation of meaningful spaces.

5. Living Memorialisation

District Six is a living site with a rich history that should be made visible. Historically significant sites and existing institutions are anchor points in this history, but the spaces around them can also serve as sites of living memorialisation to tell the stories of the communities of District Six.

6. Spaces of Healing

The public realm can incorporate spaces that promote healing from the past and in the present. Although the provision of space alone cannot heal, it can help as platforms to facilitate conversations, illuminate narratives, and build cohesion.



Green Systems

7. Green and Blue Systems

Green spaces and water systems need to be considered in the design of the public realm. The public realm should bring nature into the city and serve as a network of green spaces that promote resilience, bio-diversity and a thriving ecological system.

8. Play, Recreation and Sport

Recreational amenities form part of the public realm. These need to be developed to support the existing and future communities of District Six. Play spaces, active recreational spaces and passive recreational spaces are vital social amenities for communities and public life to thrive.

9. Safer Streets and Open spaces

Safety is a major concern in District Six. Spaces need to be designed to help promote a safe urban environment. Creating vibrant and activate public realm and "eyes on the street" can help produce a safer space. Fostering a sense of ownership and pride by the community can contribute to a well managed and safer environment. Pedestrian safety (especially to our vulnerable members of society) is also key to creating a livable and inclusive city.



Activation + Diversity

10. Positive edges

In order for public spaces and streets to be vibrant and safe, they need positive building interfaces, facing onto the spaces. Active building (such as storefronts) and overlooking features (such as windows, balconies and doorways) help to provide a sense vibrancy, activity and passive surveillance.

11. Diversity in All Senses

District Six needs to be inclusive and promote diversity of people, diversity of races, income groups, ages and abilities. It also needs a diversity of local businesses, activities and amenities in order to thrive as a holistic neighbourhood.

12. Local Economy

Support and provision for the local economy is vital in order to have an active and economically thriving neighbourhood. A commercial spine provides the neighbourhood with a space of vibrancy and enables local businesses to develop and contribute to the economy and livelihoods.



4.2.1 The Structure of Spatial Systems

How do we conceptualise the structure of the public realm?

The “public realm” refers to the spaces between the buildings. This includes Public Open Spaces, Streets and any spaces that are publicly accessible.

Our public realm system can be seen as a series of OPEN SPACES along a SYSTEM or “beads along a string”. This helps us conceptualise the networks and systems that shape our city.

LOCATIONS OF PUBLIC SPACES and moments of interest within the neighbourhood

Open Spaces, Places or landmarks can be seen as dots. These are specific PLACES within the neighbourhood/city. These spaces are dotted throughout the neighbourhood, but are connected through the systems of streets or lines.

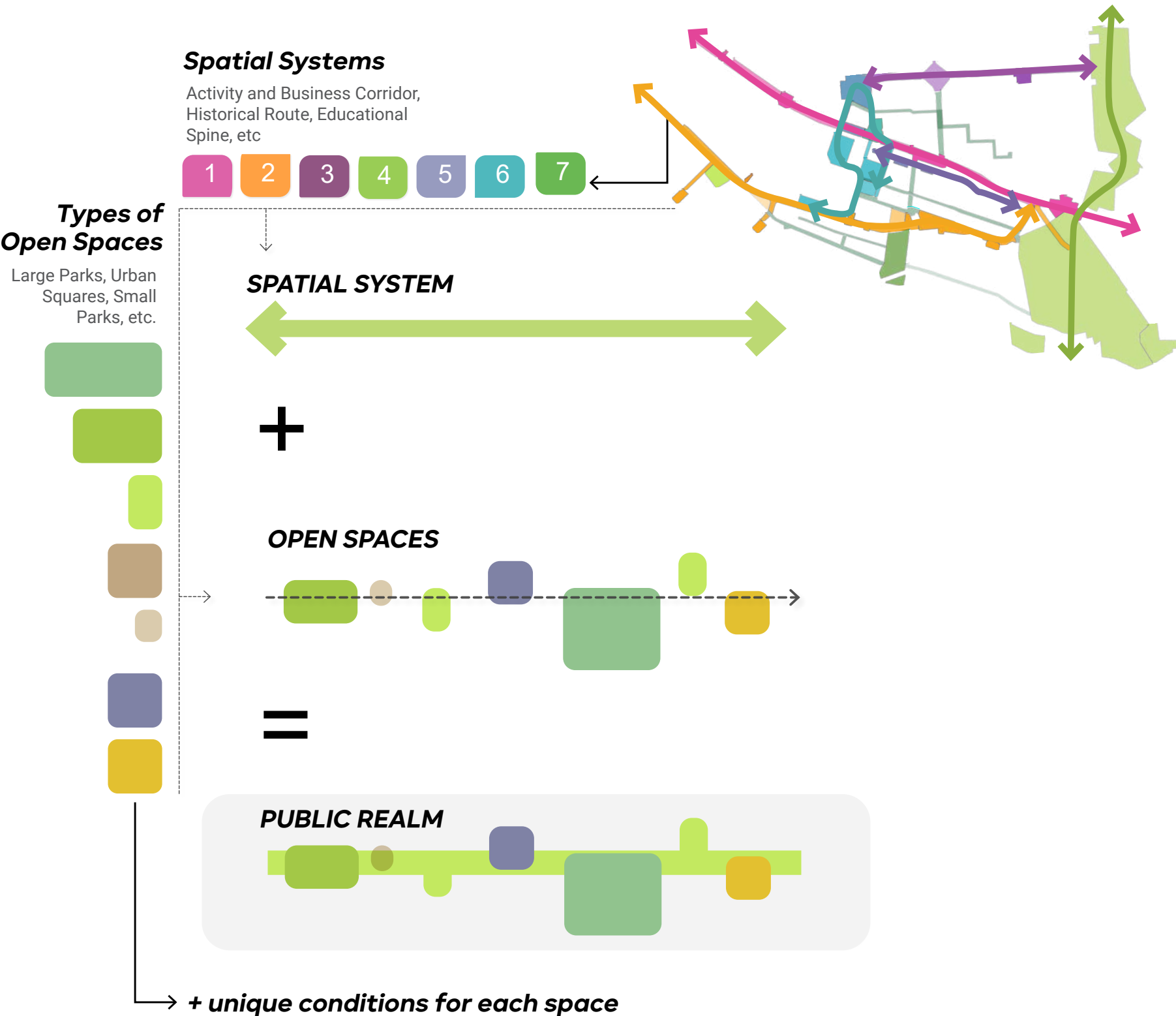
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SYSTEMS of public spaces and connectivity

These systems are made up of important streets and connections that serve as a lattice or framework along which to “pin” spaces. These lines provide CONNECTIONS between places.

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PUBLIC REALM



4.2.1 The Structure of Spatial Systems

How do we conceptualise the public realm?

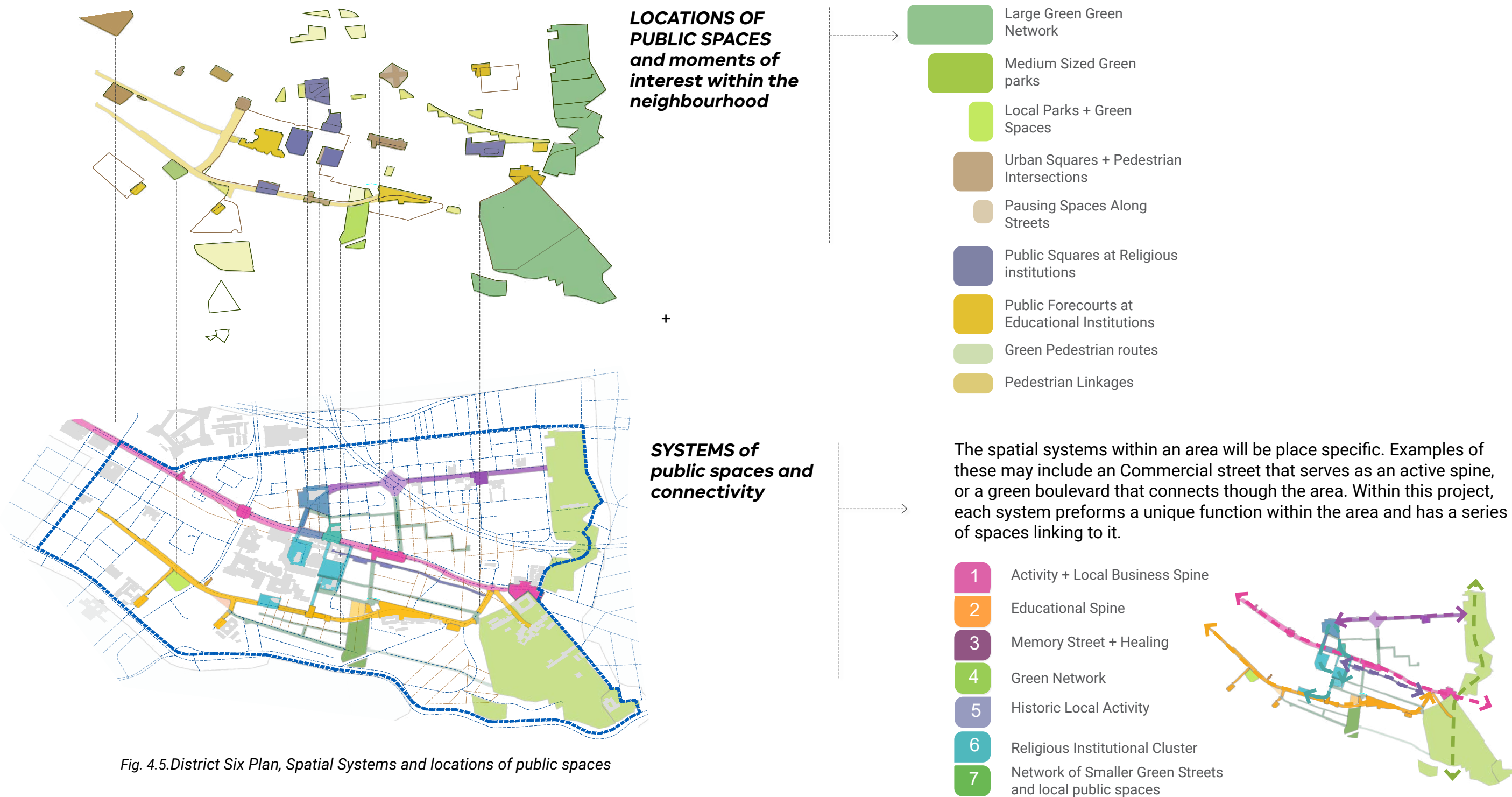


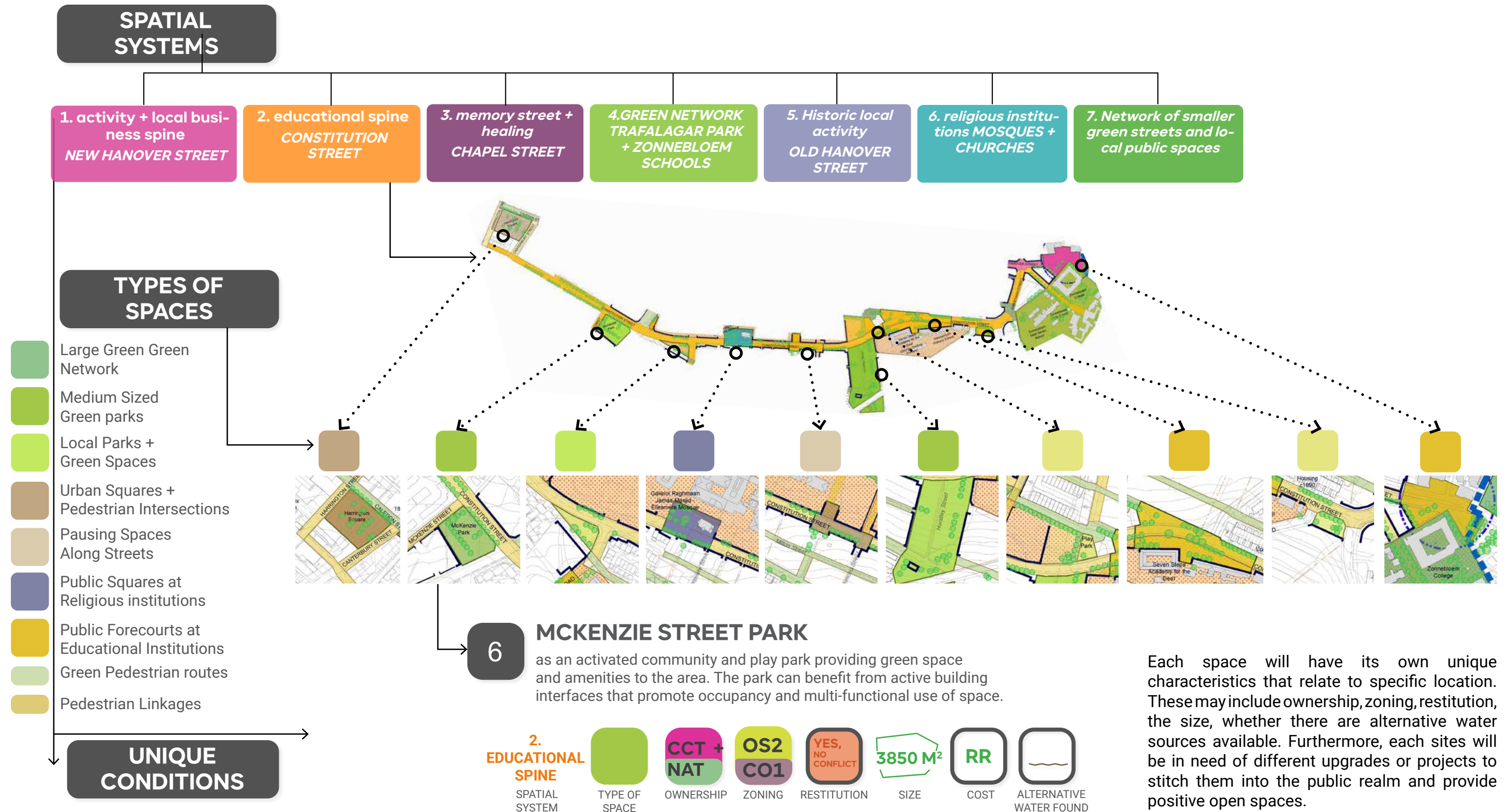
Fig. 4.5. District Six Plan, Spatial Systems and locations of public spaces



4.2.1 The Structure of Spatial Systems

The following diagram illustrates an example of a public space (medium sized park) that falls along a spatial system (educational spine). The character of the space will be influenced by its function as

a medium sized green space and by its location along the educational spine relating to other educational uses, routes for school children and open spaces along the route.



4.2.2. Spatial Systems

Various systems of public spaces were developed throughout the workshop process. These establish a set of interconnected linkages each with a conceptual vision/focus. Public spaces along these systems can be seen as “beads on a string” or special moments along a route. The function that the system plays within the public realm dictate the **character** and “**sense of place**” within the spaces that connect to it.

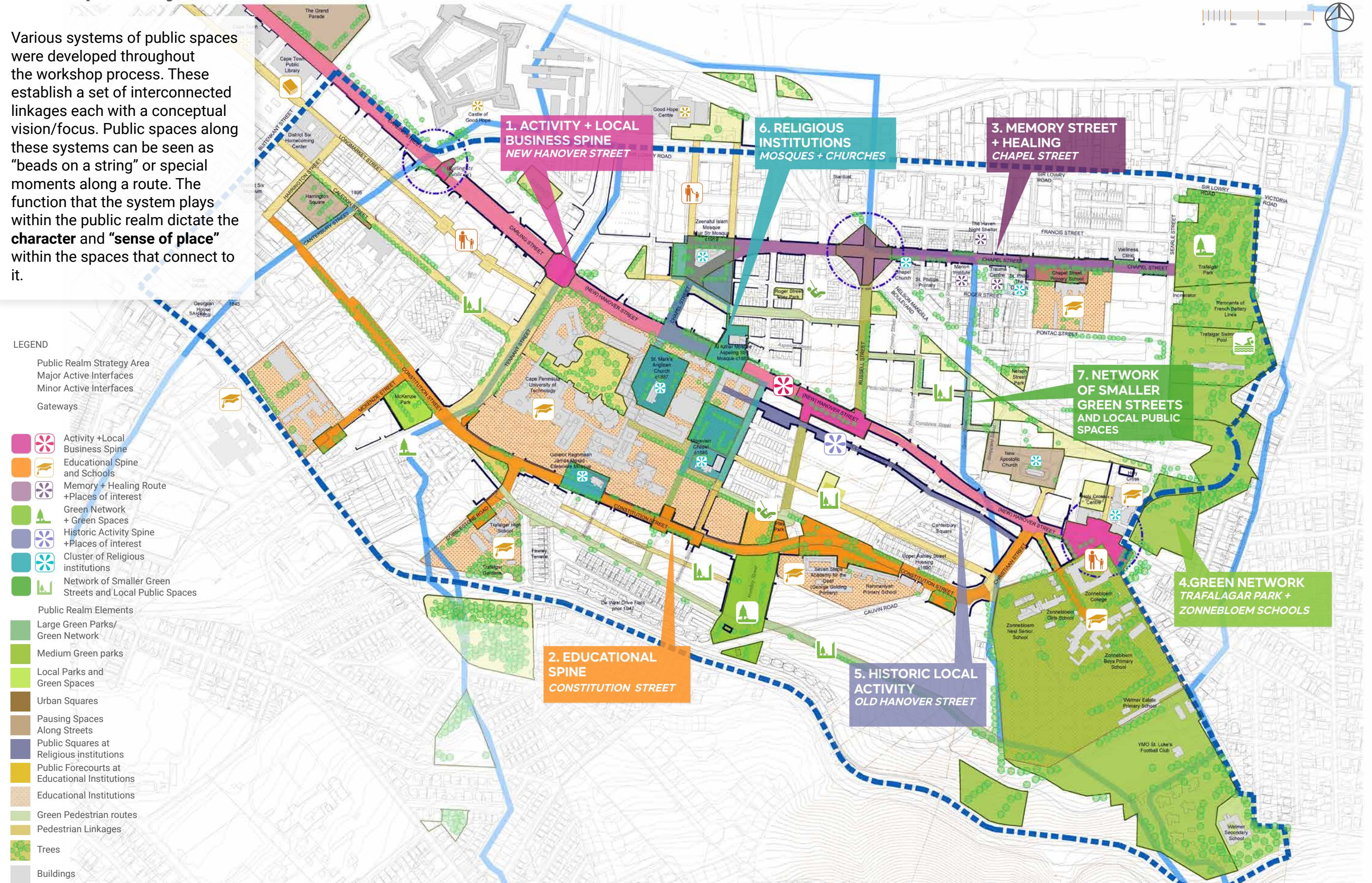


Fig. 4.6. District Six Spatial Systems



4.2.2. Spatial Systems

Workshopping Systems

During the workshop process (and particularly Workshop 2), spaces and future interventions were identified. From these, it became apparent that groups were not only talking about individual spaces, but rather about spaces along key systems. Many of the systems identified through workshopping in the groups were overlapping and interconnected. These ideas shaped the systems indicated in drawings alongside.

Diagramming Systems

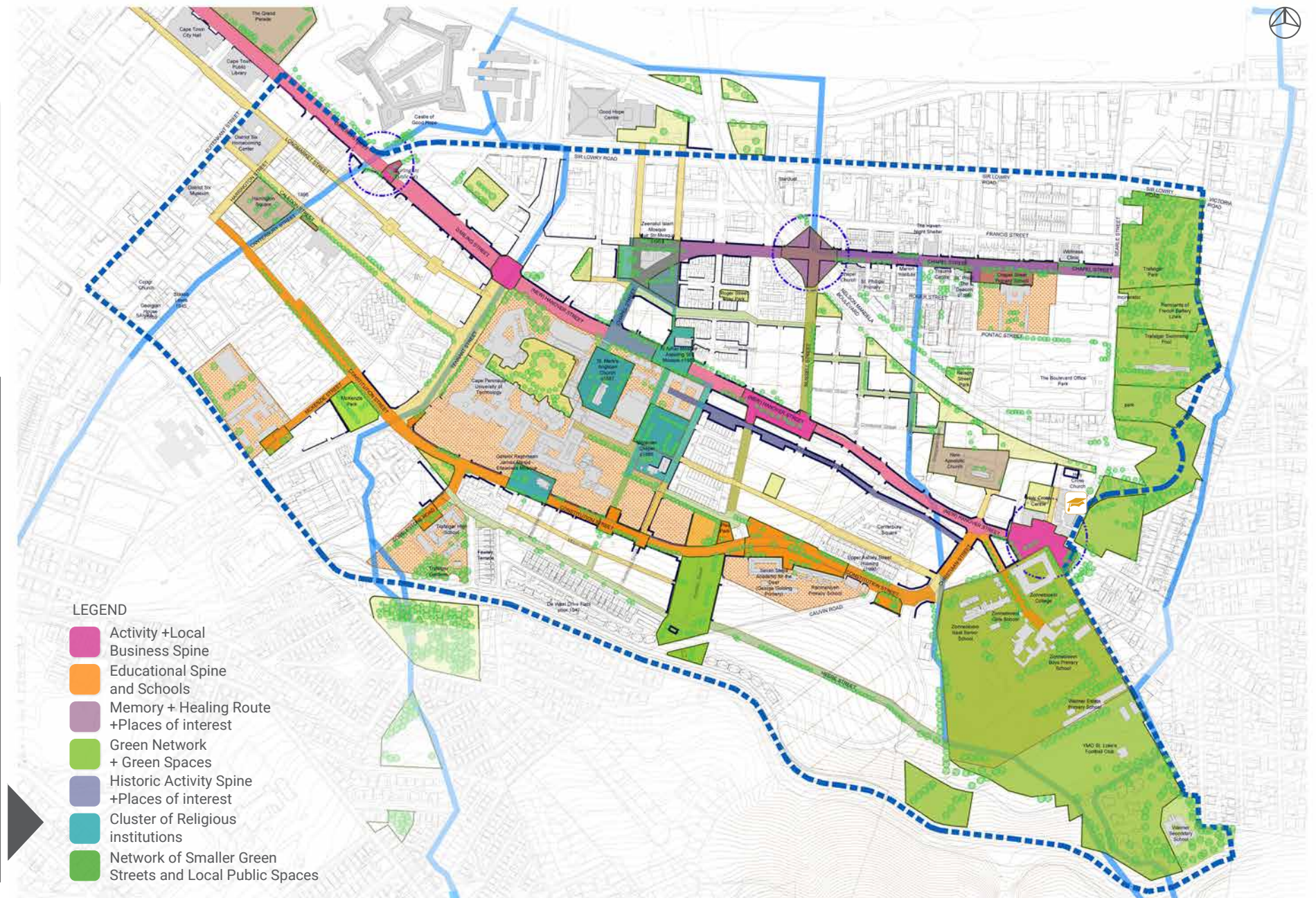
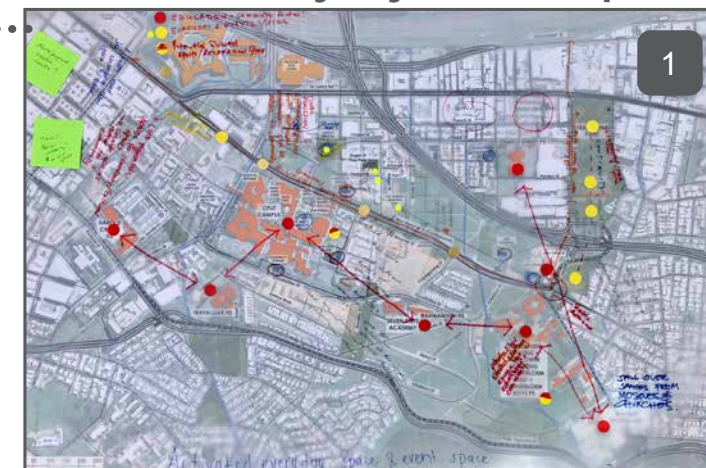


Fig. 4.7. District Six - Spatial Systems

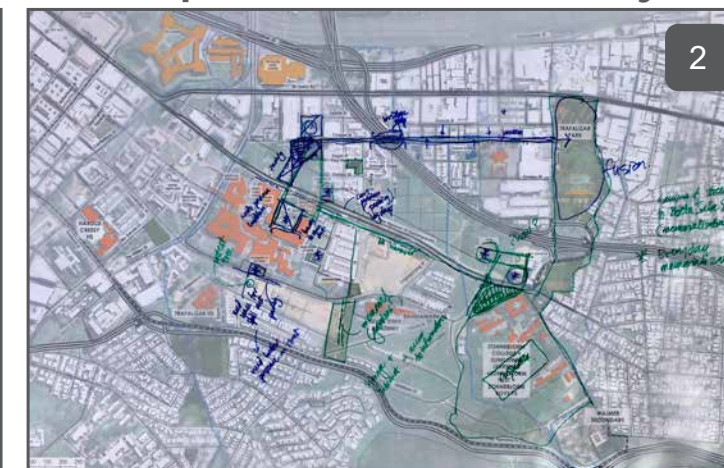
Activated Everyday + Event Spaces



Ritual + Living Memorialisation



Green Spaces, Recreation + Play



Connectivity + Streets



Fig. 4.8. Workshop drawings



Spatial Systems

SYSTEM 1:

ACTIVITY AND LOCAL BUSINESS SPINE NEW HANOVER STREET

New Hanover Street is seen as the future local business spine of District Six. Along this street, higher density buildings and retail on street level, will provide life and active edges facing onto the street. This system connects the rest of the City Centre, from the Grand Parade and the Castle of Good Hope to District Six. Considering its short length, ending in a narrow bottleneck at Searle Street, the proposal is to change the street from a high speed traffic run to a vibrant economic spine. The vision is for District Six to become a place to visit, rather than speed through.

There were suggestions, from the workshops, of narrowing the vehicular lanes, introducing wide sidewalks and spill-out spaces and to narrow the vehicular roadway to one lane in each direction where possible or 2 lanes with provision for buses to pull over as well as cycling lanes. Further suggestions include generous pedestrian pavements, textured intersections, street furniture, trees, lighting, signage and most importantly, a high quality environment for people on foot. The character of the street needs to adapt to suit the uses and needs along its edges. It is suggested that the street be design to be appropriate for its intended use as a activity and local business spine.

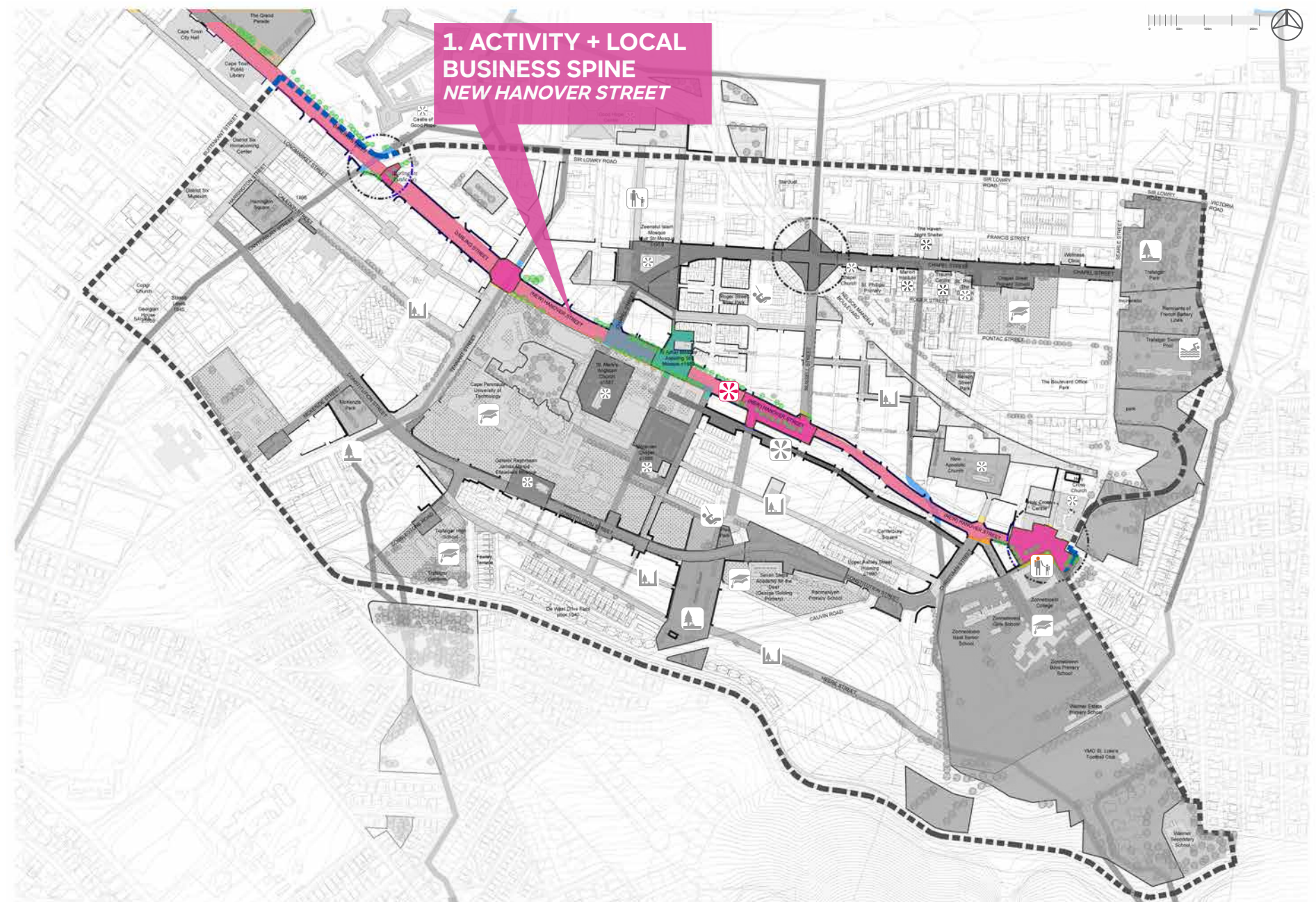


Fig. 4.9. District Six - Spatial Systems - New Hanover Street

EXISTING CONDITION



Fig. 4.13. New Hanover Street, Existing Conditions



Fig. 4.12. Seating and spill-out space

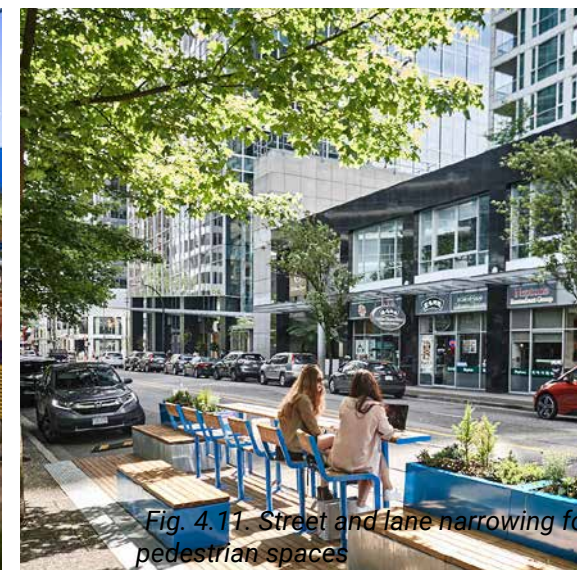


Fig. 4.11. Street and lane narrowing for pedestrian spaces



Fig. 4.10. Boulevard

PRECEDENT EXAMPLES



Spatial Systems

SYSTEM 2:

EDUCATIONAL SPINE CONSTITUTION STREET

This system runs along Constitution street linking many of the educational institutions within District Six. During workshops, the need was expressed for children to have safe and enjoyable movement between various institutions and amenities throughout the area. In addition, the connection to the after-school facilities within and outside of the area is important.

The street here only includes one lane in each direction, but the lanes are wide, encouraging speeding along a route where there are many school children walking. A safer pedestrian environment is needed, with narrower lanes, traffic calming measures, wide sidewalks and spaces for children.

Spaces along this route should provide safe spaces for children to walk through, wait or play. This includes a range of smaller play parks and pausing spaces. The presence of educational institutions, and the many children, also calls for the themes of “learning and play” to be incorporated into the public realm in innovative, engaging and interactive ways.

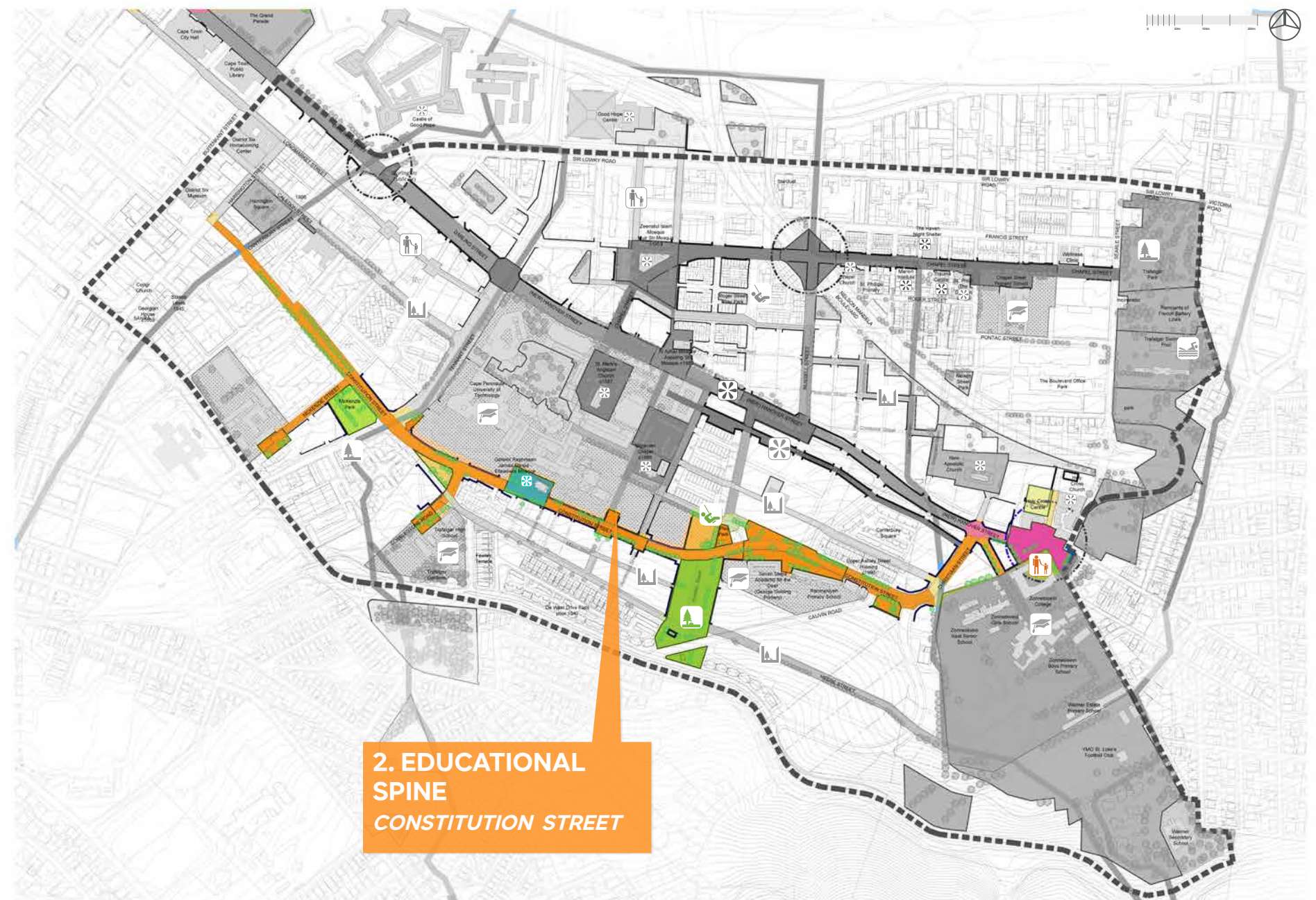


Fig. 4.14.District Six - Spatial Systems - Constitution Street

EXISTING CONDITION



Fig. 4.15. Constitution Street, Existing Conditions



Fig. 4.16. Creating spaces with clusters of street furniture



Fig. 4.17. Colourful Tactical urbanism



Fig. 4.18. Street furniture and play

PRECEDENT EXAMPLES



Spatial Systems

SYSTEM 3:

MEMORY STREET + HEALING CHAPEL STREET

Chapel street connects from the green network of Trafalgar Park, past Chapel Street Primary School, below an underpass, past the Muir Street Mosque, and curves towards New Hanover street and towards CPUT. This street serves as the main connection between the remaining parts of District Six and the parts that were destroyed. The highway acts as a barrier between the two parts, with the circle under Nelson Mandela Boulevard highway as a gateway point into the rest of the area. As part of the remaining portion of District Six, Chapel Street is home to organisations such as the Haven Night Shelter, the Trauma Centre, Marion Institute, a Clinic and Chapel Street Primary School.

At times, the street becomes a vibrant gathering space for its residents whose social events make use of and occupy the street, bringing life to the public realm. These activities need to be supported.

A narrower and more pedestrian-friendly environment is desirable, with wider pedestrian walkways, lighting, trees, street furniture and commemorative moments along the route, celebrating local heroes and the history of the area.



Fig. 4.19. District Six - Spatial Systems - Chapel Street

EXISTING CONDITION



Fig. 4.20 Chapel Street, Existing Conditions



Fig. 4.21. Safe street space



Fig. 4.22. Park Space under Highway



Fig. 4.23. Green Streets

PRECEDENT EXAMPLES



Spatial Systems

SYSTEM 4:

**GREEN NETWORK
TRAFALGAR PARK THROUGH TO
ZONNEBLOEM SCHOOLS AREA**

Trafalgar Park and the Zonnebloem schools precinct form a strong green connection. Previously the site of the French Battle line Wall between the ocean and mountain, this system now connects from Sir Lowry Road to the lower slopes of Table Mountain. The park has historically served the residents of District Six and Woodstock with much needed green space, but needs maintenance and management to see its full potential. The park is currently divided into sections through fencing and parts are inaccessible to the public, while other portions are cut off from the rest of the park through level changes or the highway.

Designs need to consider the continuity of the park, the experience and linkages to the rest of the green system that runs from the slopes of the mountain down to Sir Lowry Road. The sensitive use of water needs to be a key consideration in the design; it presents the opportunity to be used as a key element in the park, though daylighting groundwater and through the use of borehole water present on the site. The park can benefit from open and active edges along the Woodstock side which would contribute to the vibrancy and sense of safety. Furthermore, provision of amenities within the park itself needs assessment. Amenities need to be improved and maintained.

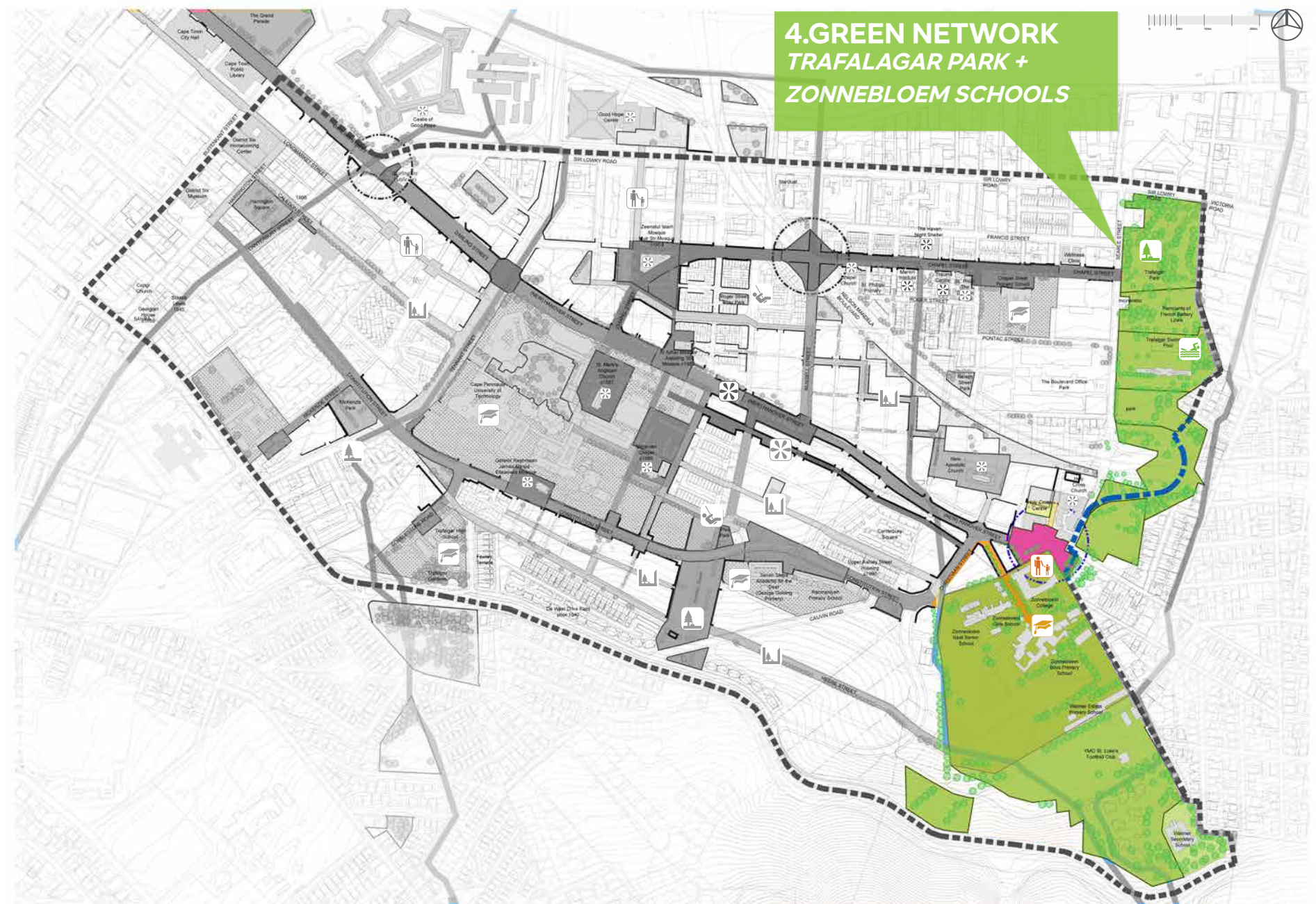


Fig. 4.24. District Six - Spatial Systems - Trafalgar Park Green Network

EXISTING CONDITION



Fig. 4.25. Trafalgar Park from Searle Street, Existing



Fig. 4.26. Sloping treed landscape



Fig. 4.27. Park landscape for multiple uses

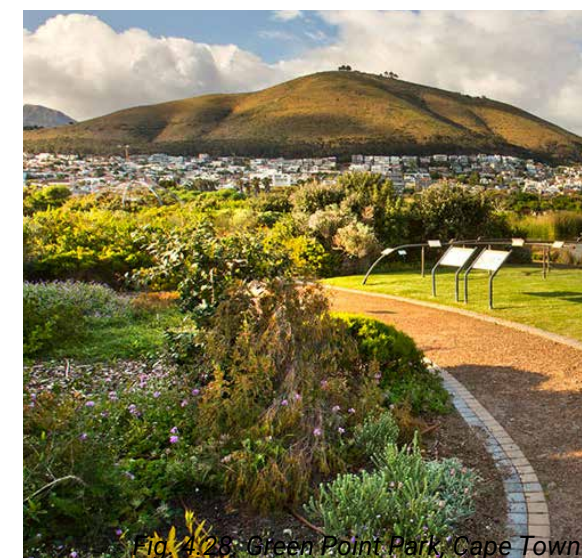


Fig. 4.28. Green Point Park, Cape Town

PRECEDENT EXAMPLES



Spatial Systems

SYSTEM 5:

HISTORIC LOCAL ACTIVITY SPINE
OLD HANOVER STREET

Previously the heart of public life in District Six, Old Hanover Street can be developed as a commemorative route that provides a smaller scale streetscape than New Hanover Street. This street was historically the business spine and life-blood of District Six, with a rich oral history around the activities and entertainment that thrived within it.

Old Hanover Street can serve to tell the story of District Six and the life that played out before its traumatic demolition. The street should provide spaces of pausing, remembrance and reflection. Storied pavements, Signage, Memory Stone and Apps can be used to embed the narratives of the past into the spaces of the future. This street can be a pedestrian-dominated space similar to a “woonerf”, with street furniture, trees, lighting that would make it comfortable for the pedestrian to experience that past of the area through living memorialisation.



Fig. 4.29. District Six - Spatial Systems - Old Hanover Street

EXISTING CONDITION



Fig. 4.30. Cobbled remnants, Existing Conditions

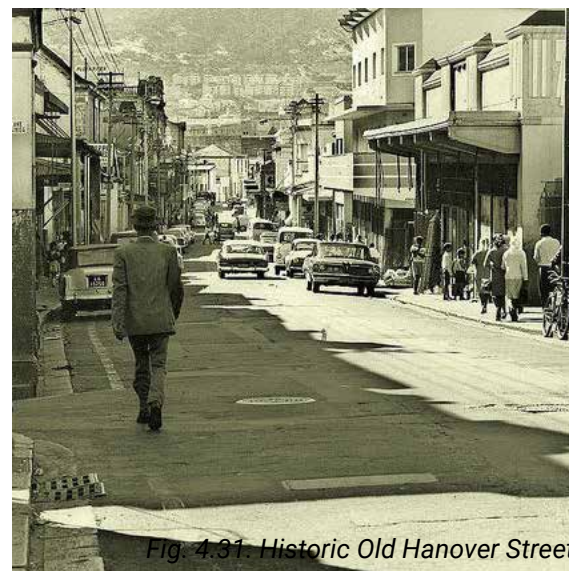


Fig. 4.31. Historic Old Hanover Street



Fig. 4.32. Stories on pavements

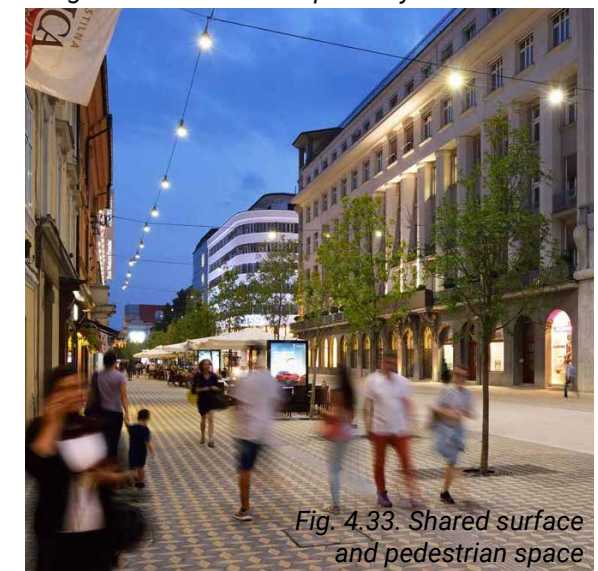


Fig. 4.33. Shared surface and pedestrian space

PRECEDENT EXAMPLES



SYSTEM 6:

INSTITUTIONAL CLUSTERS

The history of District Six and its cultural diversity is made evident through the remaining religious institutions still within the landscape. The mosques and churches, although not currently spatially linked, have the opportunity to form a religious cluster or precinct that highlights the history of District Six, while celebrating the continued practices, rituals and connections of religious institutions in the area to communities. The public spaces surrounding and linking the Muir Street Mosque, Aspelg Street Mosque, St Marks Church, and the Moravian Church can function together as a system of religious spaces - multi-functional open space next to and linking various religious institutions. Flexible spaces and small incremental interventions also allow for changes over time.

This area holds much complexity and conflicting views which were raised throughout the public participation process. More detail and working with communities and institutions will be needed in order to resolve the complexity and challenges.

There are additional clusters of religious institutions (towards the Eastern edge of District Six) as well as many standalone institutions that should be taken into account and incorporated into the systems and linkages.

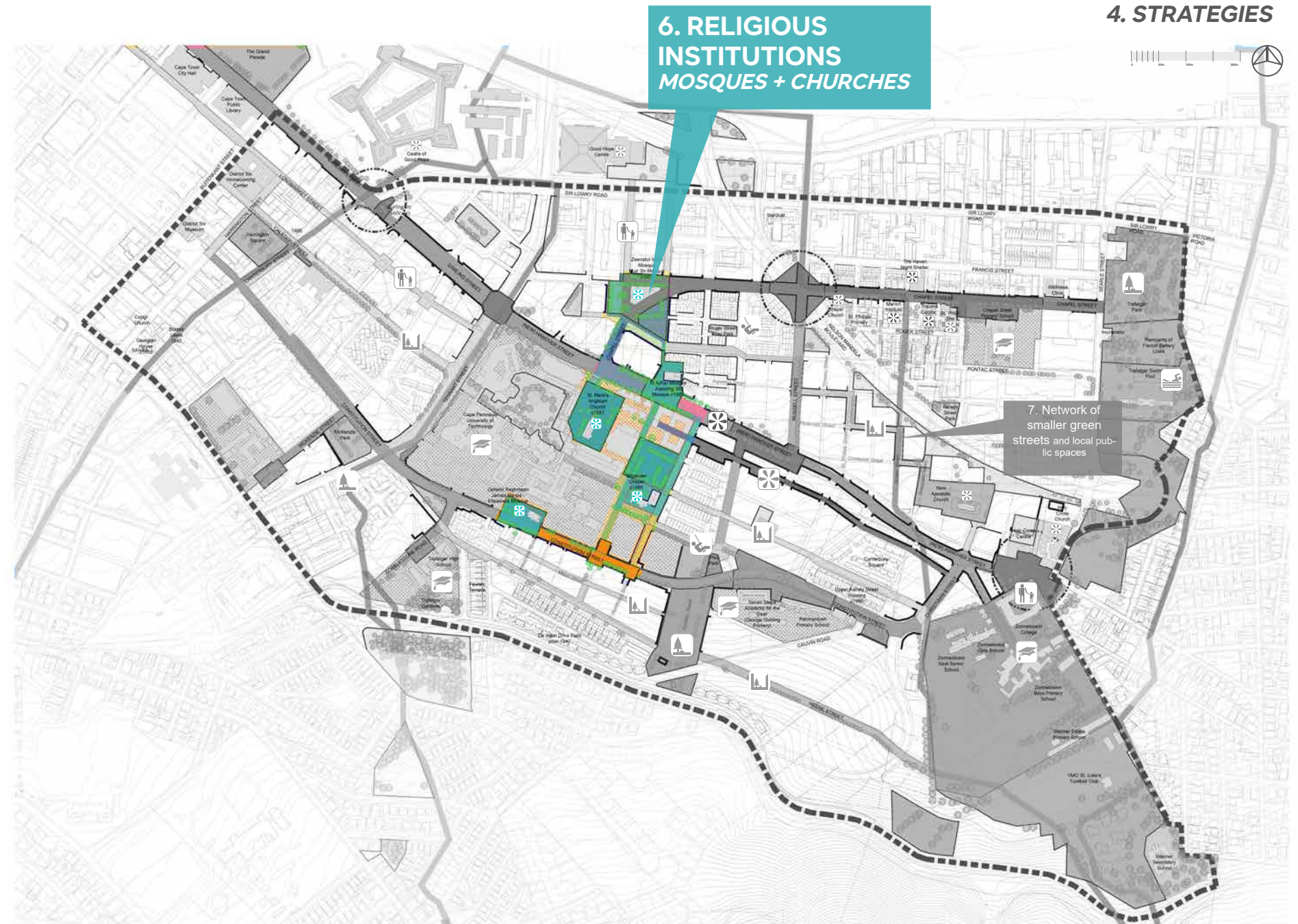


Fig. 4.34. District Six - Spatial Systems - Religious Cluster

EXISTING CONDITION



Fig. 4.35. Aspelg Street Mosque from New Hanover Street



Fig. 4.36. Bo Kaap, Wale Street, Boeja



Fig. 4.37. Urban Square

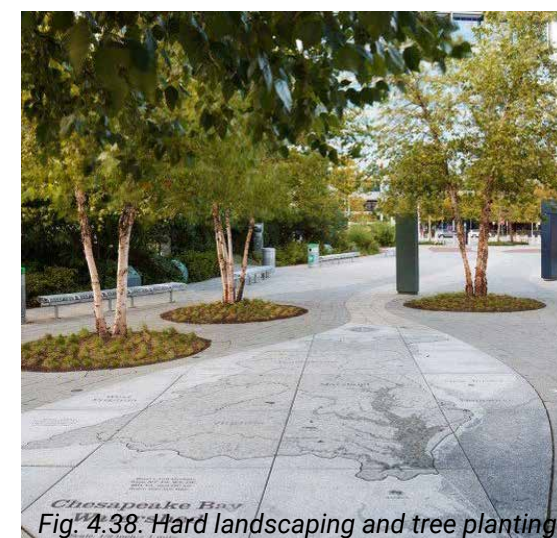


Fig. 4.38. Hard landscaping and tree planting

PRECEDENT EXAMPLES



Spatial Systems

SYSTEM 7:

NETWORK OF SMALLER GREEN STREETS AND LOCAL PUBLIC SPACES

Networks of pedestrian-oriented streets offer the potential for smaller green routes running along the contours within the area. These routes should discourage high speed vehicular movement through textured and shared street surfaces, and prioritise the pedestrian experience. Sustainable urban drainage systems can be incorporated through the use of bio-swales, in order to slow down storm water and replenish ground water, while providing opportunities for biodiversity to be integrated into our urban streets. Trees along these routes provide additional comfort through shade.

SYSTEM 8:

ADDITIONAL SYSTEMS AND CONNECTIONS TO OUTSIDE DISTRICT SIX

CALEDON STREET, LONGMARKET STREET, LINKS TO AMENITIES

District Six was historically integrated into the rest of the City. These streets serve as important links to re-establish and incorporate the area, stitching the city together. Caledon Street runs from CPUT, past Harrington Square and into the City Centre. Longmarket Street connects a pedestrian route from District Six and the Castle all the way to the noon gun on the upper reaches of the Bo-Kaap. Darling Street connects to the Grand Parade and transport interchange. The links to the rest of the city provides the residents with vital access the range of amenities the rest of the city can offer.



Fig. 4.39. District Six - Spatial Systems - Network of Smaller Green Streets

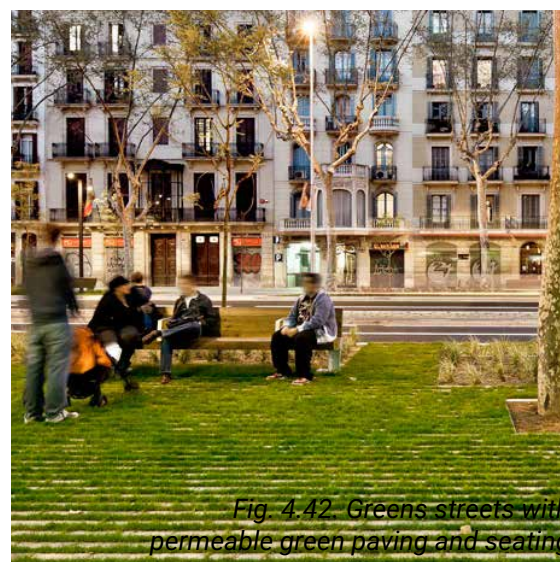


Fig. 4.42. Greens streets with permeable green paving and seating



Fig. 4.40. Greening streets



Fig. 4.41. Community Garden

PRECEDENT EXAMPLES



4.2.3. Locating Spaces within District Six

A variety of different spaces are necessary to provide for the needs of the people that reside in our cities, from smaller green play spaces to squares or pedestrian friendly streets. Many public spaces are located adjacent to existing historic religious or institutional buildings. The map alongside shows the typologies of public spaces, and their relationship with each other and with the broader context.

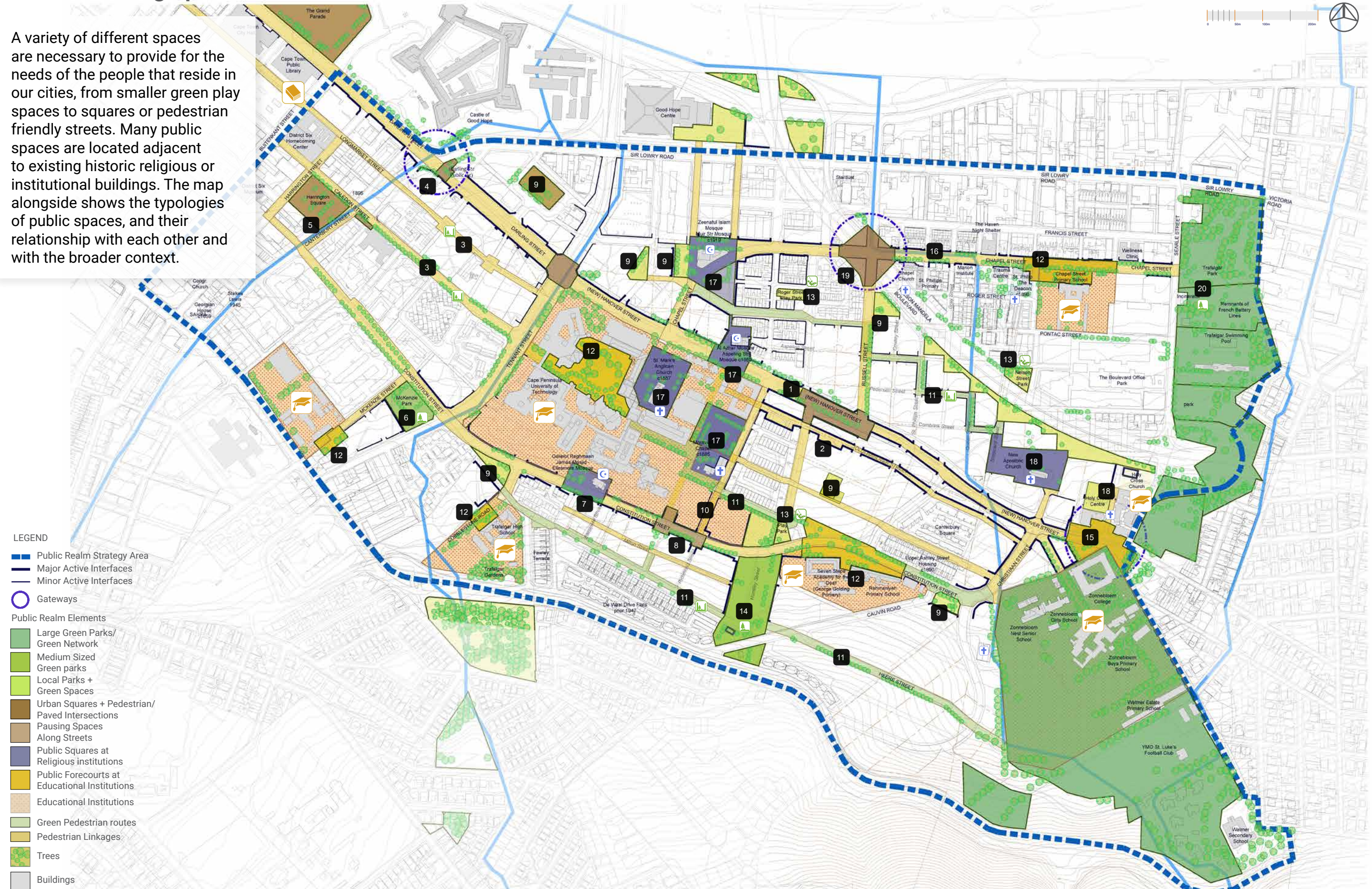


Fig. 4.43. District Six - Locating Open Spaces



4.2.3. Locating Spaces within District Six

Workshopping Locations of Open Spaces

Throughout the workshop process, a range of different types of spaces were identified. Workshop 2 illustrated the higher level spatial systems that became apparent through the discussion with the caretakers. Thus, for workshop 3, the team decided to zoom into 5 areas and discuss the locations of space in more depth. Groups focused on smaller areas within District Six to discuss the public spaces located in each area (see Workshop 3). These together with the spaces identified in the 2012 Local Spatial Development Framework and LSDF process informed the draft drawing above.



Fig. 4.44. District Six - Locations of Open Spaces



Fig. 4.45. Co-Design Workshop 3 - Combined Mapping from 5 Groups on the locations of Open Spaces



Fig. 4.46. Workshop Photographs



4.2.3. Locating Spaces within District Six

1 NEW HANOVER STREET
as a pedestrian local business spine, wider walkways, slower traffic and active edges, with multi-storey buildings that have retail at street level. Ensure it provides for a variety of types of businesses, with a focus on small scale enterprises. Use innovative methods of traffic calming through lane narrowing, texture, surfaces, colour, signage, tree planting, bump-outs. Allow for generous pavements, cycling lanes, trees, green space and safe pedestrian-dominated intersections. Narrow the vehicular route to the minimum width for 2 lanes in each direction.

2 OLD HANOVER STREET
to be celebrated as the historic spine, this space can tell the story of District Six. It should be a pedestrian oriented space with a focus on local retail at street level.

3 CALEDON STREET AND LONGMARKET STREET
as green pedestrian links from the City to CPUT and District Six.

4 GATEWAY JUNCTION (AT THE CASTLE)
as a gateway and threshold space between the City Centre and District Six. This is also a historic entry point (with public toilets) into District Six.

5 HARRINGTON SQUARE
as a multi-functional public space for gatherings, events, stalls, trees, seating for people waiting for the clinic and a limited amount of parking (which can make way for other uses during events).

6 MCKENZIE PARK
as an activated community and play park providing green space and amenities to the area. The park can benefit from active building interfaces that promote occupancy and multi-functional use of space.

7 ELLESMERE ST MOSQUE INTERFACE
with greater presence and visibility onto the street and integrated into system of spaces along Constitution Street.

8 PAUSING MOMENTS
located along routes where many children walk, these interventions have the dual function as traffic calming and pausing points for pedestrians. These are envisioned as spaces with tree clusters, benches, paving and raised table intersections to create pedestrian dominated spaces alongside and within streets.

9 SMALLER GREEN SPACES WITHIN DISTRICT SIX
small parks and spaces connected by green spines to be dispersed throughout the neighbourhood to ensure everyone has access to green space within walking distance. These spaces provide for everyone: children, mothers, the elderly and anyone wishing to access smaller green spaces within their neighbourhood.

10 SMALL LOCAL STREETS
are seen as public spaces, with slow traffic movement and narrow vehicular lanes. These spaces should be safe for children, have eyes on the street and provide tree planting for shade and street furniture for occupancy. Retain fine grained historic street grid.

11 STREETS AS ECOLOGICAL CORRIDORS
outdoor rooms/living spaces with greenery, trees for shade and bio-swales.

12 SCHOOL FORECOURTS
as front doors to institutions and schools opening up as multi-functional spaces for events. A toolkit of tree clustering/lighting/benches can be used in front of active institutions such as schools, religious and community centres.

13 PLAY PARKS
small play parks provide people with safe and child-friendly spaces. There are currently a couple of play parks that should be maintained, managed and upgraded where necessary. Additional small play parks will be needed to support returning resident to the area.

14 HORSTLEY STREET MEMORIAL PARK
as multipurpose park with play, learning, gathering, viewing and commemorative spaces along the educational route. Due to the contours, the park can have multiple levels, with a portion for children to learn and play on the lower slopes, close to schools, and visitor/viewing spaces at the top from which to see the area and the city. Commemorative spaces can appear throughout the park. These can be integrated into the other functions to allow for memorialisation throughout. Memorialisation should not be confined to the park, but take place across all of District Six.

LEGEND

	Large Green Parks/ Green Network		Pausing Spaces Along Streets
	Medium Sized Green parks		Public Squares at Religious institutions
	Local Parks + Green Spaces		Public Forecourts at Educational Institutions
	Urban Squares + Pedestrian/ Paved Intersections		Green Pedestrian routes
			Pedestrian Linkages



4.2.3. Locating Spaces within District Six

15

ZONNEBLOEM SCHOOLS GATEWAY INTERSECTION
care should be taken in the design of a child-friendly and safe public space that can serve as a drop-off and waiting zone for children to wait after hours or to cross the road. This area forms a gateway between District Six and Woodstock. MyCiti Bus Stops are located on either side of New Hanover Street next to the Holy Cross Church. The area serves as an informal taxi collection point for children from schools across the City Centre. Creating a pedestrian-dominated space and using traffic calming is vital for the safety of the school children. Safe waiting space, playing space and crossing spaces are needed. Passive and active surveillance of the space through “active edges” is important for the safety of children. Consultation with the stakeholders from surrounding institutions will be key to developing solutions for this intersection.

16

CHAPEL STREET
as a ceremonial and green connection, linking many small multi-functional spaces together. This street serves as the main street running through the remaining section of District Six. It should be designed to encourage the use of space and include pausing moments with street furniture, tree clusters at build outs, benches and lighting as well as resident parking and generous pedestrian pavements.

17

RELIGIOUS CLUSTERS
the public spaces surrounding and linking the Muir Street Mosque, Aspeling Street Mosque, St Marks Church, and the Moravian Church can function together as a system of religious spaces - multi-functional open space next to and linking various religious institutions. Flexible spaces and small incremental interventions also allow for changes over time. Solutions can only be found through thorough engagement with the institutions in the area to gain a full understanding of their operations and need and the needs of the public who also have access to this space.

- Muir Street Mosque space can be designed to provide a multi-functional area for prayer and

mosque spill-out, tree planting with benches, parking and spaces for functions such as a market. During the public participation process, strong opinions and differing views were put forward as to appropriate interventions within this space. Various design options will need to be explore in-depth for the public space here, if the space is to have interventions.

- Aspeling Street Mosque can have a presence onto New Hanover Street linking back to the system.
- St Marks Church is hidden within the CPUT campus and can be opened to the street and link to these other spaces.
- The Moravian Chapel is currently isolated, but can be connected via pedestrian links and the space adjacent to it can be transformed into a multi-functional public space for use by community, CPUT and visitors.
- New Apostolic Church provides the opportunity for a urban square at the end of a green pedestrian system, linking with New Hanover Street.

18

THE HOLY CROSS CHURCH CLUSTER
can link spatially to New Hanover Street and the Zonnebloem schools area though a gateway intersection. This area will need consultation with the stakeholders of the religious institutions and schools in order to find solutions. This is an active space with children streaming into the streets before and after school hours and during break times. Play areas need to be considered, along with solutions to the traffic issues and pedestrian safety for children.

19

CIRCLE BELOW NELSON MANDELA BLVD HIGHWAY
is in need of intervention and redesign, with activity and eyes on the street.

20

TRAFALGAR PARK
The park currently provides much needed green space to the surrounding neighbourhoods. However, the park has unrealised potential for providing high-quality recreational amenities in addition to it’s current provisions. It is in need of more activated open edges and improved management and maintenance.

LEGEND

Large Green Parks/
Green Network

Medium Sized
Green parks

Local Parks +
Green Spaces

Urban Squares + Pedestrian/
Paved Intersections

Pausing Spaces
Along Streets

Public Squares at
Religious institutions

Public Forecourts at
Educational Institutions

Green Pedestrian routes

Pedestrian Linkages



4.3.1. Introduction

The methodology for developing a culture and memory strategy for the public space of District six has rested on a multi-phased approach of desk based research and a public participation process with the aim of understanding the area as a cultural landscape:

- ▶ looking beyond heritage indicators of the built environment
- ▶ to acknowledge and surface the relationships between landscape, people, memories and intangible heritage.

Acknowledging the site as a 'Landscape of Memory' has enabled an understanding of the area's sense of place to be read through all the senses: the sights, sounds, and smells recalled by its former inhabitants of places, experiences at different moments in time.

Understanding where and how the various communities of District Six used public spaces and their connections between them allowed for a richness and vibrancy of layered and even contested meanings of spaces. It is this vibrancy and richness of use of public space that can be brought into how public spaces might be created in the future: spaces that are infused with memory in spirit with the potential to influence and shape design and built form.

Celebrating the varied cultures of the communities that lived in the area reinforces the design for spaces of dynamic cultural diversity. At the same time the memories of the place need to recognise the long and devastating effects of dispossession, apartheid, forced removals against the backdrop of political and community mobilisation and resistance.

The strategies for engaging for culture and memory of a developing District Six builds on ways of integrating, celebrating, preserving, and protecting cultural practices in the past and present. It is important that the site becomes a space that ties together restitution and renewal but also honouring the past through memory and place making connected to the history of the area.

4.3.2. Developing a Culture and Memory Strategy for the public realm of District Six

The public participation process has been central to the development of an understanding of the public realm of District Six, how cultures and memories functioned in the space in the past, but also with participant input how caretakers would like to see it functioning in the present reality and future. An appendix follows with a summary of the aspects relating to culture and memory from all the workshops.

This strategy has developed directly from this public workshop process led by caretaker input but also makes reference to The culture and memory strategy from the 2012 Draft Local Spatial Development Framework which focused on the following principles for the re-development of District Six:

1. District Six to be developed as a 'living memorial' through innovative approaches that explore non-monumental methods of memorialisation.
2. The on-going memory work of the District Six Museum should be harnessed and directed towards defining appropriate memorial projects within the developing site.
3. Historic urban design principles of the original District Six need to be adapted to present day requirements and contemporary forms i.e.
 - ▶ urban fabric 'grain'
 - ▶ building scale
 - ▶ land-use mix
 - ▶ transitional spaces
 - ▶ the street as public space
4. Conservation of the few remaining assets of cultural and historic worth: being the remaining community buildings (churches, schools and mosques) and the historic street grid.

5. The HIA conducted in 2003 by Lucien le Grange & Associates should inform future development in terms of the identification and celebration of public spaces and buildings that could be used to serve the memory of District Six, including:

- ▶ religious institutions
- ▶ schools
- ▶ previous places of cultural significance (now destroyed)
- ▶ new public spaces
- ▶ selection and preservation of sites of archaeological significance to be synchronized with development interventions
- ▶ the remaining historic street grid
- ▶ Hanover street recognised as a historic mixed use public space
- ▶ the establishment of a memorial park



Fig. 4.47. Photomontage - Old street grid and Hanover Street



4.3.3. Culture and Memory Strategy

Make the culture and memory of the site come 'alive' through forms of 'living memorialisation'



MEMORY THROUGHOUT PUBLIC SPACE

- Memories and stories of the area should be found across many different public spaces in innovative ways and on different levels: not just at one site.
- Memory Stones and storied pavements could honour the diverse local heroes and stories of ex-residents who contributed to their communities: in innovative paving, signage, benches and around significant buildings.
- A diversity of stories of ex-residents across public spaces is very important: the various historical layers of the site need to be acknowledged from indigenous habitation of the site in pre-colonial times and their later colonial dispossession, to the first forced removals of African labourers in 1901, the culturally and linguistically mixed population of District Six, and the diversity of people who were forcibly removed to Manneberg, Bonteheuwel, Langa, Gugulethu and other sites.



Fig. 4.54. District Six Museum - Walls with historical imagery



Fig. 4.53. Memory Stones or Stolpersteine in Berlin, Holocaust Memorial



Fig. 4.52. Memory stumbling stones detail



TYING MEMORY TO TREES

- The planting and dedication of trees in public spaces to families, heroes and events.
- Conserve and provide access to the remaining date trees in the area planted from pilgrimages to Mecca and telling the story of the families who planted them.
- Linking a network of public spaces to the historic Trafalgar Park, i.e. Connecting the park to the 'educational spine' via pedestrianisation and providing continuity of public space from the Park into the smaller residential parks of the area.

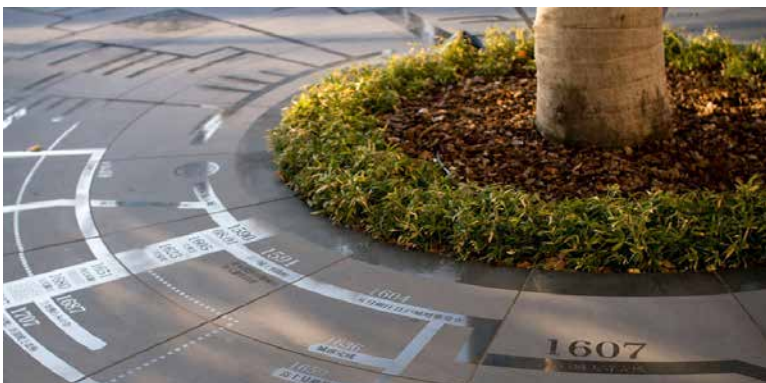


Fig. 4.51. Time tree example - Trees can be used to commemorate local heroes, families and events



Fig. 4.50. SUDS or trees with urban furniture can be used to commemorate



Fig. 4.49. Remaining date trees in the area from pilgrimages to Mecca



USING THE SENSES

The design of public spaces need to consider touch, taste, smell, sight, and hearing as key ways to connect to the sense of place through time i.e.

- Retaining and building cobbled and textured street surfaces.
- Planting garden herbs and plants that people used to have in their gardens and window sill boxes and connect this to food traditions of the area.
- Including old photographs of people in the streets and around buildings in public places in innovative ways so the past is remembered visually (especially representing the buildings and public spaces that were destroyed: cinemas, fish shops, vegetable traders on the streets, children playing...etc.). Example of a phone app that shares specific stories related to specific spaces with QR codes or geolocated.
- Using water to connect to the history of old wash houses and washing history in the area and to the old streams from Table Mountain
- The importance of having musicians, music making and events on the streets and in public areas



Fig. 4.48. Horstley Street - remnants of cobbles



4.3.3. Culture and Memory Strategy

Make the culture and memory of the site come 'alive' through forms of 'living memorialisation'

4

CONNECTING TO THE "REMAINING" DISTRICT SIX

The Chapel street area below Nelson Mandela Boulevard still has District Six 'sense of place' that was not demolished: the relationships between religious, school, housing and community centres are still intact as are some other historical associations in the area. Similarly, the business history of the area is part of the sense of place. The following ways are proposed to connect this area to the developing side of District Six.

- ▶ Creating a 'memory walk' that connects the religious buildings at one side of Chapel Street all the way to Trafalgar Park.
- ▶ This memory lane will also help to connect the "remaining" part of District Six below Nelson Mandela Boulevard to the areas that will still be developed.
- ▶ Re-establish old business and social links to the public spaces of Greenmarket square and the Good Hope Centre.
- ▶ Re-cognition of the old Hanover Street as a historic business space and facilitate public spaces for small, locally run businesses: to make the site a place of memory and renewal and change the street from a freeway to a high street.
- ▶ Represent visually the old street scape or skyline on new buildings or signage that are developed.



Fig. 4.61. Memory Mapping Workshop 1

5

CELEBRATING THE REMAINING PUBLIC BUILDINGS IN THE PUBLIC SPACES THAT SURROUND THEM:

The 'Educational Spine' or corridor running west-east along Constitution Street is an important feature of the remaining buildings in District Six as are the religious institutions (Churches and Mosques), and remaining community centres. Spaces around religious centres are important as the activities 'spill out' and further possibilities of enlivening the spaces.

These buildings and the spaces around them have been in continuous use by the community despite their removal from the area. These sites are to be celebrated in the public spaces that surround them to:

- ▶ Provide better access and prominence for the public buildings i.e. Ellesmere Street Mosque, the Moravian Church and St Mark's Church are not as visible due to contemporary development and need visible access and presence within public space; create a more prominent entrance to the historic Anglican Church complex that integrates it into the surrounding public spaces.
- ▶ Tell the stories of these buildings and their history
- ▶ Develop a religious precinct and 'educational corridor' that caters in the public space for the ritual and daily custom needs of these institutions. I.e. Re-establish the triangle link in the public spaces between the Muir Street Mosque, Aspeling Street Mosque and St Mark's Church, even extended up to the Moravian Church.
- ▶ Enable better catering in parking and landscaping facilities that support the daily needs and traditions of the religious and schooling institutions (Considerations and space for rituals such as congregational prayers, honouring the dead, weddings and Eid). This should also include the religious and school buildings area below Nelson Mandela Boulevard.



Fig. 4.60. Old Hanover Street



Fig. 4.59. Signage telling stories



Fig. 4.58. Paving, Berlin

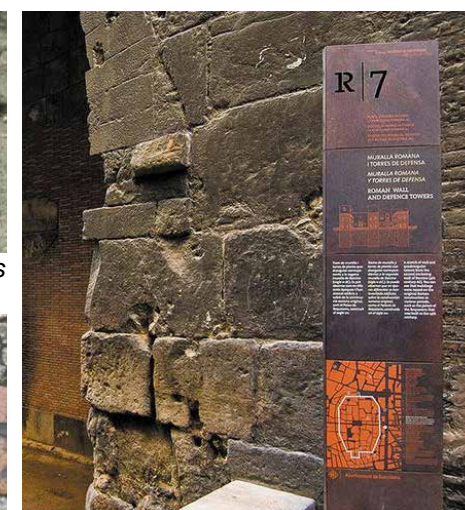


Fig. 4.57. Signage celebrating history



Fig. 4.56. Moravian Chapel



Fig. 4.55. Muir Street Mosque



4.3.3. Culture and Memory Strategy

6

PROTECTION & INTEGRATION OF REMNANTS

- Public spaces around new housing to be designed to retain the old remaining street grid pattern, evidence of drains, curb stones and sections of cobbled streets of the former District Six.
- Include access and knowledge of important archaeological sites in the area i.e. Horstley Street which connects to a complex and diverse history of people who inhabited the space and were forcibly removed.
- The remnants and position of Old Hanover Street need to be protected and incorporated into the design of public spaces and developments.
- Trafalgar Park is an important north-south green space, but it also has many historical associations and memories for current residents and ex-residents. The connection to the park needs to be developed in the streets and public spaces to connect it to the educational corridor of schools and as a ceremonial corridor to the religious buildings in the area.



Fig. 4.62. Co-Design Workshop 1 - Memory Mapping

7

COMMUNITY LED

- Support community led processes in memory making and heritage in the public spaces, including the pivotal role of the District Six Museum, their methodologies and memory work.
- Heritage tourism utilising the streets and public spaces should be led by local guides, who engage with the multiple stories of the site.
- The planned area for the memorial park should be a multi-purpose space with other community uses, play parks and a small memorial garden and should include spaces for healing and play for the next generation. It is important that a memorial park will honour the devastating history of apartheid and forced removals and resistance of the community.



Fig. 4.63. Co-Design Workshop 4 in the District Six Museum Homecoming Centre



Fig. 4.64. Co-Design Session at Workshop 6 - Discussing Principles of Spaces



Fig. 4.65. Co-Design Session at Workshop 5 - Discussing Streets



Fig. 4.66. Open House Exhibition at the Cape Town City Hall



4.4. Introduction

This section consists of:

- ▶ The heritage related statutory context for District Six
- ▶ Heritage process recommendations for applications
- ▶ Appropriate approach to public space design in District Six

STATUTORY CONTROLS IN DISTRICT SIX

The following are heritage related statutory controls and processes:

Statutory controls for development in Cape Town (including public infrastructure) of heritage sites are managed primarily in terms of the National Heritage Resources Act no. 25 of 1999 (NHRA) and (where applicable) in terms of local authority controls attached to Heritage Protections Overlay Zones (HPOZ).

The Preamble of the NHRA states “Our heritage celebrates our achievements and contributes to redressing past inequalities: “It facilitates healing and material and symbolic restitution”. District Six, with its history of dispossession and social dislocations and current attempts at restitution and redress, have special heritage relevance. Furthermore, District Six has been identified as a potential Grade I site or a site with qualities so exceptional that they are of national significance. This would therefore fall under the jurisdiction of the South African Heritage Resources Agency (SAHRA).

The high heritage significance of District Six has never been in question, it was identified and recommended as such in the District Six Heritage Impact Assessment 2003 (Lucien Le Grange document HIA Phase I, March 1, 2003, Lucien Le Grange Architects and Urban Planners), and further recommended by the District Six Museum in their document “District Six as a National Heritage Site”. The issue of which heritage authority manages changes to District Six is less clear however, as the declaration of District Six as a Grade I site has yet to be formally promulgated.

4.4.1. Current heritage approval processes for proposals

The current heritage approval process for District Six proposals is likely to involve the following:



4.4.1.1. LOCAL AUTHORITY APPROVAL IN TERMS OF HPOZ

HPOZs are part of the City’s zoning scheme. Parts of the study area include heritage protection overlay zones (HPOZ). On the west are two rows of blocks inside the Central City HPOZ. The north east part of the site is in the Chapel Street HPOZ. The area on the south east falls in the Chester/Coronation Street HPOZ.

However the majority of the District Six site is not in an HPOZ, including historic areas such as a notable section of District Six with the original street layout still visible. Currently any work inside HPOZ areas will involve a Land Use Management application. Thus it is important to identify whether affected sites fall within the HPOZ. That will determine the nature of City involvement.

The City of Cape Town would also be required to comment on any applications to Heritage Western Cape as a commenting body.



4.4.1.2. PROVINCIAL HERITAGE AUTHORITY IN TERMS OF SECTIONS OF THE NATIONAL HERITAGE RESOURCES ACT.

Sections of the NHRA applying to public space projects in District Six are as follows:

- ▶ Section 35: Archaeology: The Act names the provincial heritage authority, Heritage Western Cape (HWC), as responsible. This section requires a permit to destroy, damage or excavate any archaeological remains. Much of the vacant land in District Six has historical/ archaeological significance because of the domestic remains of the dwellings after demolition.
- ▶ Section 34: Structures older than 60 years.
- ▶ A permit is required to demolish or alter a structure which is more than 60 years old.

- ▶ This will apply to historical fabric in the area. For example, existing stone curbstones. In the issuing of the permit, HWC will consult with SAHRA as well as other interested and affected parties.
- ▶ Section 38: Heritage Resources Management.
- ▶ A Heritage Impact Assessment (HIA) may be required, after a Notification of Intent to Develop is submitted to HWC. This will apply for public space projects if the following is triggered:
 - ▶ Roads exceeding 300m in length,
 - ▶ Development of 3 or more erven, or space exceeding 5000 square metres.

A Notification of Intent to Develop (NID) must be submitted to Heritage Western Cape in terms of Section 38(1) of the NHRA. Heritage Western Cape (HWC) will decide if an HIA is required and what form it should take. If an HIA is required specialist studies may include a Visual Impact Assessment, Social History studies. The Archaeological Assessment may in this case be included as part of a basket of specialised studies and not be submitted as a separate study in terms of S 35 of the NHRA. The HIA process also involves a report on the heritage significance of the site, and possible impact and mitigation of the proposals. It may involve an archaeological study as well as a visual study. SAHRA and other interested and affected parties must be consulted. This process can take 3 months or more, and it is vital to take this into account when planning a project.



4.4.1.3. NATIONAL HERITAGE AUTHORITY (SAHRA)

The designation of District Six as a National Heritage Site has not formally been proceeded with. As a result SAHRA becomes a commenting authority for permit applications to HWC.

CONCLUSIONS TO STATUTORY JURISDICTIONS

Thus heritage applications involve a complex mix of consultations with three levels of authority. If the applications involve any of the following listed below, the permitting authority would be Heritage Western Cape.



4.4.2. Policy Frameworks and related processes

4.4.2.1. THE CITY OF CAPE TOWN'S DISTRICT SIX LOCAL SPATIAL DEVELOPMENT PLAN

The City is currently developing a local neighbourhood plan, also known as the 2022 Local Spatial Development Framework (LSDF). The City's website explains that the purpose of the LSDF is to formulate a spatial vision for the future of District Six. It includes policy guidelines, required projects, and shows the spatial restructuring within the area, as well as the integration within the district and surrounding areas.

This study is a component of the LSDF's Public Realm Strategy, and as such forms the basis for decision making for future public space projects.

4.4.3. Summary of findings

From a development control point of view, District Six is complex site. This is unfortunate, as it is unclear and it creates confusion. The situation would be improved if the whole of District Six were declared a HPOZ. As it stands, certain heritage resources are not included in formal protections, including parts of the highly significant street grid, which defined and contributed to the social life of District Six.

Current applications are dealt with by the authorities as if it were a formal Grade I site although this approach is legally unclear. Much of the vacant land in the area was the subject of demolitions, with substantial amount of the original fabric present. (Houses were bulldozed inwards thereby conserving much of the ruined domestic fabric.) So much of the site is of archaeological significance, and triggers Section 35 of the NHRA. In addition fabric such as kerbstones, paving material, cobbles, etc. is over 60 years old, and removing, altering or adding to surviving fabric requires a Section 34 permit.

A Heritage Impact Assessment may be required for substantial projects in terms of the triggers identified.

All these applications require comment from SAHRA as well as interested and affected parties. Its outside the scope of this study, but projects involving water courses may require an environmental impact assessment.



Fig. 1.67. Historic Map of Town, 1937, CapeEnvirons



4.4.4. Recommendations

- For the purposes of consistency, clarity should be sought as to whether the whole of District Six be subject to the HPOZ.
- That, should any proposed interventions be triggered by Sections 34, 35 or 38 of the NHRA, Heritage Western Cape be notified at the earliest opportunity, for clarification of the need for a Notification of Intent to Develop, or for further applications such as a Heritage Impact Assessment.
- In fact, any open space project which will change the character of an area may require a permit. It is recommended that Heritage Western Cape be formally notified of public space plans, to determine if any permit will be required.
- That the Public Realm Strategy be incorporated into the Local Spatial Development Framework plan.

4.4.5. Appropriate heritage considerations for public space design decisions in District Six

What attitudes should be adopted when making design decisions for public spaces in District Six? District Six is no ordinary area and demands special consideration. Despite or perhaps because of its history at the hands of the apartheid government and the resulting destruction which has left empty spaces and precious remnants, District Six is a heritage site of national significance. Every effort should be made to retain, maintain and enhance its cultural significance and reflect its history.

It is accepted that there is no attempt at recreating District Six as it was. However, there are heritage and character indicators and principles, as outlined in Le Grange's HIA of 2003 (Lucien Le Grange Architects and Urban Planners, 2003) as follows:

- "The scale and grain of the historic street/urban block grid and the character of streets in the former District Six allowed for a human-scaled environment and for the use of streets as public/social spaces ... In the overall development of District Six, the layout of the street pattern and the design of streets should:
- consider the preservation and reconstruction of the historic street grids;
 - consider the street as positive outdoor pedestrian space (create enclosure and definition, define (enclose) the function and character of spaces, provide a hierarchy of

spaces, control building lines and limit set-backs to help define positive outdoor spaces);

- integrate the street network and connect new streets with existing network, where possible(s);
- design streets as social places (consider the historic role of the street in District Six where streets were predominantly for pedestrians. Streets were defined and bounded spaces and not conceived of only as roads for vehicular movement, limit excessive road widths);
- accommodate the making of public squares and courts as it may be related to existing landmark buildings, previous sites of historic/cultural value and new focal points;
- consider the inclusion of elements that record and commemorate the history of the area in the streets and public spaces;
- consider making the forecourts to community buildings (School playgrounds, Mosque/Church Courtyards, etc.) active and secure public places, and,
- keep corner junctions tight (buildings should define the space/corners at junctions and not only serve the technical requirements of traffic engineering)."

These basic essential principles were further expanded upon in the 2012 Draft Spatial Development Framework (Nm and Associates with Lucien Le Grange, 2012). This study builds on these and provides much further detail.

Prior to its demolition, there was little public space in District Six save for the streets because of the density of speculative housing construction. The proposal for parks and the greening of streetscapes therefore is a fundamental change in the urban morphology of District Six.

Currently planning for the area includes parks, greening of the streets, and other infrastructural projects. The optimal approach is to combine international best practice in urban design and landscape architecture, with an understanding and incorporation of the character of the original fine-grain and spatial qualities of the historic area. Whatever remains of the historic fabric and the special local spatial qualities should be integrated, and preserved and enhanced within new proposals.

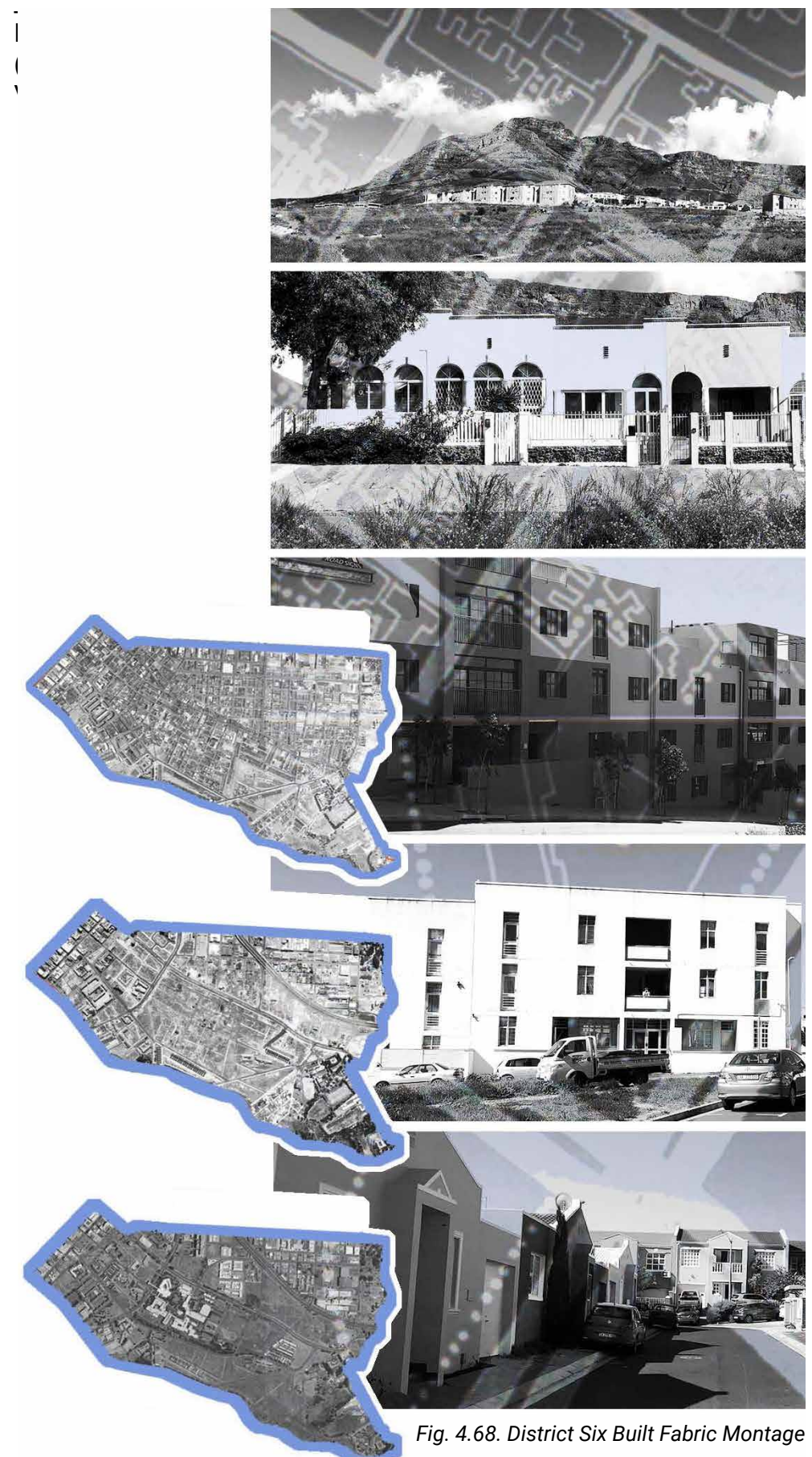


Fig. 4.68. District Six Built Fabric Montage



PUBLIC REALM STRATEGY

4.5. OPEN SPACE USE & ACTIVITIES STRATEGY

4.5.1. Introduction

The impact of Covid-19 in 2020 and 2021 has highlighted the importance of providing public spaces to build resilience in cities. Never before has the need for well-planned and integrated public spaces been so highlighted as an essential element to the well-being of communities, than now. Public spaces have the power to transform communities: it creates opportunity places for communities to interact and transact, supports community economic activity, build community cohesion and spurs change in communities.

“It has become clear now in 2021, that public spaces are no longer a nice to have: it is a need to have” (Soholt, 2021).

Especially in cities where apartments are becoming smaller and cities are becoming denser, the need to focus on the provision of public open space is essential to enable residents to live, move, create and breathe. Residents are moving around, working and recreating differently as a result of the pandemic, and this trend is set to continue in cities where spaces to live are getting smaller and smaller. The need to have space to gather outside, a place where residents can recreate and breathe, a space where people can gather in a healthy environment, has never before been so important to the mental and physical health of a city’s population.

The methodology for developing a culture and memory strategy for the public space of District six has rested on a multi-phased approach of desk based research and a public participation

4.5.2. Lessons from Other Cities

Examples from public space programmes in other cities round the world (Buenos Aires, Bogota, Mexico City, Philadelphia, San Jose, Detroit, Lille-Saint-Sauveur and Bologna) were canvassed to inform this land release strategy.

The research highlighted the following lessons learnt:

- ▶ Residents more regularly visited public spaces that reflected residents’ needs and which responded to historic character and the arts.
- ▶ Community participation and responsive engagement is vital for equitable spaces.
- ▶ Community engagement throughout the life-cycle of a space increases people’s ongoing involvement and also ripples out into the community, thereby creating more sustainable spaces that are actively used by a greater number of people in the community.
- ▶ Community spaces require sustainable operating models for ongoing success, and community involvement and inclusive processes often assists with ongoing sustainability of the spaces.
- ▶ Public spaces need to be able to adapt to changing conditions – including the pandemic, and people’s needs should inform this adaptive process.
- ▶ Public spaces need to be created with equity in mind: good public spaces which are accessible to all, creates democracy especially in unequal societies such as South Africa. Well planned and designed public spaces send out the message that everyone is important, no matter whether they are rich or poor.
- ▶ Public spaces that are designed with the input of communities have greater success.
- ▶ Public spaces that have economic benefit to communities (i.e. also sustains economic activity) have greater chances of succeeding as public spaces.

- ▶ Focus should be on creating a collection or system of civic assets or spaces, rather than only focusing on one space. Social, economic and environmental outcomes create more fundamental shifts in revitalised spaces, and lead to greater innovation and use by the community.
- ▶ Rapid or fast implementation of projects are essential ensure and maintain community buy-in and demonstrate commitment.



Fig. 4.69. Battery Park , Waterfront, Cape Town



Fig. 4.70. Waterkant Street (<https://www.property24.com/to-rent/cape-town-city-centre/cape-town/western-cape/9138/110907389>)



4.5.3. Open Space Use and Activities Strategy



PUBLIC/OPEN SPACE IS A MUST HAVE, NOT A “NICE TO HAVE”

Public and outdoor spaces for communities is a must have, not a “nice to have” and very important for a healthy and resilient City. This must therefore be a top priority, be recognised up front and underpin all decisions. The importance of this has become even more highlighted during the Covid-19 pandemic.



FUNCTION COUNTS

Different types of open spaces are needed to serve the community needs, such as parks, public squares, kick-about, active sports. It is intended to provide a diversity of public spaces, some having green qualities (park-like qualities) and other being outdoor “urban rooms” or public squares. A diversity of spaces can accommodate a variety of different outdoor activities and play different roles in the community.

Provision should be made for active recreation as well as passive recreational spaces where communities can simply “be outside” such as public squares which create “outside rooms”.



THE TYPE OF PUBLIC SPACE WILL DEPEND ON THE MAIN SURROUNDING LAND USES

The surrounding land use (i.e. residential or education or business) will play a role in deciding what type of open space (i.e. public square or sports field or park) is suitable. The hierarchy and structure of the open space network must be based on the dominant land uses of the various precincts (i.e. the educational precinct, religious cluster, economic activity high street, the health and community spine and the parks precinct). These surrounding land uses, and community functions serve as an informant for the type of public spaces, their scale, focus and function. It also guides the functioning of these spaces as part of a larger system.



QUALITY MORE IMPORTANT THE QUANTITY

The provision of spaces and the details of these proposals are less focused on achieving a desired square meterage of open spaces and should rather be focused on the provision of a functional system of spaces.



CERTAIN PLACES MORE PUBLIC THAN OTHERS

Gateways into the area serve the purpose of announcing entry and can celebrate the significant historical, social and political stories of this diverse area and its people. These spaces and places are more prominent and are of a more overtly public nature. In future these places would attract tourists who are interested in the history and story of the place and its people, and this should be recognised in the design.

It is however equally important to provide more private community orientated spaces and areas (such as pocket parks, kick abouts and small urban squares) that are functional and embedded into the new urban fabric and which function is explicitly to serve the local community needs.



LINKING IT ALL UP

The open space system should be linked through a functional movement network. Walkability and connectedness through bicycle lanes and pedestrian walkways that promote non-motorised transport and new ways of moving around should be encouraged. The network and links themselves are just as important as the public space.



Fig. 4.71. Open Streets Event, Langa



Fig. 4.72. Prestwich Memorial



Fig. 4.73. Greenmarket Square, Cape Town



4.5.3. Open Space Use and Activities Strategy

7

COMMUNITY ENGAGEMENT KEY TO SUCCESS

International lessons have shown that the community engagement process that has been followed in this Public Realm Improvement project is incredibly important for the ongoing success and future implementation of public spaces in the area. This engagement process should therefore be continued as an ongoing community engagement process supported by the City throughout the development of District Six and should not be a once-off process which is only activated through this project.

8

HISTORY, MEMORY, IDENTITY, PAST, PRESENT, FUTURE

District Six is not a greenfield site - it is unique in that large areas are currently awaiting development as part of one of the most significant land restitution projects in South Africa. The Public Realm Improvement programme is therefore not a typical public space project which involves upgrading pre-existing public spaces or have an obvious recipient community into which an intervention is proposed within existing urban fabric. Rather, it is a proactive programme which is focused on healing the huge impact which forced removals had on a returning community. It is also not a project which builds a completely new community from scratch. The particular history and context of land restitution with communities returning to an area which holds specific significance, memory and sense of community, and where there is a strong sense of identity, history, ownership and cohesion, must shape the proposals. This knowledge, history, memory and identity is what should inform the design proposals of the public realm improvements.

9

RAPID IMPLEMENTATION

There is also (understandably) a high level of frustration amongst beneficiaries due to long delays experienced over the past 30 years with the development and land restitution process and the delays in returning residents to the place they identify as “home” has been challenged with obstacles. To illustrate commitment and to build confidence in this process, rapid implementation of key public realm projects goes a long way to generate trust and confidence in the process. Projects identified for rapid implementation should have a large degree of community support and enthusiasm, should be located in areas that are already developed and should first and foremost serve those communities surrounding it.

Projects should aim to respond to the following indicators from international examples:

- ▶ Be based on historic elements and stories which add to diversity and richness;
- ▶ Incorporate public art elements;
- ▶ Encourage economic engagement from the surrounding community;
- ▶ Encompass a diversity of spaces which are connected via a variety of different types of movement networks;
- ▶ Be surrounded by active land uses: Make spaces functional and safe;
- ▶ Be located in areas which are already actively developed;
- ▶ Strive to ensure active community buy-in and involvement on an ongoing basis;
- ▶ Select projects for rapid roll-out and ensure quick implementation to demonstrate city commitment.

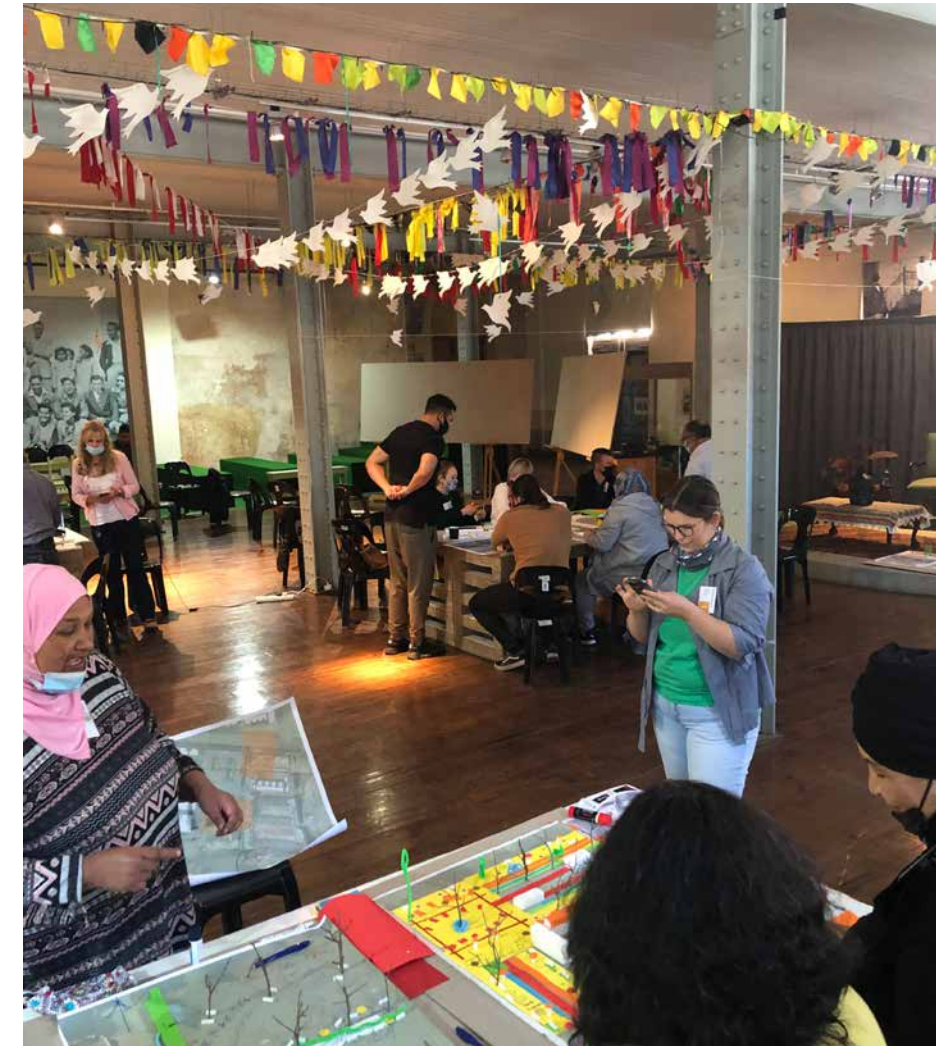


Fig. 4.74. Co-Design Workshop 4 at the District Six Homecoming Centre



Fig. 4.75. Co-Design Workshop 2 - Walking District Six and Hearing Stories



4.6.1. Introduction

The public realm (the street, squares, pavements, parks, greenbelts and playgrounds) forms the living room of the city. The public realm provides the residents of the city with gathering space and places we can all use together. These spaces need to be active, vibrant and safe for all. The team looked at various strategies to “activate” and enliven spaces. Some of these strategies focus on the built environment (how it is designed), and other strategies focus on things that happen in the spaces (activities, events and management).

4.6.2. Public Space Activation Strategy



DESIGN SPACES FOR ALL PEOPLE TO USE AND ENJOY

Provide quality urban spaces that encourage activities and support events. This means providing for universal accessibility, trees, lighting for social spaces, paving, green space, benches, artworks, signage, cycling lanes, etc.



FLEXIBILITY AND MULTI-FUNCTIONAL SPACE FOR EVERYDAY USE AND EVENTS

Design public spaces to enable different uses and events over time. Ensure that they are adaptable and flexibility to accommodate different uses such as markets, music events, art installations, congregational prayers, relaxation and other uses in public space.



ACTIVATE SPACES WITH THE STORIES OF DISTRICT SIX

Let culture and memory activate spaces. Make the arts and heritage of District Six visible as part of the stories told in public spaces. Public art can be developed as community led projects to fill public spaces with life, develop a sense of ownership and to tell the stories of the area.



SUPPORT ACTIVATION ALREADY TAKING PLACE

Focus on supporting the activation (such as community events and use of space) that is already taking place in District Six. Encourage and financially support local initiatives, organisations, community groups, businesses or residents already doing work and hosting events in public space. Provide for better communication and support to enabled people to host events and freely creatively within public space.



DEVELOP TOOLKITS FOR ACTIVATING PUBLIC SPACE

A toolkit (possibly in the form of small booklet) could help to give clear, simple and concise guidance to enable people or organisations to take initiative and be creative. Communication around events funding and regulations would enable a simpler process, rather than getting tied up in onerous red tape. A physical “Plug and Play” toolkit for events (in the form of a simple structure) could also be developed for community use.



START WHERE THE PEOPLE ARE

Support already activated streets and spaces through incremental upgrade or strategically identified projects. Focus on where people are currently living and using space and expand, in later phases to the rest of District Six.



START SMALL

Small interventions in public spaces through “tactical urbanism” projects can help to show the potential of spaces to be used by people. This can be done with small budgets to quickly upgrade or change the nature of a space (hosting events, painting streets, temporary urban furniture, parklets or temporary structures, etc.).



DEVELOP SYSTEMS OF ACTIVATION

Provide infrastructure along routes and spatial systems identified. Support and design for the development of a small-scale local business spine along New Hanover Street and Old Hanover Street, for an educational route between schools, and for a memory route along Chapel Street, etc.



4.7.1 Introduction

The Landscape Strategy concerns only public realm: i.e., public spaces (squares, parks, forecourts of buildings, spaces associated with buildings, and other) and connectors of the various public spaces (streets, roads, footpaths, bridges, vistas, etc.).

When planning the overall long-term vision for the area of District Six, TERRA+ Landscape Architects aimed to achieve two major objectives:

1. Something for everyone
2. Connecting with Nature

The overarching landscape intentions for the upgrade of existing and for the future development of urban environment of District Six are:

- ▶ to have increased resilience to climate change
- ▶ to have improved sustainability
- ▶ to have living memory of its historical importance commemorated throughout the entire area in various ways and mediums.

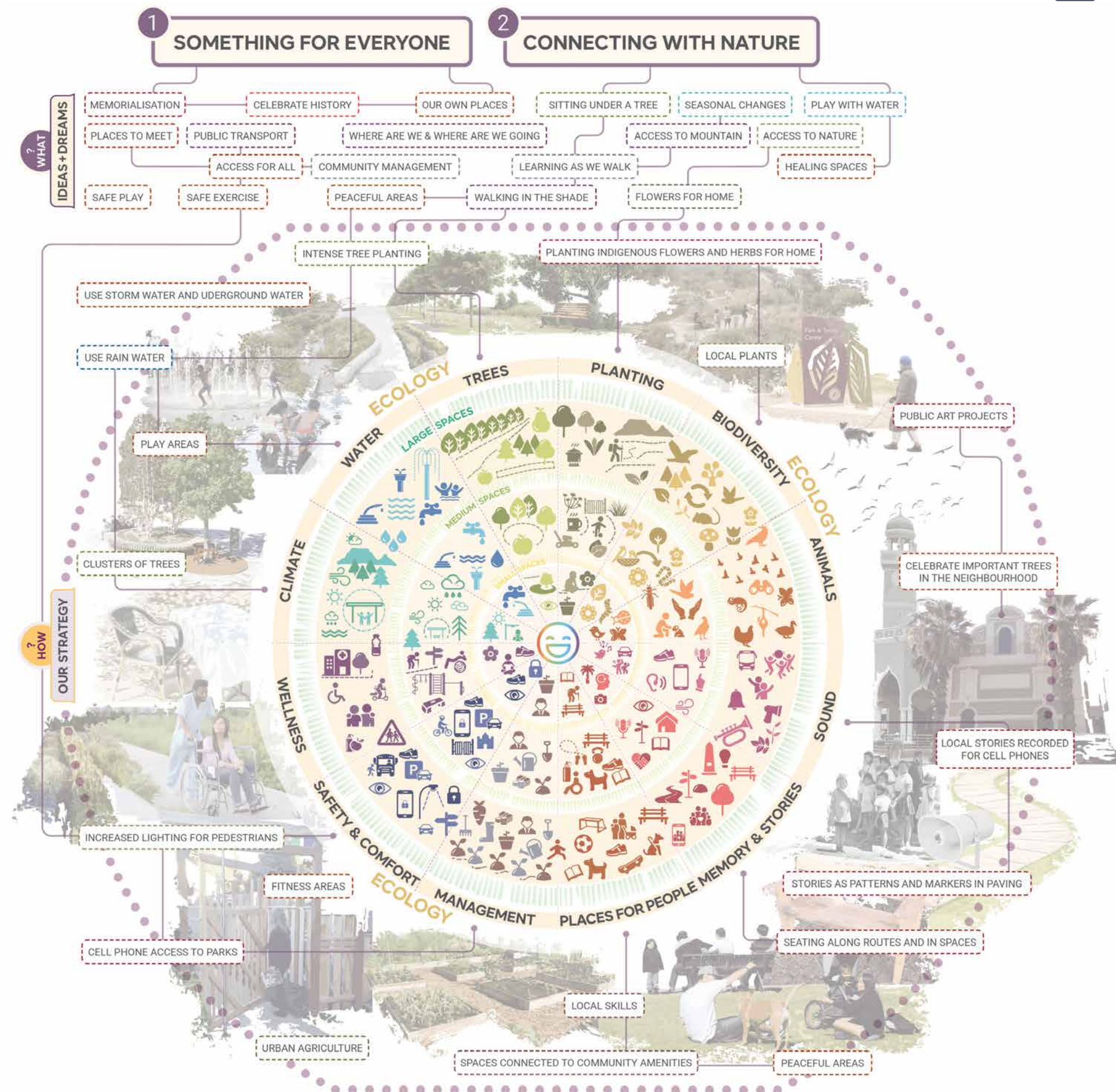


Fig. 4.78. Landscape Strategies Diagram



4.7.2. Landscape Strategy: WHAT?

WHAT?

Ideas and Dreams of some of the following titles (that are here elaborated under each title):

Memorialisation

- ▶ Memorial Park
- ▶ All throughout the area
- ▶ Celebrate History
- ▶ Healing spaces
- ▶ Our own places - establish a sense of ownership
- ▶ Public art projects
- ▶ Stories along routes - paving art projects
- ▶ Celebrate important trees in the neighbourhood

Community

- ▶ Local skills
- ▶ Places to meet
- ▶ Where we are and where are we going
- ▶ Community management

Safety

- ▶ Safe streets
- ▶ Safe play
- ▶ Safe exercise
- ▶ Seating along routes and in spaces - provide enough comfortable seating elements in the sun and in the shade to encourage occupation of streets by residents (especially considering smaller dwelling sizes/apartments) to have eyes on the streets for passive surveillance and safety as outcome
- ▶ Change materiality of surface finishes along pedestrian routes and especially along vehicular routes for pedestrian crossings/connections and to slow down traffic

Lighting

- ▶ Increased strategic lighting for pedestrians - safety - to allow to do chores after hours
- ▶ Extra streets and spaces lighting would provide opportunities for longer outdoor engagement period
- ▶ Lighting to be designed sensitively in terms of avoiding/not creating light pollution for residents and wildlife



Fig. 4.79. District Six Landscape Strategy Diagram



Fig. 4.80. Memorialisation idea



Fig. 4.81. Community idea



Fig. 4.82. Safety Idea



Fig. 4.83. Lighting idea



4.7.2. Landscape Strategy: WHAT?

Nature, Trees and Soft Landscaping

- ▶ Allow for a multitude of systems and ecologies
- ▶ Planting a diverse palette of trees and other plants would secure a healthy ecology in imitation of nature
- ▶ Intense tree planting
- ▶ Avenues and clusters of trees - for shade, wind moderation, vehicular traffic slow down mechanism, creating comfortable places
- ▶ Edible/forageable fruit trees and plants as part of street landscaping / urban agriculture
- ▶ Walking in comfort in the shade of trees
- ▶ Sitting under a tree
- ▶ Seasonal change
- ▶ Daily change
- ▶ Planting herbs and indigenous flowers for home
- ▶ Urban agriculture
- ▶ Fynbos foraging
- ▶ Indigenous planting

Water

- ▶ Water for ecology, to support soft landscaping, especially during dry summer months
- ▶ Water for play - swales during winter, daylighted water in the park
- ▶ Rainwater swales along roads - different designs for roads running along contours as opposed to roads that run across several contours
- ▶ Water for irrigation (ground water)
- ▶ Working closely with Water Team appointed by the CoCT

Spaces (parks, spaces associated to buildings, urban squares, thresholds, etc.)

- ▶ Access to nature in the urban environment
- ▶ Parks to have cell phone access
- ▶ Spaces connected to community amenities
- ▶ Fitness areas
- ▶ Peaceful areas - quiet areas



Fig. 4.84. Nature and Trees Idea



Fig. 4.85. Soft Landscaping Idea



Fig. 4.86. Water Park Idea



Fig. 4.87. Spaces connected to community



4.7.2. Landscape Strategy: WHAT?

Connectivity and Mobility

- ▶ All connectors as green-blue corridors - connecting spaces for people and for insects, birds, small animals, soft materials
- ▶ Access to mountain - both physical and visual
- ▶ Public transport
- ▶ Access for all
- ▶ Design to ensure a visual and physical connection to the mountain
- ▶ Visual connection to the sea from the proposed Memorial Park and other areas lying in higher elevation

Education

- ▶ Learning as we walk
- ▶ Learning opportunities along identified educational spine
- ▶ Connecting CPUT campus to the area
- ▶ Tours through the area by locals
- ▶ Indigenous knowledge of mountain fynbos foraging
- ▶ Cooking culture
- ▶ Religious traditions

Building interfaces and Built Environment

- ▶ Interactive at ground level, with balconies and windows above
- ▶ Blank walls and other visually impermeable finishes to be avoided
- ▶ Include strategic parking and drop-off zones
- ▶ Soft and hard landscape elements to support commercial areas and provide comfort for gathering spaces
- ▶ Surface finishes and construction of walkways, pavements, and areas to be done in a manner to be accessible to all pedestrians, including differently-abled pedestrians
- ▶ Activities to range to accommodate all ages and abilities
- ▶ Provide for a variety of spaces
- ▶ Provide variety and structures hierarchy of spaces and activities in various spaces



Fig. 4.88. Connectivity and Mobility Idea



Fig. 4.89. Education Idea



Fig. 4.90. Building Interfaces



Fig. 4.91. Built Environment Idea



4.7.3. Landscape Strategy: HOW?

HOW?

The Landscape Strategy that illustrates the following concepts:

Interconnectedness and mutual interdependence of humans and ecology, of various elements and their effect on environment, of abstract concepts and their physical manifestations - were communicated by the circular pie diagram.

The twelve pie slices that are not strictly separate are:

1. Climate
2. Water
3. Trees
4. Planting
5. Biodiversity
6. Animals
7. Sounds
8. Memory & Stories
9. Places for People
10. Management
11. Safety & Comfort
12. Wellness

► With center of the pie occupied by a holistically content human

Size hierarchy of spaces: small, medium, and large diameter circles encompassing the diagram represent the ideas of various activities, services, natural phenomenon, existing landscape, and many other points of consideration. It is by the means of fitting all the different icons into the circle and then drawing different diameter circles through, it is demonstrated that smaller spaces must be more specialized in terms of their function. If a large park can be many different things and activities (a large open ground for play/kick-about, a small play area, a quiet place, open sunny areas vs treed softly landscaped shaded outdoor rooms with seating, etc.), a small space can either be a play park and possibly also provide a seating opportunity under some trees, or an urban agriculture garden, or a soft landscaped quiet space for elderly and all seeking meditative type activity, etc.

Illustration around the diagram are precedents for future vision, spaces where several particular elements come together in a certain positive way.

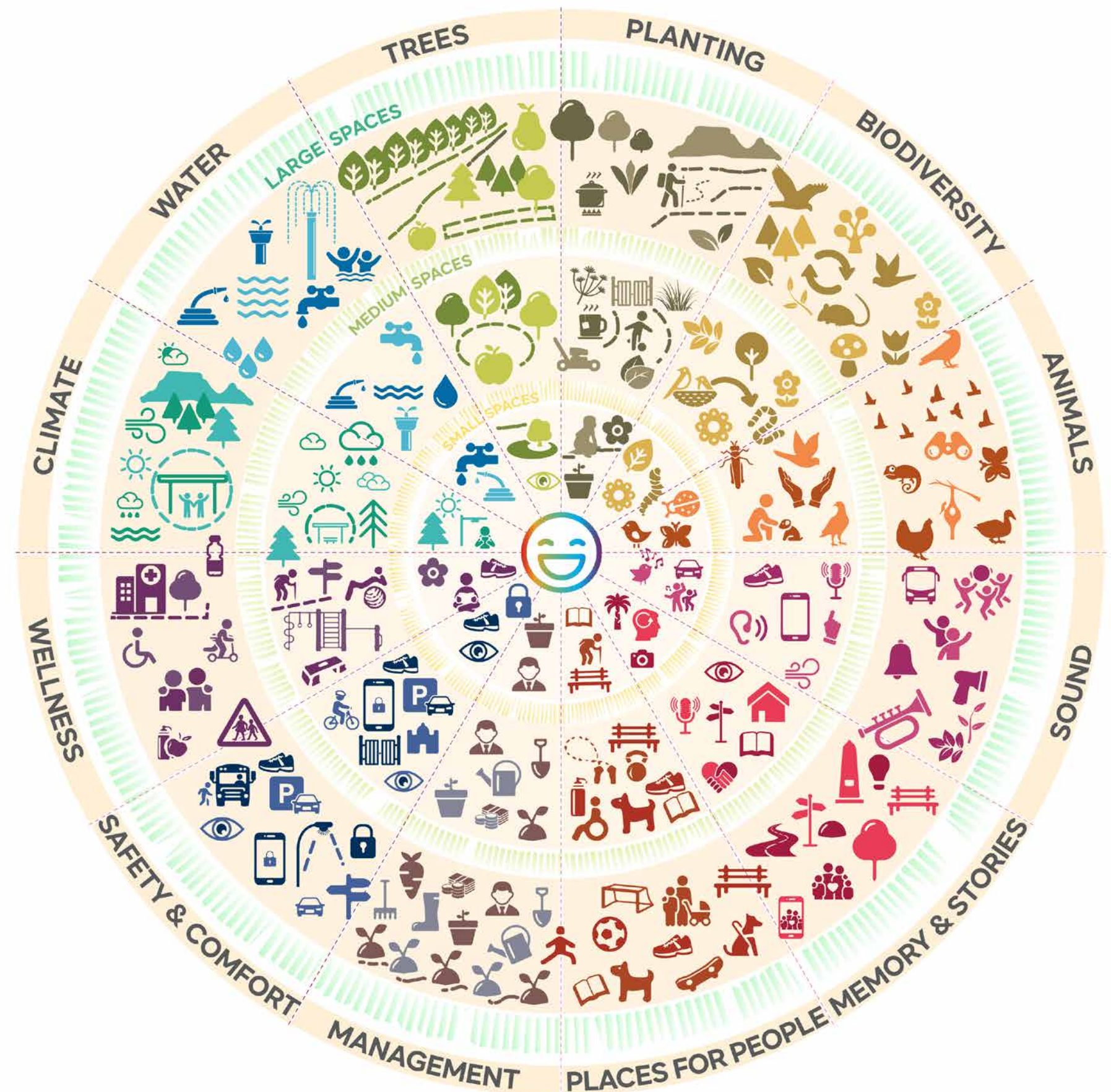


Fig. 4.92. **Overlapping 'slices' of the pie diagram illustrate how public realm spaces of varying scale may be incorporated in the community**



4.7.4. Landscape Strategy

These interactions and interdependences that are shown in the pie diagram create the identity of space and the sense of place.



CLIMATE

- Increasing resilience to climate change by having appropriate shelters to protect from various climatic elements
- Climate moderation by soft landscaping of area, planting trees
- Embracing climate by daylighting rainwater in the swales, observing seasonal changes in planting (seasonal bulbs, deciduous trees, flowering times, planting during hot dry months, etc.), designing with climate: orienting spaces appropriately with future development not overshadowing small spaces, using appropriate planting palettes for different positions in the landscape (shade, full sun, elevation, wind exposure etc.), enjoying natural meso-climatic features influenced by major landforms (Table Mountain) and moderating effects of ocean
- Protecting soil from erosion



WATER

- Using rainwater for various needs (irrigation, washing, play, etc.)
- Using available ground water from sustainable resource for irrigation needs
- Daylighting part of existing underground stream in Trafalgar Park if possible
- Information and technical support for irrigation and opening part of stream to come from the Engineers from Water Team
- Safe drinking water
- Play with water - water-feature for kids



TREES

- Celebrating, preserving and creating some tangible stories around existing historical memorial trees
- Creating special spaces around those memorial trees
- A memory tree path tours
- Planting trees along streets as avenues, for providing shade and other micro-climatic benefits
- Planting tree clusters in the parks and in other available spaces
- Sitting under a tree
- Planting trees in swales



4.7.4. Landscape Strategy

4

PLANTING

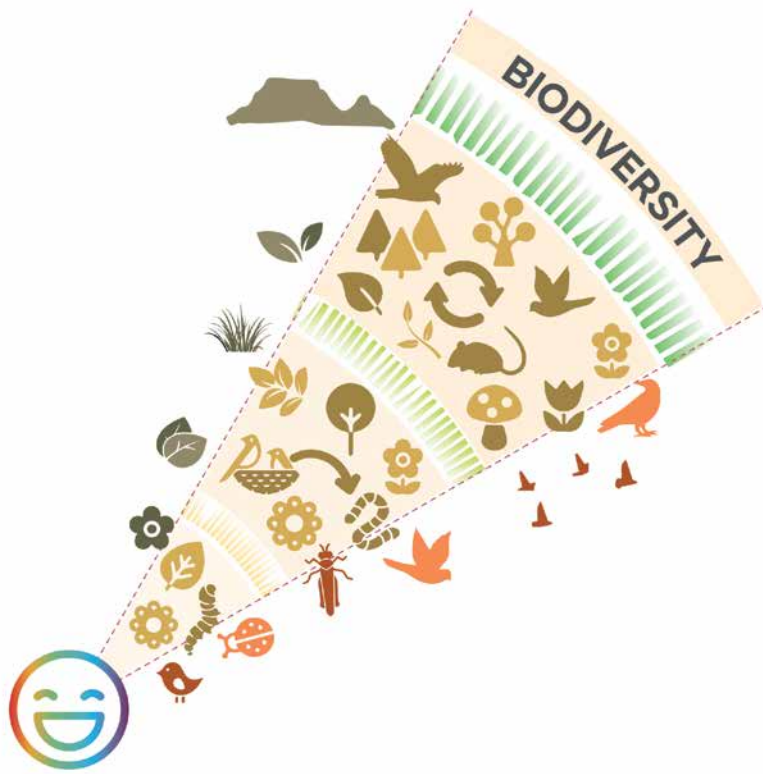
- From a small pot plant to a vast landscape of Table Mountain National Park, to the beach - all different plants add a multitude of ecological and human benefits
- Encourage private planting
- Plant a diverse plant palette of indigenous and endemic species to encourage biodiversity and ensure survival
- Also plant fruit trees (pomegranates, oranges, lemons etc.) along the streets
- Plant hardy herbs that can be used in cooking on quieter road verges



5

BIODIVERSITY

- Biodiversity is supported by creating soft landscapes - refer Water, Trees, Planting etc.
- Connect to greater landscape of Table Mountain



6

ANIMALS

- Insects, birds, various small animals will be encouraged and appear more in the area with greater areas of soft landscaping and trees, as part of healthy biodiversity system



4.7.4. Landscape Strategy



SOUNDS

- ▶ Natural sounds of the wind in the tree leaves, water running in the swale or stream, birds singing, insects will sound in the area if the above measures of introducing more landscaping are implemented
- ▶ People chatting in the streets
- ▶ Music events in the streets
- ▶ Children playing and laughing in the streets
- ▶ Sounds of cooking
- ▶ All other sounds of human occupation of space
- ▶ Sounds produced by walking on different surfaces



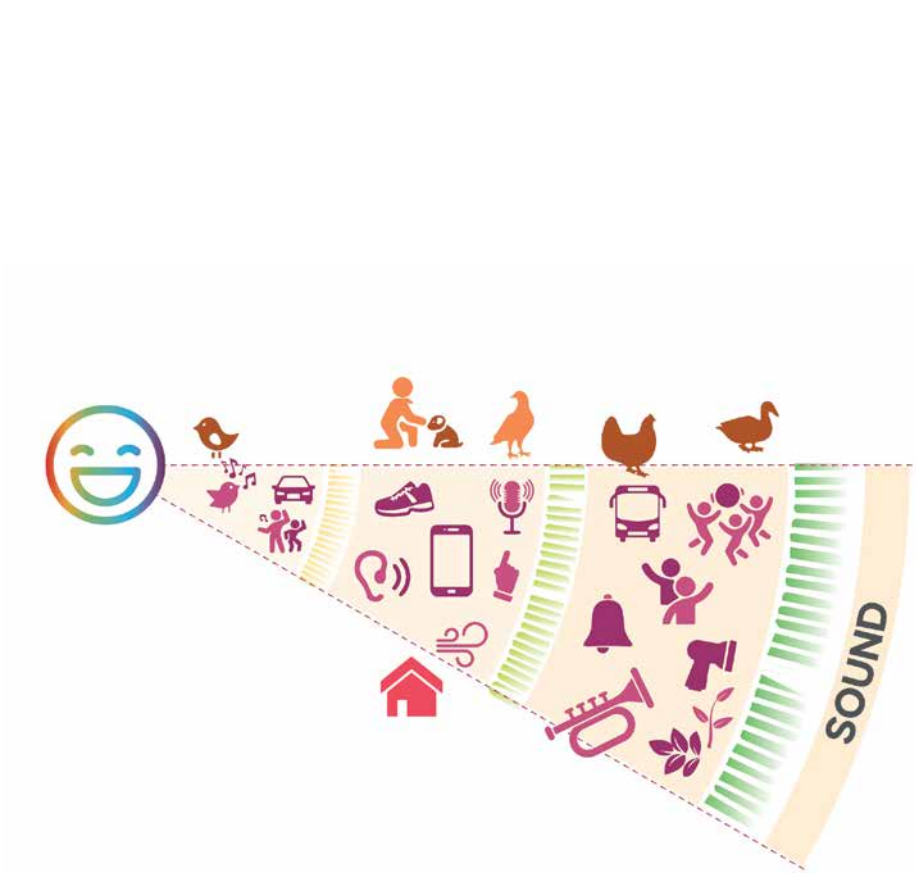
MEMORY & STORIES

- ▶ Embed memory tangibly into public spaces
- ▶ Different art community projects
- ▶ Memorialisation along pavements / routes
- ▶ Memory tours
- ▶ Community and District Six Museum collaborative memory art projects
- ▶ Bring back life to the streets by encouraging their occupation
- ▶ Bring back some old values like religious tolerance, celebrating each other's special holidays and showing support; respect; etc.



PLACES FOR PEOPLE

- ▶ Encourage occupation of the streets by making them livable spaces with soft and hard landscaping: seating elements with trees and planting
- ▶ Occupation of streets and parks will help to bring safety to the public realm
- ▶ Gathering space
- ▶ Sports playing places
- ▶ Dogs walking areas
- ▶ Universal accessibility to streets and places
- ▶ Pedestrian priority in smaller residential streets - shared streets environment



4.7.4. Landscape Strategy



MANAGEMENT

- Create a sustainable management plan for different types of public realm: hard landscaped surfaces, seating and other elements like play equipment etc.; horticultural management of soft landscaped areas; trees and fruit trees;
- Irrigation of soft landscapes when necessary, during drought periods or during the establishment of species times
- Use low maintenance indigenous appropriate plant species
- Community ownership and supervision of immediate environments, as well as management of public spaces to enable effective accessibility
- Visible security



SAFETY & COMFORT

- Ensure that parks, squares and other open spaces are well managed
- Paths / pavements are to be well lit
- Eyes on the streets through occupation of streets and active commercial developments of ground levels will provide passive surveillance
- Pedestrian safety: various discussed mechanisms of slowing down cars and enforcing pedestrian priority



WELLNESS

- All of the above will create a safe, sustainable environment that people can enjoy and that will support wellness in its all-encompassing meaning



4.7.5. Landscape Strategy Map

Connectors and Spaces map identify the public realm of the project.

- LARGE SPACES
- MEDIUM SPACES
- SMALL SPACES
- EXISTING TREES
- INDICATIVE FUTURE TREES
- MAIN STREETS
ACTIVITY + LOCAL BUSINESS
- MAJOR CONNECTORS
- OLD STREETS NETWORK
- POTENTIAL FUTURE STREETS
- STREETS PARALLEL
TO CONTOURS (FLATTER)
- STREETS PERPENDICULAR
TO CONTOURS (SLOPING)
- PEDESTRIAN STREETS
- STREETS
SHOWN FOR REFERENCE

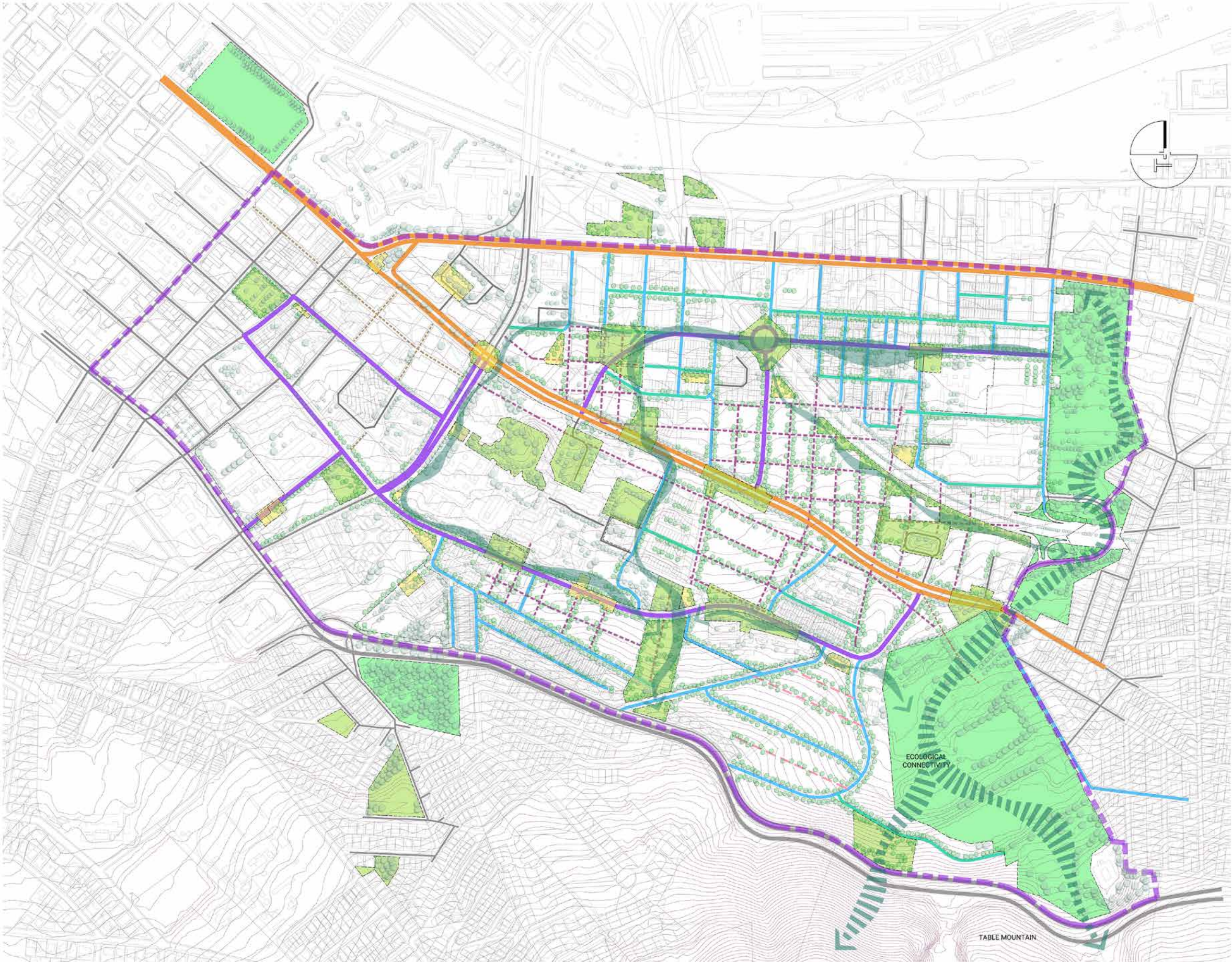


Fig. 4.93. District Six Landscape Strategies



4.7.7 Landscape Strategy Section and Perspectives



CONSTITUTION STREET - EDUCATION



CHAPEL STREET - COMMUNITY



RICHMOND STREET - CONNECTION

Fig. 4.94. Three perspectives of imagined future streets illustrate the landscape strategy ideas.



4.8.1. Water at the Centre

A water study was conducted alongside the Public Realm Strategy to assess natural water resources in District Six. This study includes a surface water and ground water investigation. It also involves an assessment of historic water courses to better understand this aspect of District Six's natural heritage. It is hoped that naturally occurring water could be used to the benefit of District Six in the future.

Within the context of a water-scarce city, resilience needs to include sustainable ways of working with the water systems. Water also forms part of the cultural memory of District Six. Public Wash houses (on Hanover Street) formed part of the urban landscape. Older surveys from the 1800s also indicate watercourses along Horstley Street. This stream was described as “filthy” by the medical officer and part of the reasoning for forced removals due to unsanitary conditions in 1900/1901. This is the first site of the forced removal of black people from District Six to Ndabeni in 1901, following the bubonic plague outbreak at the turn of the century that was falsely attributed to people living on Horstley Street. During the workshop process, suggestions were made of springs in various locations, however no traces of springs have been found on the site.

The maps alongside show the historical and current watercourses with maps from 1932, 1951, 1968 and 1982 overlayed.

The presence of water on site is very limited as surface water and runoff from the mountain is piped into underground stormwater systems and ultimately discharged into the ocean. The upper reaches of District Six has water sources connecting to underground streams from Table Mountain potentially offering a clean alternative source of water if intersected. This could support the system of open space.

Surface water run-off can also be captured and slowed through attenuation systems or SUDS to allow for delay, cleaning and infiltration back into the soil and provide groundwater recharge. The hope is to make the presence of water visible within District Six again and in doing so help to re-establish ecological systems, create more sustainable water systems within a drought-prone city and enhance the “sense of place” for people through connection to water systems and nature.

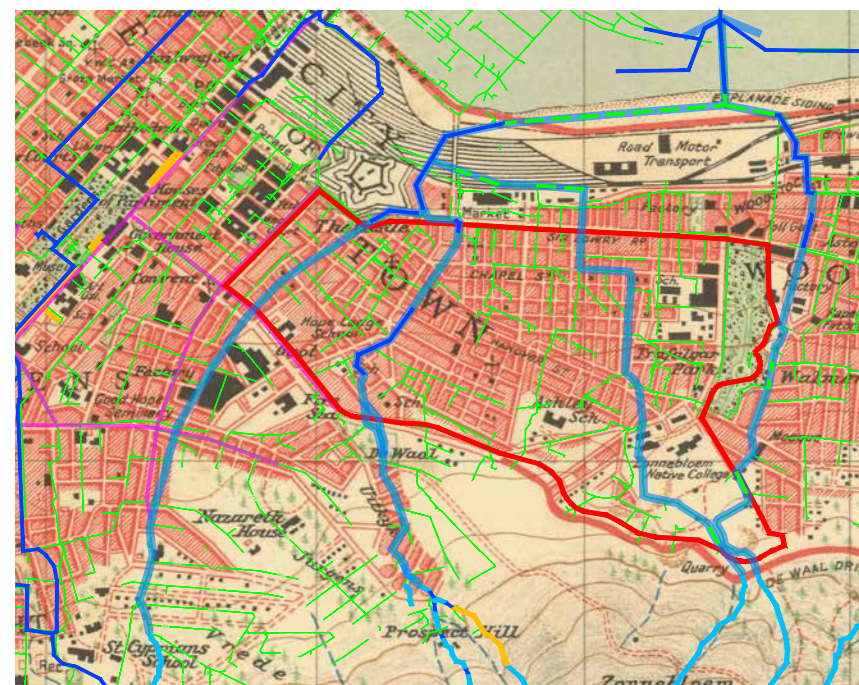


Fig. 4.98. Water Study -1932. (HHO, 2021)

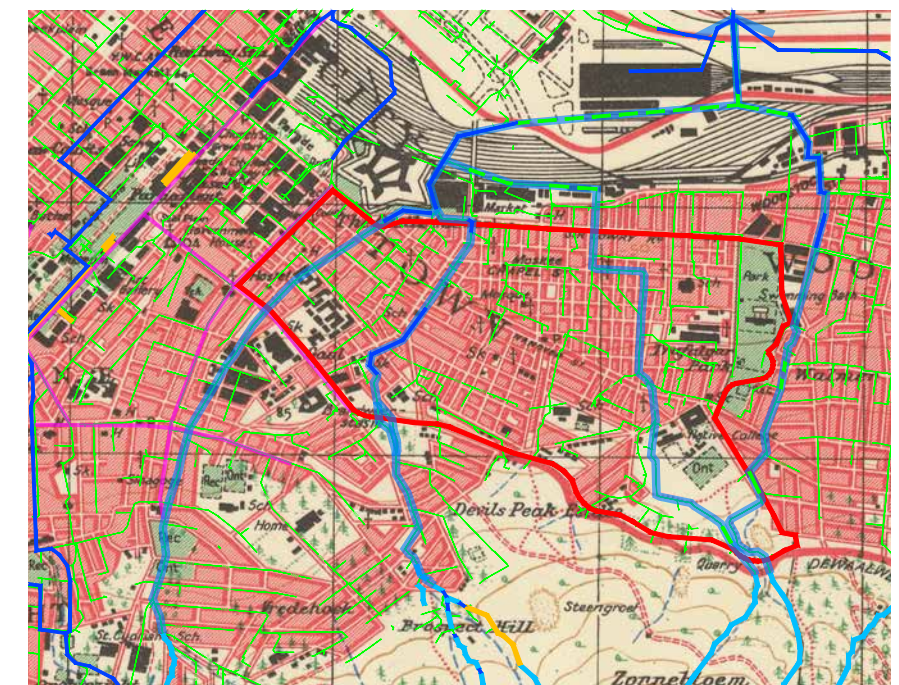


Fig. 4.97. Water Study -1951. (HHO, 2021)



Fig. 4.96. Water Study -1968. (HHO, 2021)



Fig. 4.95. Water Study -1982. (HHO, 2021)



4.8.2. Engineering Water Study: Locating water

“Following Water Sensitive Design philosophy, the groundwater study aimed to determine the potential yield and quality of groundwater in the area, and to propose potential uses of groundwater to support resilient urban development, such as dual reticulation in new developments, or the irrigation of city food gardens.” (HHO, 2022)

The aim of the study was to investigate the quantity and quality of potential groundwater. The Public Realm Strategy Team worked alongside the Water Study team to identify potential locations where water would be of use within public space.

Several Borehole Target locations were identified. These were placed at locations with higher chances of finding watersources due to geological and geophysical data, indicating anomalies and fracture sets in the landscape and locations that were connected to potential future public spaces within the public realm.

The following Targets for boreholes are identified:

1. Target A

- ▶ Target A lies along a defined geophysical anomaly along New Hanover Street (intended as an activity spine) and in close proximity to public spaces.

2. Target B

- ▶ Target B relates to a well-defined anomaly and is located on City of Cape Town owned land (Cambridge Sports Field), upstream at the top of the green network running from Table Mountain through Zonnebloem College area and into Trafalgar Park.

3. Target C

- ▶ This target is an alternative for Target B, but is less likely to yield water.

4. Target D

- ▶ Target D relates to an area of low resistivity with some potential for water. It is also located on the edge of future Horstley Street Memorial Park and could be a potential future watersource for the park if water were found.

Target A, B and D were drilled.

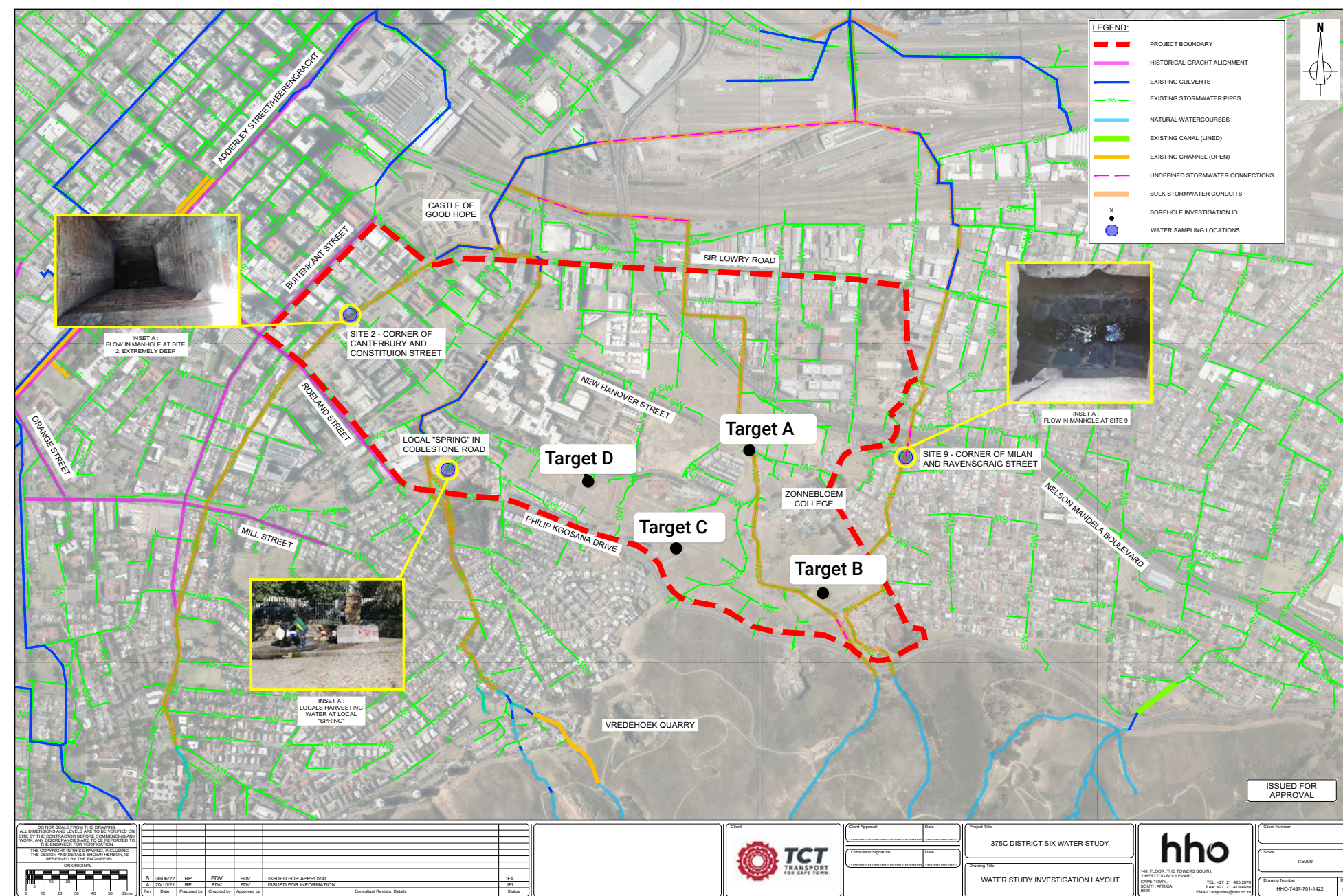


Fig. 4.99. Water Study Map - 2021 (HHO Consulting Engineers, 2021)



Fig. 4.102. Borehole Drilling at Target B. (CCT, 2021)



Fig. 4.101. Borehole Drilling at Target B (HHO, 2022)



Fig. 4.103. Clean water at Target B (HHO, 2022)



Fig. 4.100. Borehole Drilling at Target A (CCT, 2021)



4.8.2. Engineering Water Study Extract:
Surface Flow Interventions



Fig. 4.104. HHO Consulting Engineers, June 2022, 375C District Six Water Study, Proposed Surface Flow Intervention, for the City of Cape Town .



4.8.3. Groundwater

The Public Realm Strategy Team worked alongside the Water Study team to identify potential locations where water would be of use within public space. The aim is for groundwater sources to be used to irrigate the public realm. Target A, B and D were explored.

Target A and Target D did not deliver a substantial yield of water, with Target A's water containing high concentrations of undesirable minerals, such as sodium, iron and manganese.

Target B, further up the topography and located on City of Cape Town owned sports fields, had a high yield of quality water. The Borehole connects to freshwater originating on Table Mountain, percolating through the quartzite formation and into the shale, resulting in high quality water. (HHO, 2021:29)

The water from this borehole could be pumped during peak demands for irrigation, at up to 2.5 L/s for up to ~7.75 hours per day (equivalent to ~70kl/d). (HHO, 2021: 27) Borehole B can meet estimated irrigation demand of sports field with an excess yield available of 41.2 kl/d (minimum, summer) to 70kl/d (winter). (HHO, 2021:33)

The excess yield can be used for public spaces and parks, such as Trafalgar Park, the future Horstley Street Memorial Park and smaller pocket parks. Water can also be used for irrigation along key systems or streets, depending on the demand of the park spaces. While the yield is substantial, the ground water will not be sufficient to irrigate all public spaces and street systems. There is a need to prioritise or "budget" for water usage within the public spaces. Trafalgar Park, linking downstream from the watersource could benefit from this. In the future this system could also feed spaces such as Horstley Street Memorial Park, along with key streets.

Further studies should determine the demand of water of various public spaces and the feasibility of using groundwater.

Daylighting water within larger open spaces, such as Trafalgar Park, should be considered, for its potential to provide passive and active recreation opportunities. This could serve as ecological, aesthetic and educational resources that enhances the sense of place.

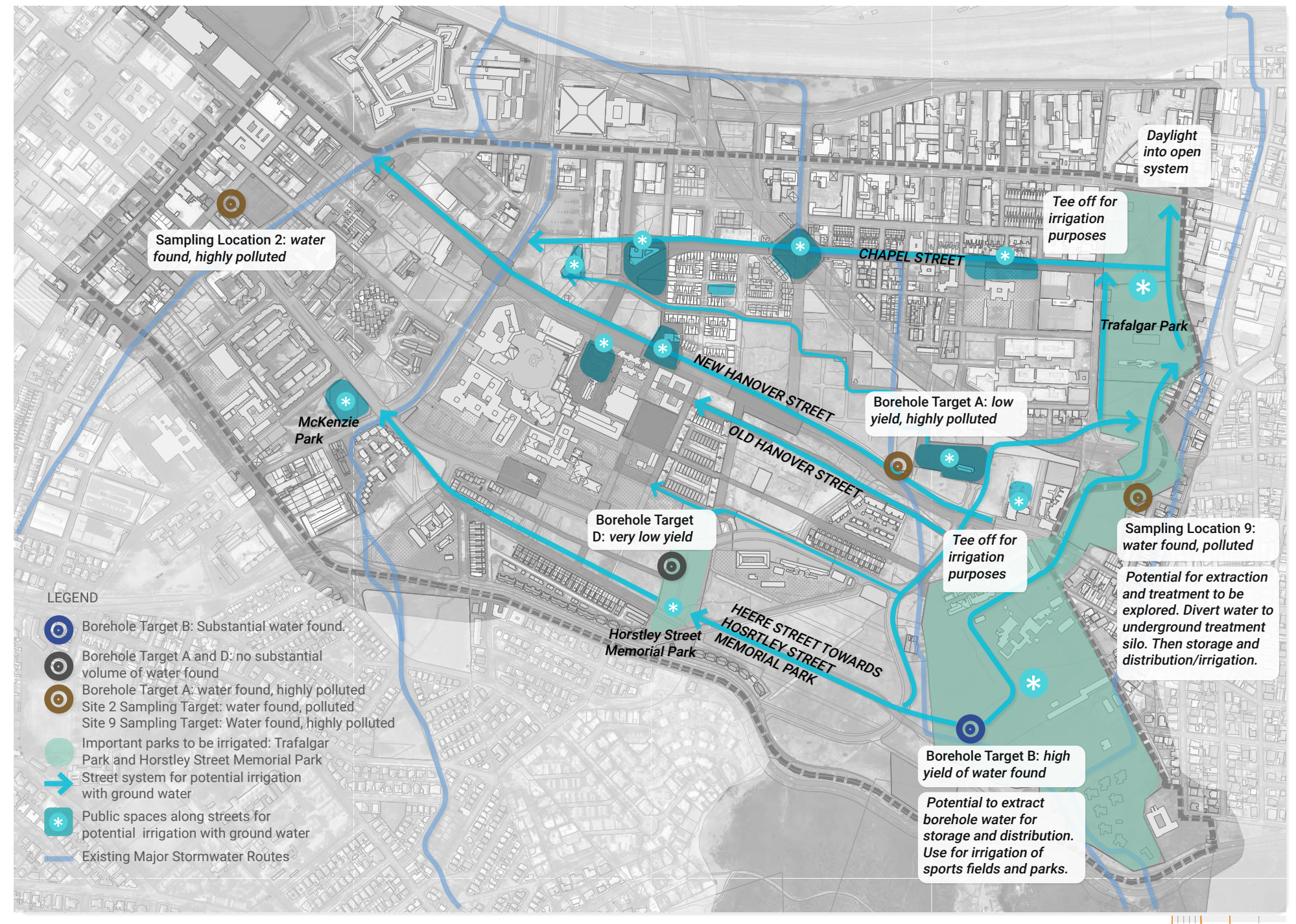


Fig. 4.105. Groundwater Supply - cleaning, recreation, irrigation for public spaces, planing and trees



Fig. 4.106. Green Point Park Water Daylighting



Fig. 4.107. Sustainable urban drainage retention pond,



Fig. 4.108. Green Point Park Bio-Diversity



4.8.4. Surface Water

Conventional drainage systems focus on directing water off the site through hard infrastructure such as pipes and channels, ignoring the need for improved water quality and the added benefits of water to an ecological system.

Rather than elimination, Sustainable Urban Drainage Systems (SUDS) offer a viable approach to water management that supports a holistic hydrological system, enhancing biodiversity and providing ecosystem services. Surface water runoff can be captured and slowed through attenuation systems or SUDS to allow for delay, cleaning and infiltration back into the soil and provide groundwater recharge. (Armitage, et al. 2014)

Above and beyond their function as stormwater management, these green system also provide amenities and aesthetic value. The area as a whole can benefit from greening through the presence of water.

The Public Realm Strategy conceptualises the stormwater management system as a series of SUDS that fall along the contours allowing for the capture, detention, slowing and infiltration of surface runoff along these systems before flowing down to the Castle of Good Hope and eventually out towards Capel Sloop, leading to the sea.

These streets have the potential to function as green ecological corridors that support a wider system of pedestrian friendly streets and spaces. Green open spaces also provide permeable soft landscapes that allow for infiltration and groundwater recharge. Streets with SUDS will need to be sized to accommodate the additional width (12-14m depending on the topography).



Fig. 4.109. Surface Water - clean, delay, infiltration and ecology



Fig. 4.110. Bio-Swales collect, treat and convey stormwater



Fig. 4.111. SUDS storm water road bump-out and swale for planting and detention



Fig. 4.112. Stormwater integrated into public space



4.8.4. Sustainable Urban Drainage Systems

Sustainable Urban Drainage Systems (SUDS) deals specifically with stormwater management measures which attempt as far as possible to maintain or mimic the natural flow systems as well as prevent the wash-off of urban pollutants to receiving waters... The choice of structural SUDS depends on the anticipated quality of the stormwater and is also influenced by other factors such as the type of the development, location within the catchment, local geology, biodiversity and societal issues. While some facilitate movement of stormwater through the landscape (e.g. swales), others slow velocity, delay runoff peaks and reduce volumes of small to moderate storm events by performing an infiltration or detention function. Many are capable of improving the quality of stormwater through interception, filtering, sedimentation, decomposition and uptake of pollutants such as litter, sediment, oils, metals, nutrients and bacteria.”

(CCT, 2011, Sustainable Urban Drainage Systems)

A range of tools/measures can be used in conjunction with each other as part of a holistically considered sustainable urban drainage system or treatment train. There many possible measures. Methods employed need to be appropriate to the urban context and surrounding land uses of the space. Stormwater should not undermine the urban context, but work alongside it towards a more resilient city.

Specialist knowledge form various disciplines (landscape architects, urban designers, engineers, ecologists) is key to the integration of these systems into the landscape and should form the basis of a water sensitive design that considers the system rather than any space in isolation.

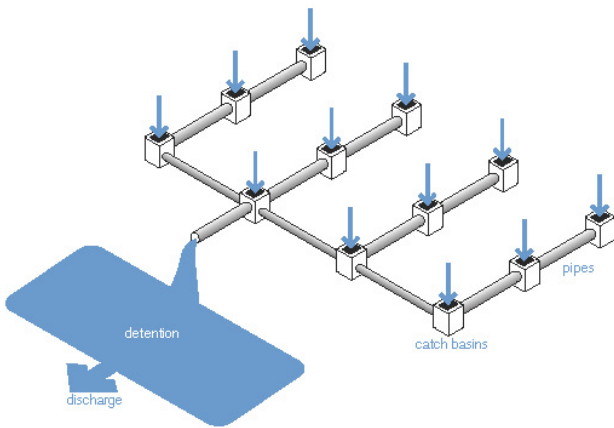


Fig.1.113. Conventional Management: “pipe-and-pond” infrastructure, (UACDC, 2010, LID Manual)



Fig.1.114. Urban Green Spaces network, (UACDC, 2010, LID Manual)

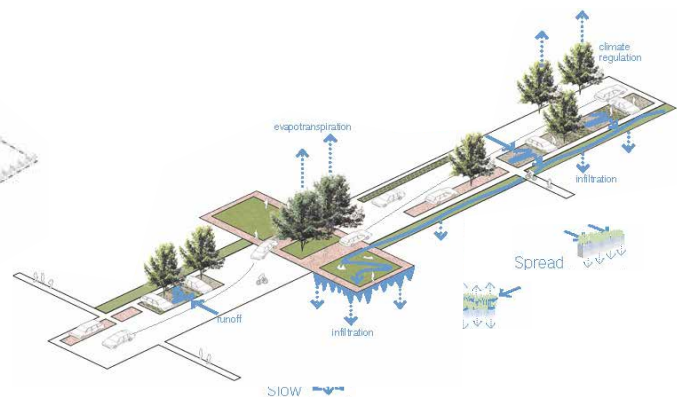


Fig.1.115. Streets, (UACDC, 2010, LID Manual)



Fig.1.116. Streets - SUDS can be integrated into design using a variety of measures, contributing to the stormwater treatment train across the site



Fig.1.117. Green Systems incorporated into open space



Fig.1.118. Merriman Square Water Sensitive Design



Fig.1.119. Permeable Paving



Strategies: Reference List

- Armitage, N., 2014. *The South African Draft Guidelines for Sustainable Urban Drainage Systems (SUDS)* v.1.
- Casas, M.G., 2021. *Building safe Public spaces -a privately public affair*. Daily Maverick (2021-07-27)
- Casas, M.G., and Brady, L. 2020. *Changing how we use public space in Cape Town is vital to the City's response to Covid-19*. Daily Maverick (2020-05-28)
- City of Cape Town - Catchment, Stormwater and River Management Branch. 2011. *Sustainable Urban Drainage Systems* v.1.
- City of Cape Town - Catchment, Stormwater and River Management Branch. Roads & Stormwater Department. 2009. *Management of Urban Stormwater Impacts Policy*. V.1.1.
- Fullilove, M.T., Peterson, C.F. & Bassett, M.T., 2016. *Root Shock*. New Village Press
- HHO Consulting Engineers, June 2022, 7497 375C District Six Water Study Close-out Report, for the City of Cape Town
- Knight Foundation & Gehl, 2021. *Adaptive Public Space: Places for People in the Pandemic and Beyond*. Viewed at: <https://knightfoundation.org/wp-content/uploads/2021/03/210323_KF_Gehl_ImpactAssessment_EXTERNAL-1.pdf>.
- Le Grange, L., 2003. *District Six Heritage Impact Assessment (HIA)*. Prepared by Lucien le Grange Architects & Urban Planners. Viewed 3 August 2021 <<https://sahra.sahris.org.za>>.
- NM & Associates and Lucien le Grange Architects & Urban Planners., 2012. *District Six Development Framework* (Draft).
- Madanipour, A., 2006. Roles and Challenges of Urban Design. *Journal of Urban Design*, 11(2),: 173-193.
- Madanipour, A. (2010). Whose Public Space. In Madanipour, A. (Ed.), *Whose Public Space? International Case Studies in Urban Design and Development* : 237-243. New York: Routledge.
- Madanipour, A. (2016). Culture and Tolerance in Public Space. In Moroni, S. & Weberman, D.(eds.), *Space and Pluralism: Can contemporary cities be places of tolerance?*. Budapest: Central European University Press.: 35-54.
- Mammon, N. & Patterson J., 2005. Urban Space, Memory and The Public Realm. Paper presented at *Community Healing Regional Conference*, The Institute for Justice and Reconciliation, Cape Town, 22-24 October 2005.
- Pistorius, P., Bezzoli, M., Marks, R. Kruger, M., 2002. *Texture and memory – The urbanism of District Six*. Cape Town: Cape Technikon
- Roe, J. & McCay, L., 2021. *Restorative Cities: urban design for mental health and wellbeing*. London: Bloomsbury Visual Art.
- SaferSpaces. n.d. Public spaces: More than 'just space'. Viewed at <<https://www.saferpaces.org.za/understand/entry/public-spaces>>
- Soholt, H. 2012. Keynote presented at *57th ISOCARP World Planning Congress*, 28 October 2021.
- Treskon, M., Gaynair, G., and Schilling, J. 2020. Insights for Adapting Public Spaces in a Post-Pandemic World.
- University of Arkansas Community Design Center (UACDC). 2010. *Low Impact Development: A Design Manual for Urban Areas*. Fayetteville, Arkansas: Fay Jones School of Architecture University of Arkansas Press.

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