



Chapter 3

Context

- History of Service Provision
- Locality of Services in Mamelodi
- Regional Framework
- Site Context
- Site Analysis
- Locality Framework & Vision

"The make-up of Tshwane should rather be understood within the context of a polycentric (multi-nodal) metropolitan region."

(The City of Tshwane 2007: 10)

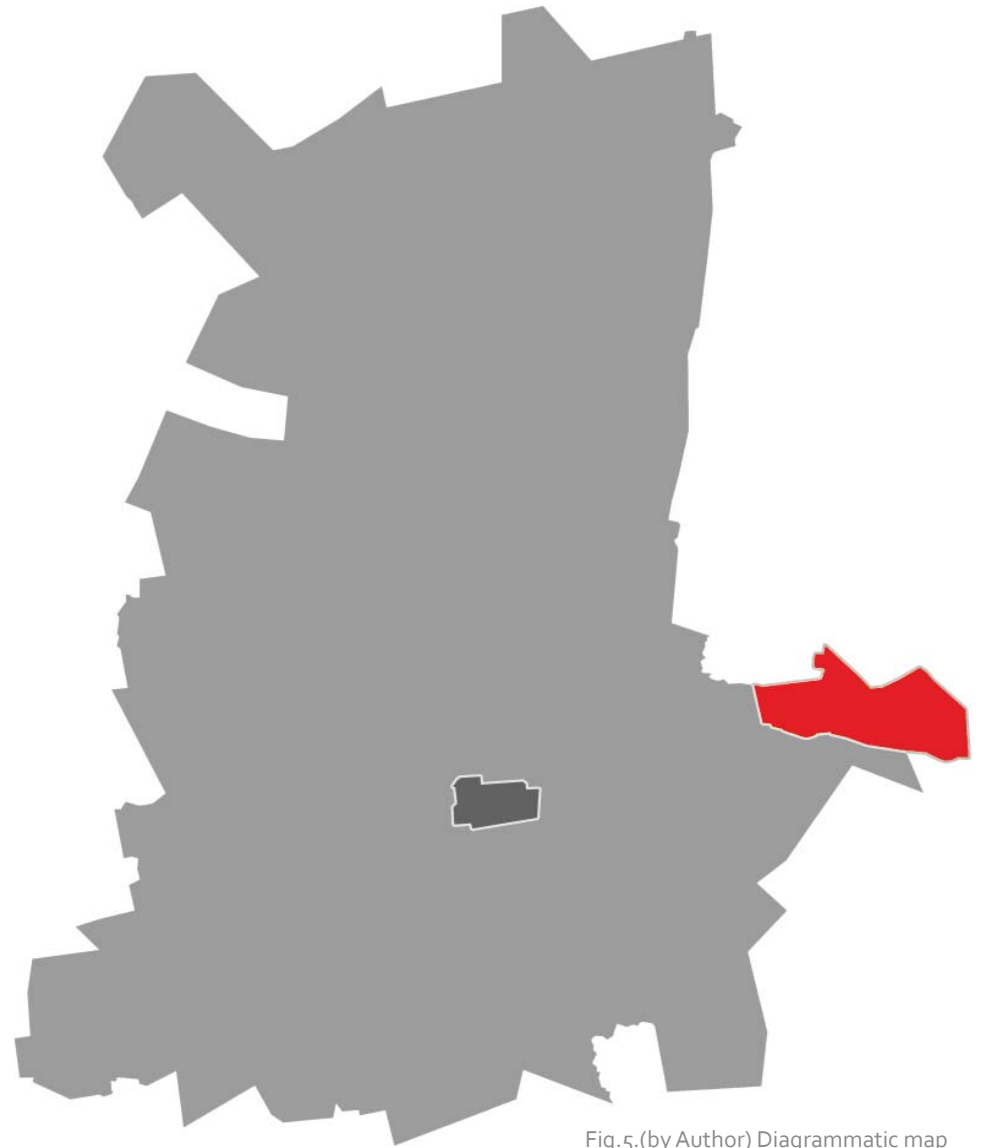


Fig.5.(by Author) Diagrammatic map of Pretoria showing Mamelodi (red) in relation to the Pretoria CBD (dark Grey)

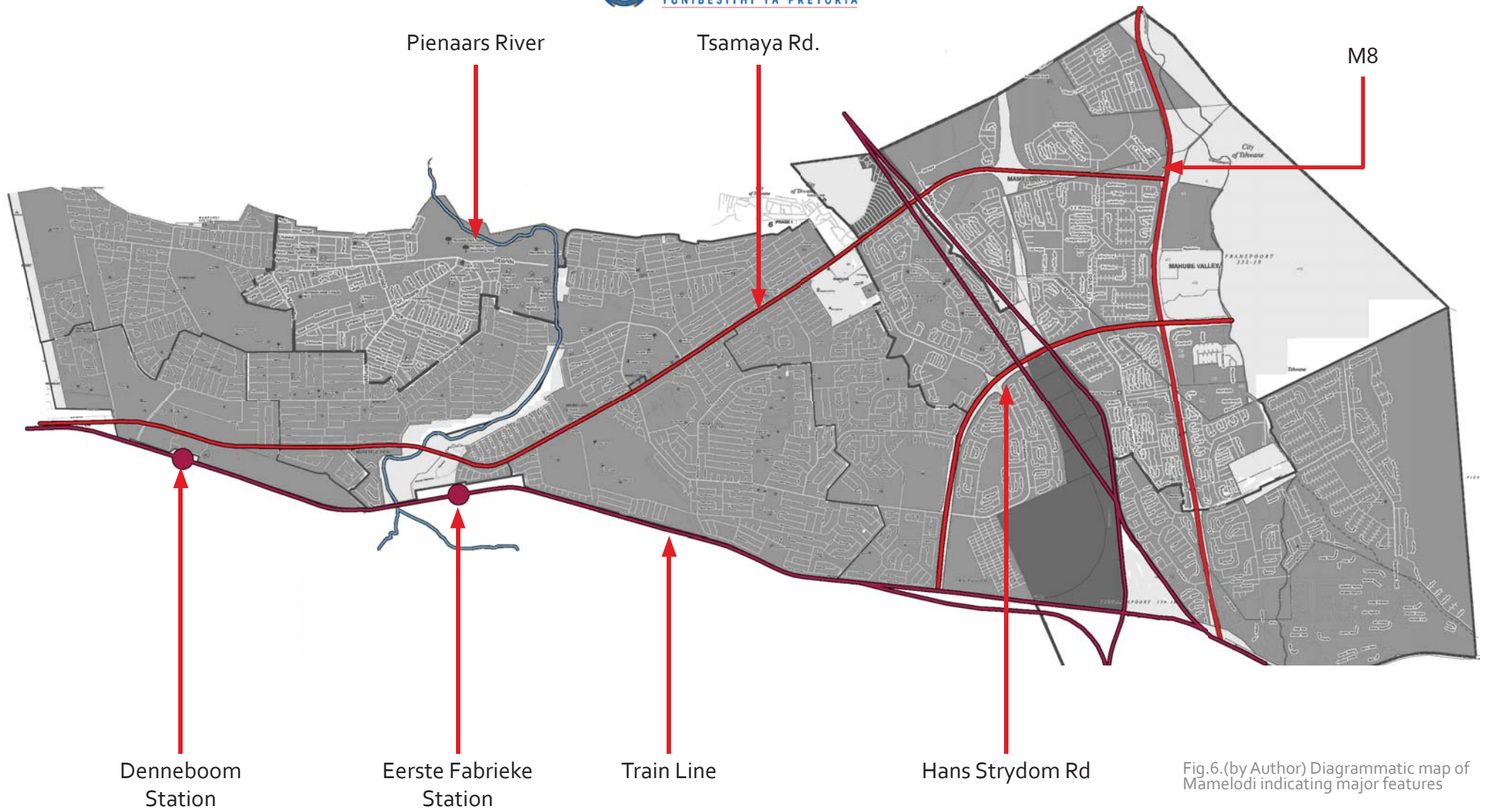


Fig.6.(by Author) Diagrammatic map of Mamelodi indicating major features

History of Service Provision in Mamelodi

Timeline relevant to Mamelodi Township
(previously Vlakfontein) and its impact on the
current infrastructure of Mamelodi East

The history of service provision in the township of Mamelodi has a large impact on the gaps in the current infrastructure. This directly impacted on Mamelodi East where services are greatly lacking or missing.

This brief timeline gives some background to this issue:

15 January **1861** it was recorded that the farm of Vlakfontein 329 JR was allocated to C. Jansen, this is assumed to be the first owner of the farm, which was then sold on 21 May 1861. However the recorded history of farm itself dates back to before Pretoria was founded.

In **1874** Vlakfontein was divided into three parts, where the Pienaars River (previously known as the Moretele River) divides the area in half, Fig.7. The first residents of the area probably worked with Sammy Marks at the first factory in the Transvaal, 'De Eerste Fabrieken in de Zuid-Afrikaansche Republiek Beperk'.

1905 the Transvaal government established Lady Selborne and a notice defined Marabastad and Schoolplaats as 'Black locations', each with specified boundaries.

A map dated **1908** indicates a church intended for the 'Black' residents and several huts.

1923 Lady Selborne was named as a 'Black residential area'. In terms of the Native Land Act of 1913 this was one of the few areas where Black people were able to own property.

30 October **1945**, the Pretoria City Council bought Vlakfontein parts 2 and 3 to lay out a 'Black urban area', following the passing of the Black Consolidation Act No.25 in the same year. Vlakfontein was laid out by the town planning division of the Pretoria City Council; this was originally carried out by N.T. Cooper, who had also laid out Atteridgeville, Saulsville and Groenkloof as seen in Fig.8. The location of Denneboom station is indicated.

1948: The City Council of Pretoria designed a Native housing scheme for Mamelodi for which *'the initial idea wasthat such a layout would induce sociological patterns parallel to the tribal system and so minimise the sometime disastrous effects of the removal of tribal authority in urban areas'* (Ball 1968). By September 1947 a large section of the settlement, officially called, the Lapa Scheme, was rejected by community as *'primitive kaffir housing'* and demolished it. (Pretoria News, 6 Sept 1947: Report.) Two months after the construction of the Lapa Scheme, construction had begun on the first college, which was opened and

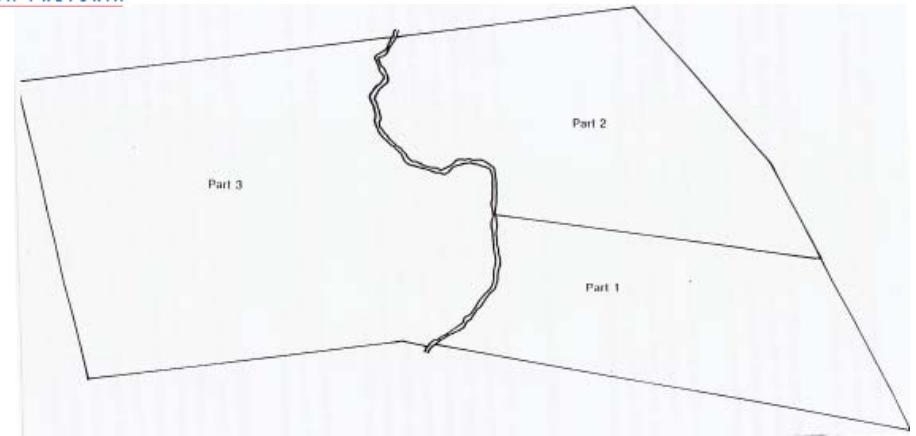


Fig.7. (Walker et.al. 1991:3) Subdivision of the farm Vlakfontein 329 JR

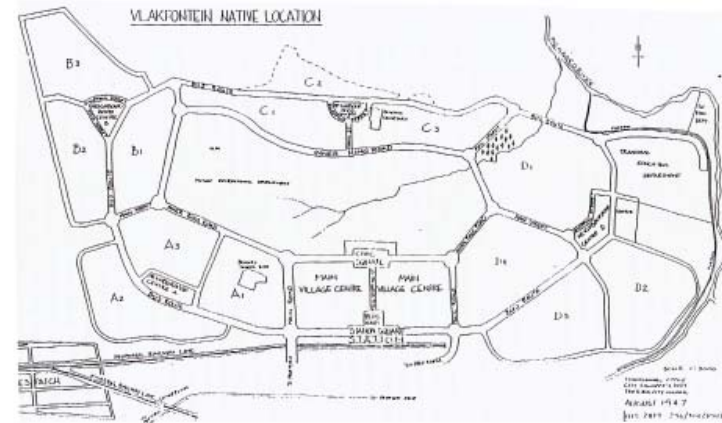


Fig.8. (Walker et.al. 1991:5) Vlakfontein Native Location: Layout in 1947



Fig.9. (Walker et.al. 1991:8) Mamelodi: Situation 1961

and known as the 'Mamelodi Rondavels. It was the first educational institution established by the Transvaal College of Education for the Pretoria Normal Bantu College. The Rondavels were associated with Kolege ya bana ba Afrika . Bishop Stanley Magoba and Archbishop Desmond Tutu, amongst other struggle leaders, received an education here. The college was closed in 1958, under apartheid law, and later became the University of the North, now Limpopo, at the Turfloop campus in the Northern province. (Bakker 2003:3)

1950's: Maternity Home is built by the Vroue Sendings Bond

The first school is built and in August **1952**, the Minister of Native Affairs, Dr. H.F. Verwoerd, announced the consolidation of the eighty two squatter camps and eleven 'Native' residential locations that were situated around Pretoria into three 'Black residential areas'. The eastern area was to be located at Vlakfontein. The Vlakfontein farm and existing settlement was suitable for this use as it was close to an existing railway line and a road, which lead to Cullinan. The neighbouring mountains would also form a barrier to prevent farmers of the area becoming uncomfortable about the proximity of 'natives'. (Walker et al., 1991:2)

1953: Public Library Mamelodi East

In June **1953** Vlakfontein was zoned as a township.

By February **1954**, there were approximately 6000 people living at Vlakfontein. Just four months later there were approximately 10 000 people living there. By 1960 these numbers rose to about 50 000. The Pretoria Joint Committee reported that there were no sports facilities, shops, orphanage or police station in Vlakfontein, however there was a beer hall, located in the centre, an old aged home and a small cemetery.

The first businesses were only allowed to trade in **1955**, of which majority were spaza shops.

1955: The first clinic was the size of a single house, already grossly undersized. It was situated outside town as per the native law regulation of the day. It was doubled in size and by 1958 moved to another ward where it still is today.

1956: First school for non-whites, Mamelodi Model School later named Gamelodi School. Mamelodi High School was opened; Eersterus Community School, the Jam School; 36 Primary Schools; 12 Secondary Schools followed.

1957: Magistrates Court is built

June 6, **1958**, Proclamation 150 rezoned Lady Selborne as a 'white residential area' and the non-white residents were moved to other areas such as Mamelodi and Atteridgeville. Squatter camps emerged in areas such as the western and northern farms of Mooiplaats and Derdepoort as a result of non-white people seeking work in the cities, following the post war industrialisation. These squatter camps were also found in 'white' areas such as in Riverside, Eersterust, Eastwood and on the Vlakfontein farm. This proclamation also meant that the people settling in these 'White' areas had to move.

In the late **1950's** it was decided that more land to the east was needed, after the west became fully occupied. In 1960 the remaining part 1 of the original Vlakfontein farm was bought.

1960: First Police Station is built

July **1962** Vlakfontein was re-named, Mamelodi, which means "Place of Joy" in Tswana.

1962: Putco Public Transport

1964: First public cinema

1970: First major sport and recreation facility

1976: First clinic and feeding station was built in Mamelodi East

1976: The Mamelodi Cripple Care Centre was built, the new premises was occupational in 1981 in Mamelodi East

1977: Minibus and Taxi Rank

1977: YMCA in Mamelodi East

1980: Public Library in Mamelodi West

1983: First Hospital

1983: SOS Children's Shelter was built

1983: The first Hospice was built in Mamelodi East

[Nice 2008 & Walker et.al 1991]

The above list of infrastructure insertions may appear adequate, due to the size and demographics of Mamelodi today. One may state that the social and public services in Mamelodi have historically been provided at a level which is greatly lacking. These services have been distributed according to minimum standards, thus many people do not have adequate access to facilities.

Of these services listed, the Churches in Mamelodi have flourished, providing much needed support and opportunities for their communities:

Churches in Mamelodi had (have) a great social meaning for the residents. They brought warmth and comfort to the low paid workers, the unemployed and the ill. The Churches also created a platform from where residents could meet and share their common experiences and views about township life. Thus the Churches made an important contribution in terms of community advice and social welfare in the township of Mamelodi. (Chiloane 1989:2)

A brief study was conducted of the various Christian denominations in Mamelodi. Twelve different Church congregations were visited and documented.

The size of local congregations varies between an average of 300 people with the largest being over 1000, such as the Universal Church of the Kingdom of God, and the Mamelodi International Assemblies of God.

The study sought to identify the needs of the local communities through identifying the services that their Churches sought to provide.



Fig.10. African Congregational Church
All photos by Author



Fig.11. St. Francis of Assisi Anglican Church



Fig.12. ZCC: St Eneas



Fig.13. Mamelodi International Assemblies of God



Fig.14. Universal Church of the Kingdom of God



Fig.15. Bethlehem Christian Pre-School Centre



Fig.16. St. Raphael's Catholic Church



Fig.17. Evangelical Church



Fig.18. Chriscom Tented Church



Fig.19. Fruit Bearers Tented Church



Fig.20. Grace Tabernacle - inside YMCA hall



Fig.21. Dutch Reformed Church

The African Congregational Church

Source: Rev. B.M. Xulu, Fig.23

- Sunday School
- Youth group
- Women's prayer group
- Pre-school
- The Reverend serves as a Chaplain at the local Hospice
- Provide quarterly support for the local orphans in the form of food and supplies



Fig.22. African Congregational Church



Fig.23. Rev. B.M. Xulu

St. Francis of Assisi Anglican Church

Source: Johannah, Fig.26

- A daily feeding scheme for the vulnerable children of the community
These children are also helped with their homework and ministered to.
- The food for the feeding scheme is sourced from the Church's food gardens
- Sunday School for children older than 2 years
- Confirmation classes for 12 year old children
- Exercise classes for the elderly who also cook for themselves in the kitchen



Fig.24. Steeple - St. Francis of Assisi Anglican Church



Fig.25. Interior View - St. Francis of Assisi Anglican Church



Fig.26. Johannah

ZCC: St. Egnias Church

Source: Frans & Observations

- The ZCC are extremely wary of strangers and appear to be a very private Church
- A dress code is enforced and those who are not appropriately dressed are not permitted to enter the grounds. Women wear skirts and cover their hair while men wear a uniform and a cap.
- Worship is conducted separately for the men and women of the Church and they worship every day.
- Worship is conducted in an open courtyard as the only buildings present are small sheds.

No additional information was given as all direction must come directly from the head offices in Moria



Fig.27. (Google Earth) Aerial View Indicating Location of the ZCC : St Egnias Church

Note: All photos by Author

Mamelodi International Assemblies of God

Source: Meeting with Senior Church Council

- Intokozweni
Daily initiative for HIV/AIDS orphans, feeding scheme and assists with homework
- Counselling is available on Saturdays.
- Assist in notifying the local community about new legislations and laws
- Partnerships with governmental departments, Fig.30 , especially the Department of Home Affairs in order to assist people in obtaining ID books, passports etc.
- Offer support for community members after the death of a loved one, as many Churches will not support non-members
- Prison Ministry as a platform for social reintegration
- F.S.I. - Family Support Institute
- Congregation numbers +1200, however only 600 are younger members

Universal Church of the Kingdom of God

Source: referred to website www.uckg.org

All the Universal Churches of the Kingdom of God offer the same social services:

Training Centre: skills training, such as computer literacy and career guidance

Counselling is available free of charge

24hr Helpline offering guidance and support

The Rescue of Dignity Group (ROD) for supporting prison inmates both spiritually and physically, through letter writing and regular visits.

The Patient Care Group visits patients and those who are housebound.

Support group for victims of abuse

Support for the elderly through counselling and home help such as shopping and house cleaning,

Regular group activities are also hosted by the Church

The youth from birth through to young adults are catered for by various groups and activities

Support Group for single mothers meets weekly



Fig.28.Interior view of the Mamelodi International Assemblies of God



Fig.29.Mamelodi International Assemblies of God as seen from the road



Fig.30.Governmental Initiative hosted by the Mamelodi International Assemblies of God



Fig.31.View of the Altar Space of the Mamelodi International Assemblies of God



Fig.32.View of Signage above the main entrance of the Universal Church of the Kingdom of God



Fig.33.View the Universal Church of the Kingdom of God as seen from Tsamaya Rd.

Note: All photos by Author

Conclusion:

The local Churches generally engage in the following functions, in addition to those normally undertaken by a Church body. These functions are obviously needed by those they serve:

- Feeding schemes
- Assistance with school work and after school care
- Counselling
- Activities for the elderly
- Sharing of knowledge and information regarding governmental initiatives and laws
- Intensive Social interaction as it was noted that often the Churches meet daily or at least several times a week.

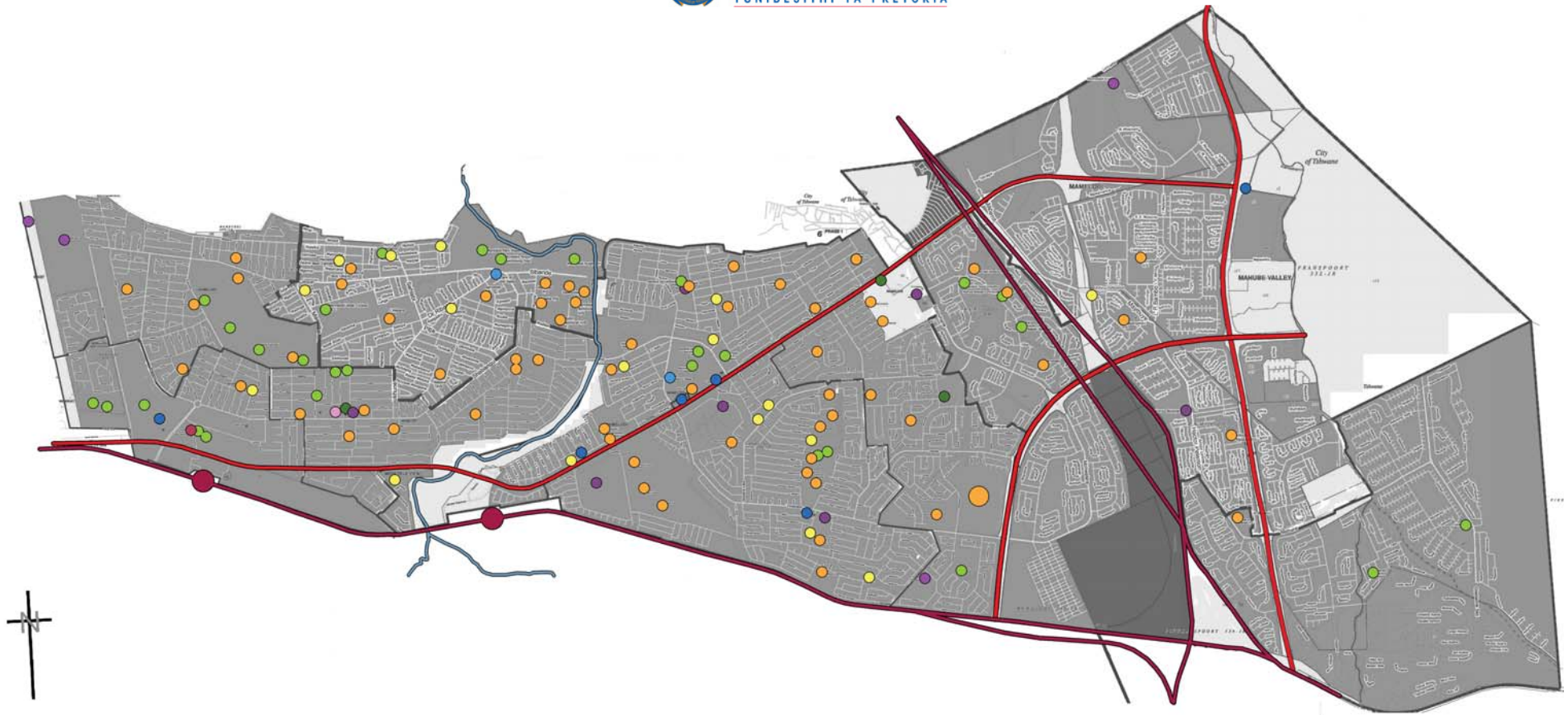
The functions listed above must be able to be facilitated by the intervention as well as additional functions that are needed by the community of Mamelodi East that are not provided for by the existing Churches. These will be investigated through the mapping of local services, which will identify local needs.

Regional Framework

Linear Nodal Development Framework
Done in partnership with
Hayley T. Roberts

All images in this sub-chapter are by the Authors

Locality of Services













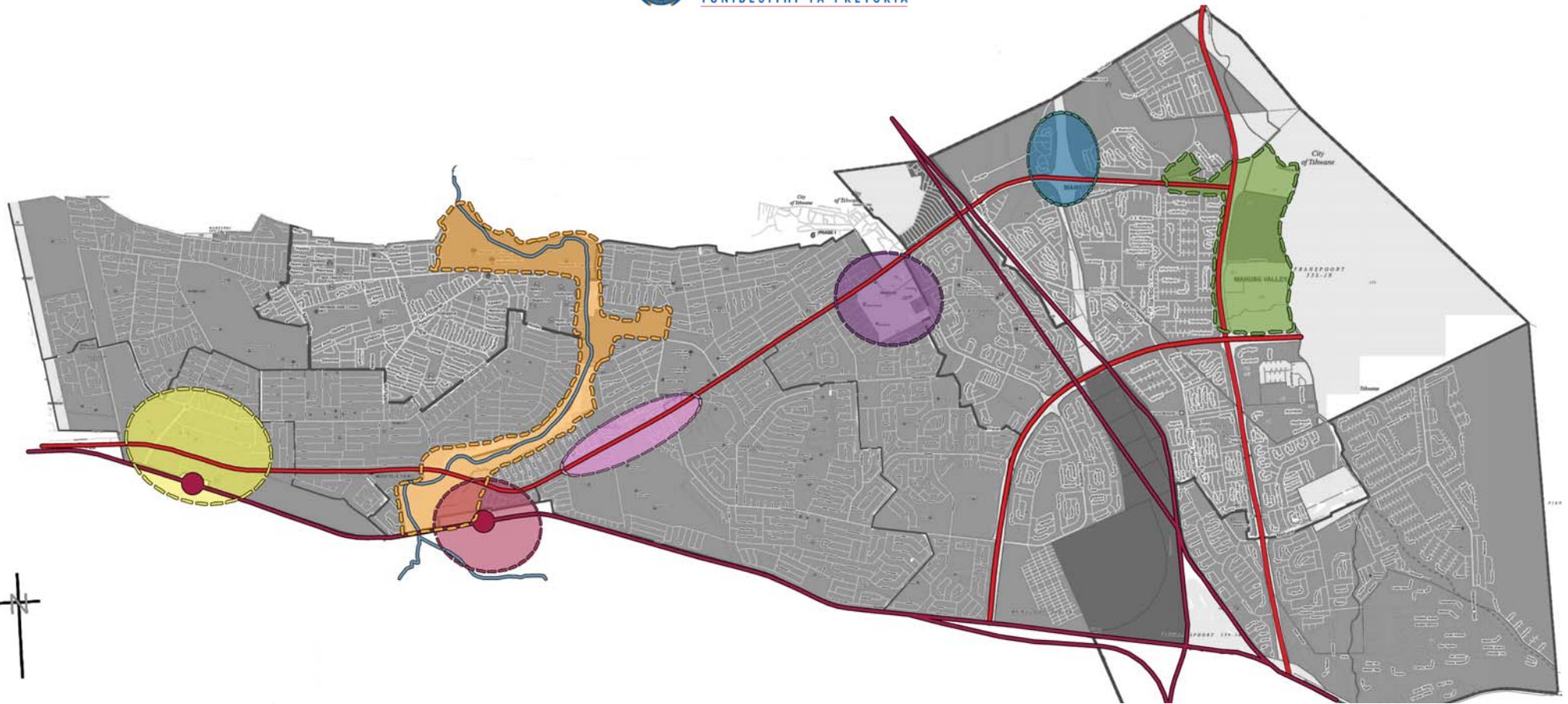
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|--|--|
|  Children's Village & Old aged Home |  Schools & Learning Centres |
|  Churches |  Solomon Mahlangu Square |
|  Fire Station |  Shopping Centres |
|  Clinics & Hospitals |  Sport & Community Facilities |
|  Grave Yards |  Police Stations |

Fig.34. Diagrammatic map of Mamelodi showing the locations of various social and public service facilities



The most noteworthy aspect of the process . . . Is that the final hypothesis is the creation of neither the community nor the designer, but is the product of the interaction of each. For such interaction to be productive, two conditions must be present:

- *An understanding on the part of both the designer and the community of the nature of the process and how it works.*
- *A willingness on the part of each to plunge into it fully, to give of themselves, to submit to the discipline it entails, and to bring to it, fully, the creative input demands.*

(Bacon, E.N. 1967: 262)

Fig.35. Diagrammatic map of Mamelodi showing the locations of the proposed Nodes included in the Linear Nodal Development Framework

Aims

Large Urban commercial frameworks have very rarely been achieved within a socio-political context, as they require an extensive amount of governmental effort, energy and finances in order for these schemes to be implemented successfully. This form of Urban planning or vision often takes little cognisance of the existing fabric and natural growth that could occur within the area, which would lead to a richer urban fabric and better appropriateness of place. Rather than the imposition of a single person's or organisation's vision and ideologies there should be a listening conversation between the community and the designer.

Harmonious surroundings provide a support for outer social and inner personal harmony. Harmony can be achieved by rules – but it lacks life. Or it can arise as an inevitable but life-filled consequence of listening conversation (Day. 1990:70)

Definition

The frame work that we are proposing for Mamelodi is a Linear Nodal Development Framework. The definition of this framework is the upgrading and provision of services coupled with the implementation of individual catalytic interventions, such as community oriented or commercial facilities; in order to facilitate natural growth and cohesion to reclaim lost or forgotten spaces, areas and peoples within the existing fabric.

Mamelodi's cultural and historical past as a township has caused large scale fragmentation and ill planning that has disrupted the built and social fabric. Forgotten spaces and cracks in the form of buffer zones, empty sites and disjointed or absent services have become almost institutional in the Mamelodi context. The reclamation of these isolated, forgotten spaces and their stitching together through the improvement of existing infrastructure and provision of services becomes the focus of the Linear Nodal Development Framework

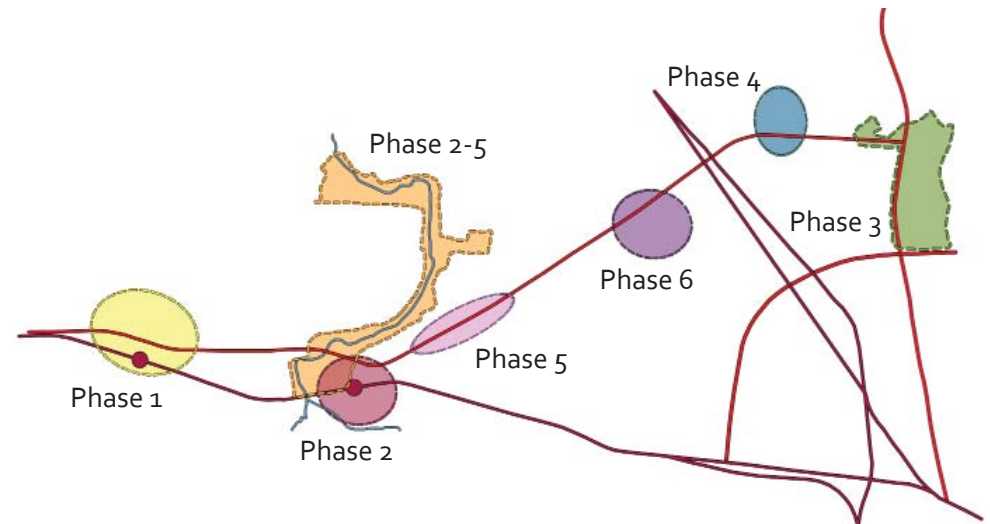


Fig.36. Diagrammatic map showing relative locations and phasing of the proposed Nodes included in the Linear Nodal Development Framework

Node 1

Phase 1

Inter-Modal Transport Junction
High Density Housing
Commercial and Office
Mixed Use Development

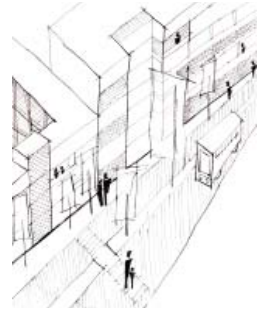
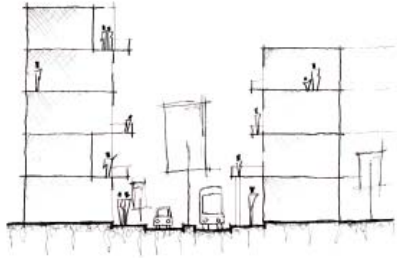


Fig.37. Location and proposed scaling of Node 1

Node 3

Phase 2

Inter-Modal Transport Junction
High Density Housing
Informal Trading
Mixed Use Development

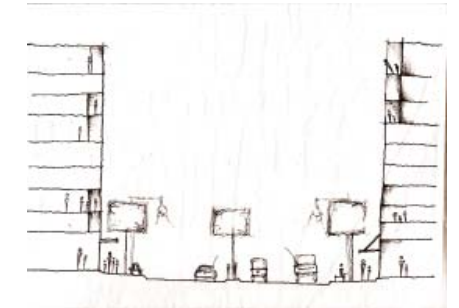
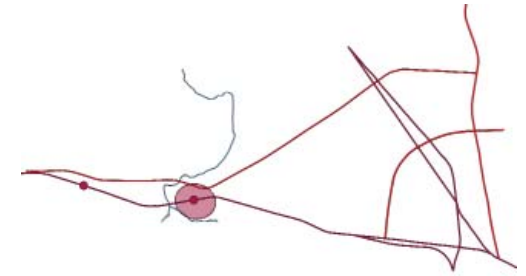


Fig.38. Location and proposed scaling of Node 3

Node 2

Phase 2-5

Rehabilitation of Pienaar River
Urban Agriculture & Perma-culture
Community Green Spaces and Parks
Pedestrian Access

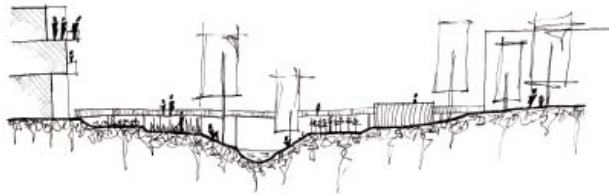
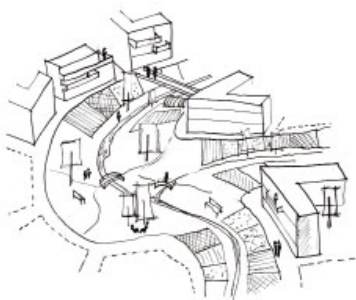


Fig.39. Location and proposed scaling of Node 2

Node 4

Phase 5

Mixed Use Development
Community & Religious Functions
Medium Density Housing

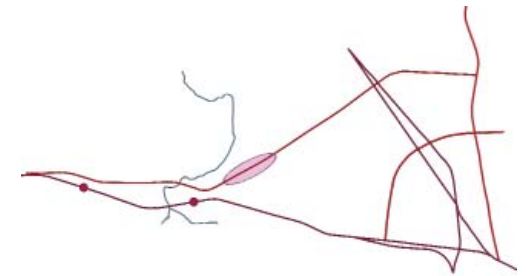


Fig.40. Location and proposed scaling of Node 4

Node 5

Phase 6

Community Oriented Functions
Service Delivery
Public Transport – Bus & Taxi Stops

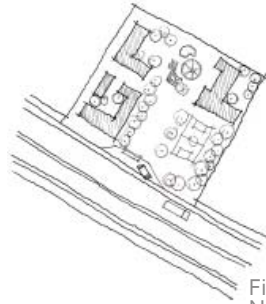


Fig.41. Location and proposed scaling of Node 5

Node 7

Phase 3

High Density Commercial
Mixed Use Development

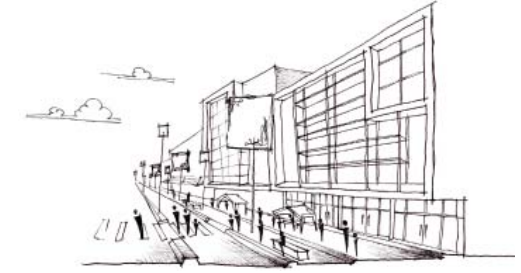
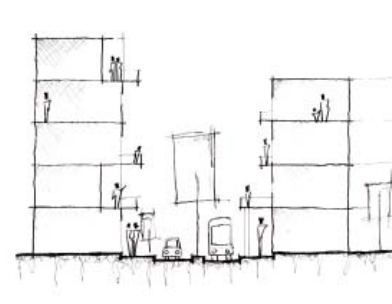
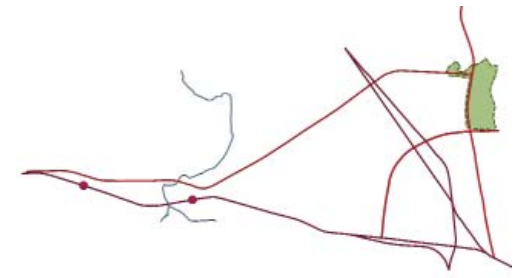


Fig.42. Location and proposed scaling of Node 7

Node 6

Phase 4

Religious & Community Oriented Functions
Service Delivery
Public Transport – Bus & Taxi Stops

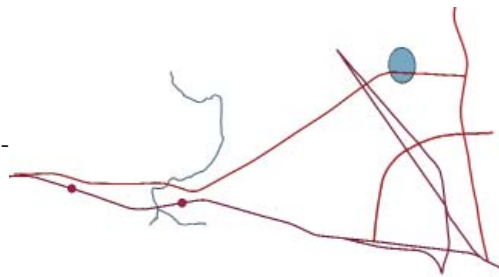


Fig.43. Location and proposed scaling of Node 6

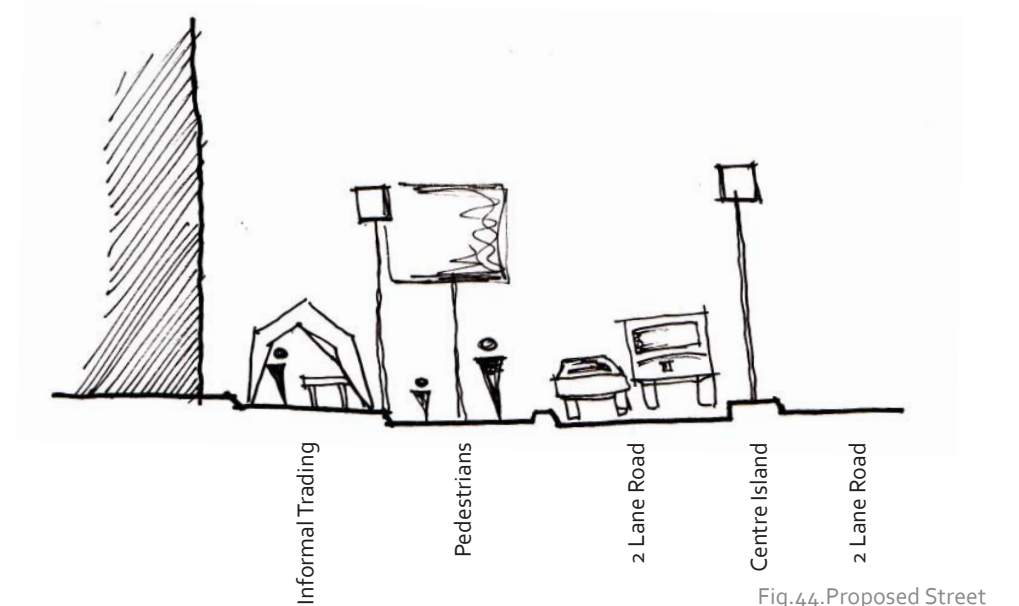


Fig.44. Proposed Street Section

Expression

Themes for artworks be they murals, mosaics, relief works, or sculptures, can be generated in community meetings. Local narratives can provide specificity for broader and more general themes and issues, allowing the artwork to become a focal point of shared memories or aspirations. People thus become active producers of the building rather than passive consumers, and the process of engagement may contribute to public responsibility and prevention of vandalism. (Marschall & Kearney 2000:151)

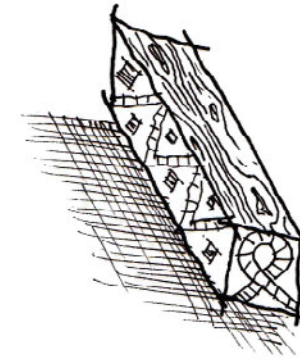


Fig.46. Concrete street furniture, allows for mosaic detailing

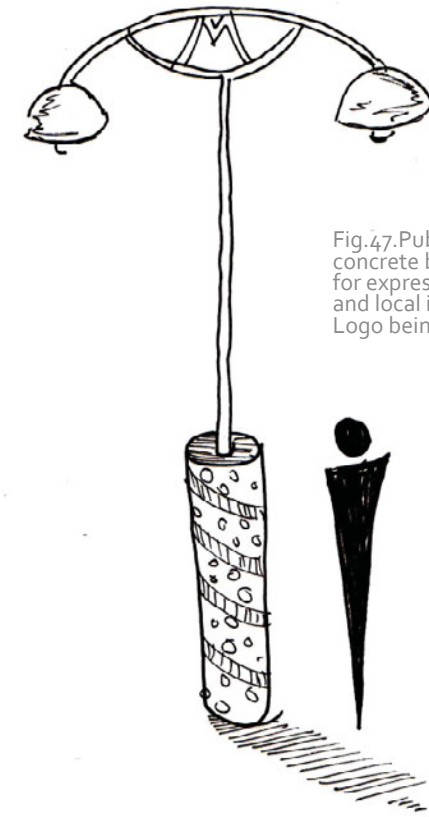
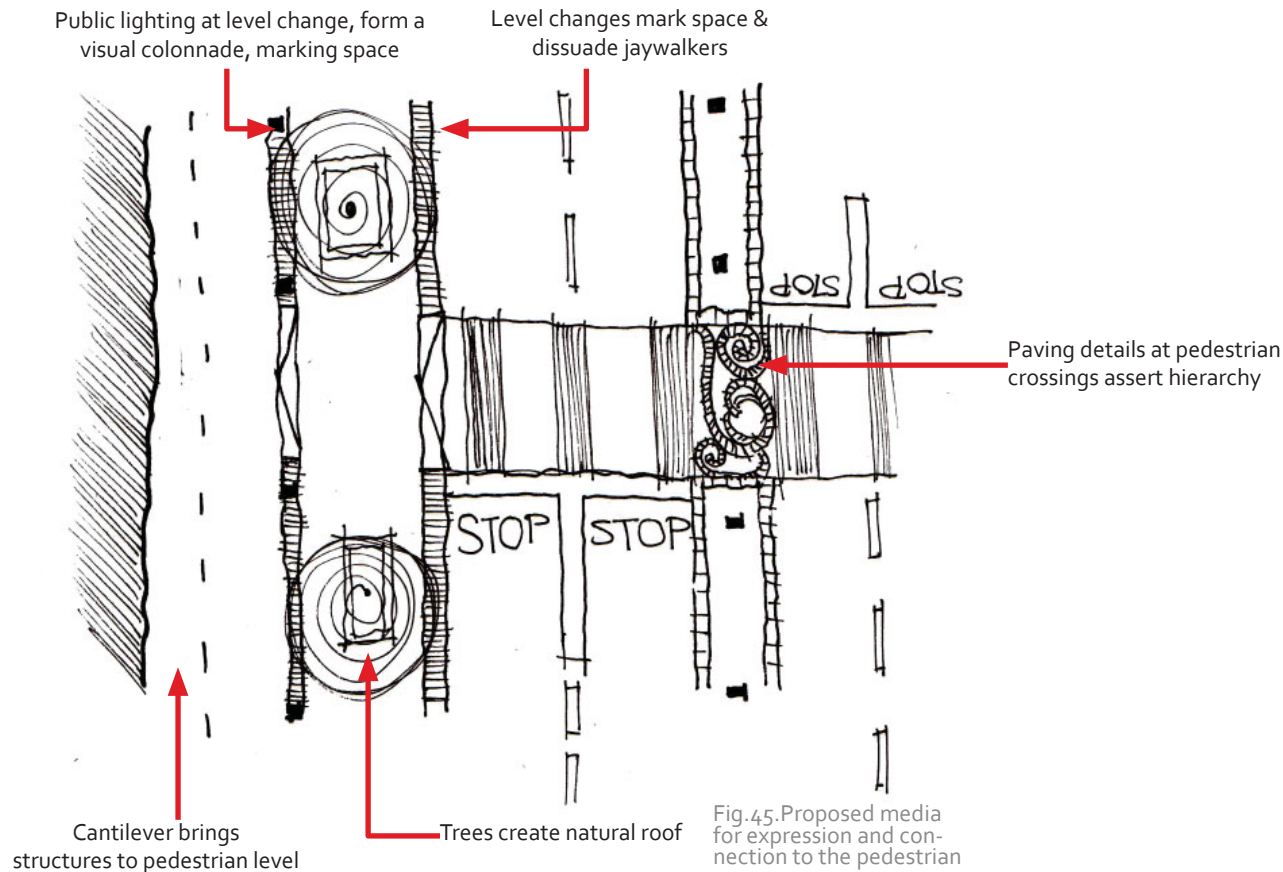


Fig.47. Public lighting with concrete base also allows for expressive detailing and local identity— e.g. a Logo being incorporated.

Site Context

Node 6



Fig.4.8.(By Author) Aerial photo showing Mamelodi: Situation 1961 as compared to 2010, Node 6 is highlighted.



Fig. 49. (By Author) Aerial photo showing forgotten spaces left in the local density and the relative locations of Nodes 5, 6 & 7



Fig. 50. (By Author) Aerial photo showing major access roads and community landmarks

Impression: Mamelodi East

Mamelodi East is, at best, fragmented in terms of its local fabric and infrastructure. As one travels east on Tsamaya road and crosses beneath the railway line, it is immediately clear that you are now on the wrong side of the tracks.

The people here seem to struggle to lift themselves from the environment that they are faced with daily. Even though the people that live in Mamelodi must deal with crime and poverty as part of their daily lives, they are friendly and welcoming, however, there is an overshadowing awareness of the presence and danger of crime.

The population is dense while the scale of the local area is such that no visible structure is more than a single story. Plots of land that were intended to house one family are populated with informal dwellings constructed seemingly in almost every available space. Some locals have started growing their own food in small plots that are left over. These little gardens are pleasing natural elements, amidst the dense urban sprawl.

Mamelodi has a much celebrated street culture, where the street becomes an exciting medium for social interaction. Those that have structures that are able to be seen from the street, have taken every advantage of this fact and have started up small businesses with advertising painted on the walls. There are many informal shopping stalls that have been erected along the roadside. From the many shops and stalls the local inhabitants are able to purchase anything from vegetables to air time to a haircut. In the afternoons there are many people walking to and from their homes and the meagre path that passes for a pavement becomes a bustling avenue for trade and accidental meetings.

Even though the street has much potential as a social and commercial avenue, there lacks any definable edge condition that could both take advantage of, and further facilitate this street culture.

The many Churches of Mamelodi are evident social anchors and a means of escape and mutual support within the community. Engaging with them is a joyous and welcoming experience, but they hold much concern for their communities and a wish that they were able to do more. The women of Mamelodi appear to have much strength and seem to drive many of the Church schemes. There was even a Church that was founded and is attended by only women.

The author found it strange that, to be found at the most Eastern end of Tsamaya Road, amidst the poverty is a great white elephant of a shopping complex. To further add to the acontextuality of this centre is the fact that no Minibus Taxis are allowed within its gates. The public and semi-public transport system is the main means of transport for the community and there are few privately owned vehicles.

One is not sure whom this centre aims to be targeting, as it does not seem to be its local community, and the only commercial activity that appeared to be busy was the KFC. It is doubtful if the centre will be a success without more economic intervention in the area.

Conclusion:

The Multi-Service Centre for Mamelodi East must endeavour to:

- Extend the reach of the Church through functions that are able to provide a source of hope and inspiration for the community.
- Provide an interface between the needs of the community and local government and the local police force.
- Attempt to encourage and facilitate this street culture through an edge condition, which the local inhabitants can use and interact with.
- Provide a means in which the Church is able to become a part of a public service and the everyday lives of the people of Mamelodi East and ultimately a land mark for the area.
- Within the context of the Linear Nodal Development Framework, seek to energise and uplift Tsamaya Road and draw development across the railway bridge.



Fig.51. Scene from Mamelodi - www.mamelodistories.org



Fig.52. Scene from Mamelodi - www.mamelodistories.org



Fig.53. Scene from Mamelodi - www.mamelodistories.org



Fig.54. Scene from Mamelodi - www.mamelodistories.org



Fig.55. (By Author) Panorama of the Northern edge of Tsamaya Rd. at the proposed site

Site Analysis

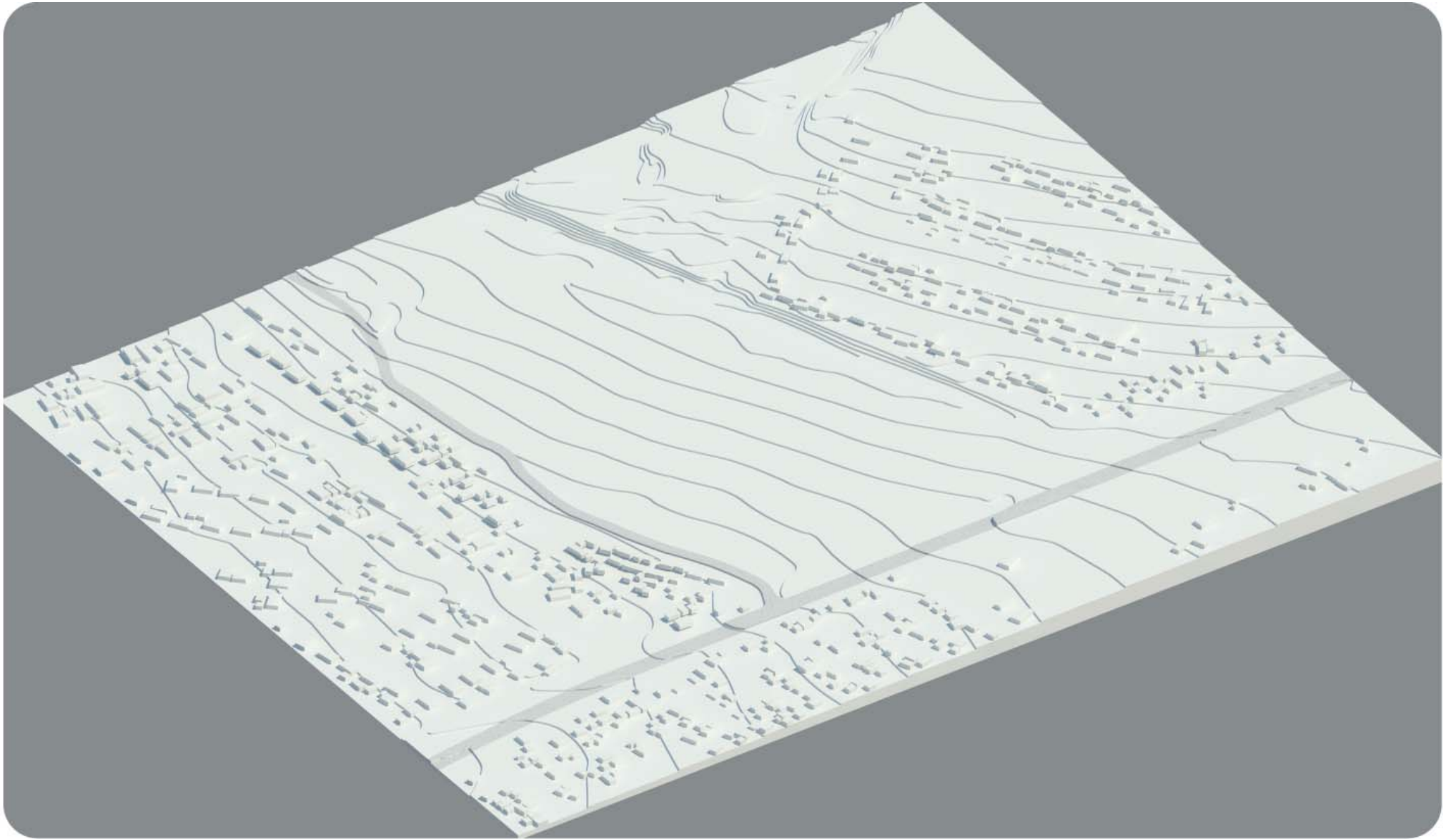


Fig.56.(By Author) 3D model showing topography and existing scale



Fig.57.(By Author) Views of the site from various points

Zoning & Current Use

The site is located in an area in Mamelodi East where Social Service provision is greatly lacking. The creation of a service based, catalytic nodal intervention would seek to facilitate the upliftment process within the community, as is programmed within the Linear Nodal Development Framework.

The Linear Nodal Development Framework seeks to reclaim isolated or forgotten spaces and their stitching together through the improvement of existing infrastructure and provision of services.

This site is one such forgotten space that interrupts the fabric surrounding it. The intervention would seek to re-integrate this fragment in such a way that it is able to contribute to the community in a positive manner, such that the community will be able to interact with the intervention taking place on the site.

Part of the site belongs to the municipality and is zoned as a road reserve [R/63], however as there is a successful road linkage via Hans Strydom Dr. It is proposed that the land is donated and the plot is rezoned. The other part of the site is a portion of the farm Franspoort 332-JR [erf 33033], as shown in Fig.58.

Although the site is divided into 2 parts by zoning, it is one fenced-off property, facilitating both agriculture and floriculture, occurring both in the 6 existing agricultural 'tunnels', measuring 10m x 30m and on the open fields. This is a public-private partnership with the local Municipality and an NGO.

Even though the existing intervention was intended as a community project, the boundary wall and security guard prevents the public from interacting with the gardens.

The maintenance of the gardens is undertaken by 7 men who reside on-site. One of the custodians commented on the current state, saying that the Municipality had ruined it, as no overall site maintenance had taken place in some time.

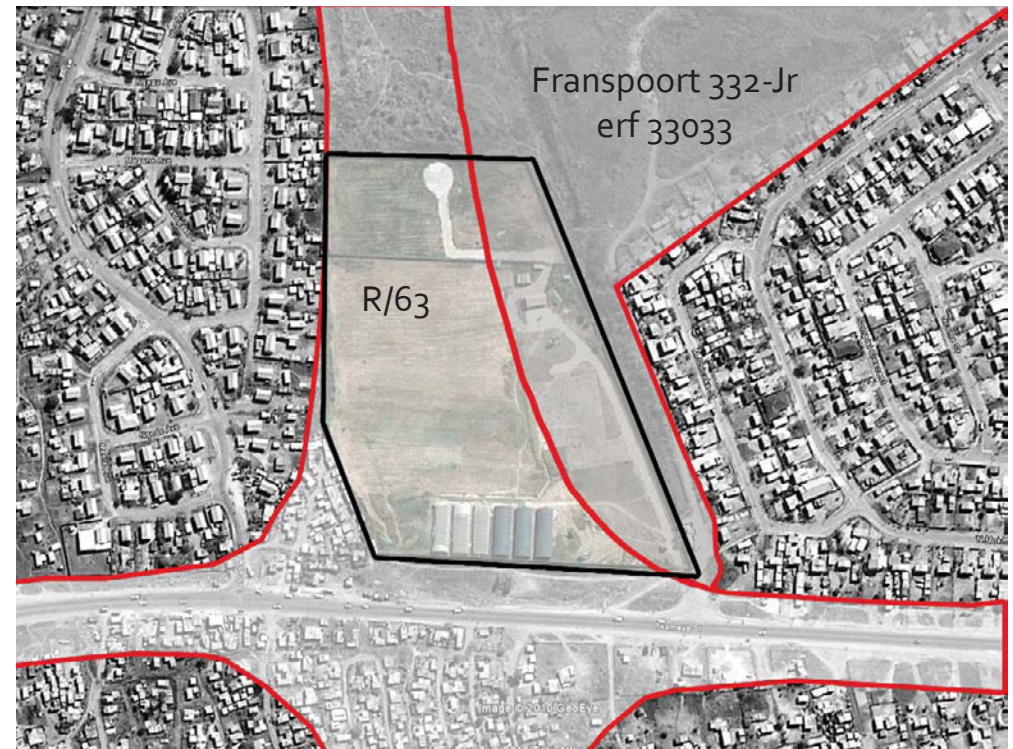


Fig.58.(By Author) Aerial view showing zoning of the site



Fig.59.(By Author) View of an agricultural tunnel showing disrepair



Fig.60.(By Author) View of an agricultural tunnel showing disrepair



Fig.61.(By Author) View showing existing parking area

Topography

The gradient of the area is fairly steep with the land rising 6m from West to East. A steep furrow lies parallel to the Eastern boundary wall, defining the parameter of the site, however the land soon rises to form hills towards the North and North East. From the Northern and Eastern areas of the site, the highest points, one is able to enjoy a view to the west of a nearby Koppie or tall hill.

The predominant North Easterly wind blows with the slope of the land. The Hills that rise towards the North East could accelerate this wind. This could also be favourable through the achievement of large North-South facades and this wind would be able to encourage passive cross ventilation. Also the positioning of structures parallel to the contours would give the opportunity to arrange sheltered courtyard spaces.

The topography could be unfavourable in terms of dealing with storm water as all the water will flow to the South Western corner. The existing canal could be better used to harness this water for irrigation, however water needed for irrigation would effectively be needed to flow uphill. Perhaps rainwater harvesting might be a more viable source.

Density

As stated earlier the density of the area is high, with many dwellings existing on single plots. Development of the area hasn't defined an edge to Tsamaya Road. The author believes this to be due to the lack of road infrastructure and the provision of sidewalks. This means that stall and shop owners get as close to the undefined road edges as possible, or where flat land is available.

The Site is an obvious gap in the fabric of the area and the current initiative does not engage with the community. The intervention could harness the current function as an asset and strive to encourage mutual communication with the urban agricultural initiative.

The intervention would also seek to raise the scale of the area through projecting its own, new scale and defined edges through the architecture and spatial planning.



Fig.62.(By Author) Aerial map showing contours and prevailing wind direction



Fig.63.(By Author) Aerial map showing local densities



Fig.64.(By Author) Views of existing canal



Fig.65.(By Author) Views of pedestrian activity

Services

Municipal sewer lines are indicated to run under the existing vehicle access. The site has access to a water main from Tsamaya Road. There appears to be limited access to power. This may just be due to limited funding of the existing initiative on site as there are existing small water pumps that pump water from the canals to the agricultural fields however small house on site did not display many outward signs of electrical facilities.

The services available are limited to the Southern portion of the site and to the Eastern boundary.

The existing service access should be retained within the new design.

Movement

The provision of infrastructure in Mamelodi East is greatly lacking, this is evident through the hierarchy of movement paths in the area. There are both formal and informal vehicle paths, with pedestrian movement restricted to informal pathways alongside vehicle pathways.

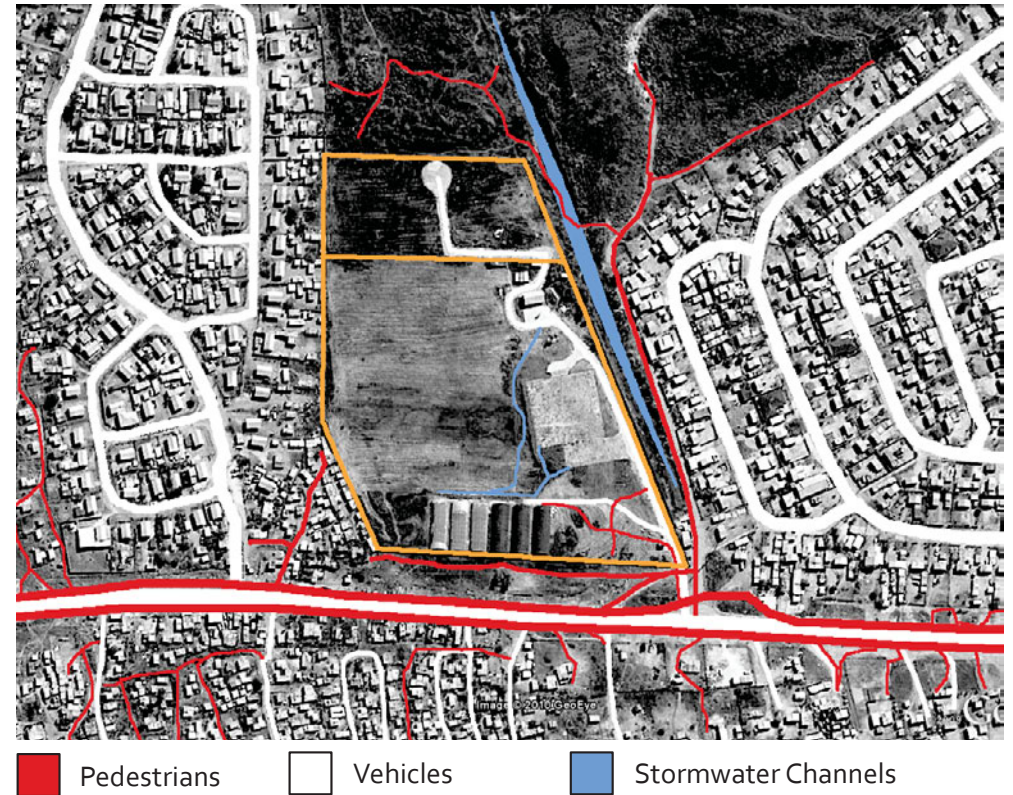


Fig.66.(By Author) Aerial view of the site showing movement of different pedestrians, vehicles and storm water

Fig.67.(By Author) Photograph showing existing vehicular access and parking on site





AVERAGE RECORDED RAINFALL, 1992 - 2003 avg JANUARY- DECEMBER
Monthly Daily Rain (mm) Data for station [0513465 1] - PRETORIA UNIV PROEFPLAAS Measured at 08:00

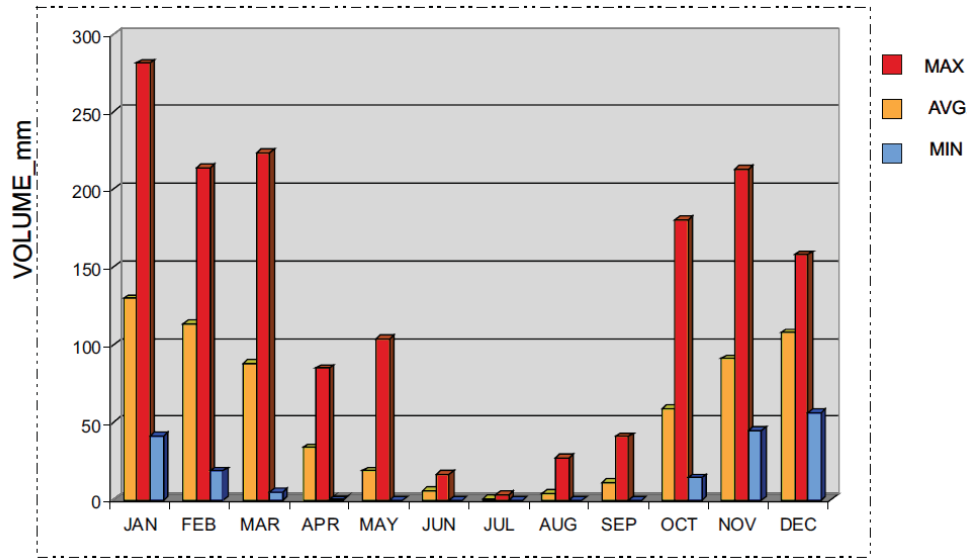


Fig.68.(Nice 2008:35) Climatic data: rainfall

TEMPERATURE, 1992 - 2008 avg. JANUARY - DECEMBER @
Average Temperature (C) Data for station [0513314C9] - PRETORIA EENDRACHT Measured at 08:00
Average Temperature (C) Data for station [0513314C9] - PRETORIA EENDRACHT Measured at 14:00

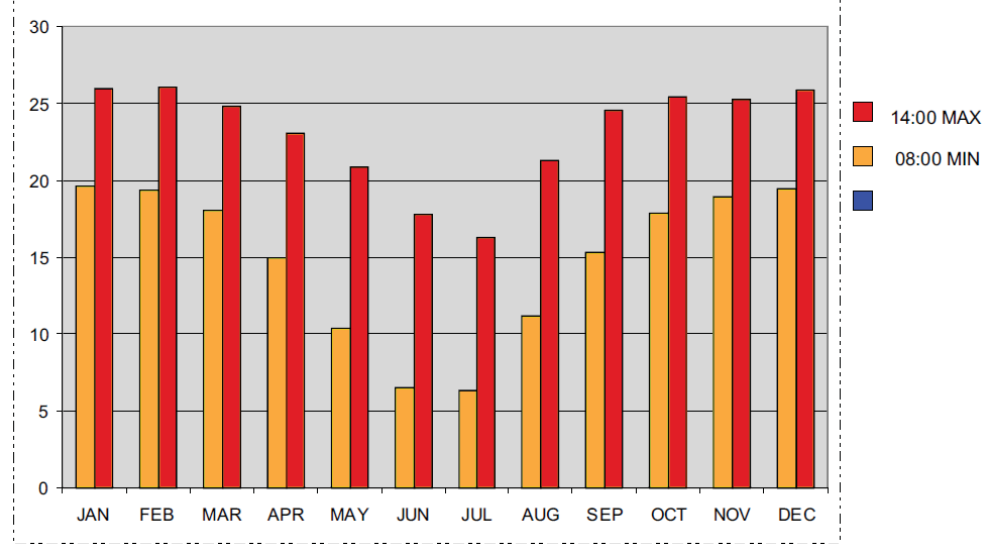


Fig.69.(Nice 2008:35) Climatic data: temperature

SUNLIGHT HOURS, 1993 - 2003 avg JANUARY- DECEMBER
Average Daily Sunshine (hour) Data for station [0513314C9] - PRETORIA EENDRACHT Measured at 08:00

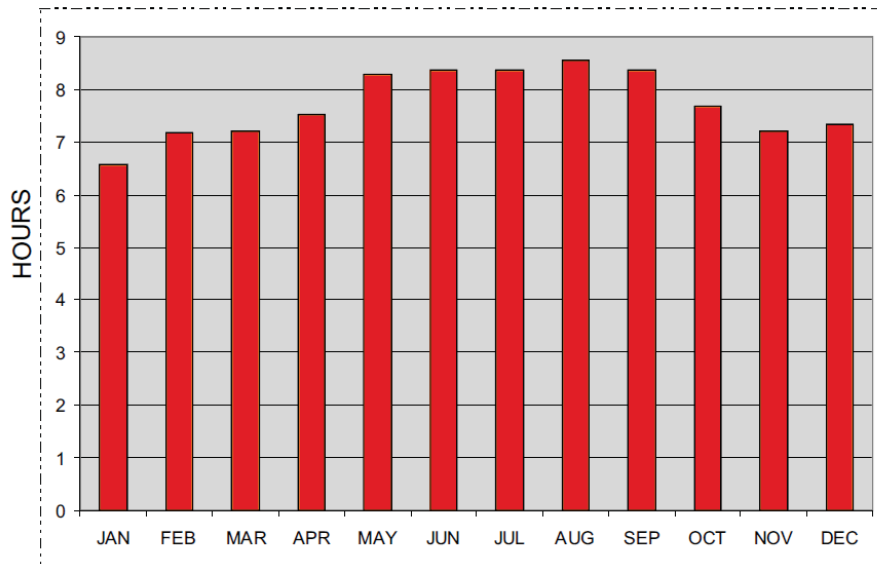


Fig.70.(Nice 2008:35) Climatic data: hours of sunlight

WIND SPEED, 1992 - 2008 avg. JANUARY - DECEMBER @
Average Wind Gust Speed (m/s) Data for station [0513314C9] - PRETORIA EENDRACHT Measured at 08:00

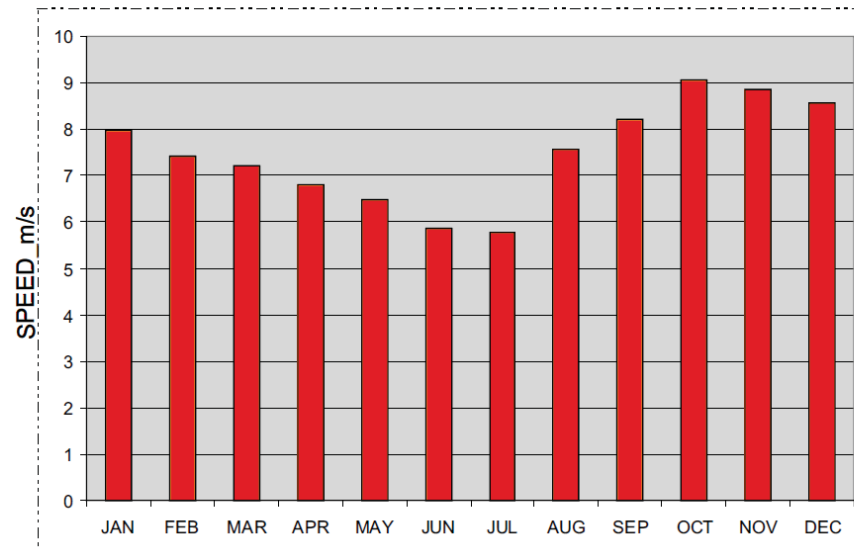


Fig.71.(Nice 2008:35) Climatic data: wind speed

Climate

Temperatures are generally comfortable; however the winter months will require the buildings to provide thermal insulation, this will in turn ensure the internal spaces remain cool during summer. The high amounts of constant sunlight require spaces to shade and shelter from the heat and harsh light. This also means that solar energy is a possibility.

Water

Storm water on site is channelled via concrete canals towards the Agricultural Tunnels. This water is collected from the runoff from the paving of the parking areas, now overgrown. Alongside the Eastern boundary is a valley, which naturally collects rainwater runoff. The annual rainfall for Pretoria is fairly high, however the majority of rain occurs in the Summer months. An average of less than 2mm is recorded for the winter period. Therefore rainwater harvesting should be explored to supplement municipal water for irrigation but it cannot replace it as the only source.

Initial SWOT Analysis

Strengths

- The site borders Tsamaya Road which means that any intervention will be clearly visible and easily accessible.
- The lack of local services is appropriate for the intervention.
- The large site means that there is sufficient opportunity for expansion and densification of the site.

Weaknesses

- Although the large site may allow for expansion and development, it may also provide a challenge to develop.
- The steep rise in topography towards the east may hinder attempts at establishing hierarchy on site, as the east is associated with the service access.
- The existing agricultural sheds are in a state of disrepair and occupy a large portion of prime space along the road side.

Opportunities

- Possibly proximity to the road edge could allow for engagement with the street cultures
- The space available for expansion would allow for change and development over time
- The location on the main road provides an opportunity to establish landmark prominence
- The large Southern boundary enables the architecture to form the ideal orientation with major facades oriented North-South

Threats

- The vast depth of the plot could hinder access to any function established on the Northern portion of the site, this could also have a detrimental impact on movement over the site as a whole, possibly even isolating the Northern functions.
- The depth of the site also means that unless another means of access is established, the only means of access will be from Tsamaya Road. This may conflict with a dedicated service access.
- Crime would disrupt the function of an open building or courtyard layout and security must be resolved in order to achieve any measure of success.



Fig.72.(By Author) Panorama of the site looking towards the West



Fig.73.(By Author) Panorama of the site looking towards the North

Locality Framework

Existing Scale

The surrounding region has a generally low scale, Fig.74. The infrastructure is generally poor, where there are no pavements or public lighting. The housing development is largely informal dwellings that have filled in between government RDP houses. This has resulted in a pattern of dense sprawl with no defined edge condition and poor services.

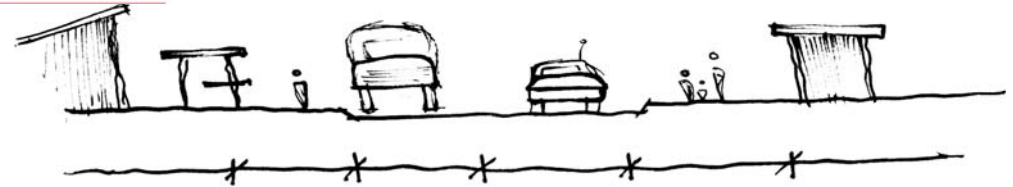


Fig.74.(By Author) Existing street section

Edges

A portion of the proposed site is an existing road reserve, therefore it is proposed that part of this reserve be used to provide a new road, linking Tsamaya road to the areas to the North. This will enable the greatest extent of the site to become accessible and therefore more fully utilised, Fig.75. This will also provide a much needed North-South connection, enabling greater access to services provided by the proposed intervention.

This new road will be able to further cultivate an edge condition and provide infrastructure to the existing residential area North of Tsamaya Rd.

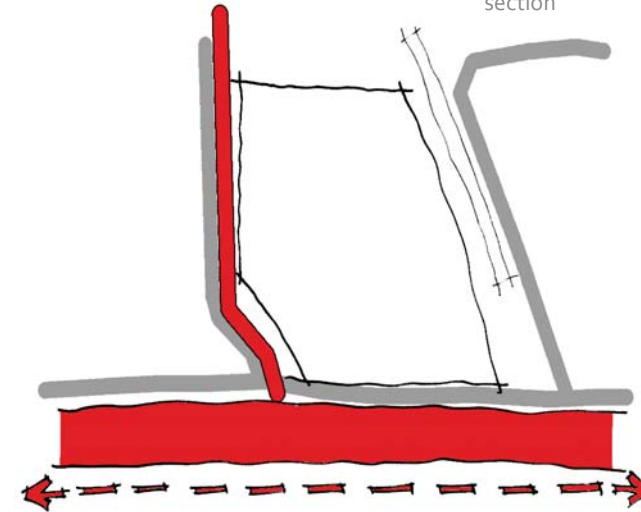


Fig.75.(By Author) Aerial view showing potential edge conditions

Proposed More Appropriate Scale

The intervention should be able to act as a catalyst for the area, linking the Nodes of the Linear Nodal Development Framework, thus promoting service provision, upgrading of infrastructure and scale along Tsamaya Road and connecting East and West Mamelodi.

The perceived scale for the area would be prompted by a definable edge at the intervention. This will be of two to three stories, Fig.76. It must be noted that the intervention should be able to communicate both with the scale as it is, and the scale as it will be as well as allowing for further future expansion with the developing scale of the area.

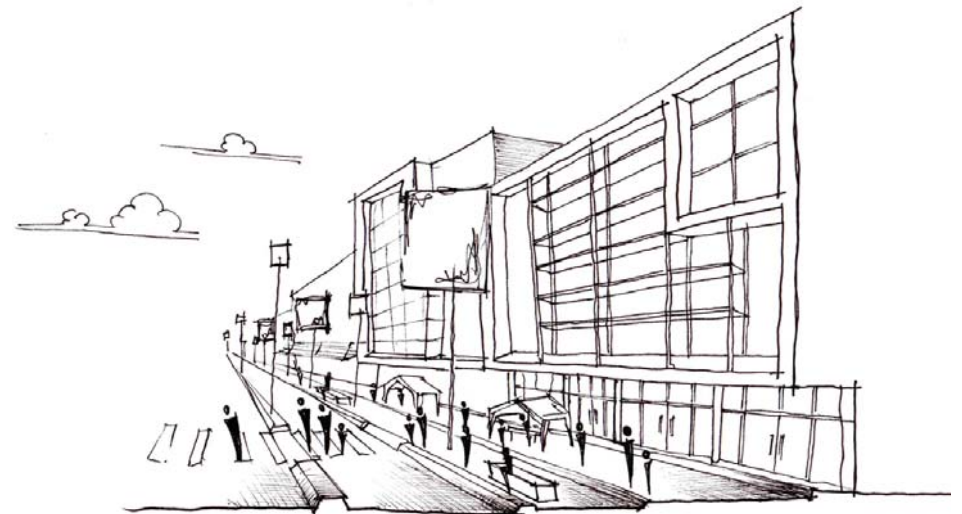


Fig.76.(By Author) Perspective showing future scale

Connectivity: Proposed Road Routes

The Western portion of the site is an existing road reserve, and a new formal route is needed to facilitate the growth of the residential area north of Tsamaya, as well as housing proposed for the site. This new road would seek to solve the potential isolation of the Northern portion of the site through improving access and connectivity. This road connects to existing roads that ultimately connect to Hans Strydom Dr.

Proposed Route A.

This solution is more desirable, providing a greater amount of transportation infrastructure, however it is also a longer route, needing more financial commitment.

The new road runs north/south and connects to R.S. Ntuli St via the formalisation of an existing desire line, Fig.77, this is a more direct route to Hans Strydom Dr. and could become a major route into the area.



Fig.77.(By Author) Proposed road route A

Proposed Route B:

This solution is the less desirable as it provides the lesser amount of transportation infrastructure, however it is a shorter route, needing less financial commitment.

The new road runs north/south and connects to Letoaba Avenue via the formalisation of an existing informal route, Fig.78



Fig.78.(By Author) Proposed road route B

Conclusion:

The proposed site is ideally situated at a corner, along a main road. The architecture that grows from the site and its relationship to the community must be able to both speak to the context in its present form and that which it has the potential to be.

It must also be able to accommodate the many varied functions required by the community, contained within in a series of spaces that are able to facilitate community gathering. These spaces must also communicate a series of thresholds that lead the user into sacred space.

The implementation of passive design is an appropriate environmental and financial response for the location. The status as a landmark structure leans towards not 'low technology' but more to a language of simple construction elements composed to form a legible, engaging architecture.