North-south links  
– proposal by Maria Lejdebro

In this chapter detailed proposals for the north-south links will be presented. The links are connecting the project area to Galeshewe and the southern suburbs. Detailed plans for two sections of the links, one pedestrian orientated and one through fare, will be presented and the usage of all links will also be described.

West Circular Road – Tucker Street – Barkley Road
The West Circular Road, Tucker Street and Barkley Road link is converted from a vehicle link into the main pedestrian and bicycle link that will stretch through the Big Hole precinct and connect the main access street into Galeshewe with the main street into CBD. This link is attractive for movement for all traffic modes due to its close location to the CBD and the residential areas in Galeshewe and the southern suburbs.

The reason for turning the link into a pedestrian and bicycle link is to make sure that these traffic modes will have the shortest distances between attractive areas in the city. The conversion will improve the situation for people moving in the area today both environmentally and safety wise. It will also be more attractive to walk or bike and to leave the car behind.

West Circular Road and Tucker Street will be illustrated in this chapter with design proposals since they are incorporated in the Big Hole precinct. The design of Barkley Road is further very important for the entire function of the link so main criteria for its design will be presented at the end of the chapter.
Map 56. New and old development along West Circular Road - Tucker Street
Traffic mode priorities

The streetscape along West Circular Road – Tucker Street is primarily designed for pedestrians and bicyclists, with wide sidewalks and bicycle lanes. Pedestrian lanes are implemented on both sides of the streets, while a bicycle lane will be provided on one side of the street. The pedestrian lanes on the West Circular Road – Tucker Street link are wider than on the other streets in the area, this is to accommodate enough space for the enhanced number of people moving in the area when fully developed. Bicycle parking is to be provided outside the big attraction points in the area such as the conference centre, the theatre and the Open Mine Museum. This will give bicyclists better access to their destinations and encourage bicycling as an alternative to the car as a transportation mode.

The tramline is another feature along West Circular Road – Tucker Street that is an alternative to using vehicles as a transportation mean along this link. The tramline is extended from its current route along Tucker Street and the Open Mine Museum to run all along West Circular Road and at its end turn in to South Circular Road before ending up in the CBD. The tram will with this extension bring CBD and the new commercial – tourism – cultural area closer together. The old character and feeling of Kimberley will remain to some extent with the tram when it is incorporated in the new developments as a reminder of the old diamond mining days in this historical area.

Vehicles will be able to use West Circular Road – Tucker Street link but obstacles, like elevated intersections will reduce movement and speed for vehicles and instead improve movement conditions for pedestrians and bicyclists. It will instead be more convenient for vehicles to use Waterloo Road as a trough fare between Galeshewe and the southern suburbs. The only vehicles along this link will be the ones with a destination point close to the street. Traffic, like transportation of goods to the area, will be made primarily by an access street west of West Circular Road. The parking areas that serves the activities and services in the areas close to West Circular road – Tucker Street is located at the end section of the street so that as few vehicles as possible will have to use the link.
Map 57. Movement possibilities for different traffic modes with the proposal
Streetscape along West Circular Road - Tucker Street

The streetscape differs along this street link. The streetscape has three different sections West circular Road – Tucker street; the southern section with an enclosed streetscape, the middle section with an open streetscape and the northern section with a small scaled environment.

The southern enclosed section of the link is characterised by large commercial buildings that line the street. The scale and the heights of the buildings are gradually declining towards the north towards a tourism and cultural related area.

The middle street section is at the heart of the public West Circular Road – Tucker Street link and therefore has lots of public activities. The openness of the section brings out all the features in close access to the street like the Open Mine Museum, a conference centre and a theatre for example. The open characteristics will make the each feature more prominent and make it easier for people moving in the area to find their destination points.

The northern small scaled section is an existing street section and the street environment with its residential buildings and suburban businesses is preserved and incorporated with the new development. New infill developments in this area are adjusted to the land uses in this area and the buildings are of the same scale and height so that the street environment remains intact.

To bring the three sections together and to mark the street’s importance as a pedestrian and bicycle link between Galeshewe, CBD and the southern suburbs the street is lined on both sides with trees. The trees will further frame the street environment and at the same time bring shade and a more pleasant environment to pedestrians and bicyclists using this link. Street lighting for both vehicles and for pedestrians and bicyclists will be provided along the entire link so that it can be used at all hours of the day and to make the users of the link more safe and secure.

Land use next to West Circular Road – Tucker Street

The land use of the areas close to West Circular Road – Tucker Street is mainly public and ranges from commercial usages in the south and tourism and cultural related activities in the middle to the existing smaller residential area in the northern part. The location of the commercial establishments in the south will strengthen the connection of the Big Hole precinct to CBD. This development is favourable since it will make CBD grow to the west and bring amenities and facilities closer to the less privileged communities in Galeshewe.

The vacant land surrounding West Circular Road – Tucker Street is, as requested in the spatial plan, developed with a declining density to
Fig 95. View over West Circular Road today

Fig 96. New view over West Circular Road
the north on the street. This creates a good connection with the existing built up structure, especially in the north, where in-fill properties have new housing and the Open Mine Museum is extended and other tourism related activities is located in close access.

Commercial area: The commercial area in the south is an extension of the new commercial area along South Circular Road that will connect CBD with the Open Mine Museum and it close by activities. The commercial area east of West Circular Road is car free zone, with wide pedestrian areas and hard open spaces in between buildings. The street network within this area is adjusted to the Big Hole and the streets are parallel to the hole’s edge. One of the streets has the headgear visible as a landmark at its end, drawing people towards the museum and the tourism and cultural area.

The building blocks within this area are placed so that sightlines from the streets within the Big Hole precinct are created towards the CBD and its characteristic skyline. Due to the space required for modern commercial establishments the bottom floors of the commercial buildings are wider than the office floors above. The buildings have commercial activities in the two bottom floors and have offices on the two to three floors above. This brings the density level up for this central location in the city.

There are several possibilities for pedestrians to enter the commercial area from South Circular Road, which are either to continue along the street for vehicles where the commercial developments start and then turn into one of the streets that opens up towards the north like West Circular Road as the most western example or to walk along the Big Hole’s edge. When entering the latter a small park is welcoming visitors into what is a car free zone.

The commercial area also includes the two most southern blocks on the eastern side of West Circular Road. Underneath these eastern blocks of commercial activities are two parking garages. The southern garage is foremost for people working in the area while the northern one is for visitors. Vehicles will enter the garages from a backstreet to West Circular Road. The northern garage has an exit for the visitors that left their cars in the garage on to West Circular Road in between the commercial and cultural area. The exit is located so that it gives the visitor a first view towards the Big Hole and Kimberley’s skyline beyond the hole. The exit/entrance is also located at a central place close to several activities. The commercial activities that are located on this side of the street will also get their transports from the backstreet on the western side of these blocks designed just for this purpose.

Besides the parking garages is a small parking area located in close access to South Circular Road. This parking area will together with the parking garages serve the parking need for the activities along the
Map 59. New building heights along West Circular - Tucker Street
Tourism and culture area; Located north of the commercial area is a tourism and culture area. This area has lower buildings than the commercial area but higher than in the Open Mine Museum area. The buildings are gradually declining in height from the commercial area towards the Open Mine Museum area, which gives this area a lower density than the commercial area. The tourism and cultural area will be a continuance of the activities in the Open Mine Museum, with small shops selling locally produced goods, arts and crafts.

The tourism and culture area has three open public spaces. One of them is a small park located on the Western side of West Circular Road, just opposite the road from the parking garage exit, which gives the area a centrally placed green area. The other public open spaces in the tourism and cultural area are hard open spaces one of which is an open square for restaurants and coffee shops with possibilities for outdoor seating. This square is directed towards the Big Hole which is the feature that the visitors will see when visiting the square. The third public open space is a market square located in the middle section of the West Circular road – Tucker Street link. The new market square is for informal traders to put up their stalls in, in an arranged way. The square is located in an area which will be intensely populated since, the Open Mine Museum, two parking lots and other people intense activities are located just next to the square. Other streets in the area will not have any facilities for informal trading, since there is so much space available at this location.

One of the new main features in the tourism and cultural area is a new tourism information centre. The information centre has a central location close to the market square and the Open Mine Museum and the parking garage. This location will make it visible and available for a large number of the visitors. The tramline will also have its stop just outside the information centre which further will make it accessible for visitors.

Another new feature in the tourism and cultural area is a theatre, located at the southern end of the market square. The theatre has its own parking lot within close range with access from the back street so that the visitors coming by car do not need to use West Circular Road.

National monuments; The corrugated iron building which is a national monument is preserved and incorporated in the new developments. It now has a more prominent location at the centre of activities, just next to the theatre, than it had before developing the Big Hole precinct when it did not have any relations to its surroundings.

North of the new market square is a saved piece of one of the oldest mine-dumps, which not yet is a National monument but could become one in the near future. The mine-dump is located in the open middle section of the street and will be visible to a large number of people due to the open characteristics of this area.
Map 61. Land use plan for West Circular Road
Conference centre; A new conference centre is located close to the Open Mine Museum. It is placed in the intersection between West Circular Road – Tucker Street and St Augustine Road. The building placement enhances the extension of Tucker Street while it at the same time is a focal point since there is a free sightline from one of the pedestrian streets in the car free zone in the commercial – tourism and cultural area. It is also closely located to the preserved old mine-dump. The mine-dump will act as a visual barrier and block the view to the backdoor activities on the backside of the conference centre. The conference centre has a small parking area just outside its main entrance which can be shared with other activities in the close surroundings like the market square and the Open Mine Museum. The small size of this parking area will make it easy to monitor and therefore not become an unsafe area during nights and dark hours.

Infill in the existing residential area; new infill tourism and cultural activities are located in the same intersection as the conference centre in undeveloped lots in the existing residential area. The activities will be integrated with the activities at the Open Mine Museum, due to its close location. The buildings are of the same size and height as the residential buildings in order to preserve the intimate feeling of the northern street section.

North of this infill area, where the small node is located, are more infill buildings. However the activities in these buildings are more related to the existing suburban businesses in the node than to the Open Mine Museum. The buildings are placed so that a more enclosed streetscape in the intersection is formed.

Parking area; Behind the existing residential buildings in the northern section of the West Circular – Tucker Street link is a part of a mine-dump is saved to create a visual barrier between the existing residential buildings and the large parking area which have been located just behind them. This parking area is fenced off and has parking guards for people wanting extra secure parking possibilities. The parking area will provide enough spaces to accommodate the need for both the Open Mine Museum and the new conference centre which are located close by with its approximately 200 parking spaces. In the parking area are lots of trees which have the purpose to shade the cars and to soften the environment and make it less uniform.

Two mine-dumps are further saved on the eastern side of the parking area, making the area almost closed in only by mine-dumps. In between these two dumps in the east are an opening which creates a sightline over the Big Hole and the CBD skyline on the opposite side of the hole.
Map 63. Sightlines to and from the West Circular Road - Tucker Street link
Waterloo Road

Waterloo Road is the new through fare for vehicles that passes the Big Hole precinct. The biggest change on this street is the new connections and extensions in the northern and southern ends. The northern part of the street will, as said in the previous Spatial plan, continue over the vacant land and connect to the main access street into Galeshewe. This connection will alone enhance the link between the Galeshewe and the southern suburbs immensely. In the southern part of the Waterloo Road the street’s connection to Long Street has been moved eastwards. The position creates a new four way crossing with better access to the southern suburbs. The new intersection with the main access street in to Galeshewe in the north is just and extension of the existing street over what today is undeveloped land. These two new connections will open up a new transportation link between the underprivileged areas and the more prosperous areas in the city and will with that create new possibilities for integration in the city.

Streetscape and traffic mode priorities

The streetscape is designed for movement, primarily for vehicles. To make sure that the street has enough capacity Waterloo Road has two driving lanes in each direction and to make the driving environment safer the driving directions are divided by a traffic island. The traffic island will also allow traffic to flow at a higher pace, making the through fare more attractive as a choice of streets to use in the north-southern direction in the Big Hole precinct. For pedestrians and bicyclists the traffic island will make crossings over Waterloo Road safer, since they can stop, rest or wait for vehicles to pass at half way of this wide street. The traffic island will also be the place for street lighting that will bring light to the vehicles.

To mark Waterloo Road’s importance as a main link between Galeshewe and the southern suburbs the street is lined with tree. The tree line will further mark off vehicles from pedestrians and bicyclists also moving along the street. In between the trees are further street lighting, adjusted to the needs of the pedestrians and bicyclists. This sectioning of the street is just on the eastern side of the street where the new developments of the Big Hole precinct are located. If the western side is developed in the future that side of Waterloo Road will also have to be section off and lined as the eastern side to clarify the importance of the street as a through fare even more. Even though space is available alongside Waterloo Road for pedestrians and bicyclists, bu their main path for movement in a north-southern direction is on West Circular Road – Tucker Street – Barkley Road. Therefore the width of pedestrian and bicycle lanes on Waterloo Road are narrower than on West Circular Road – Tucker Street – Barkley Road.
Map 65. New and old development along Waterloo Road
To make the trough fare between Galeshewe and the southern suburbs as convenient as possible for vehicles no new exits from residential properties into Waterloo Road are allowed. The reduced number of crossings will help the traffic to flow more evenly and thereby lure vehicles away from using Barkley Road – Tucker Street – West Circular Road, which are another possible way of moving in a north-southern direction between Galeshewe and the southern suburbs.

New buildings along Waterloo Road are placed close to the street, especially the apartment buildings which are located at the edge of the sidewalk. This placement will create a more intimate streetscape and with that bring a higher level of social control to the street. In the area with single family houses the buildings are placed close to the local streets rather than to Waterloo Road, so that the neighbourhood will feel safe in first hand. To prevent Waterloo Road from becoming isolated along these areas, a restriction for the height of fences around gardens should not allow them to be any higher than 1.2 metres. The height of the fences is determined so that it is possible to see over them, but also so that it is hard to jump over them.

The streetscape differs widely from the south to the north. In the south the high and long apartment and commercial buildings will together with the coherent Waterloo Road mine-dump create a closed and intimate streetscape while in the northern section the streetscape is wider with open spaces in the west and single family houses with their gardens to the east making it more open and not as intimate as the southern section. The streetscape will be high and dense in the south and then decline to the north along Waterloo Road.

The Microwave Tower is clearly visible from Waterloo Road, and it stands as a reference point and landmark for people moving in a southern direction on Waterloo Road. Since no new developments are made on the western side at this stage it will still be visible after the development of the Big Hole precinct, but since the intersection in the south has been moved eastwards the tower will no longer be in the end of the street and thereby not as strong as a reference point.

**Land use next to Waterloo Road**

Alongside Waterloo Road the land use is mostly housing, except for in the southern part where commercial developments are added to the existing. The commercial area will be the end of a retail area which links CBD and the Big Hole precinct, while the residential parts are an extension of the residential areas north of the project area.

**Commercial area;** The commercial parts have a high density, since the new buildings are four to five storeys high. The buildings are further sectioned with commercial facilities in the two bottom floors and offices in the floors above. The bottom floors are, due to space needed
Map 66. New building heights along Waterloo Road
and required by commercial activities, wider than the storeys above. Parking in these areas are accommodated within the blocks and on a parking lot for visitors. Further parking for visitors is available along the streets. If the parking spaces are not sufficient, workers can use the parking garage at West Circular Road. The existing hotel at Waterloo Road is integrated in the new commercial area, but its parking lot in the front has been reduced in size in order to accommodate space for Waterloo Road’s new intersection in the south. New parking space has though been created around the corner that will fulfil the need for the hotel. Across the road from the hotel the land previously used for the street are turned into a park area, until new developments will occur alongside the whole south-western section of Waterloo Road. No permanent structures should be erected here until a program for the whole mine-dumping area between the Big Hole precinct and the western residential areas is presented.

Apartment building area; North of the commercial areas are housing developments. Apartment buildings areas with buildings in four to fives storeys are located just north of the commercial area. The height of the buildings in the different areas will create a coherent feeling between them. The following apartment building areas are then declining in height, and also size, and will at the northern part have a gentle transition into the two-storey single family houses in the townhouse areas. The buildings in the area are placed along the streets to create a visual and sound barrier towards the streets and to create the yards inside the areas semi-private. These backyards will have with lots of greenery and provide recreational spaces for the residents in close access to their homes. The bottom floors on the apartment buildings along the main local street have space that can be used for smaller commercial purposes, services, or suburban businesses.

Parking for the residents is provided in semi-shaded parking areas in between the buildings, but also in a parking garage underneath ground level in one of the apartment buildings. The underground parking garage is placed at a central location in the apartment building area and has been integrated in the area so that all a higher percentage of the public space in between the buildings can be used for recreational purposes instead of parking.

Mixed housing area; North of the apartment building areas is an area, which is mixed with detached houses, semi-detached houses and terraced houses. The existing residential houses have been integrated in the new street pattern in this area. The mixture of housing will bring the density level up to middle. Terraced houses are placed along Waterloo Road to create a wall towards the heavily trafficked Waterloo Road and make the environment inside the block calmer. All houses that are located next to Waterloo Road will have their entrances and
Map 67. Land use plan for Waterloo Road
exits to a smaller street at the back. The reason for this is to reduce the number of traffic encounters on Waterloo Road, so that the car traffic on the through fare can flow better. A day care centre has been located in this area, since there are mostly families with children that will live in this area. A sports field is located just next to the day care centre and it will give the children close access to a green area without having to cross any streets. The sports field is not fenced off and can therefore also be used by residents in the area. In this mixed housing area parking is solved on each property, but a small complimentary parking area is located within the area, mostly for guests.

*Single family housing area:* North of the mixed housing area is an area with residential single-family buildings. The new buildings and the street pattern is adjusted to the existing residential buildings in the area. The density in this area is lower than in the previous mixed housing area, due to larger properties for each house. A parallel street to Waterloo Road has also been integrated in this area so that no vehicle exits from the properties will be possible on to the through fare. Each property has its own parking space on its own lot, but a parking area for visitors has also been integrated in this area. A small green area with a playground is located in a central place in the areas to fulfil communal recreational purposes.

*Infill areas:* No new land use has been planned north of Green Street on either side of Waterloo Road. New infill areas are though to prefer on the eastern side of Waterloo Road and larger new residential developments with middle to low density on the eastern side in the future. With these further developments Waterloo Road will be better integrated in its surroundings and thereby also more used.

*Waterloo Road mine-dump:* The coherent Waterloo Road mine-dump is located on the southwestern side of Waterloo Road. Since this mine-dump marks only the beginning of a large mine-dumping area, suggestions for land usage on this side of the street will be left as a planning issue for the future. However to make the thorough fare more interesting for the residents in the new Big Hole precinct and for travellers on Waterloo Road, the mine-dump should be planted with plants that will hang over its edge and strengthen the impression of the high wall to the west that the mine-dump creates. The dump should also have small stairs, which will take visitors up on its top to enjoy the views of the surroundings and use it as a recreational area. To further enhance the mine-dump as an end of the Big Hole precinct up lighting should be placed with short distances along the bottom edge of the dump. These plating and lighting actions will make the Waterloo Road mine-dump a feature both during day and night time, instead of only acting as a barrier to the west.
Fig 103. View of Waterloo Road today

Fig 104. New view of Waterloo Road
Usage of north-south links

Hereafter follows the most important functions and features of the largest north-south links that are incorporated in the spatial plan, as a short summary.

1a. West Circular Road – Tucker Street
- Activities prioritised along the whole street and also movement
- Pedestrian prioritised Secondary Street
- Pedestrian lanes on both sides of the street and bicycle lane on one side
- Tramline in the northern part and possible extension to South Circular in the future
- Business and trading, tourism, and entertainment
- No hawkers or trading on the street
- Pedestrian and bicyclist facilities such as; trees and seating
- Small parking areas, parking for bicycles,
- Tourism centre
- Public places

1b. Barkley Road
- Movement prioritised along the whole street but also activities
- Secondary street
- Pedestrian and bicycle lanes on both sides of the street
- Business and trading with activity nodes in the north and south parts
- Businesses both in buildings and on the street
- Pedestrian and bicyclist facilities such as; trees and seating
- Greenery

2. Waterloo Road
- Movement prioritised along the whole street
- Through fare
- Few street crossings, no exits or entrances to properties
- Connect to main access route into Galeshewe
- Traffic islands
- Facilities to make the driving environment more pleasant and interesting, such as trees and lighting

3. New Street (north-south)
- Movement in the area prioritised
- Local main street
- Pedestrian lanes on both sides and bicycle lane on one side
- Residential street and gathering of traffic from the area
- Pedestrian and bicyclist facilities such as; trees and seating
- Local service centre, some business in buildings along the streets