

CHAPTER 9

CIVIL ENGINEERING PRINCIPLES

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Engineering services at Century City are a combination of privately owned facilities operated by the Century City Property Owner's Association (CCPOA), and municipal facilities operated by the City of Cape Town. As a general rule, specific and local ownership of services need to be confirmed with the CCPOA. A brief explanation follows.

Roads

The external roads leading to Century City are owned by the Municipality or Province and maintained according to their standards. Century Boulevard has been constructed by the principal developer of Century City, on land owned by the Municipality, but has the status of a private road. This allows the Property Owners' Association to exercise management control over the boulevard.

Other roads within the project are generally private, being owned and maintained by the Property Owner's Association. The quality of maintenance remains of a high standard, but more flexibility is possible with carriageway and sidewalk specifications.

Parking

All developments within Century City require on-site parking according to agreed standards. However it is envisaged that in the future there will be clustered parking garages to provide off site parking in selected areas of the project. Parking standards include:
Offices: 4 bays per 100m² GLA
Retail: 6 bays per 100m² GLA
Residential: 2 bays per unit.

Public Transport

Normal public transport services (buses & taxis) currently operate to and from Century City. These will be expanded on a phased basis, as demand increases over time. At present, there are regular bus and taxi services to a public transport interchange located in the northern part of the site and which is accessed off Ratanga Road.

Internal public transport services (shuttle buses) operated by Century City Ltd. run along the completed section of the internal Ring Road (Century Boulevard) between this facility, Canal Walk shopping centre and Bosmandam Road (pick up point at existing Shell garage). In the future, these services will make use of the completed Ring Road system to serve all other developments within Century City.

A new transport interchange is proposed at the future Summer Greens station site on the Atlantis railway line. This facility would serve as an interim bus & taxi interchange prior to the upgrading of the Atlantis line to a passenger rail service, and would form an important interchange point for the internal shuttle services.

Planning for a new station and transport interchange on the existing Monte Vista railway line (Windermere station) has commenced. Passengers will access Century City via a planned overhead pedestrian bridge across the N1 freeway.

An additional station site on the existing harbour line was proposed as part of the original planning for Century City. This proposal may be pursued at some stage in the future in order to provide a service between Century City and Cape Town CBD and the V&A Waterfront.

The Water System

An important design feature in Century City is the water system comprising the central wetland and a series of canals. Water comes from a number of sources, including natural groundwater and recycled water from the Potsdam treatment works. An innovative system of water

purification has been established to ensure that the recycled water is maintained to an acceptable quality. This includes a combination of engineered and ecological treatment by passing water through filtration processes in the wetland. The wetland does not therefore only function as a visual and environmental asset, but is vital to the healthy operation of the water systems at Century City. It is essential that rubble and debris are not deposited into the canal systems to maintain water quality.

Stormwater Management

The wetland and canals are designed to accommodate normal and surplus stormwater during major flood events. However it is important to minimize pollution into these systems. For this reason a "low flow" and a "high flow" stormwater system has been designed, and needs to be respected by developers.

In order to the maintain high water quality in the wetland system, a low- flow system has been implemented. The purpose of the "low flow system" is to capture the highly polluted runoff from storms of low intensity. This

runoff bypasses the canal and wetland system and enters the stormwater detention pond west of Ratanga Road, from where it discharges via the Wingfield culvert to the sea.

In particular, the "low flow system" is designed to accommodate the highly polluted first runoff from Summer Greens. Other than Summer Greens, some developments that contain large open parking areas have been allowed discharge into the low flow system.

The northern part of Century City has no access to the low flow system, due to limiting grades.

Sewerage

Sewage is collected at the individual property boundaries, into a system of municipal pipes, and is pumped to the outfall sewer in Montague Drive. From there it is taken to the Potsdam Wastewater Works for treatment.

Potable Water Supply

Potable water is supplied by the Municipality from a network fed by trunk mains in Bosmansdam Road and Ratanga Road.

The main water supply trunk main is in Sable Road. Bosmansdam Road and Ratanga Road also have trunk mains.

Irrigation Water

Irrigation water is reticulated around the site by the Property Owner's Association and makes use of recycled water.

Treated effluent is pumped from Potsdam Sewerage Treatment Works for use at Century City in a dedicated pipeline. This water is distributed by the Property Owners' Association for irrigation purposes inside Century City.

Electricity Supply

Electricity is supplied from the Montague Gardens electricity substation and fed to a substation within the site, from where it is reticulated to individual land parcels. All electrical cables are owned by the Municipality and must be installed according to their specifications.

Servitudes

To facilitate access to and maintenance of municipal services, it is common practice to register a general services servitude over the private roads in favour of the Municipality.