

Project sheet 17444

Discipline: Route N3 Section 2 Cato Ridge to Dardanelles: Roads

PROJECT NAME

DESIGN AND CONSTRUCTION MONITORING FOR THE NATIONAL ROUTE 3 SECTION 2 BETWEEN CATO RIDGE AND DARDANELLES

CLIENT

SOUTH AFRICAN NATIONAL ROADS AGENCY LTD. EASTERN REGION

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VALUE OF WORKS

R 3 365 093 855 (E)

DATE

Completion date: August 2018

PROJECT DESCRIPTION

Nyeleti Consulting (Pty) Ltd were appointed by the South African National Roads Agency to carry out the investigations and design work required for the upgrading and expansion of National Route 3, Section 2 between Cato Ridge (km 19.4) to Dardanelles (km 26.6) in the Kwazulu Natal Province. This portion of National Route 3, Section 2 is 7.2 km in length. The scope of work includes the design and construction monitoring of 2 major access interchanges as well as the lighting along the route. The traffic investigation included the review and update of previous micro-simulation models.



The upgrades proposed are predominantly capacity and pavement improvements with the main dual carriageway being upgraded from 4 lanes to 8 lanes. The cross section configuration is listed below:

- Lane widths of 3.5m for the inside two lanes
- Lane widths of 3.7m proposed for the outer two lanes as well as the climbing lanes
- The proposed width of the outer slow surfaced shoulders is 2.5m
- The gravel shoulder varies from 0.5m for shallow cut and low fill to 1.5m for high fill conditions
- The proposed inner (fast) shoulder width is 0.5m surfaced with a 1.2m concrete drain (Type F) in front of the median barrier which results in a total width of 1,7m
- The proposed cross fall is either a continuous cross fall or a camber

The following pavement options are considered:

Rigid :

- CRCP
- DJCP
- UTCRCP

Flexible:

- EME

Some salient elements of the design include regrading of the vertical alignment to meet the SANRAL standards, detail design of the accommodation of traffic to ensure that the existing traffic capacity is not hampered during construction, the jacking and design of new bridges and relocation of services.