

**BACKGROUND INFORMATION DOCUMENT (BID)**

as a component of the  
Basic Assessment Process (Environmental Impact Assessment)

for the

**PROPOSED MQHASHELA TO MUNGA PEDESTRIAN BRIDGES, WARD 33,  
RAY NKONYENI LOCAL MUNICIPALITY, UGU DISTRICT MUNICIPALITY**

**EIA Reference No: TBA**

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**1. CONTACT NAMES AND ADDRESSES**

Interested and Affected Parties may contact the Environmental Consultant listed below for additional information.

Applicant:	Engineering Consultant:	Environmental Consultant:
 <p><b>RAY NKONYENI</b> MUNICIPALITY</p> <p><i>"The Game changer of South Coast Development"</i></p> <p><b>Ray Nkonyeni Local Municipality</b></p>	 <p><b>TPA Consulting Civils &amp; Structural Engineers &amp; Project Managers</b> <b>TPA Consulting CC.</b></p> <p>Zamokuhle Mlondo 2 Brendon Ln, Grayleigh, Westville, 3630 Tel: (031) 266 4168 Fax: (086) 459 0855 Email: <a href="mailto:zamo@tpa.co.za">zamo@tpa.co.za</a></p>	 <p><b>EnviroEdge cc</b> PO Box 1009, Kloof, 3640 Tel: (031) 764 2569 Fax: (086) 654 6598</p> <p>Email: <a href="mailto:info@enviroedge.co.za">info@enviroedge.co.za</a> <a href="http://www.enviroedge.co.za">www.enviroedge.co.za</a></p>

**The Basic Assessment Process**

The proposed Mqhashela to Munga Pedestrian Bridges project requires an Application for Environmental Authorisation in terms of Environmental Impact Assessment Regulations of 2010 (Regulations in terms of Chapter 5 of the National Environmental Management Act, 1998, as amended and the Environmental Impact Assessment Regulations of December 2014, as amended 2017), and as such, an application has been lodged with the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs and a Basic Assessment is being undertaken by EnviroEdge. The Basic Assessment process is summarised below:

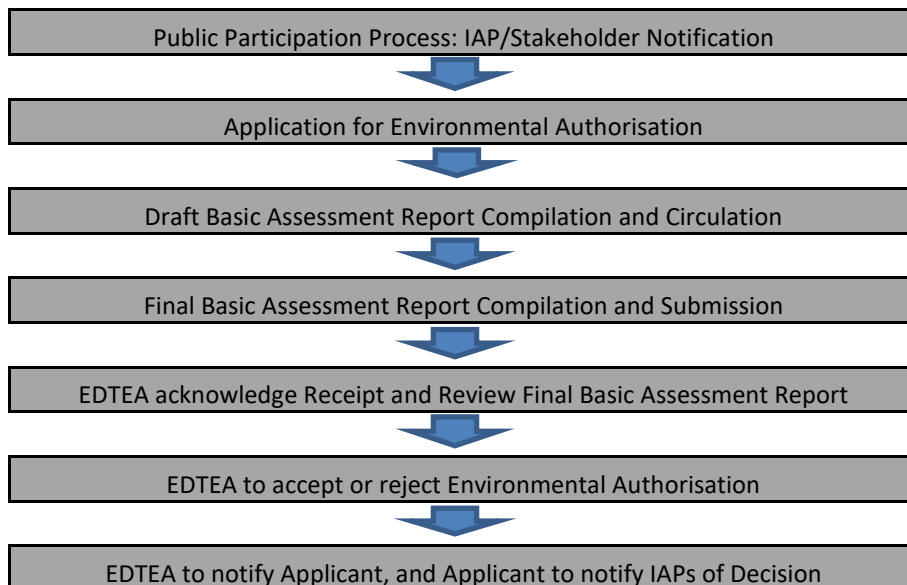


Figure 1. Basic Assessment Process

## The Water Use Licence Application Process

The proposed Mqhashela to Munga Pedestrian Bridges project will also require a Water Use Licence Application (WULA), in terms of the National Water Act (Act 36 of 1998). As such, EnviroEdge will be submitting an application for a Section 21 (a) *taking water from a water resource*, (c) *impeding or diverting the flow of water in a watercourse*, and (i) *altering the bed, banks, course, or characteristics of a watercourse*.

## The Public Participation Process

The Public Participation Process (PPP) forms part of the Basic Assessment and WULA process, and helps to ensure that Interested and/or Affected Parties (IAP's) have an opportunity to participate throughout the process by submitting their comments or concerns. Members of the public have the right to be informed of decisions that affect them. IAPs are provided with an opportunity during this process to submit their comments on issues or concerns regarding the proposed development.

## The Background Information Document

As part of the Basic Assessment and WULA Public Participation Process, the Background Information Document (BID) provides preliminary project information and serves to inform all authorities, stakeholders, and Interested and/or Affected Parties (IAPs) of the applicant's proposed project, namely; the Proposed Mqhashela to Munga Pedestrian Bridges, Ward 33, Ray Nkonyeni Local Municipality. The BID provides interested and affected parties an opportunity to submit their comments on any issues or concerns relating to the biophysical, economic or socio-economic environment.

## 2. BACKGROUND INFORMATION

The proposed Mqhashela to Munga Pedestrian Bridges will provide a walkway over a non-perennial tributary of the Ncumuse River, thereby, improving local residents' access to homes, schools, shops and extended road networks, located in Mbeni in Ward 33 of the Ray Nkonyeni Local Municipality. The proposed development site is located on Farm No RE/15843 Portion 0 (Remaining Extent) of Farm Alfred Location No 3, KwaZulu-Natal.

**EnviroEdge cc.** has been commissioned to undertake an environmental impact assessment for the proposed development in the form of a basic assessment. This Basic Assessment process is being undertaken in accordance with Sections 19 – 20 in terms part 2 of chapter 4 of the National Environmental Management Act (Act No 107 of 1998), as amended, and the Environmental Impact Assessment Regulations of December 2014, as amended 2017. These Regulations identify various activities which may have a substantial detrimental effect on the environment. In addition the Regulations list procedures for assessing potential associated environmental impacts. Public participation and the scoping of issues form part of these procedures.

## 3. PURPOSE OF THIS REPORT AND PUBLIC PARTICIPATION

This report provides preliminary project information to enable interested and/or affected parties (IAPs) an opportunity to comment on the proposed development (a process known as public participation or scoping). All issues and comments raised by IAPs during scoping will be documented in the Comments and Responses Report, which, in turn, will be included in the Basic Assessment Report, submitted to the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs, (DEDTEA), and other commenting authorities. This will assist in the identification of environmental issues that could have a negative and/or positive impact on the site and the community.

## 4. PROJECT LOCATION

The project area is situated approximately 22.18 km north-west of the Margate CBD, within the semi-rural area of Mbeni. Additional semi-rural areas of Dlovinga, Shobeni and Izingolweni are located 3.03 km south-west, 3.68 km south-east of the site and 2.32 km west, respectively. The National Highway (N2), lies approximately 0.68 km south of the proposed pedestrian bridges. The main Ncumuse River is located approximately 1.2 km north-west of the site, and the site itself lies on a non-perennial tributary of this river.

## 5. DEVELOPMENT PROPOSAL

The proposed Mqhashela to Munga pedestrian bridges, aim to allow local residents to have improved, formalised access to their homes, schools, shops and the extended road network. The proposed pedestrian bridges construction would include a main northern pedestrian bridge, and a smaller eastern pedestrian bridge.

The main northern pedestrian bridge provides a 34 m length walkway across a non-perennial tributary of the Ncumuse River. The northern bridge has an internal width of 1.17 m and an external width including handrails of 1.53 m. Metal, spot welded braced handrails at a height of 1.44 m, will run along both sides of the steel frame bridge structure with a reinforced concrete walkway. The steel frame bridge structure is founded on a central reinforced concrete pier at 1.4 m square by 0.5 m thick concrete footing. On each end, (Y20) steel dowels, are encased in a concrete housing at 2.4 m by 2 m at a depth of 2.91 m. In addition, 2 grouted gabions at 1m x 1m x 1m will sit on either side of each end of the pedestrian bridge, together with grouted and tapered stone pitching work on either side of the bridge end at an approximate length of 5 m.

The smaller eastern pedestrian bridge provides a 14.4 m walkway across a non-perennial tributary of the Ncumuse River. The eastern bridge has an internal width of 1.17 m and an external width including handrails of 1.53 m. Metal, spot welded braced handrails at a height of 1.44 m, will run along both sides of the steel frame bridge structure with a reinforced concrete walkway. The steel frame bridge structure is founded on each end with (Y20) steel dowels, encased in a concrete housing at 2.4 m by 2 m at a depth of 2.91 m. In addition 2 grouted gabions at 1t 1 by 1 by 1 m will sit on either side of each end of the pedestrian bridge, together with grouted and tapered stone pitching work on either side of the bridge end at an approximate length of 5 m.

The northern pedestrian bridge centre point can be found at 30°46'33.24" S 30°09'03.90" E and the eastern pedestrian bridge centre point at 30°46'33.71" S 30° 9'4.07" E.

## 6. AFFECTED AREA

### Vegetation

According to The Vegetation of South Africa, Lesotho and Swaziland, the vegetation in the study area can be classified as Ngongoni Veld, (SVs 4). Ngongoni Veld type vegetation and landscape features are characterised by dense, tall grassland almost entirely dominated by unpalatable, wiry Ngongoni grass, (*Aristida junciformis*) and associated low species diversity. Wooded areas, (thornveld areas), are found in the valleys and at lower altitudes, where the vegetation unit grades into SVs 3 KwaZulu-Natal Hinterland Thornveld and SVs 7 Bhishe Thornveld. *Termitaria* mounds support bush clumps with *Acacia* sp., and *Cussonia spicata*. The vegetation unit is described as Vulnerable.

### Fauna

The Ncumuse River falls within the study area. This riverine area and its associated vegetation are likely to provide habitat for associated faunal species such as avifauna, reptiles and amphibians. Domestic livestock also graze in this area.

### Culture and Heritage

The presence of features of cultural or historical importance is currently unknown.

### National and District Roads

The proposed pedestrian bridges, provide walkways over non-perennial tributaries of the Ncumuse River within the local community. The bridges do not form part of any National or District roads, however, the National Highway (N2), lies approximately 0.68 km south of the proposed pedestrian bridges. The proposed site can be accessed from an access point off the N2. The proposed development (operational phase) will not impact any provincial or national road, although slow turning construction traffic and the generation of dust may have an impact. There may also be a slight increase in the number of vehicles utilising connecting roads to the N2, as well as the N2 itself.

### Services

Powerlines and telecommunications services were not noted near the proposed pedestrian bridges, however, all relevant government departments or parastatals will be consulted as part of the Public Participation Process.

### Topography and Drainage

The site topography and drainage are affected by the underlying geology of the area. The study area is generally undulating, and it is dissected by numerous undulating valley areas. The approximate centre point of the site can be found at: 30°46'33.24" S 30°09'03.90" E.

The site is located directly on a non-perennial tributary of the Ncumuse River which flows in a north-easterly direction towards the Mzimkhulwane River which in turn flows to Oribi Gorge 5km north-east of the site. To the north-east of the site the Mzimkhulwane River flows into the Mzimkhulu River which flows to the Indian Ocean to the east at Port Shepstone, 28km east of the site. The Ncumuse River passes the site approximately 1.2 km north-west of the site and the Nyongwane River lies to the west of the site. The Nyongwane flows into the Ncumuse to the north-west of the site. The site is located at approximately 512 masl, on gently undulating slopes. A high point of 566masl is found to the north, 544masl to the north-east, 602masl to the south-east, 620masl to the south-west and 637masl to the north-west.

### Geology and Hydrology

Ordovician Natal Group sandstone, Dwyka tillite, Ecca shale and Mapumulo gneiss or Mokolian are described within the KwaZulu Natal Coastal Belt. The weathering process of old dunes has produced Berea red sand in places and the soils supported by the rock types in the area are shallow over hard sandstones and deeper over younger and softer rocks.

### Land use and Socio-economic structure

Land use in the surrounding areas consists of predominantly subsistence farming activities associated with individual households. The socio-economic structure can be classified as primarily low income. Most of the surrounding region within the catchment of the proposed development area is undeveloped.

Lake Eland Game Reserve and Oribi Gorge Nature Reserve, lie approximately 2.5 km, north-east of the proposed pedestrian bridges location and Nyamazane Game Ranch lies to the north, north-west. The Mumbazi Nature Reserve lies to the south-east of the site.

All relevant affected parties will be consulted as part of the Public Participation Process.

## 7. POTENTIAL KEY ISSUES

**Access to River and Drainage areas** – Access to the non-perennial river area within the study area by construction vehicles will cause damage to the fauna and flora associated with these systems; it will also alter water and soil characteristics and flow patterns. Owing to the nature of the project, this cannot be avoided and must be managed appropriately during and after construction (rehabilitation).

**Surface Water Runoff** – The construction activities may affect the area through changed hydrological patterns and this could have an ecological impact. Permanent alteration of flow patterns is a risk and could lead to detrimental effects on the vegetation if these are not mitigated during and after construction. Storm water management associated with the proposed development must be incorporated into the design and must take into consideration the erosion potential of the region.

**Rehabilitation** – A rehabilitation programme should be developed for all areas to be affected by the proposed development. Rehabilitation of the damage to the watercourse during construction (compaction and erosion) should be ensured through planning from the outset. Alien plants which establish during construction must be removed. This must be an ongoing process and must not be left to the end of the projected construction period. Any vegetation rehabilitation which occurs post construction should be with indigenous vegetation.

**Vegetation Clearance** – Where it is necessary for vegetation to be removed, this must not occur as a once off clearance, but must be phased, as needed, in order to reduce soil erosion potential and the proliferation of exotic weeds. Weeds will thrive on disturbed soil, and will present an eradication problem later should these plants set seed, especially near the watercourse.

**Erosion** – Potential erosion must always be considered during and after construction. If strict mitigation measures are implemented these potential factors can be prevented / reduced. Mitigation measures include soil stabilisation and re-vegetation of affected areas as well as the avoidance (during construction and operation phases) of all areas susceptible to erosion.

**The opportunities created** by this development through social upliftment may help to outweigh the negative impacts. It is imperative; however, that the construction activities occur over as small an area as is practical.

## 8. INTERESTED AND AFFECTED PARTIES

All Interested and Affected Parties (IAPs) wishing to become registered as such and receive additional information, should contact the environmental consultant to register as soon as possible (within 14 days of receiving this document). If you would be so kind, if you are aware of any IAPs who have not been informed or identified by ourselves, please let us know, so that they too may have the opportunity to register and / or receive information. Any issues, which you would like to raise and have not been identified to date, would be welcomed.

### References

Mucina L & Rutherford MC (eds) 2006. *The Vegetation of South Africa, Lesotho and Swaziland*. Strelitzia 19. South African National Biodiversity Institute. Pretoria.

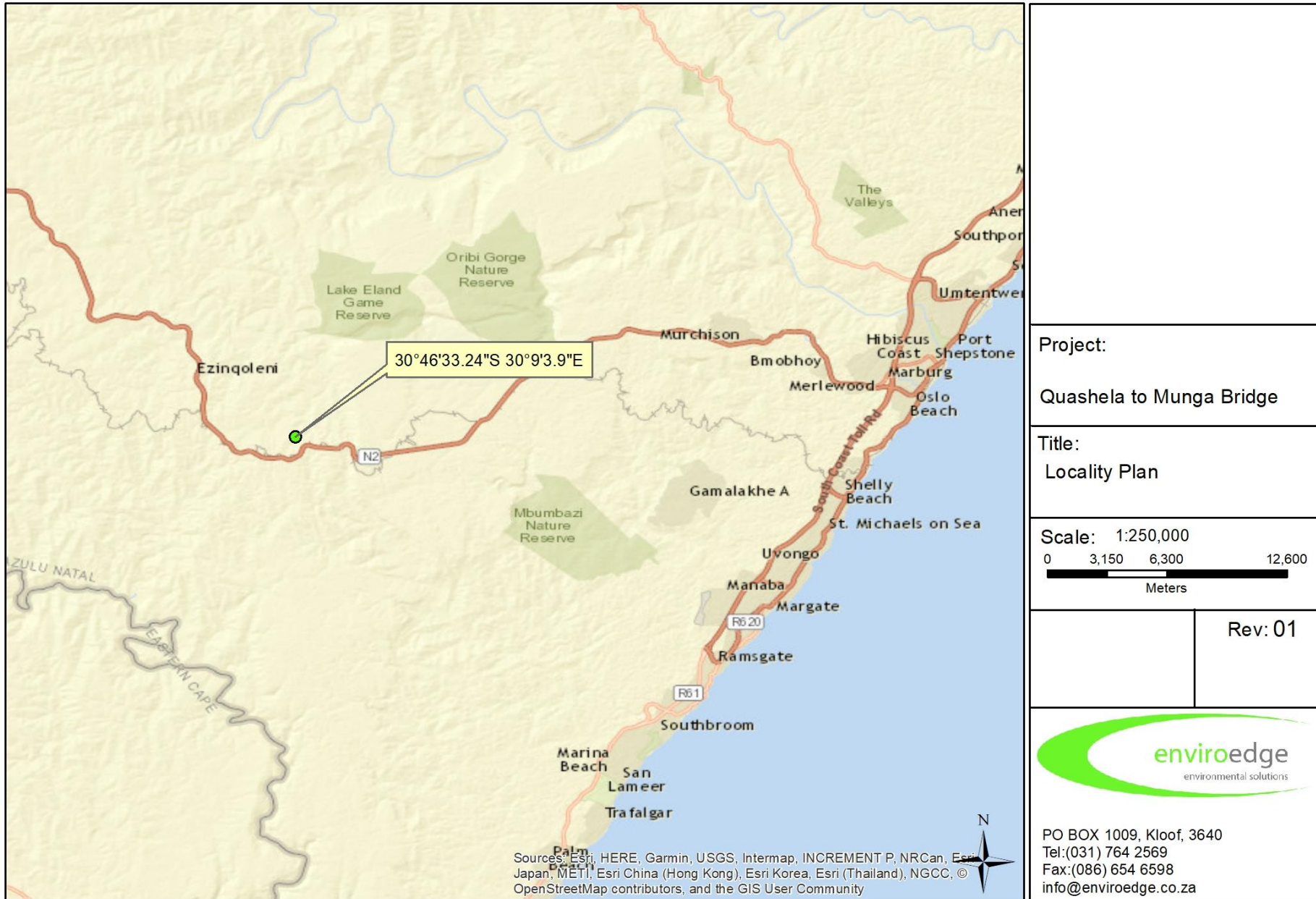


Figure 2: Location of the Proposed Mqhashela to Munga Pedestrian Bridges

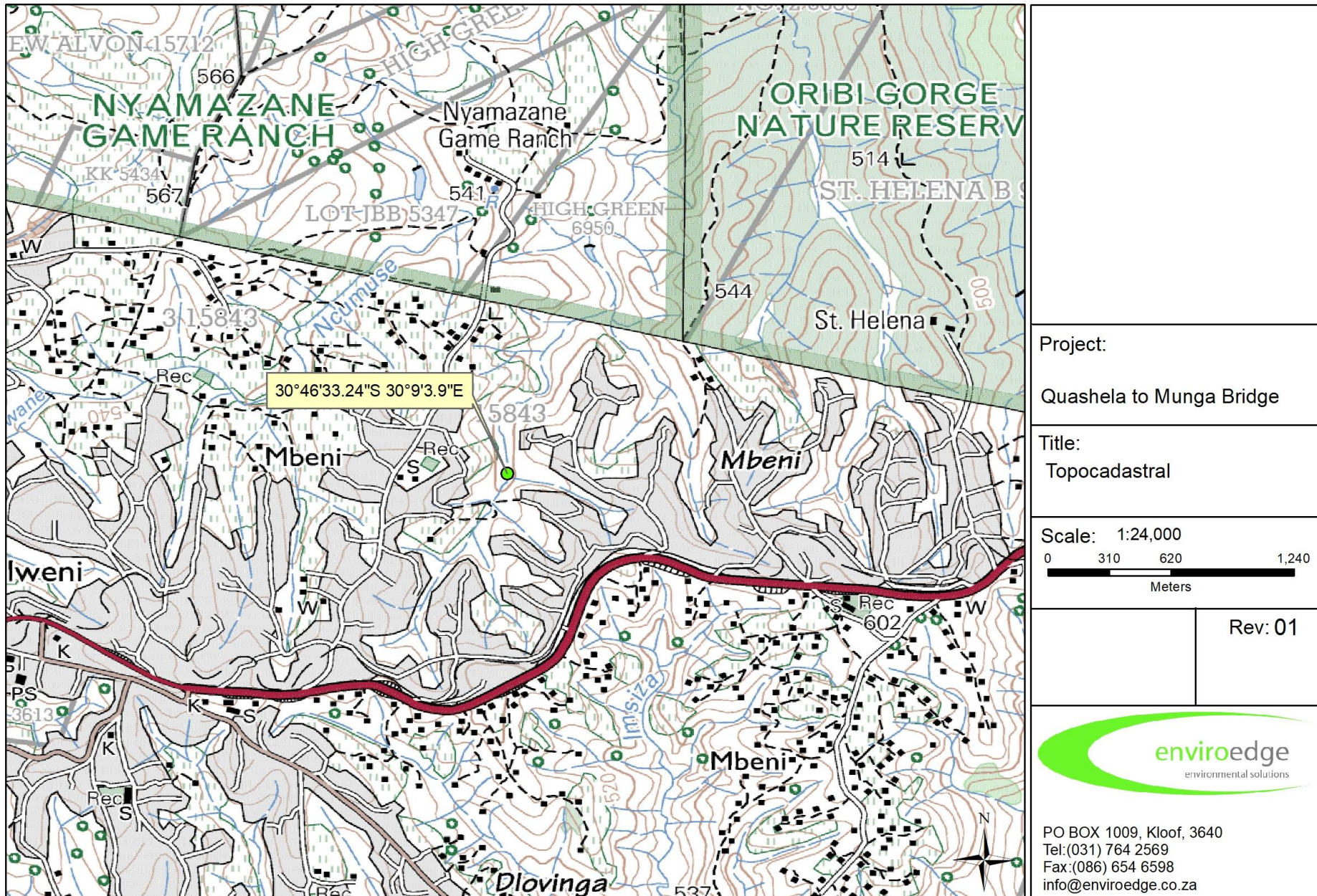


Figure 3: Topo-cadastral Plan of the Proposed Mqhashela to Munga Pedestrian Bridges

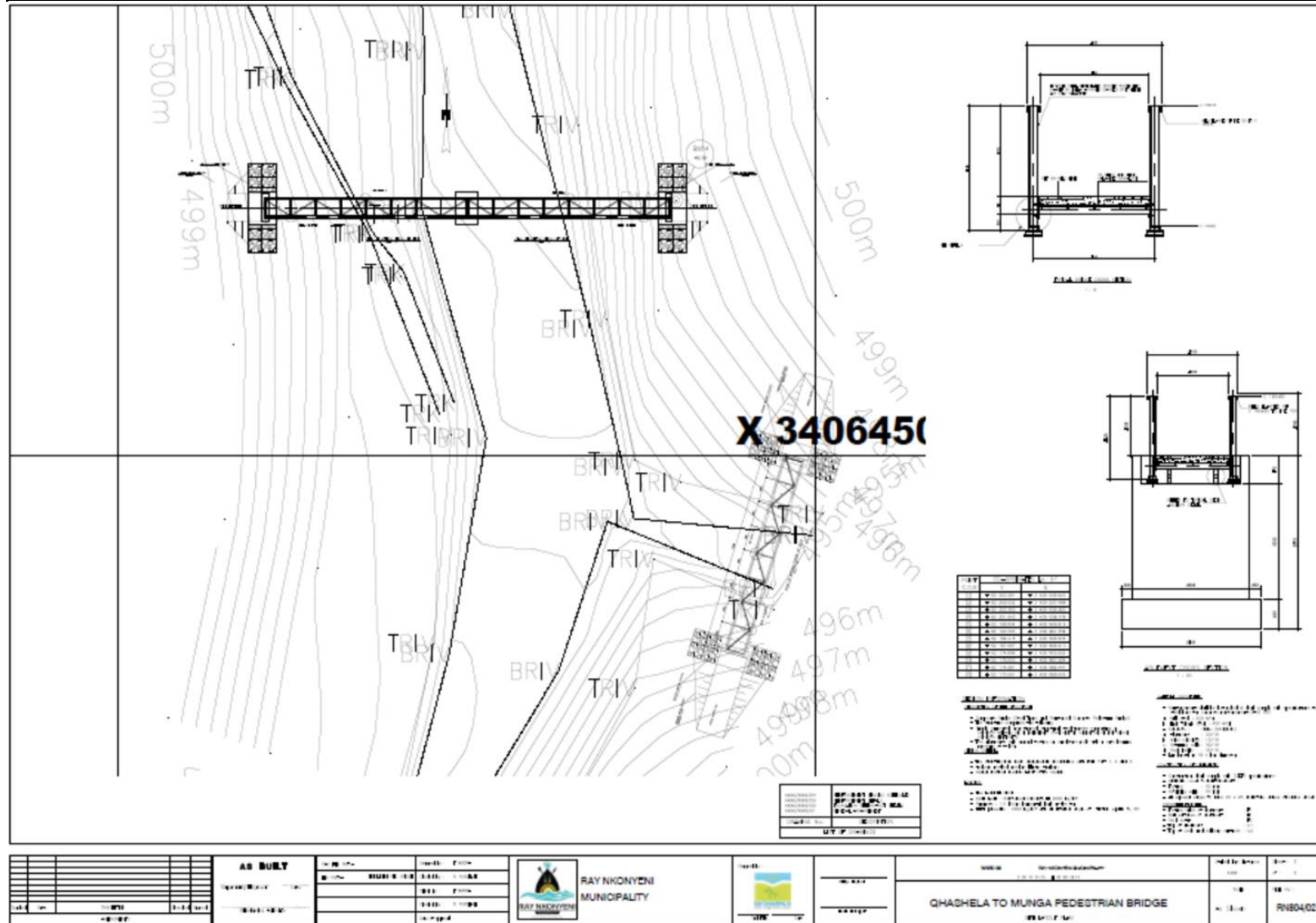


Figure 4: Image showing the main northern proposed pedestrian bridge and the smaller eastern proposed pedestrian bridge

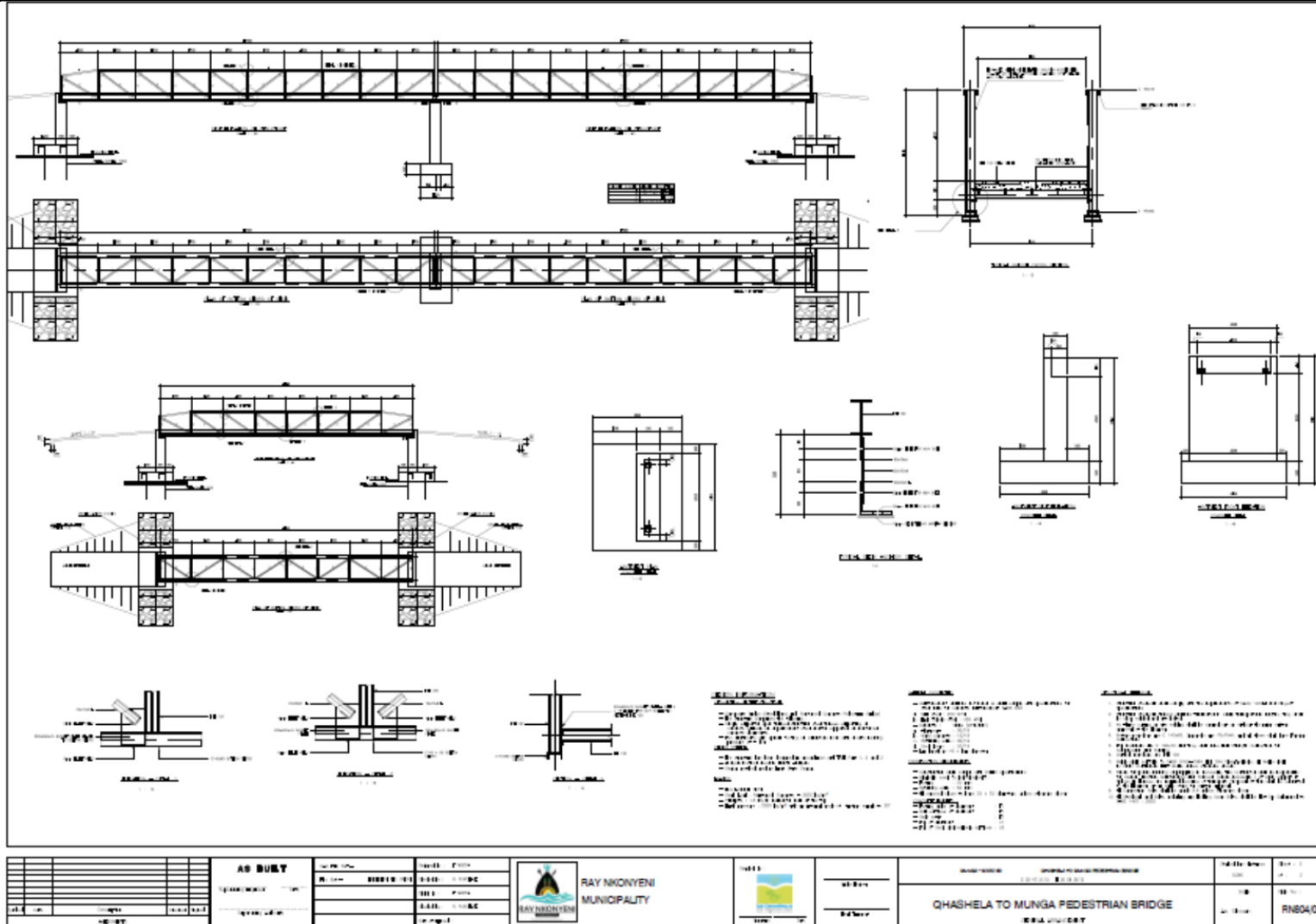


Figure 5. Image showing the structural details of the proposed northern and eastern bridges