



PROJECT : UPM075
DATE : 2012 – On Going
CLIENT : Umlaas Gates (Pty) Ltd
CONTRACTOR : To Be Confirmed
PROJECT VALUE : R268,000,000

Umlaas Gates Warehousing and Light Industrial



Umsunguli Project Management cc was appointed by Umlaas Gates (Pty) Ltd to undertake numerous technical investigations and designs in order to obtain Environmental Authorisation, SPLUMA Planning Consent and a Water Use Licence from the respective authorities and applicable legislation. Now that the development has received all its statutory approvals, the project will proceed to detail design and construction, which will be undertaken in a number of phases as per market demand. The development area is located 2km from the N3 at the Umlaas Road Development Node and comprises 172ha in extent and is able to deliver approximately 585,000m² of warehousing, which requires substantial civil infrastructure services, which are described in more detail below:

Bulk Earthworks

The bulk earthworks component will be substantial to create 18 large platforms ranging between 1,2 – 27,8ha to create 975,000m² of platforms. Based on preliminary calculations, it will require approximately 3,000,000m³ of material to be moved to create these large platforms. The final design of the platforms will incorporate the geotechnical recommendations and each platform will be responsible to manage their own stormwater on site, before connecting it to the infrastructure situated along the main roads.

Roads and Intersections

The development borders onto the P338 and D354 and requires substantial road and intersection upgrades, which includes 3 x Type A2 intersections, 2 x Type B2 intersections and the upgrade of 600m of the D354 from a gravel district road to a 8,5m wide surfaced Type 3 Secondary Road. Due to the expected increase in pedestrian traffic, public transport bays will be provided at each new intersection, including sidewalks.

The internal roads will be designed to cater for the proposed traffic trip generation, as well as WB20 trucks considering their large turning circles required. A total of 4300m internal roads, ranging between 7 – 14m in width, parking bays, turning lanes, etc will be provided.

The bulk and internal roads will cover an approximate area of 76,000m².

Storm water

Each of the 18 large platforms will be responsible to attenuate the increase in stormwater. The ponds vary in size between 150 – 3145m³ and a total of approximately 13,952m³ will be required. The ponds will be positioned in each of the platforms with outlet structures tied into the municipal stormwater systems along the road. The ponds will be earth embankments, although retaining walls or lined ponds could be used to reduce the space it occupies or if a stormwater reclamation process is considered for specific sites.

The outlets from each of the platforms will be tied into a stormwater system along the roads, diverting stormwater to the low lying areas and natural drainage lines – this system will comprise approximately 3,000m of stormwater pipes varying between 450 – 1200mm concrete pipes with associated catchpits, headwalls and energy dissipating measures.

Water Reticulation

Bulk water connections will be provided by Umgeni Water and Msunduzi Municipality and the Developer will construct a 550m new bulk water main along the P338 and approximately 4,000m of internal water mains to serve each of the respective platformed sites. Each site will be responsible for its own fire flow storage and flow requirements.

Sewer Reticulation

The sewer reticulation comprises approximately 7,660m of internal sewer lines and manholes, whilst a 600m³ sewer pumpstation and 3,400m rising main will link the sewer to the Vaalkop WWTW, which has to be upgraded in three phases from 0,5 to 1,0Ml/day.