



## ROAD DEVELOPMENT AUTHORITY

### CONSTRUCTION OF VERDUN BYPASS

#### Project Brief

#### 1.0 Contract details

- Employer : Road Development Authority
- Contract Sum : MUR 322,732,631.65 (Incl. VAT)
- Letter of Acceptance : 19 August 2021
- Contractor : Gamma Construction Ltd
- Project Start Date : 30 September 2021
- Project Completion Date : 24 March 2023
- Project Duration : 540 days

#### 2.0 Background

The existing A7 road at Verdun passes through highly built-up areas with poor road capacity and during peak hours the road capacity reaches saturation.

The junction M3/A7 experiences major traffic congestion with traffic queuing up to Alma Village and Helvetia in the morning and afternoon peaks respectively.

The junctions will not be able to cater for additional traffic due to upcoming major development in that region namely, Moka Smart City amongst others.



Figure 1: Project layout

### **3.0 Problem Statement**

Presently the two main junctions at Verdun Interchange and Redit Interchange are already saturated due to high traffic volume during peak hours. With the upcoming developments, it is expected that the junctions will be more affected which will result in traffic congestion causing them to operate at a low Level of Service if no action is taken.

From Traffic analysis carried out on 2016, It has been observed that there is an average of 1000 vehicles per hour taking the road A7 in the morning during peak hour.

- During Morning peak (from 07:30 a.m to 08:30 a.m), the queue length is approximately 2.00 Km, that is, from Alma to M3 junction.
- During the Afternoon (from 04:30 p.m to 05:30 p.m), the queue length is approximately:
  - o 1.00 Km (along St Pierre Bypass to A7 junction)
  - o 1.50 Km (From Mon Desert Alma roundabout to Verdun)

### **3.1 Junction capacity**

#### ***A7 & St Pierre Bypass Junction***

Following a traffic study, it has been observed that the existing junction is operating with a Level of Service F during morning and afternoon peak hours. As the Volume to Capacity (v/c) ratio exceeds 0.85, therefore there is no additional capacity on the road network to cater for traffic growth.

### **3.2 Sharing of traffic on New Road**

Upon completion of the Verdun Bypass Road, it is expected that 80% of the actual traffic volume will be shifted from existing A7 to the new road.

### **4.0 Project Description**

The proposed project will start from Moka – Camp De Masque Road – A7, after **Alma** village and will provide an alternative route up to to Terre Rouge – Verdun - Trianon Link Road, M3 without the need to drive through the village of Verdun. As a next phase a new link will be constructed through a new interchange across M3 to link St Pierre Bypass and A7 Road.

Pending the construction of the proposed grade separated junction on M3, the Verdun Bypass will be connected to M3 through access ramps.

The project will consist of the following:

1. Construction of 2.7 km long new single carriageway with 1.5m wide shoulder on both sides,
2. Design and Construction of culvert of size 4m x 5m.
3. Construction of 1 roundabout,
4. Construction of 2 slip lanes for connection with M3
5. Upgrading and realignment of part of existing Verdun Road, B50

6. Design and Construction of a Dumb bell Shape Roundabout at Junction M3 A7 Road at Verdun
7. Relocation of existing services,
8. Provision of miscellaneous road furniture such as guardrails, traffic signs, cat's eyes, handrails, street lighting, etc.

## **5.0 Benefits of the Project**

The proposed project will provide the following benefits:

- Bypass the built-up area of Verdun and improve safety of road users,
- Reduce travel time and vehicle operating costs,
- Lead to decongestion of traffic during peak hours,
- Improve access facility to the development, thus improving its attractiveness,
- Improve level of service (LOS) with gain in travel time along main roads and junctions,
- Enhance road safety by reducing conflict points,
- Increase accessibility to public transport services
- Reduce risks of accidents due to segregation of buses, bicycles and other vehicles on roads and increase safety for road users,