

## Tender No. 02/2016

### Construction of Interface Roadway (Section 4) Project at

#### Duqm

##### Brief description of Works:

“Section 4 includes the construction of the main viability (approx. 6215m) of the area located under the south side of the future Duqm Refinery, and the structures to protect the area from floods due to storm water. The main corridor for the road viability is running along the South side of the future Refinery, from the future NR32 - under design by other consultants- to the existing Power plant.

This stretch is composed by two different segments: The first is classified as C7, dual carriageway, 2634m long "all-weather" road up to the edge of the boundary of the refinery and is functional to serve the movement to-from the refinery both during contraction and operational time. (The transition from R/A to ch.0+458.058 is not part of this scope). 2 connections to the gates of the refinery (Gate 1 and Gate 3, 289 and 285m long respectively) are foreseen, both of them with traffic light system.

The second segment can be classified as E1, 1252m long "fair-weather" single carriageway road and goes from the edge of the boundary Eastwards first, and parallel to the coast after, where soil condition are more demanding for construction (underlying layer of Sabkha). few short links are foreseen to provide access to existing and future structures (power plant, water filling station and substation). Total length 920m.

Connection between the two is created through a roundabout designed to accommodate the operation of a WB67 22.4m long truck with an internal radius equal to 41m.

From the second segment, A third stretch, starting from the roundabout already mentioned and going southwards to the foreseen gate of Port of Duqm.

This viability is a 687m long single carriageway road. It will give the access to the port and the planned plots (Sebacic), with local junctions.

In correspondence of the end of Sebacic plot, a second roundabout internal with  $R=25m$  will allow vehicles to make U-turn or develop the network in the area in a second stage.

Scope of work includes the installation of street lighting in LED technology along all the roads and connection to the available power source (Substation 48).

In addition to the road drainage structures (ditches, culverts and protections), part of the scope is the construction of 2 main structures:

- A storm water channel 3830m long, in reinforced concrete, with a variable width from 9m to 18.9m, a variable height from 1m to 2m, and running from the future NR32 sea direction. In correspondence of the outlet, width will reach the value of 30m.

Construction stage will take care of interface drainage with NR32 since the initial 2 branches of the main channel will begin in correspondence of 2 culvert structures foreseen along the National Road.

The channel will cross South Access Road and links in 3 main locations via multi-cell culverts:

- South access road crossing: 6x (3x1.5) culvert-cells
- link to gate 3: 5x (3.5x2) culvert-cells,
- link to Port of Duqm: 5x (3.5x2) culvert-cells.

- a 200m long Floodway in reinforced concrete located along the link to power plant

Scope of the work includes relocation/protection of the existing utilities (electric cables and water lines) and the installation of protections for future ones as per utility Owners' requirements in terms of kind, number and dimensions. Utilities may be encased in concrete, protected in culvert structure with a minimum height of 3 meters for maintenance purpose, or protected with long concrete chambers."