The protection of the pipelines and service connections at road crossings and other non-normal laying conditions shall be according to ADWEA/AADC standards.

The water networks designed and constructed by third party such as Real Estate Developers shall include the followings components: -

- The main pipeline between the tapping point on AADC networks (i.e. water source) to the project area.
- The water networks within the project area
- The service connections (domestic or bulk connections)

The pipelines shall be laid in the corridors allocated by the concerned authorities for water supply networks.

The designer shall obtain all the required approval during the design stage from the concerned authorities such as pipeline route approval from Town Planning Department (TPD), etc.

6.19 Hydraulic Analysis of Distribution Networks

The design of the water distribution network shall be carried out by using suitable hydraulic analysis software. The applied criteria, assumptions, input and output of the hydraulic design shall be discussed and presented in the design reports.

Soft copy of the hydraulic analysis shall be submitted with the design report using EPANET software (I.e. the hydraulic analysis shall be converted to EPANET if carried out by using different software). Also printout of the input and output of hydraulic analysis shall be included in the design reports in colour coded and tabulated format.

The proposed water networks and the output of the hydraulic analysis shall be submitted to AADC in a format it can be easily converted and incorporated in AADC hydraulic model of Al Ain water supply system. AADC hydraulic model is built in Info-Water software.

The proposed boundaries of the DMAs that cover the new networks, the tapping points to AADC system and the required pressure and flow at the selected tapping points shall be defined at the early design stages in coordination with AADC.

The hydraulic design shall use suitable friction head losses coefficient consistent with the values applied in AADC hydraulic model.