SECTION 200
DESIGN CONCEPT DEVELOPMENT

201 TRANSPORTATION PLANNING

201.01 INTRODUCTION

Data collection comprises this phase of the pre-design process. Existing data is collected from the Abu Dhabi Municipality, other government departments, landowners, and field surveys. This data becomes the foundation for project road and bridge design. The Consultant is responsible for all data collection.

201.02 ROAD SECTION

The Road Section is the lead department from which all road and bridge projects are initiated and approved.

The Consultant shall work with assigned staff to develop the project scope per the Consultant Procedures Manual and identify applicable design criteria from the Roadway Design Manual. The Consultant is expected to develop the project by proper application of Abu Dhabi Municipality policies and standards.

201.03 TOWN PLANNING

The Town Planning Department is comprised of two sections:

Planning Section - The Planning Section is responsible for the development and maintenance of the Master Plan and planning layouts. The Master Plan is the base document from which the project's roadway classifications are assigned. Roadway design standards are identified for each roadway classification (see Tables 100.01, 100.02 and 100.03, in Part 1, Section 100, General Information).

The planning layouts are used to identify the existing and proposed land use and development intensity.

Utilities Section - The Town Planning Utilities Section is responsible for the development and approval of all service reservations.

201.04 MAPPING

201.04.01 General

Current, accurate base mapping is an essential tool in transportation planning. The specific mapping requirements depend on the length and complexity of the project and its location, either urban or rural. Aerial mapping is normally the most useful and cost-effective medium for larger projects. Ground topographical surveys are used for smaller projects, especially in urban areas and to supplement aerial mapping at specific locations where more detail and accuracy is needed.

Three types of aerial maps are used in the planning and design phases of roadway and bridge projects:

Uncontrolled Aerial Photography - These maps are produced directly from the aerial photographs that normally cover large areas at a reduced scale. The maps are generally used in route location studies to define transportation corridors and alternative alignments. The contact prints from the aerial photography are assembled to form a photomosaic of the area under study to reduce distortion.

Controlled Aerial Photography - Prior to the flight, horizontal and vertical ground control points are set and marked in the field. These points are used to control photomosaic products that are significantly more accurate and can be prepared at a specific scale. These maps can be used at larger scales for preliminary engineering activities including Design Concept Reports.

Topographic (Aerial) Mapping - These maps represent the state-of-the-art in highway design and consist of topographic maps compiled from controlled aerial photography in a digitized format that can be input directly to CADD. This mapping can be used for both design concept development and final design and is limited to the broad roadway corridor.