102.09 WING WALLS

Wing walls shall extend 1.50 meters beyond the catch point, where catch point is defined as the intersection of the fill slope in front of the abutment with the finished approach grade at the outside face of the wing wall. The bottom of the wing walls shall be embedded a minimum of 1 meter into the approach fill at the end of the wing walls.

102.10 LIGHTING

Consideration shall be given to special lighting above and below the structure. This lighting shall serve as ornamental lighting to enhance the aesthetics and also to enhance safety. This lighting is in additional to the normal roadway lighting. Refer to the lighting section of this manual for roadway lighting criteria. Coordination of all structure lighting with existing and/or planned lighting of connecting and adjacent roads must be considered.

102.11 BRIDGE DECK ELEVATIONS

The project design group shall prepare either computer plotted contours at 0.1 meter intervals at a 1:50 scale or tabulate elevations at 3.0 meter intervals along the profile grade line, with additional elevation points on each perpendicular (radial) such that the bridge can be completely covered with 0.1 meter contours. The number of elevation points on each perpendicular must be such that the lowest, or the highest, point is outside the bridge for use by the construction supervision staff to help check the contractor's geometric layout.

102.12 CONCRETE CRACK CONTROL

Maximum flexural crack width at the tensile face of a reinforced concrete section shall not exceed 0.25mm for normal conditions of exposure and 0.20mm for marine and unfavorable conditions of exposure (such as alternate wetting and drying, humid atmosphere, direct contact with soil, etc.). The allowable crack width can be increased by 25% under earthquake/wind/temporary construction conditions.

102.13 CORROSION PROTECTION (AASHTO 8.22)

Due to the adverse corrosive environment, all reinforced concrete structures shall use epoxy coated rebar unless otherwise directed by the Project Manager.

103 ARCHITECTURAL CONSIDERATIONS

103.01 PROCEDURE

Following the approval of the civil and basic structural concepts for an interchange, including configuration, alignment, profile and pier locations, the Project Design Manager will meet with the Structural, Architectural, and Graphics Design Managers to develop basic alternatives and set architectural design parameters. Environmental constraints and influences will be established. The Concept Design Team will determine the number of structural concepts and architectural options to be studied. The purpose of these studies will be do develop applicable concepts and options in the form of presentation displays, to be used as a basis for the Abu Dhabi Roads Section review and decision making. The approved displays are submitted to the Abu Dhabi Roads Section for review and selection of the desired alternative. The approved scheme the will progress to the preliminary and final design phases.