The text in this section should include a narrative description of the geometrics, constraints, controlling factors, drainage considerations and reference to the design exceptions. The plans are to be attached as an appendix to the DCR.

309 INTERCHANGE/ INTERSECTION CONFIGURATION

The various types of traffic interchanges are described in Part 2, Section 500, Interchanges. The discussion in this section should identify the *site* and *project* considerations which led to the selection of the interchange and intersection type.

The *site* considerations include:

- the constraints imposed by the existing and nearby transportation facilities
- proximity of adjacent interchanges
- the standards and arrangement of the local street system including traffic control devices
- right of way controls
- local planning
- community impact, and cost topography.

The *project* considerations include:

- the speed, volume, and composition of traffic to be served
- the number of intersecting legs
- crossing and turning conflicts
- safety considerations
- cost

The interchange/intersection alternatives should be evaluated as a part of the alternatives analysis described in Part 1, Section 305, Description of Alternative, when viable options are identified for the particular project. This is especially true for freeway and expressway projects where the Interchange/Intersection type has a significant impact on the project character, capacity and cost.

310 PARKING STUDY

In accordance with Part 1, Section 202.09, Parking Requirements, a parking study shall be prepared and included as part of the DCR.

The results of the study shall be summarized in the body of the DCR, with the entire study included in the Appendix.

The summary of the results shall include:

- the existing parking demand
- the anticipated parking demand
- the resulting parking shortfall (or excess)
- the alternatives as to how the project can provide adequate parking
- cost comparison of parking alternatives
- economic impact of inadequate parking
- if required by the roadway classification, the need for off-street parking facilities
- the costs and right-of-way requirements associated with each of the above alternatives
- the recommended alternative to meet the anticipated parking demand,
- the conceptual design of the recommended alternative (see Part 2, Section 211, Parking).

311 HYDROLOGY AND HYDRAULICS

The Design Concept Report shall include a separate section (study) for drainage design concepts, which shall also include, when required, separate reports for flood plain encroachment and major waterway crossing studies.

The drainage design concepts section shall address the following items:

- Planning consideration for the overall watershed considering the project and other existing and future development

- Assessment of existing and future conditions affecting drainage areas, flow patterns, and flood levels

- Estimate of future development and its effect on flows and flood levels

- Drainage map showing topographic features, watershed boundary, slope contours, drainage areas, existing drainage systems, proposed cross-drain locations (including peak flow volume, design high water elevation and culvert size) and proposed conveyance