

Where feasible, power feeds for traffic signals should come from two separate substations and be controlled by a changeover switch. This will enable signals to remain functional in the event one of the substations loses power. Separate feed plans should be developed in cooperation with the WED.

The signalization design for each intersection shall include as a minimum:

1. Plan symbols as shown on the standard drawings.
2. A drawing of the overall layout depicting signal pole, detector, signal head and conduit placements. All vehicular and pedestrian signal indications shall be labeled by movement (signal group) number.
3. A drawing including the pole schedule, detector schedule, clearance times matrix, phase movements, and if necessary, notes specifically corresponding to the design and installation.
4. A drawing showing the conductor schedule.
5. Additional drawings as necessary for installation and materials details.

902.03 DUCTS AND PULLBOXES

All ducts shall be encased in concrete. Based on the requirement, either 8-way, 4-way, 2-way or 1-way 10 cm diameter ducts shall be utilized. Raceways shall be 2-way 5 cm diameter except for the traffic signal pole foundations raceways which shall be 3-way 5 cm diameter raceways. Standard pullboxes types (Type I, II and IV) shall be used as appropriate.

902.04 PYLONS

Pylons are used to house the pedestrian signals. Their appearance and materials are meant to add color to the streetscape. They are comprised of an aluminum tube column base and an aluminum crown. External color is dark bronze.

Pylons with Type B crown are used at all signalized intersections where pedestrian signals are required unless pedestrian signals can be mounted on nearby light poles. Pylons with Type B crown are placed within green areas at both ends and at the outer edge of pedestrian crossings.

If the width of the roadway median at the intersection is more than 5, but less than 10 meters, an additional pylon is placed at the midpoint of the median with two pedestrian signals back to back. If the median width is more than 10 meters, one pylon is placed at each edge of the median, each with one pedestrian signal.

Each pedestrian signal is comprised of two signal units with WALK and DON'T WALK indications. The DON'T WALK unit, mounted on top of the WALK unit, has a polycarbonate lens with black background and an illuminated red "human hand" symbol placed vertically. The WALK unit, mounted below the DON'T WALK unit, has a polycarbonate lens with black background and an illuminated green "walking man" symbol.

903 TRAFFIC SURVEILLANCE

Communication system facilities shall be installed on main roads, expressways and freeways. The system will communicate traffic conditions to a central computer, which will then communicate back with the ramp signals, changeable message signs and TV cameras. Interconnections between signalized intersections surveillance facilities and the central computer will be through concrete encased, 4-way or 8-way 10 cm PVC ducts.

CCTV cameras are to be located at intervals of approximately one mile. Typical camera locations will be at interchanges and at midpoint locations between interchanges. To provide for future implementation, 2 stub-outs of 10 cm diameter schedule 40 PVC conduit, 1 m long, will be extended from a pull box nearest the midpoint between interchanges. All conduit shall be securely capped and locations precisely recorded on "as-built" plans. The locations, numbers of ducts and foundations will be determined from the CCTV Master Plan drawings.

904 SIGNING

General - Discussion in this section is complimentary to the MUTCD and shall be used in conjunction with that document. However, policies presented in the MUTCD reflect general practices which may not always be applicable to Abu Dhabi. Where there are conflicts between