

Double (Dual) Left-Turn Lanes

Double (dual) left-turn lanes (DLTL's) shall be considered when left-turn demand exceeds 300 vph, and are desirable where peak left-turn movements exceed 350 vph. DLTL's require a protected (exclusive) signal phase, a minimum 4' raised concrete median separating opposing traffic, and a width of at least 30' on the acceptance lanes (see Figure 3-23). The length of storage should accommodate at least 1.5 times the expected vehicles making left turns per cycle based on peak 15-min. periods.

When DLTL's are required, a capacity analysis of the intersection shall be performed to determine what traffic controls are necessary (i.e. - signalization, separate phasing) in order to have this double left-turn lane function properly.

For addition information on Dual Left Turn Lanes see AASHTO "Green Book" Chapter 9, Section 9.7.3.

Continuous Left-Turn Lanes (Two Way in Either Direction)

Continuous two-way median left-turn lanes (C2WMLTL's) should be considered on low-speed arterial highways (25 to 45 MPH) with no heavy concentrations of left-turn traffic. C2WMLTL's also may be used where an arterial or major route must pass through a developed area having numerous street intersections and entrances, and where it is impractical to limit left turns. The minimum width for this application shall be 13' (11' foot lane + 2 feet = 13').

C2WMLTL's shall only be used with roadways having a maximum of 2 through lanes in each direction, and shall be shown in accordance with Figure 3-24.

In commercial and industrial areas where property values are high and rights of way for wide medians are difficult to acquire, a paved flush traversable median 10' to 16' wide is the optimum design. Successful operation of a continuous left-turn lane requires adequate lane marking.

Advantages are:

- Reduced travel time.
- Improved capacity.
- Flexibility of using as temporary detour during closure of through lane.
- Does not control or limit the number of left turns.
- Minimizes interference to through traffic lanes.
- Separates opposing traffic flows by one full lane.
- Public preference (both from drivers and owners of abutting properties.)
- Reduced accident frequency, particularly rear-end collisions.

Disadvantages:

- Poor visibility (corrected by using proper delineation)