



Traffic Signal Design Manual

ORIGINATOR Director, Bureau of Highway Operations		3-3-7
CHAPTER 3	Project Scoping Process & Geometric Design Considerations	
SECTION 3	Intersection Geometrics	
SUBJECT 7	Medians and Islands	

THIS SECTION OFFERS INTERIM GUIDANCE ONLY

The desired minimum width for a median at a signalized intersection is 8 feet face to face, the absolute minimum width is 6 feet face to face. This width is required for signal and sign/structure placement, and pedestrian refuge. In addition, this minimum is wider than the wheel base of a typical passenger vehicle and therefore if in an accident a vehicle traverses the median it *may* knock down the traffic signal standard but will not damage the bolts in the concrete base.

Right turn pork chop islands are typically needed for delineation, pedestrian refuge, and traffic signal placement at intersections with flat radii. This island *should* be no smaller than 150 square feet in area. It is inevitable revisions at a signalized intersection will need to be made at some point in the future. Therefore, the construction of islands is very important. Islands constructed as in Figure 1 are not desired because to install a pull box or base would require removal of 12", + of concrete. The detail shown in Figure 2 is the preferred construction. Pork chop islands *should* be skewed to improve visibility for approaching vehicles.

Slotted left-turn islands *should* be set back for clarity of turning movement as shown in Figure 3.

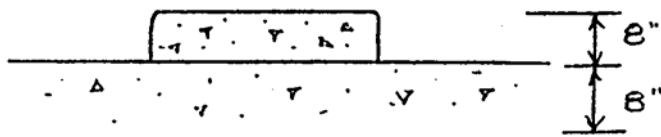


Figure 1. Non-desirable island design

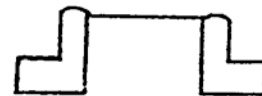
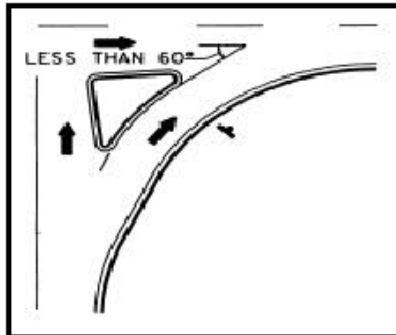


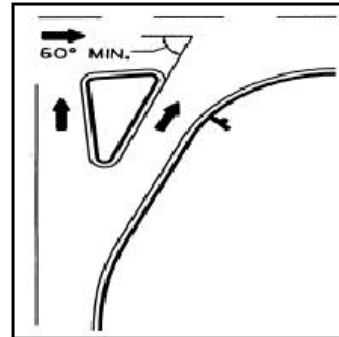
Figure 2. Desirable island design

Plowable noses *may* be an issue with pedestrian crossings. A cut-through *may* be necessary in order for pushbuttons to be pedestrian accessible. Coordination with design staff *should* take place to ensure proper placement of pedestrian crossing and signal bases. Refer to TSDM Subject 3-3-8, Pedestrians for guidance.

Designers *should* be aware of the hazards that develop when right turn lanes separated by islands having intersecting angles less than 60 degrees with the cross street. These layouts require the driver to look back over their left shoulder to view on coming traffic; this is particularly difficult for older drivers. Designers are encouraged to design all right turn islands in urban/suburban areas with the right-turn lane at an angle of 60 degrees or greater. 10:1 tapers on the approach to the right-turn lane *should* be used to allow the driver adequate time to decide and maneuver their vehicle in the direction of choice.



Not Recommended



Recommended