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CHAPTER 18 – NEIGHBORHOOD TRAFFIC SAFETY

18.1 GENERAL

This chapter presents acceptable methods of neighborhood traffic calming that are determined by the Local Entity to be necessary for existing Local and Minor Collector Roadways. This chapter also provides for specific design criteria for a number of traffic calming methods. All traffic calming shall be approved by the local fire authority.

18.1.1 Intended Use

The necessity or desire for traffic safety and calming stems from the perception that Local and Minor Collector Roadways, particularly in residential areas, do not always function as intended. These roadways should be low traffic volume roadways used for direct access to residences on the street. They are also intended as a multi-modal system that is shared by vehicular, bicycle, and pedestrian traffic equally, in a manner that minimally impacts residents in these areas.

18.1.2 Traffic Calming for New Street Design

The devices presented in this chapter are generally not intended for use on new roadways. New roadway design is addressed in **Chapter 7, Street Design and Technical Criteria.** New (local streets and minor collectors) are to be designed to minimize cut through traffic, high volumes, and high speed operation and to maximize the efficiency of the roadway to provide vehicular access and bicycle and pedestrian traffic.

18.1.3 Roundabouts and Mini Roundabouts

Roundabouts and Mini Roundabouts, considered traffic control measures, are included in **Chapter 8, Intersections and Appendix I**. These traffic control measures may be used in new or existing street design if the appropriate criteria are met.

18.2 TRAFFIC SAFETY PROBLEMS

Some residents in certain residential areas maintain that excessive speed, volume, or cut-through traffic is unacceptable. The resident believes the presence of too many vehicles traveling at high speeds diminishes that neighborhood's quality of life. Traffic calming measures are intended to minimize these issues and return the quality of life to the neighborhood. Care must be taken by the designer so that the installation of traffic calming devices does not create unintended hazards that delay emergency response or jeopardize the safety of bicyclists, pedestrians or motorists.

18.2.1 Speeding

Speeding may occur on roadways that allow the driver to feel safe while exceeding the posted speed limit. Factors that contribute to this perception include long, unbroken lines of sight, steep roadway grades, wide roadways, low density developments, low pedestrian

activity, and large building setbacks. In addition, speeding may occur when the street functions as a higher classification street than originally intended.

18.2.2 Measuring Speed of Roadway

The standard method of measuring speed on any street is the determination of the 85th percentile speed. The 85th percentile speed is the speed at which or below which 85 percent of the vehicles travel. If the 85th percentile speed is at or below the posted speed limit, a speeding problem does not exist. However, if the 85th percentile speed is over the posted speed limit by 5 miles per hour or greater, either the posted speed limit may be inappropriate or a speeding problem may exist. Many other factors must be evaluated for determining speed limit.

18.2.3 Intrusion (Cut-Through Traffic)

Intrusion is increased volume or excessive non-local traffic along a neighborhood street. This cut-through traffic is caused by drivers who use a Local Street to go through a neighborhood and save time on their trip. Local Streets that are less impeded than other local streets within the same neighborhood will often invite cut-through traffic. Routes that are perceived to be time-saving will attract more traffic. This increased cut-through traffic can cause a local street to function more like a Collector.

18.2.4 Pedestrian Safety

Pedestrian safety is a concern on streets experiencing speeding vehicles, cut-through traffic, or a combination of these problems. The high concern areas are in the vicinity of neighborhood schools and parks or mid-block pedestrian crossings, particularly on streets with on-street parking. These areas require special consideration for the mobility and safety of the pedestrian.

18.3 TRAFFIC CALMING DESIGN CRITERIA

For existing Local or Minor Collectors that are defined for Traffic Calming. Refer to the **City of Loveland's Traffic Calming Procedures**. Refer to the **City of Fort Collins' Traffic Calming Procedures.** This chapter describes design criteria for the engineered solutions. It does not state when or where these improvements are to be used.

18.3.1 Speed Limit Signs

Refer to Chapter 14, Traffic Signals, Signing, and Striping

18.3.2 Speed Humps

Refer to **Construction Drawing 1801F** and **1802F** for design criteria in Fort Collins (GMA and city limits).

18.3.3 Dips

Refer to **Chapter 8, Intersections,** for standard Crosspan design.

18.3.4 Mini Roundabouts

Refer to **Appendix I** for Mini Roundabout design requirements.

18.3.5 Neckdowns

When neckdowns are used they must be designed to maintain a constant cross fall in the pavement surface. Refer to **Figure 18-1** for design criteria.

18.3.6 Traversable Barriers

Refer to **Figure 18-2** for design criteria.

18.3.7 Deviations (Chicanes)

Refer to **Figure 18-3** for design criteria.

18.3.8 Raised Intersections

Refer to **Figure 18-4** for design criteria.

18.3.9 Neighborhood Identification Island

Refer to **Figure 18-5** for design criteria.

18.3.10 Drop Off Zone for Schools

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18.3.11 Intersection Chokers

Refer to **Figure 18-7** for design criteria.

18.3.12 Turn Prohibitors

Refer to **Figure 18-8**for design criteria.

18.3.13 Semi-Diverters

Refer to **Figure 18-9**for design criteria.

18.3.14 Lane Eliminating Choker – Loveland (GMA and city limits)

Refer to **Figure 18-10** for design criteria.

18.3.15 Diagonal Diverters

Refer to **Figure 18-11** for design criteria.

18.3.16 Realigned Intersections

Refer to **Figure 18-12** for design criteria.