Village of Homer Glen Traffic Calming Program

- To reduce vehicular speeds where necessary,
- To promote safe and pleasant conditions for motorists, bicyclists, pedestrians, and residents,
- To improve the environment and livability of neighborhood streets,
- To improve real and perceived safety for non-motorized users of the streets,
- To discourage use of residential streets by non-citizen cut through vehicular traffic.

PROGRAM PROCEDURES

The following procedures are considered typical for receiving, responding to and managing residents' requests for neighborhood traffic management. The Village of Homer Glen will apply this process to all requests received. Variations in this process may be approved by the Village when deemed appropriate due to unique circumstances.

1. Contact Village

Requests for traffic evaluation and traffic related complaints within Homer Glen may be initiated by individual citizens, neighborhood associations, Village government officials, or other groups. Requests for traffic evaluations or complaints of chronic speeding, cut-through traffic, parking, signage, or other traffic related problems occurring within the Village should be submitted thru the Village's Request to Resolve Issues Program. Village staff will exercise discretion in resolving requests and complaints, forwarding unresolved issues for inclusion on the monthly Public Services & Safety Committee agenda.

2. Preliminary Review

Village staff will review each request or complaint to determine the appropriate action to be taken and assess the urgency of the response. Staff shall evaluate each request in the order it is received unless life/safety and damage to property require more immediate attention. Staff shall use the following criteria to evaluate each request.

A. Life/safety issue (number of accidents, police opinion)
B. Cost implications (does the problem result in additional costs & the estimated costs to mitigate)
C. Chronic issue or episodic
D. Permanent or temporary issue
E. Accessibility implications (does the problem cause problems with accessibility)
F. Magnitude of negative impact (is this an isolated issue or neighborhood wide)
G. Is it a private or public issue (does the village have jurisdiction to resolve)
H. Is a resolution feasible (cost prohibitive- or lacks engineering resolution)

Some complaints may not rise to a level warranting remedial action. In such cases the complaining party will be so notified. The issue will not be reconsidered by staff unless conditions change or new information is provided by the complainant. Significant traffic issues may be resolved through increased enforcement efforts, traffic control improvements, traffic calming improvements, or a combination thereof. Traffic calming methods should begin with nonaggressive methods first. Upon implementation of traffic calming improvements, monitoring and evaluation will take place by the Village. If warranted, additional nonaggressive measures may be implemented. If nonaggressive measures do not resolve the problem, the Village may consider the installation of aggressive measures, including but not limited to the examples identified below.

Requests for traffic calming improvements will proceed through the evaluation phase to determine if all qualifying criteria are met. Locations which clearly do not meet traffic calming criteria will be reviewed by the Village for speed enforcement or other traffic engineering solutions.

3. Evaluation of Traffic Conditions

Traffic calming requests which pass preliminary staff review will proceed to the evaluation phase. If not already available, relevant traffic data will be collected during the evaluation phase. When the data reveals that traffic calming is warranted, the appropriate type of traffic calming technique will be determined by Village staff and/or their traffic engineering consultant(s). If it determined that traffic calming in not warranted, the complaining party will be notified and investigation into speed enforcement or other traffic engineering solutions will be made. (See Appendix A for additional data collection methods)

The evaluation phase involves the collection of data including street classification, volume, speed, traffic accident/incidence history, and other relevant information. This information will be collected and evaluated by the Village and/or their consultant(s) and if warranted, they will recommend/design the appropriate type of traffic calming improvement(s) to best address the traffic problem. The proposed traffic calming design will be presented to the Public Services & Safety Committee for discussion and further recommended action.

The Village staff and/or consultant(s) will identify the tentative study area, collect preliminary information from their files, and complete any needed traffic analysis. Staff will refer to the following guidelines when evaluating the magnitude of traffic and safety problem(s); determining potential for improvement; and establishing priorities for project implementation according to the following:

A. **Speed:** Speeding problems exist when speed study shows the 85th Percentile speed for the study segment is greater than or equal to 5 MPH over the posted or statutory speed limit.

B. **Cut-Through Traffic:** A traditional home will generate between eight (8) and ten (10) trips daily, (a neighborhood with 100 homes can generate a daily traffic volume between 800 and 1000 DTV (daily traffic volume) without additional outside traffic. To qualify, a neighborhood must show that cut through traffic is primarily a problem resulting from non-local residents. Cut-through traffic is typically quantified by estimating actual traffic generation from within the affected area and from outside the neighborhood or street. Cut-through traffic from non- residents should represent at least 50 percent or more of the street's total DTV to justify review. If typical data collection methods (ex. traffic counters) do not yield the necessary information a license plate survey may be conducted by Village staff and/or consultant(s) to more accurately determine the amount and nature of vehicles "cutting through".

C. **Accidents - Pedestrians, Bicycles and Autos:** Accident history may be considered when records show an increased number of accidents along a single residential or minor collector street within twelve consecutive months.

D. **Street Grades and Alignment:** Some physical traffic management devices will not be installed on streets with grades exceeding eight percent, or where a combination of vertical and horizontal alignment would result in inadequate stopping sight distance for motorists encountering these devices. These situations will be evaluated on a case-by-case basis and shall be in accordance with Illinois Department of Transportation requirements and the requirements set forth in the Manual on Uniform Traffic Control Devices (current edition).

E. **Traffic Calming Exceptions:** Physical traffic calming measures will not be considered for any street if any of the following conditions exist:

a. If the street is classified as a "collector", “minor arterial” or "principal arterial" street as defined in the Village of Homer Glen Transportation Plan;
b. If the average traffic volume is greater than 2000 vehicles per day (ADT);
c. If the average traffic volume is less than 900 vehicles per day (ADT);
d. If the average violation rate (VR) of the statutory or posted speed limit is less than or equal to 25%;
e. If the 85th Percentile speed for the study segment is less than 5 MPH over the posted or statutory speed limit;
f. If building lots in the study area are not built out to at least 90 % of available lots; or
g. Traffic management devices are not typically installed on streets serving as a designated transit route, primary emergency access route or, school bus routes.

Traffic calming criteria have been established by the Village and may be revised from time to time. The Public Services and Safety Committee may recommend waiver of any of the above exceptions in certain situations and will present such justification to the Village Board.

4. Enforcement

The Village, in cooperation with the Will County Sheriff, will work to schedule officers to enforce speed limits during throughout the day and at peak traffic hours. In addition, radar speed trailers/signs may be used to educate drivers and raise their awareness level while traveling on residential roads.

5. Project Implementation

When a project has met the necessary requirements and support from the Public Services and Safety Committee it will be forwarded to the Village Board for final approval. Once approved by the Village Board, the Village staff will schedule implementation of the project based on funding availability. Depending upon the number of requests received and the available funding for design and construction, a project may be placed on a waiting list and prioritized based on the conditions found during the investigation. Certain techniques may be installed as trials, while others may be more permanent installations. All installations will be monitored and evaluated by the Village for effectiveness.

6. Monitoring and Evaluation

After completion of each step of the project, the Village staff and/or consultant(s) may evaluate the effect. Traffic counts, speed studies and other data collection will be taken as needed. If the project has not met its objectives within the monitoring period, the Village may then consider alternate traffic management techniques. Once the goals have been achieved, the project will be considered finished without relevance to the particular step or phase it was in. If all stages of a project have failed to meet set goals, the Village will re-evaluate the situation.

7. Removal of a Traffic Calming Project

If the Village decides that the project should be modified or removed for public health and/or safety reasons, the Village shall remove or modify the traffic management technique. The roadway must be left in a safe condition that meets Village of Homer Glen requirements.

TRAFFIC CALMING EXAMPLES

The following traffic calming measures shall be considered "nonaggressive" measures:

Education	Instructions given to the residents on safe on-street vehicle travel.	
Signage	Use of additional signs, including speed trailers and radar signs, to educate and remind drivers of posted traffic speeds and signage.	
Police Enforcement	Involve employing the services of law enforcement agencies to impose the local safe vehicle laws, including those for posted speeds and traffic signal/signs.	
Pavement Markings	Additional pavement markings to direct, divert or slow traffic.	
Bike Lanes	A portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.	

The following traffic calming measures shall be considered "aggressive" measures and shall only be considered for implementation if nonaggressive traffic control measures fail to provide adequate results:

Speed Humps	Rounded raised pavement devices placed across roadways to slow and/or discourage traffic. Drawbacks: Slows emergency vehicles, drainage problems, increased noise and maintenance cost. Cost: $2,000-$3,000 each (typically more than one required).	
Speed Tables, Textured Pavement and Raised Crossings	Flat-topped speed humps often constructed with a brick or other textured material to slow traffic. Drawbacks: Slows emergency vehicles, potential drainage problems, increased noise and maintenance cost. Cost: $2,500-$8,000	
Center Islands	Raised islands located along the centerline of a roadway that narrow the width at that location. Drawbacks: Drainage problems, increased maintenance cost. Cost: $5,000-$15,000	
Chicanes/Lateral Shifts	Curb extensions that alternate from one side of the roadway to the other, forming s-shaped curves. Drawbacks: For divided roadways only, drainage problems, increased maintenance cost. Cost: $5,000-$15,000 per set.	
Bulbouts, Neckdowns and Chokers	Curb extensions at intersections that reduce curb-to-curb roadway travel lane widths. Drawbacks: Drainage problems, increased maintenance cost. Cost: $7,000-$10,000 per pair	
Roundabouts	Barriers placed in the middle of an intersection, directing all traffic in the same direction. Advantage: Reduces left-turn accidents. Drawbacks: May require additional right of way. Cost: $2,500-$10,000	

Traffic Circle	Barriers placed in the middle of an intersection, directing all traffic in the same direction. Usually larger than roundabouts. Advantage: Reduces left-turn accidents. Drawbacks: May require additional right of way. Cost: $3,500-$15,000	

APPENDIX A

Data Collection Methods

Several different statistical measures can be used when evaluating speed data. Four of the more significant measures are described below. Since each measure provides different information, the benefits and limitations of each method are also discussed. Directional speed and volume data is also recommended whenever possible. A study of traffic volumes on adjacent roadways may also be completed to determine if a significant amount of diversion occurred (post-installation) on roadways that are not designed to handle the increased traffic.

85th Percentile Speed: The 85th percentile speed is a well recognized value that is important in speed studies. This value shows the speed at which 85 percent of the vehicles are traveling at or below. This is also the speed that is typically used to set speed limits, since experience has shown that a speed limit near this value is the maximum safe and reasonable speed for a roadway. This value is most often used to describe a speed study, because it is easy for the public and elected officials to understand. However, this data alone does not give a complete understanding of traffic speeds on a roadway and, in particular, it does not address the percentage of outlying speeds that residents are often concerned with.

10 MPH Pace: The 10-mph pace represents the highest percentage of vehicles traveling in a 10-mph speed range (for example, 25 to 35 mph). Typically, the midpoint of the 10-mph pace corresponds with the average (mean) speed of the roadway. The 10-mph pace can help determine if there is a uniform speed of traffic flow on a roadway, which results in increased safety. However, similar to the 85th percentile speed, this method does not take outlying speed data into account.

Standard Deviation: The standard deviation can be used as a measure of dispersion for traffic speeds. This is often used to understand how tightly the speed data is grouped around the average (mean) vehicle speed. Typically, the standard deviation is the difference between the 85th percentile speed and the average (mean) speed. Standard deviation is useful in determining the uniformity of traffic flow on a roadway. However, another measure, such as the 85th percentile speed or 10-mph pace, is needed to fully understand the speed at which the majority of vehicles are traveling.

Percent of Vehicles Traveling 5 MPH Above Posted Speed Limit. This method calculates the percentage of vehicles that are traveling at speeds 5 mph above the posted speed limit. It provides a fairly simple way of understanding the outlying speed data on a roadway and is an easy measure for residents and elected officials to understand

Note: Roadway classifications (residential, minor collector, collector, minor arterial and principal arterial) are in accordance with the Village of Homer Glen Transportation Plan.