



Transportation Commission

ACTION CALENDAR

November 28, 2006

To: Honorable Mayor and  
Members of the City Council

From: Transportation Commission

Submitted by: Peter K. Hillier, Secretary, Transportation Commission

Subject: Traffic Calming Policy

RECOMMENDATION

Adopt a Resolution adopting a Traffic Calming Policy for the City of Berkeley that would: 1) identify the purpose and general application of traffic calming; 2) establish basic criteria for the application of traffic calming measures; 3) establish a ranking system applicable when the number of projects exceeds the available funding; 4) establish a process by which to prioritize requests; and 5) seek opportunities to implement traffic calming measures.

FISCAL IMPACTS OF RECOMMENDATION

The adoption of this policy does not obligate the City to undertake any specific traffic calming project, or to the use of specific traffic calming measures and is thus exempt from environmental review. If traffic studies reveal chronic traffic safety problems requiring immediate correction, staff would first seek low-cost sign or marking mitigations before developing physical traffic calming options and designs. The City will continue to seek grants for traffic calming initiatives, either as discrete activities, or as part of larger projects.

The impact of this policy on limited staff resources is difficult to quantify. There may be more demands to perform the pre-screening analysis, while more requests will be screened out from further study than at present.

On several occasions throughout the year, staff would poll residents to notify them of a traffic-calming proposal, and to gauge neighborhood support. This could result in several thousands of dollars in mailing costs, which would be borne by the Public Works Department and are difficult to quantify as neighborhoods vary greatly in size. Public Works does undertake several of these types of residential polls each year at present. There are sufficient funds in Capital Fund account 610-4950-431-6560 to be used for these projects.

CURRENT SITUATION AND ITS EFFECTS

Currently the City has no criteria that would assist staff in making decisions regarding candidate locations for traffic calming measures, or a ranking system if projects are competing for limited funds. When a traffic request is received, staff work with the Councilmember for that District to study and evaluate the issue. There is no consistent approach used during this process. Neighborhood traffic calming projects in Berkeley now utilize measures such as traffic calming

circles and bulb outs, which do not re-route traffic flow, and are exempt from environmental review.

### BACKGROUND

The Traffic Calming Subcommittee of the Transportation Commission worked with staff to develop a proposal for a citywide Traffic Calming Policy, a draft of which was presented to the full Commission at its regular meeting November 17, 2005. After discussing the scope, criteria, and the ranking system of the proposed policy, it was MSC (Alfsen/Greenhut) to approve the proposed City of Berkeley Traffic Calming Policy, as amended, by unanimous vote. Nine commissioners attended.

### RATIONALE FOR RECOMMENDATION

Within the Transportation Element of the approved General Plan, Policy T-20 provides guidance on key issues respecting neighborhood protection and traffic calming. The policy emphasis in Policy T-20 is clearly to discourage speeding on all residential streets, whether they are local, collector or major roads. The diversion of traffic, from one residential street to another, is discouraged.

Policy T-20 also calls for the establishment of a residential traffic-calming program that includes objective criteria for evaluating neighborhood traffic problems.

The proposed traffic calming policy is consistent with the City's General Plan and provides Councilmembers, staff and residents with a context for pursuing neighborhood traffic calming, and simple baseline criteria for the initial evaluation of traffic conditions.

The screening criteria will help Councilmembers and staff identify bona fide traffic problems that they can focus their efforts on.

When multiple proposals for traffic calming initiatives compete for limited funds, a more detailed ranking analysis would be applied in order to prioritize the various projects.

### ALTERNATIVE ACTIONS CONSIDERED

Status quo: staff could continue to work with the District Councilmembers to evaluate each request, using a variety of different processes. This is not recommended, because a consistent process is simpler to manage, easier to understand, and promotes a sense of fairness when one proposal is weighed against another.

### CITY MANAGER

The City Manager concurs with the recommendations in this report.

### CONTACT PERSON

Peter K. Hillier, Assistant City Manager for Transportation, Public Works, 981-7010  
Sarah Syed, Chair, Transportation Commission, 981-7010

Attachments:

1 Resolution

Ex A - Proposed Traffic Calming Policy 2006

RESOLUTION NO. -N.S.

TRAFFIC CALMING POLICY

WHEREAS, currently the City has no criteria that would assist staff in making decisions regarding candidate locations for traffic calming measures, or a ranking system if projects are competing for limited funds; and

WHEREAS, within the Transportation Element of the approved General Plan, Policy T-20 calls for the establishment of a residential traffic calming program that includes objective criteria for evaluating neighborhood traffic problems; and

WHEREAS, the proposed traffic calming policy is consistent with the City's General Plan and provides Councilmembers, staff and residents with a context for pursuing neighborhood traffic calming, and simple baseline criteria for the initial evaluation of traffic conditions; and

WHEREAS, the Transportation Commission unanimously approved the proposed City of Berkeley Traffic Calming Policy.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City of Berkeley shall adopt the 2006 Traffic Calming Policy as described in Exhibit A that would: 1) identify the purpose and general application of traffic calming; 2) establish basic criteria for the application of traffic calming measures; 3) establish a ranking system applicable when the number of projects exceeds the available funding; 4) establish a process by which to prioritize requests; and 5) seek opportunities to implement traffic calming measures.

.

**PROPOSED  
CITY OF BERKELEY  
2006  
TRAFFIC CALMING POLICY**

The scope of this policy is the following:

- A. To identify the purpose and general application of traffic calming;
- B. To establish basic criteria for the application of traffic calming measures;
- C. To identify a process for evaluating requests;
- D. To establish a ranking system which can be employed when more than one traffic calming project is proposed and there are insufficient funds available to proceed with all projects; and
- E. To seek opportunities to implement traffic calming.

This policy does not list or specify all traffic calming measures, and does not attempt to specify which measures would be used in certain road or traffic operation scenarios. Such “tool kits” have been established by other cities and transportation associations, and local traffic calming practitioners will refer to “tool kits” on a case-by-case basis.

A. PURPOSE AND GENERAL APPLICATION OF TRAFFIC CALMING

Traffic calming is intended to reduce the impact of motor vehicles on roadways, residents and road users. In Berkeley, this means primarily the reduction of motor vehicle speeds. The reduction of motor vehicle traffic volumes on specific streets is a sensitive issue because of the risk of diverting traffic onto a neighboring street. Conversely, some chronic neighborhood traffic problems concern levels of traffic volume on local streets that the residents believe is excessive. Typically, a significant portion of the traffic in these cases is considered “through” traffic, because it neither originates from nor is destined to the broader neighborhood. Traffic calming has been used to reduce the impact of this unwanted traffic.

Collision mitigation can often be accomplished by prohibiting the turn movements of a relatively low number of motor vehicles, and the benefits outweigh other considerations in these cases, unless the risk is simply transferred to a neighboring intersection.

Ultimately, a community could benefit by an overall reduction in motor vehicle traffic within the city. Traffic calming could help achieve this goal only if “physical” measures are widely distributed throughout the community, and other incentives are used to promote alternate transportation modes in the city and region.

This policy does not provide a comprehensive “tool kit” of traffic calming measures. There is a considerable range of tools, from enforcement to traffic signs and pavement markings, to construction alternatives such as traffic calming circles, median refuges, and bulb-outs. These construction improvements are referred to as “physical” measures in this policy.

Physical traffic calming measures are categorized in two ways:

- Vertical deflection – raising the road by using speed humps or speed tables; and
- Horizontal shift – moving vehicles off a certain alignment from one side or another (e.g. traffic circles).

Currently there is a Council-imposed moratorium in Berkeley to prevent the installation of any new speed humps, speed tables or platforms.

Generally, physical traffic calming measures are the most effective form of traffic calming available to practitioners. The use of these measures requires careful application, so that large vehicles can still navigate where needed.

Historically, in Berkeley, some physical traffic calming has been installed at the request of the Berkeley Police Department when responding to neighborhood concerns about illegal, threatening or socially disruptive driving or other behavior. Such issues will continue to be considered and evaluated on a case-by-case basis.

An Emergency Access and Evacuation Network map (Figure 9, page T-33) and a Transit Network Map (Figure 7, T-31) are illustrated within the Transportation Element of Berkeley's General Plan. The application of physical traffic measures on primary evacuation and transit routes is particularly sensitive, and the use of traffic calming circles is discouraged on these routes. [Roundabouts are usually significantly larger than traffic calming circles, and can be an effective design tool on major roads, including the Evacuation and Transit Networks.]

Some forms of horizontal shift physical traffic calming can be applied to major roads, but even greater care must be taken by the practitioner when high speeds and/or high traffic volumes are concerned, so that road users are not placed in greater risk than by the traffic operation condition being mitigated.

Once a need for traffic calming has been identified, the actual traffic conditions should be measured and reviewed. To correct any quantifiable problem, less costly and restrictive methods of calming should be considered first.

If the request involves one intersection, or street portion, the neighboring streets and intersections must be considered in view of the traffic calming measures being proposed, and potential impacts on the immediate neighborhood assessed if a "spill-over" effect is anticipated. Depending upon the severity of the initial problem, and consequently the potential neighborhood impacts of physical traffic calming, there may be a need to define the impacted area and conduct a neighborhood traffic analysis, before proposing a Neighborhood Traffic Management Plan.

## B. CRITERIA

- i) Any residential street area; AND
- ii) To mitigate a documented collision pattern (bike, pedestrian, motor vehicle); AND/OR
- iii) Where the 85th percentile speed profile is greater than 5 mph over the speed limit; AND

- iv) Where there is a documented problem of a significant or inappropriate number of “through” motor vehicles on the street or in the neighborhood; AND
- v) In the case of “physical” traffic calming measures, where 50% + 1 of households, within one block of the proposal, who have expressed their opinion in a City-sponsored poll, such as a questionnaire, support the proposal.

### C. PROCESS FOR EVALUATING REQUESTS

Requests can come from individuals or by petition. The City’s traffic engineering staff will conduct a preliminary, cursory review of traffic conditions (collision history, speed and volume study) and a cursory review of roadway geometry. If there is a good safety record, and the speed profile (85th percentile) is within 5 mph of the speed limit, and the traffic volume is appropriate for the street, the complainant will be advised that no further action will be taken.

If further action is required, staff will conduct a traffic analysis and make recommendations. The traffic study scope will depend on the type and degree of the traffic problem.

### D. RANKING

A point ranking system is applied to the proposal in cases where a project needs to be compared to another, to establish a priority. (Usually because of limited funds to construct physical traffic calming measures.)

#### i) TRAFFIC SPEEDS (85th percentile)

10 points for each mile per hour the 85th percentile is above the speed limit plus 5mph. (e.g., if the speed limit is 25 mph, and the 85th percentile is 32 miles = 2 X 10 points = 20 points.) [Average 85th percentile of two directions.]

#### ii) SAFETY RATING (Collision History)

(a) 10 points for each reportable motor vehicle-to-motor vehicle collision in the past five years which would have been preventable with traffic calming. (E.g., if a collision is caused by a drunk driver, it may not be correctable with traffic calming, and therefore may not factor into the rating.)

(b) 25 points for each reported pedestrian or bicyclist injury or fatality in the last five years which is considered preventable with traffic calming.

#### iii) CROSSWALKS AND SIDEWALKS

(a) 25 points for each uncontrolled intersection or mid-block crosswalk.

(b) 25 points if there is no sidewalk on a portion of the street in question.

#### iv) TRAFFIC VOLUME

(a) 1 point for each 100 vehicles of average daily traffic above the following thresholds:

1) Two-way volume on local streets – above 1,000

2) Two-way volume on collector streets – above 2,500

3) Two-way volume on major streets – above 10,000

(b) 1 point for each ten pedestrians crossing above these thresholds in eight peak hours:

- 1) Crossing an uncontrolled local street – above 100
- 2) Crossing an uncontrolled collector street – above 200
- 3) Crossing an uncontrolled major street – above 300

v) **BUS STOPS**

15 points for each bus stop area

vi) **PROXIMITY TO SCHOOLS, RECREATION CENTERS, SENIOR AND/OR COMMUNITY CENTERS, SENIOR/ MULTIPLE RESIDENTIAL HOMES, HOSPITALS OR CLINICS, PARKS, LIBRARIES, AND BART STATIONS**

25 points for each of these types of institutions within 500 feet of the road section or intersection in question.

vii) **BIKE FACILITY**

25 points if the proposal is on a bike road facility.

viii) **DRIVEWAYS (Conflict Points)**

1 point for each driveway.

ix) **PROXIMITY TO TRAFFIC CONTROL DEVICES (Signals, Stop Signs)**

10 points if there are no traffic control devices within 400 feet.

x) **PROXIMITY TO PHYSICAL TRAFFIC CALMING MEASURES (speed humps, circles)**

25 points if there are no traffic calming measures within 400 feet in any direction.

xi) **TRIAL OF LESS-RESTRICTIVE, NON-PHYSICAL, CORRECTIVE TRAFFIC CALMING MEASURES**

25 points if other methods have been tested already, and proven to be unsuccessful.

**E. OPPORTUNITIES TO IMPLEMENT TRAFFIC CALMING**

When a street is being reconstructed or repaved, traffic engineering staff will review the project to see what sign and marking improvements can be implemented, such as crosswalk improvements and bike facilities. Usually there is limited funding in the street improvement budget for physical traffic calming.

Once in a while, grant opportunities will arise for local improvement projects that could include physical traffic calming.

Staff currently assesses the localized impacts of major redevelopments to determine if traffic calming elements should be included to mitigate the impacts of the development, or to enhance the safe operations for all road users, particularly the most vulnerable.

