


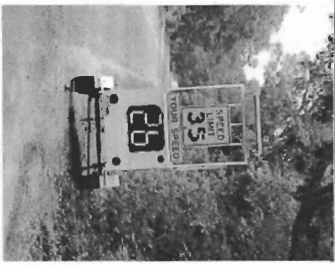

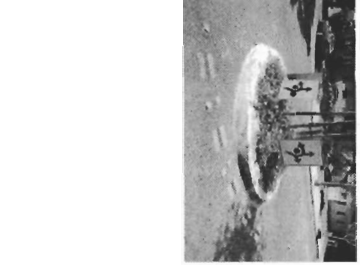
**City of Los Angeles Department of Transportation
NEIGHBORHOOD TRAFFIC MANAGEMENT TOOLS**

¹These are only rough cost estimates, and should not be used to formulate detailed budgets. Actual costs can vary greatly from the rough cost estimates, depending on street conditions, extent of landscaping, NTM goals, inflation, etc.

Neighborhood Traffic Measures / (Rough Cost¹)	Depiction	Pros	Cons	Considerations
EDGE LINES (\$1,000 or more for each 1,000 ft.)	n/a	<ul style="list-style-type: none"> Reduces side-swipe collisions. May reduce vehicular speeds. May facilitate traffic entering and exiting driveways, if there is a parking or shoulder area. Inexpensive. 	<ul style="list-style-type: none"> May raise aesthetics concerns. 	<ul style="list-style-type: none"> 18-ft min. lane width if on-street parking is provided. Must have adequate lane width for each direction of traffic.
LANE STRIPING— Such as two-way left-turn lane, centerline, etc. (\$1,000 to \$2,000 per 1,000 ft)	n/a	<ul style="list-style-type: none"> May reduce vehicular speeds. May reduce collisions. Inexpensive. 	<ul style="list-style-type: none"> May raise aesthetics concerns 	<ul style="list-style-type: none"> Requires adequate roadway width to accommodate the existing or desired roadway usage (for traffic, parking, etc.) based on LADOT standards.
STOP SIGN PATTERN (Less than \$2,000 per intersection)	n/a	<ul style="list-style-type: none"> May reduce vehicular speeds, esp. at intersections. Increases opportunity for pedestrian crossings. May discourage cut-through traffic. Inexpensive 	<ul style="list-style-type: none"> Drivers may speed up between stop signs. Will increase noise and emissions at stop signs. May require police enforcement. 	<ul style="list-style-type: none"> Must meet LADOT stop sign warrants.
SPEED HUMPS (\$5,000 for three units)		<ul style="list-style-type: none"> Slows traffic, esp. at midblock locations. Self-enforcing. Minimum maintenance. More cost-effective than other traffic calming roadway features. 	<ul style="list-style-type: none"> May increase emergency service response time slightly. May increase traffic noise in the vicinity of the hump. May raise aesthetics concerns. 	<ul style="list-style-type: none"> Must meet justification and feasibility criteria. Requires petition signed by at least 75% of households per block. Higher cost for longer blocks.




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Neighborhood Traffic Measures / (Rough Cost ¹)	Depiction	Pros	Cons	Considerations
SPEED TRAILERS (\$15,000 per trailer)		<ul style="list-style-type: none"> Slows traffic by educating drivers. More cost-effective than the fixed speed display sign. Allows for placement at multiple locations. 	<ul style="list-style-type: none"> May lose effectiveness over time, if periodic police enforcement is not provided. May raise aesthetics concerns. 	<ul style="list-style-type: none"> Requires staffing resources to move around. LAPD only has a limited number of these trailers. Requires adequate shoulder or curb lane width for placement.
SPEED FEEDBACK SIGNS (\$30,000 per sign, incl. 500 ft trench for power drop & new pole if a/c powered)		<ul style="list-style-type: none"> Slows traffic by educating drivers. 	<ul style="list-style-type: none"> May lose effectiveness over time, if periodic police enforcement is not provided. May raise aesthetics concerns. Expensive. 	<ul style="list-style-type: none"> Must meet justification and feasibility criteria. A/C powered sign is expensive to install. Most effective with periodic police enforcement. Solar powered sign can operate for a maximum of 12 hours/day, and for a shorter duration if daily sun exposure is less than optimum.
TRAFFIC CIRCLES (\$50,000 to \$100,000 or more, depending on size and decorative treatments)		<ul style="list-style-type: none"> Slows traffic, esp. at intersections. Reduces collisions at intersection. Landscaping enhances residential setting. 	<ul style="list-style-type: none"> Drivers have to learn to go around it. May impede left turns by very large vehicles (buses, trailers, etc.). May increase emergency service response time slightly. May require removal of on-street parking. Residents will have to maintain landscaping. Very expensive. 	<ul style="list-style-type: none"> Must meet justification and feasibility requirements. Requires petition signed by at least 67% of households from each block adjacent to the intersection. Higher cost for larger intersections. Requires commitment from neighborhood to maintain landscaping.

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<p>RAISED MEDIAN ISLANDS (\$30,000 + \$80 per sq. ft.)</p>		<ul style="list-style-type: none"> • May slow traffic by narrowing traffic lanes and creating a visual break in the roadway. • Landscaping enhances residential setting. 	<ul style="list-style-type: none"> • May require removal of on-street parking spaces. • May restrict driveway access, resulting in u-turns. • Residents will have to maintain landscaping. • Very expensive. 	<ul style="list-style-type: none"> • There may be objections from residents affected by parking and driveway access restrictions. • Requires commitment from neighborhood to maintain landscaping.
<p>CURB EXTENSIONS / BUMPOUTS (\$25,000 or more per corner)</p>		<ul style="list-style-type: none"> • May slow traffic by narrowing traffic lanes. • Shortens pedestrian crossing distance if located at intersections. • Landscaping enhances residential setting. 	<ul style="list-style-type: none"> • May require removal of on-street parking spaces. • At driveways, may impact driveway access. • Residents will have to maintain landscaping. • Very expensive. 	<ul style="list-style-type: none"> • There may be objections from residents affected by parking restrictions. • Extent of driveway, gutter & curb work increases costs. • Requires commitment from neighborhood to maintain landscaping.
<p>TURN RESTRICTION SIGNS (\$500 for each access point)</p>		<ul style="list-style-type: none"> • Reduces cut-through traffic volume. • May limit restrictions to problem hours. • No effect on response time for emergency service providers when compared to physical barriers. • Inexpensive. 	<ul style="list-style-type: none"> • May cause drivers to use other neighborhood streets. • Will increase travel time for local residents as well. • Not self-enforcing; requires police enforcement. 	<ul style="list-style-type: none"> • Must be verified by LADOT that there is a demonstrated cut-through problem. • Requires support of residents in the affected area (at least 67% in support). • Must address potential diversion of traffic to other neighborhood streets if restriction affects access to high volume streets (esp. collector streets).

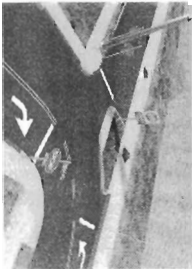
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<p>SIGNAL TIMING METERING— To reduce green time for targeted traffic flows</p>	<p>n/a</p>	<ul style="list-style-type: none"> • May reduce traffic volume, by discouraging some drivers from using the cut-thru route, once they perceive better time saving and convenience on adjacent highways and freeways. • Delay may create conditions that result in slower speeds. 	<ul style="list-style-type: none"> • May cause drivers to use other neighborhood streets. • Excessive delay may cause long queue lengths over a longer period of time (to clear out). Residents may perceive the long queues to be undesirable as well (noise, emissions). • Residents are subjected to delays, too, while leaving or returning home. • May make driveway access across long queues difficult. • Depending on the signal timing scheme, may cause inconvenience to non-participating residents immediately adjacent to the NTM project area. • Expensive if traffic signal hardware changes are needed. 	<ul style="list-style-type: none"> • Must be verified by LADOT that there is a demonstrated cut-through problem. • Requires support of residents in the affected area (at least 67% in support). • Must address potential diversion of traffic to other neighborhood streets if restriction affects access to high volume streets (esp. collector streets). • May be most effective if there are signal timing and striping changes that facilitate movements leading to the arterials.

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<p>BARRIERS-- Such as half street closures, diagonal diverters, etc. (\$25,000 to \$100,000 and more for each access point)</p>	 <p>One type of barriers: Half Street Closure</p>	<ul style="list-style-type: none"> • Reduces cut-through traffic volume. • Self-enforcing. • Landscaping enhances residential setting. 	<ul style="list-style-type: none"> • May cause drivers to use other neighborhood streets. • Will increase travel time for local residents as well. • Some drivers may go around the barrier. • Very expensive. 	<ul style="list-style-type: none"> • Must be verified by LADOT that there is a demonstrated cut-through problem. • Requires support of residents in the affected area (at least 67% in support). • Must maintain emergency or routine street access for service providers, including but not limited to the Fire Department and the Bureau of Sanitation. • Must address potential diversion of traffic to other neighborhood streets if restriction affects access to high volume streets (esp. collector streets). • Extent of gutter & curb work increases costs. • Requires commitment from neighborhood to maintain landscaping..