

October 2, 2001

Honorable Mayor and Members of
the Hermosa Beach City Council

Regular Meeting of
October 23, 2001

**APPROVAL OF REQUEST FOR STOP SIGNS ON LONGFELLOW AVENUE AT
HIGHLAND AVENUE TO CREATE A 3-WAY STOP**

Recommendation:

It is recommended that the City Council approve the request for a three-way stop control at the intersection of Longfellow Avenue and Highland Avenue and adopt the attached resolution entitled, **"A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HERMOSA BEACH, CALIFORNIA, DESIGNATING THE INTERSECTION OF LONGFELLOW AVENUE AND HIGHLAND AVENUE AS A THREE-WAY STOP CONTROL INTERSECTION"**.

Background:

At the August 8, 2001 meeting of the Public Works Commission, Vice Chairman Lombardo asked that the City Traffic Engineer investigate the possible need for a three-way stop control at the intersection of Longfellow Avenue and Highland Avenue. The City Traffic Engineer presented his report at the October 10, 2001 of the Public Works Commission, recommending that the Commission support the installation of the stop control and forward the request to the City Council. The Commission concurred with the report and voted to recommend that Council approve the request.

Analysis:

In response to the request for a 3way stop, Staff monitored the intersection and conducted a technical analysis to determine if a 3way stop is warranted according to the standard Caltrans criteria. The analysis involves an assessment of traffic volumes, accident statistics, vehicle delay, and pedestrian activity. The Caltrans guidelines suggest certain threshold values that should be used in the decision-making process in order to provide consistency throughout a community and throughout the state. The warrant criteria and the actual measured values for the intersection of Longfellow Avenue and Highland Avenue are shown below.

Warrant Criteria	Threshold Value	Measured Value	Warranted
Accidents per Year	5/year	2	No
Total Traffic at Intersection	500 vehicles/hour	528	Yes
Minor Street Vehicle & Pedestrian Volume	200 vehicles & pedestrians/hour	372	Yes
Delay (during peak hour)	30 sec/veh (average)	10	No

As shown on the table, the traffic volumes are above the state-recommended thresholds for the total volume of traffic passing through the intersection and for the traffic and pedestrians entering the intersection from the minor street (Highland Avenue). A 3-way stop would, therefore, be warranted based on the conditions observed during the afternoon peak hour, which occurred from 5:30 to 6:30 p.m. Technically, the state guidelines indicate that the thresholds should be exceeded for eight hours of the day, while only the afternoon peak hour meets the criteria for this intersection. The traffic volumes for other critical hours of the day (i.e., the noon hour and the morning peak hour) were below the threshold values. It should be noted, however, that the Caltrans criteria and thresholds are not hard-and-fast rules but are guidelines that should be used in the decision-making process. It is sometimes acceptable to install a 3-way stop if there are unique circumstances that clearly indicate that a 3-way stop would be advantageous, particularly when the traffic volume thresholds are exceeded during the peak hour.

At the intersection of Longfellow Avenue and Highland Avenue, there are visibility constraints associated with vehicles parked along the north side of Longfellow Avenue. Motorists stopped at the stop sign on Highland Avenue must edge out into the westbound travel lane of Longfellow Avenue to see the oncoming traffic, often causing vehicles to stop on Longfellow or to swerve to avoid a collision. In fact, several near misses were observed during the times that the intersection was being monitored. Eliminating several parking spaces on Longfellow Avenue could potentially alleviate these visibility problems; however, parking is a valuable resource in this area of Hermosa Beach. A more effective and less disruptive solution would be to install stop signs on Longfellow Avenue. It was also observed that up to 40 pedestrians per hour cross the street at this intersection. Pedestrian safety would be improved if 3-way stop signs were to be installed.

In summary, the conclusion of the analysis is that it would be advantageous to install stop signs on Longfellow Avenue at Highland Avenue to create a 3-way stop. The warrant criteria for a 3-way stop are satisfied during the afternoon peak hour and a 3-way stop would improve safety for the numerous motorists and pedestrians who traverse this intersection. The Staff recommendation, therefore, is for the Commission to approve the request to install stop signs on Longfellow Avenue at Highland Avenue to create a 3-way stop.

Fiscal Impact:

The estimated cost of installing two stop signs and the associated pavement markings would be \$400. Funds are available under the current Operations and Maintenance budget of Street Maintenance.

Alternatives:

1. Approve Staff's recommendation to install stop signs on Longfellow Avenue at Highland Avenue to create a 3-way stop.
2. Deny the request to install stop signs on Longfellow Avenue at Highland Avenue to create a 3-way stop.
3. Send back to Staff for further study.

Attachment: 1. Site Location Map
2. Resolution

Respectfully submitted,

Concur:

Richard D. Garland, P.E.
Contract Traffic Engineer

Harold C. Williams, P.E.
Director of Public Works/City Engineer

Noted for fiscal impact:

Concur:

Viki Copeland
Finance Director

Stephen R. Burrell
City Manager