San Francisco County Transportation Authority

100 Van Ness Avenue 26TH Floor
San Francisco, California 94102
VOICE 415.522.4800 FAX 415.522.4829
info@sfcta.org www.sfcta.org

Memorandum

Date: 08.30.08 **RE:** Van Ness Citizens Advisory Committee
September 2, 2008

To: Van Ness Avenue Citizens Advisory Committee

From: Rachel Hiatt – Senior Transportation Planner

Subject: **ACTION** – Van Ness Avenue Corner Bulbs Design Evaluation Report

Summary

Corner bulbs involve widening the sidewalk into the parking lane at corners, improving pedestrian safety. Van Ness BRT alternatives are proposed to include corner bulbs to improve pedestrian access to BRT transit stations. Caltrans does not currently have formal design standards for corner bulbs. We have included recommendations for Van Ness Avenue corner bulb design in the Engineering Design Criteria developed to guide the 10% BRT design alternatives. With participation from Caltrans and SFMTA, we conducted an evaluation of existing corner bulbs along Van Ness Avenue to inform the Engineering Design Criteria and support our request for a Caltrans Design Exception for corner bulbs. The purpose of this item is to present our evaluation and recommendations. **We are seeking approval of the Van Ness Avenue Corner Bulbs Design Evaluation Report.**

BACKGROUND

Corner bulbs involve widening the sidewalk into the parking lane at corners, improving pedestrian safety. Van Ness BRT alternatives are proposed to include corner bulbs in order to improve pedestrian access to BRT transit stations. Caltrans does not currently have formal design standards for corner bulbs. We have included recommendations for Van Ness Avenue corner bulb design in the Engineering Design Criteria developed to guide the 10% BRT design alternatives. With participation from Caltrans and SFMTA, we conducted an evaluation of existing corner bulbs along Van Ness Avenue to inform the Engineering Design Criteria and support our request for a Caltrans Design Exception for corner bulbs. We are seeking approval of the Van Ness Avenue Corner Bulbs Design Evaluation Report.

REPORT CONTENTS AND METHODOLOGY

This study examined the pedestrian corner bulbs along Van Ness Avenue to document the usage and condition of the bulbs, and evaluate the bulb design. The study team used a combination of field surveys, field observation, and historical data analysis.

Bulb Conditions Inventory: The study team inventoried all corner bulbs, documenting and classifying structural condition and wear-and-tear. The team sought to document any evidence of collisions between vehicles and the bulbs.

Field Observations: The study team conducted peak period field observations at selected bulbs to document usage, including any interaction between vehicles and the bulbs.

Collision Analysis: Caltrans and Authority staff analyzed the State Traffic Accident Surveillance and Analysis System (TASAS) data for Van Ness Avenue to determine whether collisions along Van Ness Avenue are related to the corner bulbs, and whether collision rates along Van Ness Avenue have changed since installation of the bulbs.

REPORT FINDINGS

The study finds that the bulbs are well used by crossing pedestrians. The study also finds that the bulbs generally show evidence of contact with vehicle tires in their outer 6-12 inches, but analysis of collision history indicates that no collisions have been caused by the bulbs, and that collision rates along Van Ness Avenue have not changed following the bulb installation. Furthermore, field observation indicates that contact between vehicles and corner bulbs is rare. The study concludes that the bulbs along Van Ness Avenue have been effective in improving pedestrian conditions without posing a safety risk, but that slight adjustments to the bulb design may be warranted for maintenance reasons.

Safety: The historical collision data analysis found no relationship between collisions and the pedestrian corner bulbs. The study also found no evidence of higher potential risk of collisions based on observed behavior of drivers. Specifically, all right-turning motorists are observed to make the turn without crossing the centerline of the cross-street or contacting the bulb.

Structural Condition / Damage: The study found that most bulbs have some degree of tire marking and that about one third have some structural damage. The vast majority of the marking and damage is classified as minor and is confined to the outer 6-12 inches of the bulb.

Pedestrian Conditions: The corner bulbs are well used and provide clear benefits for pedestrians, including more walking space, higher visibility, shortened crossing distance, and reduced speeds of right turning traffic.

Bulb Design and Dimensions: The 7-foot corner bulbs do experience tire markings along the outer 12 inches, even with a striped buffer. It is possible that these markings are made by parked vehicles exiting the parking lane (rather than by turning vehicles). Constructing six-foot wide bulbs may reduce the incidence of tire contact. In addition, a striped buffer may reduce the severity of bulb marking and damage by providing visual guidance for drivers when turning; the observed evidence is not definitive on this point.

We are seeking approval of the Van Ness Corner Bulb Design Evaluation Report.

ALTERNATIVES

1. Approve the Van Ness Corner Bulb Design Evaluation Report, as requested.
2. Approve the Van Ness Corner Bulb Design Evaluation Report, with modifications.
3. Defer action, pending additional information or further staff analysis.

RECOMMENDATION

Approve the Van Ness Corner Bulb Design Evaluation Report, as requested.

Attachments:

A. Van Ness Corner Bulb Design Evaluation Report