

**CITY OF MANHATTAN BEACH
DEPARTMENT OF COMMUNITY DEVELOPMENT**

TO: Parking and Public Improvements Commission

FROM: Erik Zandvliet, T.E., City Traffic Engineer

DATE: June 25, 2015

SUBJECT: Consider a Request for All-Way Stop Signs at Pacific Avenue and 23rd Street

RECOMMENDATION:

Staff recommends that the Parking and Public Improvements Commission approve a motion to recommend that the City Council adopt a resolution to install stop signs in all directions at the intersection of Pacific Avenue and 23rd Street.

BACKGROUND:

In March 2015, the City received a petition from 32 citizens representing 19 residences on Pacific Avenue for the installation of stop signs in all directions at the intersection of Pacific Avenue and 23rd Street (Exhibit 1). The petition states that there is speeding and a hill on Pacific Avenue that make it difficult to see approaching traffic or to exit driveways. The intersection is currently stopped in the eastbound and westbound directions of 23rd Street.

DISCUSSION:

The intersection of Pacific Avenue and 23rd Street is located in a residential area west of Sepulveda Boulevard (Exhibit 2). Pacific Avenue is a 40 feet wide two-lane local street with a 25mph posted speed limit. Pacific Avenue is stopped at Ardmore Avenue, 19th Street and 17th Street. 23rd Street is a 30 feet wide local street with a 25 mph prima facie speed limit. There are two-way stop signs on 23rd Street at Pacific Avenue. Both streets are improved with curbs, and some sidewalks. Curb parking is allowed on both sides of both streets, except for street sweeping restrictions. Curb parking demand is generally light during the day to moderate at night. There is a vertical curve on the south leg of Pacific Avenue. There are no cross-gutters at the intersection (Exhibit 3). Pedestrian visibility is somewhat restricted when crossing Pacific Avenue, due to the vertical curve. There are high visibility crosswalk signs and markings at the intersection to increase driver awareness of crossing pedestrians. This intersection is on the pedestrian route to school in the northbound and southbound directions for Pacific Elementary School and American Martyrs Catholic School, both located north of the intersection.

Field Observations

Field observations were made on typical days during peak and non-peak periods. Field observations confirm higher traffic volumes on Pacific Avenue and other physical characteristics at the intersection as noted above. Proper right-of-way is assigned by stop signs on 23rd Street. Sight distance for motorists on the east and west legs of 23rd Street is satisfactory in the southbound direction, but the crest of the hill on Pacific Avenue south of the intersection restricts

the view of approaching vehicles in the northbound direction. Vehicles that may be parked on Pacific Avenue close to the intersection also restrict sight distance. Vehicle speeds are higher than expected for typical residential streets, likely due to the wider street width in comparison to other surrounding streets. The Traffic Engineer observed that the higher speed may not be expected by motorists waiting at the stop signs on 23rd Street.

The traffic collision history between January 1, 2009 and December 31, 2013 was analyzed for both intersections. According to City records, there have been no collisions reported near the intersection during this six (6) year period.

A vehicle volume count was conducted on May 19, 2015, on a typical school day. A summary of the peak hour and daily volumes are provided below:

VEHICLES DIRECTION	AM PEAK HOUR	PM PEAK HOUR	DAILY
Northbound (Pacific Avenue)	354	607	4,672
Southbound (Pacific Avenue)	<u>247</u>	<u>157</u>	<u>1,584</u>
Subtotal	601	764	6,256
Westbound (23rd Street)	15	26	259
Eastbound (23rd Street)	<u>10</u>	<u>14</u>	<u>113</u>
Subtotal	25	40	362
Intersection Total	626	804	6,618

Multi-way Stop Signs

The State of California has established guidelines for the installation of stop signs. These criteria have been widely accepted and are used by the City of Manhattan Beach. Multi-way or all-way stop controls are generally recommended when one or more of the State criteria are satisfied and indicate the existing traffic control devices are not sufficient to assign proper right-of-way or cannot be remedied through other means.

A stop sign warrant checklist was completed that indicates that multi-way stop signs are warranted at this intersection (Exhibit 4). This intersection has sufficient right-of-way controls with two-way stop signs, does not meet minimum traffic volumes and has no reported collision history. However, the sight distance of approaching vehicles is significantly restricted due to the crest in the roadway on Pacific Avenue south of 23rd Street. Drivers waiting at the stop signs on 23rd Street may have difficulty seeing vehicles approaching in the northbound direction at higher than expected speeds on Pacific Avenue.

Stop signs in all directions would improve overall safety by ensuring that drivers and pedestrians have sufficient awareness of approaching vehicles before crossing Pacific Avenue. The prior addition of high visibility signs and markings as well as red curbs are helpful, but have not proven to reduce prevailing speeds sufficiently for waiting drivers and pedestrians to adequately judge sufficient traffic gaps on Pacific Avenue. Parking prohibitions alone would not remedy the sight distance restrictions caused by the vertical curve on Pacific Avenue. Therefore, the

Traffic Engineer has determined that stop signs in all directions are justified based on these special conditions at the intersection.

Public Notice

Residents and property owners within 300 feet of the intersection were notified by mail of the proposed stop sign request and were invited to give input to the Commission. This meeting was also posted in the standard public notice locations.

CONCLUSION:

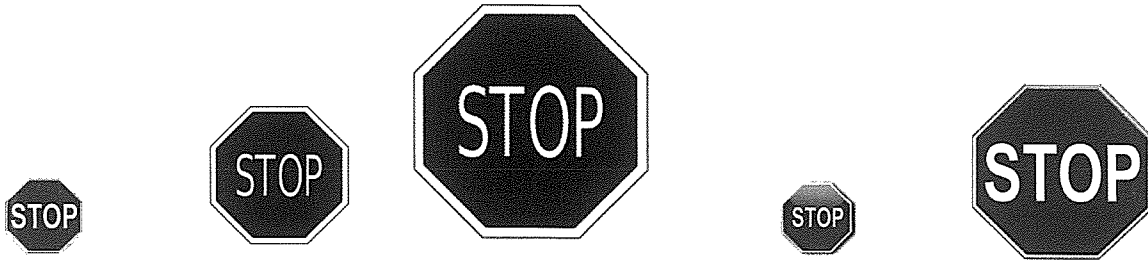
Based on State guidelines, multi-way stop signs are justified at the intersection of Pacific Avenue and 23rd Street at this time. It is recommended that the Commission approve a motion to recommend that the City Council adopt a resolution to install stop signs in all directions at the intersection of Pacific Avenue and 23rd Street.

- Exhibits:
1. Citizen Petition
 2. Aerial Photo and Location Map
 3. Site Photos
 4. Stop Sign Warrant Checklist

EHZ

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EXHIBIT 1



Date: March 25, 2015

To: The City of Manhattan Beach

C/O Marisa Lundstedt, Director

Community Development Dept.

From: Citizens on 2000-2400 Block of Pacific Avenue

Re: Petitioning a request for a Stop Sign on Pacific and 23rd Street

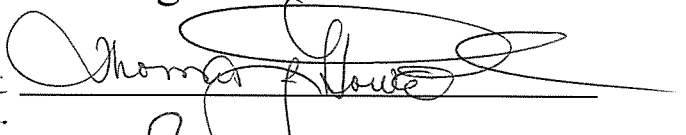
The Undersigned are in favor of placing a Stop Sign on Pacific @ 23rd!

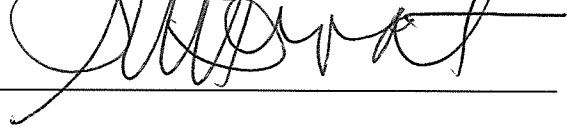
We have had it with the speeding on our residential street! We are a residential street with a speed limit of 25 MPH. We have called the police, they will not ticket unless the speed is north of 35+ mph due to the thoughtless Traffic Judges that sit in Torrance District Court. This is 40% over our posted speed. We need a permanent solution to stop the speeding and make our residential avenue SAFE.

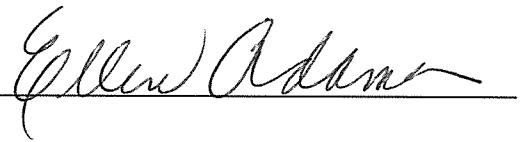
The grade on Pacific south of Marine/Ardmore prevents the driver to see past 23rd going South. Also going North from 19th, you cannot see the traffic on Pacific past 23rd. This is also hard for anyone exiting our driveways. We request a Stop Sign Immediately!

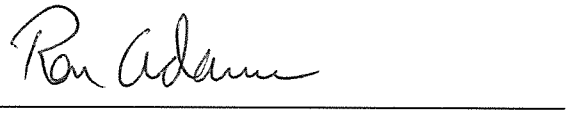
Print Name and Address

Signature

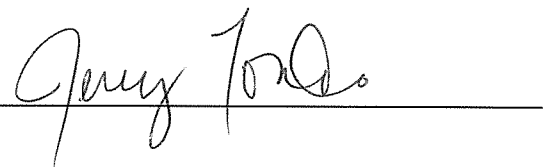
THOMAS J. HOWAT 2404 PACIFIC AVE. 


SUSIE B. HOWAT 2404 PACIFIC AVE. 


ELLEN ADAMS 2310 PACIFIC AVE. 

RON ADAMS 2310 PACIFIC AVE. 

Carol Tondo 2313 Pacific 

Jerry Tondo 2313 Pacific 

Andrea Custer 2422 N. Ardmore Ave, 1 

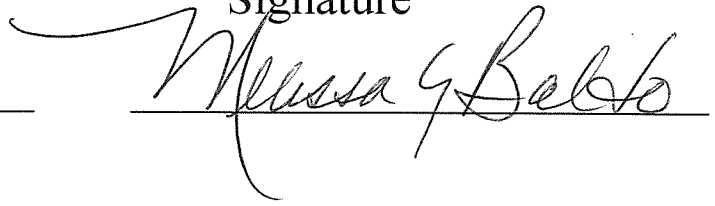
Eric Custer 2422 N. Ardmore Ave 

JENNIFER YAMAHOTA 2416 PACIFIC 

Print Name and Address

Signature

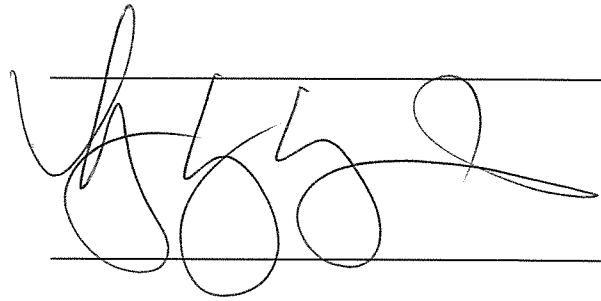
Melissa Baldo
2412 Pacific Ave
MB, CA 90266



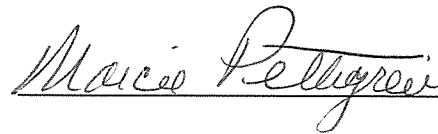
Mark Baldo
2412 Pacific Ave
MB, CA 90266



Tommy Yamamoto
2416 Pacific Ave
90266



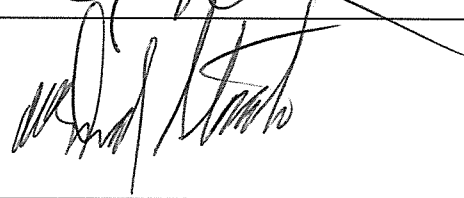
MARCIE PETTIGREW
2400 Pacific Ave
90266



Yung Kim
2401 PACIFIC AVE
MB, CA 90266



DAVID STADLER
2356 PACIFIC AVE



Kelli Erickson
2202 Pacific Ave



Rob Erickson
2202 Pacific Ave



Print Name and Address

Signature

CAROL WASH 2205 PACIFIC

Carol Wash

WILLIE ATKINSON
2205 PACIFIC

Willie Atkinson

HELEN ONUSCONICH
2405 PACIFIC AVE.

Helen Onusconich

Pete Onusconich
2405 PACIFIC AVE

Pete Onusconich

Robin Chancellor
2206 PACIFIC AVE.

Rob Chancellor

TERLIE ASCIA 2408 PACIFIC AVE.

LOIS GARCIA
MANHATTAN BEACH

2200 PACIFIC AVE

Terlie Ascia

DAVID LEVEILLE

1900 PACIFIC AVE

David Leveille

ARIEL ROSENFELD

2001 PACIFIC AVE

Ariel Rosenfeld

Print Name and Address

Signature

Zachary Rosenfeld 2001 Pacific Ave

Zachary Rosenfeld

780 19th St.
Lisa Bacich

Lisa Bacich

780 19th St.
Marco Bacich

~~Marco Bacich~~

780 19th St.
Kate Bacich
2309 PACIFIC AVE

Kate Bacich

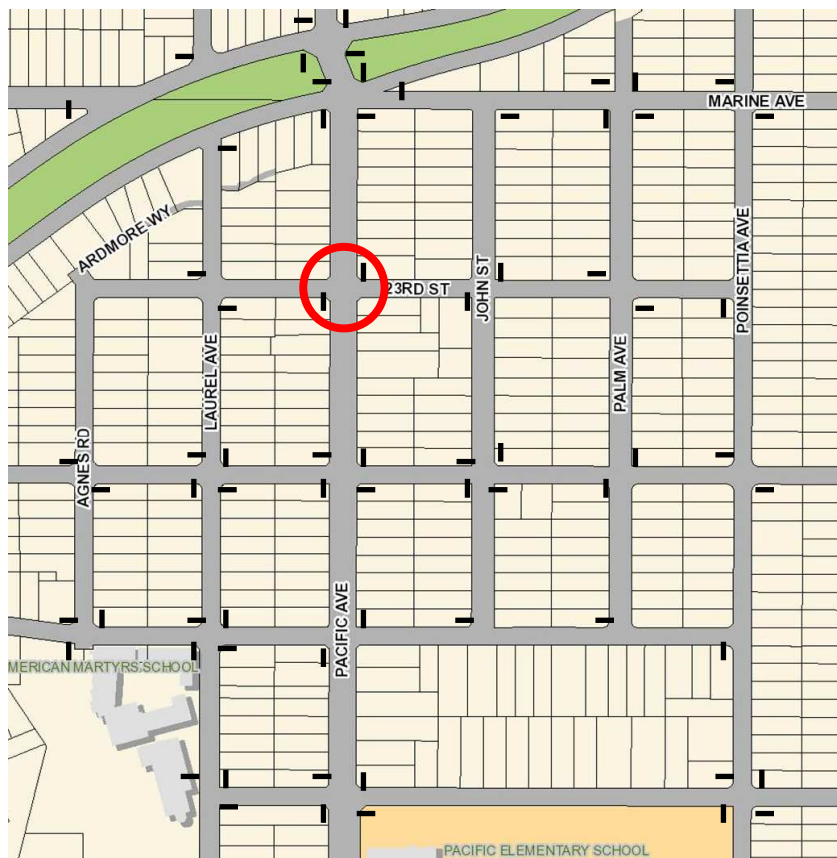
Tom KANARIAN

Tom Kanarian

2309 Pacific Ave.
Sue KANARIAN

Sue Kanarian

EXHIBIT 2
AERIAL PHOTO AND LOCATION MAP
Pacific Avenue at 23rd Street



**EXHIBIT 3
SITE PHOTOS**



23rd Street East of Pacific Avenue Looking South



23rd Street East of Pacific Avenue Looking North



23rd Street West of Pacific Avenue Looking North



23rd Street West of Pacific Avenue Looking South



EXHIBIT 4

STOP SIGN WARRANT CHECKLIST

MAJOR STREET: Pacific Avenue MINOR STREET: 23rd Street

REQUESTED BY: Citizen Petition DATE: 5/19/2015

REVIEWED BY: Erik Zandvliet

Warranted?

SINGLE STREET STOP SIGN WARRANTS

- On a less important road where the normal right-of-way rules would not be expected to provide reasonable compliance with the law.
- On a street entering a legally established through highway or street.
- At an unsignalized intersection in a signalized area.
- At other intersections where high speeds, restricted view, or crash record indicates a need for control by a stop sign.

MULTI-WAY STOP SIGN WARRANTS

- Where traffic signals are warranted, and stop signs are used as an interim measure to control traffic while the signal is installed.
- Where a crash problem exists, as indicated by five or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign.
- Where the total vehicular volume entering from the major street approaches average at least 300 vehicles per hour for any 8 hours, and the combined vehicular, bicycle and pedestrian volume from the minor street approaches average at least 200 units per hour for the same 8 hours, with an average delay to the minor street traffic is at least 30 seconds per vehicle during the highest hour, and if the 85th percentile approach speed of the major street traffic exceeds 40 MPH, the minimum vehicular volume warrant is 70 percent of the above requirements.
- Where there four or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign, and the average major and minor street volumes are at least 80% of the minimum values.
- Other locations where multi-way stop signs are justified based on an engineering study.

MULTI-WAY STOP SIGN WORKSHEET

MAJOR STREET: Pacific Avenue 85TH SPEED: 32 MPH
 MINOR STREET: 23rd Street DATE: 5/19/2015

TRAFFIC VOLUMES **WARRANTED** **YES** **NO**

If the 85th percentile speed of the major street exceeds 40 MPH, use 70% volume.

Street	Min Volume	70%	80%	Ave.	Hour / Volume							
					7am	9am	10am	2pm	3pm	4pm	6pm	7pm
Major	300	210	240	455	512	367	252	486	519	557	584	364
Minor	200	140	160	27	25	24	27	27	37	29	25	24

And, does the minor street have an average delay of at least 30 seconds in the peak hour?

Peak Average Delay	< 10 sec.
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COLLISION RECORD **WARRANTED** **YES** **NO**

Are there five or more reported collisions within a 12 month period of a type correctable by a multi-way stop sign?

DATE	TIME	DIRECTION	TYPE	CAUSE
6/22/2013	01:56	SB THRU VS. OBJECT	HIT OBJECT	RAN OFF ROAD
2012	-	None	-	-
2011	-	None	-	-
2010	-	None	-	-
2009	-	None	-	-

80% COMBINATION **WARRANTED** **YES** **NO**

Are there four or more reported accidents within a 12 month period of a type correctable by a multi-way stop sign, and

Average major and minor street volumes are at least 80% of the minimum values?

OTHER MULTI-WAY STOP CONDITIONS	WARRANTED	YES	NO
A. Need to control left turn conflicts		YES	NO
B. Need to control vehicle/pedestrian conflicts at high ped locations		YES	NO
C. Visibility obstruction after stopping on minor street approach		YES	NO
D. Two similar neighborhood collector streets that would improve operation		YES	NO
Other: Unexpected speeds and vertical curvature in a school zone.		YES	NO