### Pedestrian Safety Barricade Project

City of Manhattan Beach 13<sup>th</sup> Street Farmers Market and Manhattan Beach Blvd Near the Pier



Stephanie Katsouleas, Public Works Director Prem Kumar, City Engineer Adilia Miller, Senior Civil Engineer

#### Introduction

A Pedestrian Safety Barricade System acts as a barrier that separates pedestrians from the threat of unauthorized vehicles.



## Manhattan Beach Proposed Location Map





# **Bollards Options and Barrier Systems Used by Other Jurisdictions**



### City of El Segundo Farmers Market



Stored adjacent to City building



Mechanical dolly



### City of El Segundo Farmers Market



Bollards north of Fire Station #1



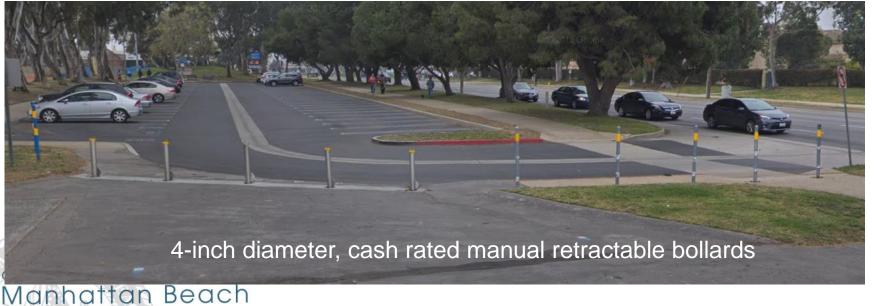
Crosswalk at Holly Avenue



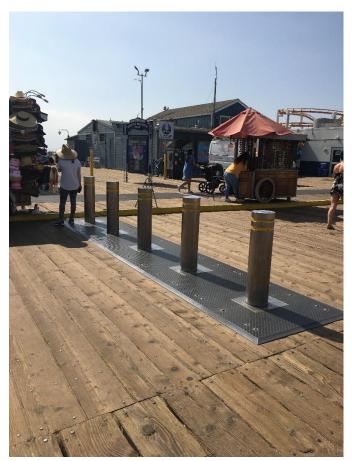
### City of Torrance Wilson Park

CALIFORNIA





### City of Santa Monica Pier Vehicle Bollard Project



CALIFORNIA

City of



8-inch diameter, crash rated, steel pipe, removable bollards with lockable pin Manhattan Beach

### City of Santa Monica Expo Station





8-inch assistant retractable bollards, crash rated



# City of Santa Monica Dragnet Barricade System





Farmers Market Dragnet Barricades System



## City of Santa Monica Dragnet Barricade System





Energy absorbers supported by anchor posts



### City of Huntington Beach Farmers Market Bollard Project





6-inch removable, crash rated, stainless steel, angle top bollards



#### City of Huntington Beach Farmers Market Bollard Project



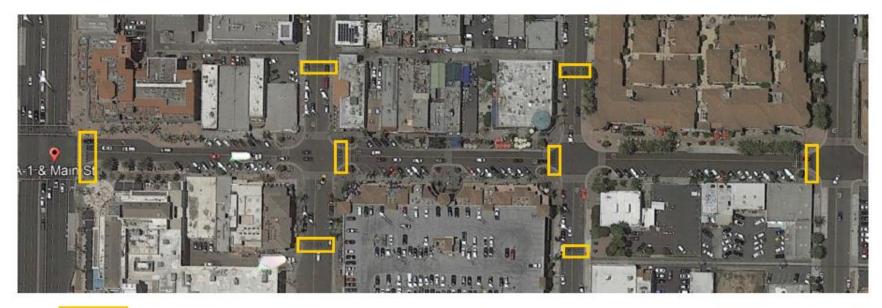
Bollard storage on the sidewalk when not used for an event







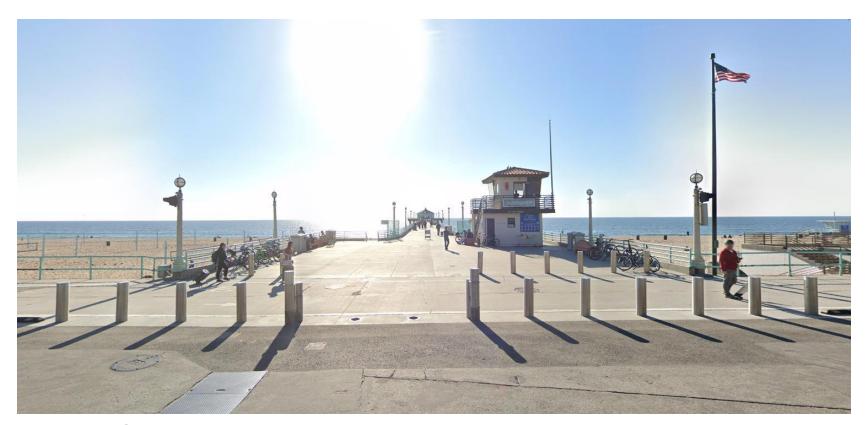
### City of Huntington Beach Bollard Location







#### City of Manhattan Beach Pier Bollard Replacement Project



Crash rated, stainless steel fixed bollards and removable bollards



#### Staff Recommendations

- Appropriate \$200,000 from the General Fund unreserved fund balance design, soils testing and installation of bollards for the Farmer's Market area; and
- Approve spending up to \$40,000 from the CIP to assess and evaluate pedestrian safety barrier options on Manhattan Beach Blvd at Manhattan Ave. and Ocean Drive.