

INTERSECTION 69

Hawthorne Boulevard (SR-107)/ Redondo Beach Boulevard Improvement(s)

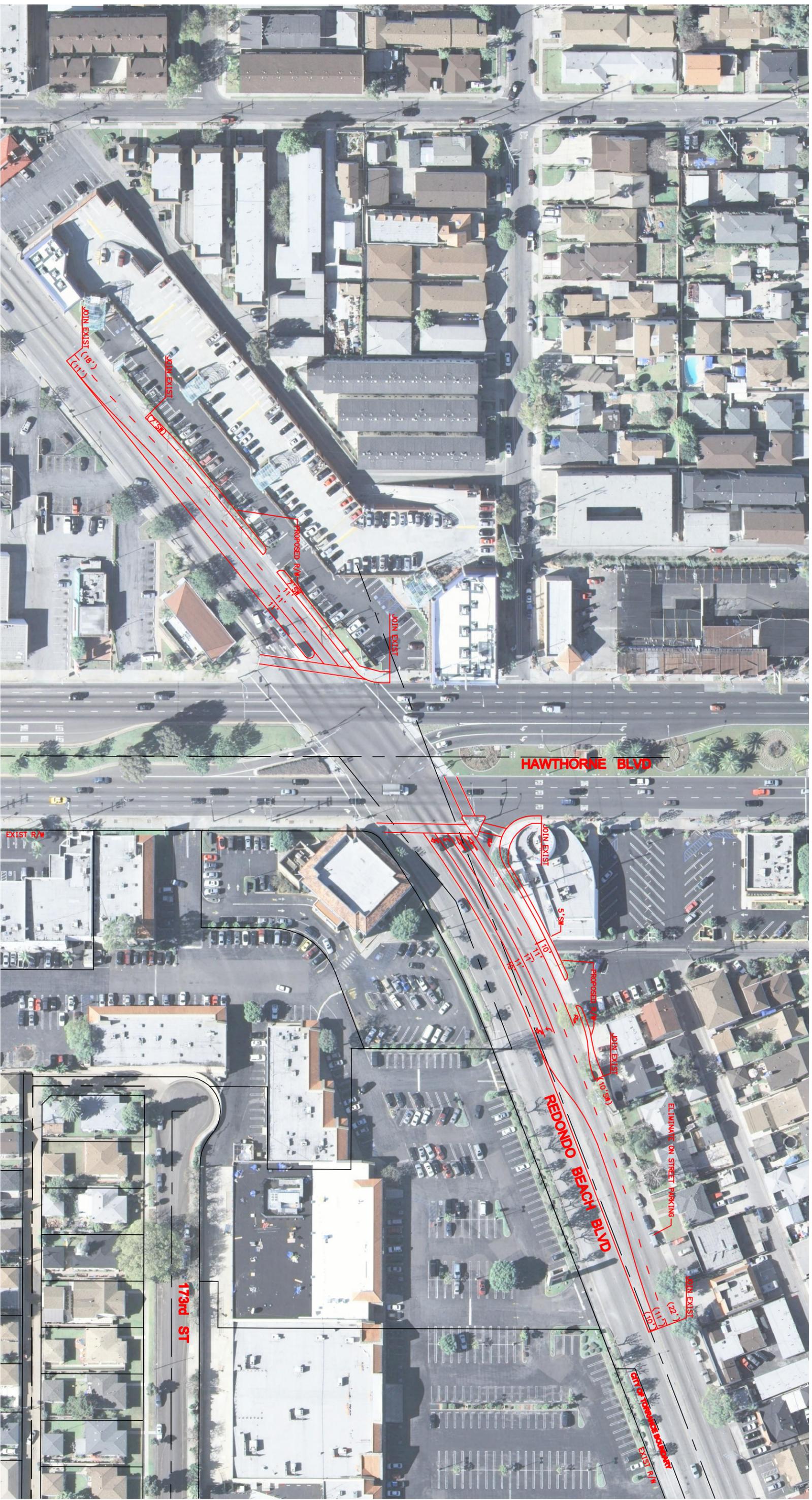
Forecast Long-Range Future Conditions Intersection LOS Summary

	AM Peak Hour	PM Peak Hour
Without Improvement(s)	29.0 – C	<i>64.8 – E</i>
With Improvement(s)	23.2 – C	36.8 – D

Note: Delay shown in seconds per vehicle; Deficient intersection operation shown in ***bold italics***.

Recommended Improvements:

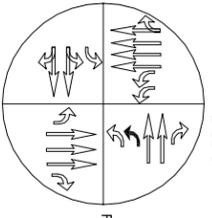
- Widen the westbound Redondo Beach Boulevard approach from one left-turn lane, two through lanes, and one right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane.
- Implementation of the improvements identified at the Hawthorne Boulevard (SR-107)/Redondo Beach Boulevard intersection will require City acquisition of approximately 12-feet of right-of-way on the westbound Redondo Beach Boulevard approach and departure to provide adequate alignment of westbound Redondo Beach Boulevard through lanes.



MITIGATIONS:
WB - ADD LEFT TURN

HAWTHORNE BLVD

LEGEND:
EXISTING LANE
NEW IMPROVEMENT



REDONDO BEACH BLVD

INTERSECTION 69
HAWTHORNE BLVD/REDONDO BEACH BLVD
CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES

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REV.	DATE	DESCRIPTION	BY	CHECKED

CITY OF TORRANCE
PUBLIC WORKS DEPARTMENT

DRAWN: D. CHANLEY
DESIGNED: D. CHANLEY
PROJECT ENGINEER: _____
APPROVED: _____
SCALE: AS SHOWN SHEET 1 OF 1
PLAN NO. _____

**CITY OF TORRANCE CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES
PRELIMINARY COST ESTIMATES**

Location: Intersection 69: Hawthorne Blvd & Redondo Beach Blvd

Date: 3/7/2008

Mitigation: Widen the WB Redondo Beach Blvd approach to consist of two left-turn lanes, two through lanes and one right-turn lane.

Estimated by: D. Chanley

	DESCRIPTION OF WORK	UNIT PRICE	QUANTITY	COST
1	Mobilization	10.00% (\$2,000 Min)		\$78,000
2	Clear & Grub	\$10,000.00 / AC		\$0
3	Remove Striping	\$10.00 / LF	1,010	\$10,000
4	Remove Curb & Gutter	\$15.00 / LF	745	\$11,000
5	Remove Median Curb	\$30.00 / LF	80	\$2,000
6	Remove PCC Sidewalk	\$3.50 / SF	7,585	\$27,000
7	Remove Pavement	\$4.00 / SF		\$0
8	Remove Wall	\$50.00 / LF		\$0
9	Remove Channel	\$15.00 / LF		\$0
10	Remove/Replace Chain Link Fence	\$50.00 / LF		\$0
11	Remove/Replace Wrought Iron Fence	\$10.00 / LF		\$0
12	Remove/Replace Survey Monument	\$800.00 / EA		\$0
13	Reconstruct Metal Beam Guard Rail	\$70.00 / LF		\$0
14	Remove & Relocate Tree	\$3,000.00 / EA	11	\$33,000
15	Sawcut	\$1.00 / LF	745	\$700
16	Relocate Street Light	\$7,500.00 / EA	5	\$37,500
17	Relocate Traffic Signal System	\$300,000.00 / EA	0.5	\$150,000
18	Signal Phase Modification	\$10,000.00 / EA		\$0
19	Relocate Freeway Sign (2 post)	\$1,000.00 / EA		\$0
20	Relocate Sign (1 Post)	\$300.00 / EA	5	\$1,500
21	Reconstruct Overhead Sign	\$50,000.00 / EA		\$0
22	Relocate Call Box	\$2,000.00 / EA		\$0
23	Relocate Power Pole	\$25,000.00 / EA	2	\$50,000
24	Relocate Catch Basin	\$9,000.00 / EA		\$0
25	Relocate Fire Hydrant	\$2,500.00 / EA	3	\$7,500
26	Relocate Bus Shelter	\$2,000.00 / EA	1	\$2,000
27	Relocate Bus Bench	\$600.00 / EA	4	\$2,000
28	Relocate Monument Sign	\$5,000.00 / EA	1	\$5,000
29	Relocate Utility Boxes	\$500.00 / EA		\$0
30	Relocate Main Water Valve	\$10,000.00 / EA		\$0
31	Relocate Utility Vault	\$3,000.00 / EA	7	\$21,000
32	Adjust Manhole to Grade	\$1,000.00 / EA	2	\$2,000
33	Adjust Water Meter	\$2,000.00 / EA	2	\$4,000
34	Adjust Water Valve	\$500.00 / EA	2	\$1,000
35	Adjust Minor Above Ground Utilities	\$500.00 / EA	3	\$2,000
36	Modify Driveway	\$5,000.00 / EA	2	\$10,000
37	Earthwork	\$40.00 / CY	640	\$26,000
38	Construct PCC Pavement	\$15.00 / SF		\$0
39	Construct AC Pavement	\$14.00 / SF	3,440	\$48,000
40	Construct AC Overlay	\$3.00 / SF		\$0
41	Construct Slurry Seal	\$0.25 / SF		\$0
42	Construct Striping & Marking	\$4.00 / LF	1,010	\$4,000
43	Construct AC Dike	\$7.00 / LF		\$0
44	Construct Curb & Gutter	\$40.00 / LF	735	\$29,000
45	Construct Concrete Barrier	\$50.00 / LF		\$0
46	Construct Median Curb	\$20.00 / LF	80	\$2,000
47	Construct Median Concrete	\$10.00 / SF	335	\$3,000
48	Construct Median/Parkway Landscaping	\$10.00 / SF		\$0
49	Construct PCC Sidewalk	\$10.00 / SF	5,000	\$50,000
50	Construct Access Ramp	\$5,000.00 / EA	4	\$20,000
51	Construct Retaining Wall	\$50.00 / SF		\$0
52	Construct Storm Drain Main	\$100.00 / LF		\$0
53	Construct RCB	\$1,000.00 / LF		\$0
54	Construct Headwall	\$5,000.00 / EA		\$0
55	Construct Concrete V-Ditch	\$15.00 / LF		\$0
56	Construct Bridge Widening	\$500.00 / SF		\$0
57	Construct Wall	\$70.00 / LF		\$0
58	Building/Structure Demolition (3-Story Bldg)	\$10.00 / SF		\$0
59	Traffic Control (\$5,000 min)	8%	1	\$45,000
60	Drainage Items	10%	1	\$61,000
61	SWPPP Plan and Implementation	6%	1	\$39,000
	CONSTRUCTION SUBTOTAL			\$784,200
	Right-of-Way	100 / SF	1,320	\$132,000
	Right-of-Way Management	5 / %		\$7,000
	RIGHT-OF-WAY SUBTOTAL			\$139,000
	TOTAL CONSTRUCTION & RIGHT-OF-WAY COST			\$924,000
	Preliminary Project Development (10% of total Construction/RW cost)			\$93,000
	Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min)			\$139,000
	Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min)			\$93,000
	Contingency (20% of Total Construction/RW cost) (\$5,000 min)			\$185,000
	TOTAL PROJECT COSTS			\$1,434,000