

INTERSECTION 85

Hawthorne Boulevard (SR-107)/Sepulveda Boulevard Improvement(s)

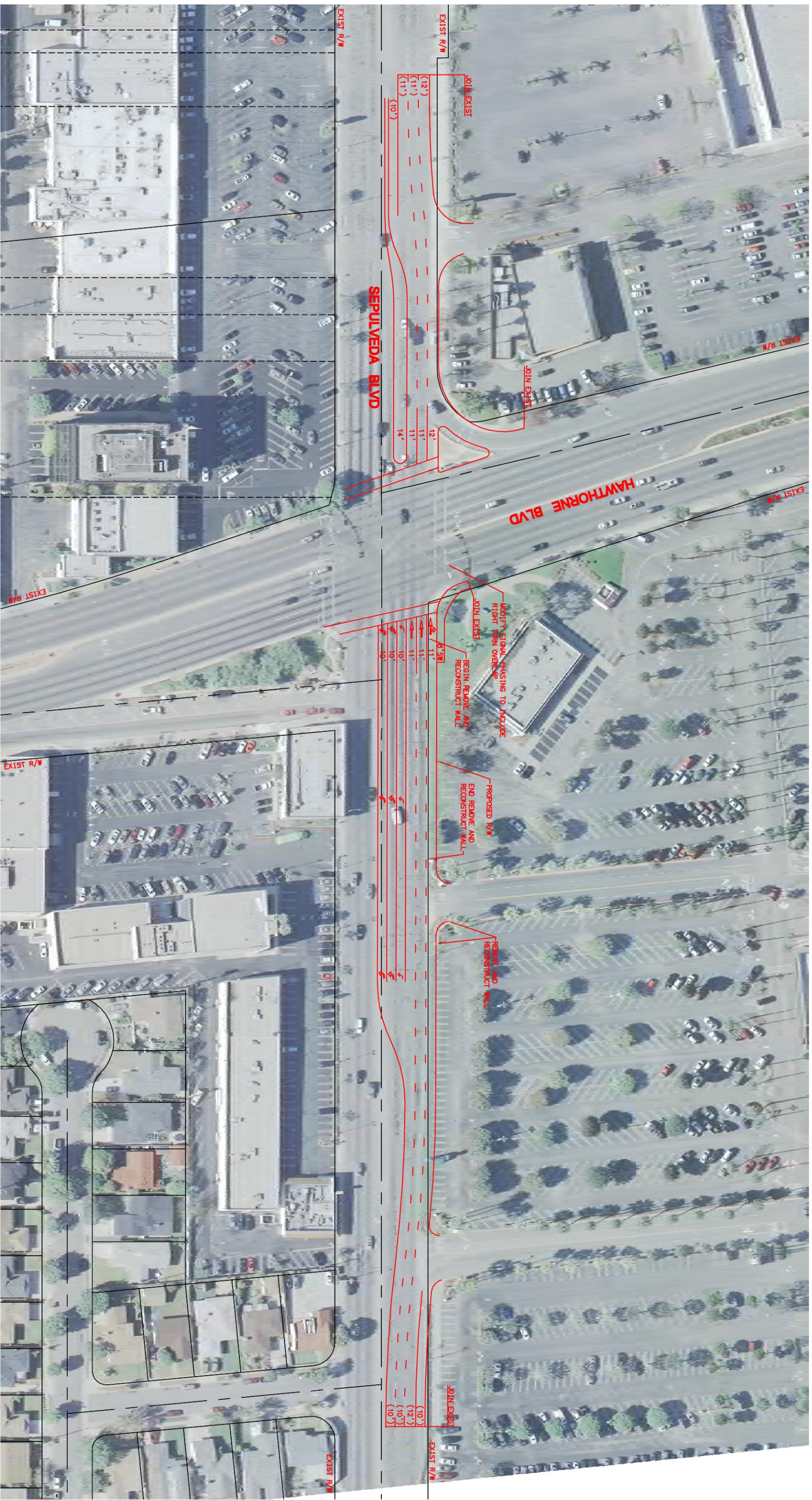
Forecast Near-Term Conditions Intersection LOS Summary

	Weekday AM Peak Hour	Weekday Mid-Day Peak Hour	Weekday PM Peak Hour	Weekend Mid-Day Peak Hour
Without Improvement(s)	40.5 – D	42.4 – D	56.8 – E	87.2 – F
With Improvement(s)	37.6 – D	39.1 – D	40.5 – D	54.9 – D

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

Recommended Improvements:

- Modify the northbound Hawthorne Boulevard (SR-107) traffic signal phasing to include a right-turn overlap, which will preclude U-turn movement from westbound to eastbound Sepulveda Boulevard.
- Widen the westbound Sepulveda Boulevard approach from two left-turn lanes, two through lanes, and one shared through/right-turn lane to consist of three left-turn lanes, two through lanes, and one shared through/right-turn lane.
- Implementation of the recommended improvements at the Hawthorne Boulevard (SR-107)/Sepulveda Boulevard intersection will require City acquisition of approximately 12-feet of right-of-way on the westbound Sepulveda Boulevard approach and departure to provide adequate alignment of westbound through lanes.



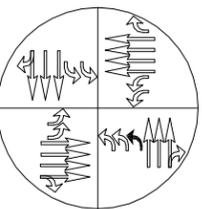
MITIGATIONS:
 NB - MODIFY SIGNAL PHASING TO INCLUDE RIGHT TURN OVERLAP
 WB - ADD LEFT TURN

HAWTHORNE BLVD.

LEGEND:

EXISTING LINE
 NEW IMPROVEMENT

SEPULVEDA BLVD.



**INTERSECTION 85
 HAWTHORNE BLVD/SEPULVEDA BLVD**
 CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES

REV.	DATE	DESCRIPTION	BY	CHECKED

**CITY OF TORRANCE
 PUBLIC WORKS DEPARTMENT**

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



PLANNING ■ DESIGN ■ CONSTRUCTION
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**CITY OF TORRANCE CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES
PRELIMINARY COST ESTIMATES**

Location: Intersection 85: Hawthorne Blvd/Sepulveda Blvd

Date: 3/7/2008

Mitigation: Widen the westbound Sepulveda Boulevard approach to consist of three left-turn lanes, two through lanes, and one shared through/right-turn lanes.

Estimated by: D. Alvarado

	DESCRIPTION OF WORK	UNIT PRICE	QUANTITY	COST
1	Mobilization	10.00% (\$2,000 Min)		\$82,000
2	Clear & Grub	\$10,000.00 / AC	11.00	\$110,000
3	Remove Striping	\$10.00 / LF	1,307	\$13,100
4	Remove Curb & Gutter	\$15.00 / LF	1,387	\$21,000
5	Remove Median Curb	\$30.00 / LF	300	\$9,000
6	Remove PCC Sidewalk	\$3.50 / SF	530	\$2,000
7	Remove Pavement	\$4.00 / SF		\$0
8	Remove Wall	\$50.00 / LF	279	\$14,000
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	5	\$15,000
15	Sawcut	\$1.00 / LF	1,400	\$1,400
16	Relocate Street Light	\$7,500.00 / EA	3	\$22,500
17	Relocate Traffic Signal System	\$300,000.00 / EA	0.25	\$75,000
18	Signal Phase Modification	\$10,000.00 / EA	0.3	\$2,500
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		\$0
24	Relocate Catch Basin	\$9,000.00 / EA	1	\$9,000
25	Relocate Fire Hydrant	\$2,500.00 / EA	1	\$2,500
26	Relocate Bus Shelter	\$2,000.00 / EA	1	\$2,000
27	Relocate Bus Bench	\$600.00 / EA		\$0
28	Relocate Monument Sign	\$5,000.00 / EA	2	\$10,000
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	12	\$36,000
32	Adjust Manhole to Grade	\$1,000.00 / EA	3	\$3,000
33	Adjust Water Meter	\$2,000.00 / EA		\$0
34	Adjust Water Valve	\$500.00 / EA		\$0
35	Adjust Minor Above Ground Utilities	\$500.00 / EA		\$0
36	Modify Driveway	\$5,000.00 / EA	3	\$15,000
37	Earthwork	\$40.00 / CY	1,142	\$46,000
38	Construct PCC Pavement	\$15.00 / SF		\$0
39	Construct AC Pavement	\$14.00 / SF	6,659	\$93,000
40	Construct AC Overlay	\$3.00 / SF		\$0
41	Construct Slurry Seal	\$0.25 / SF		\$0
42	Construct Striping & Marking	\$4.00 / LF	1,307	\$5,300
43	Construct AC Dike	\$7.00 / LF		\$0
44	Construct Curb & Gutter	\$40.00 / LF	1,323	\$53,000
45	Construct Concrete Barrier	\$50.00 / LF		\$0
46	Construct Median Curb	\$20.00 / LF	323	\$6,000
47	Construct Median Concrete	\$10.00 / SF		\$0
48	Construct Median/Parkway Landscaping	\$10.00 / SF		\$0
49	Construct PCC Sidewalk	\$10.00 / SF	794	\$8,000
50	Construct Access Ramp	\$5,000.00 / EA	1	\$5,000
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	279	\$20,000
58	Building/Structure Demolition (1-Story Bldg)	\$10.00 / SF		\$0
59	Traffic Control (\$5,000 min)	8%	1	\$48,000
60	Drainage Items	10%	1	\$54,000
61	SWPPP Plan and Implementation	6%	1	\$34,782
	CONSTRUCTION SUBTOTAL			\$819,582
	Right-of-Way	100 / SF	4,293	\$429,000
	Right-of-Way Management	5 / %		\$21,000
	RIGHT-OF-WAY SUBTOTAL			\$450,000
	TOTAL CONSTRUCTION & RIGHT-OF-WAY COST			\$1,270,000
	Preliminary Project Development (10% of total Construction/RW cost)			\$127,000
	Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min)			\$191,000
	Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min)			\$127,000
	Contingency (20% of Total Construction/RW cost) (\$5,000 min)			\$254,000
	TOTAL PROJECT COSTS			\$1,969,000