

INTERSECTION 104

Inglewood Avenue/190th Street Improvement(s)

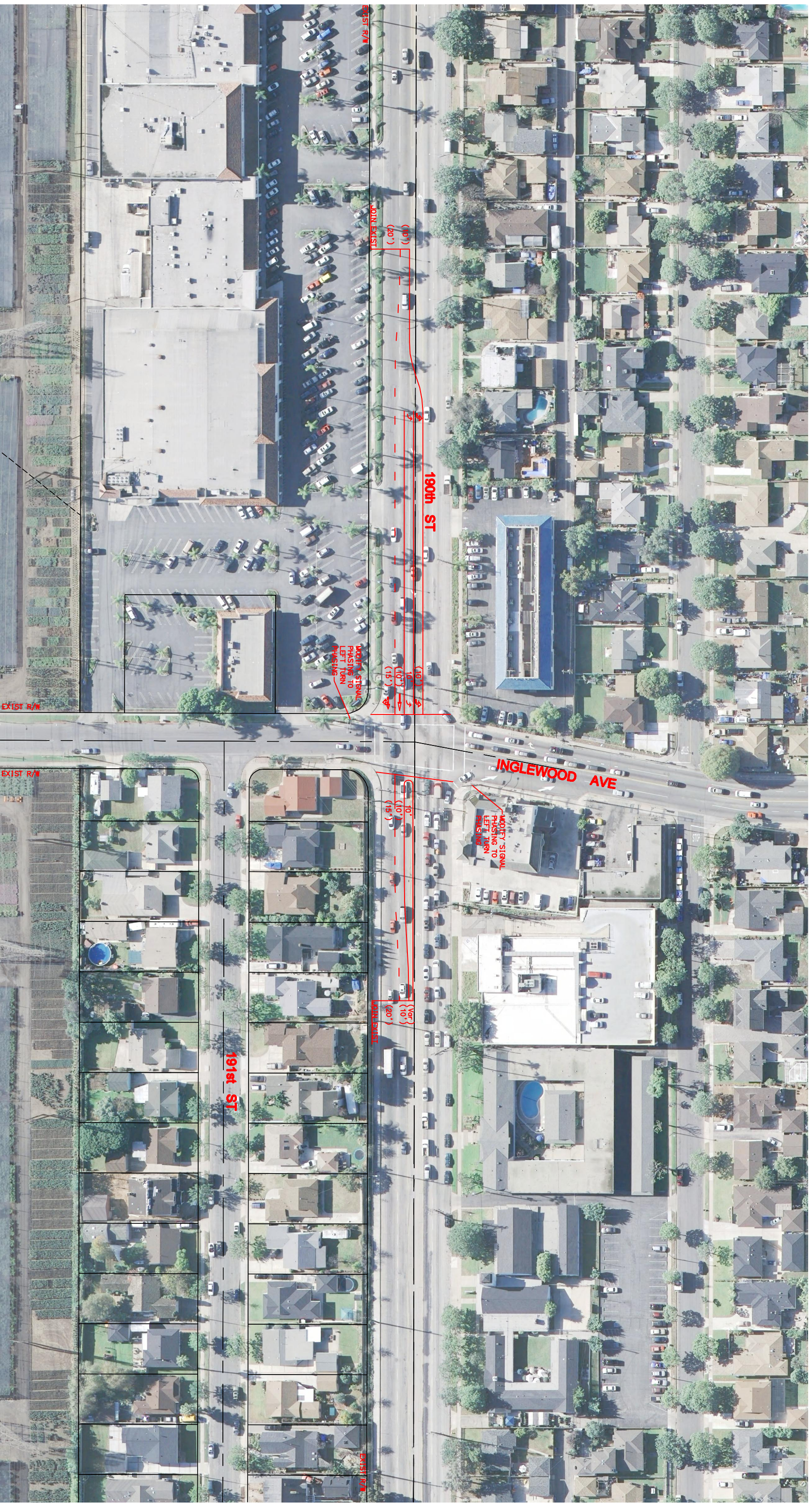
Forecast Near-Term Conditions Intersection LOS Summary

	Weekday AM Peak Hour	Weekday Mid-Day Peak Hour	Weekday PM Peak Hour	Weekend Mid-Day Peak Hour
Without Improvement(s)	34.1 – C	<i>106.2 – F</i>	34.3 – C	<i>66.5 – E</i>
With Improvement(s)	27.9 – C	34.1 – C	31.1 – C	39.8 – D

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

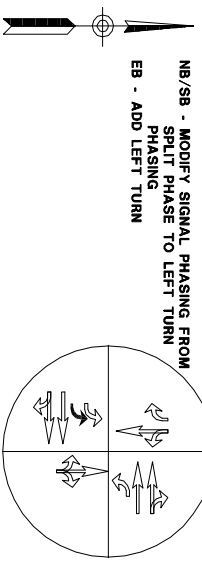
Recommended Improvements:

- Modify the northbound and southbound traffic signal phasing from split-phase to permitted left-turn phasing.
- Additionally, widen the eastbound 190th Street 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 recommended improvements identified at the Inglewood Avenue/190th Street intersection will require City acquisition of approximately 12-feet of right-of-way on the eastbound 190th Street approach and departure to provide adequate alignment of eastbound 190th Street through lanes.
- *Intersection improvements identified for forecast near-term conditions only.*



MITIGATIONS:
 NB/SB - MODIFY SIGNAL PHASING FROM
 SPLIT PHASE TO LEFT TURN
 EB - ADD LEFT TURN

LEGEND:
 EXISTING LANE
 NEW IMPROVEMENT



INTERSECTION 104
INGLEWOOD AVE/190th ST
 CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES

RBF CONSULTING
 PLANNING ■ DESIGN ■ CONSTRUCTION
 14725 ALTON PARKWAY
 IRVINE, CALIFORNIA 92618-2027
 949.472.3905 • FAX 949.837.2007 • WWW.RBF.COM

REV.	DATE	DESCRIPTION	BY	CHECKED

CITY OF TORRANCE
PUBLIC WORKS DEPARTMENT

APPROVED: _____ DATE _____

DRAWN: D. AL VARADDO
 DESIGNED: D. AL VARADDO

PROJECT ENGINEER: _____
 SCALE: AS SHOWN SHEET 1 OF 1
 PLAN NO. _____

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

Location: Intersection 104: Inglewood Avenue/190th Street

Date: 3/21/2008

Mitigation: Modify the northbound and southbound traffic signal phasing to permitted left-turn phasing. Widen the eastbounds 190th Street approach to consist of two left-turn lanes, one through lane, and one right-turn lane.

Estimated by: D. Alvarado

	DESCRIPTION OF WORK	UNIT PRICE	QUANTITY	COST
1	Mobilization	10.00% (\$2,000 Min)		\$26,000
2	Clear & Grub	\$10,000.00 / AC		\$0
3	Remove Striping	\$10.00 / LF	744	\$7,500
4	Remove Curb & Gutter	\$15.00 / LF		\$0
5	Remove Median Curb	\$30.00 / LF	100	\$3,000
6	Remove PCC Sidewalk	\$3.50 / SF		\$0
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		\$0
15	Sawcut	\$1.00 / LF		\$0
16	Relocate Street Light	\$7,500.00 / EA		\$0
17	Relocate Traffic Signal System	\$300,000.00 / EA	0.50	\$150,000
18	Signal Phase Modification	\$10,000.00 / EA	2.0	\$20,000
19	Relocate Freeway Sign (2 post)	\$1,000.00 / EA		\$0
20	Relocate Sign (1 Post)	\$300.00 / EA		\$0
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		\$0
25	Relocate Fire Hydrant	\$2,500.00 / EA		\$0
26	Relocate Bus Shelter	\$2,000.00 / EA		\$0
27	Relocate Bus Bench	\$600.00 / EA		\$0
28	Relocate Monument Sign	\$5,000.00 / EA		\$0
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		\$0
32	Adjust Manhole to Grade	\$1,000.00 / EA		\$0
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		\$0
37	Earthwork	\$40.00 / CY		\$0
38	Construct PCC Pavement	\$15.00 / SF		\$0
39	Construct AC Pavement	\$14.00 / SF		\$0
40	Construct AC Overlay	\$3.00 / SF		\$0
41	Construct Slurry Seal	\$0.25 / SF		\$0
42	Construct Striping & Marking	\$4.00 / LF	744	\$3,000
43	Construct AC Dike	\$7.00 / LF		\$0
44	Construct Curb & Gutter	\$40.00 / LF		\$0
45	Construct Concrete Barrier	\$50.00 / LF		\$0
46	Construct Median Curb	\$20.00 / LF		\$0
47	Construct Median Concrete	\$10.00 / SF		\$0
48	Construct Median/Parkway Landscaping	\$10.00 / SF		\$0
49	Construct PCC Sidewalk	\$10.00 / SF		\$0
50	Construct Access Ramp	\$5,000.00 / EA		\$0
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 (1-Story Bldg)	\$10.00 / SF		\$0
59	Traffic Control (\$5,000 min)	8%	1	\$15,000
60	Drainage Items	10%	1	\$20,000
61	SWPPP Plan and Implementation	6%	1	\$12,660
	CONSTRUCTION SUBTOTAL			\$257,160
	Right-of-Way	100 / SF		\$0
	Right-of-Way Management	5 / %		\$0
	RIGHT-OF-WAY SUBTOTAL			\$0
	TOTAL CONSTRUCTION & RIGHT-OF-WAY COST			\$258,000
	Preliminary Project Development (10% of total Construction/RW cost)			\$26,000
	Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min)			\$39,000
	Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min)			\$26,000
	Contingency (20% of Total Construction/RW cost) (\$5,000 min)			\$52,000
	TOTAL PROJECT COSTS			\$401,000