

**TRANSMITTAL DATE: September 16, 2016****MEETING DATE: September 23, 2016****ITEM 22****TO: Board of Directors****FROM: Arthur T. Leahy** *ATL***SUBJECT: Planned Slow Orders Resulting from Deferred Funding for Track and Structures Rehabilitation****Issue**

Track and structures rehabilitation funding will be required in the next 18 months for track and within 36 months for bridges and culverts. Bridges and culverts have longer lead times and take longer to get “shovel-ready” than track projects. If additional funding is not approved, slow orders and weight restrictions will be applied to various locations on the system, principally on the Valley, Ventura, River and San Gabriel line segments.

**Recommendation**

The Board may receive and file this report.

**Alternatives**

The Board may request additional information.

**Background**

The Authority is responsible for maintaining rail network assets dispersed over five counties and including nearly 400 miles of track in a State of Good Repair. The breakdown of key track and structure assets on Metrolink property includes 3.8 million feet of rail, 1.1 million concrete or wood ties with fasteners, 285 crossing surfaces, 442 turnouts, 261 bridges, 580 culverts and 6 tunnels. In addition to track and structure assets, various system assets including signals, communications, train control centers, Positive Train Control (PTC) and specialized Maintenance-of-Way (MOW) equipment must be maintained to a State of Good Repair.

The Authority’s Engineering staff utilize various methods for measuring the condition of infrastructure components which is documented in condition reports and databases. Condition reports are used to determine the remaining life on an asset and program its replacement or renewal. The programming for replacement and renewal includes a cost estimate, schedule and funding request to perform the work before the asset reaches a threshold where it could impact rail operations throughput, reliability or safety. These forecasts, schedules and estimates are used to develop annual multi-year rehabilitation funding requests and to plan procurement materials and installation contractors to perform the work.

Funding levels for track and structures have become inadequate to maintain these railroad assets in a State of Good Repair. Funding for overall rehabilitation and replacement has fluctuated between \$18M and \$47M per year during the past 10 years, and has steadily become inadequate to sustain necessary rehabilitation of track, bridges and culverts, specifically for the Valley, Ventura, San Gabriel and River line segments. For FY2016, there was no funding for rehabilitation of track assets on the Ventura (Los Angeles), Valley, River, or Pasadena subdivisions. As a result, the condition of the track, bridge, tunnel and culvert assets continues to steadily degrade as a consequence of the lack of funding. With the recent levels of funding obtained, Metrolink is only addressing projects on a “worst-first” basis, and therefore the assets that also need to be addressed, but are not in the very worst condition, have been deferred. Attachment C provides the historic funding for track and structures over the past five years.

Attachments A and B provide a table and corresponding maps listing the locations and work where funding is required to address immediate needs for rehabilitation or replacement. The amounts requested are in addition to any previously programmed amounts, but were requested in the preliminary FY2016-17 budget. The table and maps are also divided into an “A” and “B” list. The “A” list is for the highest priority and the “B” list is for the next-highest priority work necessary. The lists do not account for other separately programmed or yet-to-be programmed rehabilitation work such as signal, communication, train control system work and work on other line segments. Some critical track and closely related signal work within the Los Angeles Union Station terminal has also not been included in the list and will be added in the near future.

If funding is not be made available, staff will need to develop a plan for operations on the track segments with deferred rehabilitation. This will likely result in slow orders on the impacted segments and will cause significant service impacts. Slow orders would be imposed beginning in June 2017. The corresponding typical increase in run times for a Valley, Ventura or San Bernardino Line train trip could be 10 to 15 minutes. Weight limits on bridges may also need to be imposed, restricting the gross weight for freight cars from 315,000 down to 286,000 pounds. The freight railroads would be very concerned about this course of action and likely reduce their freight revenue contributions to the Authority or take other action.

### **Budget Impact**

There is no budgetary impact in developing this report. However, if the Board directs staff to increase funding for all or some of the rehabilitation work, a mid-year adjustment to the Authority’s FY2016-17 budget will be required.

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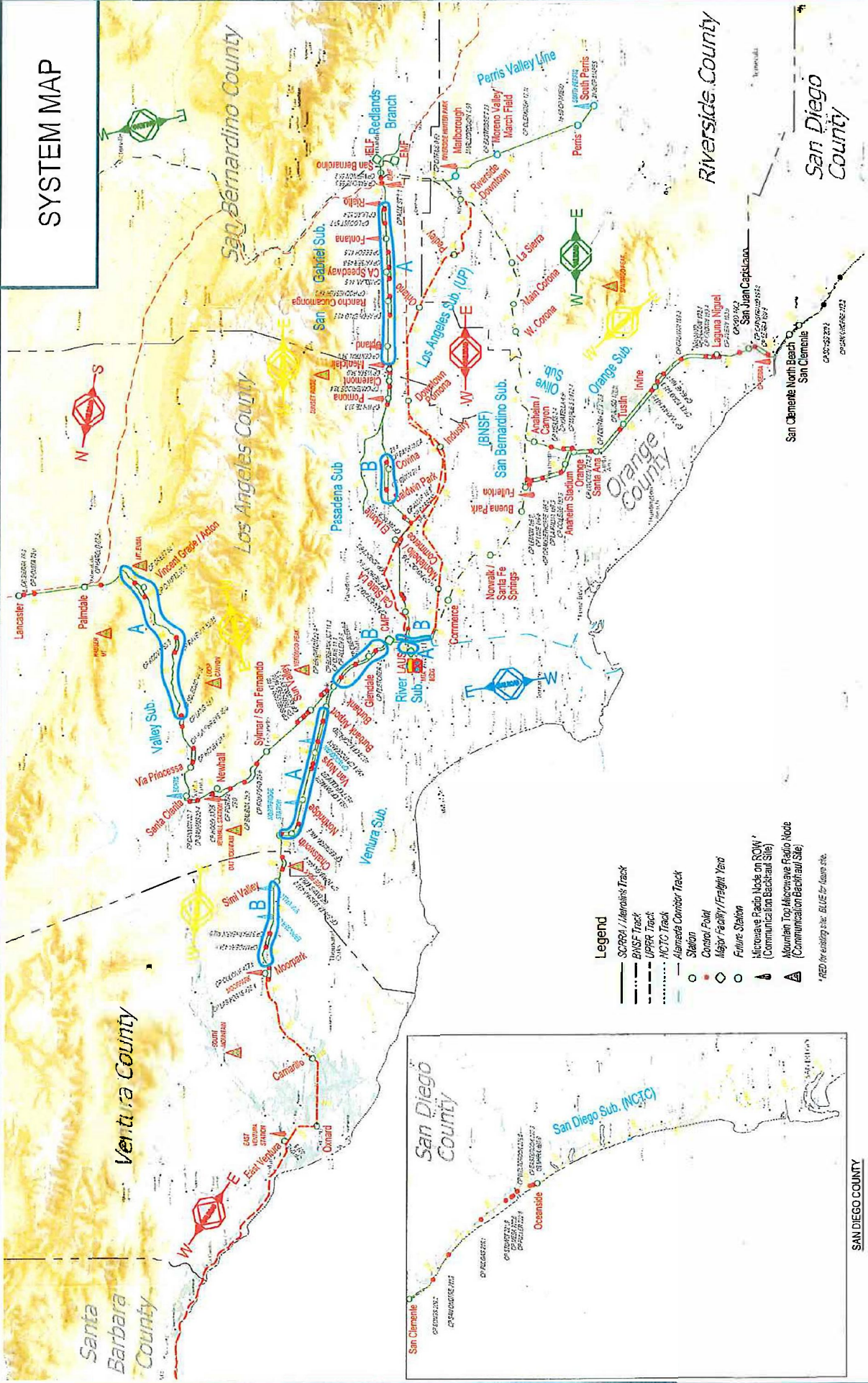
Sub	Location	Quantity/Cost										Speed Reduction/ Weight Limit		
		Rail	Ties	Crossing	Tunnels	Bridge	Culvert	Subtotal						
Valley	A: Santa Clarita to Palmdale		8450	\$2,112,500	1	\$400,000	1	\$500,000	13	\$9,160,000	15	\$5,320,000	\$17,492,500	10 MPH Speed Reduction * Reduce gross weight from 315,000 to 286,000 lbs.
	B: Glendale to Burbank		8000	\$2,000,000					2	\$1,760,000	0	\$0	\$3,760,000	10 MPH Speed Reduction * (see above)
Ventura	A: Chatsworth to Burbank Airport		1200	\$3,000,000					2	\$2,800,000	0	\$0	\$6,175,000	10 MPH Speed Reduction * (see above)
	B: Moorpark to Simi Valley	4500	7600	\$1,900,000	2	\$800,000	1	\$375,000	2	\$1,310,400	1	\$150,000	\$5,097,900	10 MPH Speed Reduction * (see above)
San Gabriel	A: Montclair to Rialto		9000	\$2,250,000					1	\$1,400,000	0	\$0	\$3,650,000	10 MPH Speed Reduction * (see above)
	B: Baldwin Park to Covina				1	\$400,000			0	\$0	0	\$0	\$400,000	10 MPH Speed Reduction * (see above)
River	A: LAUS	1800	5300	\$1,325,000			1	\$550,000	0	\$0	0	\$0	\$2,100,000	5 MPH Speed Reduction
	B: East Bank	31680	5000	\$1,250,000			5	\$2,622,400	0	\$0	0	\$0	\$7,832,400	10 MPH Speed Reduction
<b>TOTAL FUNDING NEED</b>											<b>\$46,507,800</b>			

**COST SHARES BY MEMBER AGENCY**

Subdivision	Location	TOTAL	LA	OCTA	RCTC	SANBAG	VCTC	UPRR*
Valley	A SCR to PMD	\$17,492,500	\$17,492,500					
Valley	B GDL to BUR	\$3,760,000	\$3,760,000					
Ventura	A CWT-BBA	\$6,175,000	\$6,175,000					
Ventura	B MPK-SIM	\$5,097,900				\$5,097,900		
San Gabriel	A MCL-RIA	\$3,650,000	\$2,190,000			\$1,460,000		
San Gabriel	B BWP-COV	\$400,000	\$240,000			\$160,000		
River	A LAUS	\$2,100,000	\$997,500	\$415,800	\$233,100	\$302,400	\$151,200	\$0
River EB	B East Bank	\$7,832,400	\$1,157,041	\$482,304	\$270,382	\$350,766	\$175,383	\$5,396,524
Sub-Total (A)	A	\$29,417,500	\$26,855,000	\$415,800	\$233,100	\$1,762,400	\$151,200	\$0
Sub-Total (B)	B	\$17,090,300	\$5,157,041	\$482,304	\$270,382	\$510,766	\$5,273,283	\$5,396,524
<b>GRAND TOTAL</b>		<b>\$46,507,800</b>	<b>\$32,012,041</b>	<b>\$898,104</b>	<b>\$503,482</b>	<b>\$2,273,166</b>	<b>\$5,424,483</b>	<b>\$5,396,524</b>

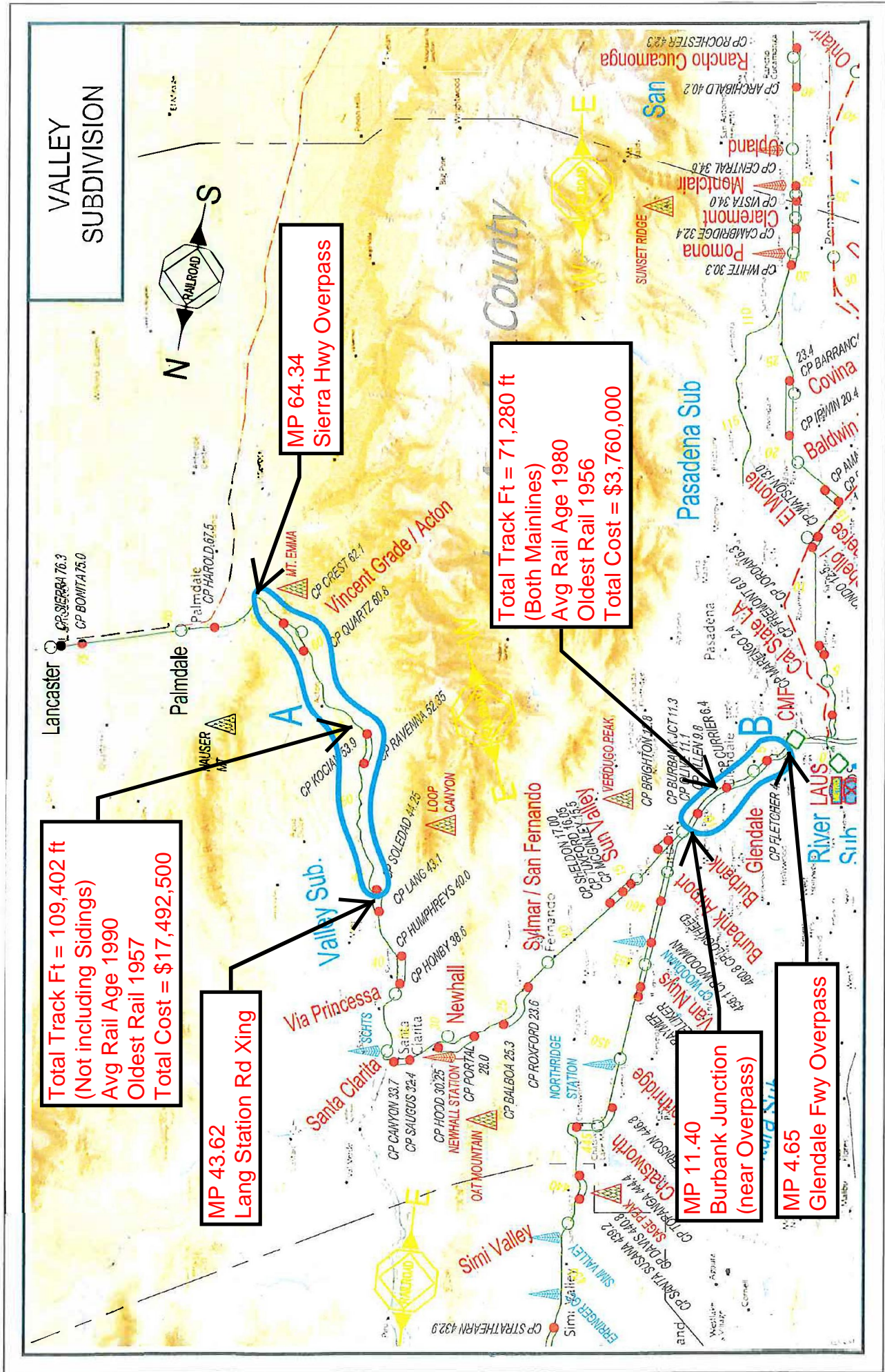
\*For costing purposes, East Bank assumes Zone 2 location and UPRR share of 68.9%

SYSTEM MAP



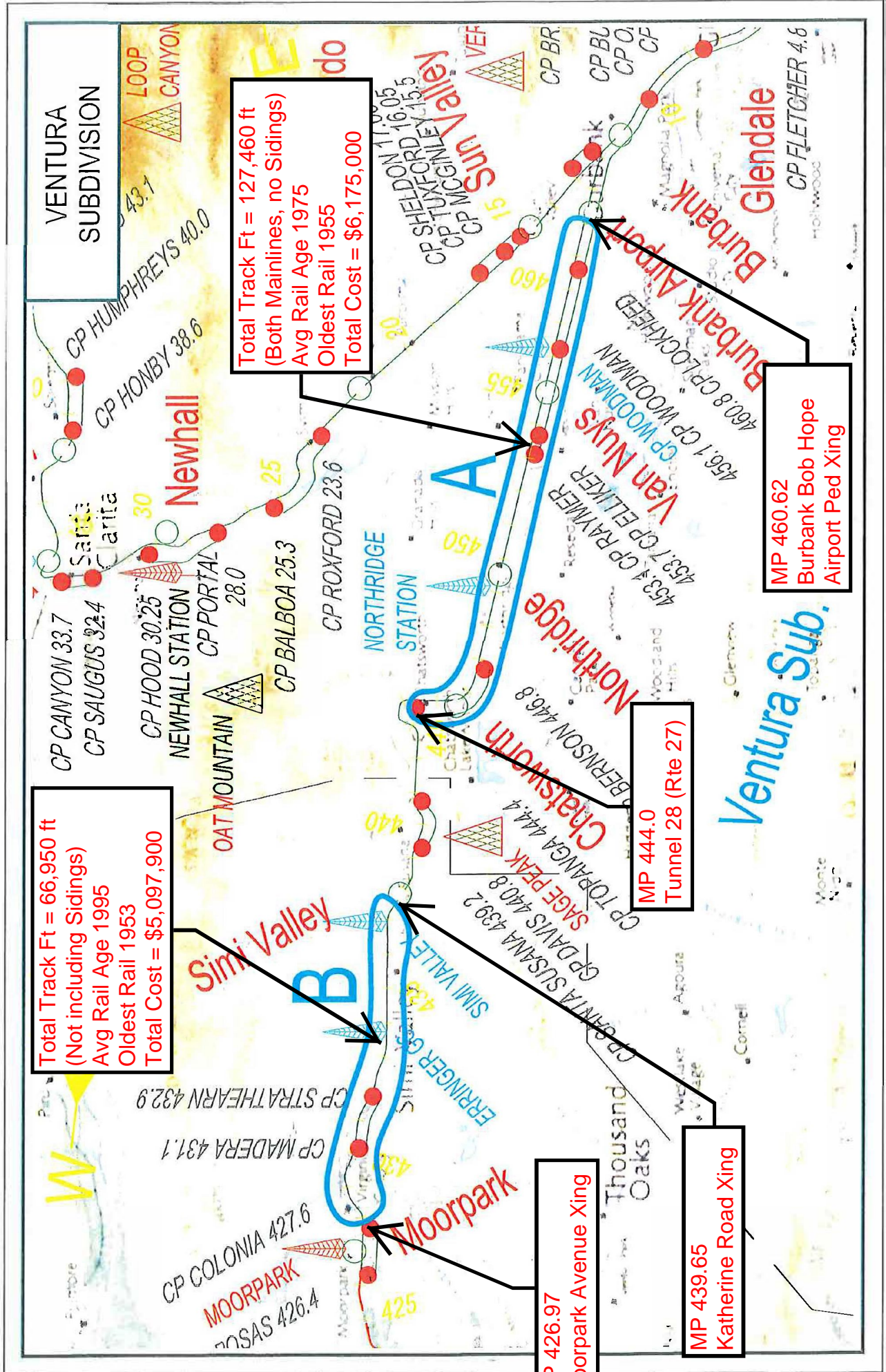
# ATTACHMENT B

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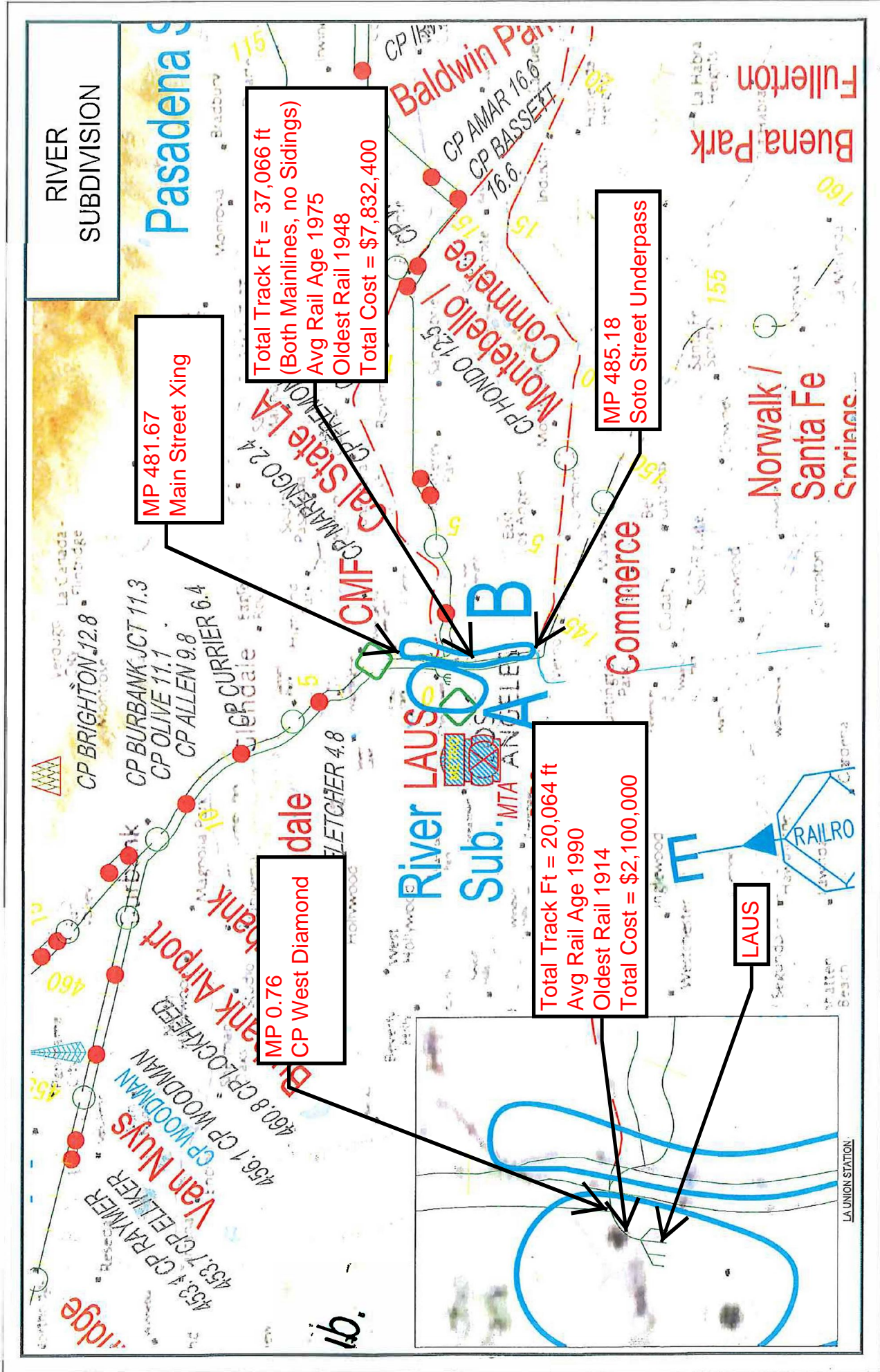


**ATTACHMENT B**

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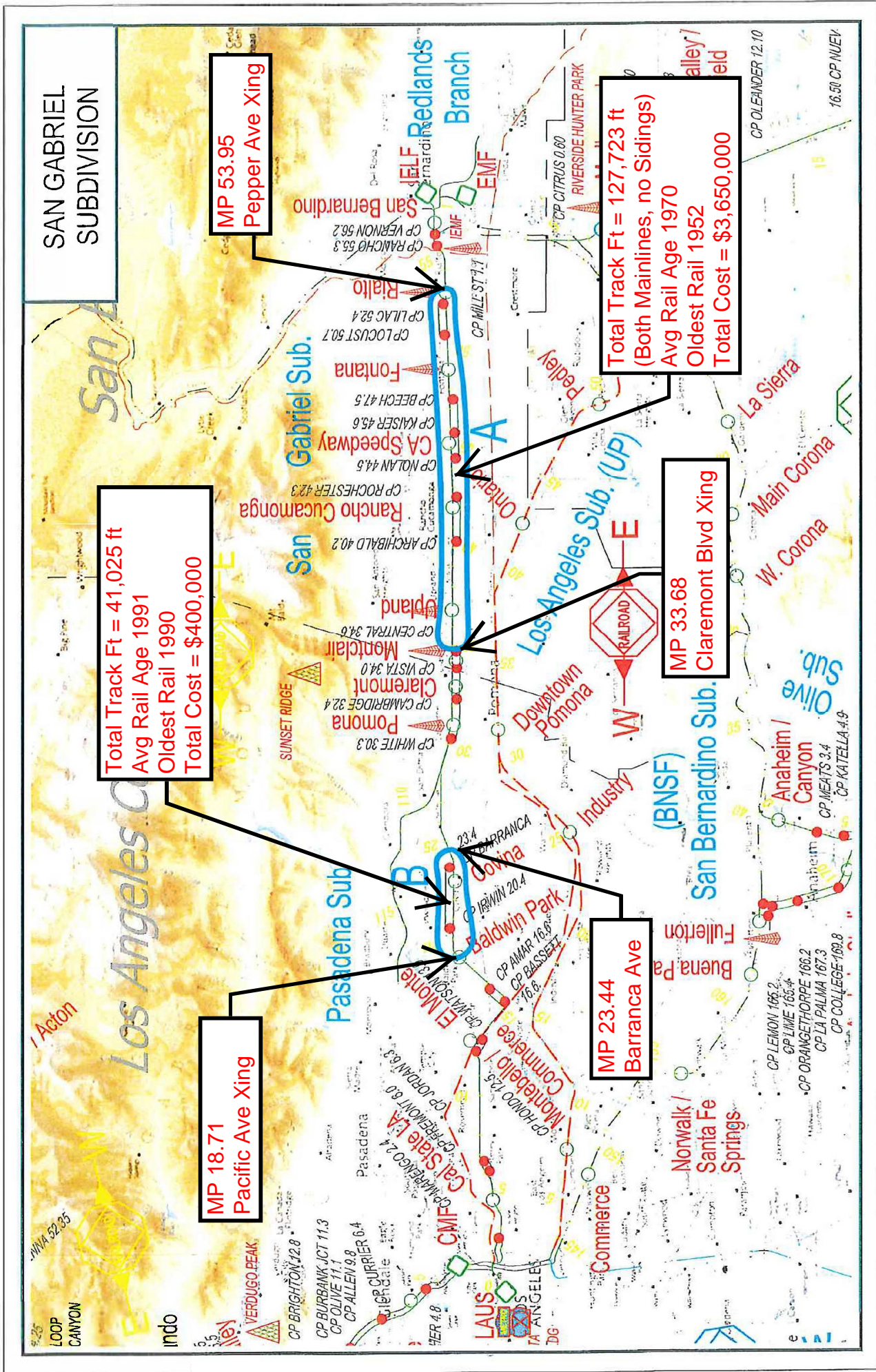


# ATTACHMENT B



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**ATTACHMENT C**

**Historic Metrolink Rehabilitation Funding for Track and Structures**

Row Labels	2012-13	2013-14	2014-15	2015-16	2016-17	Grand Total	Average	# of Bridges	# of Culverts	# of Tunnels	Track Miles
<b>Structures</b>	<b>\$1,986,786</b>	<b>\$545,000</b>	<b>\$11,563,594</b>	<b>\$3,466,107</b>	<b>\$4,060,460</b>	<b>\$21,621,947</b>	<b>\$4,324,389</b>	<b>261</b>	<b>580</b>	<b>6</b>	
Olive			\$693,362			\$693,362	\$138,672	6	13		
Orange	\$1,242,000	\$75,000	\$7,074,482	\$2,725,000	\$485,000	\$11,601,482	\$2,320,296	54	108		
River	\$155,250		\$76,976			\$232,226	\$46,445	14	5		
San Gabriel			\$80,000	\$112,000	\$168,000	\$360,000	\$72,000	33(LA)/ 26(SB)	66(LA)/ 36(SB)		
Valley	\$372,600	\$350,000	\$2,086,056		\$867,860	\$3,676,516	\$735,303	57	207	3	
Ventura (LA)	\$197,032		\$497,941			\$694,973	\$138,995	25	19	3	
Ventura (VC)	\$19,904	\$120,000	\$1,054,777	\$629,107	\$2,539,600	\$4,363,388	\$872,678	18	35		
<b>Track</b>	<b>\$5,449,694</b>	<b>\$10,310,233</b>	<b>\$7,132,621</b>	<b>\$4,910,650</b>	<b>\$14,849,853</b>	<b>\$42,653,050</b>	<b>\$8,530,610</b>				<b>400</b>
Olive		\$397,936	\$6,638	\$318,000		\$722,574	\$144,515				5.98
Orange	\$3,245,916	\$3,643,416	\$462,300	\$2,137,750	\$6,912,120	\$16,401,502	\$3,280,300				78.93
Pasadena		\$745,531	\$375,000			\$1,120,531	\$224,106				16.52
Redlands				\$300,000		\$300,000	\$60,000				
River	\$310,501	\$200,000	\$3,623,024		\$4,899,216	\$9,032,741	\$1,806,548				32.53
San Gabriel	\$496,800	\$1,340,000	\$1,438,000	\$1,640,200	\$1,305,300	\$6,220,300	\$1,244,060				45.60(LA)/ 33.43(SB)
System	\$310,500	\$1,677,000	\$800,000			\$2,787,500	\$557,500				
Valley	\$335,603	\$1,375,000	\$82,228		\$1,400,000	\$3,192,831	\$638,566				98.73
Ventura (LA)	\$543,375	\$178,350	\$25,896			\$747,621	\$149,524				32.85
Ventura (VC)	\$207,000	\$753,000	\$319,535	\$514,700	\$333,217	\$2,127,452	\$425,490				20.06