

Traffic Light Synchronization Program (TLSP) **Evaluation Criteria and Scoring Methodology**

The California Transportation Commission (CTC) adopted the Traffic Light Synchronization Program (TLSP) Guidelines on February 13, 2008 including, among other requirements, timelines for program development, requirements for nomination of project application proposals, and criteria for project application scoring. Project applications received by the California Department of Transportation (Caltrans) by the March 28, 2008 due date for nominations were evaluated, scored and ranked.

The criteria for project application scoring consists of four general benefit categories regarding the effectiveness of the proposed project, the planned start date for the project, the degree in which the project reduces corridor or air basin emissions, and the degree of financial participation by the project sponsor. The scoring is based on a maximum 100 points possible. The scoring was conducted by an evaluation committee consisting of staff from Caltrans, the CTC, and the Federal Highway Administration.

The following is a general description of the scoring methodology.

A. THE EFFECTIVENESS OF THE PROJECT – 50 points maximum.

The effectiveness of the project is defined as improved operations and safety of the corridor and the commitment to sustain these benefits. The evaluation and scoring was based on information in the project application for the Traffic Light Synchronization Program Evaluation Number (TLSPEN), Safety Index (SI) Calculation Sheet, and the description of a corridor system management plan or similar coordinated strategy in the project nomination. The total score for this benefit category is the sum of the TLSPEN points, SI points and Level of Coordination points.

TLSPEN Points – 40 Points Possible

This category awards points to the benefit / cost ratio of a project. Each applicant provided corridor characteristics in the Traffic Light Synchronization Program Evaluation Number (TLSPEN) Calculation Worksheet (Attachment B of the project nomination package). Based on the input data from the applicant, the worksheet provides a monetized total benefit for the corridor. The benefit is a combination of the monetized annual delay savings plus the monetized total fuel consumption benefits, both provided by the formulas in the TLSPEN worksheet. This benefit number was then divided by the project capital costs provided in thousands, resulting in a TLSPEN. For applications with more than one corridor, applicants were instructed to provide a TLSPEN sheet for each corridor. The total benefits received by each corridor were added together to create a benefit for the entire application.

A TLSPEN under 125 was scored as zero points. TLSPEN scores over 5,000 received the maximum 40 points. TLSPEN scores between 125 and 5,000 received additional points for each 125 increase in TLSPEN. Refer to the attached scoring table to see a full list of scoring ranges.

Safety Index Points – 5 Points Possible

The safety index points were derived from the score an application received on the Safety Index (SI) Calculation Sheet, provided in the application as Attachment C. This is the same form and criteria used by Caltrans and other agencies to evaluate the safety benefits of local road projects. For applications with multiple corridors, or corridors long enough to warrant more than one SI Calculation Sheet, the scores were averaged to provide one score for the project application. An SI score of 200 equals a 1:1 return on investment; therefore any application with an SI score of less than 200 received zero points in this category. SI scoring above 3,250 received the full 5 points. Refer to the attached scoring table to see a full list of scoring ranges.

Level of Coordination / Commitment Points – 5 Points Possible

This category awards points for having a long term and comprehensive plan for corridor planning, operation, and maintenance on an inter-agency level along the corridor. Any application that could document a Corridor System Management Plan (CSMP) or equivalent, and/or a commitment to ongoing coordinated management in the corridor, received the full 5 points. If an application documented some other coordinated effort between agencies it received 3 points. An application received 1 point if there was little evidence of coordination between agencies.

B. CONSTRUCTION START DATE POINTS – 20 Points Possible

This category awards points toward an early start date. The start date is derived from the Construction Start Date as indicated by the applicant on the Funding Request Form provided in the application as Attachment A. Only the month and year was taken into account, not the precise day if there was one indicated. The point distribution criterion is described below:

FY 2008-09	20 points
July 2009 - Dec 2009	15 points
Jan 2010 - June 2010	10 points
July 2010 - Dec 2010	5 points
2011 and beyond	0 points

C. VEHICLE EMISSIONS – 10 Points Possible

This category awards points to reduction of air pollutants produced by mobile sources, such as trucks and passenger cars. It is assumed that reduced emissions would correlate to reduced fuel consumption. Therefore, the total fuel consumption benefits identified on TLSPEN worksheets were used to approximate reduction of emissions. For applications with multiple TLSPEN worksheets, the Total Fuel Consumption Benefits were simply added together to determine one value for the project application. The Total Fuel Consumption Benefits ranged from negative numbers (project would actually increase fuel consumption and emissions) to over \$1,000,000. Points were assigned for each \$100,000 increase in Total Fuel

Consumption Benefits up to a maximum of 10 points for benefits > \$900,000. Refer to the attached scoring table to see a full list of scoring ranges.

D. FINANCIAL CONTRIBUTION POINTS – 20 Points Possible

This category awards points for financial contribution from non-state funds in the capital costs of the project. An applicant could use federal funds, certain state funds, local funds or private funds as financial contribution for match purposes. Funds provided through the STIP, the SHOPP, the TCRP or other Proposition 1B programs were not considered as financial contribution for match purposes.

Scoring is based on the financial contribution for construction as a percent of the total construction cost of the project. For example, a financial contribution of \$500,000 towards construction of a project which costs \$2,000,000 is considered a 25% contribution.

A match was not required, however, projects with eligible financial contributions were awarded points based on the level of participation. The cost for environmental clearance and design is not considered a financial contribution for match purposes. Refer to the attached scoring table to see a full list of scoring ranges.

The scoring criteria is described below.

10.0% or less	0 points
10.1% to 12.0%	1 point
12.1% to 14.0%	2 points
14.1% to 16.0%	3 points
16.1% to 18.0%	4 points
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44.1% to 46.0%	18 points
46.1% to 48.0%	19 points
48.1 to 50 and above	20 points

TRAFFIC LIGHT SYNCHRONIZATION PROGRAM SCORING TABLES

PART A. PROJECT EFFECTIVENESS

TLSPEN SCORE TABLE							
TLSPEN Score	TLSPN Points	TLSPEN Score	TLSPN Points	TLSPEN Score	TLSPN Points	TLSPEN Score	TLSPN Points
<125	0	1,251-1,375	10	2,501-2,625	20	3,751-3,875	30
125-250	1	1,376-1,500	11	2,626-2,750	21	3,876-4,000	31
251-375	2	1,501-1,625	12	2,751-2,875	22	4,001-4,125	32
376-500	3	1,626-1,750	13	2,876-3,000	23	4,126-4,250	33
401-625	4	1,751-1,875	14	3,001-3,125	24	4,251-4,375	34
626-750	5	1,876-2,000	15	3,126-3,250	25	4,376-4,500	35
751-875	6	2,001-2,125	16	3,251-3,375	26	4,501-4,625	36
876-1,000	7	2,126-2,250	17	3,376-3,500	27	4,626-4,800	37
1,001-1,125	8	2,251-2,375	18	3,501-3,625	28	4,801-4,875	38
1,126-1,250	9	2,376-2,500	19	3,626-3,750	29	4,876-5,000	39
						5,001+	40

SAFETY SCORE TABLE	
SAFETY Score	SAFETY Points
< 200	0
200-1,000	1
1,001-1,750	2
1,751-2,500	3
2,501-3,250	4
3,251+	5

LEVEL OF COORDINATION / COMMITMENT SCORE	
Description	Points
Corridor System Management Plan or equivalent	5
Other coordinated effort between agencies	3
Not discussed or limited coordination	1

PART B. CONSTRUCTION START

Const Start Date	Points
FY 2008/09	20
July - Dec, 2009	15
Jan - June, 2010	10
July - Dec, 2010	5
July 2010 - later	0

PART C. FUEL CONSUMPTION - EMISSION REDUCTION

Fuel Consumption Benefit	Points	Fuel Consumption Benefit	Points
0- 100,000	1	500,001-600,000	6
100,001-200,000	2	600,001-700,000	7
200,001-300,000	3	700,001-800,000	8
300,001-400,000	4	800,001-900,000	9
400,001-500,000	5	900,001+	10

PART D. FINANCIAL CONTRIBUTION

Match %	Points	Match %	Points
<10%	0	28.1-30%	10
10.1-12%	1	30.1-32%	11
12.1-14%	2	32.1-34%	12
14.1-16%	3	34.1-36%	13
16.1-18%	4	36.1-38%	14
18.1-20%	5	38.1-40%	15
20.1-22%	6	40.1-42%	16
22.1-24%	7	42.1-44%	17
24.1-26%	8	44.1-46%	18
26.1-28%	9	46.1-48%	19
		48.1% +	20