PERFORMING LIFE CYCLE COST ANALYSIS (LCCA)

The policies and procedures for life cycle cost analysis are discussed in Chapter 8, 9, and 10 of PDPM. The *Life Cycle Cost Analysis Procedures Manual* and *Highway Design Manual Topics 619* and *612* provide the information and procedures needed for when and how to complete a life cycle cost analysis for pavements.

DOCUMENTING LIFE CYCLE COSTS ANALYSIS

The LCCA report should be prepared and documented at PID, PSSR, PSR, PR, PS&E stage of the project [Topic 611, HDM, Appendix L, PDPM]. The LCCA report should be prepared according the guidelines described in HDM, PDPM, LCCA Manual, and latest Pavement Policy Bulletins and the reports submitted to District 8 should meet following minimum requirements.

MINIMUM REQUIREMENTS FOR LCCA REPORT

A. Text Part must include:

1. **Introduction:** Project description and scope – max 150 words
2. **Existing Facility:** Pavement type, remaining service life value (RSV), number of lanes and required maintenance service level (MSL) etc. max 100 words
3. **Traffic:** Current, construction year and design year traffic related info for all required project segments (main line, ramps, shoulders, aux lanes), existing level of service (LOS) – one summary table each and max 50 words
4. **Pavement Alternatives:** With reasons for selecting alternatives – all selected alternatives should be available in PMR, MR or GDR- include one summary table showing pavement structural section thicknesses, TI and R-Value + max 150 words
5. **Analysis:** Abstract of all alternatives; initial cost, future M & R cost, total agency cost, user cost and total life cycle cost. – one summary table and max 200 words
6. **Conclusion:** Discuss LCCA results and include - One summary table and max 100 words

B. Attachments

1. **LCCA Form:** filled in per PDPM guidelines
2. **Materials Report:** showing approved structural sections for various project segments
3. **Traffic Data:** AADT for current, construction year and for 20/40 year design life and TIs verified by Caltrans Traffic Forecasting Unit together with all the relevant traffic data
4. **Cost Related Items:** Details of cost estimates for initial cost, future M & R cost, agency cost, user cost and total life cycle cost. Also, provide cost data sheets to support the selected unit rates and CA4PRS read out to verify the number of closures
5. **Procedures, Assumptions and Input Data File Preparation:** Include all details needed for the preparation of input data file with reasons and calculations.
6. **RealCost Report:**
7. **Electronic Data:** Provide Excel spread sheets for cost estimates and traffic related inputs and RealCost Input data files i.e., *.LCC, *.LCA.