Life-Cycle Cost Analysis Appendix O-O Form Example

Brief project description:
Widen the median of I-80 in Sacramento County from PM 0.3 to 10.4 to add one HOV lane in each direction.

Alternative 1 (Pavement alternative identified to program project cost or Prefer Alternative).
Briefly describe the pavement strategy and other unique features.
Widen the median with 1.15’ JPCP / 0.35’ LCB / 0.55’ Cl 2 AS

Pavement Design Life: 40 Years
Initial Construct Costs: $100,000,000
Future Maintenance & Rehabilitation Costs: $50,167,000
TOTAL AGENCY COSTS: $150,167,000
TOTAL USER COSTS: $12,171,000
TOTAL LIFE CYCLE COSTS: $162,338,000

Alternative 2
Briefly describe the pavement strategy and other unique features.
Widen the median with 1.00’ JPCP / 0.35’ LCB / 0.55’ Cl 2 AS

Pavement Design Life: 20 Years
Initial Construct Costs: $96,800,000
Future Maintenance & Rehabilitation Costs: $53,367,000
TOTAL AGENCY COSTS: $150,167,000
TOTAL USER COSTS: $12,171,000
TOTAL LIFE CYCLE COSTS: $162,338,000

Alternative 3
Briefly describe the pavement strategy and other unique features.
Widen the median with 0.1’ RHMA-O / 0.75’ HMA / 1.05’ Cl 2 AB

Pavement Design Life: 20 Years
Initial Construct Costs: $114,500,000
Future Maintenance & Rehabilitation Costs: $45,607,000
TOTAL AGENCY COSTS: $160,107,000
TOTAL USER COSTS: $29,191,000
TOTAL LIFE CYCLE COSTS: $189,298,000

Is the lowest life cycle cost option selected as the recommended alternative? If not, why?
Alternative 1 agency, user and total life cycle cost (agency + user cost) is less than Alternative 2 and 3. Based on the analysis, it is recommended that Alternative 1, 40-year JPCP, is the recommended pavement design alternative.