

APPENDIX D
CONTENT OF DESIGN MEMORANDUM

The content of the design memorandum shall be as outlined below, in accordance with ER 1110-2-1150. Guidance included here is supplemental and shall be complied with, as appropriate to the project.

1. General
2. Syllabus
3. Table of Contents
4. Project Description

Cite the authority for the preparation of the design memorandum, referring to the approved evaluation report prepared in accordance with Appendix C. Provide a description of the design as originally constructed, and the present condition of the dam and related facilities. Include a discussion on the suitability of the feature or structure as constructed, and whether the design and/or construction has proven sufficient in serving the authorized project purposes. Also discuss the necessity for the proposed modification for dam safety and summarize any information in the evaluation report on the potential risk, damage and economics of the proposed work. Explain required real estate acquisitions. If the cost estimate of the work has increased since the evaluation

report to the point that it now exceeds \$10 million or is greater than 25% of the replacement cost of the total project, and there is no detailed economic analysis in the evaluation report, present such an analysis here. An Acquisition Plan is also required when a project cost exceeds \$10,000,000 and should be accomplished in accordance with applicable Federal Acquisition Regulations.

5. Pertinent Data

Include a brief description of the feature(s) to be rehabilitated or modified for dam safety, why the modification is required, and a summary of the estimated cost.

6. References

7. Project Cooperation Agreement

If there will be no non-Federal sponsor for the project, this section can be omitted.

8. Engineering Studies, Investigations, and Design

The results of special investigations completed following the preparation of the evaluation report should be summarized in this section. Any additional studies or

investigations accomplished as part of the design process should be described to the level of detail set forth in ER 1110-2-1150.

9. Environmental Engineering

10. Plates

11. Project Cost Estimate and Associated Sponsorship

Include a brief summary of the cost sharing information contained in the evaluation report, and a revised estimate of costs. Provide the sponsor(s) views and willingness to provide the required cooperation.

12. Economic Analysis

Projects accomplished under the authority of this Dam Safety Assurance Program do not need a benefit-cost ratio calculated. However, the cost and benefits from the proposed modifications

need to be set forth.

13. Post-Authorization Changes

Modifications requiring new authorization may be recommended in the evaluation report. However, preparation of the design memorandum will not commence until such authorization is obtained.

14. Recommendations

15. Real Estate Plan

If additional real estate is required, then a real estate plan will be developed in accordance with ER 405-1-12, Real Estate Handbook, Chapter 12, "Real Estate Roles and Responsibilities for Civil Works: Cost Shared and Full Federal Projects." If the project is cost shared, the non-Federal sponsor would be provided credit in accordance with said Chapter 12.