

Reclamation Manual

Design Data Collection Guidelines

Chapter 7 – Generic Sections

This chapter presents an alternative method for preparing a design data request. In this chapter, the design data collection guidelines are organized by comprehensive presentation of several items (general description, general map, etc.) which are common to many features, rather than by feature (dam, powerplant, etc.). This method may help in preparing the design data collection request when multiple features are involved in the project. The “generic” sections cover design data requirements common to all Reclamation projects. To complete a design data package, the “generic” sections must be used along with design data collection requirements specific to each feature (dams, powerplants, pumping plants, etc.)

The Introduction (chapter 1) for these design data collection guidelines contains additional information on preparing a design data collection request, design data collection requirements, and coordinating the design data collection and submittal.

The size and complexity of the structure should govern the amount and detail of the design data required. A significant amount of design data prepared for previous studies may be available and should be used for the design. A feasibility report requires sufficient information to determine, with reasonable assurance, that the project will be successful and able to fulfill the repayment contract. For feasibility designs, funding for design data collection is often limited; the critical design data items should be determined and receive maximum attention.

Specification design requires, as a minimum, the same type of basic data as feasibility design. The data are brought up to date and will be addressed in more detail or more extensively.

Communication between designers and project personnel is essential to produce adequate design data. The Project Team and the Design Team will review the data used for authorization and the changes that have occurred since that time, the feature site selected, and the choice of structure type. They will then recommend a design data collection program to the design office and an estimated schedule.

The project team and design team should review these guidelines to determine and assemble the final data request for a specific project. The following is a list of possible “generic” data sections required for specifications design of the Bureau of Reclamation (Reclamation) facilities.

1. Project Overview
2. General Map(s)
3. General Description of Local Conditions
4. Surveying
5. Topographic Maps
6. Photographs

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7. Drawings
 - Location maps
 - Plan and profile drawings
 - Site plans
8. Existing Facilities
9. Corrosion Survey
10. Construction Materials
11. Electrical Data
12. Cost Data for Field Cost Estimate
13. Environmental Data
14. Site Security and Public and Worker Safety
15. Mechanical and Hydraulic Equipment
16. Right-of-Way and Easements
17. Hydrology and River Morphology Data
18. Construction Considerations
19. Operating and Maintenance Data