

- 18. Construction Considerations.** The following design data items should be considered for feasibility and specifications designs:
- A. Construction schedule:
 - (1) One contract or several contracts.
 - (2) Any construction timeframe restrictions
 - (3) Are designers required to provide a construction schedule and/or logic diagram?
 - (4) Recommended period for construction.
 - (5) Recommended period for completion of construction work and features of the work that should be completed early.
 - (6) Permissible times to make connections to existing facilities.
 - (7) Whether construction schedule will be adaptive, (e.g., provide a remedy, observe the effects, and then modify remedy as required).
 - B. Allowable in-river materials (permanent and temporary).
 - C. Construction constraints including allowable construction methods, traffic considerations, environmental restrictions, climatic restrictions, blasting limitations, etc.
 - D. Filling and draining criteria for dam, ponds, and pipelines
 - E. Unusual conditions for excavation or construction.
 - F. Extent of construction surveying to be accomplished by Government surveyors.
 - G. Water for construction purposes. For large rivers, this item may be unimportant. For small streams and offstream reservoirs, the item becomes critical. Determine if up to 2 ft³/s of diversion flow for construction purposes can be assured to the contractor. The Government should obtain the water rights required. If it is necessary to use ground water, obtain information on probable sources and yields. Furnish information on locations and yields of existing wells in the vicinity. Determine restrictions, if any, to use of ground water for this purpose. It may be necessary to obtain permits from State or other governing agencies. Retrieve water quality samples for testing and evaluation.
 - (1) Water treatment requirements for return flows
 - H. Requirements for maintaining streamflow or diversions during construction and maximum length, time, and number of permitted interruptions.

Design Data Collection Guidelines

- I. Required permits from government agencies and others.
- J. Requirements for meeting criteria for suppression of nitrogen, adequate oxygen levels, and temperature control and control of turbidity during construction.
- K. Impact of moving construction materials on existing road facilities, including consideration of such factors as traffic congestion, effect on road condition, air pollution, etc.
- L. Requirements for temporary construction access roads, permanent access and service roads, and relocation of existing roads or railroads. Include any limiting requirements imposed by road owners for public access/haul roads.
- M. Comments on disposal of special excavation problem materials such as lignite.
- N. Give borrow area and temporary haul road restoration requirements such as stockpiling of topsoil, grading of the area, general cleanup, etc.
- O. Give consideration to using required excavated material in lieu of material from other borrow sources wherever possible.