

CHAPTER 21

ADMINISTRATIVE PROCEDURES FOR PROJECTS DESIGN

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CHAPTER 21

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21-01 DESIGN CONTRACT PREPARATION

After awarding a design contract a Project Manager is assigned. The Project Manager is responsible for obtaining a copy of the contract and the correspondence files on the project for detailed study.

After studying the documents of the project, the Manager coordinates a meeting between the Consultant and himself. In this meeting there is an exchange of information and the ground rules for the monitoring of the contract are established.

21-02 CORRIDOR PRELIMINARY

The Project Manager is responsible for verifying that there is a written approval from Planning Area for the corridor and approval from the FHWA. The Manager should ensure that there are available on file the social, economic and environmental studies for this corridor stage. If any of the above approvals are missing the Project Manager will coordinate the necessary waiver, if applicable, from the Planning Area.

There must be a R.O.W. report at this stage. The Property Acquisition and Management Area must supply this report. If it is missing the Project Manager must request the same from the Property Acquisition and Management Area or a waiver from the report requirement.

21-03 ROUTE LOCATION

The Project Manager must verify that there is a Draft Environmental Statement prepared and that the FHWA has concurred with it. There must be a P. R. Planning Board Clearing House Approval on file. The Manager must verify that there is an FHWA approval of the route location and authorization to proceed with the design.

21-04 PRELIMINARY DESIGN

If any of the requirements mentioned in the Corridor and Route Location Stage have not been complied with the Project Manager is responsible for notifying the Director of the Design Area in order to obtain the necessary guidelines to follow in the applicable case. All the items in the previous phases should be in strict accordance with the P. R. Highways Authority Action Plan. If a requirement has not been met there must be a written waiver for the requirement or action must be initiated to comply with the requirement.

The Project Manager must verify that the Consultant has the traffic data and that a capacity analysis is done to verify that the correct standards are used for the design.

The Project Manager in coordination with the Consultant will determine the type of surveying data required for the project. The scope of work for the surveying crew is determined and the Project Manager will verify if our in-house Photogrammetric Office can perform the work or if it has to be let out for contract.

The Project Manager in coordination with the Consultant will determine what type of soil and geological data is required for this preliminary phase. The scope of work is determined and the Manager verifies if our in-house Soils Office can perform the work or if it has to be let out for contract.

The Project Manager in coordination with the Consultant will determine what kind of utilities will be involved in the project and what type of field work be necessary. The Manager will be responsible for verifying if our in-house Utilities Office can perform this phase of the design and field work or if it has to be let out for contract.

The Project Manager will ensure that the Consultant provides the structural design criteria and cost analysis and will submit the information to the Structural Design Office for verification and approval. Structural plans must be approved by the Structural Design Office.

The Project Manager will verify that all work related to the highway geometrics and other design work is done according to the standards set forth in the P. R. Highways Authority Design Manual and other technical publications.

The Project Manager will ensure that the Consultant determines the R.O.W. limits in the preliminary phase and includes the names of owners of record in the plans.

The Project Manager will ensure that the Consultant investigates in all Government Agencies if there is any private or public project, in the vicinity of the proposed road, that will affect the roadway design.

The Project Manager will ensure that a sufficiently detailed progress report is prepared and approved from the beginning of the design contract starting date. Before any invoice is processed for payment the Manager will visit the Consultant's Office and verify that the invoice is in accordance with the progress achieved. It will be a responsibility of the Project Manager to visit a Consultant approximately twice a month to verify the progress of the design work and to prepare a written report of each visit.

The Project Manager will coordinate and provide the D.T.P.W. "Unidad de Consultas" with information on the individual cases presented by the public and affected by the projects under design by Consultants.

21-05 ADMINISTRATIVE PRELIMINARY DESIGN APPROVAL

During the Final stage of the preliminary design the Project Manager will provide the FHWA with all the design information required for FHWA approval of the preliminary set of plans. Before the final approval of the preliminary plans by the FHWA the results of the design public hearing must be summarized and action taken on the adverse comments. After the preliminary plans are finished and the public hearing has been held the Project Manager will ensure that the FHWA approval is granted. A set of preliminary plans should be sent to the Construction Area for their comments before the final approval of the preliminary plans is granted to the Consultant. The Project Manager will ensure that the endorsement of the applicable Design Offices in the Design Area is obtained before final approval.

21-06 FINAL DESIGN

During the final design stage the Project Manager will ensure through periodic visits that the Consultant is following established guidelines and provides in the drawings enough information about the following items: surveying, soil and geological data, environmental data, hydraulics and drainage, highway geometrics, structural, utilities and traffic controls.

The Project Manager will ensure that the final Land and Property Acquisition Plans are prepared within the time frame specified in the contract. The Property Acquisition and Management Area has to review the complete set of plans and after their review the Consultant will make the necessary corrections. The FHWA has to review the plans and approved the same. The Project Manager will coordinate the complete process.

Detailed cost and quantity estimates must be prepared by the Consultant and must be reviewed by the Office of Estimates and Specifications before the Project Manager can process the Final Construction Cost approval.

Depending on the contract requirements the Project Manager will ensure that the Consultant prepares a complete set of specifications and special provisions for the particular project.

During the final design stage the Consultant will proceed with the final coordination with the applicable Agencies and the Project Manager will ensure that any Government project affecting the highway design has been considered. The Project Manager will supply "Unidad de Consultas" on a per case basis with the required information on the final design.

**21-07 FEDERAL HIGHWAY ADMINISTRATION AND PRHA-FINAL
DESIGN APPROVAL**

The Project Manager will submit the FHWA a complete set of plans, specifications and estimates for their approval. In addition to the FHWA approval the necessary in-house coordination must be complied with before Final Design Approval is granted to the Consultant.

A complete set of the Final Land Acquisition Plans will be sent to the FHWA for their approval. The Project Manager will coordinate all the required actions required to obtain the FHWA approval.

21-08 DESIGN LIQUIDATION PHASE

The Project Manager will process the approval of the final construction cost after the necessary internal coordination has been made.

After the approval of the final construction cost the CIAPR* Stamps must be provided by the Consultant when applicable.

The final invoice for the retainage can be processed after the necessary contract requirements like auditing, etc. have been complied with.

The Project Manager will supply the PRHA Offices with any required information once the design contract has reached this stage.

21-09 CONSTRUCTION PHASE

The Project Manager will attend, when required, contract award meetings and provide the Construction Area with any additional information required.

The Project Manager will assist the Construction Area with any design problems arising during the construction process.

*CIAPR — Institute of Engineers and Surveyors of Puerto Rico.