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110.01 General

This chapter emphasizes that the *Design Manual* applies to the delivery methods of all Washington State Department of Transportation (WSDOT) capital projects, including design-build projects. Certain terms are defined to coincide with WSDOT design-build project delivery; however, it is beyond the scope of this manual to extensively define design-build projects. Design-build projects are based on their own contractual documents (such as a Request for Proposal), which present directive language intended to legally define the project and identify requirements and controls, roles and responsibilities, and procedures and outcomes.

Design-build is a method of project delivery in which WSDOT executes a single contract with one entity (the design-builder) for design and construction services to provide a finished product. In a traditional WSDOT design-bid-build contract, the design process is completed independent of the construction contract. Chapter 130, Project Development Sequence, provides background on this traditional delivery method. Note that much of Chapter 130 also applies to design-build projects, particularly the discussions on project planning and preliminary design, since those functions typically occur prior to hiring a design-builder.

Delivering a project using design-build contracting eliminates *very few steps* when compared to the typical WSDOT design-bid-build process. The same project work tasks and products are normally required whether performed by WSDOT or the design-builder. The timing, order, and level of task detail performed are what make design-build contracting different than design-bid-build. The design-build process may shift many tasks and responsibilities from WSDOT to the design-builder depending on the project's scope/risk analysis. The shift changes the order and development detail of the tasks and thus must be reflected in the process through contractual documents.

According to state law, to be considered for design-build designation in Washington State, a project must be greater than \$10 million and provide the opportunity for one of the following:

- Highly specialized construction activities requiring significant input into the design.
- Greater innovation and efficiencies between the designer and the builder.
- Significant savings in project delivery time.

110.02 References

(1) Design-Build Guidance

The Design-Build Guidance Statements listed below are available at:

www.wsdot.wa.gov/Projects/delivery/designbuild/

- Design Quality Control, Quality Assurance, and Quality Verification on Design-Build Projects
- Project Basic Configuration Development
- Use of Reference Documents on Design-Build Projects

110.03 Terminology and Language Used

(1) Application of Terminology

Several terms are encountered throughout the *Design Manual* that are not normally applicable to design-build project delivery. They are expanded in this chapter to provide appropriate meaning for design-build projects and design-build personnel. It is intended that design-build personnel acknowledge these expanded meanings and apply them throughout the manual, which will eliminate the need to restate them each time they are encountered.

design-builder The firm, partnership, joint venture, or organization that contracts with WSDOT to perform the work.

designer This term applies to WSDOT design personnel. Wherever “designer” appears in this manual, design-build personnel shall deem it to mean: Engineer of Record, Design Quality Assurance Manager, design-builder, or any other term used in the design-build contract to indicate design-build personnel responsible for the design elements of a design-build project, depending on the context of information being conveyed.

Project Engineer This term applies to WSDOT personnel. Wherever “Project Engineer” appears in this manual, the design-builder shall deem it to mean “Engineer of Record.”

Request for Proposal (RFP) The document package issued by WSDOT requesting submittal of proposals for the project and providing information relevant to the preparation and submittal of proposals, including the instructions to proposers, contract documents, bidding procedures, and reference documents.

Additional terms are presented in each chapter of the *Design Manual*.

(2) Language Used for Design Flexibility

The *Design Manual* is primarily written for WSDOT engineering personnel; however, design-builders, local agencies, and developers also use it for state and local agency projects. As stated in the Foreword, the intent of this manual is to provide recommended values for critical dimensions. Flexibility is permitted to encourage independent design tailored to individual situations. However, when flexibility is applied to a proposed design and the critical dimensions do not meet *Design Manual* criteria, additional documentation is required to record the decision-making process.

With the exclusion of this chapter, the *Design Manual* is intentionally written to avoid or minimize the use of directive words like “shall” and “should” in order to retain this important flexibility for the larger set of users.

In the case of design-build projects, design flexibility applies to the extent allowed by the contract. The design-builder shall refer to the project-specific RFP for design guidance. The RFP will identify design decisions and provide technical specifications relating to the project’s design.

110.04 Design and Documentation Responsibility

In the traditional design-bid-build format, WSDOT bears the entire responsibility and risk for any design-related issues. As the owner, all responsibility for design decisions and conformance to standards rests with WSDOT.

For design-build projects, many design responsibilities shift to the design-builder once the Notice to Proceed is issued. WSDOT is still responsible for establishing the scope, performance measurements, and existing conditions of the site as part of preliminary design. Any preliminary design done by WSDOT would be filed and documented in the Design Documentation Package (DDP) and/or the Project File (PF), which are provided to the selected design-builder to maintain throughout the design-build project design phase and then returned to WSDOT for retention.

It is important to note that the design guidance presented in this manual has valid application based not on delivery method, but on roadway classifications, traffic volumes, and other route characteristics discussed in Chapter 1100 (and other chapters). For example, a design-build Improvement project on an interstate facility would be based on the Interstate matrices in Chapter 1100, which direct the designer/Engineer of Record to apply the appropriate design level presented in Division 11.

Design guidance applies to design-build projects.

It is also important to specify that design documentation is a requirement for WSDOT Improvement projects, regardless of delivery method. WSDOT still holds the valid requirement to have an organized design documentation file and as-constructed plans for future reference after the project is built.

Design documentation is required on design-build projects.

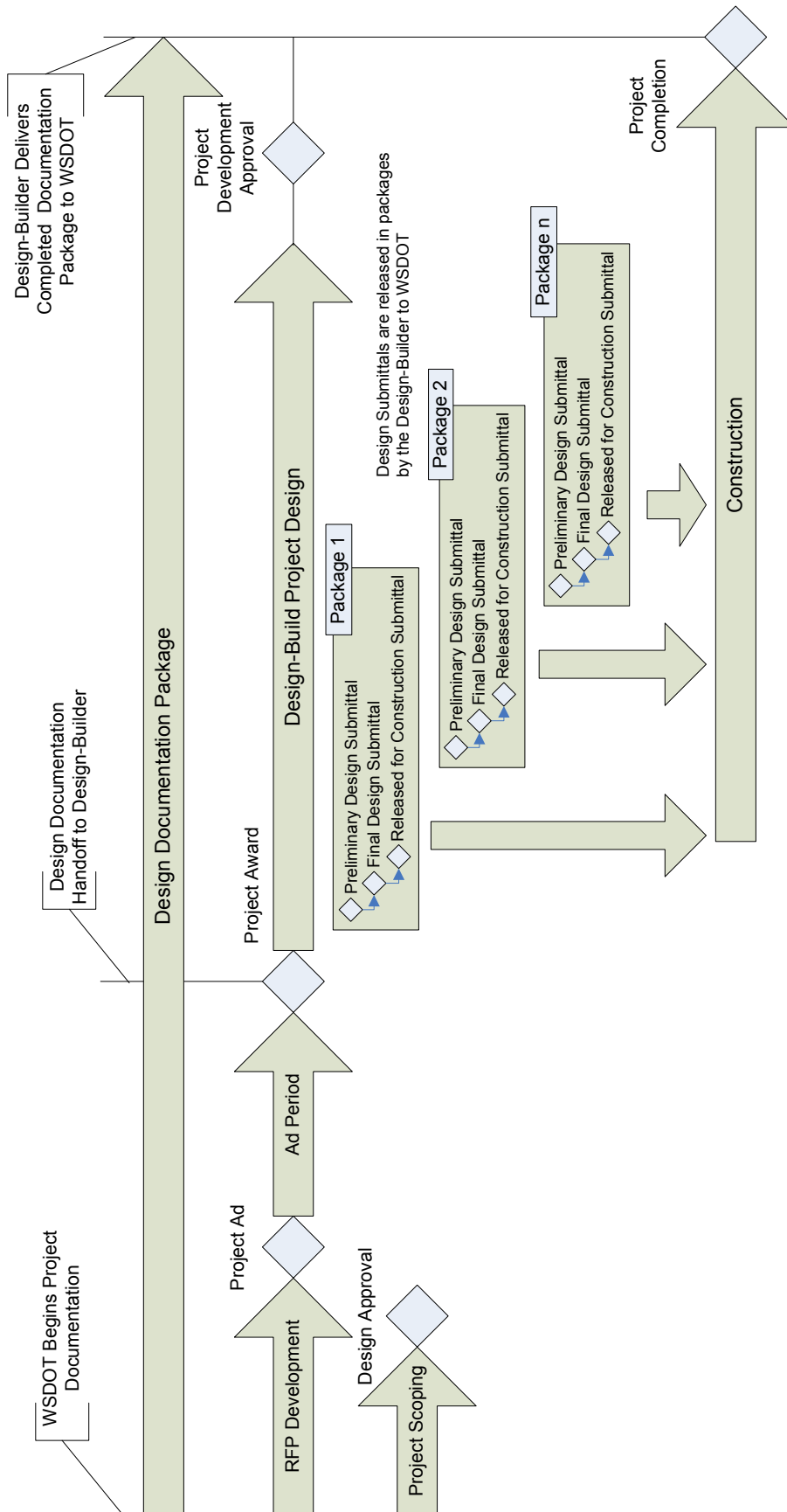
Plan accuracy, conformance with established design guidelines, and constructibility of the project rests with the design-builder.

The DDP and the PF include all the elements identified in the project RFP. The RFP specifies various DDP and PF submittals to WSDOT, identifying how each item will be submitted (report, plan sheet element, design parameter element, and so on) and who is responsible for the development status (such as *complete*, *in progress*, or *not started*) of each item. The RFP also indicates that some of the DDP and PF items have components that were started by WSDOT and that the design-builder shall complete or update those item(s). It is the design-builder’s responsibility to obtain copies of the information from WSDOT for use in completing the DDP and PF items.

The DDP and the PF require retention of original, signed documents—not copies.

The RFP typically specifies that the design-builder shall provide WSDOT with updates to the DDP and PF items throughout construction of the project.

For further guidance on design documentation and WSDOT acceptance thereof, see Chapter 300, the project RFP, and the Design Documentation Checklist.



Notes:

- The Design Documentation Package (DDP) is started by WSDOT during scoping/pre-RFP design. The design-builder completes the DDP as the project proceeds.
- The design-builder shall refer to the RFP for specific review and approval processes. The RFP will specify procedures for design submittals, including notifications to WSDOT and the time allowed for reviews.
- WSDOT will review design submittals for conformance with requirements of the contract.

Design Documentation Sequence for a Typical Design-Build Project
Exhibit 110-1