WFLHD SUPPLEMENT 9.6.11-1

9.6.11 QUALITY CONTROL AND QUALITY ASSURANCE

Add the following:

9.6.11.6 Project Development QC/QA in WFLHD

This section describes how Quality Control and Quality Assurance functions during the Project Development process within WFLHD.

9.6.11.6.1 Definitions

Quality Control (QC) – A system where administrative, design and technical deliverables are checked to verify they satisfy standard practices and policies. QC includes implementation and documentation of quality checks .

Quality Assurance (QA) – An overall program that establishes a systematic approach to provide confidence that a product or service will satisfy given requirements for quality. QA involves reviewing samples of work produced by the various functional disciplines, as well as reviewing processes used to produce the work, in order to evaluate the quality of the program.

9.6.11.6.2 General

Quality of the Plans, Specifications, and Estimates (PS&E) packages is paramount to WFLHD's success as a "provider of choice". The project team must consistently produce PS&E packages that meet the partner's objectives in a manner which results in the lowest overall completed cost to construct the project.

WFLHD's quality goal is to deliver Plans, Specifications, and Estimate (PS&E) packages that are technically sound; reasonably free of errors, especially those affecting scope, schedule and budget; biddable, constructible, and administrable; and result in the lowest overall project cost that meets the project purpose and need.

An acceptable level of quality does not imply perfection; however, design related construction modifications, not associated with intentional risk acceptance or client required changes, should be relatively minor in nature and have minimal cost and schedule impacts.

9.6.11.6.3 Standards

The primary documents guiding the development of design and PS&E packages are the *Project Development and Design Manual* (PDDM), AASHTO Green Book (*A Policy on Geometric Design of Highways and Streets*), and the *Standard Specifications for the Construction of Roads and Bridges on Federal Highway Projects* (FP).

9.6.11.6.4 Quality Control

Quality control is the responsibility of the technical functions and should be performed on work products incorporated into the Plans, Specifications, and Estimate (PS&E) package or provided as one of the solicitation documents. The technical specialist is responsible for following accepted standards, policies, and procedures when preparing their deliverables, and for verifying their work meets agency requirements. Each function should have documented guidance outlining the scope and methodology for their quality control review. Perform quality control before submitting the deliverable for inclusion into the PS&E package. Perform quality

control on the PS&E package before submitting for either a milestone review or submittal to Quality Assurance for Chief of Engineering signature.

Unique and complex project elements may warrant a specific quality control plan. Note this in the Project Plan.

9.6.11.6.5 Quality Assurance

Quality Assurance (QA) is performed to assess whether Quality Control (QC) processes are effective, correctly administered, and results in a completed product that meets the quality requirements as defined by WFLHD's quality goal. Outcomes of the Quality Assurance reviews are used to make improvements in the policies, processes, procures, and systematic actions to remove systematic and chronic errors and ensure improved quality of future work.

Additionally, an independent assurance check of the PS&E is performed with the purpose of assessing bid readiness, and identifying data-driven quality trends that occur during project development. The Quality Assurance Team (QA Team) performs the independent assurance of the PS&E and other project documentation as necessary to:

- Ensure that the completed PS&E conforms with the procedures and checklists for quality;
- Ensure that the PS&E conforms to applicable policies, standards, FLH standard practices, and are of high quality;
- Comply with legal, regulatory and contractual requirements; and,
- Ensure technical features are properly integrated into the overall project.

As part of quality assurance, the QA Team will gather and analyze data from their quality assurance reviews as well as using other data, including construction feedback, contract modifications and amendments, partner input, and bidders questions. From the analysis of this information, the QA Team makes recommendations to policies or procedures to improve the quality of future work.