125 Quality Assurance

125.1 General

This chapter describes the planned and coordinated evaluation procedures conducted by FDOT Districts and the Central Office for the purpose of verifying and enforcing that established requirements are being met. Evaluation procedures ensure compliant and consistent performance by the districts and Central Office units that implement transportation programs.

Section 20.23(3)(a), Florida Statutes (F.S.), requires the establishment of departmental policies, rules, procedures, and standards.

Section 334.048, F.S. states the legislative intent with respect to the Central Office role in the Department's management accountability and monitoring systems, including corrective actions when appropriate.

125.2 District Quality Assurance Activities

Districts must conduct Quality Assurance (QA) Audits on consultant-prepared plans and documents to verify that a Quality Control (QC) review was performed for each deliverable (see ***FDM 124***). To complete the requirements of the QA Audit, districts must verify that the completed QC document demonstrates that the review procedures were completed, e.g., QC check prints, Bluebeam, or Adobe QC PDF file, 3D-CADD file check list and notes.

Districts must also verify that the Certificate of Compliance was provided (see ***FDM 124.5***).

125.2.1 Electronic Review Comment (ERC) Reviews

ERC Reviews are conducted by the Department utilizing the ERC system in accordance with ***FDOT Electronic Review Comments (ERC) System User Manual***. The ERC system is an application used to track the review process (comments and responses) for project submittals in a database. The purpose of an ERC Review is to ensure that the submitted documents meet Department requirements.

Documents are uploaded into the ERC system only after the required quality control procedures have been performed. It is expected that comments associated with poor quality work are minimal; the focus of the ERC Review is to validate that the designs and reports are acceptable to the Department.

Discipline experts (reviewers of the document) are assigned through the ERC system, along with the required due date for providing comments. All comments must be adequately addressed before closing out the ERC Review.

125.3 Central Office Quality Assurance Review (QAR) Program

The Office of Design (Central Office) has a formal Quality Assurance Review (QAR) Program which is led by the Office of Design QAR Program Manager. The Office of Design evaluates the District Design Offices for compliance with Department policies, procedures, and manuals through this program.

The Office of Design QAR Program is conducted by Central Office staff; typically, by Roadway Design, Structures Design, and Forecasting and Performance offices, but may include other offices as necessary. The overall goal of the QAR Program is to achieve an objective assessment of the Department's performance in following established requirements.

The Office of Design QAR Program consists of:

(1) Development and adoption of an annual QAR Plan

(2) Conducting QARs on various topics (which cover specific requirements contained within Policies, Procedures, and Manuals) and reporting the findings to the districts and other stakeholders, accomplished through the development and distribution of a QAR Memorandum

(3) Annual QAR Plan Summary Report

125.3.1 QAR Plan Development

Annual QAR Plans are developed based on fiscal year, i.e., the FY 19/20 QAR Plan began on July 1, 2019 and was completed by June 30, 2020. An example of a QAR Plan is shown in ***Exhibit 125-1***.

The development and adoption of a QAR Plan occurs between February and April preceding the fiscal year that the plan will cover.

125.3.1.1 FY QAR Plan Development Meeting

For planning the upcoming fiscal year's QAR activities, the Office of Design QAR Plan Development Meeting is held in early February and is led by the Office of Design QAR Program Manager. Representatives from the Roadway Design, Structures Design and Forecasting and Performance offices attend the QAR Plan Development Meeting; staff

from other FDOT offices and FHWA may also be in attendance. Agenda topics discussed at this meeting include:

(1) Status of current fiscal year QAR Plan

(2) QAR topics to be considered for the upcoming fiscal year QAR Plan, based on the following priorities:

  (a) Safety concerns

  (b) Construction issues

  (c) Conformance with new, changed, or existing departmental policies, rules, procedures, and standards

  (d) Non-compliance or needed improvements identified on previous QARs

  (e) Opportunities to streamline processes and apply innovation

(3) Cycle period to complete QARs for all Districts. The following general practice applies, based on complexity of QAR and available resources:

  (a) For each QAR topic identified, the established practice is to complete the reviews for all Districts in a single fiscal year; however, a two or three-year cycle may be appropriate for topics requiring extensive evaluations, or on-going Department programs; e.g., ADA, Pavement Design.

  (b) Typically, QARs are conducted on contract documents, or design processes that were completed in the fiscal year preceding the fiscal year of the QAR Plan. Each project will be evaluated for compliance based on the manuals, policies, and procedures in place at the time the document or design was completed.

  (c) QAR evaluations should be conducted in the 1st (July-September), 2nd (October-December), and 3rd (January-March) quarters of each fiscal year QAR Plan.

  (d) The Final QAR Memorandum is to be completed and distributed by the end of the quarter following the quarter in which the QAR evaluation was performed; e.g., Final QAR Memorandum is distributed by December 31st for a QAR conducted in the 1st quarter.

(4) Assess QAR topics for future fiscal year plans; typically, a one to two-year look ahead.

125.3.1.2 DRAFT FY QAR Plan

QAR representatives from the Roadway Design, Structures Design, and Forecasting and Performance offices reconvene in early March to complete the DRAFT FY QAR Plan. The focus of this meeting is to select the proposed QAR topics to be included in the plan.

To complete the DRAFT FY QAR Plan, the following information is identified:

(1) **Office Unit** – Unit responsible for conducting the QAR.

(2) **QAR Leader** – Individual who will take the lead in conducting the QAR.

(3) **Authority** – Department policy, rule, procedure, or standard governing the QAR topic.

(4) **QAR Topic/Purpose**

  (a) **Topic**: The area or subject of the planned QAR evaluation.

  (b) **Purpose**: The QAR objective and specific requirements being evaluated.

(5) **QAR Cycle** – The fiscal year quarter in which the QAR will begin. The FY QAR Plan should not subject any District to excessive reviews within the planned year, or within a single quarter.

125.3.1.3 FY QAR Plan Adoption

The DRAFT FY QAR Plan is presented to the District Design Engineers (DDE's), District Consultant Project Management Engineers (DCPME's), and FHWA in early April. Following the presentation, the districts have two weeks to request additional information as to the intent of the QAR topic or suggest changes to the QAR cycle.

The FY QAR Plan is formally adopted in early May.

125.3.2 Conducting a QAR

Conducting a QAR involves the following activities:

(1) Conducting a QAR Kick-off Meeting

(2) Evaluation of projects for compliance with the QAR purpose statement

(3) Documenting the findings in a Draft QAR Memorandum

(4) Resolution of Findings

(5) Distribution of Final QAR Memorandum

Depending on complexity, a QAR may be conducted by remote review, district visit, or a combination of the two methods. Conducting a QAR involves Central Office and district staff working together to complete the review activities.

125.3.2.1 QAR Kick-off Meeting

The QAR Leader should contact the appropriate district staff at the beginning of the quarter in which the QAR is to be conducted to schedule the QAR kick-off meeting. The QAR kick-off meeting agenda should include the following:

(1) QAR topic and purpose.

(2) Identification of Central Office and district staff that will participate in the QAR.

(3) Proposed schedule.

(4) Selected projects to be evaluated and the best method for obtaining the data.

(5) Agreed-upon date to complete the gathering of the required information.

125.3.2.2 Evaluation of Projects

Central Office staff will evaluate district documentation in accordance with the QAR purpose statement. Evaluation of provided documents is typically conducted through office reviews; however, a field review or district visit may be appropriate.

The findings should be tabulated with a clear indication that the project was in full compliance, compliant with opportunity for improvement, partial compliance, or non-compliance. An explanation as to what triggered any partial or non-compliance determination is to be provided.

Project evaluations should be completed by the end of the quarter in which the QAR is to be conducted. The findings of the QAR are documented within a draft QAR Memorandum which is shared with the district.

125.3.2.3 QAR Memorandum

A District-specific QAR Memorandum is to be developed for each QAR topic. The memorandum contains the following sections:

(1) Executive Summary

(2) Projects Selected for Review

(3) Evaluation Method (Optional)

(4) Findings

(5) Observations (Optional)

(6) Recommendations

Executive Summary

This section should be succinct (1-3 paragraphs) and should not extend to a 2nd page.

(1) First paragraph should state which design office conducted the review (include other offices if it was a joint review) and the quarter in which the review took place. Include the names of the Central Office and District key staff that participated in the review.

(2) Second paragraph should provide the stated purpose of the review; e.g., “The specific purpose of this QAR was to verify inclusion of applicable documents in the required E&O file.”

(3) Last paragraph should provide the results of the evaluation by indicating that the district was in full compliance, compliant with opportunity for improvement, partial compliance, or non-compliance.

Projects Selected for Review

This section should provide a description of how the projects were selected to be included in the QAR.

(1) First paragraph should describe the general project attributes that qualified it for inclusion of the QAR evaluation, e.g., “This QAR included projects with a letting date between July 1, 2017 and June 30, 2018 and proposed a new or extended bridge culvert. Eight projects were identified that met these parameters”.

(2) Subsequent paragraphs should include discussion on why projects were added or subtracted from the list to be evaluated.

(3) Last paragraph should state the number of projects that were selected for evaluation.

Evaluation Method (Optional)

This optional section is used to provide a description of the process used to evaluate the compliance of selected projects.

Findings

This section should indicate how the district performed overall and whether the projects met the stated requirements. At a minimum, this section should include:

(1) First paragraph should begin with “The following table provides a summary of the findings for each project evaluated as part of this QAR.” The table may be omitted if there were only one or two projects identified.

(2) Flexibility in content and format of tabulated findings should be exercised to clearly convey the information. Only include information that is the basis for why the district did or did not comply with requirements along with statements about what was missing or incomplete. Do not include comments concerning the quality of the document or submittal.

(3) Subsequent paragraphs should include discussion concerning the assessment of specific projects if additional information would help to clarify findings.

Observations (Optional)

This optional section is used to provide comments concerning faults or best practices in District processes, quality of project deliverables, or any other topic that may have contributed to the findings. It may include discussion on the benefits of compliance (improved safety and operational performance or cost savings) and missed opportunities identified through the QAR.

Recommendations

This section should list actions the district should consider for improving compliance with the stated requirements. Include suggested participation in training opportunities directly related to the QAR Purpose. This section may also include recommendations for Central Office improvements (e.g., new, improved or additional training, clarification to departmental policies, rules, procedures and standards).

125.3.2.4 Resolution of Findings

The Draft QAR Memorandum is shared with District staff involved in the QAR, followed by a discussion of findings and recommendations. The resolution of findings is typically face-to-face to assure open dialog between Central Office and district staff. Video conference or teleconference may be used in lieu of face-to-face meeting when deemed appropriate.

125.3.2.5 Distribution of Final QAR Memorandum

The memorandum is finalized after agreed-upon edits from the resolution of findings have been made. The Final QAR Memorandum is typically sent from the manager of the Roadway Design, Structures Design, or Forecasting and Performance office, as appropriate.

The memorandum is addressed to the District Secretary, with the following recipients copied:

(1) Director, Office of Design

(2) District Director of Transportation Development

(3) District Design Engineer

(4) Office of Design QAR Program Manager

(5) FHWA Design Program Manager

(6) FHWA Quality Assurance Manager

125.3.3 QAR Summary Report

When all the district QAR Memorandums have been completed on a QAR topic, the QAR Leader will summarize findings for that QAR topic in a QAR Summary Report. This report should be no more than one page and is not intended to repeat the individual district QAR Memorandums. This report will summarize recommendations, action items, lessons learned, and best practices identified through that year's QARs for that QAR topic. The QAR Leader will submit this QAR Summary Report to the Office of Design QAR Program Manager prior to June 30th.

The Office of Design QAR Program Manager will compile the individual QAR Summary Reports into a Summary of Recommendations and Action Items Report that should be provided to FHWA no later than August 31st of each year.

The Office of Design QAR Program Manager maintains a library of the Annual QAR Plans, QAR Memorandums, QAR Summary Reports, and a QAR Findings Log.

Office of Design
FY 2019/2020 QAR Plan

Office Unit	Leader	Authority	Topic / Purpose	QAR Cycle by District		
				Q1	Q2	Q3
Production Support Office						
Value Engineering	Kurt Lieblong	Topic No. 625-030-002	**Topic :** Value Engineering (VE) Procedures **Purpose:** Assess the determination of eligible projects, work plan submission, team member criteria and the 6 phases of the VE job plan.	1,4,5,6	2,3,7,T	
Landscape Architecture	Jeff Caster	Work Program Instructions	**Topic:** Part III - Ch 16: Landscape Installation **Purpose:** Evaluate compliancy with requirements for the inclusion of landscape plans in a construction contract.		1,6	4,T
Roadway Design Office						
Standard Plans	Derwood Sheppard	Topic No. 625-010-003	**Topic:** Longitudinal Barriers **Purpose:** Determine if new standards and associated policies are being implemented	5	2	4,T
Pavement Management	Rhonda Taylor	Work Program Instructions	**Topic:** Pavement Resurfacing **Purpose:** Evaluate compliancy and consistency in selecting and programming projects in the resurfacing program.		ALL	
		Topic No. 625-010-002 Topic No. 625-010-005 Topic No. 625-010-006	**Topic:** Pavement Design Policy **Purpose:** Evaluate compliancy and consistency with state standards in developing pavement designs.		4	7
Drainage	Carlton Spirio	Topic No. 625-040-002	**Topic:** Bridge Hydraulic Reports **Purpose:** Evaluate consistency in format and content.		3, T	1,5
Quality Assurance	Jeremy Fletcher	Topic No. 625-020-016	**Topic:** Americans with Disabilities Act (ADA) **Purpose:** Evaluate design content in Architectural Plans and accessibility issues with existing facilities.	5	2	3
Structures Design Office						
Structures	Scott Arnold	Topic No. 625-000-002	**Topic:** FDM 121 Bridge Project Development **Purpose:** Follow-up from the 2015 QAR			2,3,6,7