

**Florida Department of Transportation
Traffic Engineering Research Laboratory**

Product Certification Handbook



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Section 1

INTRODUCTION

1.1 PURPOSE

The objective of the ***Product Certification Handbook*** is to describe the Florida Department of Transportation's (Department) Approved Product List (APL) and permitting processes/requirements to applicants, suppliers, and end-users. The Department is required by federal and state law to ensure that only a safe and uniform traffic control system is implemented on streets and highways of the state. The Traffic Engineering Research Laboratory (TERL) within the Department's State Traffic Engineering and Operations Office supports this mandate by: (a) impartially evaluating traffic control products for certification to federal and/or state standards (and APL listing), (b) authorizing innovative products for field evaluations against state developmental specifications (and APL listing) or (c) permitting those products that do not meet federal and/or state standards upon showing of good cause.

1.2 AUTHORITY

Sections 20.23(4)(a), 334.048(3), Florida Statutes (F.S.)

1.3 REFERENCES

Sections 316.0745, 316.0747, F.S.
Procedure 630-020-001 Transportation Product Evaluation

1.4 SCOPE

This handbook applies to the TERL, vendors (i.e., applicants and suppliers) and end-users of traffic control products pursuing product listing on the Department's APL, seeking a permit to use a product not listed on the APL, or reporting product/supplier non-conformities with requirements.

1.5 STATEMENT OF IMPARTIALITY

The TERL's aim is to inspire and prove confidence in its product certification services. The TERL understands and is fully aware of the importance of being impartial in carrying out certification activities. In addition, it has an organizational structure, policies, and procedures setup to manage impartiality and help ensure its certification activities are undertaken impartially.

1.6 DISTRIBUTION

The current version of this handbook is available free-of-charge and on-line at the Department's State Traffic Engineering and Operations Office – Document Library web site at:

http://www.fdot.gov/traffic/Traf_Sys/TERL-PCH.shtm

1.7 REVISIONS

The handbook is subject to periodic review and revisions. It is the responsibility of applicants and suppliers to meet current requirements listed in the handbook. Revisions to sections of the handbook are listed at the end of each section under "DOCUMENT HISTORY".

1.8 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	08/17/2012
2.0	Comments from FDOT Legal Office addressed.	J. Morgan A. Burleson	J. Morgan	M. Wilson	01/30/2013
3.0	Included impartiality statement for compliance to clause 5.2.1 of ISO/IEC 17021.	A. Burleson	J. Morgan	M. Wilson	07/30/2014
4.0	Updated position title for Mark Wilson in document control panel.	A. Burleson	J. Morgan	M. Wilson	11/18/2014
5.0	Referenced IPL use and the Transportation Product Evaluation procedure.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	T. Tillander	05/27/2022
6.0	Removed references to IPL.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024

Section 2

DEFINITIONS, ACRONYMS AND ABBREVIATIONS

2.1 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

Acceptable Quality System List (AQSL): A listing of accepted quality management systems that the Department has reviewed and found compliant to the quality management system specification listed in **Section 6**.

Ancillary Device: A device that does not fit the definition of official traffic control signal or official traffic control device but is an integral part of the traffic management system. A list of ancillary devices listed on the APL (Certified Process) is located in **Section 4**.

Ancillary Device Quality System Acceptance Compliance Matrix: A compliance matrix used in the evaluation and acceptance process where the applicant/supplier self-certifies as conforming to the quality management system specification of **Section 6** without supplying evidence of conformance (equivalent to an applicant/supplier's declaration of conformity).

Ancillary Device Quality System Re-Acceptance Compliance Matrix: A compliance matrix used in the re-evaluation and re-acceptance process where the applicant/supplier self-certifies as conforming to the quality management system specification of **Section 6** without supplying evidence of conformance (equivalent to an applicant/supplier's declaration of conformity).

Approved Product List (APL) (Certified Process): A listing of certified products that the Department has reviewed and found compliant with specifications and authorized for use on the streets and highways of Florida. The published information concerning the certified product consists of the following: (a) product specification to which conformity has been certified (first three digits in certification number), (b) product type, (c) product description/model number, (d) APL number, (e) last date of approval, (f) product photo(s) and/or schematics, (g) supplier name/address/web site address/phone number, and (h) supplier contact name(s)/e-mail address(es)/phone number(s). The list is available at: <https://path.fdot.gov>

Approved Product List (APL) (Developmental Process): A listing of innovative products that the Department has authorized for limited use on the streets and highways of Florida based on compliance with developmental specifications. The published information concerning the innovative product consists of the following: (a) developmental specification for product to meet, (b) product description, (c) product

information, and (d) Department contact authorizing limited product use. The list is available at: <https://path.fdot.gov>

Approved Product List (APL) (Meet Specifications Process): A listing of products that the Department has authorized for use on the streets and highways of Florida based on a declaration of conformity by the applicant/supplier to requirements in *Standard Specifications for Road and Bridge Construction*. The published information concerning the product consists of the following: (a) product specification to which conformity has been certified (first three digits in certification number), (b) product type, (c) product description/model number, (d) APL number, (e) last date of approval, (f) product photo(s) and/or schematics, (g) supplier name/address/web site address/phone number, and (h) supplier contact name(s)/e-mail address(es)/phone number(s). The list is available at: <https://path.fdot.gov>

APL (Developmental Process) Monitor: Professional Engineer licensed in Florida, employed by the Department, and qualified to prepare a Developmental Specification in relation to an innovative product. The APL (Developmental Process) Monitor signs and seals the Developmental Specification and approves its use on specific projects. He/she also approves the product for APL (Developmental Process) listing (or de-listing), and monitors product performance on projects.

Certified Product: An official traffic control signal or device, or ancillary device that complies with the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, or *Standard Specifications for Road and Bridge Construction*, as applicable. Note that, in the absence of Department specifications, the *MUTCD* is used for product certification of an official traffic control signal or device. The designation of "Certified Product" only applies to products on the APL (Certified Process).

Compliance Matrix: A document directly developed from a specification for use by the Department and the applicant/supplier in assessing conformance with a specification. Compliance matrices for products are available at: http://www.fdot.gov/traffic/Traf_Sys/Product-Specifications.shtm

Corrective Action: An action taken to eliminate the causes of an existing nonconformity, defect, or other undesirable situation to prevent recurrence.

Declaration of Conformity for Product: A statement by the applicant/supplier affirming that its product conforms to the requirements in *Standard Specifications for Road and Bridge Construction*.

Declaration of Conformity for Quality Management System: A statement by the applicant/supplier affirming that its quality management system conforms to the Department's quality assurance standards of **Section 6**.

Department: Florida Department of Transportation

Developmental Specifications: Specifications written around the development of a new process, procedure, or material approved for limited use on a project basis. These specifications are used in authorizing traffic control products for limited use on the streets and highways of the state and listing them on the APL (Developmental Process). Developmental specifications are available at:

<https://www.fdot.gov/programmanagement/OtherFDOTLinks/Developmental/Default.shtm>

Field Evaluation Due Date: The date when a field evaluation and associated report must be complete unless an extension is granted in relation to a traffic control device permit or a product on the APL (Developmental Process).

Field Evaluation Extension: An extension of a field evaluation to allow additional time for completing the evaluation in relation to a traffic control device permit or a product on the APL (Developmental Process).

Field Evaluation Monitoring Team: A team of designated staff responsible for the oversight of a field evaluation. The team is also responsible for assessing product performance and developing a field evaluation report in relation to a traffic control device permit or a product on the APL (Developmental Process).

Field Evaluation Plan: A document developed by the applicant and/or the Department that provides methods and criteria for conducting an evaluation of a product in the field in relation to a traffic control device permit or a product on the APL (Developmental Process).

Field Evaluation Report: A document developed by the field evaluation monitoring team that provides results of a field evaluation in relation to a traffic control device permit or a product on the APL (Developmental Process). The report includes a recommendation regarding consideration for APL listing (or lack-there-of).

First-Party Product Testing: Testing of the applicant's product by the applicant.

ISO: International Organization for Standardization.

Maintaining Agency: The state, county, city, or other authorized governmental entity in Florida that has operational and/or maintenance responsibility for traffic control signals or devices on a given roadway. If traffic control signals or devices are located on a state road, it is the agency that has an executed maintenance agreement with the Department.

Manual on Uniform Traffic Control Devices (MUTCD): The Federal Highway Administration's (FHWA) standards used for the evaluation and certification of official

traffic control signals and devices. The Department has adopted the *MUTCD* by Rule 14-15.010, Florida Administrative Code. The *MUTCD* is available at:
<https://www.fdot.gov/traffic/TrafficServices/MUTCD.shtm>

Mark of Conformity: A legally registered certification mark applied by or issued under the procedures of a third-party certification system for a product or service which is in conformity with specific standards or other technical specifications.

Non-Conformity: A deviation from specified requirements related to the product or to the Department's certification requirements.

Official Device Quality System Acceptance Compliance Matrix: A compliance matrix used in the evaluation and acceptance process where the applicant/supplier is required to provide complete evidence of conformance to the quality management system specification of **Section 6** (i.e., second-party assessment conducted by the Department).

Official Device Quality System Re-Acceptance Compliance Matrix: A compliance matrix used in the re-evaluation and re-acceptance process where applicant/supplier is required to provide complete evidence of conformance to the quality management system specification of **Section 6** (i.e., second-party assessment conducted by the Department).

Official Traffic Control Devices: As defined in Section 316.003, FS, all signs, signals, markings, and devices, placed or erected by authority of a public body or official having jurisdiction for the purpose of regulating, warning, or guiding traffic. Official traffic control devices listed on the APL (Certified Process) can be found in **Section 4**.

Official Traffic Control Signals: As defined in Section 316.003, FS, any device, whether manually, electrically, or mechanically operated, by which traffic is alternately directed to stop and permitted to proceed. Official traffic control signals listed on the APL (Certified Process) can be found in **Section 4**.

Permit Conditions: A set of requirements accompanying a traffic control device permit.

Product Application Tracking and History (PATH): Portal used by applicant/supplier to submit product information used for product listing on the APL and for limited correspondence regarding product evaluation. The PATH link is available at:
<https://path.fdot.gov>

Quality Assurance (QA): The activity of providing fact-based evidence that verifies quality products, services, and information are being delivered.

Quality Management System (QMS): A set of interrelated or interacting elements used by organizations to direct and control how quality policies are implemented and quality

objectives are achieved.

Second-Party QMS Assessment: An assessment of the applicant/supplier's quality management system by the Department to determine conformance with quality assurance standards located in **Section 6**.

Standard Specifications for Road and Bridge Construction (SSRBC):

Specifications written to the bidder, prior to award of a contract, and to the contractor. Contain requirements setting out or relating to the method or manner of performing work or to the quantities and qualities of materials and labor for all Department contracts. These specifications are also used for the APL evaluation and certification of official traffic control signals and devices, and ancillary devices for use on the streets and highways of the state. For the APL (Certified Process), the approval date of the SSRBC by the FHWA is used as the effective date for product evaluation and certification. The SSRBC are available at:

<https://www.fdot.gov/programmanagement/Implemented/SpecBooks/default.shtm>

Supplier: A manufacturer or vendor of approved official traffic control signals, official traffic control devices, or ancillary devices. Entity responsible for ensuring its quality management system and/or products meet or continue to meet the Department's standards on which the APL listing is based.

Surveillance: A systematic iteration of conformity assessment activities as a basis for maintaining the validity of the statement of conformity.

TERL: Traffic Engineering Research Laboratory.

Third-Party Product Testing: Testing by a party independent from the Department or the applicant that verifies the applicant's product conforms to applicable specifications.

Traffic Control Device Permit: An official document issued by the Department's State Traffic Engineering and Operations Office to an applicant allowing use of a traffic control product under specified permit conditions.

2.2 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	06/12/2012
2.0	Added definitions for first and third-party testing and modified definition of permit expiration date.	A. Burleson	J. Morgan	M. Wilson	06/29/2012
3.0	Comments from FDOT Legal Office	J. Morgan	J. Morgan	M. Wilson	01/30/2013

	addressed.	A. Burleson			
4.0	Revised to include changes to permit terminology and permitting procedure and to include more detailed information about the APL as specified in clause 7.8 of the ISO 17065 standard.	A. Burleson	J. Morgan	M. Wilson	06/02/2013
5.0	Added the latest revised URL.	A. Burleson	J. Morgan	M. Wilson	08/05/2013
6.0	Updated definitions related to permitting to reflect latest permit process and requirements changes.	A. Burleson	J. Morgan	M. Wilson	12/10/2013
7.0	Updated position title for Mark Wilson in document control panel. Removed definitions for 'Minimum Specifications for Traffic Control Signals and Devices' (MSTCSDs) and 'Approved Product'. Removed references to MSTCSDs. Modified definition for 'Certified Product' to include ancillary devices. Revised information listed on the APL in the definition for 'APL'. Revised URL for APL. Added definition for Innovative Product List and associated URL.	A. Burleson	J. Morgan	M. Wilson	03/02/2015
8.0	Revised broken links.	K. Moser	J. Morgan	M. Wilson	09/30/2015
9.0	Propagated changes to names of Quality System Compliance Matrices triggered by using the ISO 9001:2015 standard's requirements in addition to those of the existing ISO 9001:2008 standard.	K. Moser	J. Morgan A. Burleson E. Birriel	M. Wilson	12/03/2015
10.0	Added definitions for PATH, permit and IPL related terms, and developmental specifications. Updated links and names of quality system compliance matrices.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	T. Tillander	05/27/2022
11.0	Removed definitions of quality system compliance matrices for ancillary devices. Removed references to IPL and updated to new terminology. Added APL listing based on "meet specifications" process. Updated PATH URL.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024

Section 3

APL CERTIFIED PROCESS

3.1 PURPOSE

The objective of this section is to describe the Department's APL product certification process to applicants, suppliers, and end-users. Products certified under this process are listed on the APL (Certified Process) as defined in **Section 2**. Conditions for granting, maintaining, extending, suspending, and withdrawing certification are also included.

3.2 GRANTING CERTIFICATION

All official traffic control signals and devices, and ancillary devices (listed in **Section 4**) shall be evaluated by the TERL and certified by the Director, Office of Traffic Engineering and Operations or their delegate (TERL Manager). Granting certification of the applicant's product is based on meeting applicable specifications. In addition, during the course of a product evaluation, issues concerning safety/use/maintenance of a product, failure to meet common industry standards, or other issues may arise that are not explicitly addressed in the specifications. In such cases, the TERL may require that these issues be resolved prior to product certification.

An overview of the granting certification process can be found at:

<https://www.fdot.gov/traffic/traf-sys/traf-sys.shtm>

Applicants wishing to have products listed on the APL for the **first time** shall follow the three-step process outlined below. The TERL responsibilities are also described for each step.

- (1) **Step 1: Initial PATH Application Submittal and Review:** To begin the process, the applicant shall submit via the [PATH portal](#) product information including the applicable APL product type and product specification from the SSRBC. The information shall include a completed [Request for Product Consideration \(RFPC\) application](#). The TERL will review the provided information to determine whether the product has benefit to the state, it requires APL listing, and the correct APL product type and product specification are selected.

The applicant can expect a response within 14 calendar days following receipt of the information. If the product requires listing on the APL, the applicant will be instructed to proceed to Step 2 and will be provided with the name of the assigned QMS point of contact. Note that other possible outcomes of Step 1 may

include following the traffic control device permit process (described in **Section 8**) or the APL developmental process (described in **Section 9**). If the product is out of the APL scope or is within scope but clearly not meeting standards, the applicant will be notified that certification is refused and be given reasons for the decision.

- (2) **Step 2: AQSL Application Submittal and Review:** The applicant shall first submit a completed Acceptable Quality System List (AQSL) application (application form only) and organization chart. The application form will be provided by the assigned QMS evaluator to the applicant and is used to determine the extent of additional documentation required. The additional documentation depends on the product category (official traffic control signal and device, or ancillary device) and is specified in **Section 5.2**.

Contract manufacturers/designers and customer service providers, utilized by applicants may be required to follow the same evaluation process depending on the extent of their activities. The applicant can expect a response within 30 calendar days following receipt of the submittal (including the additional documentation). A vendor of official traffic control signals and devices will receive an evaluation report (including deficiencies, as applicable). Acceptance of the QMS is based on meeting the QMS specification listed in **Section 6**.

An applicant must have its QMS accepted before products can be evaluated. Upon QMS acceptance, the applicant will be notified and instructed to proceed to Step 3A, and its QMS will be listed on the AQSL. A vendor of official traffic control signals and devices will also receive a final evaluation report. The QMS evaluation process is detailed in **Section 5**.

- (3) **Step 3A: Product Compliance Information Submittal and Review:** The applicant will be provided with web links to the applicable [product compliance matrices](#) to complete. The applicant shall submit the following documentation:

- (a) All required compliance matrices;
- (b) Third-party or first-party test data stipulated in matrices (refer to **Section 7** for test laboratory and test reporting requirements);
- (c) Manufacturer's product specifications;
- (d) Product drawings or cut sheets;
- (e) Parts list; and
- (f) Assembly and installation instructions.

Depending on the product, the following additional documentation may be required:

- (g) Operation manual;
- (h) Troubleshooting and service manual; and

- (i) Circuit board schematics or block diagrams (refer to **Section 10.3** for how to handle confidential information).

The applicant can expect a response on information completeness and conformance with applicable product specifications within 14 calendar days following receipt of the submittal. Conformance is initially based on a review of the “Item Comply? (Yes/No/NA)” information in the matrices and justification for any noncompliant item. Once the application is deemed complete and no apparent nonconformities are noted, the applicant will be instructed to proceed to Step 3B and will be provided with the name of the assigned product evaluator.

- (4) **Step 3B: Product Sample Submittal, Evaluation and Certification:** After Steps 1 through 3A have been successfully completed, the applicant will be notified to provide a product sample to the TERL for evaluation. The applicant shall submit a product sample that is a production unit representative of the entire line or group of products to be certified, and with all accessory components necessary for full operation. All product shipping boxes must have the PATH application ID number and name of the assigned product evaluator on their shipping label. All costs of freight and shipping must be at the applicant's expense. The applicant can expect a response regarding product evaluation within 45 calendar days following receipt of the sample.

The product compliance information submitted in Step 3A will be reviewed for content and the product evaluated against all applicable specifications. The TERL will communicate any deficiencies to the applicant via an evaluation report. If the product fails the evaluation or is found to have numerous or serious specification violations, the product may not be re-submitted for up to 90 calendar days from the date of notification of such failure. Following the second product failure, the applicant may have to wait for up to one year before resubmitting the product.

Once the TERL product evaluation staff determine that a product meets applicable specifications and requirements, a recommendation will be made to the TERL Manager or Director, Office of Traffic Engineering and Operations to certify the product. If the recommendation is accepted, the applicant will receive a final evaluation report (uploaded to PATH); the Director, Office of Materials (or designee) will conduct an administrative review; and the applicant will be notified that the product is listed on the APL.

3.3 MAINTAINING CERTIFICATION

Maintaining certification shall be accomplished by the following:

- (1) Maintaining compliance to the relevant product/QMS standards and certification requirements including re-certification under revised standards and specifications

(refer to **Section 3.5**). This involves successful and prompt resolution of any required actions from suppliers to maintain compliance. Examples of deficiencies requiring actions are listed in **Section 3.6**; and

- (2) Utilizing a surveillance program, including a re-evaluation and re-acceptance of the supplier's QMS (typically performed every four years). To begin the re-evaluation process, the supplier shall first submit a completed AQLS application (application form only) and organization chart. The application form will be provided by the assigned QMS evaluator to the supplier and is used to determine the extent of additional documentation required. The additional documentation depends on the product category (official traffic control signal and device, or ancillary device) and is specified in **Section 5.4**.

Contract manufacturers/designers and customer service providers, utilized by suppliers may be required to follow the same re-evaluation process depending on the extent of their activities. The supplier can expect a response within 30 calendar days following receipt of the submittal (including the additional documentation). A vendor of official traffic control signals and devices will receive an evaluation report (including deficiencies, as applicable). Re-acceptance of the QMS is based on meeting the QMS specification listed in **Section 6**. Upon QMS re-acceptance, the supplier will be notified, and its QMS will continue to be listed on the AQLS. A vendor of official traffic control signals and devices will also receive a final evaluation report. The QMS re-evaluation process is detailed in **Section 5**.

3.4 EXTENDING CERTIFICATION

- (1) Suppliers with products currently listed on the APL that wish to extend (add) new products or modify existing certified products shall follow the process outlined in **Section 3.2** beginning with Step 1 but with modifications described in this section. To begin the process, the applicant shall submit via the [PATH portal](#) APL product information for a new product or product change information for an existing APL product. The information shall include a completed [RFPC application](#). Step 2 may be bypassed if the supplier's QMS has already been accepted in relation to the products proposed for extension or modification. Steps 3A and 3B requirements may be reduced for the supplier under certain conditions explained in this section. In all cases, conditions for maintaining product certification as defined in **Section 3.3** must also be met for granting an extension of product certification.

For modification of a certified product, the supplier shall document all product modifications in the RFPC application. The product change information will be reviewed to determine the significance of the proposed modifications to the certified product or the significance of the changes between the certified product

and the new product submitted for extension. The supplier can expect a response within 14 calendar days following receipt of the information. The response may include a request for information to make a final determination of significance.

- (2) If differences between the existing certified product and the product submitted for extension or modification are deemed significant, suppliers shall follow the process outlined in Steps 3A and 3B within **Section 3.2**. The TERL responsibilities described in **Section 3.2** also apply. As an example, a complete product replacement or replacement of one/more components providing the functionality to be evaluated, is deemed significant. In this case, the supplier shall submit an application for an “APL” (e.g., new product) instead of a “ProductChange” application in PATH.
- (3) If differences between the existing certified product and the product submitted for extension or modification are not deemed significant, the supplier shall provide extension material which may include product test data or a product sample (meeting requirements outlined in Step 3B within **Section 3.2**). Following receipt of the requested extension material, the supplier can expect a response regarding the evaluation within 45 calendar days following receipt of the material. The TERL will communicate any deficiencies to the supplier via an evaluation report.

For product differences deemed non-significant, once the TERL product evaluation staff determine that a product meets applicable specifications and requirements, a recommendation will be made to the TERL Manager or Director, Office of Traffic Engineering and Operations to certify the product. If the recommendation is accepted, the applicant will receive a final evaluation report (uploaded to PATH) if there were deficiencies; the Director, Office of Materials (or designee) will conduct an administrative review; and the applicant will be notified that the product is listed on the APL.

- (4) Suppliers with products currently listed on the APL wishing to extend (add) or modify accepted QMS/facilities handling product design/development, manufacturing/testing, or customer service shall follow the process outlined in Step 2 of **Section 3.2** if the extension or modification involves scenarios described in **Section 5.3**. Conditions for maintaining product certification as defined in **Section 3.3** must also be met for granting an extension of QMS acceptance.

3.5 RE-CERTIFICATION UNDER REVISED STANDARDS

The Department regularly revises specifications to keep pace with new product technology and revised standards.

- (1) If the latest product specification revisions are deemed more stringent than earlier versions, the TERL and/or Office of Materials will notify suppliers of affected products and specific revisions. To begin the process, the applicant shall submit via the [PATH portal](#) APL product information for a product change corresponding to the affected APL product. The information shall include a completed [RFPC application](#) and compliance matrix only completed for the more stringent requirements along with applicable supporting information. A product sample representative of the entire line or group of products to be re-certified, may also be required depending on the significance of the specification revisions. The supplier shall indicate in the RFPC that it is submitted in response to a product recertification.

The TERL will communicate any deficiencies to the supplier via an evaluation report. Once the TERL product evaluation staff make a final determination of compliance (or lack thereof) to the more stringent specification, a recommendation will be made to the TERL Manager or Director, Office of Traffic Engineering and Operations to re-certify (or not re-certify) the product. If the recommendation is accepted, the supplier will receive a final evaluation report if there were deficiencies to resolve (uploaded to PATH); the Director, Office of Materials (or designee) will conduct an administrative review; and the supplier will be notified of the final outcome. The product will remain listed on the APL if it is deemed to meet the revised specification. If the product does not meet the revised specification, the product will continue to be listed on the APL with a limitation that it can no longer be used after the effective date of the revised specification (reduction of certification).

- (2) Compliance with revisions concerning the QMS specification listed in **Section 6** is evaluated as part of the surveillance program (see **Section 3.3**). This program includes a re-evaluation and re-acceptance of the supplier's QMS (typically performed every four years) based on meeting the latest specification requirements listed in **Section 6**.

3.6 TERMINATING, REDUCING, SUSPENDING AND WITHDRAWING CERTIFICATION

Alleged deficiencies in product and/or supplier performance, supplier's quality assurance and fabrication procedures, and lack of compliance with product certification requirements will be evaluated. Specific examples of deficiencies include, but are not limited to:

- (a) Failure of the product to perform satisfactorily or to meet current standards and specifications;
- (b) Failure of the supplier to cooperate with the ongoing surveillance program;
- (c) Failure of the supplier to address product deficiencies that TERL requested them to address;

- (d) Failure of the supplier to immediately notify the TERL of any modification, alteration, or obsolete nature of a listed product affecting its conformity to standards and specifications;
- (e) Failure of the supplier to resolve improper use of the APL certification (i.e., misleading publications or advertisement); and
- (f) Failure of the supplier to comply with supplier requirements listed in **Section 10**.

The degree of action taken by the TERL (i.e., halting evaluation; reducing, suspending, and withdrawing certification) will vary with the degree of deficiency confirmed and its effect on product safety and intended use of the product.

The halting evaluation policy consists of halting evaluations of products submitted for APL listing until the supplier resolves the deficiency of interest (e.g., supplier's quality management system is re-accepted, specific product issue is resolved). This policy is also referred to as placing the supplier on "QA Hold". Upon implementation, the TERL Manager (or delegate) will notify the supplier of the "QA Hold" status.

The reduction, suspension, and withdrawal process is typically escalated as follows. However, any of the below penalties can be applied independently of the typical sequence shown:

(1) 1st Action – Notice of Deficiency

The TERL Manager (in coordination with the Director, Office of Traffic Engineering and Operations) will issue a Notice of Deficiency to the supplier to resolve the deficiency. Under this action, product certification or supplier's QMS acceptance is not affected. Upon receipt, the TERL will review the supplier's response and supporting documentation and notify the supplier of any additional information or action needed.

(2) 2nd Action – Notice of Suspension

Failure to provide a satisfactory response to the Notice of Deficiency will lead to suspension. In this case, upon recommendation from (and agreement with) the Director, Office of Traffic Engineering and Operations, and the Director, Office of Materials, the Chief Engineer will issue a Notice of Suspension to the supplier. Under suspension, the deficient product is removed from the APL. In addition, the supplier's accepted QMS may be removed from the AQSL depending on the deficiency; QMS removal from the AQSL automatically results in all products under the supplier's name removed from the APL. The affected product(s) is/are ineligible for sale or installation within the state for the period of suspension. The supplier is given a minimum of 30 calendar days to provide a response to the suspension. Upon receipt, the TERL will review the supplier's response and supporting documentation and notify the supplier of any additional information or action needed. If the response to the suspension is deemed satisfactory, a recommendation will be made to the Director, Office of Traffic Engineering and

Operations, to remove the suspension. If the recommendation is accepted, the supplier will be notified of the removal of suspension.

3rd Action – Notice of Revocation

Unless an extension is requested and approved, failure to meet the 30-day Notice of Suspension deadline or provide a satisfactory response will lead to revocation. In this case, upon recommendation from (and agreement with) the Director, Office of Traffic Engineering and Operations, and the Director, Office of Materials, the Chief Engineer will issue a Notice of Revocation to the supplier. Under revocation, the deficient product remains off the APL. In addition, the supplier's accepted QMS may be removed from the AQSL depending on the deficiency; QMS removal from the AQSL automatically results in all products under the supplier's name removed from the APL. The supplier shall follow the three-step certification process described in **Section 3.2** to re-apply for APL listing (beginning with Step 1) but wait for a minimum of one (1) year to do so.

Special cases include the following:

- (a) Certification will be terminated at the request of the supplier without formal documentation provided by the TERL if the supplier does not wish to continue the certification (involving product or QMS) or the product is no longer manufactured or sold by the supplier;
- (b) Certification will be reduced or withdrawn if a product is deemed to not meet revised standards and specifications (refer to **Section 3.5**), without formal documentation provided by the TERL (including above listed penalties);
- (c) Certification will be suspended if a product is deemed to pose an immediate threat to the general public. In this case, a Notice of Suspension (as described above) will be sent to the supplier;
- (d) Certification will be withdrawn if the supplier goes out of business, without formal documentation provided by the TERL;
- (e) The supplier's QMS will be removed from the AQSL without formal documentation provided by the TERL (including above listed penalties) if the supplier refuses to proceed to a required QMS re-evaluation and has no product listed on the APL.

3.7 ADDRESSING ALLEGED DEFICIENCIES

Alleged deficiencies of Section 316.0745, F.S., product/QMS standards or certification requirements should be reported. To do so, the complainant shall submit a completed Alleged Deficiency Report (ADR) (downloadable at <https://www.fdot.gov/traffic/traf-sys/traf-sys.shtm>). Supporting evidence must be provided in order for the TERL to process the ADR. If there is sufficient evidence of a deficiency and the deficiency is supplier related, a Notice of Deficiency will be sent to the supplier consistent with the process outlined in **Section 3.6**. If the deficiency is determined to present an immediate threat to the general public, the subject product will be immediately removed from the

APL. Upon resolution of the deficiency, the TERL will notify the supplier and originator of the deficiency. If action by the supplier is not deemed necessary, the TERL will document the resolution and notify the originator accordingly.

If the resolution of a deficiency affects other suppliers (e.g., other suppliers may use products removed from the APL), the TERL and/or Office of Materials will notify affected suppliers.

3.8 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section created from transferring and revising section 7.1 of the Traffic Engineering Manual (excluding temporary permit section).	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	05/24/2012
2.0	Revisions of section/sub-section numbers, removal of definitions (since definitions now have their own section), and removal of unnecessary hyperlinks.	A. Burleson	J. Morgan	M. Wilson	06/12/2012
3.0	Revised section 3.1 and 3.4 to include additional details regarding steps 3a and 3b.	A. Burleson	J. Morgan	M. Wilson	08/17/2012
4.0	Comments from FDOT Legal Office addressed.	J. Morgan A. Burleson	J. Morgan	M. Wilson	01/30/2013
5.0	Revised to address additional requirements in the ISO 17065 standard (certification agreement, refusing certification). Added special cases for reduction, suspension, and withdrawal of certification/approval. Added use of certification letter and agreement when extending certification. Expanded section on extending certification. Added the latest revised URL.	A. Burleson	J. Morgan	M. Wilson	08/06/2013
6.0	Modified references to revised permit process. In section 3.6, added scenario where supplier has no product on the APL and does not want to go through a quality system re-evaluation, leading to removal from the AQSL. Indicated that completed APL application (form itself) was always required for extension of certification. Added that under suspension, removal of accepted quality system can occur.	A. Burleson	J. Morgan	M. Wilson	01/23/2014
7.0	Removed references to product certification agreement and included additional example of deficiency in section 3.6. Content of product certification agreement is being incorporated in section 9 of the PCH and will be referenced in the APL and AQSL applications.	A. Burleson	J. Morgan	M. Wilson	07/09/2014

8.0	Revised section 3.2 to indicate vendors are asked quality management system questions to determine extent of documentation required for evaluation before submitting AQSL application. Revised sections 3.6 and 3.7 to reference changed from nomenclature for reporting deficiencies and eliminate use of notice of corrective action. Updated position title for State Traffic Operations Engineer. Removed 'approval' terminology in section title and throughout document.	A. Burleson	J. Morgan	M. Wilson	11/27/2014
9.0	Added reference to Innovative Product List (IPL) as possible outcome of Step 1 in Granting Certification.	A. Burleson	J. Morgan	M. Wilson	03/04/2015
10.0	Added use of the PATH portal and process changes created due to PATH. Reflected current practice of product certification decision by the TERL Manager or Director, Office of Traffic Engineering and Operations.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	T. Tillander	05/27/2022
11.0	Revised Step 2 process for ancillary device vendors. Removed most references to PATH. Clarified requirements for complete APL product replacements. Replaced references to Program Management Office with Office of Materials. Expanded re-certification process under revised standards. Added QA hold policy. Reverted back to using the Traffic Systems site for submitting ADRs (because of PATH issues). Updated PATH URL.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024

Section 4

TRAFFIC CONTROL PRODUCTS WITH REQUIRED APL LISTING AND PRODUCT RETENTION

4.1 PURPOSE

The objective of this section is to provide a list of official traffic control signals and devices and ancillary devices that require listing on the APL (Certified Process), and products retained by the TERL post-APL certification (refer to **Section 10.5**). Products are organized based on FDOT specification number and APL product type. Products conforming to specifications and retained by the TERL post-APL certification are indicated by an asterisk (*); all other products are not retained. Products typically listed as a series are underlined. This list is not intended to be all-inclusive (only known products are listed).

4.2 LIST

Official Traffic Control Signals and Devices	Ancillary Devices
102 Maintenance of Traffic (shown under 990 in Division III of the Standard Specifications for Road and Bridge Construction (SSRBC))	
Automated Flagger Assistance Device	
Portable Arrow Board	
Portable Changeable Message Sign	
Portable Radar Speed Display Unit	
Portable Regulatory Sign	
Portable Traffic Signal	
Truck Mounted Changeable Message Sign	
620 Grounding and Lightning Protection (shown under 996 in Division III of the SSRBC)	
	<u>Surge Protective Device at Point of Use</u>
	<u>Surge Protective Device for 120V or 120/240V Power</u>
	<u>Surge Protective Device for Low Voltage Power, Control, Data and Signal Systems</u>

Official Traffic Control Signals and Devices	Ancillary Devices
635 Pull, Splice and Junction Boxes (shown under 996 in Division III of the SSRBC)	
	<u>Pull Box and Cover</u>
	<u>Splice Box</u>
641 Prestressed Concrete Poles (shown under 996 in Division III of the SSRBC)	
	Camera Lowering Device
650 Vehicular Traffic Signal Assemblies (shown under 995 in Division III of the SSRBC)	
<u>Backplate (Retroreflective)</u>	Louvers/Visors
Light-Emitting Diode (LED) Optical Unit	Vehicular Traffic Signal Housings
Vehicular Traffic Signal Assemblies (housing and module)	
653 Pedestrian Signal Assemblies (shown under 995 in Division III of the SSRBC)	
Light Emitting Diode (LED) Pedestrian Signal Optical Unit	Pedestrian Signal Assembly Hardware
Pedestrian Signal Assemblies (housing and module)	Pedestrian Signal Housings
654 Midblock Crosswalk Enhancement Assemblies (shown under 995 in Division III of the SSRBC)	
In-Roadway Light Assemblies	
Rectangular Rapid Flashing Beacon (RRFB) Assemblies	
RRFB – Accessible Pedestrian Pushbutton	
659 Mast Arm, Span Wire and Pole Mounting Assemblies (shown under 995 in Division III of the SSRBC)	
	Mast Arm Mounting Assemblies for Signals, Signs, Cameras and Detectors
	Pole and Pedestal Mounting Assemblies
	Span Wire Mounting Assemblies for Signals, Signs, Cameras and Detectors
660 Vehicle Detection System (shown under 995 in Division III of the SSRBC)	
Inductive Loop Detector Units*	Probe Data Detection System - Automatic Vehicle Identification (AVI)
Vehicle Detection System – LiDAR*	Traffic Data Detection System – LiDAR*
Vehicle Detection System – Microwave*	Traffic Data Detection System – Microwave*
Vehicle Detection System – Video*	Traffic Data Detection System – Video*

Official Traffic Control Signals and Devices	Ancillary Devices
Wireless Magnetometer Detection System*	
Wrong Way Vehicle Detection System*	
663 Signal Priority and Preemption Systems (shown under 995 in Division III of the SSRBC)	
Signal Priority and Preemption System	
665 Pedestrian Detection System (shown under 995 in Division III of the SSRBC)	
Accessible (Audible/Tactile) Pedestrian Pushbutton Detector*	
Mid-Block Pedestrian Detector	
Passive Pedestrian Detector	
Standard Pedestrian Pushbutton Detector	
671 Traffic Controllers (shown under 995 in Division III of the SSRBC)	
ATC Controller for ATC Cabinet*	
ATC Controller for CALTRANS Cabinet*	
ATC Controller for NEMA Cabinet*	
676 Traffic Cabinets (Wired) (shown under 995 in Division III of the SSRBC)	
NEMA Controller Cabinet	Intelligent Transportation System (ITS) Field Cabinet
Type 170 Traffic Signal Controller Cabinet	Traffic Signal Cabinet Surge Protective Device
676 Traffic Cabinets (Unwired) (shown under 995 in Division III of the SSRBC)	
	NEMA Controller Cabinet
	Small Equipment Enclosure
	Type 170 Traffic Signal Controller Cabinet
678 Traffic Controller Accessories (shown under 995 in Division III of the SSRBC)	
Bus Interface Unit	
Cabinet Power Supply	
Conflict Monitor	
Flasher	
Load Switch	

Official Traffic Control Signals and Devices	Ancillary Devices
Malfunction Management Unit	
Time Switch	
680 System Control Equipment (shown under 995 in Division III of the SSRBC)	
Adaptive Signal Control System	
682 Video Equipment (shown under 996 in Division III of the SSRBC)	
	<u>CCTV Camera – Fixed*</u>
	<u>CCTV Camera – Pan-Tilt-Zoom (PTZ)*</u>
684 Network Devices (shown under 996 in Division III of the SSRBC)	
	<u>Device Server</u>
	<u>Managed Field Ethernet Switch</u>
	<u>Media Converter</u>
685 Traffic Control System Auxiliaries (shown under 996 in Division III of the SSRBC)	
	<u>Uninterruptible Power Supply</u>
700 Highway Signing (shown under 995 in Division III of the SSRBC)	
<u>Blank-Out Sign</u>	
<u>Dynamic Message Sign - Embedded</u>	
<u>Dynamic Message Sign – Front Access</u>	
<u>Dynamic Message Sign – Walk In</u>	
Electronic Guide Sign	
Electronic Regulatory Sign	
<u>Electronic Speed Feedback Sign</u>	
<u>Electronic Warning Sign</u>	
<u>Highlighted Sign</u>	
<u>Internally Illuminated Sign</u>	
<u>Sign Beacon</u>	
706 Raised Pavement Markers and Bituminous Adhesive (shown under 970 in Division III of the SSRBC)	

Official Traffic Control Signals and Devices	Ancillary Devices
<u>Raised Pavement Marker (Class F)</u>	

4.3 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	05/04/2012
2.0	Clarification of description for transient protection device listed in A639, move product from "ancillary" column to "meet specs" column.	R. Meyer	J. Morgan	M. Wilson	05/22/2012
3.0	Changed handbook section from 4.0 to 3. No content change.	A. Burleson	J. Morgan	M. Wilson	05/23/2012
4.0	Addition of transfer switches under specifications A639, 639 since these devices are listed on the APL, revisions of section/sub-section numbers, and removal of unnecessary hyperlinks.	A. Burleson	J. Morgan	M. Wilson	07/02/2012
5.0	Moved Junction Box from ancillary column to not listed on APL column based on directive from J. Morgan.	R. Meyer	J. Morgan	M. Wilson	07/24/2012
6.0	Revised section A676 on cabinets to show wired cabinets as official traffic control devices versus unwired cabinets considered ancillary devices; also revised paragraph 3.1.	A. Burleson	J. Morgan	M. Wilson	08/17/2022
7.0	Revisions throughout document to reflect merged specifications. Also, addressing legal office comments.	A. Burleson R. Meyer J. Morgan	J. Morgan	M. Wilson	02/07/2013
8.0	Revisions throughout document to continue reflecting merged specifications. Removed list of devices not listed on the APL, cross-references to specifications for each product and products that are permitted.	A. Burleson	J. Morgan	M. Wilson	08/05/2013
9.0	Revisions throughout document to continue reflecting merged specifications.	A. Burleson R. Meyer	J. Morgan	M. Wilson	01/24/2014
10.0	Clarified devices listed under specification A659 to better match those listed on the APL.	J. Morgan	J. Morgan	M. Wilson	01/29/2014
11.0	Updated position title for Mark Wilson in document control panel. Clarified that (a) vehicular traffic or pedestrian signal housings and back plates (standard) are ancillary devices and (b) vehicular or pedestrian signal assemblies and back plates (retroreflective) are official traffic control devices. Revised specification numbers	A. Burleson K. Moser	J. Morgan	M. Wilson	01/08/2015

	to reflect change from MSTCSD to SSRBC and general specification updates.				
12.0	Revised product names in 659. Added the following: (a) Stationary-Type CCTV Camera in 682; (b) Pedestrian Signal Assembly Hardware in 653; (c) ITS Cabinet (Unwired) in 676; (d) Electronic Guide Sign in 700; and (e) Portable Highway Advisory Radio in 990/102. Removed specifications 670 and 781 since there are no APL listed products in these categories.	R. Meyer A. Burleson K. Moser	J. Morgan	M. Wilson	07/22/2015
13.0	Updated products in specifications 102, 650, 660, 671, 676, and 678.	J. Morgan A. Burleson C. Raimer	D. Vollmer M. DeWitt	T. Tillander	07/09/2020
14.0	Updated products in specifications 650, 654, 665, 676, 682, 685. Added new specification 706. Added information on APL products retained by the TERL post-certification.	M. DeWitt A. Burleson M. Tomatani	D. Vollmer M. DeWitt W. Geitz	J. Easterling	07/01/2022
15.0	Added more devices to the list of devices not retained by TERL. Updated device names. Added new and removed obsolete devices.	A. Burleson	R. Meyer D. Vollmer M. DeWitt W. Geitz	R. Powell	12/08/2023
16.0	Specified product types listed as a series.	A. Burleson	R. Meyer D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024
17.0	Updated list of devices based on July 2025 specifications cycle. Removed requirement to retain approved products except for cameras, all product types under specification 660, traffic signal controllers and accessible pedestrian pushbutton detector.	A. Burleson	R. Meyer D. Vollmer W. Geitz	M. Mathes	08/08/2025

Section 5

APL QUALITY MANAGEMENT SYSTEM EVALUATION PROCESS

5.1 PURPOSE

The objective of this section is to describe the process for evaluating and accepting/re-accepting the QMS of vendors of official traffic control signals and devices and ancillary devices seeking APL (Certified Process) listing as defined in **Section 2**. The QMS of applicants/suppliers shall be evaluated using the Department's minimum quality assurance (QA) standards for QMS based on the ISO 9001 standard and defined in **Section 6**. All applicants/suppliers shall have their QMS accepted before their products can be evaluated and listed on the APL (Certified Process). Applicants/suppliers must maintain their QMS acceptance status in order to continue selling products in the state. The Department conducts an ongoing surveillance program, including re-evaluation of the previously accepted QMS, to ensure continued compliance with minimum QA standards. The TERL has the responsibility for establishing and implementing the QMS evaluation program, which uses the following means for assessing conformity of a QMS to the Department's QA standards: 1) an applicant/supplier's declaration of conformity, and 2) second-party assessment.

5.2 EVALUATION PROCESS

- (1) To begin the QMS evaluation process, the applicant/supplier shall first submit a completed AQSL application (application form only), and an organization chart showing key positions (including that of the QA Manager). As directed by TERL, the applicant/supplier shall then submit additional documentation depending on the product category (official traffic control signal and device, or ancillary device), as shown in the below table.

Document	Vendor of Official Traffic Control Signals and Devices	Vendor of Ancillary Devices
<i>Official Device Quality System Acceptance Compliance Matrix</i> (and supporting information)**	Required	Not required
Signed and dated statement by QA Manager certifying that quality system meets current requirements of <i>FDOT Product Certification Handbook, Section 6</i>	Not required (covered by compliance matrix)	Required

Document	Vendor of Official Traffic Control Signals and Devices	Vendor of Ancillary Devices
Current ISO 9001 registration certificate and most recent ISO registrar's audit report	Required (only for ISO 9001 certified facility)	Required (only for ISO 9001 certified facility)
Certificate of completion (and associated course description) for course on ISO 9001 requirements completed by QA Manager	Required (only for non-ISO 9001 certified facility)	Required (only for non-ISO 9001 certified facility)

** Blank matrix provided by the assigned QMS evaluator

The additional documentation must be provided for each facility involved in design, development, manufacturing, testing, or customer service activities as they relate to products proposed for APL listing. The certificate of completion for a course on the ISO 9001 requirements must be provided for each QA Manager responsible for the QMS covering design, development, manufacturing, testing or customer service activities if the facility is not ISO 9001 certified.

- (2) Contract manufacturers/designers and customer service providers, utilized by applicants/suppliers, may be required to follow the same evaluation process depending on the extent of their activities. This means that both applicant/supplier and contract manufacturer/designer or customer service provider may each need to have their QMS evaluated and accepted.
- (3) The QMS evaluation may also involve an on-site QMS audit by TERL staff at the facility of the applicant/supplier or its contract manufacturer/designer or customer service provider to assess compliance with the QMS specification listed in **Section 6**. All applicants/suppliers and their contract manufacturer/designer or customer service provider are required to allow on-site audits, and satisfactorily address any nonconformity identified during the audit within an agreed upon time frame. This may include providing root-cause analysis, corrective action reports showing how the issues were resolved, and any documentation that was generated as a result of corrective action activities.
- (4) All QMS documentation must be provided in English.
- (5) The TERL will evaluate all information and determine the company's QMS compliance with the QMS specification listed in **Section 6**. The TERL will communicate any deficiencies to the applicant/supplier. A vendor of official traffic control signals and devices will receive an evaluation report. Upon meeting the **Section 6** specification, the applicant/supplier will be notified and its QMS listed on the AQL. A vendor of official traffic control signals and devices will also receive a final evaluation report. Specific conditions that may apply to the QMS acceptance will be detailed in the final evaluation report to the applicant/supplier.

5.3 EVALUATION TRIGGERS

The process described in **Section 5.2** shall be followed under the following scenarios:

- (1) For each facility where products proposed for APL listing are designed, developed, manufactured, or tested, and customer service activities are performed (such as, but not limited to: handling product orders, customer complaints, product-related corrective actions, and technical support).
- (2) When certified product and/or supplier performance issues occur with a supplier, depending on the significance of the issues. For vendors of ancillary devices, a second-party assessment may be needed in place of a declaration of conformity to verify compliance to the QMS specification listed in **Section 6**.
- (3) When a facility relocates (assuming APL-listed products move to the relocated facility), depending on the significance of changes to its QMS.
- (4) When there is a change of contract manufacturer/designer or customer service provider, and such entities were previously required to have their QMS accepted/re-accepted.
- (5) When a facility merges with other companies or changes ownership, depending on the significance of changes to its QMS.
- (6) When a vendor of ancillary devices proposes APL-listing of official traffic control signals and devices. In this case, a second-party assessment is required of the supplier's facility.

5.4 RE-EVALUATION PROCESS (SURVEILLANCE)

- (1) To begin the re-evaluation process under the surveillance program, the supplier shall first submit a completed AQSL application (application form only), and an organization chart showing key positions (including that of the QA Manager). As directed by TERL, the supplier shall then submit additional documentation depending on the product category (official traffic control signal and device, or ancillary device), as shown in the below table.

Document	Vendor of Official Traffic Control Signals and Devices	Vendor of Ancillary Devices
<i>Official Device Quality System Re-Acceptance Compliance Matrix</i> (and supporting information)**	Required	Not required

Document	Vendor of Official Traffic Control Signals and Devices	Vendor of Ancillary Devices
Signed and dated statement by QA Manager certifying that quality system meets current requirements of <i>FDOT Product Certification Handbook, Section 6</i>	Required	Required
Current ISO 9001 registration certificate and most recent ISO registrar's audit report	Required (only for ISO 9001 certified facility)	Required (only for ISO 9001 certified facility)
Certificate of completion (and associated course description) for course on ISO 9001 requirements completed by QA Manager	Required (for non-ISO 9001 certified facility)	Required (for non-ISO 9001 certified facility)

** Blank matrix provided by the assigned QMS evaluator

The additional documentation must be provided for each facility involved in design, development, manufacturing, testing, or customer service activities as they relate to products on the APL. The certificate of completion for a course on the ISO 9001 requirements must be provided for each QA Manager responsible for the QMS covering design, development, manufacturing, testing or customer service activities if the facility is not ISO 9001 certified.

- (2) Contract manufacturers/designers and customer service providers, utilized by suppliers may be required to follow the same re-evaluation process depending on the extent of their activities. This means that both supplier and contract manufacturer/designer or customer service provider may each need to have their QMS re-evaluated and re-accepted.
- (3) The QMS re-evaluation may also involve an on-site QMS audit by TERL staff at the facility of the supplier or its contract manufacturer/designer or customer service provider to assess compliance with the QMS specification listed in **Section 6**. All suppliers and their contract manufacturer/designer or customer service provider are required to allow on-site audits and satisfactorily address any nonconformity identified during the audit within an agreed upon time frame. This may include providing root-cause analysis, corrective action reports showing how the issues were resolved, and any documentation that was generated as a result of corrective action activities.
- (4) All QMS documentation must be provided in English.
- (5) The TERL will evaluate all information and determine the company's QMS compliance with the QMS specification listed in **Section 6**. The TERL will communicate any deficiencies to the supplier. A vendor of official traffic control signals and devices will receive an evaluation report. Upon meeting the **Section 6** specification, the supplier will be notified and its QMS will continue to be listed

on the AQSL. A vendor of official traffic control signals and devices will also receive a final evaluation report. Specific conditions that may apply to the QMS re-acceptance will be detailed in the final evaluation report to the supplier.

5.5 RE-EVALUATION TIMING (SURVEILLANCE)

- (1) Re-evaluation of the QMS under the surveillance program is typically performed every four years. A corresponding submittal must be received by the TERL no later than the QMS re-evaluation due date indicated in the last notification by TERL of QMS acceptance/re-acceptance. For a vendor of official traffic control signals and devices, the due date is also indicated in the TERL's evaluation report for QMS acceptance/re-acceptance. Upon showing good cause, the supplier may be granted an extension deadline.
- (2) The TERL will notify the supplier of the upcoming QMS re-evaluation, typically at least 30 calendar days prior to the QMS re-evaluation due date. The supplier shall deliver a QMS re-evaluation submittal by the re-evaluation due date (or other agreed upon time frame). Failure to comply with the notification deadline may result in TERL actions as described in **Section 3.6**.

5.6 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	08/14/2012
2.0	Comments from FDOT Legal Office addressed.	J. Morgan A. Burleson	J. Morgan	M. Wilson	03/12/2013
3.0	Modified evaluation process requirements for facilities located in Florida.	A. Burleson	J. Morgan	M. Wilson	01/23/2014
4.0	Clarified evaluation trigger related to facility relocation.	A. Burleson	J. Morgan	M. Wilson	08/19/2014
5.0	Updated position title for Mark Wilson in document control panel.	A. Burleson	J. Morgan	M. Wilson	03/04/2015
6.0	Removed requirement to have the applicant/supplier's quality system re-evaluated/re-accepted within six months of the re-evaluation due date. Revised names of quality system compliance matrices. Removed section specific to Florida vendors.	A. Burleson K. Moser	J. Morgan E. Birriel	M. Wilson	12/08/2015
7.0	Added term 'management' to 'quality system' for terminology consistency with other sections of the PCH. Updated names of compliance matrices. Removed use of compliance matrices for ISO 9001 certified vendors and eliminated reliance	A. Burleson	D. Vollmer M. DeWitt	J. Easterling	07/01/2022

	on ISO 9001 certification.				
8.0	Removed reference to ancillary device compliance matrices and documented process changes for ancillary device vendors. Combined product requalification (statement of conformance to SSRBC for APL products) with 4-year quality system re-evaluation.	A. Burleson	D. Vollmer M. DeWitt	R. Powell	05/09/2024
9.0	Added requirement to supply ISO 9001 audit report from ISO registrar for ISO 9001 certified companies. Removed requirement for statement of conformance to SSRBC for APL products.	A. Burleson	D. Vollmer M. DeWitt	R. Powell	12/13/2024

Section 6

APL QUALITY MANAGEMENT SYSTEM REQUIREMENTS

6.1 DESCRIPTION

This section provides minimum Department quality management system (QMS) requirements for vendors of traffic control products listed on the Department's AQL. Listing on the AQL is mandatory before a product can be evaluated and listed on the Department's APL (Certified Process) as defined in **Section 2**. These requirements pertain to the acceptance and periodic re-acceptance of the quality system. Re-acceptance of the quality system is part of an on-going surveillance program. Re-acceptance is mandatory for vendors to continue listing of their quality system on the AQL and their traffic control products on the APL.

6.2 ACCEPTANCE OF QUALITY MANAGEMENT SYSTEM

6.2.1 Quality Manual

The QMS shall comply with clauses 4.3, 4.4 and 7.5.1 of ISO (International Organization for Standardization) 9001:2015 for the ISO 9001:2015 elements stipulated within this specification and include a Quality Manual containing scope of the QMS, policies and procedures (or references to procedures) required within this specification.

6.2.2 Control of Documented Information

The QMS shall comply with clauses 7.5.2 and 7.5.3 of ISO 9001:2015, include a procedure for Control of Documented Information and retain documented information as evidence of implementation.

6.2.3 Management Review

The QMS shall comply with clause 9.3 of ISO 9001:2015, include a policy for Management Review and retain documented information as evidence of implementation.

6.2.4 Competence and Awareness

The QMS shall comply with clauses 7.2 and 7.3 of ISO 9001:2015, include a policy for Competence and Awareness and retain documented information as evidence of implementation.

6.2.5 Operational Planning and Control

The QMS shall comply with clause 8.1 of ISO 9001:2015, include a policy for Operational Planning and Control and retain documented information as evidence of implementation.

6.2.6 Requirements for Products and Services

The QMS shall comply with clause 8.2 of ISO 9001:2015, include a policy for Requirements for Products and Services and retain documented information as evidence of implementation.

6.2.7 Design and Development of Products and Services

The QMS shall comply with clause 8.3 of ISO 9001:2015, include a policy for Design and Development of Products and Services and retain documented information as evidence of implementation.

6.2.8 Control of Externally Provided Processes, Products and Services

The QMS shall comply with clause 8.4 of ISO 9001:2015, include a policy for Control of Externally Provided Processes, Products and Services and retain documented information as evidence of implementation.

6.2.9 Production and Service Provision

The QMS shall comply with clause 8.5 of ISO 9001:2015, include a policy for Production and Service Provision and retain documented information as evidence of implementation.

6.2.10 Monitoring and Measuring Resources

The QMS shall comply with clause 7.1.5 of ISO 9001:2015, include a policy for Monitoring and Measuring Resources and retain documented information as evidence of implementation.

6.2.11 Internal Audit

The QMS shall comply with clause 9.2 of ISO 9001:2015, include a procedure for Internal Audit and retain documented information as evidence of implementation.

6.2.12 Release of Products and Services

The QMS shall comply with clause 8.6 of ISO 9001:2015, include a policy for Release of Products and Services and retain documented information as evidence of implementation.

6.2.13 Control of Nonconforming Outputs

The QMS shall comply with clause 8.7 of ISO 9001:2015, include a procedure for Control of Nonconforming Outputs and retain documented information as evidence of implementation.

6.2.14 Nonconformity and Corrective Action

The QMS shall comply with clause 10.2 of ISO 9001:2015, include a procedure for Nonconformity and Corrective Action and retain documented information as evidence of implementation.

6.2.15 Actions to Address Risks and Opportunities

The QMS shall comply with clause 6.1 of ISO 9001:2015, include a procedure for Actions to Address Risks and Opportunities and retain documented information as evidence of implementation.

6.2.16 ISO 9001 Certification

A current ISO 9001 registration certificate and most recent ISO registrar's audit report shall be provided for companies with a QMS registered through the ISO.

6.2.17 Virtual Tour of Manufacturing Facility *(**only required for APL listing of official traffic control signals and devices shown in **Section 4**)***

A real-time audio-video presentation of the manufacturing facility (duration: 10-30 minutes) shall be provided. The material shall be formatted for viewing in standard Windows® Media Player software. The audio-video shall be in English and of sufficient quality to allow adequate viewing and understanding of the narrator. The following items shall be shown and described in the audio-video:

- (1) All major departments in the manufacturing plant (including, at a minimum: receiving, production, testing/ inspection, quarantine and shipping areas, quality assurance/quality control [QA/QC]); and
- (2) Manufacturing and inspection/testing equipment (in use) and associated documents used at workstations for all products to be listed on the APL.

The QMS shall be described in the audio-video with an emphasis on documents accompanying products throughout the production cycle starting at receiving and ending in the shipping departments. Interviews with QA/QC staff, including management, describing qualifications and job-related functions shall be included in the audio-video.

6.3 RE-ACCEPTANCE OF QUALITY MANAGEMENT SYSTEM

6.3.1 Continued Compliance with this Specification

The QMS shall comply with the current requirements listed in this specification.

6.3.2 Complaints Received by Suppliers

All complaints received about APL listed products concerning conformance with the Department's certification or product requirements shall be recorded. Appropriate action shall be taken and documented with respect to (a) complaints received and (b) any deficiencies found in these products that affect compliance with such requirements.

6.3.3 ISO 9001 Certification

A current ISO 9001 registration certificate and most recent ISO registrar's audit report shall be provided for companies with a QMS registered through the ISO.

6.3.4 Changes to Previously Accepted QMS

Quality manual updates shall be provided and be reflective of the previous QMS acceptance/re-acceptance period.

6.4 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section created from transferring specification A602 from the MSTCSD due to the MSTCSD/SSRBC merger. No content change.	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	05/24/2012
2.0	Revised 'Description' section.	A. Burleson	J. Morgan	M. Wilson	06/12/2012
3.0	Revisions of section/sub-section numbers, and removal of unnecessary hyperlinks.	A. Burleson	J. Morgan	M. Wilson	06/13/2012
4.0	Added reference to Section 2 for definitions.	A. Burleson	J. Morgan	M. Wilson	08/14/2012
5.0	Comments from FDOT Legal Office addressed.	J. Morgan A. Burleson	J. Morgan	M. Wilson	01/30/2013
6.0	Removed ISO certification requirement	A. Burleson	J. Morgan	M. Wilson	01/23/2014

	for vendors of permanent mount dynamic message signs.				
7.0	Revision to reflect receipt of materials electronically.	K. Moser	A. Burleson J. Morgan	M. Wilson	08/19/2014
8.0	Updated position title for Mark Wilson in document control panel.	A. Burleson	J. Morgan	M. Wilson	11/19/2014
9.0	Updated to allow use of newly published ISO 9001: 2015 standard. Removed requirement 6.3.5 asking vendors for an APL listing with their review comments.	A. Burleson	J. Morgan E. Birriel	M. Wilson	12/08/2015
10.0	Removed references to ISO 9001:2008 (this version is now obsolete) and switched to terminology adopted in 2015 version (this is now the only current version).	A. Burleson	D. Vollmer M. DeWitt	T. Tillander	07/14/2020
11.0	Added term "management" to "quality management system". Clarified that virtual tour of manufacturing facility was only required for official traffic control signals and devices.	A. Burleson	D. Vollmer M. DeWitt	J. Easterling	07/01/2022
12.0	For re-acceptance, removed requirements for providing updates to company ownership, management, facilities listed in TERL evaluation report, and OEM/subcontractors.	A. Burleson	D. Vollmer M. DeWitt	R. Powell	05/09/2024
13.0	Added requirement to supply ISO 9001 audit report from ISO registrar for ISO 9001 certified companies.	A. Burleson	D. Vollmer M. DeWitt	R. Powell	12/13/2024

Section 7

TESTING LABORATORY AND TEST REPORTING REQUIREMENTS

7.1 DESCRIPTION

This section provides minimum Department testing laboratory and test reporting requirements for the certification/authorization of traffic control products listed on the APL (Certified Process) and APL (Developmental Process) when first- or third-party testing laboratory data are required. Third-party testing is typically required for official traffic control signals and devices. First-party testing is allowed for ancillary devices. The TERL maintains a list of acceptable independent testing laboratories for use by applicants. Although not endorsed by the TERL, laboratories in this list have submitted test reports that have been accepted in the past as meeting all applicable requirements listed in this section. While the list is provided for the benefit of applicants, a laboratory not included in the list may be selected. Applicants/suppliers remain responsible for ensuring that the independent testing laboratory and associated test report meet all requirements in applicable product specifications and this document.

A list of independent testing laboratories is available at:

<https://www.fdot.gov/traffic/traf-sys/traf-sys.shtm>

(click on the blue button titled “Independent Test Lab List”)

7.2 LABORATORY AND REPORTING REQUIREMENTS

- (1) All test equipment used, as required by the manufacturer of the test equipment, shall be calibrated. The equipment calibration range shall include test measurements recorded in the laboratory report.
- (2) The independent (third-party) testing laboratory and its personnel shall not in any way be associated with the manufacturer, or any parent or subsidiary of same.
- (3) The laboratory report shall be less than 5 years old, unless detailed schematics and parts lists show no changes were made to the product.
- (4) The report shall be organized based on each sub-section of the testing standard and be text searchable.
- (5) The report shall contain the following, at a minimum:
 - (a) A cover page including:

- Laboratory name, address, phone number and web site address
 - Names and titles of staff performing the test, and approving test results
 - Report date
 - Vendor name
 - Description, part/model number, serial number, and date of manufacture of product tested
 - Product specification (e.g., NEMA TS2, FCC Part 15) used for testing
- (b) An executive summary of test results indicating whether the product passed or failed. If the product was repaired following a test failure, a summary of the repair (information provided by the vendor to the laboratory, as applicable).
- (c) A description of the test procedure and date of testing.
- (d) A description of the test equipment used and current calibration dates at the time of testing.
- (e) The test conditions.
- (f) The test results including a pass/fail status relative to each test performed and supporting test data (graphs, measured data, etc.).
- (g) A top assembly drawing. If the product was repaired, an updated drawing.
- (h) Before, during and after-test photographs of the product being tested.
- (i) Photographs of the test set-up and location of gauges (if used).
- (j) A description of the location and type of failure, and photographs of each failure, as applicable. If the product was repaired, a detailed description of the repair (information provided by the vendor to the laboratory, as applicable).
- (6) If a NEMA TS2 test (sections 2.2.7, 2.2.8 and 2.2.9) is performed, the laboratory shall subject to the test, all equipment components necessary to operate the product (e.g., power supply). Note that battery components do not have to be subjected to the test.

7.3 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section created from transferring specification sections A601-3 and A601-4 from the MSTCSD due to the MSTSCD/SSRBC merger. No content change other than 'Description' section.	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	06/12/2012
2.0	Revisions of section/sub-section numbers and removal of unnecessary hyperlinks.	A. Burleson	J. Morgan	M. Wilson	06/13/2012
3.0	Included language concerning list of independent test labs, allowing first-party testing for ancillary devices, and requiring third-party testing for official traffic control devices.	A. Burleson	J. Morgan	M. Wilson	08/07/2012
4.0	Comments from FDOT Legal Office addressed.	A. Burleson J. Morgan	J. Morgan	M. Wilson	08/05/2013

5.0	Added the latest revised URL	A. Burleson	J. Morgan	M. Wilson	08/06/2013
6.0	Added “typically” to requirement of third-party testing for official traffic control signals and devices.	A. Burleson	J. Morgan	M. Wilson	01/23/2014
7.0	Updated to reflect receiving electronic submittals instead of paper applications.	K. Moser	J. Morgan	M. Wilson	06/23/2014
8.0	Revised URL for list of independent test labs.	A. Burleson	J. Morgan	M. Wilson	08/19/2014
9.0	Updated position title for Mark Wilson in document control panel. Removed section 7.3 for pull-boxes (section will be moved to compliance matrix for pull-boxes).	A. Burleson	J. Morgan	M. Wilson	01/07/2015
10.0	Updated URL for the independent testing laboratories.	J. Morgan	E. Birriel	M. Wilson	10/21/2016
11.0	Updated URL for list of independent test labs. Added requirements for test reports: less than 5 years old, serial number, description of repair and updated drawings for failed devices, top assembly drawing, and specific information on cover page. Added guidance for NEMA TS2 test.	A. Burleson A. Blank	D. Vollmer M. DeWitt W. Geitz	T. Tillander	05/27/2022
12.0	Removed reference to IPL and requirement for calibration of test equipment to be independent.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024

Section 8

TRAFFIC CONTROL DEVICE PERMIT PROCESS

8.1 PURPOSE

The objective of this section is to describe the Department's product permitting process to all interested parties, namely:

- Applicants: vendors of traffic control devices;
- Sponsors (typically the purchasing entity): maintaining agencies in the State (including the Department);
- Concurring entities: Department District Traffic Operations Engineers (DTOE) including the Department Central Office.

The Department is authorized to permit traffic control devices not in conformity with the uniform system upon showing good cause as defined in section 316.0745(8), F.S. The permit process applies to devices deemed "non-conforming" that have not been formally evaluated, certified, and listed on the APL (Certified Process) or authorized for field evaluations against state developmental specifications and listed on the APL (Developmental Process). The TERL has authority to permit official traffic control signals and devices, and ancillary devices proposed for installation and limited use on streets and highways in the State. It is the TERL's intent to limit the quantity of permits issued to only one for any proposed "non-conforming" device.

8.2 PERMIT PROCESS

The permit process is as follows:

- (1) **Step 1: Obtaining Sponsorship and Concurrence:** To begin the process, the applicant seeking a permit shall coordinate with and obtain preliminary approval for installing/using the proposed product in a City or County and the corresponding Department District. Preliminary approval must be obtained from the maintaining agency where the product will be installed, used, and maintained (sponsorship) and the Department District Traffic Operations Engineer (concurrence). Preliminary approval by the sponsor must be based on the following: (a) good cause (i.e., justified benefit to the State such as improved safety, efficiency, or cost); (b) public safety (i.e., is the product safe to use?) and (c) review and approval of any non-conforming items listed in the product compliance matrices (refer to Step 2 below).
- (2) **Step 2: Request for Traffic Control Device Permit Application Submittal and Review:** Once sponsorship and concurrence are obtained, the applicant shall complete a Request for Traffic Control Device Permit application. A blank

application form can be obtained upon request as it is not available on the Department's web site. All required information, as noted in the application, must be provided with the application form.

If Department specifications exist, the permit request must include applicable product compliance matrices completed by the applicant only indicating conformity/non-conformity to existing requirements (i.e., supporting information is not required). In this case, the TERL will let the applicant know the applicable product compliance matrices to use.

If Department specifications do not exist, the permit request must include: developmental specification (when APL (Developmental Process) listing is not required), modified special provision, technical special provision, or other project requirements to be used for procurement. In this case, the applicant shall contact the sponsor to obtain the required documentation. Information for developing these requirements documents is available at:
<http://www.fdot.gov/programmanagement/Specs.shtm>

The completed permit request shall be submitted by the District Traffic Operations Engineer (DTOE) or designee. If the TERL is the sponsor (i.e., the product is to be permitted for evaluation by TERL staff at the TERL test facility), then the TERL is the entity submitting the request. Submittal by the DTOE or designee will signify concurrence. The TERL will review the information to determine whether good cause has been shown (i.e., the product has benefit to the State) and all required information is included in the permit request. If these requirements are met, the applicant will be instructed to proceed to Step 3A or 3B.

- (3) **Step 3A: Product Demonstration:** The TERL may request a product sample from the applicant for demonstration. If so, the demonstrated product sample must be a production unit representative of the unit(s) to be permitted for field use, and with all accessory components necessary for full operation. All costs of freight and shipping must be at the applicant's expense. Following satisfactory product demonstration, the applicant will be instructed to proceed to Step 3B.
- (4) **Step 3B: Field Evaluation Plan Submittal/Review and Permit Issuance:** The TERL will typically request the applicant submit a field evaluation plan. Such plan typically includes:
- (a) Project location and description;
 - (b) Design requirements and criteria;
 - (c) Operational and maintenance requirements;
 - (d) Evaluation criteria, methods, and responsibilities;
 - (e) Names of staff in the field evaluation monitoring team; and
 - (f) A schedule with milestone events.

The field evaluation monitoring team typically consists of:

- (a) A representative from the applicant;
- (b) The Department DTOE or their designee;
- (c) A representative from each maintaining agency involved; and
- (d) A TERL representative.

The field evaluation plan will be reviewed by the field evaluation monitoring team and the TERL will communicate any issues to be resolved by the applicant. The applicant shall resolve these issues before permit issuance.

After Steps 1 through 3 above have been successfully completed, a recommendation will be made to the TERL Manager to permit the product. If the recommendation is accepted by the TERL Manager (in coordination with the Director, Office of Traffic Engineering and Operations), a traffic control device permit letter with specified permit conditions (refer to **Section 8.4**) will be provided to the applicant.

8.3 FIELD EVALUATION EXTENSION

A permit may be extended if the field evaluation and associated report are not complete by the field evaluation due date specified in the permit letter. Under these conditions, at least 30 calendar days prior to the due date, the applicant shall provide a written justification (e.g., inconclusive results obtained so far) for the extension. If the extension is granted, a permit letter with a revised field evaluation due date will be issued to the applicant.

8.4 PERMIT CONDITIONS

Permits will include specified permit conditions, such as: location(s) for installation and use, quantity of units, and field evaluation reporting requirements. The applicant shall be responsible for compliance with all permit conditions. Failure to meet conditions will render the permit null and void.

If a field evaluation is required, a field evaluation report developed by the field evaluation monitoring team must be submitted to the TERL by the field evaluation due date specified in the permit conditions. The field evaluation report will be developed by an individual appointed by the Department DTOE with input and review by the field evaluation monitoring team. The report typically includes:

- (a) A summary of the operational and field results of the evaluation;
- (b) Input from the maintaining agency as to the maintainability and reliability of the product;
- (c) A conclusion on the effectiveness and safety of the product; and

(d) A recommendation for APL consideration.

8.5 PERMITTED PRODUCT REMOVAL

The TERL will require immediate removal of the permitted product if the product poses a threat to the general public following its field installation and operation. The TERL may require removal of the product from the field in cases where, for example, the product fails in the field, or the applicant fails to comply with permit conditions.

8.6 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section created from transferring and revising temporary permit information from section 7.1 of the Traffic Engineering Manual.	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	05/24/2012
2.0	Revisions of section/sub-section numbers, removal of definitions (since definitions now have their own section), and removal of unnecessary hyperlinks.	A. Burleson	J. Morgan	M. Wilson	06/13/2012
3.0	Revisions to 'permit extension' and 'permit conditions' sections to reflect latest definition of permit expiration date.	A. Burleson	J. Morgan	M. Wilson	08/23/2012
4.0	Comments from FDOT Legal Office addressed.	A. Burleson J. Morgan	J. Morgan	M. Wilson	01/30/2013
5.0	Revisions throughout to reflect permit procedural changes and change in permit name.	A. Burleson	J. Morgan	M. Wilson	08/05/2013
6.0	Revisions throughout to reflect permit procedural/requirements changes.	A. Burleson	J. Morgan	M. Wilson	08/19/2014
7.0	Updated position title for Mark Wilson. Added that product sample and demonstration by applicant may be required before issuing a permit.	A. Burleson	J. Morgan	M. Wilson	02/02/2015
8.0	Revised updated link.	K. Moser	J. Morgan	M. Wilson	09/30/2015
9.0	Re-introduced use of field evaluation plan, report, and due date for completion of field evaluation. Cross-referenced IPL process as different from permit process.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	J. Easterling	07/01/2022
10.0	Removed reference to IPL.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024

Section 9

APL DEVELOPMENTAL PROCESS

9.1 PURPOSE

The objective of this section is to describe the Department's APL developmental process to applicants and end-users. The Department shall compile and publish a manual of uniform traffic control devices which defines the uniform system adopted, and shall compile and publish minimum specifications for traffic control signals and devices certified by it as conforming with the uniform system in accordance with 316.0745(2), F.S. The APL developmental process concerns innovative traffic control devices authorized for limited use on the streets and highways of the State as conforming with developmental specifications the Department publishes. Products authorized under this process are listed on the APL (Developmental Process) as defined in **Section 2**. Following a successful field evaluation of these innovative devices, the TERL's intent is to develop SSRBCs and add the devices to the list of traffic control products with required APL (Certified Process) listing (listed in **Section 4**).

9.2 APL DEVELOPMENTAL PROCESS

The APL developmental process is as follows:

- (1) **Step 1: Initial PATH Application Submittal and Review:** To begin the process, the applicant shall submit via the [PATH portal](#) product information including a completed [Request for Product Consideration \(RFPC\) application](#). The applicant shall select the applicable APL product type and developmental specification. The TERL in conjunction with Department Districts will review the provided information; it will determine whether the product has benefit to the state and requires APL listing. As applicable, the TERL will also determine whether the correct APL product type and developmental specification are selected.

If the product requires listing on the APL (Developmental Process) and a developmental specification exists, the applicant will be notified to proceed to Step 2A.

- (2) **Step 2A: Product Compliance Information Submittal and Review:** The applicant will be provided with a product compliance matrix (based on the developmental specification) to complete. The applicant shall submit the following documentation:

- (a) The compliance matrix;

- (b) Third-party or first-party test data stipulated in the matrix (refer to **Section 7** for test laboratory and test reporting requirements);
- (c) Manufacturer's product specifications;
- (d) Product drawings or cut sheets;
- (e) Parts list; and
- (f) Assembly and installation instructions.

Depending on the product, the following additional documentation may be required:

- (g) Operation manual;
- (h) Troubleshooting and service manual; and
- (i) Circuit board schematics or block diagrams (refer to **Section 10.3** for how to handle confidential information).

Conformance is initially based on a review of the "Item Comply? (Yes/No/NA)" information in the matrix or the developmental specification marked-up by the applicant, and justification for any noncompliant item. Once the application is deemed complete and no apparent nonconformities are noted, the applicant will be instructed to proceed to Step 2B and will be provided with the name of the assigned product evaluator.

- (3) **Step 2B: Product Sample Submittal, Evaluation, and Authorization:** After Steps 1 through 2A have been successfully completed, the applicant will typically be notified to provide a product sample to the TERL for evaluation. The applicant shall submit a product sample that is a production unit representative of the entire line or group of products to be evaluated, and with all accessory components necessary for full operation. All product shipping boxes must have the PATH application ID number and name of the assigned product evaluator on their shipping label. All costs of freight and shipping must be at the applicant's expense.

The product compliance information submitted in Step 2A will be reviewed for content, and the product evaluated against the developmental specification. The TERL will communicate any deficiencies to the applicant via an evaluation report.

The TERL in coordination with Districts may develop a field evaluation plan. The plan will typically include:

- (a) Design requirements and criteria;
- (b) Operational and maintenance requirements; and
- (c) Evaluation criteria, methods, and responsibilities.

The field evaluation plan shall be implemented on projects selected by the APL (Developmental Process) Monitor (refer to **Section 9.3**).

Once the TERL product evaluation staff have determined that a product meets the developmental specification, a recommendation will be made to the APL (Developmental Process) Monitor or Director, Office of Traffic Engineering and Operations to authorize and list the product on the APL. If the recommendation is accepted, the applicant will receive a final evaluation report (uploaded to PATH); the Director, Office of Materials (or designee) will conduct an administrative review; and the applicant will be notified that the product is listed on the APL. The applicant will also be provided with the field evaluation plan, as applicable.

9.3 USE OF DEVELOPMENTAL SPECIFICATION, APL DEVICE AND FIELD EVALUATION PLAN

When a project requires use of an APL device as meeting the developmental specification used for APL listing, the Department District Specifications Engineer will request use of the developmental specification from the APL (Developmental Process) Monitor on the specific project. Use of the developmental specification will be granted on a project-by-project basis. Use is granted if the proposed application falls within the scope of the developmental specification. If use is granted, the project will be listed in a Project List in PATH (associated with the developmental specification) that includes the Department District number, project FPID number, letting date, a brief description of the project, and the name of the APL (Developmental Process) Monitor.

The APL (Developmental Process) Monitor will periodically sample projects from the Project List and notify affected APL suppliers of the need to implement the field evaluation plan, as applicable (refer to **Section 9.2**). The APL supplier shall provide to the APL (Developmental Process) Monitor a schedule with milestone events concerning the field evaluation for the sampled projects. Product performance will be assessed by a field evaluation monitoring team typically consisting of:

- (a) A representative from the supplier;
- (b) The Department District Transportation Systems Management and Operations (TSM&O) Engineer or their designee;
- (c) A representative from each maintaining agency involved; and
- (d) The APL (Developmental Process) Monitor or their designee.

The APL (Developmental Process) Monitor will give the supplier a due date for submitting a field evaluation report on the sampled projects to the TERL. The field evaluation report will be developed by an individual appointed by the Department District TSM&O Engineer with input and review by the field evaluation monitoring team. The report typically includes:

- (a) A summary of the operational and field results of the evaluation;
- (b) Input from the maintaining agency as to the maintainability and reliability of the product;

- (c) A conclusion on the effectiveness and safety of the product; and
- (d) A recommendation for APL (Certified Process) consideration.

The reporting due date may be extended if the field evaluation and associated report are not complete by the field evaluation due date. Under these conditions, at least 30 calendar days prior to the due date, the supplier shall provide to the APL (Developmental Process) Monitor and TERL a written justification (e.g., inconclusive results obtained so far) for the extension. The APL (Developmental Process) Monitor will notify the supplier of the decision to extend (or lack thereof).

9.4 ADDRESSING ALLEGED DEFICIENCIES

Alleged deficiencies of Section 316.0745, F.S., or product standards or authorization/listing requirements should be reported. To do so, the complainant shall submit a completed Alleged Deficiency Report (ADR) (downloadable at <https://www.fdot.gov/traffic/traf-sys/traf-sys.shtm>). Supporting evidence must be provided in order for the APL (Developmental Process) Monitor and TERL to process the ADR. If there is sufficient evidence of a deficiency and the deficiency is supplier related, a Notice of Deficiency will be sent to the supplier consistent with the process outlined in **Section 3.6**. If the deficiency is determined to present an immediate threat to the general public, the subject product will be immediately removed from the APL. Upon resolution of the deficiency, the APL (Developmental Process) Monitor and TERL will notify the supplier and originator of the deficiency. If action by the supplier is not deemed necessary, the APL (Developmental Process) Monitor and TERL will document the resolution and notify the originator accordingly.

9.5 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section	A. Burleson	D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024

Section 10

DUTIES AND RIGHTS OF APPLICANTS AND SUPPLIERS ON THE APL

10.1 PURPOSE

The objective of this section is to describe the duties and rights of applicants and suppliers before and after APL product listing.

10.2 FEES

As an entity within a state agency, the TERL obtains financial support through two primary sources: general revenue (money from general taxes) and trust funds (money from state and federal sources). The TERL does not charge fees for application processing or reviews, on-site facility audits, QMS or product evaluations. However, the applicant/supplier shall be responsible for costs such as:

- (1) Shipping products for evaluation to the TERL;
- (2) Testing of products through independent test laboratories (as applicable);
- (3) Evaluated product returns;
- (4) Unsolicited product returns (i.e., products not requested by TERL for evaluation but sent by applicant/supplier);
- (5) Installation and operation of products for evaluation on TERL property or elsewhere as instructed (as applicable); and
- (6) Product returns associated with non-conformances found during product evaluations (see **Section 3.7**).

10.3 CONFIDENTIALITY

Because the state has a broad public records law where most written communications with regulatory agencies are subject to disclosure to the public upon request, the TERL is not authorized to sign confidentiality or non-disclosure agreements.

The public records law provides for safeguarding confidentiality of information under certain conditions. PATH, application forms and notice-related documents listed in **Section 3** contain instructions for applicants and suppliers to review Florida Statutes

regarding public records and the exemptions applicable to public records requests that concern trade secrets. To the extent allowed by state law, the TERL will ensure that confidentiality is maintained by its staff concerning information received and marked as a “trade secret” or “confidential” by the applicant/supplier. Also, following a public records request, for documents so marked, the FDOT Office of General Counsel or the TERL will inform the affected applicant/supplier of the request made so the applicant/supplier may take steps to protect its asserted trade secret.

The obligation of confidentiality does not apply to information which is:

- (a) Not marked as a “trade secret” or “confidential” upon submission to the TERL by the applicant/supplier;
- (b) In the public domain;
- (c) Disclosed to the TERL by a third party;
- (d) Independently developed or procured by the TERL; and
- (e) Required by law, APL product listing requirements, specified standards, or procedures to be disclosed.

Florida Statutes regarding public records and the exemptions applicable to public records requests that concern trade secrets, are available at:

<http://www.leg.state.fl.us/statutes/index.cfm>

For confidentiality reasons, the TERL will inform the applicant/supplier, in advance of the information it intends to place on the APL (e.g., product photos, schematics) unless the information is already available in the public domain.

10.4 ACCESS TO APPLICANT/SUPPLIER FACILITIES

The applicant/supplier shall provide TERL staff unobstructed access to their facilities and those of its contract manufacturers/designers or customer service providers in relation to the products to be APL listed. The applicant/supplier shall make all necessary arrangements for:

- (1) The conduct of the QMS evaluation and surveillance (if required), including provision for examining documentation and records, and access to the relevant equipment, location(s), area(s), personnel, and subcontractors used by the applicant/supplier;
- (2) The investigation of complaints; and
- (3) The participation of observers authorized by the TERL.

10.5 PRODUCT RETENTION

The product sample found by testing to be in conformity with the standard(s) and upon which the APL listing is granted remains the property of the supplier. However, for certain types of products as defined in **Section 4**, the certified product sample will be retained by the TERL as long as the product remains listed on the APL.

If the product sample submitted for APL listing meets any of the following conditions, upon notification by the Department, the applicant/supplier will have 60 calendar days to retrieve the sample:

- (a) Product does not meet the standard(s);
- (b) Product is not listed in **Section 4** as a post-APL certification product retained by the TERL;
- (c) Product is no longer listed on the APL; and
- (d) Product was received at TERL but was not requested by TERL for evaluation.

After such time, the TERL reserves the right to dispose of the unclaimed sample without further notification to the supplier. If the applicant/supplier wishes to retrieve the product sample, it shall give TERL a 3 business day advance notice of product retrieval so TERL has adequate time to prepare the product sample for shipping.

10.6 PRODUCT MARKING

The supplier shall permanently mark its APL listed products with the following, at a minimum:

- (1) Supplier name or trademark;
- (2) Part number; and
- (3) Serial number or date code.

The product marking shall remain visible after the product is installed. In addition, the product marking shall match the product information on the APL.

10.7 CONTINUED CONFORMITY TO PRODUCT AND QMS STANDARDS

The supplier shall produce the products for which the APL listing is granted, to the same specifications as the sample the TERL found by its evaluation to be in conformity with the standard(s) specified on the APL.

The supplier (including its contract manufacturers/designers and customer service providers) shall operate the facilities covered by the QMS acceptance/re-acceptance (in relation to the certified products) in conformity with the QMS requirements used for

evaluating and accepting/re-accepting the QMS.

10.8 CHANGES TO PRODUCT OR QMS

The supplier shall inform the TERL, without delay, of changes in the product, the production process, the QMS, or any other change that may affect its ability to conform to the APL listing requirements. Examples of changes can include the following:

- (a) Legal, commercial, organizational status or ownership;
- (b) Organization and management;
- (c) Modifications to the product, production method or product replacement;
- (d) Contact address and manufacturing sites;
- (e) Scope of operations (design/development, manufacturing, testing, customer service) under the QMS acceptance/re-acceptance; and
- (f) Major changes to the QMS.

The TERL will evaluate whether the changes require further investigation. If further investigation is required, the TERL will notify the supplier and the supplier shall not sell any modified product in the state without the TERL's approval.

10.9 MODIFICATION OF PRODUCT REQUIREMENTS

If product requirements applying to the products covered by the APL listing are modified, the TERL will inform the supplier, stating at what date the modified requirements are effective, and notify the supplier of any need for supplemental evaluation of these products.

Within the specified period of time after receipt of the notification, the supplier shall inform the TERL whether it is prepared to comply with the modified product requirements. If the supplier gives confirmation within the specified period of time of compliance with modified requirements and provided the result of any supplemental evaluation is favorable, the supplier's APL listing will remain in effect.

If the supplier advises the TERL that it is not prepared to comply with the modified product requirements within the specified time, if the supplier allows the terms for compliance to lapse, or if the result of any supplemental evaluation is not favorable, the APL listing covering the particular product shall cease to be valid on the date on which the modified specifications become effective.

10.10 USE OF APL LISTING, TERL/DEPARTMENT NAME, AND MARK OF CONFORMITY

The supplier shall ensure that all of its claims are within the scope of the product's APL listing. No claims to a supplier's "product certification" or "product authorization" shall

be made (either explicitly or by implication) by a supplier without a statement of the full details of the certification or authorization, as detailed in the APL listing.

The TERL or Department as a whole do not require or authorize the use of a mark of conformity (including the TERL/FDOT name or logo) for an APL listed product or an accepted QMS. Depending on the product type, and as specified in the applicable product specification, the APL product number must be marked on the certified/authorized product. When this requirement applies, the APL number may be preceded by the following text: "FDOT APL number".

10.11 REFERENCE TO APL LISTING GRANTED

The supplier has the right to publish the fact that its QMS has been accepted/re-accepted and that its products have been certified/authorized by the TERL. The TERL publishes conformity with the standard(s) by placing the supplier's product on the state's APL.

The supplier shall not use its product listing in such a manner as to bring the TERL/Department into disrepute and not make any statement regarding its QMS acceptance/re-acceptance or product listing that the TERL/Department may consider misleading or unauthorized. Incorrect references to the APL process, or misleading use of the APL listing, QMS acceptance/re-acceptance or the APL, found in documentation or other publicity, in the Department's sole discretion, shall be dealt with penalties as defined in **Section 3.6**.

In referring to the APL product listing granted in communication media such as documents, brochures, catalogs, web sites or advertising, the supplier shall:

- (1) Unambiguously identify the products that are APL listed so no confusion arises between listed and non-listed products;
- (2) Not use any FDOT or FDOT-TERL logo when identifying the APL listed product or the accepted/re-accepted QMS;
- (3) Not make any claims that imply the supplier itself is in any way "Listed"; and "Qualified", "Pre-Qualified", "Certified", "Authorized" or "Approved" by FDOT or FDOT-TERL.
- (4) Not reference the TERL product listing on company stationery, business cards or signs. Use of these references on such materials could incorrectly imply more than a third-party certification or authorization relationship between the supplier and the TERL, or incorrectly imply that all products owned by the supplier have been APL listed by the TERL.

The supplier of an APL listed product is entitled to use phrases such as:

- (a) "The product is listed on Florida's Approved Product List.";
- (b) "The product is listed under number XXX-XXX-XXX on Florida's Approved Product List.";
- (c) "A representative sample of this product has been evaluated by the FDOT Traffic Engineering Research Laboratory and meets applicable FDOT product standards for listing on Florida's Approved Product List."

Similarly, the supplier of an accepted/re-accepted QMS is entitled to use phrases such as:

- (a) "The quality management system is listed on Florida's Acceptable Quality System List.";
- (b) "The quality management system is accepted and listed on Florida's Acceptable Quality System List."; and
- (c) "The quality management system has been evaluated by the FDOT Traffic Engineering Research Laboratory and meets applicable FDOT quality management system standards for listing on Florida's Acceptable Quality System List."

10.12 COMPLAINTS RECEIVED BY SUPPLIER

The supplier shall keep a record of all complaints made known to it relating to compliance of the APL listed products with APL listing requirements. The supplier shall make these records available to the TERL when requested. Finally, the supplier shall:

- (1) Take appropriate action with respect to such complaints and any deficiencies found in products that affect compliance with the requirements for APL listing; and
- (2) Document the actions taken.

10.13 QMS SURVEILLANCE

The TERL carries out continuing surveillance of the supplier's QMS, in accordance with the conditions stated in **Section 5.4**.

10.14 TERMINATION, REDUCTION, SUSPENSION OR WITHDRAWAL OF APL LISTING

The TERL reserves the right to reduce, suspend, or withdraw APL listing at any time. APL listing may be reduced, suspended, or withdrawn for failure to comply with APL listing requirements detailed in the **Product Certification Handbook**.

APL listing may be terminated at the request of the supplier.

Upon termination, reduction, suspension, or withdrawal of APL listing, the supplier shall discontinue its use of all advertising matter than contains any reference thereto and take further action as required by the TERL relating to the APL listing. At a minimum, the supplier shall discontinue the sale in the state of all products involved in the termination, reduction, suspension, or withdrawal.

10.15 APPEALS, DISPUTES AND COMPLAINTS

Appeals/disputes/complaints (ADC) brought to the TERL by applicants/suppliers or other parties are subject to a documented procedure for complaint processing that includes investigation, response, and corrective action, where appropriate. The TERL's policy is to fully investigate and document all incoming ADCs that are determined to be relevant and credible, irrespective of their source.

For an appeal/dispute to be given consideration, a notification of appeal/dispute must be received by the TERL within 30 calendar days of the date of notification of the decision being disputed. General complaints may be received at any time. A notification of ADC must be made in writing and be accompanied by a suitable statement that describes the grounds for the ADC and all documented evidence. The TERL's goal is to provide an acknowledgement of receiving the ADC within 5 calendar days of its receipt.

10.16 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section w/ comments from FDOT Legal Office addressed.	A. Burleson J. Morgan	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	03/07/2013
2.0	Revised to address various clauses of the ISO 17065 standard: 4.1.2, 4.1.3, 4.6b, and 4.6c.	A. Burleson	J. Morgan	M. Wilson	08/05/2013
3.0	Added minimum product marking requirements transferred from specification A601 and policy regarding disposing of APL equipment not meeting product specification requirements.	A. Burleson	J. Morgan	M. Wilson	08/14/2013
4.0	Corrected typos in section 9.5.	M. Lucas	J. Morgan	M. Wilson	01/23/2014
5.0	Incorporated product certification agreement language. This section of the PCH is being referenced in the AQSL and APL applications. Also, included edits from the Legal Office.	A. Burleson	J. Morgan	M. Wilson	08/19/2014
6.0	Included revised language regarding confidentiality to match that specified by the Legal Office in application forms.	A. Burleson	J. Morgan	M. Wilson	09/23/2014
7.0	Updated position title for Mark Wilson in document control panel. Removed 'approval' terminology throughout document.	A. Burleson	J. Morgan	M. Wilson	03/04/2015

8.0	Specified that TERL notifies applicants/suppliers of the information it intends to place in the public domain (on the APL) to address clause 4.5.1 of the ISO 17065 standard (already addressed in TERL's quality manual). Removed reference to certification letters issued by TERL. Referenced section 4 regarding product retention.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	J. Easterling	07/01/2022
9.0	Added requirement for product preparation before shipping by TERL and policy for unsolicited products shipped to TERL without TERL request. Use terms "APL listed/APL listing" in place of "certified/certification" to make this section applicable to all APL-listed products.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024