



TRANSPORTATION DATA & ANALYTICS QUALITY ASSURANCE MONITORING PLAN

FY 2021 – 2023

Effective Date: 11/1/2022

Transportation Data & Analytics Quality Management

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Purpose

The purpose of the Quality Assurance Monitoring Plan (QAMP) is to clearly identify areas of responsibility for both the Transportation Data and Analytics (TDA) Office and the District staff for reliable, organized, and accurate statewide data. The QAMP expands on the primary functions, critical processes and critical requirements established in the General Interest Roadway Data (GIRD) Procedure to include a more detailed outline and training tool for Central Office and District personnel. This plan is available to illustrate the primary responsibilities for the Roadway Characteristics Inventory data collection programs and other related, non-administrative functional requirements.

The QAMP details the critical requirements for the Highway Performance Monitoring System (HPMS), Motorized Short Term Traffic Monitoring Program, Transportation System Designations, Linear Referencing System, Roadway Characteristics Inventory, and other program areas required for state and Federal reporting. In addition, the QAMP establishes the guidelines for the Transportation Data Quality Management (TDQM) processes, including District Quality Evaluations (DQE) and Quality Assurance Reviews (QAR), conducted by TDA.

The FY2021 – 2023 is planned to be reassessed in 2022 and updated by 2023.

Statutory Authorities (Federal/State)

The Florida Department of Transportation's (FDOT) overall goal is to ensure efficient, safe, and interconnected methods of mobility for those who choose to live, work, and visit Florida.

In recognition of that goal, the Florida Legislature mandated Section 334.048(3) of the Florida Statutes which states the FDOT Central Office will monitor the seven District Offices, Turnpike Enterprise, and Central Office entities. The monitoring process will include assessing each District and TDA Office's performance and determining their compliance with all applicable laws, rules, policies, procedures, guidelines, and standards. Additionally, Section 20.23(3)(a) of the Florida Statutes outlines FDOT's responsibility to establish a plan that clearly specifies which areas will be monitored and what activities and criteria will be used to measure compliance and create a feedback process that assures that monitored findings are reported and inconsistencies are corrected.

Furthermore, the following authoritative procedures establish the responsibilities and standards to meet FDOT requirements:

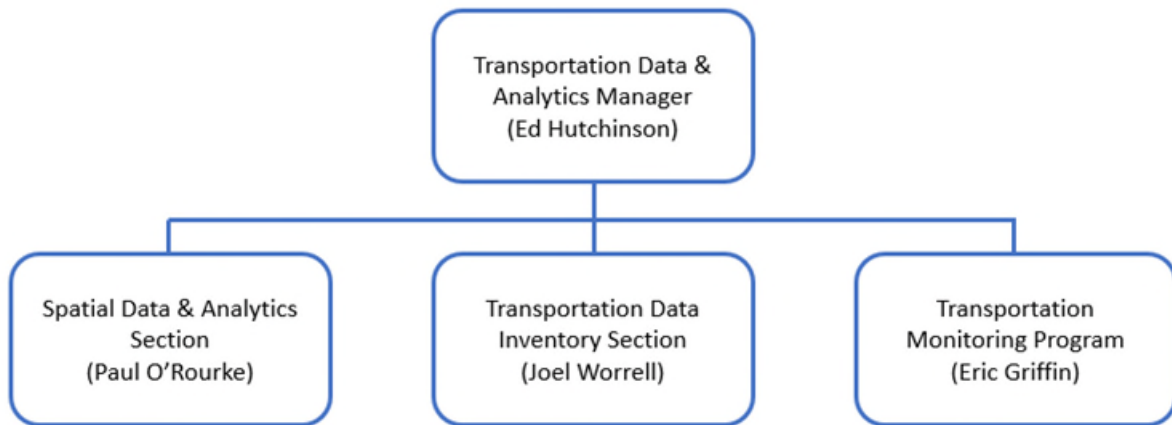
- General Interest Roadway Data (GIRD) Procedure (Topic No. 525-020-310-k)
- Transportation System Jurisdiction and Numbering Procedure (Topic No. 525-020-010)
- Urban Boundaries and Functional Classification of Roadways (Topic No. 525-020-311)
- Traffic Monitoring (Topic No. 525-030-150)
- Quality Assurance Reporting (Topic No. 260-030-005-a)

The following transportation data handbooks and manuals are referenced throughout this Quality Assurance Monitoring Plan:

- Roadway Characteristics Inventory (RCI) Handbook
- RCI User Manual
- Roadway Inventory Tracking Application (RITA) User Manual
- Straight-Line Diagram (SLD) Handbook
- Transportation Data Quality Management Handbook
- Transportation System Jurisdiction and Numbering Handbook
- Urban Boundary and Functional Classification of Roadways Handbook
- Federal Highway Administration (FHWA) Highway Performance Monitoring System (HPMS) Field Manual. This manual is published by the FHWA and is available on its website at: <https://www.fhwa.dot.gov/policyinformation/hpms/fieldmanual/>

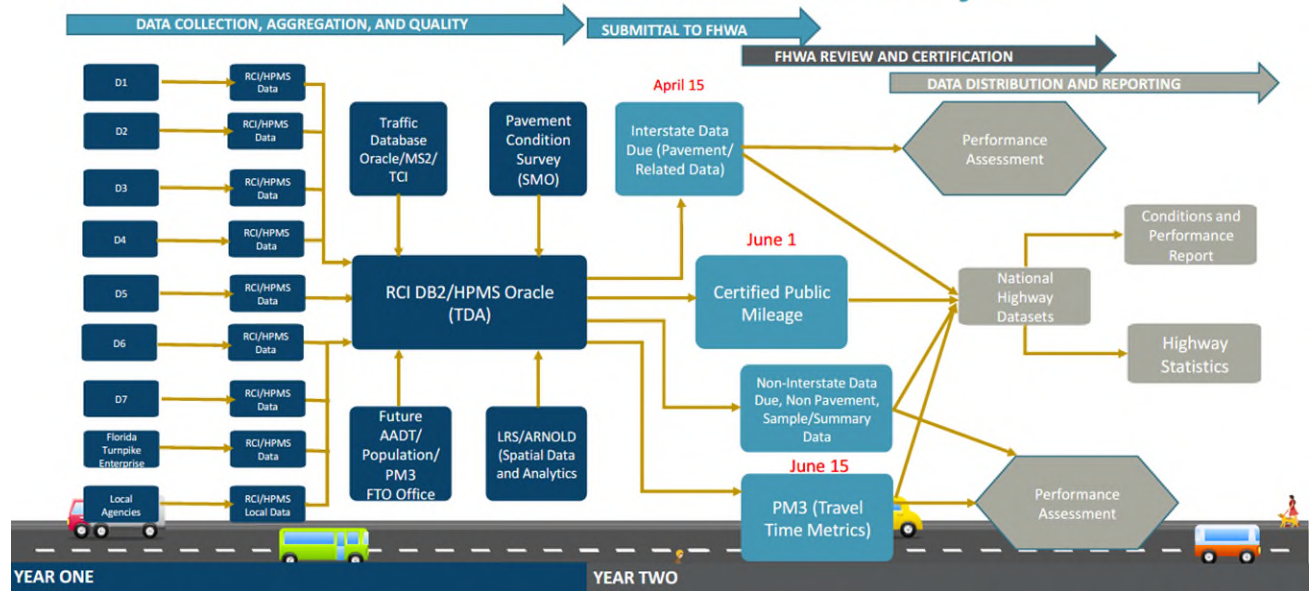
Program Areas Introduction

The TDA Office is FDOT's central clearinghouse and principal source for highway and traffic data. TDA is within the Civil Integrated Management (CIM) Office which supports FDOT's organizational management of operational technology and spatial data. Within TDA are three sections Spatial Data & Analytics, Transportation Monitoring, and Transportation Data Inventory, each playing a crucial role in the responsibility of producing reliable, organized, and accurate statewide data. For a formal organizational chart of TDA please see: <https://fdot.sharepoint.com/sites/FDOT-TDA/Shared%20Documents/Admin/TDAOrgChart.pdf>



FDOT is a decentralized agency containing seven geographically bound Districts, and the Turnpike Enterprise. Each District has staff or consultants across divisions in Planning and Operations who are responsible for performing the data collection activities which support the TDA section's data programs or systems. <https://fdot.sharepoint.com/sites/FDOT-TDA/Shared%20Documents/Admin/DistrictContactList.pdf>

FDOT RCI and HPMS Submission Cycle



Transportation Data Collection Annual Calendar and Schedule

The QAMP is updated biennially and continually monitored so that it is sustainable, practical, and ensures the quality of FDOT products and services, making sure processes continue to be consistent, predictable, and repeatable. Data collection and reporting are done in a cyclical cycle culminating in the HPMS submission in June of each year. The following schedule lists all dates found in this plan and is organized for TDA Central Office and Districts.

Transportation Data & Analytics Office Critical Dates Schedule*

Month	Date	Program	Description
January	1	HPMS	Data extracted for Bike/Ped Mileage Report.
	15	HPMS	Biannual Mileage Reports published to the FDOT website.
	30	HPMS	Federal Aid Mileage Report published to the FDOT website.
	31	TMP	Equipment Certifications and Data Collection Schedules Received by Central Office. Seasonal Factor and Axle Factor category assignment reports produced and sent to Districts for Review. EOYP summary report due to Districts.
February	15	TMP	Seasonal Factor and Axle Factor category assignment reports Finalized.
March	1	HPMS	FTO will provide current and projected AADTs for HPMS. SMO will provide Pavement Distress Data for Interstate System for HPMS.
	15	RJT	Spring – AASHTO Open Submission Cycle.
April	1	TMP	Draft/Final Adjustment Factor, Factored Counts, AADT reports due to HPMS Coordinator.
	15	HPMS LRS HPMS HPMS	Submit Interstate Geometric & Pavement Data for HPMS. ARNOLD due to HPMS Coordinator. HPMS Coordinator will request pending road alignments from SIO. SMO will provide Pavement Distress Data for all other road segments.
May	1	HPMS	FTO will provide Annual Population Estimates for HPMS. City and County Mileage data from FormTM System.
	15	HPMS	FTO will provide calculated performance values from NPMRDS for HPMS. HPMS Coordinator will provide PM3 Travel Time Data.
June	1	HPMS	HPMS Coordinator will submit signed and approved Certified Public Mileage (CPM) to FHWA. Federal Aid Mileage Report Published to the FDOT website.
	15	HPMS HPMS LRS HPMS	TDA will begin to review Sample adequacy for HPMS Samples. Submit All Other HPMS Data. Corrections to ARNOLD Review are due. Publish HPMS Reports, Pavement Report Card, Submittal Comments.
	30	LRS HPMS	All RCI/LRS Packages must be processed. RCI must be Free of Errors and No Data Entry will be performed until notification is provided from TDA. The Systems Implementation Office will have F147 accurate and complete. The State Traffic Engineering and Operations Office will provide F311. Publish Certified Public Mileage, Public Roads & DVMT Report, MPO Pavement Report.

			Annualized Mileage Reports published to the FDOT website.
July	15	HPMS	Biannual Mileage Reports published to the FDOT website.
	31	HPMS	TDA will notify District RCI Coordinator & Traffic Coordinator of new HPMS Samples. Cutoff for HPMS Sample reduction plans submitted for FHWA approval. TDA will provide SMO a list of new HPMS Samples. Publish Long Range Program Plan Lane Mile Projection Reports
August	1	HPMS	Publish Interchange Report.
	15	RJT	Fall – AASHTO Open Submission Cycle.
	31	HPMS	Bike/Ped Mileage Report completed.
September	1	HPMS	FMIS Processing Complete.
	30	HPMS QM	Send FormTM initial email request to all entities. QAMP due for next calendar year.
October	1	HPMS	Publish FMIS LRS Roadway Report.
November	15	TMP	Traffic Data Collection Complete.
	20	HPMS	TDA process of HPMS Sample deletion completed.
	30	HPMS	Districts must complete inventory of all new HPMS Samples.
December	15	QM LRS	Exclusion Requests due from Districts. Cutoff for District submittal of RCI/LRS packages.
	20	HPMS TMP	RCI must be Free of Errors and No Data Entry until notified. Traffic Edits must be clean.
	21	HPMS	The Systems Implementation Office will have F147 accurate and complete. The Freight and Multimodal Operations Office will provide NHFN. The State Traffic Engineering and Operations Office will provide F311.
	30	LRS	All RCI/LRS Packages must be processed.
	31	TMP HPMS LRS	Traffic Data Upload Complete. Deadline for cities/counties to report mileage. TDA will download the RCI LRS to match the RCI extract.

*December dates corrected on 2022-10-18

Programs:

HPMS – Highway Performance Monitoring System

LRS – Roadway Characteristics Inventory & Linear Referencing System Package Processing

RJT – Road Jurisdiction Transfers

QM – Quality Management

TMP – Motorized Short-Term Traffic Monitoring Program

District Critical Dates Schedule*

Month	Date	Program	Description
January	31	QM HPMS TMP TMP	Districts will submit completed District QC Plans. Districts will include all new HPMS Off-System Samples in yearly traffic count schedule. Districts will provide Traffic Data Collection Schedules for PTMS and Road Tube counters for upcoming program year to CO. Districts will submit an Equipment Certification Report.
March	15	TMP	Districts will have their AADT development finalized. Districts will have Traffic Section Breaks' BMPs & EMPs coded accurately in RCI. Districts will have Flow Break Count Stations coded accurately in RCI. District's verification of D-Factors coded in RCI accurately complete.
June	1	RCI	Cutoff for Districts to provide data for batch requests.
	15	LRS QM	Cutoff for District submittal of RCI/LRS packages. Exclusion Requests due from Districts.
	30	TSD	Districts will perform data validation of data entered into RCI and make any necessary corrections.
September	15	TMP	Districts must have collected traffic data for urban and rural areas complete. Districts must have conducted an annual vehicle classification count on all SIS connector routes.
	30	HPMS	Districts must complete inventory of all new HPMS Samples. Districts must remove deleted HPMS Samples from RCI.
November	1	RCI	Cutoff for Districts to provide data for batch requests.
December	15	QM LRS	Exclusion Requests due from Districts. Cutoff for District submittal of RCI/LRS packages.
	20	TSD	Districts will perform data validation of data entered into RCI and make any necessary corrections.
	31	TMP	Districts will schedule and complete testing of equipment. Districts will verify/identify active sites for the next year's data collection. Districts must submit counts and email synopsis reports. Districts must have all short-term traffic volume and classification data edited and processed. Districts will have Traffic Section Breaks' BMPs & EMPs coded accurately in RCI. Districts will have Flow Break Count Stations coded accurately in RCI. District's verification of D-Factors coded in RCI accurately complete.

*December dates corrected on 2022-10-18

Programs:

HPMS – Highway Performance Monitoring System

LRS – Roadway Characteristics Inventory & Linear Referencing System Package Processing

RCI – Roadway Characteristics Inventory

RJT – Road Jurisdiction Transfers

QM – Quality Management

TMP – Motorized Short-Term Traffic Monitoring Program

TSD – Transportation Systems Designations

Handbooks & Procedures

The TDA Office has a direct responsibility to provide and maintain guidance for data collection and maintenance for the FDOT General Interest Roadway Data (GIRD). These handbooks and procedures establish the data collection standards and practices adhered to by the Districts and stakeholders to ensure reliable, organized, and consistent statewide data.

I. Roadway Characteristics Inventory (RCI) Handbook

- a. **TDA** is responsible for maintaining and updating the RCI Handbook.
- b. Any RCI or HPMS business data requirements that require additions/deletions/revisions will be coordinated with Districts and affected stakeholders as outlined below:
 - i. Any addition/deletions/revisions to the Handbook will reviewed and brought to TDA to coordinate stakeholders in the Districts or Central Office.
 - ii. Districts and affected stakeholders will review new or changes in guidance and provide feedback.
 - iii. TDA will perform iterative coordination activities with stakeholders through Technical Task Force (TTF) Meeting(s) or other meetings and document any feedback that is provided.
 - iv. TDA will be responsible for the publication, distribution, and notification to stakeholders of any RCI Handbook changes.
 - v. District data collection efforts will be performed to new guidance or changes in data collection requirements upon notification or upon the publication of new guidance in the RCI handbook.

II. Highway Performance Monitoring System

- a. **The HPMS Coordinator** is responsible for monitoring and coordinating business data requirements of the HPMS data collection requirements or standards in the RCI Handbook for District or Central Office stakeholders.
- b. **Districts** will review HPMS requirements and adhere to data collection requirements published in RCI Handbook.

III. Linear Referencing System

- a. **TDA Spatial Data & Analytics Section** is responsible for monitoring and coordinating requirement changes or standards to the LRS in the RCI Handbook for District or Central Office stakeholders.
- b. **Districts** will review LRS requirements and adhere to data collection requirements published in RCI Handbook.

IV. Traffic Monitoring Handbook

- a. **TDA Transportation Monitoring Section** is responsible for maintaining and updating the Traffic Monitoring Handbook.
- b. Any additions/deletions/revisions will be coordinated with Districts and affected stakeholders.
- c. **TDA Transportation Monitoring Section** will notify Districts and affected stakeholders of changes by email.

- d. **Districts** will adhere to all standards and practices outlined in the Traffic Monitoring Handbook.

V. Transportation System Jurisdiction and Numbering Handbook

- a. **The Multimodal Data System Coordinator** is responsible for maintaining, updating, and coordinating the Transportation System Jurisdiction and Numbering Handbook.
- b. The Transportation System Jurisdiction and Numbering Handbook will be consistent with guidance or requirements established by the FDOT programs, state legislature, AASHTO or FHWA.
- c. **The Multimodal Data System Coordinator** is responsible for providing information and guidance pertinent to the RCI Handbook that is consistent with the Transportation System Jurisdiction and Numbering Handbook.
- d. Any additions/deletions/revisions will be coordinated with Districts and affected stakeholders.
- e. **The Multimodal Data System Coordinator** will notify Districts and affected stakeholders of changes by email.
- f. **Districts** will adhere to all standards and practices outlined in the Transportation System Jurisdiction and Numbering Handbook.

VI. Urban Boundary and Functional Classification of Roadways Handbook

- a. **The Multimodal Data System Coordinator** is responsible for maintaining, updating, and coordinating the Urban Boundary and Functional Classification of Roadways Handbook.
- b. The Urban Boundary and Functional Classification of Roadways Handbook will be consistent with guidance or requirements established by FHWA.
- c. **The Multimodal Data System Coordinator** is responsible for providing information and guidance pertinent to the RCI Handbook that is consistent with the Urban Boundary and Functional Classification of Roadways Handbook.
- d. Any additions/deletions/revisions will be coordinated with Districts and affected stakeholders.
- e. **The Multimodal Data System Coordinator** will notify Districts and affected stakeholders of changes by email.
- f. **Districts** will adhere to all standards and practices outlined in the Urban Boundary and Functional Classification of Roadways Handbook.

VII. Transportation Data Quality Management Handbook

- a. **The Statewide Quality Assurance Coordinator** is responsible for maintaining and updating the Transportation Data Quality Management Handbook.
- b. Any additions/deletions/revisions will be coordinated with Districts and affected stakeholders.
- c. **The Statewide Quality Assurance Coordinator** will notify Districts and affected stakeholders of changes by email.
- d. **Districts** will adhere to all standards and practices outlined in the Handbook.

VIII. Application Specific Handbooks

- a. These handbooks include: RITA, SLO GIS, DART, SLD Diagrammer, RCI User Manual, and DQE Scoring Application.
- b. **The Transportation Application Coordinator** is responsible for maintaining and updating the application specific Handbooks.
- c. Any additions/deletions/revisions will be coordinated with Districts and affected stakeholders.
- d. **The Transportation Application Coordinator** will notify Districts and affected stakeholders of changes by email.
- e. **Districts** will adhere to all standards and practices outlined in these Handbooks.

IX. Procedures

- a. **TDA** is responsible for maintaining and updating the following procedures:
 - i. General Interest Roadway Data (GIRD) Procedure (Topic No. 525-020-310-k)
 - ii. Transportation System Jurisdiction and Numbering Procedure (Topic No. 525-020-010)
 - iii. Urban Boundaries and Functional Classification of Roadways (Topic No. 525-020-311)
 - iv. Traffic Monitoring (Topic No. 525-030-150)
- b. **TDA** is responsible for following all internal Policy and Procedure Management processes for procedure approval.
- c. **TDA** will notify Districts and affected stakeholders of new procedures by email.

X. Frameworks and Methods and Practices

- a. **TDA** is responsible for developing and maintaining frameworks and methods and practice as required by Transportation Technology.
- b. **TDA** will refer users to handbooks in place of Methods of Practices when necessary.

District Quality Control Plan

District Quality Control (QC) Plans are required to support the GIRD Procedure (Topic No. 525-020-310-k) maintained by the TDA Office. The QC plans are to be developed and maintained by the Districts and will serve as the District's data governance plan for data collection performed by District staff and consultants. These plans are intended to support the District processes, maintain data collection program integrity, manage organizational change, and support program monitoring and quality assurance.

The TDA Office will be required to review District QC Plans to ensure the critical transportation data collection requirements are being met. Districts will submit completed District QC Plans on January 31st each year.

The following areas are required to be part of the District QC Plan:

I. Program Management and Coordination

This section is required to better understand the planning and coordination processes that take place within each District.

Districts will provide the following in the QC Plan:

- a. An organizational chart for the office responsible for data collection within the District.
- b. A list of District contacts including other office contacts providing a name, title, email, and phone number. (A template will be provided upon request)
 - i. E.g., District Manager, District Statistic Administrator, RCI Coordinator, Traffic Coordinator, Construction Office Contact, Road Jurisdictional Transfer/Designation Contact, Traffic Engineering and Operations, District Maintenance, Work Program, Planning and Environmental Support Office
- c. A documented plan that identifies how the District coordinates roadway changes with District personnel and Central Office. This plan should include the following information:
 - i. How District data collectors monitor pending roads, new construction, when roads are open to traffic, and how other improvements are monitored for On-System, Off-System, and Local with FM project roadways.
 - ii. Coordination activities across the District including:
 1. Notifying other District offices when changes are made in RCI. (Meetings, processes, tools)
 2. How other District offices notify data collectors/managers of changes affecting RCI and Straight-Line Diagrams (e.g. speed limits, cross drains, signals, etc.)
 - iii. Document management of official paperwork that affects RCI data including inventory, road jurisdiction transfers, classification, and designation changes.
 - iv. How the District coordinates Best Practices.
 - v. How the District coordinates policy, procedure, and training needs.
- d. A resource management plan that explains how the District manages staff or acquires consultants responsible for RCI Data Collection, HPMS Data Collection, RCI/LRS support,

Traffic Data Collection, Road Transfers and Designations, and Functional Classification. This plan should include how the District addresses:

- i. RCI/HPMS Inventory Resource planning: What are the resources being use by the District in the various Transportation Data areas? (e.g., consultants, tools, software, etc.)
 - ii. Procurement of staff: Provide how staff and/or consultants are acquired and allocated for the various transportation data programs.
 - iii. Organization of staff: Clearly define the roles, responsibilities, and authority of staff members and/or consultants.
- e. A risk management plan that identifies District risks to program resources and involvement. This plan should evaluate the potential risks involved with the following list, including, techniques for prevention and mitigation, funding, timing, and responsibilities.
- i. Safety for Roadway Data Collection
 - ii. Organizational Change Management/Knowledge Transfer
 - iii. Data Collection Technology Changes

II. District Process Documents

Districts will provide the following in the QC Plan:

- a. This area should list all process documents, handbooks, checklists, or directives that are maintained by the District for RCI Data Collection, HPMS Data Collection, RCI/LRS support, Traffic Data Collection, Road Transfers and Designations, and Functional Classification; and are not listed in the Handbooks & Procedures Section of this document. If no additional items are used, please indicate that this area is not applicable.

III. District Protocols

It is critical for FDOT to understand the data collection business model which includes the District's data collection protocols, methods, and priorities. The District should be able to document methods that are best used to serve the dynamic and complex roadway challenges native to the District. It is important to ensure that data collection methods are performed in a safe and consistent manner to support statewide data analysis and reporting. This section within the QC plan is designed to document these qualitative measures to continually improve the FDOT's investment of data collection.

Districts will be required to provide the following information in the QC Plan:

- a. List all unique methods and practices for data collection used by the District.
 - i. Data Collection Technologies, Secretary specific guidelines that affect data collection, District specific safety protocols, etc.
- b. List any Features and Characteristics which the District collects to greater detail than the minimum requirements established in the Handbook and provide reasoning.
 - i. For example, the Handbook states that medians can be collected by predominance and Districts can collect more granular data if they so wish.

IV. Roadway Characteristics Inventory (RCI) Data Collection

This section will document how Districts manage their RCI data collection personnel, contracts, methods, tools, and applications.

Districts will provide the following in the QC Plan:

- a. A schedule of all Roadway IDs that will be inventoried for the upcoming program year.
 - i. Provide the District Work Plan as well as the District method(s) of tracking/scheduling for RCI Data Collection for the upcoming year. The Work Plan should include upcoming roadways, upcoming inventory needs, how the District plans for final acceptance notifications, needs vs wants for data collection schedule, and upcoming projects.
- b. Districts who use consultant resources will provide information on how the District validates deliverables and services provided by consultants.
- c. A detailed plan of their Pre-Inventory process for RCI On-System, Off-System, and Local with FM data collection, including any preparation and review procedures.
- d. A detailed plan of their Inventory process for RCI On-System, Off-System, and Local with FM data collection for both field and office inventory.
- e. A detailed plan of their Post-Inventory process for RCI On-System, Off-System, and Local with FM data collection.
- f. A detailed plan for how the District coordinates notifications from WP, Safety, or others on the need to create Roadway IDs for local roads of District Interest.
- g. A list of all tools and applications utilized for RCI data collection.
- h. A detailed QC plan outlining District processes for ensuring accurate, consistent, and reliable data.
 - i. **District's** will ensure that Active On-System RCI data accuracy is at least 95% for the overall field and office data by developing and maintaining a Quality Control (QC) process as outlined in their QC plan.
 - ii. **District's** will ensure all other administrative data accuracy is 100% for the defined sponsored data¹ by developing and maintaining a QC process as outlined in their QC plan.

V. Highway Performance Monitoring System (HPMS) Data Collection

This section will document how districts manage their HPMS data collection personnel, contracts, methods, tools, and applications.

Districts will provide the following in the QC Plan:

- a. A schedule of HPMS Sample IDs that will be inventoried for the upcoming program year.
 - i. Provide the District Work Plan as well as the District method(s) of the tracking/scheduling for HPMS Samples for the upcoming year. The Work Plan should include upcoming Samples, upcoming inventory needs, needs vs wants for data collection schedule, how the District is notified of construction on

¹ Sponsored data refers to the office that has the ownership/responsibility for specific data.

Samples, and how Sample inventory is planned for with Off-System construction.

- b. Districts who use consultant resources will provide information on how the District validates deliverables and services provided by consultants.
- c. A plan for how the Districts manages HPMS Sample Management.
- d. A detailed plan of their Pre-Inventory process for all HPMS Sample data collection, including any preparation and review procedures.
- e. A detailed plan of their Inventory process for HPMS Sample data collection for both field and office inventory.
- f. A detailed plan of their Post-Inventory process for HPMS Sample data collection.
- g. A list of all tools and applications utilized for HPMS Sample data collection.
- h. A detailed QC plan outlining District processes for ensuring accurate, consistent, and reliable data.
 - i. **Districts** will ensure that HPMS Standard Sample Section Accuracy is at least 90% for the overall field and overall office data by performing a Quality Control (QC) process as outlined in their QC plan.

VI. Road Jurisdiction Transfers (RJT)

- a. Districts will document their process of coordinating and executing a road transfer. Including, a list of contacts and responsibilities at the District level.

VII. Transportation System Designations

- a. This area should document the process of how the District reviews designations, collects information, and coordinates the addition and changes to Transportation System Designations with State, local, and federal partners and stakeholders for the following:
 - i. State Road Numbers
 - ii. U.S. Route Numbers
 - iii. Interstate Route Numbers
 - iv. Road Jurisdiction Transfers
 - v. Functional Classifications
 - vi. National Highway System
 - vii. State Highway System
 - viii. Strategic Highway Network (STRAHNET)
 - ix. Toll Road Facilities
 - x. Urban Classifications/FHWA Smoothed Urban Area Boundary
 - xi. Scenic Highway Designations
 - xii. Other Designations

VIII. Roadway Characteristics Inventory/Linear Referencing System (RCI/LRS) Support

- a. Districts will review the December RCI/LRS Discrepancy Report and supply documents and supporting material for all open discrepancies.
 - i. Any discrepancies listed as 'E' – excluded will require a review.
 - ii. Any discrepancies listed under CO Review or with a ~ symbol do not require any justification.

IX. Straight Line Diagram Management

Districts will provide the following in the QC Plan:

- a. Districts will document the activities related to developing, maintaining, and coordinating Straight Line Diagrams.
- b. Information related to stakeholders or processes that utilize Straight line Diagrams within the District.

X. Key Sheet Management

Districts will provide the following in the QC Plan:

- a. Districts will document the activities related to developing, maintaining, and coordinating Key Sheets.
- b. Information related to stakeholders or processes that utilize Key Sheets within the District.

XI. Training

Districts will provide the following in the QC Plan:

- a. Information on how the District administers training to new staff or consultants.
- b. A list of requested training topics, if applicable.
- c. A list of items for clarification of guidance, if applicable.

Program Training

TDA is responsible for administering a training program that provides support to District staff and familiarizes data users to the data collection program requirements and processes.

- a. **TDA** is responsible for developing training that produces consistent data collection techniques, methodologies, and practices for RCI data.
- b. **TDA** will provide training workshops, webinars, computer-based training, and other materials for District staff and their consultants for the following GIRD elements:
 - i. RCI data collection, data input, and editing.
 - ii. HPMS data collection, data input, and editing.
 - iii. TDA applications.
 - iv. RCI data and LRS reconciliation package process.
- c. **TDA** will ensure that training materials are consistent, up-to-date, and relevant to current procedures, handbooks, and practices.
- d. **TDA** will obtain input from the District Offices on their training needs annually.

Transportation Data Collection Programs

The programs under the TDA Office's responsibility are designed to support the data and reporting needs of the FDOT's programs, databases, and resources. These programs are used for identification, analysis, reporting, and distribution of highway and multimodal transportation data. This data is maintained through routine data collection cycles and is reviewed using quality assurance and quality control processes to ensure FDOT provides highly confident data that is reliable, accurate, timely, and organized for data sharing.

Roadway Characteristics Inventory

The RCI system provides the single source of truth with respect to data for Central Office, District Offices and Florida Turnpike Enterprise. This data is used to provide information for state and Federal reporting business requirements. The data is multi-sourced information on location, length, extent, administrative information, system performance, and condition of multimodal transportation systems. The data is derived from field data collection, official signed paperwork, as-built construction plans, transportation studies, GIS, and others. The RCI program responsibilities and processes of TDA and the Districts include the following:

- I. TDA and District Roles/Organization/Coordination Activities
 - a. **TDA** will ensure the weekly Final Construction Acceptance Notification is emailed the 1st workday of each week.
 - b. **TDA** will perform coordination activities with the Districts and Central Office stakeholders by facilitating Task Team Meetings.
 - i. Technical Task Force Meetings

This meeting brings the Technical Task Force together with Central Office staff to discuss data collection practices including techniques and technology to improve consistency between the Districts products, and to identify the most efficient practices that can be considered for statewide implementation.

 1. **TDA** will organize four (one per quarter) Technical Task Force (TTF) Meetings each year.
 2. **Districts** shall appoint a chairperson to make sure that each meeting is planned effectively, and that matters are dealt with in a timely and orderly manner.
 3. **TDA or Districts** can request additional TTF meetings for pressing topics related to data collection practices via the chairperson.
 4. **TDA** is responsible for recording the minutes of each meeting and will distribute after each meeting.
 5. **TDA** will maintain a shared site with access to all previous meeting minutes and agendas with topics.
 - ii. Data Collection Manager Meetings

This meeting brings the District and Central Office Data Collection Managers together to discuss transportation data collection business practices including techniques and technology to improve consistency of data and to identify the most effective and efficient practices for statewide implementation and fulfillment of state and federal reporting requirements.

1. **TDA** will organize four (one per quarter) Data Collection Managers (DCM) Meeting.
 2. **TDA** is responsible for recording the minutes of each meeting and will distribute after each meeting.
 3. **TDA** will maintain a shared site with access to all previous meeting minutes and agendas with topics.
- iii. Annual Workshops
1. **TDA** will organize an annual in-person workshop for statewide discussion to determine the business requirements for GIRD and coordinate methods and techniques that support safe, efficient, innovative data collection and data management.

II. Interdepartmental Coordination

RCI data supports FDOT analyses for decision making, project programming, development of the state and federally mandated reports, and transportation asset reporting requirements of data collected by the following offices:

- Office of Maintenance
 - State Traffic Engineering and Operations Office
 - State Materials Office
 - Systems Implementation Office
 - Forecasting and Trends Office
 - Office of Freight, Logistics, and Passenger Operations
 - District Right of Way Office
- a. **TDA** is responsible for coordinating with the above offices regarding changes to data collection, reporting, and management of transportation data.

III. RCI Inventory Requirements

- a. **Districts** will maintain a recurring 5-year RCI inventory cycle for 100% of Active On-System Roadway IDs within five years from the month of last inventory.
- b. **Districts** will update the RITA 5-Year Inventory Tracking Form indicating 100% of On-System Roadway IDs have been inventoried within five years from the month of last inventory and notify TDA by email when updates are completed.
- c. **Districts** will update the RITA Construction Tracking Form within 90 calendar days from the effective date of any road transfers, written date of notification of project completion², or weekly Notification of Contract Status Changes Report date and notify TDA by email when updates are completed. The District is responsible for:
 - i. Updating Administrative Features³ in the RCI database within the first 15 calendar days of the 90-calendar day deadline as outlined in the RCI Handbook for construction projects.
 - ii. Adding Administrative Features in the RCI database for all newly created pending projects as outlined in the RCI Handbook.

² Districts will coordinate with their District Construction Office and TDA to determine when construction projects are completed and open to traffic.

³ See GIRD Procedure (525-020-310-k) for list of required administrative features.

- d. **Districts** will ensure that Active On-System RCI data accuracy is at least 95% for the overall field and office data by developing and maintaining a Quality Control (QC) process as outlined in their QC plan.
- e. **Districts** will ensure all other administrative data accuracy is 100% for the defined sponsored data as defined in the GIRD procedure by developing and maintaining a QC process as outlined in their QC plan.
- f. **Districts** will maintain a recurring 5-year RCI inventory cycle for Active Off-System Roadway IDs within five years from the month of last inventory.
- g. **Districts** will update the RITA 5-Year Inventory Tracking Form indicating 100% of Off-System Roadway IDs have been inventoried within five years from the month of last inventory.

IV. Data Analysis, Development, and Management

- a. **TDA** will perform analysis of RCI data for internal and external data requests.
- b. **TDA** will perform analysis of RCI data to identify issues and areas of improvement.
- c. **TDA** will perform analysis of RCI and LRS to ensure consistency and compatibility of the Roadway ID routes and measurements.
- d. **TDA** will support the integration of RCI data into systems for FDOT business needs.
- e. **TDA** will conduct an annual review of the Data Model to ensure accuracy and consistency with all current processes.
- f. **TDA** will coordinate updates to the Data Model with affected offices within 1 week of completion.
- g. **TDA** will batch load RCI data only to remove previous data and add new data, no updates will be permitted through this process.
 - i. **Districts** will provide the following key components for any batch loading request:
 1. Correct Roadway ID, BMP, EMP, Characteristic Name and Values, Feature Number, Offset Direction and Distance, Roadway side.
 2. No Overlaps or Gaps in data.
 3. Correct codes and correct length of code.
 4. No less than 50 records.
- h. **Districts** must contact TDA prior to any batch request and provide data before June 1st and December 1st.
- i. **Districts** will provide notifications and coordinate with the TDA office when RCI data needs to be modified, updated, or deleted.

HPMS Requirements

Federal Highway Administration's (FHWA) Highway Performance Monitoring System (HPMS) is a national level report required by states to collect and report data for all public roads. The data collected is a measure of extent, condition, performance use and operating characteristics gathered from state and local agencies. This data is used to support decision-making at both the state and Federal levels.

- I. TDA and District Roles/Organization/Coordination Activities
 - a. **TDA** will coordinate a yearly meeting with district data collectors and other offices to discuss:
 - i. Data collection issues/needs.
 - ii. Identify training needs.
 - iii. Provide updates to the process.
 - b. **TDA** will coordinate with FHWA on quarterly questionnaires, Quality Assurance Review (QAR) schedules and any FHWA audits.
 - c. **TDA** will document these meetings for future reference of FHWA audits.
 - d. **TDA** will coordinate with Districts and other offices as needed throughout the data submittal periods.
- II. HPMS Observations
 - a. **TDA** will coordinate with FHWA for Division QA, HQ Observation and HQ DAT audit annually.
 - b. **TDA** will document all meetings with FHWA and findings for future reference of FHWA audits.
- III. HPMS Inventory
 - a. **Districts** will maintain a 3-year inventory cycle for 100% of HPMS Sample sections within 3-years from month of last inventory.
 - b. **Districts** must maintain 3-year HPMS re-inventory RITA tracking forms.
 - c. **Districts** will ensure that HPMS Standard Sample Section Accuracy is at least 90% for the overall field and overall office data by performing a Quality Control (QC) process as outlined in their QC plan.
 - i. All other administrative data element accuracy is at least 100% for the sponsored data as defined in the GIRD Procedure.
- IV. HPMS Sample Management
 - a. **TDA** will review Sample adequacy for HPMS Samples after June 15th each year.
 - b. **TDA** will notify the District RCI Coordinator and Traffic Coordinator of new Samples by July 31st.
 - i. If needed, Sample reduction plans are submitted to FHWA for approval before July 31st. (TDA will remove the Sample ID from DART and RITA after the Sample reduction plans are approved by FHWA.)
 - c. **Districts** will request approval from TDA anytime Sample limits need to be adjusted. (Including moving begin or end points of Samples to physical locations, shortening Samples for HPE4 DART validations, or Samples to be deleted because of realignments or FUNCLASS changes, as needed no date.)
 - d. **TDA** will add any new Samples to RCI, DART, and RITA applications.
 - e. **Districts** will conduct 100% of New HPMS Standard Sample Section Inventory and update HPMS Inventory Tracking in RITA by November 30th. (If inventory for New Samples cannot be conducted in time, District must notify TDA as soon as possible. E.g., Construction)
 - f. **TDA** will process HPMS Sample deletion before November 20th.

- g. **Districts** will remove deleted Samples from RCI by November 30th.

V. **Data Coordination**

The following data items are required for the HPMS yearly submission to meet state and Federal reporting requirements.

LRS/ARNOLD

- a. **TDA** is responsible for developing and maintaining the Linear Referencing System (LRS) of RCI and the All Road Network of Linear Referenced Data (ARNOLD).
- b. **TDA** will update ARNOLD using LRS and TIGER Data to support the process as outlined in the LRS Handbook on an annual basis as outlined below:
 - i. Fall: An updated version of Census TIGER data is downloaded.
 - ii. December 31st: A snapshot of the RCI Arcs and LRS is taken for the HPMS submittal and to incorporate yearly RCI updates into the ARNOLD dataset.
 - iii. April 15th: The updated ARNOLD dataset is submitted to the HPMS coordinator for review and final submission.
 - iv. June 15th: Final ARNOLD HPMS submission to FHWA.
- c. **TDA** will download the RCI LRS to match the December 31st RCI extract.
- d. **TDA Spatial & Analytics Section** will provide the ARNOLD for review by April 15th.
 - i. Corrections to review are due June 15th.

Strategic Intermodal Systems Data

- a. **The TDA HPMS Coordinator** will request pending road alignments from The State Systems Implementation Office (SIO) by April 15th.

Pavement Distress Data

- a. **The TDA HPMS Coordinator** will ensure that the State Materials Office (SMO) provides all pavement distress data for the Interstate, SHS, HPMS Samples, and all other road segments required for HPMS.
 - i. Interstate System by March 1st.
 - ii. SHS, HPMS Samples, and all other road segments as required by April 15th.
- b. **The TDA HPMS Coordinator** will coordinate with SMO for metadata of data submitted detailing when the collection was performed.
- c. **The TDA HPMS Coordinator** will provide feedback on data delivered for the submittal within 2 weeks to set up meetings and discuss any concerns.
- d. **The TDA HPMS Coordinator** will provide SMO a list of RCI segments that need to be inventoried including the New Samples by July 31st.

Travel Time Data

- a. **The TDA HPMS Coordinator** will ensure that the PM3 Travel Time Data is provided by May 15th.

Forecasted Traffic Data

- a. **The TDA HPMS Coordinator** will ensure The Forecasting and Trends Office provides current and projected Annual Average Daily Traffic (AADT) by March 1st.

Traffic Data

- a. **The TDA HPMS Coordinator** will ensure that the following are provided from the TDA Transportation Monitoring Section:
 - i. Traffic Counter Data
 - ii. 48-hour Bi-directional Class Report
 - iii. TMS Summary Report
- b. **Districts** will include all new HPMS Off-System Samples in yearly traffic count schedule by January 31st.
- c. **Districts** will collect vehicle classification counts for at least one-third of the Off-System HPMS Samples each year.
- d. See the [Motorized Short Term Traffic Monitoring Program Section](#) of this document for further detailed dates and deliverables.

Population Data

- a. **The TDA HPMS Coordinator** will ensure The Forecasting and Trends Office provides the annual population estimates to the TDA HPMS coordinator by May 1st.

City and County Mileage Data

- a. **The TDA HPMS Coordinator** will obtain the City and County Mileage data from the FormTM system to be integrated in the HPMS Submission by May 1st.

VI. FHWA HPMS Report Outputs

- a. **The TDA HPMS Coordinator** will generate reports from the FHWA HPMS software and FDOT HPMS processing system using Annual HPMS Submittal data. These reports include:
 - i. The Certified Public Road Mileage
 - ii. Public Roads and DVMT report
 - iii. MPO Pavement Report
 - iv. FMIS LRS roadway Report
 - v. Pavement Report Card
 - vi. Reports from the HPMS v8 software
 - vii. Submittal Comments

VII. Mileage Report Development

- a. **The TDA HPMS Coordinator** will submit signed and approved Certified Public Mileage (CPM) to FHWA by June 1st.
- b. **TDA** will develop, review, and publish the following reports by June 15th.
 - i. Pavement Report Card
 - ii. Reports from the HPMS v8 software
 - iii. Submittal Comments
- c. **TDA** will develop, review, and publish the following reports by June 30th.
 - i. Certified Public Mileage
 - ii. Public Roads and DVMT report
 - iii. MPO Pavement Report
- d. **TDA** will develop, review, and publish the following reports by the specified date:
 - i. FMIS LRS Roadway Report – October 1st.

- ii. Long Range Program Plan Lane Mile Projection Reports – July 31st
- iii. Interchange Report – August 1st
- iv. Bike/Ped Mileage Report – data pulled January 1st; report prepared by August 31st.
- v. TDA will develop, review, and publish the following biannual Mileage Reports to the FDOT website by January 15th and July 15th, annualized by June 30th.
 - 1. SHS, NHS, SIS Mileage Reports
- vi. TDA will develop, review, and publish the Federal Aid Mileage Report to the FDOT website by January 30th and June 1st. Additionally, when the State declares an emergency the most up to date information is provided.

Quality Management

The TDA Office is required to monitor and support the seven District Offices, Turnpike Enterprise, and Central Office to ensure accurate and timely data. To ensure these critical requirements are met, the TDA Statewide Quality Assurance Coordinator works together with the Districts to conduct District Quality Evaluation (DQE) review and Quality Assurance Review (QAR).

I. Process Management

- a. **The TDA Quality Management (QM) team** will maintain and update the Quality Assurance Monitoring Plan (QAMP) by Sept 30th for the next calendar year.
- b. **The TDA QM team** will identify and utilize quality assurance measures and processes to confirm and validate data collection activities are performed with a high confidence for state and federal reporting.
- c. **TDA** will document all inconsistencies, anomalies, and guidance provided in the Quality Assurance Issues Log (QUAIL).

II. District Quality Evaluations (DQE)

The DQE's primary purpose is to clearly identify areas of responsibility and establish a set of objective quantifiable measures that determine District quality.

- a. **The TDA QM team** will conduct DQEs for all Districts twice a year.
 - a. Period 1: January – June
 - b. Period 2: July – December
- b. **The TDA QM team** will coordinate with other sections within TDA to review DQE objectives.
- c. **The TDA QM team** will evaluate and score Districts on objectives outlined in the DQE Handbook.
- d. **Districts** will participate in DQE review process and complete all corrections in a timely manner.

III. Quality Assurance Reviews (QAR)

The QAR is a planned, coordinated, and continuous process conducted by the TDA Office and the Districts in accordance with FDOT's Quality Management Policy.

- a. **The TDA QM team** will conduct on-site QARs for all Districts on a biennial schedule.
- b. **The TDA QM team** will coordinate all scheduling with Districts, FHWA, and TDA sections.

- c. **The TDA QM team** will evaluate and score Districts on objectives outlined in the QAR Handbook.
- d. **Districts** will participate in QAR review process and complete all corrections in a timely manner.

Transportation System Designations

The TDA Office has a direct responsibility over managing transportation system designations along the roadway sections which are part of the State Highway System (SHS). These designations are critical state and Federal reporting requirements. The TDA is also responsible for ensuring the designations are properly managed along roadway sections in RCI and the LRS. Therefore, it is imperative that the TDA's Multimodal Data System Coordinator is aware of and assists with the coordination of Transportation System Designation changes to the SHS with Districts and other FDOT offices for historical archival purposes and documentation purposes.

Transportation Designation Types

I. Road Numbering

a. State Roads

- i. **TDA** will provide guidance, templates, and historical examples for changing of State Road numbers.
- ii. **Districts** will work with the local entities for any changes and complete templates that are needed by Central Office to modify data.
- iii. **Districts** will utilize and support the RJT Procedure and Handbook to perform the necessary RJT activities.

b. United States (U.S.) Highway Numbers

U.S. Route Numbers / U.S. Bicycle Route Numbers

- i. **TDA** will provide guidance, applications, and historical examples for establishing/changing of U.S. Route numbers. Applications are submitted to AASHTO for approval prior to RCI data editing. Applications are reviewed in Spring and Fall.
- ii. **Districts** will work with local entities for any changes and complete applications that are needed by Central Office to modify data.
- iii. **Districts** will work with District Bike and Ped Coordinators for any changes needed.

c. Interstate Numbering

- i. **TDA** will provide guidance, applications, and historical examples for establishing/changing of Interstate numbers.
- ii. **TDA** will submit applications to FHWA/AASHTO for approval prior to RCI data editing.
- iii. **Districts** will work with local entities for any changes and complete templates that are needed by Central Office to modify data.

II. Road Jurisdiction Transfers (RJT)

- a. **TDA** will provide guidance, templates, and historical examples for completing Road Jurisdiction Transfers.

- b. **TDA** will perform a review of all District Transfers and coordinate with Central Office General Counsel for legal review.
- c. **TDA** will review EDMS to ensure finalized agreements have been added to EDMS.
- d. **TDA** will upload finalized agreements in the EDMS system.
- e. **Districts** will work with the local entities for any changes and complete templates that are needed by Central Office to modify data.
- f. **Districts** will utilize and support the RJT Road Designation Procedure and Handbook to perform the necessary RJT activities.

III. Functional Classifications (Proposed Functional Classification and U.S. census Decennial Process)

- a. **TDA** will provide guidance, applications, and historical examples for changing Functional Classification on the State and Local level, both day-to-day and decennial changes.
- b. **TDA** will submit applications to FHWA for approval prior to RCI data editing.
- c. **Districts** will work with the local entities for any changes and complete applications that are needed by Central Office to modify data.
- d. **Districts** will use proposed functional classification as a pre-approval process for official designation changes.
- e. **Districts** will perform data validation of data entered into RCI and make any necessary corrections before DQE period dates of December 20th and June 30th.

IV. National Highway System (NHS)

- a. **TDA** will obtain federal designations provided by FHWA and ensure data is properly coded in RCI and validated through DART.
- b. **TDA** will monitor changes to the NHS and provide guidance on how to modify and coordinate NHS designations changes in RCI.
- c. **TDA** will provide guidance, reporting, and historical examples for creating/modifying National Highway System designations. Reporting is submitted to FHWA for approval prior to RCI data editing.
- d. **Districts** will work with local entities for any changes and complete reporting that is needed by Central Office to modify data.

V. State Highway System (SHS)

Including additions (new construction), deletions, realignments, and adjustments (field review).

- a. **TDA** will provide guidance, templates, and historical examples for modifying SHS designations.
- b. **Districts** will work with local entities for any changes and complete templates that are needed by Central Office to modify data.

VI. Strategic Highway Network (STRAHNET – Military Network) Designations

- a. **TDA** will provide guidance, reporting, and historical examples for creating/modifying the STRAHNET. Reporting is submitted to FHWA for approval prior to RCI data editing.
- b. **Districts** will work with local entities for any changes and complete templates that are needed by Central Office to modify data.

VII. *Toll Road Facilities*

- a. **TDA** will provide coordination of the opening/closing of toll facilities with Expressway, Managed Lanes, and Turnpike Enterprise subject matter experts. Toll Road ID edits are submitted to FHWA for approval prior to RCI data editing.
- b. **Districts** will provide Central Office updates as needed.

VIII. *Urban Classifications*

Urban Boundary (Census Decennial Process) / City Place Codes / MPO Area / Urban Area

- a. **TDA** will provide guidance, reporting, and historical examples for creating/modifying Urban Boundaries.
- b. **TDA** will submit modifications to FHWA for approval prior to RCI data editing; both day-to-day and decennial changes.
- c. **Districts** will work with local entities for any changes and complete reporting that is needed by Central Office to modify data.

IX. *Ramp Federal Category*

- a. **TDA** will determine the functional classification of the roadways connected by ramps and use the higher of the two. For example, if a ramp connects an interstate to a principal arterial - other, use code 1.
 - i. If RAMPFC is not zero, then URBSIZE/URBAREA are required:
 1. Only grade separated ramps (ramps that are part of interchanges) are reported to HPMS.
 2. If there is a ramp (separated right turn lane) at a signalized or at grade intersections, RAMPFC would be coded as Zero.

X. *Coordination with other Designation Programs*

- a. **TDA** will coordinate with the following offices to make any changes in RCI due to designation changes.
 - i. Bridges (Office of Maintenance)
 1. Structure numbers.
 - ii. Freight Networks
 1. National Highway Freight Network (NHFN), (Freight and Multimodal Operations Office)
 - a. Critical Rural Freight Corridor (CRFC)
 - b. Critical Urban Freight Corridor (CUFC)
 2. Primary Highway Freight System (PHFS)
 3. National Network (Trucks, Tractors and Trailers)
 - iii. Scenic Highways (Office of Design)
 - iv. Strategic Intermodal System (SIS), Systems Implementation Office
- b. **Districts** will provide Central Office updates as needed. Changes generally come from Central Office/District Coordinators: Freight, Scenic Highway, Bike and Ped, and the Freight and Rail Analyst.

Historical Documentation

The TDA Office maintains an archive of all State Road Jurisdiction Transfers dating back to the 1970s. State Road Designation Maps and miscellaneous documentation (Construction Records, Maintenance

and Abandonments, State Road Board Meeting Minutes, etc.) dating back to 1915. TDA has access to each “State Road” that is located and described individually in the Chapter, Laws of Florida (that authorized it or in a summary Chapter issued during various years: 1933, 1935, 1939, 1941) through FDOT’s law library. Most of these resources can be accessed in FDOT’s Electronic Document Management System (EDMS). A request for historical information can be made to TDA’s Multimodal Data System Coordinator.

- a. **TDA** will catalogue and store designation documents in EDMS.
- b. **Districts** will provide Central Office updates as needed.

Roadway Characteristics Inventory & Linear Referencing System Package Processing

I. RCI/LRS Packages

- a. **TDA** will run and send Monthly RCI/LRS Summary and Detail Report.
- b. **TDA** will coordinate with the SIO Office to ensure Feature 147 is up to date in relation to the RCI/LRS sections through the MyFloridaLRS application.
- c. **TDA** will review coordinate and approve RCI and LRS changes through MyFloridaLRS.
- d. **Districts** must submit RCI/LRS Packages to TDA through MyFloridaLRS web application as stated in the LRS Handbook.
- e. **Districts** will address/correct all On and Off-system discrepancies between the LRS and RCI roadway ID lengths within 60 calendar days of written notification from TDA.
- f. **Districts** must coordinate all discrepancy changes with the TDA LRS Coordinator to ensure data accuracy.
- g. **Districts** must address all on-system roads discrepancies via RCI/LRS Packages with documentation of all revisions, updates, and modifications to roadways within 15 calendar days after CO has completed the package or as directed by management. (Cut-off dates for RCI/LRS package submittals are the 15th of June and December)
- h. **Districts** will utilize MyFloridaLRS to coordinate RCI and LRS changes.
- i. **Districts** may provide notification directly to TDA staff to perform changes in either RCI or the LRS.

II. Linear Referencing System (LRS)

- a. **TDA** is responsible for developing and maintaining the process to reconcile lengths and data on the LRS with the RCI.
- b. **TDA** will generate the LRS Data Quality Report three times per week.

Motorized Short Term Traffic Monitoring Program

The FDOT traffic data collection program is a collaborative effort involving the District Offices throughout the State and the Transportation Data and Analytics (TDA) Office in FDOT’s Central Office.

I. Traffic Data Collection Equipment Requirements

- a. **Districts** will submit/email an Equipment Certification Report to TDA by January 31st.
- b. **TDA** will provide draft traffic monitoring equipment certification forms and certification guidelines to District in the Traffic Monitoring Handbook.
- c. **Districts** will schedule and complete testing of equipment by December 31st, including obtaining Equipment Certification Reports from consultants and/or contractors before the count cycle starts and will update equipment certification files, as necessary.

- d. **Districts** will maintain records of equipment certification by model and serial number for three calendar years.

II. Data Collection Requirements

- a. **TDA** will provide a summary report to each District that includes the total number of active sites, organized by type, during the early steps in the January End of Year Processing (EOYP).
- b. **TDA** will produce and send Seasonal Adjustment Factor and Axle Correction Factor category assignment reports to Districts for review by January 31st.
- c. **Districts** will provide Traffic Data Collection Schedules for Portable Traffic Monitoring Sites (PTMS) and road tube counters that will be counted for the upcoming program year to TDA by January 31st.
- d. **Districts** will verify/identify active sites as of December 31st each year for the next year's data collection.
- e. **Districts** who use consultant resources will prepare task work orders (TWO) to support the data collection program schedule, if applicable.
- f. **Districts** will collect data beginning on or after January 1st through November 15th for urban and rural areas and notify TDA after completion.
- g. **Districts** will obtain available Urban and Rural Area raw counts from local governments and other FDOT offices.
- h. **Districts** will conduct an annual vehicle classification count on all Strategic Intermodal System connector routes as described in the Traffic Monitoring Handbook by November 15th.
 - i. **Districts** must submit counts and email synopsis reports to TDA by December 31st.
 - ii. **Districts** will schedule SIS connectors for an annual vehicle classification count. If length is not sufficient for classification count, schedule a volume count.
 - iii. **Districts** shall conduct annual vehicle classification counts on all SIS connector routes in their District to allow vehicles to be classified. (See Section VIII Annual Data Processing in the Traffic Monitoring Handbook.)

III. Data Processing Requirements

- a. **TDA** will send draft adjustment factor reports to each District by the 1st week in February.
- b. **TDA** will send draft Factored Counts Reports to each District by the 3rd week in February.
- c. **TDA** will send draft AADT Reports to each District by the 1st week in March.
- d. **TDA** will run Edit 4 & 5 report in the Data Analysis & Reporting for Transportation Systems (DART) application and make output available for District usage.
- e. **TDA** will provide a draft/final report to TDA HPMS Coordinator by April 1st of each year.
- f. **Districts** will edit and process all short-term traffic volume and classification data by December 31st every year, including:
 - i. Send Synopsis Reports to TDA.
 - ii. Upload traffic data throughout the year into MS2.
 - iii. Notify TDA of completion of traffic data processing.
- g. **Districts** will complete their AADT development by March 15th every year.

- h. **Districts** will review, update, and finalize the following reports (Districts will notify TDA as critical steps are completed):
 - i. Seasonal and Axle Adjustment Factor Reports
 - ii. Factored Counts Reports
 - iii. AADT Reports
- i. **Districts** will not estimate an AADT for more than two consecutive years without appropriate justification for On-System roadways and ramps and five years for Off-System roadways.
- j. **Districts** will identify active sites for which no valid count was obtained:
 - i. Determine amount of time identified sites have not had a valid count.
 - ii. Determine reason why identified sites have not had a valid count (i.e., weather, equipment, construction).
 - iii. Determine how to handle third year/sixth year estimates. Options:
 - 1. Make station inactive with TDA concurrence.
 - 2. Provide manual estimate.
- k. **Districts** will code accurate Traffic Section Breaks' beginning and ending milepoints in the RCI database by March 15th and December 31st every year.
- l. **Districts** will code accurate Flow Break Count Stations in RCI by March 15th and December 31st every year.
- m. **Districts** will verify Traffic Count Station Numbers are not coded at section beginning or ending milepoints.
- n. **Districts** will verify accurate Directional Distribution Factors (D-Factors) coded in the RCI database by March 15th and December 31st every year.

City/County Mileage Data Collection Process

The Form Total Mileage (FormTM) contains mileage data received from incorporated cities, improvement districts, and counties annually. FormTM is used to provide this data which is needed by the Department of Transportation to meet Federal reporting requirements.

- I. **TDA Organization/Coordination Activities**
 - a. **TDA** will send initial email request to all entities through FormTM application on September 30th each year.
 - b. **TDA** will send reminder emails to all remaining unsubmitted entities every other week until December 31st.
 - c. **TDA** will contact entities that are past due each week after December 31st.
 - d. **TDA** will send end of cycle email reporting cycle is closed and to thank them for their Data Collection Requirements.
 - e. **TDA** will conduct monthly internal coordination meetings to discuss progress and issues.
- II. **Data Processing Requirements**
 - a. **TDA** will review all submitted mileage to ensure large changes (+/- 10% and +/- 10 or more miles) are followed up with the entity to confirm accuracy and reasoning.
 - b. **TDA** will submit mileage on-time to FHWA through the HPMS System.

Transportation Data Visualization & Reporting

I. Public Data Records Requests

- a. **TDA** staff will support Public Data Records Requests and internal data requests of transportation data in a timely manner in accordance with the Public Data Records Request annual training requirements.
- b. **District** staff will respond to all Public Data Records Requests in accordance with the Public Data Records Request annual training requirements and coordinate with TDA staff for additional data request support, as necessary.

II. Straight Line Diagrams

- a. **Districts** will update RITA revision boxes for all changes to Straight Line Diagrams (SLDs).
- b. **Districts** will update and distribute SLDs within the following timeliness standards:
 - i. 120 days from the written date of notification of final or conditional acceptance or designation changes from TDA.
 - ii. 60 days from date of notification from a Quality Assurance Review or District Quality Evaluation.
 - iii. 30 days from the date of any other written notification.
- c. **Districts** will ensure that SLDs reflect 100% of current RCI data and conform to legibility and format standards outlined in the SLD Handbook.
- d. **Districts** will notify TDA and affected stakeholders of all updated SLDs.

III. Key Sheets

- a. **Districts** will update key sheets within 120 calendar days for any additions, deletions, realignments, or road transfers to or from the SHS.
- b. **Districts** will maintain 5-year key sheet limit for the SHS road network. (No key sheet should be older than 5 years from the date of last update.)
- c. **Districts** will ensure that Key sheets reflect 100% of the SHS road network.
- d. **Districts** will upload key sheets to the SLOGIS Application and notify TDA and affected stakeholders of all updated key sheets.

Transportation Data Application Development & Maintenance

I. Application Maintenance Activities

- a. **TDA** will maintain a change log for each application with a “To Do” or “Unreleased” section at the top. (See <https://keepachangelog.com/en/1.0.0/>)
- b. **TDA** will on a semi-annual basis review the change log for each application and develop a priority list of changes for the year.
- c. **TDA** will schedule application changes to be made in the Development environment(s).
- d. **TDA and Districts** will participate in application acceptance testing.
- e. **TDA** will publish accepted application changes to the Production environment(s) and update the change log.
- f. **TDA** will notify users of any planned closures for maintenance or otherwise 1 week in advance.
- g. **TDA** will notify users of any unexpected outages whenever they occur.

II. Application Administration Activities

- a. **TDA** will perform administrative activities for the following web applications:
 - i. Data Analysis and Reporting for Transportation Systems (DART)
 - ii. District Quality Evaluation (DQE)
 - iii. Form Total Mileage (TM)
 - iv. My Florida LRS (MYFLRS)
 - v. Roadway Characteristics Inventory (RCI)
 - vi. Roadway Inventory Tracking Application (RITA)
 - vii. Straight-Line Diagrams Online (SLO) Upload Application
 - viii. Straight-Line Diagrammer
 - ix. Video Log Desktop Viewer
- b. **TDA** will ensure that all applications meet current requirements for data collection.
- c. **TDA** will ensure that all applications meet FDOT standards for accessibility.
- d. **Districts** will notify TDA of any issues that they are experiencing in any application.