FDM Chapter: 126 FDM Section: ALL

FDM Tracking Number: 286

Summary of Change: Added requirement for network traffic analysis per management direction and revised chapter to address requirements of 334.61

F.S. Traffic Lane Repurposing.

- 1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how? Yes, for enhancing mobility, because the required analysis will ensure the continued functionality of the state transportation network.
- 2. What financial impact does the change have; project costs, pay item structure, or consultant fees? Costs will increase on projects where the analysis would not normally be needed or used.
- **3. What impacts does the change have on production or construction schedules?** Will increase production time by requiring additional levels of review by Central Office.
- **4.** How does this change improve efficiency and/or quality? Improves quality by providing a deeper set of data for comparison.
- **5. Which FDOT offices does the change impact?** Systems Implementation Office, Design Office, and Traffic Engineering and Operations Office.
- **6. What is the impact to districts with this change?** The districts will be required to do more extensive analysis before submitting potential LR projects to CO for review.
- **7. Does the change shift risk and to who?** Shifts more risk to the Department by making the department aware of potential impacts resulting from the project. However, the analysis will also allow the department to better manage that risk.
- 8. Provide summary and resolution of any outstanding comments from the districts or industry. No outstanding comments.
- **9. What is the communication plan?** Design Bulletin for the 2025 FDM and training webinars for updates.
- **10. What is the schedule for implementation?** The following is the schedule for implementation:
 - The 2025 FDM will be published on or before November 1, 2024
 - The 2025 FDM will be effective for all projects beginning design in January 2025

126.1 General

Lane repurposing projects (a.k.a., "road diets", "lane elimination", or "lane reduction") are intended to reduce the number of travel lanes to achieve systemic improvements. Generally, the purpose of these projects is to reconfigure the existing cross section to enhance other uses and travel modes. Lane repurposing projects typically contribute to the economic development, livability, and vitality of a community. The recovered travelled way can be used to accommodate other uses such as separated bicycle lanes, buffered bicycle lanes, improving existing sidewalks, adding sidewalks, landscaping, on-street parking, bulb-outs, traffic calming, transit, and pedestrian refuge islands marked with crosswalks. Guidance on the development and review processes for repurposing lanes on the State Highway System (SHS) is provided in the Department's <u>FDOT Lane Repurposing Guidebook</u>. Lane repurposing projects will not be considered on the Strategic Intermodal System (SIS).

A local government entity (e.g., municipality, county, Metropolitan Planning Organization (MPO), Transportation Planning Organization (TPO)) or the Department can submit a request for the repurposing of travel lanes on the SHS. A private entity may only submit a request through a local government entity. Proposed lane repurposing projects may be part of a larger community vision. With sufficient advanced planning and analysis, lane repurposing projects are often delivered done in conjunction with Resurfacing, Restoration and Rehabilitation (RRR) projects.—It is preferred that Identify and analyze—lane repurposing projects_should be identified_should_in advance of RRR projects ahead of time through a planning exercise such as a district area wide multimodal mobility plan, community vision plan, or downtown redevelopment plan. Approval, by the Chief Engineer, for the lane repurposing must be received prior to the lane repurposing being incorporated into the RRR project.—Obtain approval for the lane repurposing project from the Chief Engineer prior to incorporating into a RRR project.

If the project has a PD&E phase, the requirements of this chapter are followed during the PD&E study prior to the selection of a preferred alternative. See **Part 1**, **Chapter 2** of the **PD&E Manual** for additional information.

126.2 Requirements

Lane repurposing projects must:

- Comply with AASHTO and Department design criteria.
- Include a ,andmust a safety analysis, -.
- Include network-wide traffic analysis with diversion -(-see FDOT Traffic Analysis Handbook).-
- Be consistent with Section 334.61, Florida Statute (F.S.) for Traffic Lane Repurposing.

A Design Exception or Design Variation is required when an existing or proposed design element does not comply with the governing criteria. See *FDM 122* for information on Design Exceptions and Design Variations. Any For lane Lane repurposing projects in the vicinity of interchanges require additional analysis and coordination with FHWA, per the FDOT Interchange Access Request User's Guide.

Lane repurposing projects should be consistent with the <u>relevant</u> Long-Range Transportation Plan (LRTP), Transportation Improvement Program (TIP), and Transit Development Plan (TDP).

<u>The analysis</u> Analyze impacts of a lane repurposing project with consideration must also consider for the following:

- Utilities
- Access management
- Businesses
- Traffic operations
- Safety
- Pedestrian and bicyclist activities
- Transit and freight routes
- Environmental impacts

- Evacuation routes
- Emergency responders
- Functional classification
- Context classification
- Landscaping (shade or architectural)
- Speed (target, design and posted)
- Traffic impact Impacts due to traffic diversion to parallel routes

If exclusive bus lanes/business access & transit (BAT) lanes are proposed in the lane repurposing project, coordinate with the Office of Modal Development/Public Transit and the local transit agency.

In addition to <u>public involvement requirements in Section 334.61 Florida Statute</u> (F.S.), impacts of lane repurposing projects, conduct public involvement activities in accordance with the **Public Involvement Handbook**.

126.2.1 Federal-Aid Projects

Follow the National Environmental Policy Act (NEPA) for lane repurposing projects that use federal funding.

126.2.2 Roadway Functional Reclassification

A lane repurposing project can potentially change the functional classification of a roadway, which could affect planning, funding eligibility, traffic analyses, project prioritization, and state and federal reporting requirements.

A request for a change in functional classification requires review and approval by the Department and FHWA. Approval is typically requested during the preliminary review process. More information is provided in the Department's <u>Urban Area Boundary and Functional Classification Handbook</u>—Handbook. This handbook can be found at the FDOT Transportation Data and Analytics website:

https://www.fdot.gov/statistics/tsopubs.shtm.

A proposed change in functional classification of a roadway on the National Highway System (NHS) requires coordination between the Department, local officials, and FHWA.

126.3 Application Process

Follow the lane repurposing process as given in the *Lane Repurposing Guidebook*. This process allows the applicant, the district, and central office to agree on the purpose, need and methodology of the project.

The application process consists of three main steps: coordination between the Applicant and the District, a preliminary review and approval by the District, and the final review and approval by Central Office (CO). FDM 103The Lane Repurposing Guidebook includes

the **Forms 126-A**, **B**, **C** and **D** that are utilized during this process. **Form 126-A** is used as guidance for project meetings, reports and methodology, **Form 126-B** establishes the initial notification to CO Systems Implementation Office (SIO) and **Form 126-C** confirms the final review and approval from CO. <u>Temporary</u>, <u>demonstration</u>, <u>or pilot lane repurposing projects must follow the same process as permanent projects.</u>

126.3.1 Project Initiation

- (1) The applicant submits the lane repurposing request to the District Lane Repurposing Coordinator.
- (2) The applicant submits the required information in the Initial Meeting and Methodology Checklist (*Form* 426-A) to the district prior to the initial meeting.
- (3) The District Lane Repurposing Coordinator schedules the initial meeting to discuss the proposed lane repurposing project with the District Review Team and Central Office SIO Review Team, which includes the following Delistrict Offices and positions:
 - (a) Planning
 - (b) Environmental Management
 - (c) Modal Development
 - (d) Design
 - (e) Safety
 - (f) Traffic Operations

<u>Central Office Lane Repurposing Coordinator and Systems Management Administrator</u>

(f)(g)

- (4) The applicant attends this initial meeting to discuss the process and requirements of the lane repurposing request.
- (5) The District Lane Repurposing Coordinator submits the initial notification to the Central Office Systems Implementation Office (SIO). This will include:
 - (a) Initial Meeting and Methodology Checklist (Form_126-A)
 - (b) Meeting Minutes
 - (c) Initial Notice to Central Office (Form 426-B), with concurrence from the District Planning and Environmental Administrator, District Design Engineer and District Traffic Operations Engineer.

(6) The Central Office Systems Management Administrator will review and approve or deny the proposed traffic analysis methodology.

126.3.2 District Preliminary Review

The District Preliminary Review is as follows:

- (1) The applicant will submit a draft concept report containing a proposed typical section to the District Lane Repurposing Coordinator for review.
- (2) The District Lane Repurposing Coordinator will coordinate the review of the project and concept report with the District Review Team.

After the District reviewer's acceptance, a Final Concept Report must be <u>signed at the District</u> <u>level and</u> submitted along with **Form 126-C** <u>and signed at the District level</u> to CO for review. The District Lane Repurposing Coordinator will work closely with CO staff during this review phase.

126.3.3 Central Office Final Review and Approval

The final review and approval process is to obtain the Chief Engineers final approval or disapproval. Follow the process found in the Lane Repurposing Guidebook.

FDM Chapter: 210 FDM Section: Table 210.2.1

FDM Tracking Number: 282

Summary of Change: Added a note for RRR projects to allow 11-foot lanes to remain on divided multilane roadways with C3 context classifications and 50 mph design speeds and revised the table to align lane widths more accurately with allowed design speeds in each context classification.

- 1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how? This change will promote mobility and inspire innovation. The requested changes will provide more flexibility in the allocation of typical section width, which may allow the management of speed and inclusion of bicycle facilities for enhanced mobility.
- 2. What financial impact does the change have; project costs, pay item structure, or consultant fees? No financial impact to the Department.
- 3. What impacts does the change have on production or construction schedules? No impacts to schedules.
- **4.** How does this change improve efficiency and/or quality? Improves efficiency by reducing the number of Design Variations to be produced, reviewed, and approved.
- 5. Which FDOT offices does the change impact? Design Office
- **6. What is the impact to districts with this change?** This change was a District request to reduce the number of Lane Width Design Variations for RRR projects on high-speed roadways in C3 Context Classifications.
- **7. Does the change shift risk and to who?** This change does not shift risk.
- 8. Provide summary and resolution of any outstanding comments from the districts or industry. No outstanding comments.
- **9. What is the communication plan?** Design Bulletin for the 2025 FDM and training webinars for updates.
- **10. What is the schedule for implementation?** The following is the schedule for implementation:
 - The 2025 FDM will be published on or before November 1, 2024
 - The 2025 FDM will be effective for all projects beginning design in January 2025

Table 210.2.1 Minimum Travel and Auxiliary Lane Widths

Context Classification		Travel (feet) Design Speed (mph)			Auxiliary (feet) Design Speed (mph)			Two-Way Left Turn (feet) Design Speed (mph)	
		25-35	n speea 40-45	(mpn) ≥ 50	25-35	n speed 40-45	(mpn) ≥ 50	25-35	peea (mpn) 40
C1	Natural	41 <u>N/A</u>	41 <u>N/A</u>	12	41 <u>N/A</u>	41 <u>N/A</u>	12	N/A	
C2	Rural	41 <u>N/A</u>	41 <u>N/A</u>	12	41 <u>N/A</u>	41 <u>N/A</u>	12		
C2T	Rural Town	11	11	12 <u>N/A</u>	11	11	12 <u>N/A</u>	12	12
C3	Suburban	10	11	12	10	11	12	11	12
C4	Urban General	10	11	12 <u>N/A</u>	10	11	12 <u>N/A</u>	11	12
C5	Urban Center	10	41 <u>N/A</u>	12 <u>N/A</u>	10	41 <u>N/A</u>	12 <u>N/A</u>	11	12 <u>N/A</u>
C6	Urban Core	10	41 <u>N/A</u>	12 <u>N/A</u>	10	41 <u>N/A</u>	12 <u>N/A</u>	11	12 <u>N/A</u>

Notes:

N/A indicates this combination of Context Classification, Lane Width, and Design Speed is outside the intended design range and should be avoided. See *Table 201.5.1* for context classifications and design speed ranges.

Travel Lanes:

- Minimum 11-foot travel lanes on designated freight corridors, SIS facilities, or when truck volumes exceed 10% on very low-speed roadways (Design Speed ≤ 35 mph) (regardless of context classification).
- Minimum 12-foot travel lanes on all undivided two-lane, two-way roadways. However, very low-speed and low-speed table values may be used for roadway sections with both of the following:
 - a. C2T, C4, C5 or C6 context classification
 - Tangent horizontal alignment or curve radii large enough to accommodate the design vehicle within the travel lane in accordance with AASHTO Green Book, Section 3.3.10
- Consider wider lanes on very low-speed roadways (Design Speed ≤ 35 mph) when transit is present.
- 4. Travel lanes should not exceed 14 feet in width.
- On RRR projects, 11-foot lanes may remain on divided multilane roadways with C3 context classifications and 50 mph design speeds.

Auxiliary Lanes:

- (1) Auxiliary lanes are typically the same width as the adjacent travel lane.
- (2)(1)Table values for right turn lanes may be reduced by 1 foot when a bicycle keyhole is present.
- (3)(2) Median turn lanes should not exceed 15 feet in width.
- (4)(3) For high-speed curbed roadways, 11-foot minimum lane widths are allowed for the following:
 - Dual left turn lanes.
 - Single left turn lanes at directional median openings.
- (5)(4) For RRR projects, 9-foot right-turn lanes are allowed on very low-speed roadways (Design Speed ≤ 35 mph).

Two-Way Left-Turn Lanes: Two-way left turn lanes are typically one foot wider than the adjacent travel lanes.

For RRR projects, the values in the table may be reduced by 1-foot.

FDM Chapter: 212 FDM Section: 212.11.6.1

FDM Tracking Number: 336

Summary of Change: Clarified where the Clear Sight Window Concept can be

used to place street trees.

1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how? This change will improve safety and minimize confusion by clarifying where trees can be placed in the clear sight area.

- 2. What financial impact does the change have; project costs, pay item structure, or consultant fees? No financial impact to the Department.
- 3. What impacts does the change have on production or construction schedules? No impacts to schedules.
- **4. How does this change improve efficiency and/or quality?** This change should reduce project development time and confusion over tree placement.
- **5. Which FDOT offices does the change impact?** Office of Design and Maintenance.
- **6. What is the impact to districts with this change?** This change should reduce questions and misunderstandings about tree placement near intersections.
- **7. Does the change shift risk and to who?** This change does not shift risk. Risk to the Department should be reduced.
- 8. Provide summary and resolution of any outstanding comments from the districts or industry. No outstanding comments.
- **9. What is the communication plan?** Design Bulletin for the 2025 FDM and training webinars for updates.
- **10. What is the schedule for implementation?** The following is the schedule for implementation:
 - The 2025 FDM will be published on or before November 1, 2024
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Figure 212.11.2 Special Areas Limited to Ground Cover Plants 100 100 for <50 mph 200' for ≥50 mph not place trees Do not place tree in hatched out areas Limit of in hatched out areas Limit of clear sight clear sight Lane Identification and Direction of Traffic Driver's eye setback is defined in FDM 212.11.1 Payement Markings

Where left-turns from the major road are permitted, do not locate trees within the distance d_b shown in **Table 212.11.1** (see **FDM 212.11.4**) and not less than the distances shown in **Figure 212.11.2** and the spacings in **Table 212.11.3** as applicable.

212.11.6.1 Clear Sight Window Concept

The clear sight window concept may provide opportunities for vegetation in medians-inside-the-limits of intersection sight triangles. This concept is illustrated in Figure-212.11.3. This detail provides the required vertical clear sight limits with respect to the sight line datum. Do not place trees within the hatched-out areas as shown in Figure-212.11.2 (even if using the clear sight window concept). The hatched-out areas are for ground cover plants only. Trees-may-be-placed-in-the-median-where-there-is-no-hatching.

Bottom Of Canopy
Sight Line Datum

*
Top Of Ground Cover

Figure 212.11.3 Window Detail

FDM Chapter: 233 FDM Section: 233.12.3

FDM Tracking Number: 475

Summary of Change: Updated the Connected Vehicle Infrastructure section 233.12.3 to reflect the current status of the statewide practice and consistency with the National Guidance and requirements.

- 1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how? The proposed updates to the FDM description align with FDOT's goal of improving safety, enhancing mobility, inspiring innovation, and fostering talent. Connected and Automated Vehicle (CAV) technologies hold significant potential for reducing crashes caused by human error, especially as the market penetration of sensor-equipped vehicles and in-vehicle warning systems continues to grow. FDOT is currently preparing roadside infrastructure to support and communicate critical information to the CAVs. This section of the FDM provides guidance to designers on key considerations when designing projects that incorporate CAV systems. A solid understanding of CAV technologies will help accelerate the mainstreaming of these systems, enhancing safety and improving mobility.
- 2. What financial impact does the change have; project costs, pay item structure, or consultant fees? No financial impact to the Department.
- 3. What impacts does the change have on production or construction schedules? No impacts on schedules.
- **4. How does this change improve efficiency and/or quality?** Improves quality by aligning FDOT design guidance with current National guidance and requirements.
- **5. Which FDOT offices does the change impact?** Design Office and Traffic Engineering and Operations Office
- **6. What is the impact to districts with this change?** District Consultant Designers will have the latest information about the requirements to include in the project. This will help the District Design Office and Traffic Engineering and Operations Office provide consistent guidance to the Districts.
- 7. Does the change shift risk and to who? This change does not shift risk.
- 8. Provide summary and resolution of any outstanding comments from the districts or industry. No outstanding comments.
- **9. What is the communication plan?** Design Bulletin for the 2025 FDM and training webinars for updates.

- **10. What is the schedule for implementation?** The following is the schedule for implementation:
 - The 2025 FDM will be published on or before November 1, 2024
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233.12.3 Connected Vehicle Infrastructure

Connected Vehicle (CV) technologies are equipment, applications, or systems that use vehicle-to-everything (V2X) communications to address safety, system efficiency, or mobility.

CV technology leverages direct radio communication in the 5.9GHz public safety spectrum (i.e., LTE-V2X or Uu and PC5) or networked communications (LTE and 5G) between roadside equipment and vehicles via on-board units (OBUs), smartphone applications, or a combination of both.

While multiple communication methods are incorporated into the Department's approach to CV deployments, direct communication utilizing roadside units (RSUs) and projects involving the deployment of roadside equipment are methods that will require plans development, and thus are included in this section.

Use the following documents and guidance when designing CV infrastructure:

- FDOT Developmental Specification, Dev681CVRSU for Connected Vehicle Roadside Unit.
- FDOT Security Credential Management System (SCMS) work process for providing guidance to the contractors and device providers.
- The CAV Guidance Document obtained from the District TSM&O Section.
- Coordinate with the District TSM&O Section for any specific guidance and requirements for the contractors or device providers.

Best Practices for projects comprising CV technologies include:

- Co-locate RSUs with new or existing ITS or signal infrastructure.
- Ensure aspects such as CV device signal strength, coverage, or occlusions, that may block or degrade signal strength are taken into consideration during design.
- Ensure the RSUs and OBUs are enrolled into the statewide SCMS. Manufacturers
 are required to enroll and provision devices within the FDOT SCMS before they
 are shipped for installation.

- Engage stakeholders in the design analysis stage if the project involves a local maintaining agency.
- Coordinate network changes and firewall updates that may be needed with the District TSM&O team and local maintaining agencies in the early stages of work.

233.12.3.1 Applications and Systems Engineering

Connected Vehicle is a broad technology that utilizes applications for specific functions.

Coordinate with the District TSM&O Section for guidance on the need for Systems Engineering documentation and what to document. Develop Systems Engineering documentation reflecting existing applications and their functionality. Consider all aspects of the system when determining needs, including the following:

- network connectivity
- security
- OBU availability
- compatibility with legacy hardware and software
- stakeholder agreements
- data storage and retention to meet the objectives of the project

Confirm the true capabilities and reliability of devices and applications prior to incorporating them into the plans.

<u>Update Project and Regional ITS Architecture (RITSA) to reflect new and existing data flows.</u>

Update the Concept of Operations to document high-level needs, feasibility, changes in operations, and responsible parties. Ensure these needs have a clear responsible party. Document data types involved in the project, data collection process, storage, and processing in alignment with the FDOT's **Vehicle-to-Everything Data Exchange Platform (V2X DEP)**.

Develop other Systems Engineering documents, as needed.

233.12.3.2 Network

Coordinate and document end-to-end network connectivity during the design process. Coordination may require a meeting with the signal and ITS staff of the signal maintaining

agency. Secure agreements with respect to system deployment and integration to ensure constructability and testing requirements can be met in a timely manner.

233.12.3.3 Security Credential Management System

The Department has a statewide Security Credential Management System (SCMS). All CV devices, RSUs and OBUs, require enrollment in the statewide system. Ensure the technical requirements include the device manufacturers to enroll the CV devices before installation.

For future enrollment of CV devices, ensure project requirements include terms for the contractors or device manufacturers to provide the required information to the District TSM&O Program Engineer for approval.

233.12.3.4 Map Data (MAP) Development

Many CV applications require a MAP message to function. Designers should be familiar with the MAP development process, including use of the USDOT Connected Vehicles Tool Library. FDOT specifications require that manufacturers preconfigure RSUs with MAP files prior to deployment. However, designers may be requested to assist with post design services that require knowledge of MAP development and verification.

233.12.3.5 Federal Communications Commission Licensing

An RSU is a radio transceiver that operates in the licensed 5.9GHz public safety radio spectrum and is mounted on roadside infrastructure.

RSU locations within Florida must be registered to operate under the existing FDOT statewide license (Call Sign WQBS407) within the Federal Communications Commission's (FCC) Universal Licensing System.

An OBU is a mobile transceiver that is mounted in or on a vehicle and operates on the same frequencies as RSUs. OBUs are required to be licensed by their manufacturer.

The FCC has assigned the portion of the 5.9GHz spectrum from 5.895 – 5.925 GHz for exchanging messages between RSUs and OBUs.

Information required for registering RSU sites must be provided to the State Traffic Engineering and Operations Office using an electronic data collection form that is available upon request from the District TSM&O Section. Ideally, the required information

should be provided to the Department approximately 3 months before RSUs are placed into operation to allow ample time for the Department and the FCC to complete their respective site registration processes.

233.12.3.6 Compatibility with Legacy Systems

<u>Capture all needed infrastructure, licensing, and configuration changes needed to accomplish the deployment and applications of the project.</u>

CV technology deployment can include existing ITS infrastructure upgrades or addition of new infrastructure.

Examples of infrastructure upgrade and the reasons for these upgrades are:

- Traffic signal cabinet upgrade to allow space for cabinet deployed equipment.
- Traffic signal controller hardware or license or firmware upgrade to allow for communication between the controller and other CV infrastructure for data exchange relating to Signal Phasing and Timing (SPaT) and other CV messages.
- Communication infrastructure additions and upgrades to allow network connectivity to controlling software and data repository.

233.12.3.7 Supporting Technology

CV technology continues to expand nationwide. While equipping vehicles and vulnerable road users with 5.9GHz transceivers has not yet occurred at scale, other supporting technology can be used to produce proxy messages on their behalf.

Utilize detection systems in conjunction with CV devices to indicate position, heading, and speed of unequipped motorists and vulnerable road users based on detection and tracking by roadside sensors (e.g., using video analytics or LiDAR sensor data) to meet project objectives. Coordinate with the District TSM&O Section if additional sensors are needed.

Include additional roadside computing equipment as required on a project-by-project basis. Some applications and projects may require additional roadside equipment, such as an industrial computer for CV applications, due to limitations of RSU processing power or other project-specific conditions (e.g., limitations of legacy signal controllers or other devices).

233.12.3.8 Operations and Maintenance

Ensure operations, maintenance and any software licensure management responsibilities are captured in agreements during the design process.

Consider maintenance access when placing devices.

FDM Chapter: 240 FDM Section: 240.2.1.1

FDM Tracking Number: 474

Summary of Change: Added requirements for items to be included in a Design Variation to omit ESU evacuation requirements.

- 1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how? This change will promote safety and mobility by requiring District concurrence and that key components of design and construction were considered and documented in the Design Variation.
- 2. What financial impact does the change have; project costs, pay item structure, or consultant fees? No significant financial impacts to the Department.
- 3. What impacts does the change have on production or construction schedules? No impacts to schedules.
- **4.** How does this change improve efficiency and/or quality? This will improve Design Variation processing efficiency.
- **5. Which FDOT offices does the change impact?** Office of Design, Construction, Maintenance, and Traffic Operations.
- **6. What is the impact to districts with this change?** This will reduce the likelihood of re-work for these Design Variation submittals.
- **7. Does the change shift risk and to who?** This change does not shift risk. Risk to the Department should be reduced.
- 8. Provide summary and resolution of any outstanding comments from the districts or industry. No outstanding comments.
- **9. What is the communication plan?** Design Bulletin for the 2025 FDM and training webinars for updates.
- **10. What is the schedule for implementation?** The following is the schedule for implementation:
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240.2.1.1 Emergency Shoulder Use

The requirements for Emergency Shoulder Use (ESU) outlined in **FDM 211.4.6** must be maintained during all phases of construction. A Design Variation to omit ESU evacuation requirements for any phase of construction must be approved by the Chief Engineer.

The Design Variation must include all-of the following:

- Documentation of concurrence with the ESU omission from the District Traffic
 Operations Engineer, District Construction Engineer, and District Maintenance
 Engineer
- A statement on how the ESU closure will occur outside of Hurricane Season (June 1 – November 30) as much asto the extent possible ractical
- A time estimate for how long it would take to implement an ESU in the event of an emergency evacuation
- Estimated closure duration for all phases of construction impacting the ESU