

## ***FY 2025-26 Standard Plans – 521-005 (Concrete Barriers at Toll Sites) –***

### **All-New Standard Plans Index for Complex Barrier Shapes at Toll Sites**

For review by the Chief Engineer

#### **Summary of the Revisions:**

The Department is adding an all-new Standard Plans Index for complex barrier shapes that will be used for Florida's Turnpike Enterprise (FTE) toll site facilities. These barriers were developed in coordination with FTE toll site engineers in order to accommodate various toll site configurations and electronic tolling equipment.

#### **Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**

Yes, this change adds safety and innovation. In general, median barriers are an FHWA proven safety countermeasure for reducing serious injuries and fatalities, so these new barriers provide safer navigation through toll sites. These new barriers are innovative by defining 10 different toll site layouts with integrated electronics, including pull boxes, conduits, and gantry supports. Additionally, these barriers use Glass Fiber Reinforced Polymer (GFRP) reinforcing bars to avoid interference with the tolling equipment's vehicle detection, including axle counts. Correct functioning of this revenue collection system benefits general roadway funding and quality.

#### **What financial impact does the change have; project costs, pay item structure, or consultant fees?**

Design costs may be reduced because project-specific designs will no longer be needed for these common complex barrier shapes. Additionally, the barrier's GFRP design will help avoid interference with toll site vehicle sensors, ensuring that revenue collection systems will function reliably.

#### **What impacts does the change have on production or construction schedules?**

Design times may be reduced because project-specific designs will no longer be needed for these common complex barrier shapes.

#### **How does this change improve efficiency or quality?**

This new standardized foundation option improves efficiency by removing the need for a structural engineer to provide a project-specific design for the complex barrier shapes. Quality is improved because these Standards were designed with a focus on safety and reviewed statewide, and these designs will be consistent, predictable, and repeatable for contractors.

#### **Which FDOT offices does the change impact?**

This update impacts the Design and Construction offices.

#### **What is the impact to Districts with this change?**

No new challenges are anticipated for Districts. Florida's Turnpike Enterprise will benefit most from this streamlined toll site barriers design process.

**Does the change shift risk and to who?**

These changes do not shift any risks.

**Provide summary and resolution of any outstanding comments from the districts or industry?**

All comments from Industry and Internal Review have been reviewed, addressed and responded to. These specific comments are available for review on the [Track the Status Page](#).

**What is the communication plan?**

After completion of FHWA Review/Approval, this index will be published by November 1<sup>st</sup> of this year with FY 2025-26 Standard Plans (Effective July 1, 2025). Standard Plans Update Training will be provided prior to January 1, 2025. All documents will be available on our website.

**What is the schedule for implementation?**

- *The FY 2025-26 Standard Plans will be published on or before November 1, 2024.*
- *Standard Plans Update Training webinars will be provided for revisions in December of 2024.*
- *The FY 2025-26 Standard Plans will be effective for all projects let in July 2025 or after.*

## ***FY 2025-26 Standard Plans – 635-005 (Fiber Optic Splice Vault) –***

### **All-New Standard Plans Index for Fiber Optic Splice Vaults**

For review by the Chief Engineer

#### **Summary of the Revisions:**

The Department is adding an all-new Standard Plans Index for Fiber Optic Splice Vaults that will primarily be used for Florida's Turnpike Enterprise (FTE) intelligent transportation systems (ITS) infrastructure. These vaults were developed in coordination with a team of FTE subject area engineers in order to accommodate their needs for accessing conduit runs with fiber optic cables.

#### **Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**

Yes, this change adds safety and innovation. This splice vault was developed to accommodate an H20 vehicle loading to ensure that median grass maintenance equipment can safely ride over it. The splice vault is innovative by incorporating the knowledge of a team of FTE experts, a CO structural expert, and several industry shop drawings in order to provide a safe and cost-effective design that is repeatable. More details are provided below.

#### **What financial impact does the change have; project costs, pay item structure, or consultant fees?**

Design costs may be reduced because project-specific designs will no longer be needed for these common splice vaults. Additionally, the vault design is cost-effective by incorporating previously standardized manhole frames and covers for interchangeable parts and economy of scale.

#### **What impacts does the change have on production or construction schedules?**

Design times may be reduced because project-specific designs will no longer be needed for these common splice vaults.

#### **How does this change improve efficiency or quality?**

This new standardized splice vault was developed by a team of CO and FTE subject experts, and it was reviewed statewide to ensure quality. Additionally, this design utilizes an economy of scale by incorporating previously standard parts from manholes. By nature, standardization reduces design costs and makes construction more consistent, predictable, and repeatable.

#### **Which FDOT offices does the change impact?**

This update impacts the Design and Construction offices.

#### **What is the impact to Districts with this change?**

No new challenges are anticipated for Districts. Florida's Turnpike Enterprise will benefit most from this streamlined fiber optic splice vault design process.

**Does the change shift risk and to who?**

These changes do not shift any risks.

**Provide summary and resolution of any outstanding comments from the districts or industry?**

All comments from Industry and Internal Review have been reviewed, addressed and responded to. These specific comments are available for review on the [Track the Status Page](#).

**What is the communication plan?**

After completion of FHWA Review/Approval, this index will be published by November 1<sup>st</sup> of this year with FY 2025-26 Standard Plans (Effective July 1, 2025). Standard Plans Update Training will be provided prior to January 1, 2025. All documents will be available on our website.

**What is the schedule for implementation?**

- *The FY 2025-26 Standard Plans will be published on or before November 1, 2024.*
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## ***FY 2025-26 Standard Plans – 715-003 (Utility Conflict Pole) –***

### **New Spread Footing Option for Utility Conflict Poles (Street Lighting)**

For review by the Chief Engineer

#### **Summary of the Revisions:**

The Department is adding a new standardized spread footing foundation option for the Utility Conflict Pole (for street lighting). This new foundation option is being added at the request of the Districts to fit lighting in urban conditions with space constraints. The spread footing handles space constraints by avoiding underground utilities and serving as a sidewalk surface. This spread footing design was completed in coordination with the Structures Design Office.

#### **Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**

Yes, this update improves safety and mobility. The new spread footing option allows for standardized lighting to fit in urban areas with space constraints. Lighting is an FHWA proven safety countermeasure to reduce fatalities and serious injuries for pedestrians and vehicles. The new option also helps with mobility as it is designed to meet sidewalk clearance requirements for pedestrian movements. The new option is innovative by combining the functionality of both a sidewalk and light pole foundation to meet multiple needs and resolve space constraint issues.

#### **What financial impact does the change have; project costs, pay item structure, or consultant fees?**

No added costs are expected with these improvements. The new spread footing will generally have an equivalent installation cost as compared to previous standardized foundations. Pay Item structures will be updated to cover revisions. It's possible that consultant fees (design costs) will be reduced because project-specific structural designs for spread footings will no longer be needed.

#### **What impacts does the change have on production or construction schedules?**

No scheduling impacts are expected. This new footing option may provide reductions to design time because project-specific spread footing designs will no longer be needed.

#### **How does this change improve efficiency or quality?**

This new standardized foundation option improves efficiency by removing the need for a structural engineer to provide a project-specific design for spread footing usage. This will also save time by providing a repeatable solution for urban space constraints and utility conflicts.

#### **Which FDOT offices does the change impact?**

This update impacts the Design and Construction offices.

#### **What is the impact to Districts with this change?**

There will be negligible impact to the districts other than providing them with additional options and tools to complete projects.

**Does the change shift risk and to who?**

These changes do not shift any risks.

**Provide summary and resolution of any outstanding comments from the districts or industry?**

All comments from Industry and Internal Review have been reviewed, addressed and responded to. These specific comments are available for review on the [Track the Status Page](#).

**What is the communication plan?**

After completion of FHWA Review/Approval, this index will be published by November 1<sup>st</sup> of this year with FY 2025-26 Standard Plans (Effective July 1, 2025). Standard Plans Update Training will be provided prior to January 1, 2025. All documents will be available on our website.

**What is the schedule for implementation?**

- *The FY 2025-26 Standard Plans will be published on or before November 1, 2024.*
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***FY 2025-26 Standard Plans – 102-600 (General Information for Traffic Control Through Work Zones), 102-615 (Multilane Roadway, Intersection Work), 102-661 (Bicycle Facilities Closures), 700-102 (Special Sign Details), 700-120 (Enhanced Highway Signing Assemblies) –***

**MUTCD 11<sup>th</sup> Edition Updates**

For review by the Chief Engineer

**Summary of the Revisions:**

The Department has updated multiple Standard Plans Indexes to be in compliance with the MUTCD 11<sup>th</sup> edition. Index 102-600 updated sign W16-1P to match new MUTCD. Index 102-615 updated W9-3 to new MUTCD version and relabeled the “Center Lane Closed Ahead” sign with a new MOT number to keep it as an option. Index 102-661 updated sign numbers from MOT signs to directly reference new MUTCD signs. Updated graphic for W16-1P to match new MUTCD version. Index 700-102 deleted 6 MOT signs that are now MUTCD signs. Also made several other updates to this index to add signs from sign library, etc. Index 700-120 deleted sheets 7 and 8 and updated 3 signs to have LEDs in the middle of each sign edge. These changes were done in accordance with MUTCD updates.

These updates were done in coordination with TEO, RDO, and the TERL.

For further detail on each of these Standard Plans updates, please see the individual packages found on our Track The Status page found here: [Track the Status Page](#)

**Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**

Yes, these updates improve safety and mobility. They will provide consistency with the MUTCD 11<sup>th</sup> edition and provide additional sign options within our Standard Plans.

**What financial impact does the change have; project costs, pay item structure, or consultant fees?**

No significant changes are expected at this time. The additional LEDs required may provide minimal increases in some scenarios but some have already begun to meet this requirement and therefore would not change.

**What impacts does the change have on production or construction schedules?**

No scheduling impacts are expected. The new sign options may provide small reductions to design time.

**How does this change improve efficiency or quality?**

These updates will improve quality by matching the signs and criteria set with the new MUTCD 11<sup>th</sup> edition. They may also improve efficiency by deleting repetitive signs that are now in the MUTCD 11<sup>th</sup> edition.

**Which FDOT offices does the change impact?**

This update impacts the Design, Maintenance, Construction and Traffic offices.

**What is the impact to Districts with this change?**

There will be negligible impact to the districts other than providing them with additional options and tools to complete projects.

**Does the change shift risk and to who?**

These changes do not shift any risks.

**Provide summary and resolution of any outstanding comments from the districts or industry?**

All comments from Industry and Internal Review have been reviewed, addressed and responded to. These specific comments are available for review on the [Track the Status Page](#).

**What is the communication plan?**

After completion of FHWA Review/Approval, this index will be published in late October of this year with FY 2025-26 Standard Plans (Effective July 1, 2025). Standard Plans Update Training will be provided prior to January 1, 2025. All documents will be available on our website.

**What is the schedule for implementation?**

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