

# INTERCHANGE ACCESS REQUEST USER'S GUIDE





# Interchange Access Request User's Guide

Florida Department of Transportation Systems Implementation Office, Mail Station 19 605 Suwannee Street Tallahassee, FL 32399

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#### **Preface**

The Florida Department of Transportation (FDOT) and the Federal Highway Administration (FHWA) have a substantial investment in limited access facilities, particularly the interstate system. In December 2024, Title 23 Code of Federal Regulations (CFR) Part 624 Interstate System Access was released, and prescribes the requirements and procedures for State requests for, and FHWA consideration of, changes in access to the interstate system. 23 CFR Part 624 was made effective on December 9, 2024 and can be found at https://www.ecfr.gov/current/title-23/part-624.

Any proposal to modify the access to these facilities can potentially have an adverse impact on their ability to effectively and safely accommodate travel demand in a corridor. To ensure access decisions are properly administered, FHWA has set requirements and FDOT has adopted policies and procedures regarding interchange access requests (IARs) and approvals on limited access facilities. The acceptability determination shall be determined by FHWA through the process outlined in 23 CFR Part 624, which went into effect December 9, 2024, or by the FDOT Chief Engineer of Production through an expedited approval process, as agreed upon in the Programmatic Agreement (PA) executed April 2, 2025, between FHWA Florida Division and FDOT.

FHWA Interstate System Access Informational Guide can be found at <a href="https://transportationops.org//publications/interstate-system-access-informational-guide.">https://transportationops.org//publications/interstate-system-access-informational-guide.</a>

#### **Purpose**

FDOT <u>Procedure 525-030-160</u>, <u>New or Modified Interchanges</u>, defines the state and federal requirements and processes to be followed in the development of an IAR. Full compliance with the requirements and process defined in <u>525-030-160</u> is required for the consideration of any interchange access proposal. **This User's Guide and <u>525-030-160</u>** are applicable to new or modified access to the following facilities:

- Interstate System,
- Florida's Turnpike and
- Non-interstate limited access facilities on the State Highway System (SHS).

The purpose of this User's Guide is to provide guidance on how to prepare documents that support requests for new or modified access to the Florida Interstate system, Florida's Turnpike Enterprise (FTE) and non-interstate limited access facilities on the SHS. This User's Guide also provides information on the IAR process that shall consider

This User's Guide provides guidance on preparing and processing IARs.

the needs of the system at a regional level while maintaining the integrity of the highway network.

This User's Guide shall be used by local agencies, consultants, FHWA, FDOT and staff from other agencies when developing and reviewing Safety, Operations and Engineering (SO&E) acceptability of new or modified interchange access proposals on limited access facilities.



#### Scope

Any proposed change in access to the interstate system must be submitted by FDOT to FHWA Florida Division Office for a determination of SO&E acceptability under Title 23, United States Code, (23 U.S.C.) Highways Sections 106 and 111 and 23 CFR 625.2(a). The acceptability determination shall be determined by FHWA through the process outlined in 23 CFR Part 624 Interstate System Access, which went into effect December 9, 2024, or by the FDOT Chief Engineer of Production through an expedited approval process, as agreed upon in the PA between FHWA Florida Division Office and FDOT, executed April 2, 2025.

This expedited approval process between FHWA and FDOT for access requests regarding certain types of projects on the interstate system allows the FDOT Chief Engineer of Production or acting Chief Engineer of Production to make a determination of SO&E acceptability for IARs. FDOT will allow FHWA Florida Division Office five business days (or as agreed upon by the Division and FDOT) to object to the determination. FHWA Florida Division Office's lack of objections to the FDOT's determination within this period will constitute FHWA's concurrence and the approval required under 23 U.S.C. 111(a).

#### **Organization**

This User's Guide is organized into seven chapters and nine appendices:

- Chapter 1: IAR Overview and Process This chapter discusses FHWA and FDOT policies supporting
  the need for the IARs and related Florida statutes, rules and procedures and the PA between FHWA
  and FDOT regarding review and approval of IARs. Finally, this chapter defines the various
  stakeholders involved in this process.
- Chapter 2: Types of Access Requests and Approval Process This chapter discusses where the IAR process applies and various types of IARs and examples. In addition, it discusses other access requests that are potentially not associated with the interchange. Lastly, this chapter explains the access request review process and defines who has the authority to sign and accept the IARs.
- Chapter 3: Methodology Letter of Understanding (MLOU) This chapter provides guidance on the
  preparation of the MLOU. Elements of the MLOU are discussed in detail.
- Chapter 4: Explanation of FHWA's Interstate System Access Requirements This chapter explains
  what must be included in the IAR to fulfill requirements of 23 CFR Part 624 Interstate System
  Access.
- Chapter 5: Documentation Requirements This chapter provides guidance on developing documentation required for an IAR. The contents of the IAR are discussed in detail.
- Chapter 6: Safety Analysis Guidance This chapter provides information to help in selecting and appropriately applying existing and predictive safety analysis methodologies.
- Chapter 7: IAR Re-evaluation This chapter discusses the different conditions that trigger re-evaluation of the previously approved IARs. Documentation required to support re-evaluation is also discussed.
- Appendix A: Affirmative Determination Letter Examples



- Appendix B: MLOU Template
- Appendix C: Break in Limited Access Request Technical Documentation Template
- Appendix D: Locked Gate Access Request Technical Documentation Template
- Appendix E: Template for Statement of Technical Review (QC Certification) and Quality Control Checklist Template
- Appendix F: QAR Process, Checklist and Templates
- Appendix G: Sample Signing Plans
- Appendix H: Traffic Validation Template
- Appendix I: Acronyms and Definitions

#### **Distribution, Updates and Contact**

This document is available online at <u>the Systems Implementation Office (SIO) Systems Management</u> under Document Repository.

For updates and questions regarding this User's Guide and example studies, contact:

Florida Department of Transportation Systems Implementation Office, Mail Station 19 605 Suwannee Street Tallahassee, FL 32399

ATTN: State Interchange Review Coordinator (SIRC)

Email: SIRC@dot.state.fl.us

It is encouraged to submit questions and requests for modifications related to this User's Guide to the SIRC at the above address. The User's Guide will be revised to incorporate all current addenda and any other updates every two years or as needed. This effort will be coordinated through the District Interchange Review Coordinators (DIRCs) and the FTE. It is encouraged to check the website prior to using this User's Guide to ensure the latest process and technical requirements are being followed.



# **Chapter 1 IAR Overview and Process**

#### 1.1 Interstate System Access – Title 23 CFR Part 624

According to Title 23, United States Code, Highways Sections 106 (23 U.S.C. 106) and 111 (23 U.S.C. 111), all agreements between the Secretary of the U.S. Department of Transportation (USDOT) and the state departments of transportation regarding the construction of projects on the Interstate system shall contain a clause that the state will not add points of access to or exit from the project, in addition to those approved by the Secretary in the plans for such a project, without prior approval of the Secretary. The Secretary has delegated the authority to administer 23 U.S.C. 111 to FHWA, pursuant to 49 CFR 1.48(b)(10)). A regulation facilitating decision-making regarding proposed changes in access to the interstate system in a manner that considers and is consistent with the vision, goals and long-range transportation plans of the metropolitan area, region and State was published as <a href="Ittle 23 CFR Part 624 Interstate System Access">Ittle 23 CFR Part 624 Interstate System Access</a> and became effective on December 9, 2024. This 23 CFR Part 624 supersedes the previous May 22, 2017 FHWA Interstate System Access Policy.

#### 1.1.1 FHWA's Interest with Changes in Interstate System Access

It is in the national interest to preserve and enhance the interstate system to meet the needs of the 21<sup>st</sup> century by assuring that it provides the highest level of service in terms of safety and mobility. **FHWA's** interest is to ensure all new or revised access points:

- Are considered using a decision-making process that is based on information and analysis of the planning, environmental, design, safety and operational effects of the proposed change;
- Support the intended purpose of the interstate system;
- Do not have an adverse impact on the safety or operations of the interstate system;
- Connect to the local roadway networks or other elements of the transportation system; and
- Are designed to applicable standards.

#### 1.1.2 FHWA's Interstate System Access Requirements

23 CFR Part 624 provides the requirements that are to be fulfilled to substantiate any access request that is submitted for approval. FHWA's requirements are outlined in the 23 CFR Part 624.7, effective December 9, 2024. FHWA's decision to approve a request is dependent on the request proposal, satisfying and documenting the requirements. As such, the requirements shall be documented appropriately in the IAR document.

The requirements are listed and discussed in detail in **Chapter 4** of this User's Guide.



#### 1.1.3 FHWA Regulation Implementation

FHWA Florida Division Office requires that all requests for new or revised access submitted for FHWA consideration contain sufficient information to allow FHWA to independently evaluate the request and ensure all pertinent factors and alternatives have been appropriately considered. The level of approval for an IAR document varies with the type of request and the complexity of the project and its impact. To streamline the review process, the IAR document is required to include a section that describes how the proposed access is consistent with 23 CFR Part 624.7.

#### 1.2 Florida Statutes, FDOT Rules, Policies and Procedures

Several Florida statutes, FDOT rules, policies and procedures apply to access requests. FDOT provides specific direction for the development of IARs through rules, policies and procedures outlined in this User's Guide. This direction is provided to ensure statewide consistency in the technical analysis, documentation and review processes.

#### 1.2.1 Florida Statute

Requests for new or modified interchanges must meet the requirements of §338.01, F.S., "Authority to Establish and Regulate Limited Access Facilities," which authorizes transportation and expressway authorities of the state, counties and municipalities to provide and regulate limited access facilities for public use.



#### 1.2.2 FDOT Rules

Rule Chapter 14-97 Florida Administrative Code (F.A.C.), "State Highway System Access Management Classification System and Access Management Standards," provides guidance on the adoption of an access classification system and standards to implement the State Highway System Access Management Act of 1988 for the regulation and control of vehicular ingress to and egress from the SHS. This includes interchange spacing standards and other criteria for medians and driveways adjacent to the interchange.

The spacing of existing interchanges on highway facilities may preclude exact conformance, and does not require a design variation. Access management spacing standards should always be a project goal. Therefore, a discussion on compliance with standards and mitigation strategies must be provided within the IAR document.



New interchanges on existing facilities that do not meet spacing requirements outlined in Rule Chapter 14-97 F.A.C. shall require a design variation at the discretion of the Department.

Interchanges for new limited access facilities shall be reviewed by the DIRC during the planning and Project Development and Environment (PD&E) phases for operational performance, safety and compliance with Rule Chapter 14-97 F.A.C.



#### 1.2.3 FDOT Policies and Procedures

Various procedures that must be considered during the preparation of an IAR document are referenced in this section.

- <u>Topic 000-525-015</u>: Approval of New or Modified Access to Limited Access Highways on the State Highway System (SHS) – This policy is to minimize the addition of new access points to limited access highway facilities to maximize the operation and safety of transportation movements.
- <u>Topic 000-525-006</u>: Level of Service (LOS) Targets for the State Highway System This policy establishes specific minimum acceptable targets for the State Highway System based on the area type. The targets shall be responsive to all users, for context, roadway function, network design and user safety.
- <u>Topic 000-525-045</u>: Managed Lanes Policy This policy provides guidance for employing managed lanes on appropriate facilities that experience significant congestion in existing or projected future conditions.
- <u>Topic 525-030-120</u>: Project Traffic Forecasting This procedure provides instructions for using design traffic criteria to forecast corridor traffic and project traffic. The selection of the most appropriate analysis method(s) must be coordinated with FDOT before conducting the study. District planning offices will be responsible for carrying out the traffic forecasting process.
- Topic 525-030-160: New or Modified Interchanges This procedure sets forth the state and federal requirements and processes to be used for determination of SO&E acceptability associated with adding or modifying interchange access to limited access facilities on Florida's SHS. Full compliance with the requirements and processes in this procedure is required for any IAR document.
- Topic 525-030-260: Strategic Intermodal System (SIS) Highway Component Standards and Criteria This procedure addresses the responsibilities of the various offices within FDOT to develop and implement the SIS. It also defines the requirements for coordination with the local government and Metropolitan Planning Organization (MPO) transportation planning process. Such coordination is needed to ensure IARs are consistent with the SIS Master Plan and Action Plan for the affected facilities.
- Topic 650-000-001: Project Development and Environment (PD&E) Manual This manual describes in detail the process by which transportation projects are developed by the Department to fully meet the requirements of the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) and other related federal and state laws, rules and regulations. The manual aids project analysts and project managers in understanding all aspects of the project development process and its requirements, such as engineering and environmental analyses, public involvement and documentation.



#### 1.3 Interchange Access Points

Each break in the control of access to the interstate system right of way is considered an access point. Per FHWA regulation, any permanent connection (including those metered or closed at times) to the through lanes or shoulders, managed lanes, collector-distributor roads or ramps on the interstate system, including locked gate access, are considered access points. For example, a diamond interchange configuration has four access points.

Each break in the control of access to the interstate system right of way is considered an access point.

Per FHWA regulation, ramps providing access to safety rest areas, information centers, weigh stations and truck inspection stations located within the interstate right of way (ROW) are not considered access points. Access to or from these facilities and local roads and adjoining property is prohibited. The only allowed exception is for access to adjacent publicly owned conservation and recreation areas, if access to these areas is only available through the safety rest area, as allowed under 23 CFR 752.5(d).

Change in access refers to an addition of a new or modification of an existing interchange or access point along the interstate mainline. Interchange reconfiguration is considered to be a change in access even though the number of actual points of access may not change. For example, changing a cloverleaf interchange into a diamond interchange is considered a revised access. Slip ramps to/from general lanes and express lanes are not considered interchange access points unless a direct connection is provided to/from the express lanes and the interchange ramp.

Connections from outside of the Interstate System right-of-way to safety rest areas, information centers, weigh stations and truck inspection stations located within the Interstate System right-of-way are prohibited, as specified under 23 CFR 624.7(c).

#### 1.4 Stakeholders

A fundamental component of the IAR process is its management and coordination. Close coordination between stakeholders at various stages of the IAR process is necessary for a successful approval of the IAR document. The various stakeholders involved in the IAR process are described in this section.

#### 1.4.1 Requestor

A requestor shall be FDOT, a local government entity or a transportation authority.

A requestor shall be FDOT, a local government entity or a transportation authority (e.g., toll authority, port authority, etc.). For projects initiated by private developers, the local government becomes the requestor. The DIRC must be more involved in development-driven projects and must involve the SIRC early in the project.

In all cases, the requestor is responsible for collecting any data required, documenting the need for the new or modified interchange access and developing the SO&E analysis required by the approval authority to make a decision on the IAR. Additionally, the requestor is responsible for conducting quality control reviews for the IAR deliverables before submitting them to the DIRC. **Specifically, the requestor must:** 

Reach an agreement with the DIRC and other applicable approval authorities on the type of IAR



document to better define study design or scope of work;

- Develop, sign and submit to the DIRC a Methodology Letter of Understanding (MLOU) documenting the agreed-upon study methodology;
- Perform appropriate quality control;
- Develop and submit to the DIRC a draft Interchange Access Report containing the results documenting the analysis of safety and operation of the access proposal, as agreed in the MLOU;
- Respond to or resolve all comments and requests for additional information from reviewers and revise the IAR documents accordingly; and
- Sign and submit a final IAR document to the DIRC for an approval decision.

#### 1.4.2 District Interchange Review Coordinator (DIRC)

Each District and FTE appoint a <u>DIRC</u>. The DIRC is the primary point of contact for all requestors, inside and outside the Department, requesting new or modified interchanges on the existing SHS limited access facilities within their Districts. The DIRC acts as a liaison to other offices within the District. The DIRC should notify the District Secretary when the requestor for the IAR is non-FDOT. The DIRC also serves in a

The DIRC is the point of contact for all requestors and is responsible for quality control.

review and processing role for IARs. The DIRC and the requestor are responsible for quality control of the IAR documents. By serving in the review and processing role, the DIRC is responsible for ensuring the IARs meet quality objectives.

For all IAR types, the DIRC is responsible for establishing and documenting in the MLOU the basis for approval, evaluation criteria, level of coordination needed and scope of the technical analysis and documentation. The DIRC arranges a technical review for the SO&E and environmental impacts of the IAR document. Every District shall coordinate with the following offices during the IAR process: Environmental Management, Planning, Design, Traffic Operations, Safety, Structures, ROW, Maintenance and Program Management. The DIRC shall seek assistance from these offices in reviewing portions of the IAR document relevant to their disciplines and/or through feedback received during DIRC coordination meetings. The DIRC determines if a request can continue in the access request process based on the information submitted with the IAR document and the outcome of the technical review.

The DIRC is required to conduct regular meetings to discuss milestones and statuses for the IAR projects.

#### 1.4.3 State Interchange Review Coordinator (SIRC)

The SIRC's role is to provide guidance for rules, policies and procedures related to IAR reviews, ensure consistency and coordinate with FHWA, District and FTE DIRCs. For IARs that are reviewed and approved through the PA process, the SIRC will be responsible for notifying FHWA about the approval decision. The SIRC also confirms that the concept is the same in the IAR document and in the NEPA documents in Statewide Environmental Project Tracker (SWEPT).



#### 1.4.4 Systems Management Administrator (SMA)

The SMA is responsible for the approval of IARs after they have been reviewed by the SIRC. The SMA also coordinates with FHWA on matters related to interchange projects and FDOT processes.

#### 1.4.5 FHWA

Per 23 USC 111, FHWA maintains the responsibility for protecting the structural and operational integrity of the interstate system. FHWA District Transportation Engineer (DTE) assigned to the District, in which the IAR is located, is FHWA Florida Division Office's point of contact for that project. The DTE is also responsible for reviewing the IAR document and making a recommendation on the approval.

#### 1.4.6 Interchange Coordination Meetings

Development of an IAR document should take an interdisciplinary approach that combines the strengths of different technical staff within the District. As such, it is recommended that the DIRCs hold at least quarterly District interchange coordination meetings to discuss proposals for change-in-access requests. Staff from

Development of an IAR document should take an interdisciplinary approach that combines the strengths of different technical staff within the District.

other division offices within the District such as Environmental Management, Design, Traffic Operations, Structures, Safety, ROW, Maintenance and Program Management must be invited to the coordination meetings. All IARs must be presented in an initial kickoff meeting and a final project meeting. An alternatives meeting is recommended for major interchange reconfiguration projects. The DIRC meetings are further explained below:

- An initial kickoff meeting (also known as a methodology meeting) to discuss the contents of the methodology, type of access request, funding plan, if the project is in the Long-Range Transportation Plan (LRTP) and the approval process. If the project is not included in the LRTP or local plans during the kick off meeting, the process to incorporate the project into the LRTP or local plans should begin immediately. It should also be discussed whether the project has been screened through the Efficient Transportation Decision Making (ETDM) process. It is recommended that the ETDM screening should be performed before or at the beginning of the IAR process, even though environmental impacts are not documented in the SO&E acceptability. Coordination with FHWA DTE is required to ensure projects with substantial controversy are flagged early during the MLOU development stage.
- A final project meeting to show the preferred alternative results before the document is submitted for review.

#### If the need is determined:

 An alternatives meeting is suggested for major interchange reconfiguration projects. The meeting should discuss the build alternatives considered early on before detailed analysis has been completed. It is understood that the preferred alternative may not be finalized at this stage.

FHWA's DTE, SIRC and the SMA must also be invited to the District interchange coordination meetings. **Meeting notes should be prepared and distributed to all parties invited to the meetings.** 



# **Chapter 2 Types of Access Requests and Approval Process**

An IAR's purpose is to demonstrate that the project is viable based on traffic, engineering and safety criteria. Any IAR document should start by developing an analysis approach that is followed to determine the impact of the access proposal on the mobility and safety of the limited access facility.

An MLOU is required for an Interchange Justification Report (IJR) and an Interchange Modification Report (IMR). The MLOU is optional for an Interchange Operational Analysis Report (IOAR) and the inclusion of one is determined on a case-by-case basis by the DIRC, in consultation with the SIRC. The decision to prepare an MLOU for an IOAR is based on the scope of the project and the level of traffic analysis effort. Such a decision is reached after discussions between the requestor, DIRC and SIRC, often during the initial kickoff meeting. See **Chapter 3** for details regarding contents of an MLOU and **Appendix B** for a template of an MLOU.

#### 2.1 Types of Interchange Access Requests

#### 2.1.1 Interchange Justification Report (IJR)

An IJR is required when the proposed action is intended to provide a new access to a limited access facility. Such action requires the highest level of analysis and documentation to justify the need for and operational impacts of the proposed access. The IJR quantifies the magnitude and significance of impacts of the proposed new access on the mainline and mitigation, if needed.

#### An IJR is required for the following situations:

- New freeway-to-freeway interchanges providing access between two limited access facilities;
- New service interchanges providing access between a non-limited access local roadway network (e.g., arterial, collector or local road) and the limited access facility; and
- New partial interchanges or new ramps to and from continuous frontage roads that create a partial interchange within the existing limited access right of way.

#### 2.1.2 Interchange Modification Report (IMR)

An IMR is required for a proposed action to modify configuration or travel patterns at an existing interchange. The extent and complexity of the proposed modification will determine the level of analysis and documentation required. The level of analysis and documentation requirements are determined and agreed upon in the MLOU.

An IMR may be required for the following situations (where examples are provided, they are not intended to be all-inclusive):

- Modification to the geometric configuration of an interchange.
  - Adding new ramp(s)



- Abandoning/removing ramp(s)
- Completion of basic movements at an existing partial interchange.
- Modification of existing interchange ramp to provide access to a different local road that requires a break in the limited access right of way.
- Managed lanes access to an existing interchange that provides direct connection to the crossroad or managed-to-managed lane ramp connections.
- Any changes that result in an increase in the number of lanes at the gore point of an on-ramp within
  a weaving area, as determined by the Highway Capacity Manual (HCM) weaving methodology.

#### 2.1.3 Interchange Operational Analysis Report (IOAR)

An IOAR is prepared to document traffic and safety analysis of minor modifications to the existing access points that do not change existing interchange configuration or travel patterns. For this reason, innovative interchanges and intersection design concepts should be discussed prior to determination of the type of document (IOAR vs. IMR). The examples of interchange improvements that require an IOAR are listed below. The determination of an IOAR versus IMR requirement is critical because the level of effort could significantly vary. Therefore, the requestor shall coordinate with the DIRC, SIRC and FHWA in making this determination. The determination to prepare an IOAR or IMR shall be done at the beginning of the project, during the MLOU stage.

#### The following types of interchange improvements require an IOAR:

- Addition of a lane (or lanes) to an existing on-ramp while maintaining existing lanes at the gore point.
- Any proposal that results in the shortening of an off-ramp.
- Installation of a signal or roundabout to a stop-controlled ramp terminal intersection.
- Any changes that result in an increase in the number of lanes at the gore point of an on-ramp outside the weaving area as determined by the HCM weaving methodology.

When adding a pedestrian phase, an IOAR may be required. Analysis should be performed as appropriate and the results should then be discussed and presented at a DIRC meeting to determine the need for an IOAR. If it is determined that an IOAR is not required, then the results of the analysis should be documented in a technical memorandum.

#### 2.1.4 Multiple Interchanges Along a Corridor

An IAR may be needed when a series of interchanges that are operationally interrelated are analyzed along a corridor. Such an effort may be used to support the development of a corridor PD&E study, either following or concurrently with the IAR development. It is important to understand that the purpose of the IAR, in such a situation, is to evaluate impacts of these interrelated interchanges along the corridor. The limits of an IAR involving multiple interchanges should be carefully chosen and discussed with the DIRC, SIRC and FHWA, as applicable. Each project with planned access changes should be discussed in terms of documentation needed and required analysis. The intent would be to focus the IAR process and related documentation on interchanges and associated extent on facilities that represent the potential impact



areas that information would be useful to determine the need, safety and operations of the proposed access changes. As a guide, reasonable limits of such an evaluation should include two to five interchanges. However, dependent upon a project, this guidance could vary.

When determining the type of IAR, the IAR should be classified as the highest level of improvement being recommended. For example if a new interchange is being recommended with modifications to the adjacent interchanges, the IAR would be classified as an IJR.

If an IAR is prepared for a single interchange included in a previously approved IAR with multiple interchanges, it shall follow the requirements outlined in this User's Guide.

#### 2.1.5 IAR Approval Process

Manual.

The IAR approval process consists of two parts: the determination of SO&E acceptability and the approval of the NEPA document that covers the environmental requirements for the proposed improvements. After completion of these two parts, FDOT submits a letter to FHWA notifying them that the SO&E and NEPA approval parts are complete. The letter also confirms that the recommended alternative concept is the same scope and design in the SO&E and the NEPA



documents. The NEPA evaluation can be conducted concurrently with the SO&E or following the approval of the SO&E document.

#### The two parts in an IAR approval process are discussed in detail below.

- The first part constitutes an acceptance of SO&E by complying with 23 CFR Part 624.7 and FDOT's Procedure 525-030-160 for new or modified interchanges. The determination of SO&E acceptability indicates the access proposal is a viable alternative to include in the environmental analysis stage of the project. It should be noted, however, that full compliance with the guidelines and process outlined in this User's Guide does not ensure approval. The approval decision on each IAR document is based on SO&E acceptability and FDOT and FHWA policies. The approval authority in determining SO&E acceptability depends on whether the IAR is programmatic or non-programmatic.
- The second part constitutes the completion of the NEPA document (all types of PD&E documents). The NEPA document can be prepared concurrently or following the The process for completing SO&E acceptance. However, **NEPA approval can occur only after SO&E** acceptability is complete. Projects involving interstate right of way are federal actions and, as such, must follow the NEPA procedures. In Florida, the NEPA documents are prepared

per the guidelines and requirements outlined in the PD&E

NEPA/PD&E procedure is beyond the scope of this User's **Guide and FDOT Procedure** 525-030-160.

After the NEPA document is approved, FDOT notifies FHWA Florida Division Office and submits the IAR

# CHAPTER 2 | TYPES OF ACCESS REQUESTS AND APPROVAL PROCESS



approval request letter to the Florida Division Office seeking Affirmative Determination for the IAR document. This Affirmative Determination is the final approval of the IAR document. Affirmative Determination is required for both the PA and non-PA projects. FHWA's signature on this letter constitutes the Affirmative Determination of the SO&E and approval of the IAR document. This letter will reference the previously completed SO&E acceptability and approval of the NEPA document. The letter will include verification that the location design concept of the preferred alternative in the NEPA document matches the design of the accepted SO&E proposal. FHWA's signature on this document constitutes the Affirmative Determination of the SO&E and approval of the IAR document.

For non-interstate limited access facilities on the SHS, a State Environmental Impact Report (SEIR) is required. The process for completing a PD&E study can be found in the <u>PD&E Manual</u>.

The SIRC certifies the NEPA document has been completed and that the preferred alternative evaluated in the NEPA document in SWEPT is the same design and scope as the alternative that received the SO&E acceptability determination prior to sending the letter for approval. Letter examples for this process are provided in **Appendix A**.

The two-part process offers flexibility to obtain the SO&E acceptability prior to completing the environmental review and approval process, in which case requestors can determine if an access proposal is acceptable for inclusion as an alternative in the environmental review process.

The major steps involved in the SO&E preparation of an IAR document and its relationship to NEPA are depicted in **Figure 2-1**. The IAR re-evaluation due to time-lapse is also covered in **Figure 2-1**. The remaining IAR re-evaluation types are discussed in **Chapter 7** of this User's Guide. The NEPA (PD&E) phase can either start after the determination of SO&E acceptability or be developed concurrently. However, the SO&E acceptability must be obtained prior to NEPA approval. This User's Guide covers the procedure for preparation and review of IAR documents. The process for completing NEPA/PD&E is beyond the scope of this User's Guide. The guidelines and requirements outlined in the <u>PD&E Manual</u> shall be followed when preparing the NEPA document.

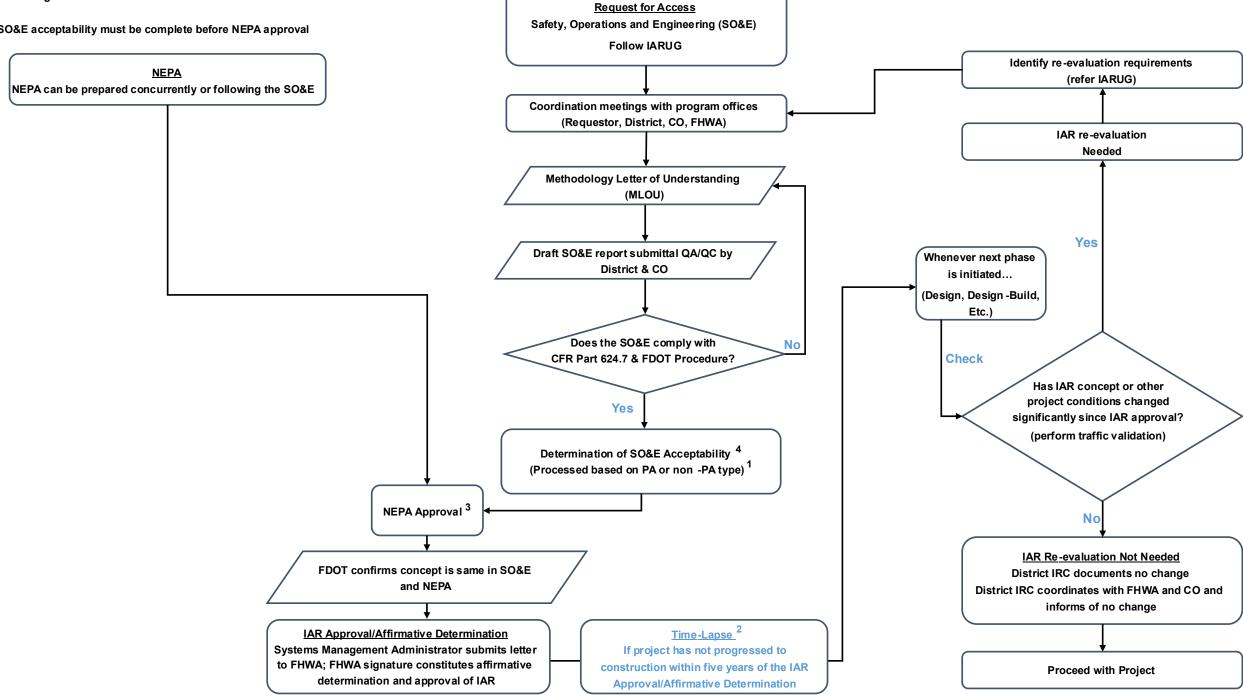


#### Figure 2-1 Interchange Access Request (IAR) Approval Process

#### **Notes**

#### **Interchange Access Request (IAR) Process**

- 1 Refer to Section 2.2 of the IARUG
- 2 This flowchart covers the check for time-lapse based Reevaluation only. Refer to Chapter 7 of IARUG for other types of Re-evaluation
- 3 According to FDOT PD&E Manual
- 4 SO&E acceptability must be complete before NEPA approval





#### 2.1.6 IAR Re-evaluation Approval Process

If the project has not progressed to construction within five years of receiving an affirmative determination, FHWA may require FDOT to provide verification that the requirements of 23 CFR Part 624.7 continue to be

met based on current and projected future conditions. To verify this, a re-evaluation of the IAR may be needed at the initiation of the next project phase such as design, design-build (D-B) or any other project phase. The need for a re-evaluation shall be determined based on the change in project conditions since approval of the SO&E request. If significant changes in conditions have occurred in land use, traffic volumes (release of a new travel demand model), roadway configuration, design or environmental commitments, then a re-evaluation will be needed.

If significant changes in conditions have occurred in land use, traffic volumes (release of a new travel demand model), roadway configuration, design or environmental commitments, then a re-evaluation will be needed.

Engineering judgement will be needed in determining a significant change. Some examples of significant change in conditions include change in travel conditions or patterns resulting in a modification of project need, and a change in approved design or change in traffic volumes resulting in a different LOS grade. The DIRC will evaluate the need for the re-evaluation at the initiation of the project phase and notify the SIRC. For further information on re-evaluations, please refer to **Chapter 7** of this User's Guide. The intent should be to avoid long gaps between the affirmative determination of SO&E acceptability, NEPA approval and initiation of the subsequent project phases. Requirements and guidance for performing NEPA re-evaluations are in the <u>PD&E Manual</u>.

### **2.2** Approval Authorities

#### 2.2.1 DIRC Authority

The DIRC has the primary responsibility for all IAR coordination with the requestor and coordination with the SIRC and FHWA (when applicable) during all phases of the IAR.

The DIRC has the primary responsibility for all IAR coordination with the requestor and coordination with the SIRC and FHWA (when applicable) during all phases of the IAR. It is essential for the DIRC to seek inputs from all applicable District offices, such as Environmental Management, Design, Traffic Operations, Structures, Safety, ROW, Maintenance and Program Management in the IAR review process.

Where the IAR affects a limited access facility of more than one District (including FTE), or if the interchange access is near a District boundary, all affected DIRCs shall be involved during the IAR process. It is required that IARs developed by the FTE or other expressway authorities involve the local FDOT District.

#### 2.2.2 FDOT and FHWA Authorities

#### FDOT recognizes three forms of IAR document approvals:

Programmatic IARs that apply to projects on interstate highways identified in the <u>PA</u> between FHWA
 Florida Division Office and FDOT regarding the review and approval of specific types of changes in



interstate system access.

- Non-Programmatic IARs that apply to projects on interstate highways that are not included in the PA between FHWA Florida Division Office and FDOT.
- Non-interstate limited access IARs that apply to projects on the SHS facilities.

#### Programmatic IAR Approval

23 CFR 624.13 allows for FDOT to enter into a PA with FHWA that delegates to the FDOT the authority to make the SO&E determination for certain types of IARs on behalf of FHWA in accordance with 23 U.S.C. 111(e). The PA will expedite the IAR document review process and streamline the project delivery process.

Under the PA, the FDOT Chief Engineer of Production or the acting FDOT Chief Engineer of Production is authorized to determine the SO&E acceptability for certain types of IARs that will receive an expedited FHWA approval. **Figure 2-2** shows how to determine projects that shall be reviewed under the PA. IARs that are to be included in the PA review process shall be determined early on during the project's conceptualization and initiation. The following IARs are included in the PA:

Under the PA, the FDOT Chief
Engineer of Production is
authorized to determine the
SO&E acceptability for certain
types of IARs that will receive an
expedited FHWA approval.

- a. New freeway-to-crossroad (service) interchanges;
- b. Modifications to existing freeway-to-crossroad (service) interchanges; and
- c. Completion of basic movements at existing partial interchanges.

All IOARs will qualify for Programmatic IAR document approval. **Examples of conditions that FHWA** considers when determining whether to exempt a project from the PA include:

- Projects where FHWA has objected to the FDOT SO&E determination under Section II.B of the Programmatic Agreement unless the issues are otherwise resolved;
- Issues relating to National policy;
- Complex engineering issues;
- Public controversy over potential impacts of the access modification; or
- Projects not identified under Section IV.F.1.b of the Programmatic Agreement unless prior writing approval has been requested by the FDOT Chief Engineer of Production and agreed to by FHWA.

The SO&E determination authority for a programmatic IAR document is the FDOT Chief Engineer of Production, as shown in **Table 2-1**. SMA and the DIRC must approve the IAR document before it is routed to the Chief Engineer of Production for signature. The Chief Operating Officer also will sign IARs for new access requests (or IJRs). As per the Programmatic Agreement, FDOT allows five business days for any FHWA objections to the request for final approval of the access modification. FHWA's lack of objections to



the FDOT's determination within this period constitutes FHWA's concurrence and the approval required.

Table 2-1: Programmatic Interchange Access Request Approval Authorities

	Approval Authority		MLOU			IAR		
Approval Authority		UR	IMR	IOAR <sup>1</sup>	UR	IMR	IOAR	
	Requestor		✓	✓	✓	✓	✓	
	DIRC		✓	✓	✓	✓	✓	
	Systems Management Administrator	✓	✓	✓	✓	<b>✓</b>	✓	
Central Office	Chief Engineer of Production (or Delegate)				✓	✓	✓	
	Chief Operating Officer (or Delegate)				✓			
	FHWA				•	•	•	

Note:

- ✓ Review and approve the document
- 1 For an IOAR, the DIRC will determine the need for an MLOU in consultation with SIRC
- Concurs with FDOT Chief Engineer of Production determination of safety, operations and engineering acceptability, as agreed
  upon in the PA and grants Affirmative Determination after completion of the second step. FHWA transportation engineers
  should be involved when developing the MLOU.

#### Non-Programmatic IAR Approval

Projects on the Interstate system that are not included in the PA will be fully reviewed and approved by FHWA Florida Division Office, as summarized in **Table 2-2**. IARs involving new or modified freeway-to-freeway interchanges, new interchanges or ramps to provide intermittent access during special events, new partial interchanges and closure of individual access points that result in partial interchanges or closure of entire interchanges require concurrence by FHWA headquarters.

IARs involving new or modified freeway-tofreeway interchanges, new interchanges or ramps to provide intermittent access during special events, new partial interchanges and closure of individual access points that result in partial interchanges or closure of entire interchanges require concurrence by FHWA headquarters.

# The following IARs on interstate highways are not approved through the PA process and require full FHWA review and approval:

- a. New or modified freeway-to-freeway (system) interchanges;
- b. New interchanges or ramps to provide intermittent access during special events;
- c. New partial interchanges;
- d. Closure of individual access points that result in partial interchanges or closure of entire interchanges; and
- e. Locked gate access.

FHWA will review and provide comments. When all comments have been addressed, and FHWA has



indicated that the document is ready for signature, the DIRC will route the document for signatures.

**Table 2-2: Non-Programmatic Interchange Access Request Approval Authorities** 

	D.GI	OLI.	Interchange Access Request Interstate		
Approval Authority	ML	OU .			
	UR	IMR	UR	IMR	
Requestor	✓	✓	✓	✓	
DIRC	✓	✓	✓	✓	
Systems Management Administrator	✓	✓	✓	✓	
Chief Operating Officer			✓		
FHWA	✓	<b>✓</b>	✓	✓	

Note: ✓ Review and approve the document

Non-Interstate System IAR Approval

FHWA is not involved in IARs for projects that are on non-interstate facilities. Approval authorities for non-interstate IARs are summarized in **Table 2-3**. The DIRC, SMA and District Secretary approve all non-interstate IARs.

Table 2-3: Non-Interstate Interchange Access Request Approval Authorities

		DALOU.		Interchange Access Request			
Approval Authority		MLOU		Non-Interstate			
	UR	IMR	IOAR <sup>1</sup>	IJR	IMR	IOAR	
Requestor	✓	✓	✓	✓	✓	✓	
DIRC	✓	✓	✓	✓	✓	✓	
Systems Management Administrator	✓	✓	✓	✓	✓	✓	
District Secretary	*	*	*	✓	✓	✓	

Note: ✓ Review and approve the document

- 1 The DIRC will determine the need for an MLOU in consultation with SIRC.
- \* The District Secretary does not have to approve the MLOU document.

Non-Interstate Toll Facility IAR Approval

FHWA is not involved in IARs for projects that are on non-interstate toll facilities. Approval authorities for Florida's Turnpike toll facility IARs are summarized in **Table 2-4**. For interchanges with Turnpike, the Turnpike DIRC should be included on the approvals. This applies to projects on the Turnpike and other non-interstate facilities that involve the Turnpike. The approval authorities for other expressway authority toll facilities are summarized in **Table 2-5**. The MLOU approvals for non-interstate toll facilities are also provided in the



approval authority tables below.

Table 2-4: Florida's Turnpike Toll Facility Interchange Access Request Approval Authorities

Approval Authority		DALOU L		Interchange Access Request			
		MLOU		Florida's Turnpike			
	UR	IMR	IOAR	IJR*	IMR*	IOAR	
Requestor	✓	✓	✓	✓	✓	✓	
Turnpike DIRC	✓	✓	✓	✓	✓	✓	
DIRC	✓	✓		✓	✓		
Systems Management Administrator	<b>✓</b>			✓			

Note: ✓ Review and approve the document

Table 2-5: Other Expressway Authority Toll Facility Interchange Access Request Approval Authorities

		MIOLI		Interchange Access Request			
Approval Authority		MLOU		Other Expressway Authorities			
	UR	IMR	IOAR	IJR*	IMR*	IOAR	
Requestor	✓	✓	✓	✓	✓	✓	
DIRC	✓	✓	✓	✓	✓	<b>✓</b>	
Systems Management Administrator	✓	✓		✓	✓		

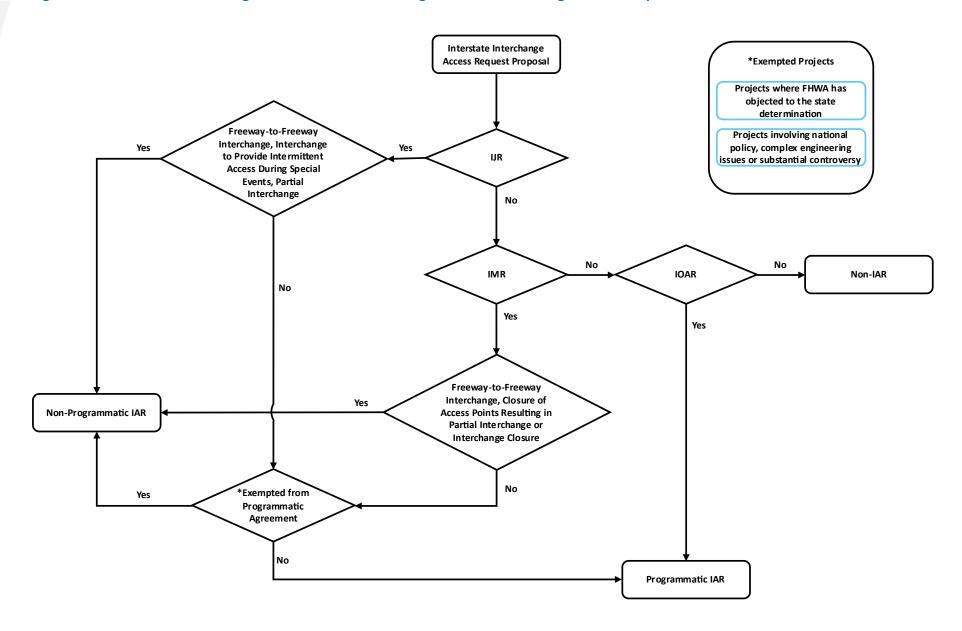
Note: ✓ Review and approve the document

<sup>\*</sup> DIRC approval will not be needed for IJRs, IMRs not on the SHS or IJRs, IMRs not affecting state highways. This determination will be made in coordination with DIRC and SIRC during the project.

<sup>\*</sup> DIRC approval will not be needed for IJRs, IMRs not on the SHS or IJRs, IMRs not affecting state highways. This determination will be made in coordination with DIRC and SIRC during the project.



Figure 2-2 Determination of Programmatic versus Non-Programmatic Interchange Access Request





#### **2.3 IAR Document Review Process**

Review of IAR document deliverables is necessary to ensure they are of appropriate quality. The requestor shall ensure that the IAR's schedule includes adequate time for reviews. See **Section 2.4** for review time frame. The review process that is documented in this User's Guide must be followed. Tight schedules or pressure to maintain project schedules shall never compromise the quality of the documents, because poor quality deliverables eventually lead to project delays. Whenever an expedited review is needed due to project schedules, the DIRC must coordinate in advance with the SIRC. For IARs that involve complex projects, interim reviews of technical documents, such as model calibration reports and future traffic forecast reports are strongly recommended. Interim review requirements should be determined at the MLOU development stage of the IAR on a case-by-case basis.

All documents related to IARs must be reviewed utilizing the FDOT Electronic Review Comment (ERC) System. The ERC System is a web-based application used to track the review process (comments and responses) for the project documents in a database. All IAR documents shall be submitted

Every IAR submittal must be reviewed through the ERC System.

under the IAR submittal category of the ERC System. Use of ERC System allows requestors, DIRCs, SIRC, FHWA and other users to track all comments and responses from the reviewers at any time during the project development process. Information about the ERC System application is available at the <u>FDOT ERC</u> website. The DIRC shall coordinate with the requestor to ensure the IAR documents are first reviewed at the District level before requesting Central Office review through the ERC System. IARs that are not processed through the PA process (or non-programmatic IAR) shall be submitted to FHWA for review after the review by the Central Office is completed and all comments have been addressed or resolved. The SIRC shall utilize the ERC System to request IAR document reviews from FHWA.

#### The review process is summarized as follows.

#### For Programmatic IARs:

- 1. The requestor produces the IAR document and submits it to the DIRC.
- 2. The DIRC conducts a District internal review and returns it to the requestor with comments.
- 3. The requestor reviews the comments, addresses and resolves the comments and resubmits the document to the DIRC.
- 4. Upon verification that all comments were resolved, the DIRC requests the SIRC to review the IAR document through the ERC System. The SIRC review takes two weeks.
- 5. The SIRC conducts review and returns it to the DIRC with comments.
- 6. The DIRC reviews the comments and forwards them to the requestor.
- A second round of reviews in ERC (or email) is performed to ensure that all comments have been addressed. A comment resolution call is sometimes required. The SIRC second review takes one week.



- 8. After corrections are made, the DIRC routes the IAR document for signatures (as per approval authority tables shown earlier).
- 9. The SIRC submits the Programmatic IARs to FHWA to obtain concurrence with the FDOT Chief Engineer of Production determination of SO&E acceptability. As per the Programmatic Agreement, FDOT allows five business days for any FHWA objections to the request for SO&E determination of the access modification. FHWA lack of objections to the FDOT's determination within this period constitutes FHWA's full concurrence.

#### For Non-Programmatic IARs:

- 1. The requestor produces the IAR document and submits it to the DIRC.
- 2. The DIRC conducts a District internal review through ERC and returns it to the requestor with comments.
- 3. The requestor reviews the comments, addresses and resolves the comments and resubmits the document to the DIRC.
- 4. Upon verification that all comments were resolved, the DIRC requests the SIRC to review the IAR document through the ERC. The SIRC review takes two weeks.
- 5. The SIRC conducts review and returns it to the DIRC with comments.
- 6. The DIRC reviews the comments and forwards them to the requestor.
- 7. A second round of reviews in ERC (or email) is performed to ensure that all comments have been addressed. A comment resolution call is sometimes required. The SIRC second round of review takes one week.
- 8. Upon verification that all comments were resolved, the SIRC submits the document in ERC for FHWA to review along with the transmittal letter (**Appendix A**).
- 9. FHWA reviews the document and submits comments in ERC. FHWA review time frames are discussed in **Section 2.4**.
- 10. SIRC forwards the comments to the DIRC for incorporation and then resubmits the document in ERC for FHWA review and approval. A comment resolution call may be required.
- 11. When FHWA notifies the SIRC that the document is ready for signature, the DIRC routes the IAR document for signatures.

The above review process is for a sequential review of the project performed first by the District, followed by CO and FHWA. DIRC can request that concurrent reviews be performed between District, CO and FHWA. Reviewers should exercise good professional judgment when reviewing the documents. Comments that are personal preference are discouraged.



#### 2.4 IAR Document Review Time Frame

#### The following review time frames apply to all MLOUs and IARs:

- The SIRC shall review and submit comments on the IAR document within 10 business days.
- FHWA Florida Division Office will review and submit comments within 20 business days for non-PA IARs.

There are normally two reviews done in ERC by SIRC and FHWA per IAR document. The review times may be longer than the time frames outlined above, depending on the number of project submittals by FDOT to FHWA and conflicting production schedules. For projects that the Districts have as high priority, the DIRC shall coordinate with FHWA and SIRC about the schedule constraints and priorities early on during the MLOU development stage.

New or modified freeway-to-freeway interchanges, new interchanges or ramps to provide intermittent access during special events, new partial interchanges and closure of individual access points that result in partial interchanges or closure of entire interchanges require concurrence by FHWA headquarters in.

New or modified freeway-to-freeway (system) interchanges, new interchanges or ramps to provide intermittent access during special events, new partial interchanges and closure of individual access points that result in partial interchanges or closure of entire interchanges require concurrence by FHWA headquarters. FHWA Florida Division Office will coordinate the IAR document review with FHWA headquarters for concurrence on the SO&E acceptability determination. Projects should allocate four to six months for FHWA Division and Headquarters review.

#### 2.5 Non-Interchange Access Request (Non-IAR)

Non-IARs are improvements that may not require an IAR document. Using 23 CFR Part 624.7, the non-IAR should demonstrate that the operational and safety analysis of the proposed change to the Interstate System does not have an adverse impact. Coordination for non-IARs shall be scheduled at the start of the project to determine the level of analysis effort if it is required. It is the responsibility of the DIRC to ensure operational analyses for the non-IAR improvements are conducted and documented if needed.

It is the responsibility of the DIRC to ensure operational analyses for the non-IAR improvements are conducted and documented if needed.

The DIRC presents the proposed modifications to the SIRC and FHWA for confirmation that it is a non-IAR. The presentation should include the following: reason for improvement/modification, concept showing the non-IAR improvement and slides showing the analysis that was pre-determined in early coordination. Documentation of meeting notes along with the presentation will be sent to FHWA for their files.

#### The following are examples of non-IARs:

Replacement of an unsignalized free-flow, right-turn lane on an off-ramp with a signalized right turn.



- Access (slip ramps) between express lanes and general use lanes on the interstate highway. The
  existing interchanges are not modified, in which case no direct connection between express lanes
  and crossroad is provided. This does not constitute preparation of an IAR, per FHWA's Interstate
  System Access Informational Guide. The operations and safety of the access points shall be evaluated
  and documented.
- Addition of through lane(s) on a crossroad at a ramp terminal.
- Interchanges that are proposed with a new limited access facility. (If the new limited access facility
  is connecting to an existing limited access facility or interstate, an IAR document will be required.)
- Implementation of transit services, such as bus rapid transit along the arterial, provided no modifications are made to signal timings.
- Addition of storage lanes at the terminus of existing off-ramps with the crossroad.
- Relocation or shifting of the ramp termini (e.g., moving the ramp end that connects with the crossroad) along the same roadway, which does not result in a shortening of an off-ramp.
- Extension of an acceleration lane, deceleration lane or recovery lane at the interstate connection point not within the weaving area of an adjacent interchange.
- Extension of an on-ramp as an auxiliary lane extending to downstream interchange.
- Widening of an existing off-ramp to add lane(s) at the diverge point from the mainline.

#### Traffic and safety analysis may not be required for the following improvements:

- Implementation of ramp metering or other active control of vehicles entering the interstate highway.
- Construction of overpasses or grade-separated structures without ramps along interstate facilities.
- Construction of new signing, striping and/or resurfacing of an interstate on-ramp or off-ramp, where geometric features are not changed.
- Installation of roadside guardrail and concrete barriers (such as for resurfacing and safety projects).
- In-kind bridge replacement/modification without changing laneage.
- Safety rest areas, information centers and weigh stations within the interstate system.

#### 2.6 Break in Limited Access

Breaks in limited access, or new facilities fully contained within the limited access, can provide either vehicular access or non-vehicular access, such as sidewalks and transit hubs. Either of these breaks will require coordination with FHWA for review and approval. The Break in Limited Access Request Template providing more information about the contents of the documentation package is included in **Appendix C** of this User's Guide.



#### 2.6.1 Vehicular Access

If the vehicular break in limited access requires an IAR or Non-IAR documentation, then guidance in those sections of the IARUG should be followed. An IAR document may be required if the vehicular access proposal, on a crossroad, requires any changes to the interchange geometry or signal timings of the intersections within the limited access. The need and type of the IAR shall be determined in coordination with the DIRC and SIRC. The guidelines provided in this User's Guide shall be followed in

An IAR document may be required if the vehicular or non-vehicular access proposal, on a crossroad, requires any changes to the interchange geometry or signal timings of the intersections within the limited access.

preparation of the IAR document. The IAR document shall satisfy the 23 CFR Part 624.7.

If vehicular access is made within the limited access right of way, but it has been determined that an IAR document is not required, then a general use permit needs to be submitted through the District Office of Maintenance. The request needs to clearly state the purpose of the vehicular access and explain the proposed modifications through illustrations and text.

#### 2.6.2 Non-Vehicular Access

Examples of non-vehicular access include provision of new sidewalks or bike lanes on a roadway. It could also include constructing an access connection sidewalk from an intersecting minor street to the major roadway that already has an existing sidewalk. The construction of a sidewalk system and accessibility improvements to the remaining sidewalk systems improve public access, pedestrian public safety and encourage sidewalk usage.

If such non-vehicular access upgrades are made within the limited access right of way or require a break in limited access of the existing interchange, then a general use permit needs to be submitted through the District Office of Maintenance. The request needs to clearly state the purpose of the non-vehicular access and explain the proposed modifications through illustrations and text.

An IAR document may be required if the non-vehicular access proposal requires any changes to the interchange geometry or signal timings of the intersections within the limited access. The need and type of the IAR document shall be determined in coordination with the DIRC and SIRC. The guidelines provided in this User's Guide shall be followed in preparation of the IAR document. The IAR document shall satisfy the 23 CFR Part 624.7.

#### 2.6.3 Break in Limited Access Approval Process

The break in limited access approval process is summarized as follows:

- 1. Determine if the proposed modifications require preparation of an IAR, Non-IAR or Break in Limited Access Request.
  - a. If proposed modifications require an IAR, refer to **Section 2.1** of the IARUG.
  - b. If proposed modifications require a Non-IAR, refer to Section 2.5 of the IARUG.
  - c. If proposed modifications require a Break in Limited Access Request, continue to Step 2:
- 2. District Office of Maintenance coordinates with the DIRC and other relevant agencies for review of the request.

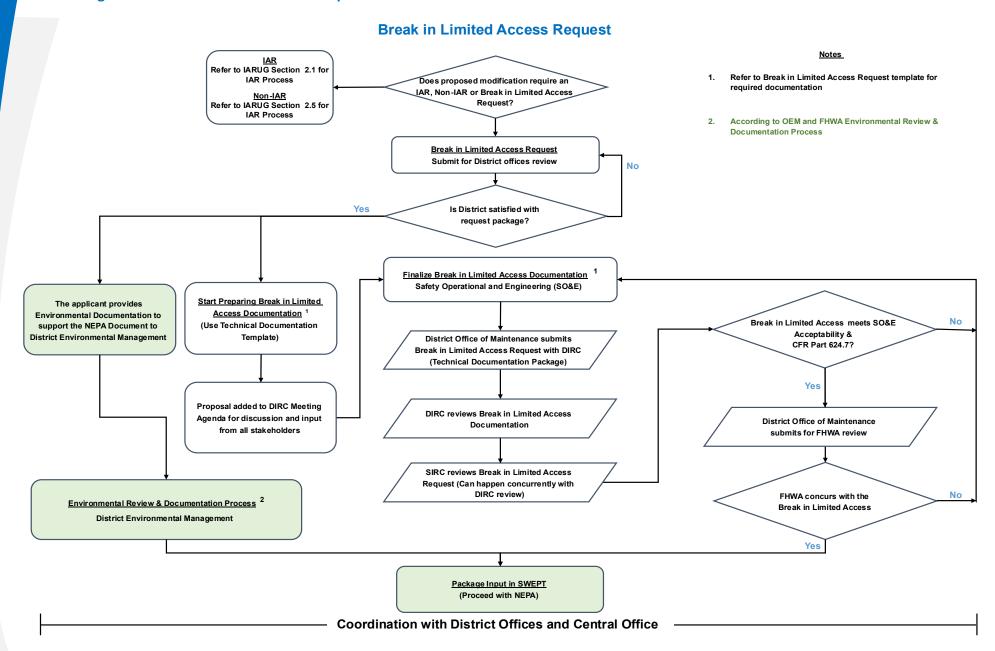


- 3. If District office is satisfied with the request, continue to Central Office review.
- 4. If Central Office is satisfied with the request, the District Maintenance Engineer shall submit the request to the appropriate FHWA division for review and approval.

These steps are shown in a flowchart (Figure 2-3) detailing the approval process.



Figure 2-3 Break in Limited Access Request Process





#### 2.7 Locked Gate Access

All requests for a locked gate access require submission of a general use permit through the District Office of Maintenance. The District Office of Maintenance works with the requestor on establishing the purpose and need and the documentation for the locked gate access.

All requests for a locked gate access require submission of a general use permit through the District Office of Maintenance.

Information and factors to consider and include in the request to make a recommendation for a locked gate access include but are not limited to:

- Purpose and need for the locked gate access;
- Review of possible access alternatives to confirm the feasibility of the proposed access;
- Number, type, duration and frequency of vehicles proposed to use the locked gate;
- Ownership and lessee of the property contiguous to the locked gate; and
- Comply with 23 CFR Part 624.7.

The Locked Gate Access Request Template providing more information about the contents of the documentation package is included in **Appendix D** of this User's Guide.

Locked gate access documentation and approval is not applicable to FDOT supportive infrastructure that are located within the Interstate System right-of-way and not open to the public, as specified under 23 CFR 624.3(d). Supportive infrastructure including detention ponds, facilities that house personnel and equipment for routine tasks like mowing and litter removal, as well as more complex activities such as bridge repair or maintenance of Intelligent Transportation Systems (ITS). For example, no locked gate access documentation and approval will be required for the following scenarios:

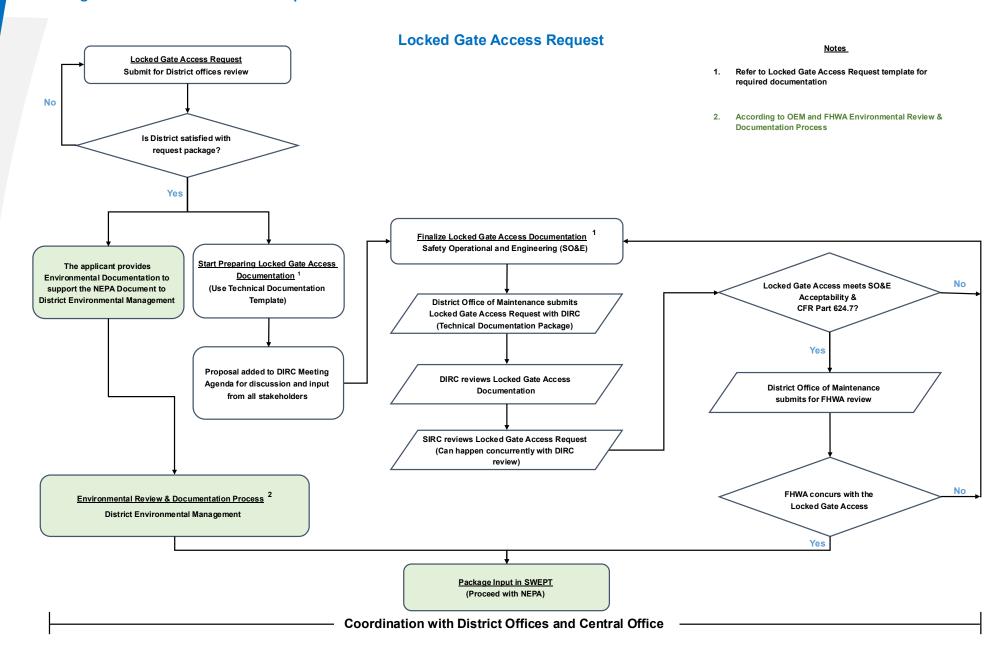
- Supportive infrastructure (e.g. stormwater management ponds) located within the Interstate System right-of-way, but the pond has a fence around it and is not accessible to the public.
- If access needs to be provided to a fenced supportive infrastructure, it is preferred that the access comes from a local street and not interstate.

#### 2.7.1 Locked Gate Access Approval Process

The locked gate access approval process can be divided into three key steps: Request, Locked Gate Access Review and Final Determination by FHWA. These three steps are shown in a flowchart (**Figure 2-4**) detailing the approval process.



**Figure 2-4 Locked Gate Access Request Process** 





# 2.8 Performance Management of Programmatic IAR

As part of the requirements of the PA, FDOT will conduct and submit electronically an annual report to FHWA summarizing its performance under the PA and shall include, at a minimum:

- Summarize the results of all changes in access to the Interstate System that were processed and received a SO&E determination under the terms of the PA for the previous calendar year.
- Summarize the changes in access to the Interstate System that FDOT plans to process in the coming calendar year.
- Assess the effectiveness and verify that all changes in access to the Interstate System processed through the PA were evaluated and processed in a manner consistent with the terms of the PA.
- Identify any areas where improvement is needed and what measures FDOT is taking to implement those improvements.
- Include actions taken by FDOT as part of its quality control efforts. A summary of all the changes in access to the interstate system that were processed and approved under the terms of the PA.



# **Chapter 3 Methodology Letter of Understanding** (MLOU)

The MLOU provides a dialogue among the requestor, DIRC, SIRC and FHWA to identify the parameters and primary areas of focus for preparing an IAR document. The purpose of the MLOU is to document the procedures to be followed in the IAR document development and

An MLOU is optional for an IOAR and is determined on a case-by-case basis.

mitigate risk. The MLOU is intended to define the project's type of IAR document and establish the data collection, analysis assumptions and traffic analysis approach required to prepare the IAR document. The MLOU is not a scope of work for the project. The requestor must understand that any work done prior to signing of the MLOU is at the risk and responsibility of the requestor.

# **3.1** Project Initiation

The IAR document process begins with a formal determination of the need for the project. The determination of the need for the project helps identify performance criteria or deficiencies that are to be addressed by the project. The determination of the need for the project involves coordination between the requestor, DIRC, SIRC and FHWA Florida Division Office to define the scope of the IAR document and to check whether or not the project is in the MPO's adopted LRTP. If the project is not in the LRTP, the requestor shall coordinate with the MPO to start the process of adding the project in the local plans. FHWA DTE shall be informed of all projects at their initiation. Coordination also is needed to identify type of project (IJR, IMR or IOAR), project objectives, determination of Programmatic or non-Programmatic process, measures of effectiveness (MOEs) and FHWA involvement. Coordination with project stakeholders, including FHWA, is required, even for non-IAR projects.

Methodology meetings shall be conducted to discuss various aspects of the access proposal and to reach an agreement regarding the contents of the MLOU for the IAR document. The DIRC meetings to discuss methodology for the project shall include the DIRC, SIRC, FHWA, the requestor and may include other

The DIRC meetings to discuss methodology for the project shall include the DIRC, SIRC, FHWA, the requestor and may include other project stakeholders, including representatives from affected or interested local agencies, regional planning councils and other state agencies.

project stakeholders, including representatives from affected or interested local agencies, regional planning councils and other state agencies. When it is determined that the need for the project is reasonable, the requestor and DIRC may start drafting the MLOU. The objective of the MLOU is to reach a consensus among the requestor, DIRC, SIRC and FHWA on the process and analysis to be followed in developing the IAR document. The purpose and intent of the MLOU is not to arrive at a predetermined concept and it should not prohibit the evaluation of viable alternatives. The MLOU shall be signed by all parties to demonstrate agreement on the IAR document process.

It is essential to discuss any anticipated exceptions or variations to FDOT or FHWA policies, criteria or standards to ensure they will not create a fatal flaw to the IAR document approval. Any fatal flaws shall be identified and resolved in the preliminary meetings prior to execution of the MLOU to determine whether the requestor should proceed with the IAR document proposal. For these reasons, the DIRC meetings



should be held at least quarterly. The MLOU does not serve as scope of work for the project. Any work done prior to signing the MLOU is at the risk and responsibility of the requestor.

The MLOU should be discussed at the DIRC meetings to ensure proper project coordination with the SIRC, FHWA DTE and representatives from other offices within the District such as Planning, Environmental Management, Design, Traffic Operations, Structures, Safety, ROW, Maintenance and Program Management. The meeting notes, along with the list of attendees, shall be documented, distributed to meeting attendees for concurrence and kept in the project files.

# 3.2 Identifying IAR Type and Need for MLOU

The development of an MLOU is guided by the need for the project. It is recommended that the requestor gather all project data and information sufficient to determine the type of the IAR document prior to preparing the MLOU. FDOT's Environmental Screening Tool (EST) may be used to gather environmental information and data about the IAR project. Coordination with the approval authorities is required to ensure appropriate report type, review process and documentation before finalizing the preparation of the MLOU.

## 3.3 MLOU Contents

The contents of an MLOU are detailed in this section. The required format of the MLOU is provided in **Appendix B**.

## 3.3.1 Project Purpose and Need

Identification of the purpose and need for adding new or modifying access to a limited access facility is essential to providing appropriate analysis and documentation to justify the approval of the change in access.

The purpose and need for the IAR document should be consistent with the purpose and need in the PD&E study. The purpose identifies the primary goals of the project and guides the range of alternatives that will be developed and considered in response to the established need. The purpose should be broad enough to encompass a reasonable range of alternatives, but not so broad that it encompasses every possible alternative. Conversely, the

The purpose identifies the primary goals of the project and guides the range of alternatives that will be developed and considered in response to the established need.

purpose should not be so narrow as to preclude a range of alternatives that could reasonably meet the defined objectives or restrict decision-makers' flexibility in resolving conflicting interests. For further guidance on the project purpose and need, refer to the <u>FDOT PD&E Manual</u>.

The need establishes the rationale for pursuing the action and is generally reflected in local, state or MPO/TPO transportation plans.

The need for the IAR document provides a rationale for how it addresses the transportation problems identified in the purpose statement. The need for the project arises from deficiencies, issues and/or concerns that currently exist or are expected to occur within the project area. The need serves as the foundation for the proposed project and provides the principal information



upon which the "no-build" alternative discussion is based. It establishes the rationale for pursuing the action and is generally reflected in local, state or MPO/TPO transportation plans. The need should consist of a factual, objective description of the specific transportation problem supported by data and analysis. Detailed analysis supporting the need should be referenced in the purpose and need discussion.

## 3.3.2 Area of Influence (AOI)

Once the purpose and need for the project have been identified, the next step is to identify the analysis AOI. The AOI is defined as the area that is anticipated to experience significant changes in traffic operating characteristics as the result of the access proposal. The AOI shall reflect current and anticipated operational and safety concerns associated with the IAR document. The AOI for the IAR document shall be finalized in

the MLOU phase. A description and overview of the study area and AOI should be included in the MLOU along with a project location map with distances to adjacent interchanges and an area of influence map. Factors such as interchange spacing, cross street signal locations, the extent of congestion, the presence of freeway-to-freeway interchanges, planned transportation systems and anticipated traffic impacts should be considered when identifying the AOI.

The AOI is defined as the area that is anticipated to experience significant changes in traffic operating characteristics as the result of the access proposal.

### The following guidelines shall be used when defining the AOI:

AOI along a limited access mainline — The AOI for IJRs shall include at least the first adjacent interchange on either side of the proposed access change as shown in Figure 3-1a. In rural areas, where interchanges are far apart and the proposed access is isolated, extension to adjacent interchanges may not be necessary.

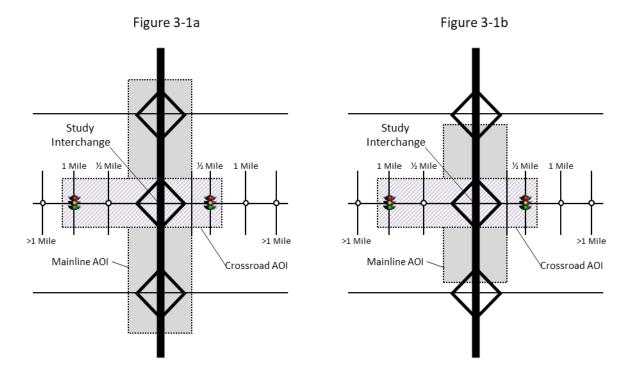
For IMRs in rural areas and in under-saturated conditions, the AOI can extend only to the on- and off-ramp gore points of the adjacent interchanges shown in **Figure 3-1b**. For IMRs in areas where the mainline is over-saturated, full adjacent interchanges should be included in the AOI as shown in **Figure 3-1a**. The limits should be determined through discussion with the DIRC, SIRC and FHWA (if applicable).

For IOARs, the mainline and interchange merge/diverge areas are not required to be included in the AOI as most of the times improvements are focused on the ramp terminal and other adjacent intersections. If modifications to the interchange ramp or gore points are made in the IOAR, then these need to be included in the AOI accordingly.

• AOI along a crossroad — The AOI along the crossroad shall extend at a minimum up to one half-mile in either direction of the proposed access change. If there are signalized intersections along the crossroad, the need to extend the AOI beyond the half-mile to include at least one signalized intersection in either direction shall be determined by the DIRC based on the project purpose and need. The AOI along the crossroad shall be determined by the DIRC during the MLOU stage of the project.



Figure 3-1 AOI Along Mainline and Crossroad



## 3.3.3 Analysis Years

All IAR types shall consider existing year, opening year, interim year and design year as traffic analysis years. The need for analysis of interim years shall be decided and agreed when developing the MLOU. The interim year shall be included in projects that have phased construction or fail prior to the design year. If the project is proposed as interim or to be constructed in phases, then a detailed description

All IAR types shall consider existing year, opening year, interim year and design year as traffic analysis years.

of the ultimate design and future planned projects should be included in the IAR document. Additionally, the analysis methodology and procedure for each analysis year must be agreed to by the requestor, DIRC, SIRC and FHWA (if applicable) during the MLOU phase. The requestor must analyze build alternatives and the no-build alternative for all analysis years, as defined in the MLOU. **The analysis years are described below.** 

- Existing year The year the IAR document is prepared or a prior year from which acceptable data is available. The operational and safety aspects of the existing mainline, interchanges and adjacent arterial system within the AOI are determined and documented in the existing year analysis. This analysis is used to document existing conditions and deficiencies.
- Opening year The first year in which the proposed improvements will be opened to traffic. If the
  proposed improvements are to be phased, the opening year is the year the first phase of the project
  will be opened to traffic.
- Interim year(s) —The opening year of the phased project. This is not required in every IAR. Phased
  interchange improvements require additional interim analysis for the year each phase is anticipated



to open to traffic. An interim year also is required when an alternative shows failure prior to the design year. In this situation, the interim year is the year of failure of the proposed improvements. An interim year may not be required if no phased improvements are planned, or the preferred alternative provides acceptable operations until the design year.

Design year — The design year for IMR and IJR projects normally is 20 years after the opening year. The design year is used for all subsequent project phases, such as PD&E study and design. If the proposed project phasing extends beyond the 20-year horizon, the requestor is required to show the improvements that will be in place in the design year and beyond the 20-year period. However, FDOT will only consider alternative phases completed within the 20-year horizon. The design year for an IOAR is at least 10 years after the opening year.

Two additional analysis years are considered for travel demand forecasting. These are the base year and planning horizon year, which are documented when preparing data and traffic forecasts. The outputs from the travel demand forecasting model for the base and planning years are used as the basis to forecast opening, interim and design year travel demand. Techniques to interpolate or extrapolate travel demand model data to the analysis years shall be documented in the MLOU.

- Base year The year for which the selected travel demand forecasting model was calibrated. The
  most current version (as close to the existing year as possible) of the adopted travel demand
  forecasting model shall be used.
- Planning horizon year The approved forecast or horizon year of the selected travel demand forecasting model.

#### 3.3.4 Coordination

Coordination with other agencies, such as MPOs and other affected entities, is part of the IAR document process. Proper coordination helps avoid conflicts with other new or proposed changes in access or corridor improvements within the vicinity of the IAR project. Additionally, coordination with other agencies could lead to the adjustment of design concepts to meet permitting requirements in later phases of project development. As such, the MLOU shall identify all coordination efforts that will be performed in the IAR process.

## 3.3.5 Data Collection

Data to be collected for the IAR analysis includes roadway geometrics, travel demand and traffic control. Existing traffic data includes daily and turning movement counts, queue data, origin-destination data and heavy vehicle data; speed and travel time data; traffic control data; transit data; crash data; and information on bicycles and pedestrians. Traffic data collected for the IAR analysis should be less than one year old from the initiation of the project. In case the traffic data is more than one year old, then traffic validation shall be performed, and justification be provided for use of the older data.

Efforts to use existing databases and studies are emphasized. However, field observations should be performed to confirm the reasonableness of the existing data. For further details on the data collection requirements, the requestor should refer to the <u>FDOT Traffic Analysis Handbook</u>.



In the event additional data collection is necessary after the MLOU has been approved, the requestor is required to develop a supplemental methodology as an amendment to the MLOU. The supplemental methodology for additional data collection shall be approved by the DIRC prior to the initiation of data collection. The methodology shall contain the justification for any additional data need, the collection techniques and limitations on use of data.

## 3.3.6 Travel Demand Model Selection and Forecasting

Model selection and development of demand volume projections shall be done based on the guidelines and techniques published in FDOT's <u>Project Traffic Forecasting Handbook</u>, <u>Project Traffic Forecasting Procedure Topic 525-030-120</u>, <u>Traffic Analysis Handbook</u> and the <u>FDOT Travel Demand Modeling Manual</u>. The adopted regional travel demand model to be used in the analysis shall be identified in the MLOU. Any deviation from the use of the District's and MPO's approved models or methods shall include documentation to support justification for such deviation. All assumptions used to determine future traffic demand shall also be identified. The technique recommended to validate the base year model shall be discussed in the MLOU. The base year model shall be validated to replicate existing year traffic volumes and trends.

## **3.3.7 Traffic Operational Analysis**

Defining the scope of traffic operational analysis is part of the MLOU. The scope of the traffic analysis should, therefore, be supported by the area type, existing traffic operating conditions and analysis tools. Additionally, prior to finalizing the scope of the analysis, an IAR coordination meeting called by the DIRC should be held.

Area type is defined as rural, transitioning into urban areas or urbanized areas. The requestor should reference the <u>FDOT Multimodal Quality/Level of Service Handbook</u> for more discussion about the area type.

Knowledge of existing operational conditions is essential to determine if the existing facility is oversaturated or undersaturated. Such knowledge is useful to establish the analysis AOI and to select the type of analysis tool.

Knowledge of existing conditions is essential to determine operating conditions.

Proper selection of a traffic analysis tool and approach determines the success of any analysis effort. As such, the requestor must possess sufficient knowledge of traffic flow analysis and limitations (strengths and weaknesses) of the traffic analysis tools. The requestor should be aware that no single tool can analyze or model all project scenarios. It is recommended that the analysis effort correlate the magnitude of the problem. The use of sophisticated tools and approaches should match the complexity of the problem that the analysis is intended to evaluate. Further guidance for tool selection is provided in the <u>FDOT Traffic Analysis Handbook</u>.

When selecting the analysis tool and approach, it is important to consider that the facility may be undersaturated today but oversaturated under future volumes. While certain analysis tools may suffice for undersaturated conditions for existing conditions, design year oversaturation could require microsimulation. Analysis tools should be selected after considering both current and future conditions.



## 3.3.8 Safety Analysis

The safety analysis methodology shall be documented and agreed to in the MLOU. The safety analysis discussion provided in the MLOU should follow and be consistent with the MLOU template available in **Appendix B** of this User's Guide. For further information regarding the safety analysis discussion in the MLOU, please refer to **Section 6.3**.

#### 3.3.9 Measures of Effectiveness

MOEs are used to evaluate the operations and safety performance of an IAR. Identification of the MOEs in the MLOU enhances the focus of the analysis to quantify the benefits and impacts of the IAR. MOEs must be selected to meet the purpose and need for the IAR document. For the

MOEs must be chosen to meet the purpose and need for the IAR.

MOEs to be useful, they must ultimately provide information that can be used to make investment and management decisions.

### LOS Targets

Interchange modifications should result in improved traffic operations. The build alternative shall result in operating conditions equal to or better than the no-build. Florida LOS requirements are defined in <u>FDOT Policy 000-525-006</u> and are detailed in the current <u>Multimodal Quality/Level of Service Handbook</u>. Within the LOS Policy and Multimodal Quality/Level of Service Handbook, specific minimum acceptable targets are given for limited access highways based on the area type. Proving the access proposal would meet minimum LOS targets does not guarantee its acceptability.

#### Other MOEs

Other MOEs that may be evaluated include, but are not limited to, speed and travel time, queue length, person/vehicle served, control delay, trip length, number of phase failures, percent demand served in peak hour, volume to capacity (v/c) ratio, crash rates and frequency, reduction in crashes, density, network-wide MOEs (such as vehicle miles traveled, total vehicle delay, etc.) and travel time reliability. It is recommended to establish all MOEs by analysis type that will be used to evaluate the performance of an IAR in the MLOU. Guidance for performance MOEs selection is provided in the FDOT Measures of Effectiveness Handbook and FDOT Traffic Analysis Handbook.

#### 3.3.10 Environmental Considerations

The MLOU should identify the status and schedule of the PD&E study. Environmental documentation in an IAR document is minimal and limited to fatal impacts and known environmental impacts used to compare build alternatives. Known environmental information may be used to identify any fatal-flaw conditions that may affect the selection of the improvement alternative.

## 3.3.11 Design Exceptions and Variations

The geometry of the roadway is important to the overall operation and safety of the highway network. The geometry of the roadway is affected by traffic and environmental variables, such as volumes, speeds, right of way, environmental impacts, etc. Therefore, the geometry of the roadway is an important part of the IAR document. While detailed geometric design is performed in later phases of the project, geometric information and conceptual design developed in the IAR document should be consistent with the FDOT



design criteria and standards outlined in the <u>FDOT Design Manual</u> (FDM). It should be noted that compliance with design standards and criteria does not guarantee SO&E acceptability of the IAR document. Rather, the acceptability determination is based on a full evaluation of the 23 CFR Part 624.7 requirements. When developing the MLOU, the requestor shall take the following into consideration:

- For all new construction; reconstruction; and resurfacing, restoration and rehabilitation (3R) projects on the SHS, FDOT design standards (FDM, Structures Manual, Standard Specifications for Road and Bridge Construction) apply. For design standards not listed in these manuals, American Association of State Highway and Transportation Officials (AASHTO) design standards shall apply.
- When it becomes necessary to deviate from the Department's criteria and standards, early
  documentation and approval are required. As such, the MLOU shall identify any anticipated
  exceptions and variations to FDOT or FHWA design standards, criteria, rules and procedures.

## 3.3.12 Conceptual Signing Plan

The MLOU shall contain a requestor's commitment to prepare a conceptual signing plan. The <u>Manual on Uniform Traffic Control Devices (MUTCD)</u> standards serve as guidance for preparing the signing plan. **At a minimum, the conceptual signing plan will address the following:** 

- Give directions to cities and other destinations (including distances)
- Give adequate advance notice of the upcoming or downstream interchanges based on MUTCD criteria
- Direct drivers to the correct lanes for lane change movements.
- Include a scale and symbols for signalized intersections.

The signing sequence for managed lanes may require additional signing in advance of access points. Please refer to the <u>Managed Lanes Guidebook</u> and the <u>Traffic Engineering Manual</u> for further guidance for signing managed lanes.

It is very important to note that adequate signing is not a replacement for sound roadway geometric design and engineering judgment. The conceptual signing plan in IARs is intended for planning purposes only and not for design or construction. The level of detail will provide enough information to determine if a driver can safely navigate the facility and any innovative designs throughout the AOI.

Signing plans prepared in projects that are beyond the conceptual phase (such as design, D-B and re-evaluations) will be accepted in the IAR document in lieu of the conceptual signing plan. Please refer to **Appendix G** for examples of conceptual signing plans for common types of IARs. These examples are not all inclusive and depending on the proposed concept in the IAR or innovative interchange, some changes might be required to meet MUTCD. For signing plans for managed lanes, refer to the FDOT Managed Lanes Guidebook for further guidance.

## 3.3.13 FHWA's Interstate System Access Requirements

The MLOU shall include a commitment to meet the 23 CFR Part 624.7. FHWA's interstate system access requirements are listed and discussed in **Chapter 4** of this User's Guide.



# 3.4 MLOU Review and Approval

The review and consideration for approval of the MLOU is performed according to FDOT Procedure 525-030-160 and discussed in **Chapter 1** of this User's Guide. The ERC system shall be used when reviewing the MLOU. For proposals affecting more than one District (e.g., FTE proposals or proposals near District boundaries), all affected DIRCs shall be part of the signatories of the MLOU. It is important for the MLOU to clarify any review time frame expectation, especially for high-priority projects.

The DIRC, SMA and FHWA (according to **Section 2.5**) shall accept and sign the MLOU after they concur with the MLOU requirements and need to proceed with the IAR document. The signed MLOU serves as the

notice to proceed for the requestor, unless otherwise stipulated by the DIRC. Any work performed by the requestor prior to the approval of the MLOU is considered "at risk" and may not be accepted by the DIRC. An IAR re-evaluation shall require submittal of a new MLOU for approval. This is discussed in more detail in **Chapter 7** of this User's Guide.

The signed MLOU serves as the notice to proceed for the requestor, unless otherwise stipulated by the DIRC.

## 3.5 MLOU Amendment

The requestor shall prepare the Amendment only for sections of the MLOU that have changed and submit for approval. Some changes to the executed MLOU may require an Amendment to be prepared, for example, a change in analysis years. It is recommended that the DIRC discuss the changes with the SIRC for a decision on whether an Amendment is required. The requestor shall prepare the Amendment only for sections of the MLOU that have changed and submit it for approval.

The approval of the Amendment will follow the same review and approval authority process as the original MLOU. The only required sections of the MLOU template to be updated are the sections that are being modified; all other sections can be noted as "no change." Minor deviations do not require an Amendment; once discussed with the SIRC they can be documented in the IAR document.

# **3.6 MLOU Qualifying Provisions**

The following qualifying provisions shall be stated in each MLOU:

- Coordination of assumptions, procedures, data, networks and outputs for project traffic review during the access request process will be maintained throughout the evaluation process.
- Full compliance with all MLOU requirements does not obligate the Approval Authorities to accept the IAR document.
- The Requestor shall inform the approval authorities of any changes to the approved methodology in the MLOU and an amendment shall be prepared if determined to be necessary.



# **Chapter 4 Explanation of FHWA's Interstate System Access Requirements**

# 4.1 FHWA's Interstate System Access Requirements

Adequate access control to limited access facilities is critical to provide the highest level of service in terms of safety and mobility in these facilities. **The new and revised access points shall meet FHWA's Interstate System Access Requirements.** The requirements in order to meet the regulation are included in the <u>23 CFR Part 624.7</u>. FDOT requires that all IAR documents address the Requirements for interstate and non-interstate limited access facilities.

#### Requirement a

The proposed change in access to the Interstate System shall not result in a significant adverse impact on the Interstate System traffic operations or the safety for all users of the transportation system in the project's area of influence, as demonstrated by operational and safety analyses based on both the current and future traffic projections using traffic data that is no more than 5 years old and at least the most recent three years of available safety data.

#### Requirement b

Interstate System access points shall connect only to a public road. Connections directly to private developments, parking lots, or private roads are prohibited.

#### Requirement c

Connections from outside of the Interstate System right-of-way to safety rest areas, information centers, weigh stations and truck inspection stations located within the Interstate System right-of-way are prohibited.

#### Requirement d

Each interchange shall provide for all traffic movements.

#### Requirement e

A proposed change in access shall be designed to meet the standards in accordance with <u>23 CFR 625</u> or have approved exceptions and shall comply with <u>23 CFR 655</u>.

IARs only need to address Requirement e if it is attempting to use one of the exceptions listed below. On a case by case basis, FHWA may grant exceptions to the Requirements b through d for:

- 1. Locked gate access to private property for purposes of public safety;
- 2. Locked gate access from an information center, weigh station and truck inspection station to a local road for the purposes of public safety;
- Access from a safety rest area to an adjacent publicly owned conservation and recreation area if access to

# CHAPTER 4 | EXPLANATION OF FHWA'S INTERSTATE SYSTEM ACCESS REQUIREMENTS



this area is available only through the safety rest area as allowed under 23 CFR 752.5(d);

- 4. Locked gate access from a local public road to the safety rest area for the limited purpose of providing access to safety rest area employees, deliveries and emergency vehicles; or
- 5. A partial interchange where necessary to provide special access, such as to managed lanes or park and ride lots, or where factors such as the social, economic and environmental impacts of a full interchange justify an exception.



# **Chapter 5 Documentation Requirements**

The Interchange Access Report is developed as a stand-alone document consistent with the requirements of the MLOU. If a feasibility study or any other previous report has been prepared, then relevant information from such documents should be summarized and provided in appropriate sections of the report or in the appendices. Most importantly, the report should be clearly written for a reviewer not familiar with the project to understand the intent of the report.

FDOT and FHWA will use the information contained in the report to determine the SO&E acceptability of the report. The determination of SO&E acceptability shall only be given when justification and

documentation provided in the report successfully address 23 CFR Part 624.7, as stated in the updated regulation 23 CFR Part 624 – Interstate System Access, December 9, 2024. Preliminary design documents should sufficiently demonstrate the geometric viability of the proposal.

Acceptability of an IAR is based on full evaluation of the 23 CFR Part 624.7.

#### The Interchange Access Report shall address and document the following items in detail:

- Executive summary (23 CFR 624.7 Interstate System Access Requirements)
- Background
- Purpose and need
- Methodology
- Existing conditions
- Future traffic volume development
- Considered Alternatives
- Alternatives Analysis (Operations and Safety)
- Funding plan and schedule
- Conclusions and recommendations
- 23 CFR 624.7 Interstate System Access Requirements
- Appendices

The documentation requirements will be determined by the DIRC in cooperation with the approval authority during the MLOU development phase. The IAR should include the following information, as applicable, design criteria, existing geometry overlaid with clearly labeled proposed geometric plan views, lane configuration schematics, typical sections, control-of-access lines, interchange spacing, ramp spacing and other design features necessary to evaluate the proposed design.



When microsimulation analysis techniques are used, a calibration memorandum shall be summarized in the report and included in the IAR appendix. The final IAR document must be signed and sealed by a Professional Engineer registered in Florida.

# **5.1** Analysis of Existing Conditions

All IAR types must include an existing year analysis. The purpose of this analysis is to support the need for the project should there be existing operational issues. Also, the analysis of existing conditions provides the baseline operational characteristics for comparison of build and no-build alternatives.

All IAR types must include an existing year analysis.

The existing conditions analysis should include the common elements such as traffic volumes, multimodal mobility, land use, safety and roadway characteristics. Projects that include a capacity improvement on the interstate or crossroad will include appropriate typical sections. For projects where there is no capacity changes, no formal typical will be included. A detailed description of the existing roadway characteristics will suffice.

The existing conditions analysis should also identify any known or potential environmental impacts that could be a fatal flaw to the access proposal or would result in significant mitigation efforts. The requestor shall be responsible for identifying any environmental fatal flaws as soon as possible and bring them to the attention of the DIRC.

## **5.2** Safety Analysis

The safety analysis shall include the analysis of existing conditions using historical data and quantitative analysis of the proposed modification based on the HSM.

The purpose of the safety analysis is to understand how geometric designs will impact safety and crash likelihood at an existing or proposed interchange. The appropriate methodology for a project will depend on the type of project, the scope of the project and the historical crashes. The safety analysis method chosen for an IAR analysis should be in concert with other analyses, such as Purpose and Need, Alternative Analysis, Design Exception and Value Engineering, which are done during the PD&E Study or Design phase. It is recommended that the level of safety analysis effort be discussed and agreed upon during the MLOU

stage of the project. The safety analysis shall include the analysis of existing conditions using historical data and quantitative analysis of the proposed modification based on the <u>Highway Safety Manual (HSM)</u>. **Chapter 6** of this User's Guide provides the guidance needed to perform appropriate safety analyses in IARs.

## **5.3** Considered Alternatives

The alternatives to be considered and analysis years required are identified in **Table 5-1**.

Once the existing and no-build conditions are known, the requestor develops potential improvement concepts that address the purpose and need for the project. The potential improvements should consider



safety, operations and engineering (constructability). It is recommended that the requestor schedule a meeting or a workshop with the DIRC and approval authority to review the considered alternatives. The DIRC shall invite staff from other offices such as Environmental Management, Design, Traffic Operations, Construction, etc., to review and determine the viability of the alternatives in addressing the need for the project.

Details of all reasonable build alternatives considered, including those eliminated from further consideration, shall be documented in the Interchange Access Report. The documentation for the alternatives eliminated can be minimal, such as a brief description of what was considered and reasons (fatal flaws) for elimination. Build alternatives meeting requirements of the project will have a more detailed description and be carried forward for evaluation. A description and overview of the proposed change in access (build alternative) including changes in geometry should be discussed. A legible concept plan figure should be provided with the documentation.

Details of all reasonable build alternatives considered, including those eliminated from further consideration, shall be documented in the Interchange Access Report.

**Table 5-1: Considered Alternatives** 

Considered Alternatives		Year of Analysis		
		Opening Year	Interim Year	Design Year
No-Build Alternative		✓	*	✓
Build	Preferred Alternative	✓	*	✓
	Other Alternatives	✓	*	✓
TSM&O Alternative**		*	*	*

Note: ✓ Required

- \* May be required as determined by DIRC and approval authorities
- \*\* Does not apply to Alternative Contracting and Cost Savings Initiative (CSI) projects

The no-build alternative is the existing conditions plus any committed projects in the adopted MPO's Transportation Improvement Program (TIP), Statewide Transportation Improvement Program (STIP), Local Government Comprehensive Plan (LGCP), MPO LRTP and Cost Feasible Plan (CFP), FDOT's Adopted Five-Year Work Program, SIS Second Five-Year Work Program and SIS Modal Plan. The committed projects also may include mitigation improvement projects that are elements of approved development orders. Privately funded projects that relieve traffic on state and local highways may be considered if agreed to by the DIRC.

The requestor must consider the implementation of TSM&O strategies as an alternative in the Interchange Access Report.

The requestor must consider the implementation of Transportation Systems Management and Operations (TSM&O) strategies as an alternative in the Interchange Access Report. TSM&O alternatives are relatively low-cost approaches that can satisfy the traffic needs without having to construct or modify an interchange. TSM&O alternatives that may be

considered include adding crossroad turn lanes, improving signalization strategies or increasing the number of lanes dropped along a ramp segment in advance of the mainline ramp terminal.



The TSM&O alternative by itself may not always satisfy the project needs. In such a situation, the build alternatives evaluated in the Interchange Access Report shall incorporate elements of TSM&O in the analysis.

# **5.4** Future Traffic Volume Development

Analysis of future conditions involves the preparation of future traffic volumes for all agreed-upon alternatives. The future traffic volume development should utilize the historical traffic data, population projections and travel demand models as documented in the MLOU.

The specific FDOT procedures and technical criteria for future-year traffic forecasting are discussed in detail in the <a href="Project Traffic Forecasting Handbook">Project Traffic Forecasting Handbook</a>.

### Documentation of the future conditions forecast should include, at a minimum:

- Methodology techniques, model refinement and results of the network and project (subarea) model validation efforts. The technique recommended to validate the base year model shall be discussed in the IAR document. The base year model shall be validated to replicate existing year traffic volumes and trends. Any adjustments made to base year model volumes should be carried over to design year.
- Travel-demand forecasts within the AOI for the proposed opening, interim (if applicable) and design years for all alternatives depicted on maps, line drawings and tables, as agreed to in the MLOU.
- Analysis of future conditions involves the preparation of future traffic volumes for all agreed-upon alternatives utilizing the travel demand projection models, input data and adjustment procedures, as documented in the MLOU.

- Historical traffic data (trend analysis).
- Bureau of Economic and Business Research (BEBR) population projections.
- Summary of modifications to land use or socio-economic data files and networks for all analysis years.
- Model output smoothing techniques applied, the method used and the extent of adjustments.
- Post-processing of travel demand model volumes.
- Consistency with major developments affecting the traffic within the AOI.
- Design traffic factors agreed to in the MLOU.
- Final AADT volumes in figure and/or table format
- Final design hour and intersection turning movement volumes in figure format



## **5.5** Evaluation of Alternatives

The evaluation of alternatives for an IAR document is a thorough technical investigation to compare the performance of alternative improvements that are developed to meet the need for the project. MOEs that were identified in the MLOU are used to compare the alternatives. Guidance for selection of appropriate traffic analysis tools used for evaluation of alternatives is provided in the <a href="FDOT Traffic Analysis Handbook">FDOT Traffic Analysis Handbook</a> and agreed to in the MLOU.

#### The evaluation of alternatives should address, at a minimum:

- Safety,
- Operational and engineering performance and
- Environmental fatal flaw considerations.

The evaluation of alternatives should be documented to allow independent review of the IAR.

The evaluation of alternatives must be consistent with the MLOU. The SO&E analyses performed in the evaluation of alternatives shall demonstrate that the IAR does not have significant negative impact on the operation of the mainline and adjacent network. The build alternative shall not result in conditions worse than the no-build alternative at any analysis year. Additionally, the analysis should use sufficient data and its documentation should be of sufficient detail to allow independent review of the IAR document. During the alternatives evaluation stage, the DIRC should schedule an alternatives meeting with the SIRC, FHWA and other District offices to discuss the preferred alternative and which other alternatives were considered early in the study, before major analysis has been completed. It is understood that the preferred alternative may not be finalized at this stage.

If the project is proposing a concept (due to fiscal constraints), that does not meet the design year performance measure targets, then a description of the ultimate design and future planned projects should be included in the IAR document.

# **5.6** Design Exceptions and Variations

Any request for Design
Exceptions or Variations must
be submitted with sufficient
engineering, safety and
operational analyses in
accordance with FDM design
controls and criteria.

Any request for Design Exceptions or Variations must be submitted with sufficient engineering, safety and operational analyses in accordance with <u>FDM</u> design controls and criteria. All known requests for exceptions must be fully documented and justified by the requestor during the IAR process. Design Exception and Variation approvals shall be obtained as described in the FDM. It is noteworthy that approval of an exception does not ensure approval of an IAR document.

# 5.7 Consistency with Plans

An IAR document shall be consistent with the adopted statewide and local transportation plans and/or other planning documents. The MPO or other local government plans must support the IAR proposal, and



any inconsistencies shall be resolved prior to its submittal for approval.

The plans include the existing and financially feasible planned interchanges from the MPO LRTP or other local government plans and identifies the future multimodal transportation development needs in the corridor. This assists in prioritizing the interchange needs and helps determine the impacts of new access or modification of an existing access to other interchanges in the corridor.

The plans include the existing and financially feasible planned interchanges from the MPO LRTP or other local government plans and identifies the future multimodal transportation development needs in the corridor.

In the case of IJRs, if the IAR is not consistent with the adopted local transportation plan, the DIRC shall examine the discrepancy and determine which access (proposed or local transportation plan access) better serves the public interests safety and operational performance of the limited access facility. If both are needed, the DIRC shall investigate how they can be corrected and made consistent to minimize operational and safety problems.

If the access proposal, for any IAR, is not contained in the current local transportation plan, the DIRC shall determine the reason and need for the proposed access and determine its impact on the mainline and adjacent interchange operations. If it is decided to move forward with the proposed access, then it will be required to be included in the local transportation plan to ensure planning consistency. In all the above cases, the IAR proposal shall be prepared per the requirements outlined in this User's Guide.

# **5.8 Funding Plan**

A commitment of funding and inclusion of projects as part of the planning process in the adopted plans (LRTP, STIP or TIP) prior to final approval of the IAR document are part of the requirements for determination of the SO&E acceptability.

A commitment of funding and inclusion of projects as part of the planning process in the adopted plans prior to final approval of the IAR document are part of the requirements for determination of the SO&E acceptability.

When the project is included in the FDOT Five-Year Work Program or MPO TIP, subsequent phases of the project should be included in the Work Program or LRTP CFP. If this is not the case, the funding for successive phases must be identified. The TIP may include a project that is not fully funded only if full funding for the time period to complete the project is identified and fiscally committed in the LRTP.

For projects proposed by a developer, a financial plan prepared by the developer must provide the DIRC with enough detail to determine that all funds will be available for improvements to the roadway network and proposed developments that were assumed in the document. The DIRC should be more involved in development-driven projects and include the SIRC early in the IAR process.



# **5.9** Access Management Agreement for the Interchange Cross Streets

When the DIRC determines it is necessary, the requestor may be required to develop an access management agreement with all necessary parties that conforms to Rule 14-96 F.A.C. and Rule 14-97 F.A.C. The agreement will be between FDOT, the local government, the requestor and individual property owners. It

Failure to develop and execute the agreement may result in FDOT stopping the IAR review process and/or denying the IAR.

may be necessary to include other affected parties. This documented agreement will be based on an access management plan for the property located up to a minimum distance from the end of the interchange ramps, depending on the access classification of the crossroad. The access management plan shall provide reasonable access to the public road system and maintain the long-term safety and operation of the interchange area. Any planned access to the SHS within the interchange area shall conform to Rules 14-96 and 14-97, F.A.C., and be based on criteria outlined in the <u>FDOT Multimodal Access Management Guidebook</u>. Rule 14-97 F.A.C., requires that driveways/connections and median openings on a controlled access facility located up to ¼ mile from an interchange area or up to the first intersection with an arterial road, whichever distance is less, shall be more stringently regulated to protect safety and operational efficiency of the SHS. **Failure to develop and execute the agreement may result in FDOT stopping the IAR review process and/or denying the IAR.** 

Access management standards require more stringent regulation of driveway connections and median openings in interchange areas. Refer to the <u>FDOT Access Management Guidebook</u> and FDOT Design Manual for further guidance on access management standards.

# **5.10** Intergovernmental Coordination

It is important to consider coordination with other agencies during the IAR process. Coordination with stakeholders performed during the IAR process shall be documented.

The DIRC shall determine the level of coordination required and the federal, state, regional and local

The DIRC shall determine the level of coordination required and the federal, state, regional and local agencies that must be contacted.

agencies that must be contacted. The DIRC also shall define the role of the requestor to ensure the required coordination is properly carried out and addresses all appropriate intergovernmental comments. Areas where intergovernmental coordination may be needed include:

- Local policies,
- Data sources,
- Environmental information,
- Methodology development,
- Proposal review,



- Infrastructure and IAR funding commitments,
- Consistency with local land use and transportation plans,
- Project-related issues to include access management and land use coordination in the interchange area,
- Signal progression and timing and
- Public-involvement information.

## **5.11** Environment Considerations

Environmental documentation in an IAR document should be kept to a minimum and limited to any fatal flaws and known environmental impacts used to compare the build alternatives. Known or potential environmental issues shall be documented in the IAR document because they affect the IAR approval process. Additionally, known environmental information may be used to identify any fatal-flaw conditions that may affect the selection of the improvement alternative. The requirements for documentation of environmental considerations as part of an IAR document will vary by project and location.

Projects involving IJRs and IMRs that are the result of the standard MPO or local government planning process are potentially subject to the ETDM process. This screening helps to understand the environmental impacts of the proposed improvement and determine if any fatal flaws exist.

Any environmental fatal impacts shall be identified as early as possible to determine whether the requestor should proceed with the IAR proposal.

For projects that are not included in any local government plan, the DIRC shall work with the District ETDM coordinator to ensure the inclusion of these projects in the planning and/or programming screens, as applicable.

Environmental discussion should be brief because environmental considerations will be discussed in detail in the PD&E document. Any environmental fatal impacts shall be identified as early as possible to determine whether the requestor should proceed with the IAR proposal. If a previous ETDM screening has been completed, then the results should be summarized in the IAR document. These results help determine if there are any significant or fatal environmental impacts.

# **5.12** Review of the Report

When completed, the report is forwarded to the DIRC for District's review and comment, as agreed to in the MLOU. Once the District's comments are addressed, the report is forwarded by the DIRC to the SIRC for review, comment and approval recommendations. The Interchange Access Report is reviewed to ensure compliance with 23 CFR Part 624.7, the requirements set forth in the MLOU, sufficiency, completeness, correctness and consistency of the data, analysis and recommendations. The review must be done utilizing the ERC system. All IAR types shall be reviewed per authority tables in **Chapter 2**.



# **5.13** Quality Control and Quality Assurance

FDOT requires Quality Control (QC) and Quality Assurance (QA) processes to be employed for all deliverables. The implementation of QA/QC procedures is a critical part of the development of IARs. An adequate QA/QC plan helps ensure that all FDOT and FHWA procedures are followed, as well as

transparency, completeness and consistency of IAR documents. The project schedule should allow adequate time for QA/QC reviews. The QA/QC guidelines provided in this section will help the project team develop alternatives that are operationally viable, safe and constructible. QA/QC procedures shall be followed for every

QA/QC procedures shall be followed for every document, regardless of schedule.

document, regardless of schedule. All documents and deliverables shall be checked for QC, and all QC documentation must be provided to the DIRC upon request.

QC shall be performed by the DIRC. QC is a detailed review involving checking, incorporating and verifying the analysis and documentation prior to submittal of any project items or the IAR document. The DIRC and FDOT discipline leads involved in the IAR are responsible for ensuring that the QC review is adequately performed.

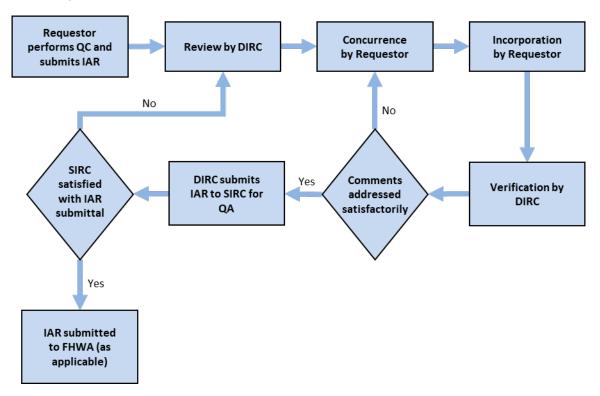
Two important roles of the DIRC are (1) to ensure the requestor's QA/QC plan is being adequately followed and (2) to review project deliverables to ensure they are of appropriate quality and conform to FDOT standards and procedures and 23 CFR Part 624.7. It is the responsibility of the DIRC to ensure that the IAR document submittal is reviewed by experienced and qualified staff. The DIRC shall include the following District offices in review of the IAR document: Environmental Management, Design, Traffic Operations, Structures, Right of Way, Maintenance and Program Management. The FDOT project manager (PM) and DIRC should meet with the consultant PM early in the project to reach a common understanding of QA/QC plan to be followed and submittal requirements. A record of all QA/QC activities shall be kept. QC documentation, including completed checklists, certifications or the reviewers' check set of the reviewed documents, should be provided upon request.

**QA** is performed by the Central Office SIO. QA is the overall review and confirmation of the quality control process to ensure a quality product. The SIRC, on behalf of the SMA, reviews each report submitted for approval consideration and its associated analyses to ensure compliance with policies, procedures, standards, guidelines and processes.

The QA/QC process for IARs is shown in Figure 5-1.



Figure 5-1 QA/QC Process for IARs



If there are any outstanding comments that cannot be resolved between requestor and checker after one round of review, then the issue resolution protocol will be followed.

All IAR document submittals to the DIRC shall have a QC review log or stamp showing that a review has been completed prior to submittal. A sample QC checklist and review log is shown in **Table 5-2**. The major review items are listed in the table and it should not be considered an all-inclusive list. It is the responsibility of the QC checker to perform a complete review of the IAR document prior to submittal, and additional review items shall be added to the checklist as needed. Finally, these items must be checked for completion as well as reviewed for correctness in the IAR document.



# Table 5-2: Quality Control Checklist and Review Log (Sample) Interchange Access Request Proposals

Project Name:	FDOT Project
	Manager:
FPID No.	DIRC:

No.	ITEM	READY FOR REVIEW	
		CHECKED BY	DATE
1	Travel Demand Forecasting	ы	
	Has the latest version of approved model been used?		
	Have all adjustments been made, per FDOT		
	guidelines and MLOU, and reviewed?		
	Have the traffic factors been reviewed and checked		
	to make sure K, D and T factors are reasonable?		
	Did the project traffic development follow FDOT		
	Traffic Forecasting Handbook and MLOU?		
	Have existing and future traffic volumes been		
	checked for reasonableness?		
2	Operational Analysis		
	Are the inputs into traffic software, correct?		
	Has the validation/calibration of microsimulation		
	been properly documented?		
	Is Build alternative performing better than the No-		
	Build in all analysis years?		
3	Safety Analysis		
	Has appropriate safety analysis been performed to		
	quantify impacts of the recommended		
	improvements?		
4	Concept Design		
	Does the proposed design meet minimum design		
	standards?		
	Have the exceptions and variations, if any, been		
	justified?		
5	Conceptual Signing Plan		
	Has a conceptual signing plan been reviewed and		
	checked to make sure it is showing the type and		
	location of the signs proposed to support the design?		
	Does the signing plan meet the MUTCD?		
6	FHWA's Interstate System Access Requirements		
	Does the proposal satisfy Title 23 CFR Part 624.7?		
7	Report Review		
	Has the report been reviewed for grammatical and editorial errors?		



The DIRC shall submit a written statement of technical review for each IAR document certifying that appropriate QC reviews were conducted and the report satisfies the requirements of 23 CFR Part 624.7 and FDOT's procedure for new or modified interchanges. The statement shall be signed by the requestor and the DIRC.

The recommended format of the statement of technical review is provided in Appendix E.

# **5.14** Quality Assurance Reviews (QARs)

Per the PA, FDOT has agreed to carry out regular quality assurance review activities to ensure that the subject review, analysis, processing and determination complies with the agreed FDOT policies and PA. FDOT ensures this process is done by performing Quality Assurance Reviews (QARs).

QARs of the District's IAR process are conducted by CO SIO. The purpose of the QAR is to ensure that the Districts follow the procedures and guidelines for the preparation of the IAR document. For projects processed under the PA, the QARs will be the expansion of the annual review required by FHWA. The QAR satisfies a requirement for the SO&E delegation under the IAR-PA. At a minimum, one District QAR will be done annually. The frequency may be increased as needed.

#### The District QAR Memorandum will be prepared and submitted to:

- Chief Planner
- District Secretary
- District Planning and Environmental Management Office (PLEMO)
   Manager
- DIRC

The purpose of the QAR is to ensure that the Districts follow the procedures and guidelines for the preparation of the IAR document.

The SIO has developed a standard process that will be used for District QARs. The QAR Process, List of Requested Items and Memorandum Template can be found in **Appendix F**.

The DIRC will submit a written response to the SMA within 30 days after receipt of the QAR Memorandum addressing any findings, including a reasonable solution to the areas identified for improvement. Any comments and questions concerning the QAR Memorandum should be discussed with the SMA or SIRC prior to submitting the written response to the SMA. QARs are valuable tools for identifying areas that need improvement and/or lack training. QARs are also an opportunity to learn new ideas or good practices from the Districts.

CO SIO and FHWA shall develop and facilitate IAR training for the Districts and their consultants to meet the capability requirements of the PA. The training will be scheduled and located dependent on the need and budget.



# **5.15** Processing for Approval Decision

The IAR document is deemed ready for signature from the approval authority when it complies with 23 CFR Part 624.7 and FDOT's policies and procedures. Additionally, all comments and issues raised in ERC during document reviews must be resolved to their satisfaction before the DIRC transmits the report for signatures.

The SIRC is responsible for notifying FHWA Florida Division Office about FDOT's review and determination of safety, engineering and operational acceptability decision for programmatic IARs. **The notification to FHWA will include:** 

- 1. Location and type of change on the interstate system,
- Location where information validating acceptability of the IAR document may be accessed,
- 3. Verification that the required analysis, review and actions taken in considering and processing the IAR document comply with 23 CFR Part 624.7 and PA and

The IAR document is deemed ready for signature from the approval authority when it complies with 23 CFR Part 624.7 and FDOT's policies and procedures.

4. Acceptability determination by the FDOT Chief Engineer of Production.

FHWA Florida Division Office's expedited approval of programmatic IARs will involve concurrence with or objection to the Chief Engineer of Production's determination of SO&E acceptability within five business days of receipt of notification. After receiving FHWA's approval decision, SIRC will inform the DIRC about the final decision.



# **Chapter 6 Safety Analysis Guidance**

## **6.1** Introduction

The purpose of performing safety analyses in IARs is to understand the impacts of the proposed modifications on safety and crash likelihood at an existing or proposed interchange. It is important that an appropriate safety analysis methodology is selected to analyze the proposed modifications in the IAR document. The safety analysis method chosen for the IAR should be in concert with the purpose and need, alternatives analysis and other aspects of the study project. The objective of the safety analysis is to examine the effects of the IAR proposed modifications on the safety performance of the interchange. As such, the safety analysis should proactively aim at reducing or correcting potential safety concerns before recommendations are constructed. The safety analysis shall include the analysis of existing conditions using historical data and quantitative analysis of the proposed modification based on the HSM. The HSM is published by AASHTO and includes methodologies to quantitatively predict a facility's safety performance.

These methodologies are based on the guidelines set by the <u>HSM</u>. The "Predictive Method" in the HSM provides equations (Safety Performance Functions) that statistically predict the number of crashes on rural two-lane roads, rural multilane roads, urban/suburban roads, urban/rural freeways and ramps with specific geometric features and traffic volumes for a given period of time. Crash prediction methods offer a scientific and objective approach for predicting the quantitative safety differences of project alternatives. This allows analysts and reviewers to make sound engineering decisions regarding the proposed modifications in IARs.

# **6.2** Methodology Letter of Understanding (MLOU)

The safety analysis discussion provided in the MLOU should follow and be consistent with the MLOU template. The following information is required in the safety section of the MLOU:

- Safety analysis years
- Historic crash data sources

The safety analysis discussion in the MLOU should be consistent with the MLOU template.

The safety analysis should be performed using the latest five full calendar years of historic crash data available at the MLOU stage as well as the most recent available data for the current year before the MLOU is being prepared. For example, if the MLOU is being prepared on 3/17/2025, data should be pulled from 1/1/2020 to 3/16/2025. The current year crash data (1/1/2025 to 3/16/2025) is typically used to verify crash trends and patterns. If data is not available for the latest five full calendar years, then a minimum of three years of crash data can be used to perform the safety analysis. If less than five years of data are used, it should be explained in the MLOU. If the project is put on hold and does not progress, then the crash data must be updated to the latest five years during the next project initiation. The second item to be included in the MLOU is the source of historic crash data to be used in the safety analysis. All raw crash data should be obtained from Signal Four Analytics Tool. Further discussion on Signal Four Analytics and its use is provided in Section 6.3.



The MLOU shall document an understanding that an existing and quantitative safety analysis will be performed and will be consistent with the safety guidance. The MLOU shall identify the level of safety analysis to be performed, along with any software and tools to be used. If a known deviation from the safety guidance is expected during the MLOU stage, it should be documented in the MLOU. Additional deviations from the safety guidance that occur after the MLOU approval should be discussed with the SIRC and documented in the IAR document.

# **6.3** Existing Conditions Safety Analysis

The existing safety analysis helps identify safety issues within the project study area in the existing year. Along with traffic operations and other relevant factors, the existing safety analysis helps develop the purpose and need for the project. An existing conditions safety analysis shall be performed for all IAR types by analyzing the latest full five calendar years of historic crash data plus the most recent current

The study limits of the existing safety analysis should be the same as for the operational analyses.

year crash data within the AOI. The study limits of the existing safety analysis should be the same as for the operational analyses. The historic crash data collected should include all roadway elements (freeway segments, merge/diverge areas, weaving segments, arterial segments and intersections) within the AOI.

In April 2023, the FDOT Safety Office published the <u>Safety Crash Data Guidance</u>. The Safety Crash Data Guidance provides in-depth detail into the four step process of performing a safety analysis. The safety analysis performed in IARs should follow the guidance provided in the Safety Crash Data Guidance. A summary of the four steps of safety analysis is provided below.

- Step 1 Download the Data
  - Obtain most recent crash data and crash reports from Signal Four Analytics.
    - The <u>Signal Four Analytics</u> tool is an interactive, web-based geospatial crash analytical tool. The tool provides up-to-date crash data for the entire state, reported by law enforcement to the Department of Highway Safety and Motor Vehicles. The tool also has built-in crash analysis functions to evaluate the data.
- Step 2 Clean Data
  - Remove crashes based on the following characteristics: occurred outside the project limits, in parking lots or outside the study AOI.
- Step 3 Summarize Data
  - Summarize the clean crash dataset in a spreadsheet tool.
- Step 4 Safety Analysis
  - Begin safety analysis with clean dataset.

An existing conditions safety analysis uses observed crash data to determine crash severity for historic crashes, crash trends, crash types and major contributing factors. The existing conditions safety analysis' purpose is to identify areas where there may be a safety concern and should include:



#### a. Description of Existing Crash Trends

A written description of the crashes occurring over the analysis period, broken down by location, is required.

The descriptions must provide the following:

- Number of crashes occurred (crash frequency)
- Most frequent crash type
  - Overturns, rear-ends, angle, sideswipes, hitting fixed objects, etc.
- Common crash cause
- Severity of crashes
  - Fatal injury (K), severe injury (A), moderate injury (B), minor injury (C), property damage only (O)
     commonly referred to as KABCO
- Pedestrian and bicycle crashes

#### b. Crash Tables and Diagrams

Crash tables and diagrams — such as heat maps, bar charts, pie charts or other maps graphically showing the common crash types, common crash causes, severity of crashes and high-crash locations along a system or at an interchange — should be created. It is not required that each of these tables and diagrams be provided; however, it is recommended that a sufficient number of tables and diagrams are provided to adequately present the historic safety analysis.

### c. <u>Calculation of Crash Rates, Critical Crash Rates and Safety Ratio</u>

Crash rates are reported as a measure of the existing safety condition as they help normalize the number of crashes relative to traffic exposure variables. Actual crash rates are compared to statewide average crash rates for comparable facilities to determine if a crash location is a high-crash location. If a location has a higher crash rate than the statewide average, it should be noted and considered when recommending modifications. The most recent statewide average crash rates for Florida can be obtained from the FDOT Safety Office or using the Signal Four Analytics tool. Actual crash rates are calculated for roadway segments and intersections. Using the statewide average crash rates and actual crash rates, the critical crash rate and safety ratio can also be determined. The critical crash rate is based on the average crash rate for a similar facility adjusted by vehicle exposure and a probability constant (P value). The safety ratio represents the actual crash rate divided by the critical crash rate. If a segment has an actual crash rate higher than the critical crash rate (e.g., safety ratio > 1.0), it may have a safety deficiency. The calculation of the roadway segment and intersection crash rates, critical crash rates and safety ratios should be included in the existing safety analysis.

#### d. Documentation

The safety analysis of the existing conditions should be summarized in the existing conditions section of the IAR document. It should summarize crash rates, crash types, crash trends, high-crash locations and other safety concerns using the methods and graphics discussed above. Existing safety analysis documentation should

Existing safety analysis documentation should include discussion about fatal crashes and high-crash locations.



include a discussion about any fatal crashes and/or high-crash locations. Lastly, the discussion should include critical crashes involving pedestrians and cyclists since many of these crashes result in injury or fatality. Any supporting data and calculations should be included in the appendix of the IAR document.

# **6.4** Future Safety Analysis

The future safety analysis helps evaluate and compare the potential safety impacts of no-build and proposed alternatives in the IAR document. The future safety analysis can be performed using the three methodologies shown in **Figure 6-1**.

**Figure 6-1 Future Safety Analysis Methodologies** 

# 1. Countermeasure CMF Methodology

# 2. HSM Part C Methodology

# 3. Qualitative Methodology

 If Countermeasure CMF or HSM Part C methodologies cannot be applied to the proposed modifications

The three methodologies can be applied in isolation or in combination depending on the type of proposed modifications. There is no single method that is applicable to all project conditions. The method chosen for future safety analysis depends on multiple factors such as availability of CMFs or SPFs, type of

recommended modifications, etc. It is possible that not all recommended modifications can be analyzed using the Countermeasure CMF or HSM Part C methodology; hence, a combination of the three methods may be necessary in such situations.

The three methodologies can be applied in isolation or in combination depending on the proposed modifications.

## 6.4.1 Countermeasure CMF Methodology

CMFs are applied to the existing crashes to compute the expected crashes after modification.

A CMF is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure. Therefore, CMFs are applied to the existing crashes observed without treatment to compute the expected crashes due to the proposed modification.

The value of a CMF indicates how effective or ineffective a proposed modification could be. If a CMF of 1.0



is applied, it implies the proposed modification will have no effect on the number of crashes. If a CMF of greater than 1.0 is applied, it implies the proposed modification will increase the number of crashes. If a CMF of less than 1.0 is applied, it implies the proposed modification will decrease the number of crashes. A Crash Reduction Factor (CRF) is an estimate of the percentage reduction in crashes due to implementation of a countermeasure. The CRF is equal to one minus the CMF (1-CMF).

CMFs for several treatments have been developed over the years and can be found in the following three sources. For IARs, these sources should be used when selecting a Countermeasure CMF:

#### CMF Clearinghouse

The CMF Clearinghouse, available at <a href="http://www.CMFClearinghouse.org">http://www.CMFClearinghouse.org</a>, offers transportation professionals a central web-based repository of CMFs, as well as additional information and

resources related to CMFs. The CMFs developed for the Clearinghouse are from studies performed in several parts of the world. It is important to review the study and specifics for each CMF used from the Clearinghouse to ensure it is applicable to the IAR-proposed modifications. The CMF Clearinghouse is regularly updated with new CMFs and provides additional information on how to apply these

CMFs with star rating of three or higher should be used in IARs.

CMFs appropriately. CMFs with a star rating of three or higher should be used. The use of a CMF with two or fewer stars is not recommended for the IAR safety analysis.

#### HSM

HSM CMFs are available on the CMF Clearinghouse portal.

The HSM includes some of the highest quality and most common CMFs. The HSM includes CMFs for a broad range of roadway segment and intersection facility types. The CMFs in the HSM are also available on the CMF Clearinghouse portal.

#### FDOT CRFs

Florida began producing state specific CRFs in April 2005. In 2005, the Lehman Center for Transportation Research at Florida International University produced the "Update of Florida Crash

Reduction Factors and Countermeasures to Improve the Development of District Safety Improvement Projects" final report for the State Safety Office. The report focused on developing CRFs using Florida crash data. In 2014, the CRFs were updated. The current Florida CRFs are available at:

FDOT CRFs based on five or more studies should be used in IARs.

https://www.fdot.gov/roadway/qa/tools.shtm. When using the FDOT CRFs, it is recommended that a CRF based on fewer than five projects should not be used in the safety analysis.

## 6.4.2 HSM Part C Methodology

SPFs predict the crash frequency by facility type as a function of roadway characteristics and traffic volume. The HSM Part C provides a predictive method for estimating the expected average crash frequency of freeway segments, merge/diverge segments, weaving segments, ramp segments, ramp terminals, arterial segments and arterial intersections. The predictive method is based on mathematical regression models known as Safety Performance Functions (SPFs). SPFs predict the



crash frequency by facility type as a function of roadway characteristics and traffic volume for the existing and proposed conditions at a specific site.

When performing quantitative safety analysis using SPF equations, the analysis should be performed following the guidance in the HSM Part C. When applying the HSM Part C methodology for the future No-Build and Build Alternatives, it is not recommended the Empirical Bayes method be applied because it can only be applied to proposed conditions that are not substantially different from the existing conditions.

Empirical Bayes method can only be applied to proposed conditions that are not substantially different from the existing conditions.

Safety-based benefitcost analysis is not required in IARs. The future predictive safety analysis should be performed between the opening year and design year of the project. It is not recommended to extrapolate the total crashes. After the analysis for all alternatives is complete, compare and evaluate the final results using tables and discussion in the IAR. For example, the comparison could include the total

number of crashes broken down into the KABCO scale to specify how the improvement will impact the number of fatal, injury and PDO crashes. When comparing the No-Build and Build Alternatives it is not necessary to provide a safety-based benefit-cost analysis in the IAR.

The manual application of the HSM Part C methodology is a cumbersome task and can lead to more analyst errors due to the complexity of the SPF equations and the high number of required inputs. To simplify and expedite the predictive safety analysis process, it is recommended an analysis tool that is consistent with the HSM Part C methodology be used to perform predictive safety analysis using SPFs.

## 6.4.3 Qualitative Safety Methodology

A qualitative safety analysis must only be performed if the quantitative safety analysis cannot be performed for the project modifications using the CMFs/CRFs or HSM Part C methodology. Priority should be given to the quantitative safety assessment of project alternatives. If quantitative assessment is not feasible, then

qualitative safety methodology should be applied. A qualitative safety analysis should include a detailed discussion about the limitations of the quantitative safety analysis techniques in evaluating the safety impacts of the proposed modifications. The qualitative discussion should then list the anticipated impacts on safety due to the recommended modifications. If appropriate, additional qualitative safety discussion can be provided to supplement quantitative safety analysis.

Qualitative safety analysis should include a discussion about the limitations of the quantitative safety analysis techniques.

# **6.5** Documentation

Sufficient documentation must be provided for each step of the IAR safety analysis. For existing safety analysis documentation, refer to the guidance in **Section 6.3**. The future safety analysis documentation required in the IAR document is determined by the method used to perform the analysis (Countermeasure CMF, HSM Part C or qualitative safety analysis). The safety analysis for proposed modifications should document how the IAR proposal would improve the identified safety problems.



### 6.5.1 Countermeasure CMF Method

If the Countermeasure CMF methodology is applied, the documentation should discuss each applicable CMF to every proposed modification. **The documentation for the selected CMFs should include:** 

- CMFs considered and selected for each proposed modification
- CMF characteristics (e.g., base conditions and CMF criteria)
- Summary and values of CMFs
- Justification for selected CMFs
- Source of the selected CMFs

All supporting data and calculations should be included in the appendix.

### 6.5.2 HSM Part C Method

If the HSM Part C methodology is applied to the no-build and build alternatives, the discussion should summarize the analysis, the results and the interpretation and conclusions based on the analysis. A discussion for each alternative evaluated should include:

- Discussion of the modifications analyzed, years analyzed and tool used in the analysis
- Explanation of assumptions needed to perform the analysis
- Discussion of the segmentation process for the reviewer to verify the approach
- Presentation, explanation and comparison of the results of the analysis for all alternatives. The
  results of the analysis will likely be presented as a mix of tables and text showing the
  predicted/expected crashes.

Any supporting data and calculations, such as safety analysis tool input and output data sheets, should be included in the appendix of the IAR document.

## 6.5.3 Qualitative Safety Analysis Method

A qualitative safety analysis should include a discussion on the limitations of the quantitative safety analysis and the anticipated safety impacts of the proposed modifications. It is recommended that the discussion provided is supported by additional research and data, if available. Any supporting data should be included in the appendix of the IAR document.



# **Chapter 7 IAR Re-evaluation**

## 7.1 Re-evaluation

The SO&E determination and approval process for an IAR Re-evaluation shall follow guidance provided in this User's Guide, and satisfy the requirements identified in 23 CFR Part 624.7. The IAR re-evaluation format should be similar to the original IAR document. A re-evaluation is performed to document compliance with the state and federal requirements and processes as the result of changes in the project since the approval of the original IAR document. **Re-evaluations are required for one or more of the following conditions:** 

- Change in an approved IAR design concept,
- Significant change in conditions (traffic characteristics, land use type, environment) or
- Failure of an IAR to progress to the construction phase within five years of approval (time lapse). The approval of the IAR occurs after SO&E affirmative determination and NEPA parts are complete.

Changes in the project that would affect safety, operations and environment compared to the approved IAR shall be considered when determining the need and scope for the re-evaluation. It is, therefore, strongly recommended that the requestor coordinate with the DIRC, SIRC and FHWA to determine the level of effort required prior to proceeding with the re-evaluation process.

A new MLOU shall be prepared for an IAR re-evaluation.

A new MLOU documenting the assumptions and methodology shall be prepared for an IAR re-evaluation.

The applicability of PA or non-PA process must be re-established during the re-evaluation.

The conditions requiring an IAR re-evaluation and the associated documentation requirements are discussed in detail in the sections below. It should be noted that per the PD&E Manual, the IAR re-evaluation should be completed prior to approval of the PD&E Re-evaluation.

## 7.1.1 Change in Approved Access Design Concept

Changes in design features or design concept that occur after an IAR document is accepted shall necessitate the need for re-evaluation of the IAR. The common reasons for design changes of an approved IAR and the minimum requirements for re-evaluation are discussed below.

- PD&E or final design phases in which the requestor can improve the approved IAR concept. An IAR
  re-evaluation during PD&E could occur prior to Affirmative Determination stage if the IAR
  recommended concept changes during PD&E. This type of re-evaluation is most likely to occur if the
  PD&E is initiated following the IAR acceptability and the concept changes due to environmental
  impacts.
- 2. Design changes due to Alternative Contracting (D-B, Phased Design Build, Construction Manager at



#### Risk, etc.) or Cost Savings Initiative (CSI)

In all the above conditions, the approved IAR concept serves as the no-build, or baseline, in the re-evaluation and is used as the basis of comparison with the proposed concept. In the case of Alternative Contracting projects, the approved IAR concept is included with the RFP and referred to as the RFP concept. It is important that the requestor preparing the re-evaluation have a clear understanding of the level of effort that will be required when proposing a change in the approved design concept.

#### Design Changes Due to Environmental Impacts

When the change of an approved design concept occurs during NEPA because of environmental impacts, the re-evaluation shall show the new concept satisfies the SO&E requirements and 23 CFR Part 624.7. An IAR re-evaluation during NEPA could occur prior to Affirmative Determination stage if the IAR recommended concept changes during NEPA. This type of re-evaluation is most likely to occur if the NEPA is initiated following the IAR acceptability and the concept changes due to environmental impacts. An MLOU documenting the methodology and procedures to be followed in the re-evaluation shall be prepared and signed by all applicable parties. The new proposed concept shall be compared with the no-build concept for evaluation purposes.

#### Design Changes During Design Phase

When the change of an approved design concept occurs during NEPA or the final design phase of the project, in which a new concept is proposed as an improvement over the IAR approved concept, the reevaluation shall demonstrate that the new concept satisfies the SO&E requirements and 23 CFR Part 624.7. The new proposed concept shall meet the LOS targets and operate equal to or better than the original IAR

approved concept. It is highly recommended that the requestor have meetings with DIRC, SIRC and FHWA early in the process to come to an agreement over the traffic forecasting methodology to be used in the re-evaluation. The agreed methodology shall be documented in the MLOU and signed by applicable authorities.

The new concept must perform equal to or better than the original approved concept.

#### Design Changes Due to Alternative Contracting or CSI

When a change in the approved design concept occurs during Alternative Contracting projects, in which a new concept is proposed as an improvement over the IAR approved concept, the re-evaluation shall show that the new concept satisfies the SO&E requirements and 23 CFR Part 624.7. In these projects, the approved IAR concept is included in the RFP and serves as the no-build alternative for comparison purposes. The new concept proposed by the contracting team shall perform equal to or better than the original RFP concept and satisfy the 23 CFR Part 624.7. This means the re-evaluation shall show that the proposed new concept operates at acceptable LOS targets and satisfies the other MOEs used in the evaluation of the original concept. It is critical that the requestor involve the DIRC, SIRC and FHWA early in the process to agree upon the re-evaluation methodology. An MLOU documenting the methodology and procedures to be followed in the re-evaluation shall be prepared and signed by all applicable parties. The analysis performed for the re-evaluation shall, at a minimum, use the same MOEs that were identified in the original RFP evaluation.



## 7.1.2 Change in Conditions

An IAR document shall be re-evaluated whenever a significant change in conditions occurs. Changes in projected traffic demand because of a proposed major development or other land use changes that were not part of the original IAR document can necessitate a re-evaluation if it is determined that the design traffic has substantially changed to affect the operation of the interchange. If significant changes in conditions have occurred such as land use, traffic volumes (release of a new travel demand model), roadway configuration or design or environmental commitments, then a re-evaluation will be needed. Engineering judgement will be needed in determining a significant change. Some examples of significant change in conditions include change in travel conditions or patterns resulting in a modification of project need, change in approved design or change in traffic volumes resulting in a different LOS grade.

If the development traffic changes within the interchange AOI, resulting in a change in LOS or a need for the improvement, an IAR re-evaluation shall be required. The re-evaluation shall show that the need for the improvement or modification is justified under the new traffic conditions and satisfies the 23 CFR Part 624.7. The re-evaluation document shall follow the outline of the original IAR document. A new MLOU shall be prepared and signed by applicable authorities.

## 7.1.3 Time-Lapse before Construction

If the project has not progressed to construction within 5 years of receiving an affirmative determination, FHWA may require FDOT to provide verification that the requirements of 23 CFR Part 624.7 continue to be met based on current and projected future conditions. To verify this, a re-evaluation of the IAR may be needed at the initiation of the next project phase such as design, D-B or any other project phase. The IAR document approval occurs upon FHWA signing the letter that confirms SO&E acceptability and PD&E approval steps are complete. The need for the re-evaluation will be determined by the DIRC in coordination with SIRC and FHWA (for non-PA

If the project has not progressed to construction within 5 years of receiving an affirmative determination, FHWA may require FDOT to provide verification that the requirements of 23 CFR Part 624.7 continue to be met based on current and projected future conditions.

projects). If it is determined that a re-evaluation is not needed, the DIRC will document and inform SIRC and FHWA of the decision. It is noteworthy that an IAR document re-evaluation is different than a NEPA re-evaluation.

The re-evaluation shall demonstrate the project need is still viable by considering any changes in the project and conditions that would affect the safety, operations, environment or design criteria used in the original approval. The original access design and any approved Design Exceptions or Variations shall be reviewed. Justification for the design exception or variation for any design elements that do not conform to the current design criteria must be performed during the re-evaluation. The re-evaluation, because of time lapse, shall update analysis years and traffic data used for the original IAR document. Other items to be updated in the re-evaluations include the funding plan, project schedule and compliance with 23 CFR Part 624.7. The re-evaluation document shall follow the outline of the original IAR document. A new MLOU shall be prepared and signed by applicable authorities.



Depending on the amount of time lapsed and change in project area conditions, a new IAR document could be required in lieu of the re-evaluation. The DIRC shall coordinate with SIRC and FHWA to determine the appropriate document and analyses requirements at the beginning of the process if a project has not progressed to construction within five years of affirmative determination.

### 7.2 Traffic Validation

Traffic validation is required for all IAR re-evaluations. If the project has not progressed to construction within five years of receiving an affirmative determination, FHWA may require FDOT to provide verification that the requirements of 23 CFR Part 624.7 continue to be met based on current and projected future conditions.

Existing and future traffic volumes should be validated prior to their use in the analysis of the alternatives in the IAR re-evaluation. The intent of the validation effort is to ensure that the traffic volumes available from the original approved IAR document still reflect the project area's travel conditions and pattern. Historic traffic growth and the latest adopted travel demand model are good sources for this validation effort.

Existing and future traffic volumes should be validated prior to their use in the analysis of the alternatives in the IAR reevaluation.

A traffic validation template has been developed by SIRC and included in the **Appendix H** of this User's Guide. If the traffic validation exercise reveals that the existing or future forecasts from the original approved IAR document are not valid, then a methodology needs to be developed in order to update the traffic. The validation results and proposed traffic forecasting methodology need to be agreed to by the DIRC and SIRC prior to moving forward with the analysis. If the traffic validation exercise reveals that the traffic from the approved IAR are valid, then a traffic update is not required. In this case, an email should be sent to the SIRC and SMA, with the traffic validation results and other supporting information stating that the requirements of 23 CFR 624.7 are met.

The traffic validation template and methodology should also be used for IARs that proceed to the next phase after a five year time frame from the previous document approval. Traffic volumes should be updated if the validation exercise reveals that the existing or future forecasts from the previous approved document are not valid. In instances where the IAR re-evaluation design year is different from the design year of the approved IAR, then the IAR re-evaluation design year should be used in the traffic validation. This can occur if the re-evaluation is started after the opening year of the approved IAR has passed. It should be discussed in the traffic validation memorandum if the recommended alternative in the approved IAR will operate acceptably with the new design year traffic from the IAR re-evaluation.

## 7.3 Safety Analysis

A quantitative safety analysis is required for all IAR re-evaluations comparing the original approved concept with the recommended alternative in the re-evaluation. If a quantitative safety analysis was not performed during approval of the original IAR, then it shall be done as part of the re-evaluation for comparison. If quantitative safety analysis is not feasible based on the proposed modifications, then a qualitative safety analysis can be performed, as appropriate. The quantitative and qualitative safety analysis for the re-evaluation shall follow requirements outlined in **Chapter 6** of this User's Guide.



## 7.4 Documentation

The requestor is encouraged to contact the DIRC and approval authorities to discuss specifics and determine whether an IAR re-evaluation is required. If re-evaluation is required, the DIRC shall coordinate with the approval authorities to determine the type of re-evaluation documents required to update the IAR. After additional coordination with the approval authority, the DIRC notifies the requestor to update the Interchange Access Report. The notification shall include specific items of the previously approved IAR document that must be updated. An appropriate IAR document will be included as an appendix to the NEPA document to ensure that technical information relevant during NEPA analysis is readily available to all parties.

The IAR re-evaluation shall follow the outline of the original IAR document and conform to the requirements of this User's Guide. An MLOU shall be prepared and signed by all applicable entities for all re-evaluations. A quantitative safety analysis is required for all re-evaluations with the latest five year crash data available. The re-evaluation shall be signed per the approval authorities identified in **Chapter 2** of this User's Guide. The IAR re-evaluation scenarios discussed above and the level of effort required is summarized in **Table 7-1** below.

Table 7-1: Re-evaluation Types and Requirements for IARs

Re-evaluation type	Primary reason for re-evaluation	MLOU required	Traffic update required*	Quantitative safety analysis required	Basis for comparison	Documentation level	Satisfy 23 CFR Part 624.7
NEPA	Environmental impacts	Yes	*	Yes	No-build	Update relevant sections in the IAR document such as alternatives, analysis, environmental, FHWA's interstate system access requirements	Yes
Design phase	Modified design	Yes	*	Yes	Approved IAR concept	Revised IAR document	Yes
Alternative Contracting, CSI	Modified design	Yes	*	Yes	RFP/RFQ	Revised IAR document	Yes
Change in conditions	Change in traffic	Yes	Yes	Yes	No-build	Revised IAR document	Yes
Time lapse	years since IAR document		No-build and previously approved IAR concept	Revised or new IAR document	Yes		

<sup>\*</sup> To be determined on a case-by-case basis depending on change in conditions, to be discussed during preparation of the MLOU. If significant changes have occurred since approval of the original IAR document (for example, an increase or change in traffic resulting in change in approved design concept), then an updated traffic analysis shall be required.



## 7.5 Technical Memorandum in lieu of Re-evaluation

Sometimes changes can happen to the recommended design concept that does not require preparation of an IAR document. If there is a change proposed to the design within the AOI that does not impact the interchange operations, then a re-evaluation of the IAR document is not required. For example, a design change could be proposed at an intersection adjacent to the ramp terminal that does not have an impact on the interchange. In such a situation, instead of a reevaluation, a technical memorandum can be prepared and included

If there is a change proposed to the design within the AOI that does not impact the interchange operations, then a re-evaluation of the IAR document is not required.

as an appendix to the approved IAR document. The memorandum should include a new analysis and show that the proposed change will not impact interchange operations and safety. The requestor is encouraged to contact the DIRC and approval authorities to discuss specifics and determine whether a technical memorandum can be prepared in lieu of an IAR re-evaluation.



# **Appendix A – Affirmative Determination Letter Examples**



# Letter to FHWA Requesting Final Approval of Interchange Access Request for Proposals with a PD&E Study



RON DESANTIS

605 Suwannee Street Tallahassee, FL 32399-0450 KEVIN J. THIBAULT, P.E. SECRETARY

June 17th, 2025

Dear Mr. Holt,

This letter serves as notification that the Florida Department of Transportation (FDOT) has completed the two (2) parts needed to obtain an affirmative determination by Federal Highway Administration (FHWA) of safety, operational, and engineering (SO&E) acceptability for the subject project. FDOT is submitting a request to formally approve a change in access to FHWA.

Project Name, FM number and Location: I-95 from north of I-10 to South of Martin Luther King Jr. Parkway, 442778-1, Duval County, Florida

Interchange Access Request Type: SIMR

Regarding this Interchange Access Request, this letter signifies that the SO&E acceptability determination has been completed. FDOT also certifies the National Environmental Policy Act (NEPA) document has been completed and that the preferred alternative evaluated in NEPA was the same alternative as was assessed in the SO&E acceptability determination.

The SO&E acceptability determination was completed on December 16th, 2024. The Design Change/Construction Advertisement Reevaluation approval was granted by FDOT Office of Environmental Management on June 2nd, 2025, pursuant to Title 23 United States Code Section 327 and the implementing Memorandum of Understanding executed on May 26, 2022 by FDOT and FHWA.

FHWA's signature on this letter constitutes the affirmative determination of the SO&E and approval of this Interchange Access Request.

Sincerely,

Joshna Jester

ECGNOBALFEGADO...

Joshua A. Jester, PE

Systems Management Administrator Systems Implementation Office

Daniel Holt, PE, PTOE Office of Project Delivery Director, FHWA Florida Division

Improve Safety, Enhance Mobility, Inspire Innovation www.fdot.gov



# Letter to FHWA Requesting Final Approval of Interchange Access Request for Type 1 Categorical Exclusion Proposals



RON DESANTIS GOVERNOR

605 Suwannee Street Tallahassee, FL 32399-0450 KEVIN J. THIBAULT, P.E. SECRETARY

July 31st, 2025

Daniel Holt, PE
Director, Office of Project Delivery
George C. Young Federal Building & Courthouse
400 W. Washington Street Room 4200
Orlando, FL 32801

Dear Mr. Holt,

This letter serves as notification that the Florida Department of Transportation (FDOT) has completed the two (2) parts needed to obtain an affirmative determination by Federal Highway Administration (FHWA) of safety, operational, and engineering (SO&E) acceptability for the subject project. FDOT is submitting a request to formally approve a change in access to FHWA.

Project Name, FM number and Location: I-75 at SR 326, 452072-1, Marion County, FL Interchange Access Request Type: IMR

Regarding this Interchange Access Request, this letter signifies that the SO&E acceptability determination and the environmental review process have been completed. FDOT also certifies the National Environmental Policy Act (NEPA) document has been completed and that the preferred alternative selected under NEPA is consistent with the SO&E determination. Also, the conditions in the SO&E determination are still valid, and a re-evaluation is not required.

The SO&E acceptability determination was completed on June 24<sup>th</sup>, 2025. The Type 1 CE Checklist was approved by FDOT on July 22<sup>nd</sup>, 2025, pursuant to Title 23 United States Code Section 327 and the implementing Memorandum of Understanding executed on May 26, 2022 by FDOT and FHWA.

FHWA's signature on this letter constitutes the affirmative determination of the SO&E and approval of this Interchange Access Request.



Joshua A. Jester, PE Systems Management Administrator Systems Implementation Office Daniel 110tt

Daniel Holt, PE, PTOE
Office of Project Delivery Director, FHWA Florida Division

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### Transmittal Letter to FHWA



RON DESANTIS GOVERNOR 605 Suwannee Street Tallahassee, FL 32399-0450 KEVIN J. THIBAULT, P.E. SECRETARY

June 30, 2025

Daniel Holt, PE
Director, Office of Project Delivery
George C. Young Federal Building & Courthouse
400 W. Washington Street Room 4200
Orlando, FL 32801

Dear Mr. Holt,

This letter serves as request for FHWA concurrence with the Florida Department of Transportation (FDOT) on the request for change in Interstate System access proposed by the Moving I-4 Forward Program for I-4 (SR 400) in Osceola, County, FL. Included in this transmittal are SIMR document, Appendices, responses to FHWA Headquarters comments, memorandum outlining the summary of changes since the previous review. FDOT has verified that the Requestor has conducted required analysis, review, and actions to substantiate acceptability of the proposed change. The review and processing of the change in access request complies with the requirements specified in FHWA's Policy on Access to Interstate System dated May 22, 2017, and FDOT procedures for new or modified interchanges.

#### Project Description:

The Florida Department of Transportation (FDOT) Corridors Program Office has prepared a System Interchange Modification Report (SIMR) for the proposed improvements along I-4 in Osceola County, FL. The proposed improvements will be delivered by the FDOT Moving I-4 Forward Program under multiple procurements via alternative delivery methods. The proposed improvements include the addition of two express lanes in each direction along I-4 between CR 532 and SR 536 with strategic express lane access via slip ramps and direct connect ramps.

The purpose of this SIMR is to document the potential safety and operational impacts of the mainline and interchange modifications being proposed as part of the Moving I-4 Forward Program. The I-4 corridor serves as a key connection for commuters as well as visitors in Central Florida. The purpose of this project is to improve safety and improve traffic operations on I-4 through the study area. Improvements to the operation and safety of I-4 will better accommodate future population increases, improve mobility, support economic growth, and improve travel time reliability in the region.

Sincerely,

Joshna Jester —ECC3003A3F6C4D0

Joshua A. Jester, PE Systems Management Administrator Systems Implementation Office

CC: Chief Engineer, Chief Planner, District Interchange Review Coordinator, FHWA District Transportation Engineer, State Interchange Review Coordinator, Moving I-4 Forward Program Director



## **Appendix B – MLOU Template**



# Florida Department of Transportation Interchange Access Request Methodology Letter of Understanding (MLOU)

Type of Reque	st: ☐ IJR	☐ IMR	$\square$ IOAR	
Type of Proces	ss: 🗆 Program	matic 🗆 No	n-Programmatic	$\square$ Other
[Project Name]				
PID:	_			
oordination of assumptions, proc equest process will be maintained				c review during the acce
ull compliance with all MLOU requ	uirements does not d	obligate the Acc	eptance Authorities	to accept the IAR.
he Requestor shall inform the app n amendment shall be prepared i			o the approved met	thodology in the MLOU a
Requestor —	l	Type Name Here [Type Title Here]		Date
Interchange Review				
Coordinator		[Type Name Here [Type Title Here]		Date
Systems Management				
Administrator		Joshua Jester, PE mentation Office		Date
Federal Highway Administration —				
(if applicable)		[Type Name Here [Type Title Here]	]	Date



### 1.0 Project Description

Provide background or supporting information that explains the basis for the request.

### A. Purpose and Need Statement

Provide the Purpose, the Need and the Goals and Objectives.

### B. Project Location

Provide project description and a map of the IAR project location.

### C. Area of Influence

Provide a description of the area of influence along the main line and cross street.

### D. Project Schedule

Identify the schedule of production activities consistent with a proposed conceptual funding plan and opening year.

### 2.0 Analysis Years

- A. Travel Demand Model
- Base year
- Horizon year
- B. Traffic Operational Analysis
- Existing year
- Opening year
- Design year

A year of failure analysis shall be performed for Preferred Alternative; in case a failing LOS is obtained in Design Year.

#### 3.0 Alternatives

The No-Build and Build alternatives shall be analyzed in the IAR. Details of all reasonable build alternatives considered, including those eliminated from further considerations, shall be documented. The documentation for the alternatives eliminated can be minimal like a summary of what was considered, reasons for elimination etc. Build Alternatives meeting purpose and need of the project shall have a more detailed description and evaluated in the IAR.

The implementation of TSM&O elements will be incorporated in the IAR Recommended Alternative.

### 4.0 Data Collection

The type of data that may be used should be identified.

- A. Transportation System Data
- B. Existing and Historical Traffic Data
- C. Land Use Data
- D. Environmental Data
- E. Planned and Programmed Projects



### 5.0 Travel Demand Forecasting

A. Selected Travel Demand Model(s)

### B. Project Traffic Forecast Development Methodology

Describe the methodology and assumptions in developing the future year traffic volumes (AADT and DDHV)

### C. Validation Methodology

Describe the validation methodology using current FDOT procedures and data collection procedure

Identify how modifications to the travel demand forecasting model will be made, including modifications to the facility type and area type for links, modifications to socio-economic data and all input and output modeling files for review.

### D. Adjustment Procedures

Identify the process used to adjust modeled future year traffic to the defined analysis years. Discuss how trends/growth-rates will be factored into this, if applicable.

### E. Traffic Factors

- Utilizing recommended ranges identified in the <u>Project Traffic Forecasting Handbook</u> and <u>Procedure</u> (525-030-120).
- Utilizing other factors, identified below

Roadway	K	D	T <sub>daily</sub>	DHT/T <sub>f</sub>	PHF	MOCF	PHF

### Source:

If any of the above traffic factors are modified during the IAR due to additional information becoming available, then CO will be informed and supporting information will be provided in the IAR.

### 6.0 Traffic Operational Analysis

The area type, traffic conditions and analysis tools to be used are summarized in this section.

A. Existing Area Type/Traffic Conditions

Aroa Typo	Cond	litions
Area Type	Under Saturated	Saturated
Rural		
Urban Area/Transitioning Area		



B. Traffic Analysis Software Used

Caftura		System Component								
Softwa	re		Freew	Crossroad						
Name	Version	Basic Segment	Weaving	Ramp Merge	Ramp Diverge	Arterials	Intersections			
HCS/HCM										
Synchro										
Corsim										
Vissim										
Other										

- C. Calibration Methodology
- Calibration methodology and parameters utilized will be documented.
- Calibration Measures of Effectiveness (MOEs) and calibration targets.
- D. Selection of Measures of Effectiveness (MOE)
- The Level of Service criteria for each roadway classification, including mainline, ramps, ramp terminal intersections and the crossroad beyond the interchange ramp terminal intersections are identified below.
- In addition to the Level of Service criteria, state other operational MOEs to be utilized for the evaluation of alternatives.

### 7.0 Safety Analysis

A. Detailed crash data within the study area will be analyzed and documented. The latest complete five years plus most recent available for the current year of crash data shall be used.

Years:

Source:

B. Identify the level of safety analysis to be performed, along with any software and tools to be used.

### 8.0 Consistency with Other Plans/Projects

- A. The request will be reviewed for consistency with facility Master Plans, Actions Plans, SIS Plan, MPO Long Range Transportation Plans, Local Government Comprehensive Plans or development applications, etc.
- B. Where the request is inconsistent with any plan, steps to bring the plan into consistency will be developed.
- C. The operational relationship of this request to the other interchanges will be reviewed and documented. The following other IARs are located within the area of influence.



#### 9.0 Environmental Considerations

- A. Status of Environmental Approval and permitting process.
- B. Identify the environmental considerations that could influence the outcome of the alternative development and selection process.

### 10.0 Coordination

Yes	No*	N/A*	
			An appropriate effort of coordination will be made with appropriate proposed developments in the area.
			Request will identify and include (if applicable) a commitment to complete the other non-interchange/non-intersection improvements that are necessary for the interchange/intersection to function as proposed.
			Request will document whether the project requires financial or infrastructure commitments from other agencies, organizations, or private entities.
			Request will document any pre-condition contingencies required in regards to the timing of other improvements and their inclusion in a TIP/STIP/LRTP prior to the Interstate access approval (final approval of NEPA document).
			Request will document the funding and phasing.

### 11.0 Anticipated Design Exceptions and Variations

Any known exceptions/variations to FDOT, AASHTO or FHWA rules, policies, standards, criteria or procedures will be listed in the IAR document.

### 12.0 Conceptual Signing Plan

A conceptual signing and marking plan shall be prepared and included in the access request. The conceptual signing plan shall be consistent with the most recent version of the MUTCD.

### 13.0 Access Management Plan

L	Access	management	plan	within	the	area	of	influence	will	not	be	changed	bу	the	proposed
	improve	ements to the i	nterc	hange.											

The improvement will affect the access management within the area of influence that will require a change to the access management plan. An access management plan will be developed within the area of influence to complement the improvements to the interchange.

### 14.0 Title 23 CFR Part 624.7 Interstate System Access Requirements

The Interstate System Access Requirements will be addressed within the access request.

<sup>\*</sup>Explain if No or Not Applicable (N/A) is checked:



# **Appendix C – Break in Limited Access Request Technical Documentation Template**





RON DESANTIS GOVERNOR 605 Suwannee Street Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E. SECRETARY

## **MEMORANDUM**

То:	
From:	
Date:	
Project:	
CC:	
Subject:	



## 1.0 Project Description

Provide background or supporting information that explains the basis for the request.

A. What is the purpose and need of the break in limited access?
B. What is the project schedule for the proposed break in limited access? Identify the schedule of production activities.
C. Identify how will the access be secured, if required? Who will maintain the access?
<b>2.0 Existing Conditions</b> Provide a description of the existing conditions. With the following existing conditions information, please provide a project location map on an aerial background.
A. Where is the limited access to be broken? Provide a brief description of the project location. Include project location map, figures and other information such as latitude and longitude, as needed.
B. What is the project area type (urban, rural)?
C. What are the existing roadway characteristics (geometry, speed limit, is there adequate sight distance, etc.)?
D. What are the existing traffic volumes for the roadway or ramp at the break in limited access location? Provide daily or peak hour existing traffic volumes.
E. What is the existing peak hour of travel at the break in access location (during AM and PM peak hours)?



### 3.0 Impact of Break in Limited Access – Operational

Provide a description of the operational impacts of the proposed break in limited access.

- A. What is the V/C Ratio for the roadway or ramp at break in limited access location? Also, discuss the change in V/C Ratio as a result of the additional trips to the site.
- B. Were other locations for break in limited access considered and why were they rejected? This information confirms the feasibility of the proposed access.
- C. Please discuss any other anticipated impacts of the trips on the operations of the interstate or local roadway.

### 4.0 Impact of break in limited Access – Safety

Provide a description of the safety impacts of the proposed break in limited access.

A. Is the roadway considered a high crash location? Please provide a comparison of the actual crash rate with the statewide average crash rate, if applicable. List safety measures that will be implemented if this is a high crash location.

High Crash Lo	ocation?
Yes	No
Existing Crash Rate:	
Statewide Average Crash Rate:	

### 5.0 Recommendation

Based on the technical information provided in the above sections, the District Office of Maintenance is recommending for concurrence this break in limited access. This break in limited access meets Title 23 CFR 624.7 and is safety, operations and engineering acceptable. This proposed request will provide controlled and safe access without any negative impacts to the mainline or roadway.

Approved:	Date
Rejected:	 Date



# **Appendix D – Locked Gate Access Request Technical Documentation Template**



## Florida Department of Transportation Locked Gate Access Request

## **Technical Documentation**

[Project Name]		
FPID:		
District Office of Maintenance	[Type Name Here] [Type Title Here]	Date
Federal Highway Administration	[Type Name Here]	Date





## 1.0 Project Description

Provide background or supporting information that explains the basis for the request.

C.	What is the purpose and need of the locked gate access request?
D.	What is the project schedule for the proposed locked gate access? Identify the schedule of production activities.
2	2.0 Existing Conditions
	ovide a description of the existing conditions. With the following existing conditions information, please ovide a project location map on an aerial background.
F.	Where is the Locked Gate Access? Provide a brief description of the project location. Include project location map, figures and other information such as latitude and longitude, as needed.
G.	Who is the owner and lessee of the property contiguous to the access?
	What is the project area type (urban, rural)?
	What are the existing roadway characteristics (geometry, speed limit, is there adequate sight distance c.)?
J.	What are the existing traffic volumes for the roadway or ramp providing access to the site? Provide daily or peak hour existing traffic volumes.
C.	What is the existing peak hour of travel at the proposed access location (during AM and PM peak hours)?



### 3.0 Impact of Locked Gate Access – Operational

Provide a description of the operational impacts of the proposed locked gate access.

A.	How many trips are anticipated to access (enter and exit) the site? Please include the frequency of trips (per month, per day, etc.)
В.	How many vehicles are anticipated per trip to access the site?
С.	How will vehicles exit and enter the flow of traffic?
D.	What time of day is it anticipated the trips will occur? Also, specify if the trips to the site will occur during the peak hour.
Ε.	What will be the duration of the trip to the access site?
F.	What is the V/C Ratio for the roadway or ramp providing access to the site? Also, discuss the change in V/C Ratio as a result of the additional trips to the site.
G.	If the access is in a safety rest area, how will the site vehicles avoid the operations of the safety rest area?
Н.	Were other sites considered and why were they rejected? This information confirms the feasibility of the proposed access.
I.	Please discuss any other anticipated impacts of the trips on the operations of the interstate or local roadway.



### 4.0 Impact of Locked Gate Access – Safety

Provide a description of the safety impacts of the proposed locked gate access.

A. Is the roadway providing access to the site considered a high crash location? Please provide a comparison of the actual crash rate with the statewide average crash rate, if applicable. List safety measures that will be implemented if this is a high crash location.

High Crash Location?				
Yes	No			
Existing Crash Rate:				
Statewide Average Crash Rate:				

B. What safety precautions are recommended during trips to the site? Provide a list.

### 5.0 Signing and Lighting

- A. What are the anticipated signing elements (temporary and permanent) to be included in the site? Who is responsible for preparing a temporary traffic control setup, as applicable? If it is anticipated that daily trips will occur, a permanent signage plan may be needed.
- B. What are the anticipated lighting elements (temporary and permanent) to be included in the site?

### 6.0 Recommendation

Based on the technical information provided in the above sections, the District Office of Maintenance is recommending for concurrence this locked gate access. This locked gate access meets Title 23 CFR Part 624.7 and is safety, operations and engineering acceptable. This proposed request will provide controlled and safe access without any negative impacts to the mainline, roadway or ramp being used to access the site.



# Appendix E – Template for Statement of Technical Review (QC Certification) and Quality Control Checklist Template



### Appendix E | Template for Statement of Technical Review (QC Certification) and Quality Control Checklist Template)

## SYSTEMS IMPLEMENTATION OFFICE QUALITY CONTROL CERTIFICATION FOR INTERCHANGE ACCESS REQUEST SUBMITTAL

Submittal Date: Click or tap to enter a date.						
FM Number:						
Project Title:						
District: Choose an item.						
Requestor:	uestor: Phone:		:			
District IRC:	Phone:					
<u>Document Type</u> : ☐ MLOU	□ IJR □ IMR	□ IOAR	☐ OTHER <u>(Specify)</u>			
Status of Document (Only complete documents will be submitted for review; however, depending on the complexity of the project, interim reviews may be submitted as agreed upon in the MLOU)						
Quality Control (QC) Statement This document has been prepared following FDOT Procedure Topic No. 525-030-160 (New or Modified Interchanges) and complies with the Title 23 CFR Part 624 requirements. Appropriate District level quality control reviews have been conducted and all comments and issues have been resolved to their satisfaction. A record of all comments and responses provided during QC review is available in the project file or Electronic Review Comments (ERC) system.						
Requestor[SIGN NAME]			Date:			
District IRC[SIGN NAME]			Date:			





**Project Name:** 

FDOT Project Manager: DIRC:

FPID No.

No.	ITEM	READY FOR REVIEW	
		CHECKED BY	DATE
1	Travel Demand Forecasting		
	Has the latest version of approved model been used? Have all adjustments been made, per FDOT guidelines and MLOU, and reviewed?		
	Have the traffic factors been reviewed and checked to make sure K, D and T factors are reasonable?  Did the project traffic development follow FDOT		
	Traffic Forecasting Handbook and MLOU?  Have existing and future traffic volumes been		
	checked for reasonableness?		
2	Operational Analysis		
	Are the inputs into traffic software, correct?		
	Has the validation/calibration of microsimulation been properly documented?		
	Is Build alternative performing better than the No- Build in all analysis years?		
3	Safety Analysis		
	Has appropriate safety analysis been performed to quantify impacts of the recommended improvements?		
4	Concept Design		
	Does the proposed design meet minimum design standards?		
	Have the exceptions and variations, if any, been justified?		
5	Conceptual Signing Plan		
	Has a conceptual signing plan been reviewed and checked to make sure it is showing the type and location of the signs proposed to support the design?		
	Does the signing plan meet the MUTCD?		
6	FHWA's Interstate System Access Requirements		
	Does the proposal satisfy Title 23 CFR Part 624.7?		
7	Report Review		
	Has the report been reviewed for grammatical and editorial errors?		



## **Appendix F – QAR Process, Checklist and Templates**



### **QAR Process**



### Florida Department of Transportation Systems Implementation Office Quality Assurance Review



#### **QAR Process**

- 1. At a minimum, one District QAR will be done annually. The frequency may be increased as needed.
- 2. Projects will be randomly selected: 2 MLOUs, 2 IARs and 1 Re-eval (if applicable) per QAR. These projects will be selected from the prior 2-year period.
- 3. Districts will have 20 business days to upload the information in the folder provided by SIRC. This folder will be read/write protected for each district. A list of the information to be uploaded for the QAR will be provided.
- 4. The SIRC will have 20 business days to complete the QAR checklist.
  - a. The SIRC will have a teleconference with the District to discuss the findings before the upload to the Department's QAR Site.
- 5. Upload the findings to the FDOT's QAR Site.
- A QAR Report will be prepared by SIO and submitted to the Chief Engineer of Production, Chief Planner, District Secretary, District Planning and Environmental Office Manager, and DIRC per IARUG 5.14
- 7. The DIRC will submit a written response to the SMA within 30 days after receipt of the QAR report addressing any findings, including, a reasonable solution to the areas identified for improvement per IARUG 5.14
- 8. QARs will be summarized in the annual report to FHWA.



### **QAR List**



### Florida Department of Transportation Systems Implementation Office Quality Assurance Review



### **QAR List**

### **MLOU**

- DIRC Meeting in which the project was initiated: meeting log, sign in sheet (including offices represented) and meeting notes.
- DIRC Meeting logs, sign in sheets (including offices represented) and meeting notes for all meetings after initial project meeting.
- ERC comment and response downloads.
- Executed MLOU.

### IAR

- DIRC Meeting logs, sign in sheets (including offices represented) and meeting notes for all meetings.
- ERC comment and response downloads.
- ERC comment and response downloads for FHWA review (if applicable).
- Executed IAR.
- SO&E notification letter to FHWA.
- Affirmative Determination letter and approval to FHWA (if applicable).
- PD&E documents showing that the concept is the same as in the IAR (if applicable).

### Re-evaluation

- DIRC Meeting logs, sign in sheets (including offices represented) and meeting notes for all meetings.
- Provide relevant write up and tables referring to the traffic from the re-eval.
- Provide relevant write up and tables and analysis to the safety analysis showing that it was brought up to the current standards required by the most recent version of the IARUG.
- Executed re-eval.



### **QAR Initiation Memorandum**



RON DESANTIS GOVERNOR 605 Suwannee Street Tallahassee, FL 32399-0450 KEVIN J. THIBAULT, P.E. SECRETARY

### **MEMORANDUM**

DATE:

TO: Enter District IRC Here

FROM: Enter Name, State Interchange Review Coordinator

COPIES: Enter Name, District Planning and Environmental Office Manager Enter Name, PE, Systems Management Administrator Enter Name, Systems Implementation Office Manager

SUBJECT: District XX Quality Assurance Review (QAR) for Interchange Access Requests for the Years 20XX-20XX

Dear Mr./Ms. (District IRC Name),

The Systems Implementation Office has randomly selected the following projects to perform the QAR for your district:

- Methodology Letter of Understanding Project #1
- Methodology Letter of Understanding Project #2
- Interchange Access Request Project #1
- Interchange Access Request Project #2
- Re-Evaluation Project

The QAR will be performed to ensure that the process outlined in the following publications have been followed:

- Procedure 525-030-160, New or Modified Interchanges
- Interchange Access Request User's Guide

This QAR will be performed as a desk QAR and all items that the district provides will be uploaded to a secure site that can be accessed via this <u>link</u>. For the district's convenience, enclosed is the QAR process and a list of items that will need to be uploaded for each project to complete the QAR.

Your assistance in this process is appreciated.

Enclosures

www.fdot.gov



### **QAR Report Memorandum (Page 1)**



RON DESANTIS GOVERNOR 605 Suwannee Street Tallahassee, FL 32399-0450 KEVIN J. THIBAULT, P.E. SECRETARY

### **MEMORANDUM**

DATE:

TO: Enter District Secretary Here

FROM: Enter Name, Manager, Systems Implementation Office

COPIES: Enter Name, Chief Planner

Enter Name, District IRC

Enter Name, District Planning and Environmental Office Manager

SUBJECT: District XX Quality Assurance Review (QAR) for Interchange Access Reports for the Years 20XX-20XX

A QAR was performed for District XX in Month Year for the Interchange Access Requests (IARs) that were prepared in the calendar years XX through XX. The District Interchange Access Request Process was reviewed for adherence to the procedures and guidelines set forth by the Systems Implementation Office. The following projects were reviewed:

- Methodology Letter of Understanding Project #1
- Methodology Letter of Understanding Project #2
- Interchange Access Request Project #1
- Interchange Access Request Project #2
- Re-Evaluation Project

### **Summary of Findings:**

A summary from the QAR checklist will be done here.

### **Recommendations:**

A summary of recommendations, if any will be addressed in this section.

### **Special Recognition:**

All recognition will be summarized in this section.

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### **QAR Report Memorandum (Page 2)**

### **Close-out Meeting/Teleconference:**

A close-out meeting will be held with the District prior to the QAR results being entered into the Department's QAR site and this QAR report being sent to the District Secretary. This will be an opportunity for the District to bring up any questions/discussions and needs that may need to be addressed with process improvements or future training. Central Office is looking to this process as a team effort to make the entire IAR process one that works well for all involved and this QAR effort can be used to identify areas where we can do that and also work towards the goal of satisfying FHWA's needs on the Interstate System. The District Interchange Review Coordinator (DIRC) will submit a written response to the Systems Management Administrator (SMA) within 30 days after receipt of the QAR report.

### **QAR Findings and Recognition:**

The findings of the QAR and corrective action taken by the District will also be shared with FHWA in our Annual Report on the Programmatic Agreement.

Enclosures – the QAR checklist will be the enclosure – this will be what is used to do the inputs into the Department's QAR site.

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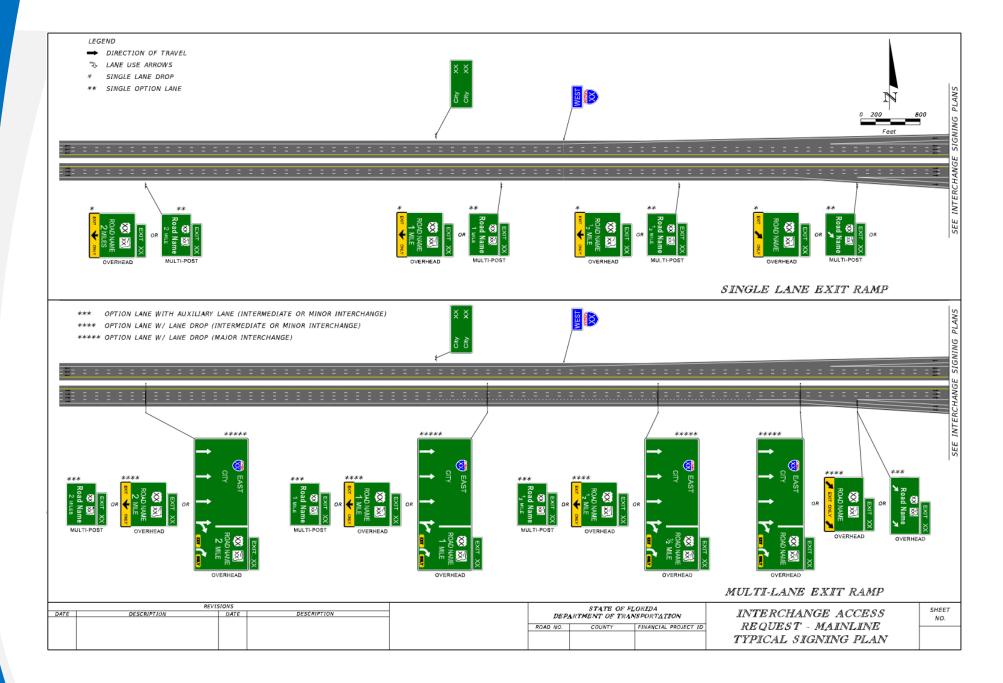


## **Appendix G – Sample Signing Plans**



## **Mainline Typical Signing Plan**

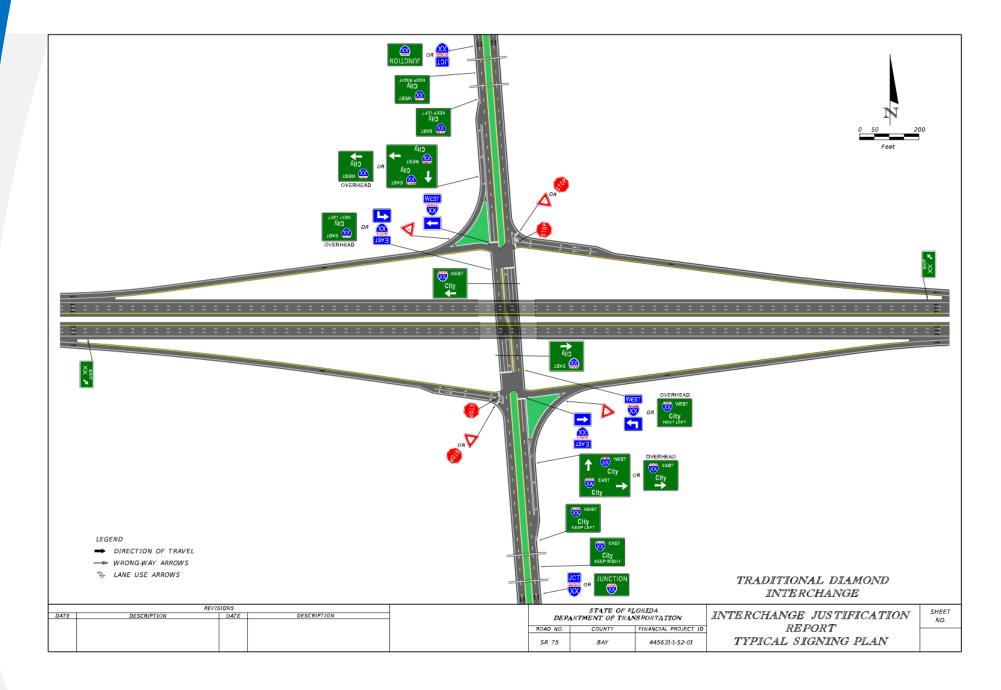






## **Conventional Diamond Interchange Signing Plan**

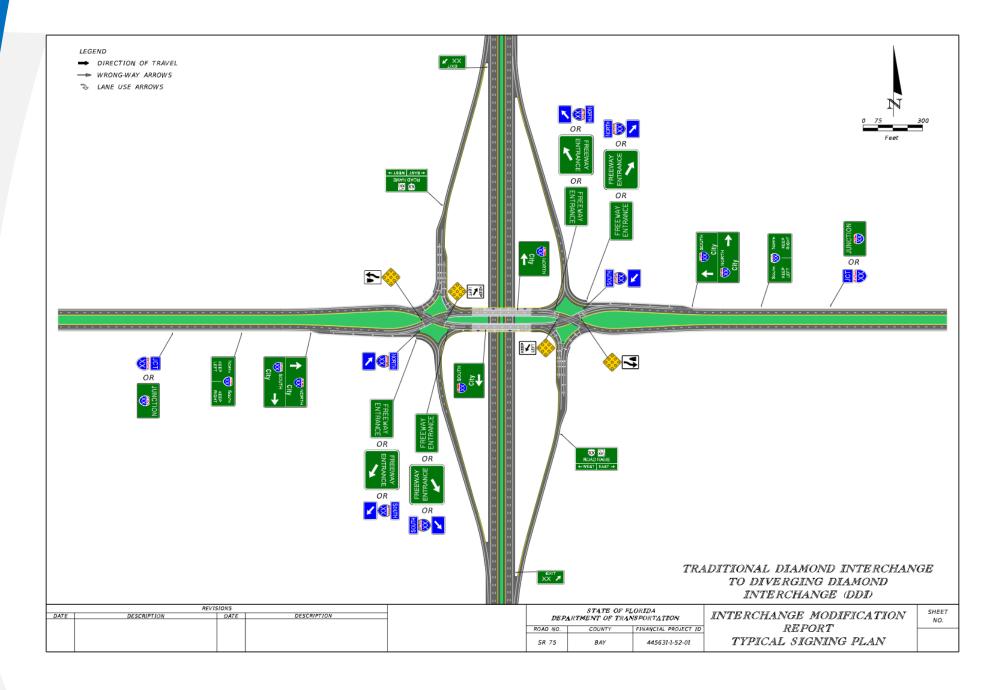






## Diverging Diamond Interchange Signing Plan – 4 Lanes Along Crossroad

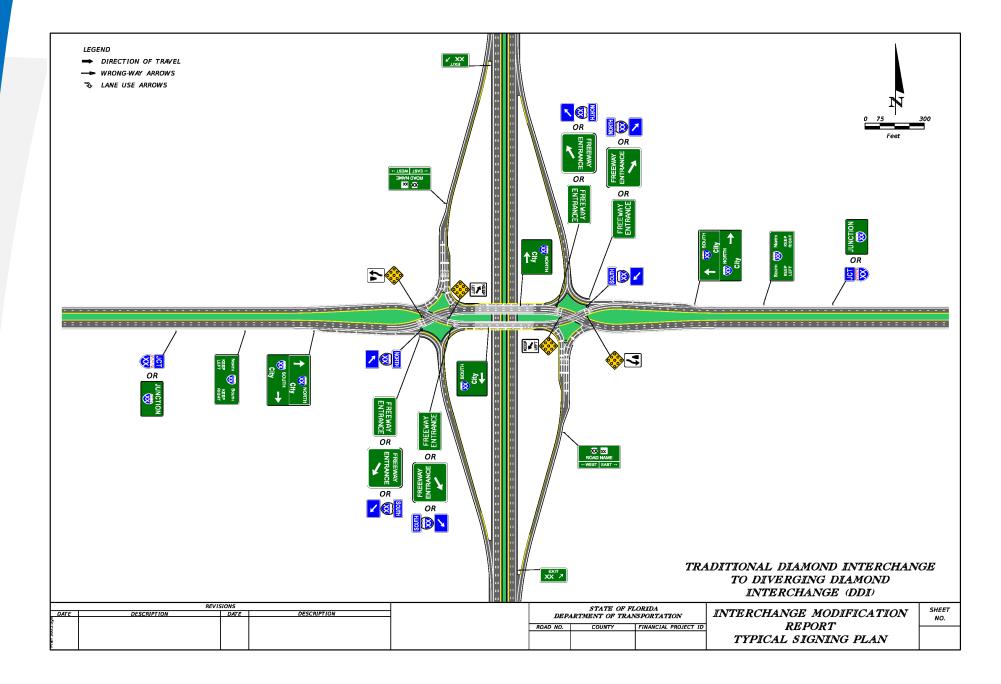






## Diverging Diamond Interchange Signing Plan – 5 Lanes Along Crossroad







#### Freeway-to-Freeway Signing Plan

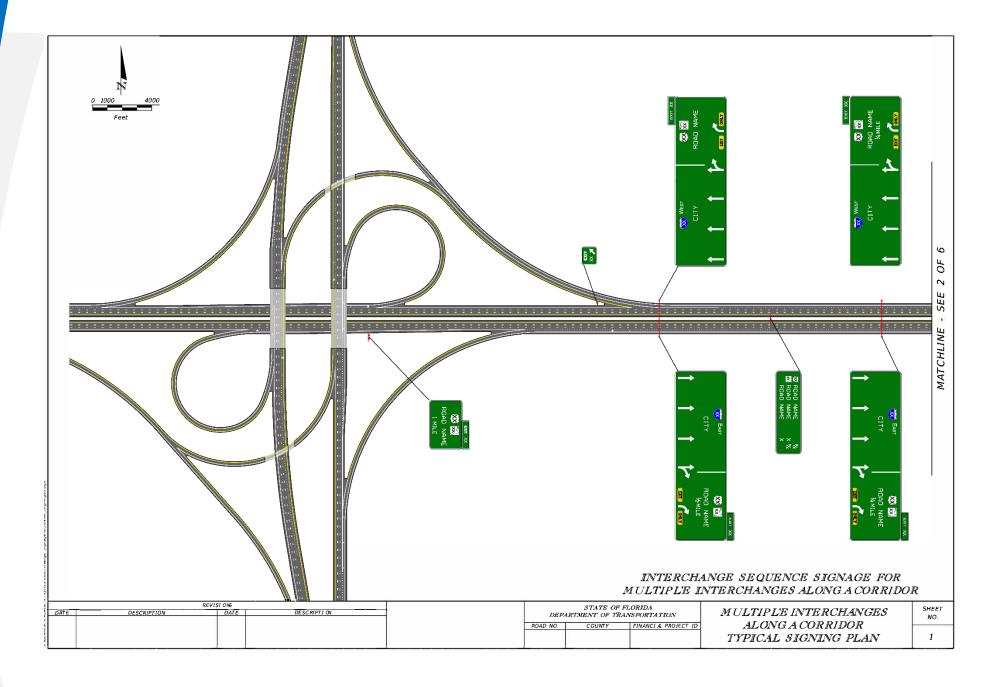




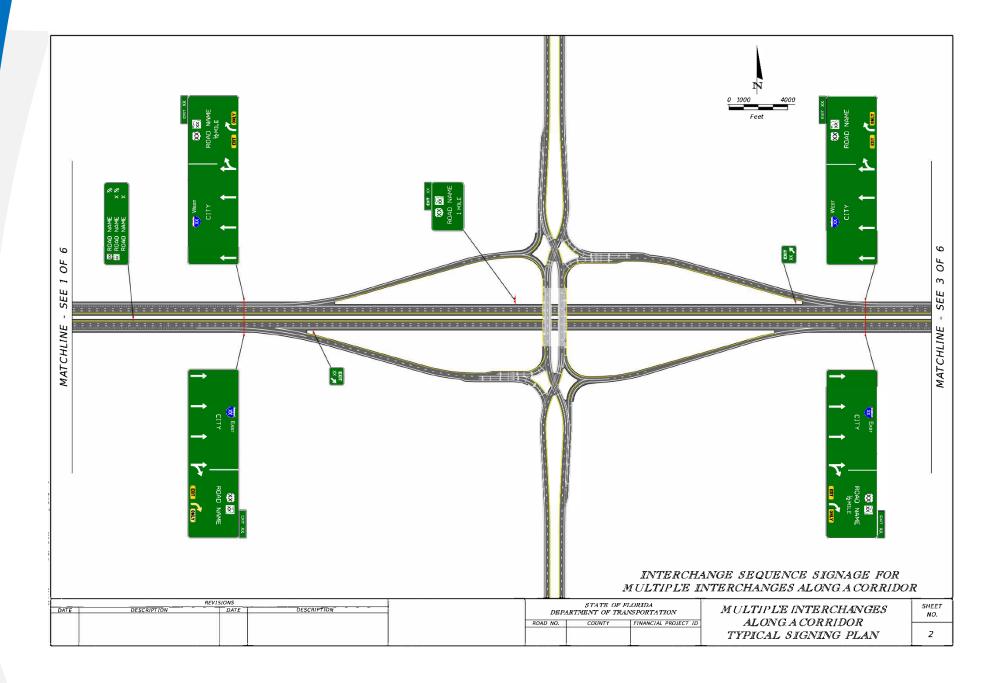


#### **Multiple Interchanges Along a Corridor Signing Plan**

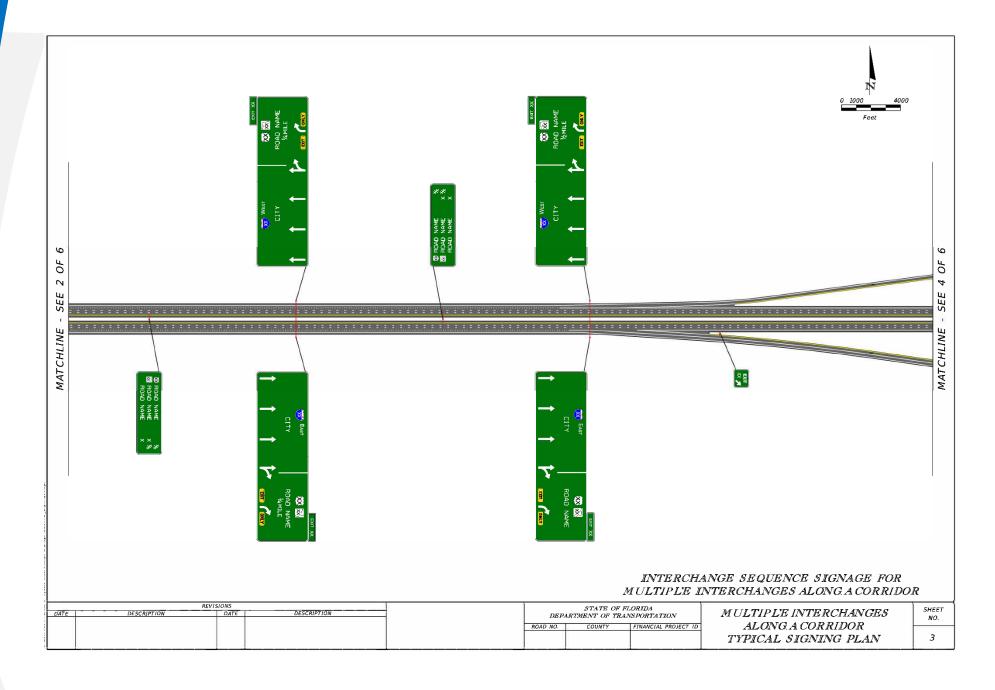




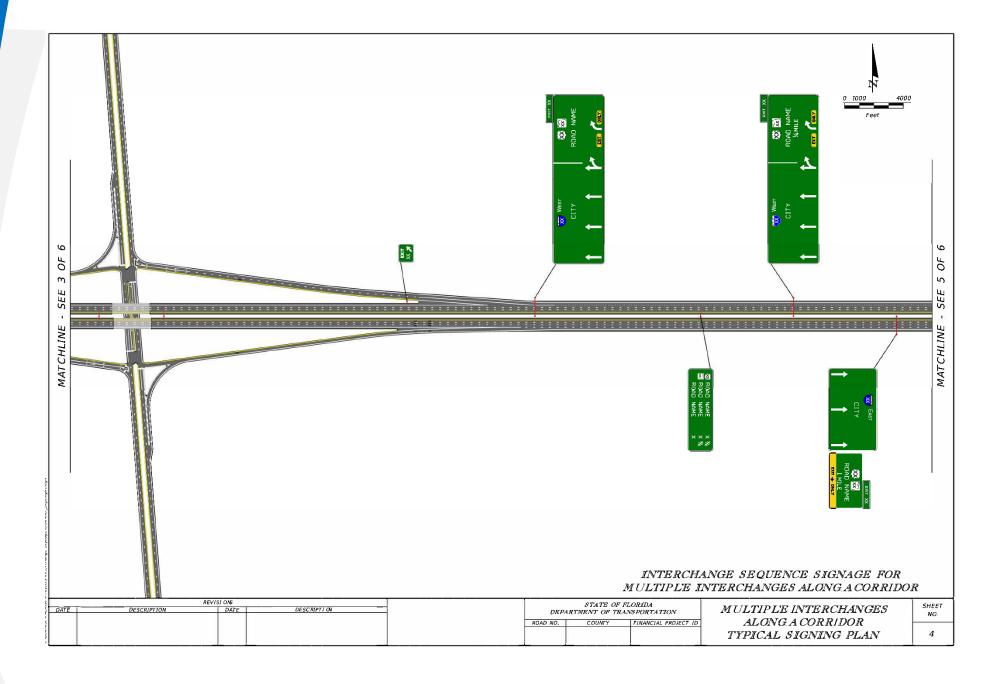




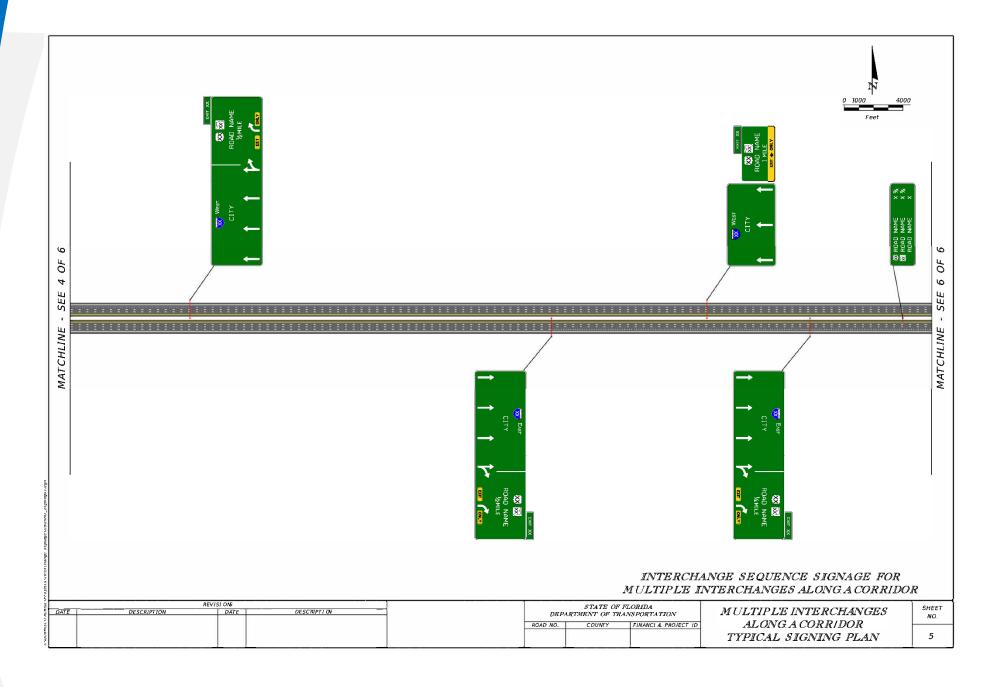




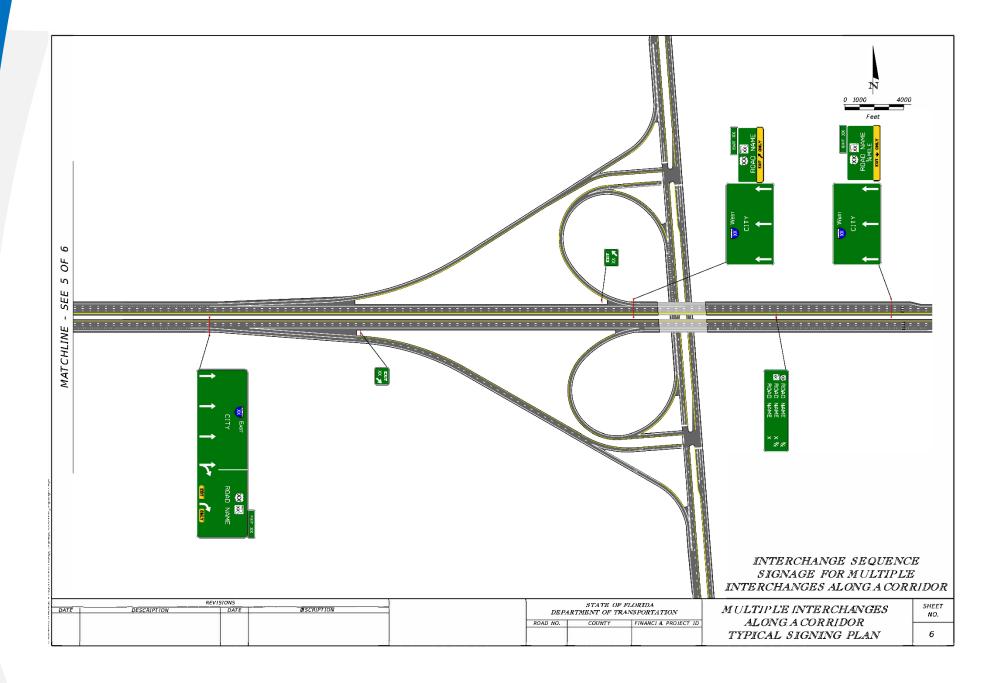














# **Appendix H – Traffic Validation Template**



TDM Horizon Year AADT					
<sup>2</sup> AADT LAR TDM vs. Design Year Horizon Year <sup>3</sup> AADT AADT AADT					
LAR Existing Year <sup>3</sup> AADT					
FDOT Traffic LAR Year <sup>2</sup> AADT Laffic Existing vs. Design Year Year <sup>3</sup> AADT Year <sup>3</sup> AADT AADT AADT AADT AADT					
FDOT Traffic Count Year <sup>1</sup> AADT					
Location					
STA					

14R Design Year

TDM

Interchange

Traffic Validation at

N

All Locations

- 1) FDOT Traffic Count Year <sup>1</sup> AADT This should be at least 5 years before FDOT Traffic Count Year <sup>2</sup> AADT to understand historic growth
  - 2) FDOT Traffic Count Year  $^2$  AADT Same year data as the IAR Existing Year  $^3$  AADT
    - 3) IAR Existing Year 3 AADT This is the existing year AADT of the approved IAR
      - 4) TDM Current adopted Travel Demand Model
- 5) IAR Design Year AADT might need to be estimated if it doesn't match the horizon year of the TDM. For example, if approved IAR Design Year is 2035 and TDM horizon year is 2040,



## **Appendix I – Acronyms and Definitions**



Term	Acronym	Definition
American Association of State Highway and Transportation Officials	AASHTO	A nonprofit, nonpartisan association representing state highway and transportation departments that advocates for transportation-related policies and provides technical services to support states in their efforts to efficiently and safely move people and goods.
Annual Average Daily Traffic	AADT	A measurement of the number of vehicles that use a highway over a period of a year divided by 365 to obtain the average for a 24-hour period.
Area of Influence	AOI	The area that is anticipated to experience significant changes in traffic volumes resulting from the interchange access request and from changes in land use and/or roadway network (e.g., freeway main line, ramps, crossroads, immediate off-system intersections and local roadway system).
Average Daily Traffic	ADT	The number of vehicles that traverse a segment of roadway over a 24-hour period.
Code of Federal Regulations	CFR	The CFR is the official publication of all final rules and regulations from the various agencies of the U.S. government.
Crash Modification Factor	CMF	An index of how much crash experience is expected to change following a modification in design or traffic control. CMF is the ratio between the number of crashes per unit of time expected after a modification or measure is implemented and the number of crashes per unit of time estimated if the change does not take place.
Crash Modification Factor Clearinghouse	CMF Clearinghouse	The Crash Modification Factors Clearinghouse is a web-based database of CMFs along with supporting documentation to help transportation practitioners identify the most appropriate countermeasure for their safety needs. Click here for more information on the Clearinghouse.
Crash Reduction Factor	CRF	A CRF is an estimate of the percentage reduction in crashes due to implementation of a countermeasure. The CRF is equal to 100*(1-CMF).
Cost Savings Initiative	CSI	An FDOT cost savings initiative is a formal process through which contractors can propose innovative changes to a project's requirements that reduce project costs, improve cost-effectiveness, or increase quality, without compromising safety, operations, or essential functions.
Design Hour Volume	DHV	The traffic volume expected to use a highway segment during the 30 <sup>th</sup> highest hour of the design year.
Directional Design Hour Volume	DDHV	The traffic volume expected to use a highway segment during the 30 <sup>th</sup> highest hour of the design year in peak direction.
District Interchange Review Coordinator	DIRC	FDOT District personnel responsible for ensuring all interchange access requests are prepared according to the state and federal guidance
Express Lanes EL		A type of managed lane where dynamic pricing through electronic tolling is applied to lanes with through traffic, having fewer access points. Express lanes can co-locate within an existing non-tolled or tolled facility to manage congestion and provide a more reliable trip time.
Florida Administrative Code	F.A.C.	The official compilation of the administrative rules and regulations of state agencies.
Federal Highway Administration	FHWA	The approval authority for IJRs on Interstate system projects and serves in an advisory role on non-interstate proposals.



Term	Acronym	Definition
Florida Department of Transportation	FDOT	An executive agency, which means it reports directly to the governor. FDOT's primary statutory responsibility is to coordinate the planning and development of a safe, viable and balanced state transportation system serving all regions of the state, and to assure the compatibility of all components, including multimodal facilities.
Florida Department of Transportation Electronic Review Comments	ERC	An application used to track the entire review process (comments and responses) for plan reviews and project submittals in a database. All comments and responses reside in one location allowing any user easy access to all or partial review data on demand. The system allows Project Managers to easily track all comments and responses from all Reviewers and Consultants at any time during the process.
FDOT Design Manual	FDM	Sets forth geometric and other design criteria, as well as procedures, for FDOT projects.
High Occupancy Vehicle	HOV	A vehicle carrying two or more passengers.
Highway Capacity Manual	НСМ	Compiles methodologies and procedures used to analyze highway capacity and quality of service.
Highway Capacity Software	HCS	Software that implements most of the HCM methodologies.
Highway Safety Manual	HSM	A resource that provides safety knowledge and tools in a useful form to facilitate improved decision making based on safety performance.
Interchange		A system that provides for the movement of traffic between intersecting roadways via one or more grade separations.
Interchange Access Request	IAR	Prepared to demonstrate that a proposed interchange access proposal is engineering and operationally viable based on traffic, geometry, financial and other criteria.
Interchange Justification Report	IJR	A report documenting a request for approval to provide a new access to a limited access facility. Such action requires the highest level of analysis and documentation to justify the need for and operational impacts of the proposed access.
Interchange Modification Report	IMR	A report documenting a request for approval to modify access points to an existing interstate interchange or approved interchange but not yet constructed.
Interchange Operational Analysis Report	IOAR	Prepared for analysis of specific, low-cost aspects of an interchange modification, mostly within an existing right of way where a full IMR is not required.
Interchange Review Coordinator	IRC	An FDOT District personnel responsible for ensuring all interchange access requests are prepared according to the state and federal guidance.
Interstate or Interstate System		A highway that is part of the Dwight D. Eisenhower National System of Interstate and Defense Highways.



Term	Acronym	Definition
Intelligent Transportation Systems	ITS	System that uses advanced information and communication technologies, such as sensors, cameras and vehicle-to-vehicle communication, to enhance the safety, efficiency and sustainability of transportation networks for people and goods. ITS applications include adaptive traffic signals, real-time traffic monitoring and incident detection, driver assistance systems and tools that provide travelers with timely information, ultimately optimizing traffic flow, reducing congestion and improving overall mobility.
Level of Service	LOS	A qualitative measure describing operational conditions within a traffic stream, based upon service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience; LOS A represents a complete free flow of traffic, allowing traffic to maneuver unimpeded; LOS F represents a complete breakdown in traffic flow, resulting in stop-and-go travel; LOS is typically calculated based upon peak-hour conditions.
Local Government Comprehensive Plan	LGCP	The plan (and amendments thereto) developed and approved by the local governmental entity pursuant to Chapter 163, F.S., and Rule Chapter 9J-5, Florida Administrative Code, and found in compliance by the Florida Department of Community Affairs.
Long Range Transportation Plan	LRTP	A plan adopted by the DOT, a metropolitan planning organization or a regional planning affiliation. For the purposes of an IJR and this policy and procedure, only the currently approved LRTP is considered.
Managed Lanes	ML	Highway facilities or sets of lanes within a highway facility where operational strategies are proactively implemented and managed in response to changing conditions with a combination of tools. These tools may include accessibility, vehicle eligibility, pricing, or a combination thereof. Types of managed lanes include truck only lanes, truck only toll lanes, bus rapid transit lanes, reversible lanes and express lanes.
Manual of Uniform Traffic Control Devices	MUTCD	The MUTCD contains the national standards governing all traffic control devices. All public agencies and owners of private roads open to public travel across the nation rely on the MUTCD to bring uniformity to the roadway. The MUTCD plays a critical role in improving safety and mobility of all road users.
Master Plan	MP	A document identifying short- and long-term capacity improvements to limited-access highways mainline and interchanges consistent with SIS policies and standards to allow for high-speed and high-volume travel.
Measures of Effectiveness	MOEs	Parameters indicating the performance of a transportation facility or service.
Methodology Letter of Understanding	MLOU	Documents the agreements reached between the requestor, DIRC, SPO and FHWA during the study design development of the project.
Metropolitan Planning Organization	МРО	An organization made up of local elected and appointed officials responsible for the development and coordination of transportation plans and programs, in cooperation with the state, for metropolitan areas containing 50,000 or more residents.
National Environmental Policy Act	NEPA	A United States environmental law that established national policy promoting enhancement of the environment.
National Highway System	NHS	Includes the Interstate system as well as other roads important to the nation's economy, defense and mobility. The NHS was developed by the United States Department of Transportation (USDOT) in cooperation with the states, local officials and metropolitan planning organizations (MPOs).
Project Development & Environment Study	PD&E Study	Prepared to ensure that FDOT's procedure for complying with environmental regulations is followed.



Term	Acronym	Definition
Safety Performance Function	SPF	An equation used to estimate or predict the expected average cash frequency per year at a location as a function of traffic volume and in some cases roadway or intersection characteristics (e.g., number of lanes, traffic control, or type of median).
Safety, Operations & Engineering	SO&E	The SO&E process is performed to document the existing, no-build and build traffic safety and operations of an IAR.
State Environmental Impact Report	SEIR	Required on all major state-funded projects in which FDOT becomes the owner of the document and no federal funding is involved in the project.
State Highway System	SHS	A network of approximately 12,000 miles of roads owned and maintained by the state of Florida or state-created authorities.
State Interchange Review Coordinator	SIRC	Responsible for the review of IAR documents at Central Office. The SIRC reviews documents and briefs the Central Office approval authorities on each project. The SIRC is responsible for revisions and updates to the IAR User's Guide.
Systems Management Administrator	SMA	Responsible for the approval of Interchange Access Requests after they have been reviewed by the SIRC. The SMA ensures the implementation of this User's Guide.
Statewide Transportation Improvement Program	STIP	A federally mandated document that must list projects planned with federal participation in the next four fiscal years.
Strategic Intermodal System	SIS	Facilities and services of statewide or interregional significance that meet high levels of people and goods movement, generally supporting the major flows of interregional, interstate and international trips.
Supportive Infrastructure		Detention ponds, facilities that house personnel and equipment for routine tasks like mowing and litter removal, as well as more complex activities such as bridge repair or maintenance of ITS.
Travel Demand Model	TDM	A computer model that forecasts traffic volumes on the major transportation grid. For purposes of an IJR, the travel-demand model must be the official model maintained by the MPO/RPA and is adopted as part of the LRTP.
Transportation Improvement Program	TIP	The MPO's agreed-upon list of priority projects that intend to use federal funds, along with non-federally funded capital projects. TIP is mandated by federal law for the MPO to receive and spend federal transportation funds.
Transportation Systems Management & Operation	TSM&O	Integrated program to optimize the performance of existing multimodal infrastructure through implementation of systems, services, and projects to preserve capacity and improve the security, safety and reliability of our transportation system