

TxDOT Interstate Access Justification Report (IAJR)

Standard Operating Procedures (SOP)

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1. What is an Interstate Access Point?

An access point is defined as any break in the control of access to the Interstate System right-of-way, including “locked gate” access and access to through lanes or shoulders, collector-distributor roads, or ramps. Access points provide an entrance to or exit from the Interstate System. For example, a diamond interchange has four access points. Access to the Interstate System is allowed only by interchange at selected public roads. Access to the Interstate System through rest areas from outside the Interstate control of access right of way is prohibited.

2. What is an Interstate System Access Change Request?

An Interstate System Access Change Request is a formal request made to FHWA by a state to perform a change in access along an Interstate. A change in access occurs whenever an existing access point is revised (i.e. ramp relocated or an interchange is reconfigured) or a new access point to the Interstate is added.

3. What is an Interstate Access Justification Report (IAJR)?

An IAJR is a comprehensive, formal engineering report that provides the necessary justification and documentation to substantiate a request to change access to the Interstate. The IAJR includes, in general, analysis for both traffic and safety operations that supports the formal request.

4. Why is Interstate System Access Management important?

The Interstate System is a critical element of the National Highway System which facilitates the efficient and safe movement of people and freight across the nation. Access to the Interstate System promotes economic development and provides connections to other highway systems. Interstate System Access Management is important to ensure that the highest level of service in terms of safety and mobility is maintained by managing the control of access along the Interstate System.

5. Is there a legal authority for Interstate Access Policy?

Yes - According to 23 U.S.C 111(a), proposed new or revised access points to the Interstate system require review and action by the FHWA. FHWA approval constitutes a Federal action and, as such, requires that the transportation planning, conformity, congestion management process and the National Environmental Policy Act (NEPA) procedures be followed, and their requirements satisfied. The FHWA retains final approval authority of the Interstate System access change request once the project receives safety, operational, and engineering acceptability and environmental review.

6. Who approves the IAJR?

The FHWA approves all IAJRs. As per TxDOT's agreement with FHWA, through the TxDOT IAJR SOP, all IAJRs are first submitted to TxDOT Design Division (DES) for compliance and quality assurance review and then submitted by DES to FHWA for review and comment. Once the FHWA comments have been substantially addressed, DES will transmit to FHWA for FHWA formal approval.

7. What are the requirements for an IAJR for TxDOT projects?

The development of the IAJR and requirements for analyses will be in accordance with the TxDOT IAJR SOP policy (distributed 4/21/2020), which also includes the two policy points required by FHWA as contained in the memorandum "Changes to FHWA's Policy on Access to the Interstate System" from FHWA dated May 22, 2017.

8. Is this policy applicable to Toll Roads?

No, this policy is not applicable to toll roads incorporated into the Interstate System, except for segments where Federal funds have been expended or these funds will be used for roadway improvements, or where the toll road section has been added to the Interstate System under the provisions of 23 U.S.C. 103(c)(4)(A). The term "segment" is defined as the project limits described in the Federal-aid project agreement.

9. What changes to the Interstate require FHWA review and action through an IAJR?

Generally, any new or revised access to the Interstate System will require FHWA's review and action, including the following:

- New freeway-to-freeway interchange.
- New service interchanges providing access between a non-freeway local roadway network (arterial, collector, or local road) and the Interstate.
- Modification of freeway-to-freeway interchange configuration, for example, adding new or abandoning/removing ramps, completing basic movements.
- New partial interchanges or new ramps to/from continuous frontage roads that create a partial interchange.
- Modification of existing interchange configuration, such as adding a loop to a diamond interchange.
- Completion of basic movements at partial interchange, for example, completing a partial diamond interchange by adding a ramp.
- Locked gate access, for example, access via locked gates for emergency response.
- Access from the street network to special uses lanes, such high occupancy vehicle (HOV), high-occupancy toll (HOT) or truck only lanes.
- Relocation of a terminal of a ramp to a different local road.
- Changes in operation of managed-lane access to general-purpose access to the Interstate.

- Relocation of a ramp gore along an Interstate mainline. (Under some circumstances, if a ramp is shifted within the same interchange configuration, which results in ramp spacing that meets FHWA's design criteria, and/or if the interchange is reconfigured in such a way that the travel patterns change with the same number of access points, coordination would be performed with FHWA to determine if an approval through IAJR is required or some other process / coordination).

10. What changes to the Interstate may not require FHWA review and action through an IAJR?

- a) These projects may not require FHWA review and action but require coordination (to determine what, if any, technical analysis is needed) with DES and FHWA:
- Shift of a ramp's location within the same interchange configuration, which results in ramp spacing that meets FHWA's design criteria.
 - Addition of lanes to an on-ramp.
 - Addition of a single auxiliary lane between two adjacent interchange ramps where the single auxiliary lane does not function as a mainline travel lane.
 - Modification of the length of acceleration or deceleration lanes involved with any ramp.
 - Implementation of ramp metering or other active control of vehicles entering the Interstate System.
 - Construction of overpasses or grade separation structures without ramps along Interstate facilities.
 - Changes in access between managed lanes and general-purpose lanes on the Interstate.
 - Relocation or shifting of the existing on-ramp or off-ramp termini (i.e., moving the ramp end that connects with the local road) along the frontage or collector-distributor Road.
- b) These projects do not require FHWA review and action through an IAJR although coordination with FHWA may be necessary
- 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)
 - Addition of left-turn storage lanes, right-turn storage lanes, and through travel lanes at the terminus of existing ramps.
 - Improvement of traffic signals at ramp termini with local roads should be reviewed to ensure that the changes in the signalization do not result in queue spillback into the mainline lanes of the Interstate and that sufficient storage is provided.

11. Is this policy applicable for future Interstates?

Yes, but only after interstate route designation has occurred. Once the route has been constructed to Interstate Standards, TxDOT will coordinate for FHWA interstate designation approval, prior to applying to AASHTO for an interstate route designation. Once the designation of the route to the Interstate System has been formalized by agreement, any future proposed new or significant changes in access beyond those covered in the agreement, regardless of funding, must be approved by FHWA.

12. What is the ramp terminal intersection?

At a conventional interchange (without frontage road), exit ramps provide a direct connection between the Interstate main lanes and the cross street. However, in Texas, traffic exiting from the main lanes first connects to the frontage road and then travels towards an intersection with a cross street. The intersection of the frontage road and the cross street is typically called the ramp-terminal intersection.

13. What is the general development process for an IAJR?

In general, there are three primary stages for a typical IAJR development:

- First stage: Initiation
- Second stage: Technical Analysis and Documentation
- Third Stage: Reviews & Approval

During the first stage, measurable goals are developed (SMART: Specific, Measurable, Achievable, Relevant, and Time-Bound), methodology and assumptions (M&A) are coordinated/documentated with concurrence obtained from FHWA, and data collection is started.

During the second stage, technical analyses, including existing condition analysis, traffic forecasting, and traffic operation and safety analysis are performed. Concurrently, other considerations and requirements are evaluated, including but not limited to, the development and identification of alternatives and their analysis, consideration of improvements that do not require an access change, multimodal considerations, Transportation System Management (TSM) considerations, details of the proposed improvement (including any design exceptions), consistency with local / regional plans, association with long range-system or network plan, commitments and coordination with stakeholders, and environmental status. The results of all analyses are documented in a formal report (IAJR).

During the third stage, the IAJR is submitted to DES for compliance and quality assurance review, and ultimately submitted to FHWA for review, comment, and approval.

14. Can information developed during the NEPA process be referenced in the IAJR?

The IAJR is required to be a standalone document. Relevant information from other project documents (Feasibility Study or Preliminary Engineering Report) can be used but needs to be incorporated in the appropriate section of the IAJR. Excerpts may be included as appendices. The document needs to be clearly written for someone who is not familiar with the project, the area, or the State.

15. When is an IAJR re-evaluation required?

If the following conditions occur an IAJR re-evaluation may be required.

- a) Changes in approved IAJR design concepts
 - Due to environmental impact or commitments
 - Due to final design adjustment
 - Due to design-build proposal
- b) Significant changes in following conditions:
 - Traffic volumes or traffic conditions
 - Land use
 - Environment
- c) Time lapse before construction
 - If the project does not progress to construction within 3 years after FHWA approval

If a. or b. occur individually or together, a re-evaluation should be completed. However, if only c. occurs, FHWA will determine whether a re-evaluation is required based on length of time passed after approval of the IAJR. If the length of time exceeds three years, then TxDOT would need to show that there are no significant changes in current and future conditions. This would be coordinated with FHWA through DES and would require FHWA concurrence or direction regarding the need for IAJR re-evaluation.

16. Can the 2004 version of FHWA’s “Traffic Analysis Toolbox Volume III: Guidelines for Applying Traffic Microsimulations Modeling Software” still be used?

We should be using the latest 2019 FHWA TAT Volume III Guidelines. The 2019 Guidelines is a forward-looking data-driven process based on statistically derived and objective criteria. The 2019 Guidelines require significantly more data than the 2004 Guidelines. If sufficient data is not available or practical to collect, then the use of 2004 Guidelines may be requested as an exception and should be agreed upon with DES and FHWA during M&A coordination (see FAQ 13).

17. What geometric or traffic conditions necessitate the use of microsimulation for traffic operations analysis?

Microsimulation is generally required for projects in metropolitan areas. In these areas, more data is generally available from Transportation Management Centers. The Highway Capacity Manual (HCM) is the primary tool for analysis of locations that are isolated, do not require interaction between different users and where congestion does not exist (typically LOS D or better). The HCM multi-period analysis can be used to analyze congested conditions to account for the effects of queuing in freeways. Alternative analysis tools should be considered if the following limitations to the HCM methodology exist:

- Multiple overlapping bottlenecks
- System-wide oversaturation
- Off-ramp queues that extend onto the freeway facility
- Toll plaza operations
- Complex geometry or special ITS features

18. Why does the area of influence (AOI) include the adjacent intersections and interchanges?

The AOI is defined as the area that is anticipated to experience significant changes in traffic operating conditions as the result of the proposed access change(s). Typically, in urban areas, the AOI would include at least the first adjacent interchange at each end of the Project or the proposed access change. In rural areas, the interchanges may be far enough apart from the Project limits that they will not be affected by the proposed access change. Typically, the AOI along the crossroad would extend at least up to ½-mile on each side of Interstate, and if there are signalized intersections along the crossroad, the AOI would be extended beyond the ½-mile to include at least one signalized intersection on each side of Interstate.

Adjacent interchanges (at each end of the Project limits or proposed change in access) and intersections (at cross streets and on each side of the interstate along the project limits or proposed change in access) are included in the AOI to ensure that the safety and operational impacts of the proposed change in access are adequately assessed. The AOI may be extended beyond these limits based on any anticipated impacts of the proposed changes in access.

19. Should data collection or traffic analysis for the IAJR proceed prior to receiving DES and FHWA concurrence on the Methodology & Assumptions Technical Memorandum (M&A Tech Memo)?

With preliminary feedback from DES and FHWA, the data collection process may be started concurrently with the development of the M&A Tech Memo; however, the traffic analysis should start after DES and FHWA concurrence on the M&A Tech Memo. Note that the outcome of M&A memo discussions may impact the data collection efforts.

Note, there is some risk should there be no preliminary feedback from DES and FHWA on the data collection prior to it being started, and that the final outcome / concurrence of the M&A Tech Memo could impact preliminary data collection efforts.

20. TxDOT IAJR SOP provide reference to Crash Recording Information System (CRIS). Can Districts or consultants download the crash data from public query?

Yes, crash data from the public query is available for downloading by districts and consultants and can be used for preliminary analysis and justification of the project. However, for detailed safety analysis FHWA and TxDOT require that crash data be obtained using MicroStrategy. Data should be requested preferably from TxDOT Traffic Safety Division. Design Division and several districts have staff authorized to use MicroStrategy who can help to extract the data.

21. TxDOT IAJR SOP recommend Option A (Predictive Analysis) as the preferred option for safety analysis if applicable. How do we determine if Option A is applicable or not?

Option A is applicable unless limitations in Part C – Predictive Method of the Highway Safety Manual (HSM) present weakness or flaws and can influence the outcome. Common limitations of HSM Part C-Predictive method include: freeways with maximum number of lanes in urban areas, freeways with continuous High-Occupancy Vehicle (HOV) lanes or managed lanes, and maximum allowable AADT. TxDOT with the help of Texas A&M Transportation Institute (TTI) conducted research to address HSM Predictive method limitations and developed safety prediction models and analysis tools for Texas conditions. These are simple spreadsheet-based tools and expected to be released by February 2024. There are still some other limitations to HSM like, non-traditional interchange/alternative intersections. These limitations methods should be considered and assessed during M&A coordination to develop appropriate approach acceptable to TxDOT and FHWA. Traffic and Safety Analysis Procedural (TSAP) Manual Chapter 6 provide guidance in determining the safety analysis approach best suited for projects.

22. Who should I contact if I have questions during IAJR process?

For questions about IAJRs or the IAJR process please contact:

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