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550.01 General

The primary function of limited access freeways and highways is to provide safe and reliable travel for people, goods, and services from state to state and region to region within a state. They should not be used for local trips as an extension of the local street network. Adding or revising access can adversely impact the safety and operations of these facilities; therefore, access revisions must be done with caution. For this reason, new and/or modified access must be justified, and this chapter contains the process for seeking access approval.

An Interchange Justification Report (IJR) is the document used to justify a new access point or access point revision on existing limited access freeways and highways in Washington State. This chapter provides policy and guidance on developing the required documentation for an IJR, and the sequence of an IJR presentation, for both Interstate and non-Interstate limited access routes.

Federal law requires Federal Highway Administration (FHWA) approval of all revisions to the Interstate system, including changes to limited access. Both FHWA and Washington State Department of Transportation (WSDOT) policy require the formal submission of a request to either break or revise the existing limited access on Interstate routes. This policy also facilitates 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 a metropolitan area, region, and state. Breaking or revising existing limited access on state routes must be approved in accordance with [Chapter 530](#), Limited Access Control. An IJR is a document that includes all of the necessary supporting information needed for a request. It documents the IJR team's assumptions and the design of the preferred alternative, the planning process, the evaluation of the alternatives considered, and the coordination that supports and justifies the request for an access revision.

FHWA cannot give final approval to the IJR unless environmental analysis/documentation has been approved for the project. Therefore, the IJR process and the environmental analysis should be conducted concurrently. The level of environmental analysis should be consistent with the project context and significance of the potential environmental impacts. The project may qualify as Categorical Excluded (CE). This option should always be examined before proceeding with environmental documentation.

Engineers at the WSDOT Headquarters (HQ) Design Office Access and Hearings Section specialize in providing support for meeting the guidance provided in this chapter. To ensure project success, consult with them before any of the IJR work is started. They can help during

the development of the study, Methods and Assumptions Document, and the Interchange Justification Report.

An IJR support team, including HQ Access and Hearings, agrees upon what an IJR will include. IJR on the Interstate require that all eight policy points contained in the [FHWA Policy on Adding Additional Interchanges](#) be addressed. The scale and complexity of the report varies considerably with the scope of the proposal. [Exhibit 550-1](#) lists typical projects for Interstates and the required policy points to address. The level of effort is set by the support team and documented in the Methods and Assumptions Document. For non-Interstate IJR, [Exhibit 550-2](#) lists project types and required policy points to address. Both Exhibits show what approval levels are required.

When a local agency or developer is proposing an access point revision, WSDOT requires that a support team be formed.

The IJR will contain a signature page that will be stamped by the Engineer of Record responsible for the report's preparation and the Traffic Analysis Engineer responsible for the traffic analysis included in [Policy Point 3](#). (See [Exhibit 550-6](#) for an example.)

550.02 Procedures

An access point revision is a multistep process. It begins with assembling a support team to conduct a feasibility or planning-level study. The purpose of this study is to determine whether there are improvements that can be made to the local roadway network to meet the purpose and need of the proposed access modification. If the study shows that the purpose and need of the proposal cannot be achieved with the local infrastructure only, the next step would normally be to prepare an IJR (see the Interstate IJR: Process Flow Chart, [Exhibit 550-3](#)).

The IJR is typically initiated early in the environmental process. Traffic analyses help define the area of impact and the range of alternatives. Since the traffic data required for the National Environmental Policy Act (NEPA) or the State Environmental Policy Act (SEPA) and the operational/safety analyses of the IJR are the same, these documents need to be coordinated and developed together, using the same data sources and procedures.

Consider implementing Planning and Environmental Linkage (PEL) principles during the feasibility/planning study phase of the IJR to eliminate rework in the environmental review/NEPA stage of the project. Using the PEL approach is most valuable for a project where an Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required. If the project is classified as a CE, information from the Corridor Sketch Plan can be useful. Application of PEL principles may require:

- Public and agency involvement effort with increased opportunity for comment and comprehensive documentation of process, meetings held, attendance, comments received and response to those comments;
- Analysis of potentially high-risk environmental areas and multidisciplinary assessment of project impacts; and
- Documentation of the methodology and data sources used to assess environmental resources.

Contact the HQ NEPA Specialist for additional guidance about PEL process and requirements.

The required steps in the IJR process are described in detail in this chapter, and include:

- Assemble the support team to engage subject experts and decision makers.
- Define purpose and need of the proposal (team).
- Determine whether a feasibility study needs to be conducted or already exists (team).
- Prepare Methods and Assumptions Document to lay the groundwork for the IJR, including scope of IJR and team roles and responsibilities (team).
- Endorse Methods and Assumptions Document to prepare the IJR (team).
- Prepare draft IJR (team or consultant).
- Review draft IJR (team).
- Finalize IJR by addressing comments and issues.
- Review and approve IJR (or conceptual approval).

550.02(1) Organize Support Team and Conduct Study

550.02(1)(a) Support Team

Establish a support team before beginning the feasibility study. This same support team is also involved with the IJR process if the study shows that either a revision or a new access point is needed to meet the proposal purpose and need.

The support team normally consists of the following:

- FHWA Area Engineer and FHWA Safety and Geometric Design Engineer (for Interstate projects)
- Region Planning, Design, or Project Development Engineer (or designee), Region Traffic
- HQ Assistant State Design Engineer
- HQ Development Services & Access Manager
- HQ Traffic Office Representative
- Representative from local agencies (city, county, port, or tribal government)
- Recorder (records and prepares meeting minutes for documentation purposes)

The support team enlists specialists, including but not limited to:

- Metropolitan Planning Organization (MPO)
- Regional Transportation Planning Organization (RTPO)
- WSDOT region (planning, design, environmental, maintenance, and traffic)
- WSDOT Headquarters (design, environmental, bridge, traffic, and geotechnical)
- Project proponent specialists (region, local agency, developer)
- Transit agencies
- Other identified stakeholders/partners

The support team's role is to:

- Develop processes for reaching agreement, resolving disputes, and assigning responsibility for final decisions. This is especially important for complex proposals.
- Review regional and state transportation plans to see if the request is consistent with the needs and solutions shown in those plans.
- Develop purpose and need statements for the proposal, consistent with the project environmental document or PEL process.
- Expedite the study steps (and, if needed, the IJR development and review process) through early communication and agreement.
- Establish the agreed-upon study area (including baseline transportation improvements) and future travel demand forecasts for each of the alternatives being considered.
- Develop and endorse the Methods and Assumptions Document.
- Provide guidance and support.
- Evaluate data and identify possible alternatives for the proposal during the study and, if needed, for an IJR.
- Contribute material for the report that documents the discussions and decisions.
- Review results and determine whether an IJR is warranted.
- Ensure the compatibility of data used in adjacent or overlapping studies.
- Ensure integration of the following as required: Project Definition process, value engineering studies, public involvement efforts, environmental analyses, operational analyses, safety analyses, and other analyses for the study. This encourages the use of consistent data. If conducting a feasibility/planning level study, consider implementing PEL process to minimize re-work.
- Address design elements and known design analyses, drawing from the Basis of Design (see Chapter 300), to support Policy Point 4.

The support team works together, from the corridor study through preparation of the assumptions document and completion of the IJR.

550.02(1)(b) Methods and Assumptions Document

This document is developed to record assumptions used in the IJR, the purpose and need, along with analysis methodologies, criteria, and support team decisions. The document presents the proposed traffic analysis tool and approach, safety analysis methodology, study area, peak hour(s) for analysis, traffic data, design year, opening year, travel demand forecasts, baseline conditions, and design year conditions. It also documents the team's decisions on how much detail will be included in each policy point, the required level of environmental documentation (CE, EA, EIS), and the anticipated timing of the work (concurrent with, or subsequent to the IJR). The timing of environmental documentation determines the level of approval for the IJR, see 550.01.

The signed Methods and Assumptions Document represents endorsement by the support team on the IJR approach, tools, data, and criteria used throughout the IJR process. This document is used on both interstate & non-interstate IJR.

The Methods and Assumptions Document is dynamic, and is updated and re-endorsed when changed conditions warrant. The document also serves as a historical record of the processes,

dates, and decisions made by the team. WSDOT and FHWA require the development and acceptance of the document, because early agreement on details results in the highest level of success for the IJR process.

Use the WSDOT Methods and Assumptions Document template here:

www.wsdot.wa.gov/design/accessandhearings

Refer to [Exhibit 550-5](#) for an example form for support team's concurrence to Methods and Assumptions Document.

550.02(1)(c) Feasibility Study

The feasibility study will include practical design procedures described in Division 11 of this Design Manual. The support team identified in [550.02\(1\)\(a\)](#) will assume the role of the Multiagency and Interdisciplinary Stakeholder Advisory team described in [Chapter 1100](#). Prior to commencing the feasibility study it is critical to establish the project performance needs (see [Chapter 1101](#)) with the support team.

Study the transportation network in the area. This study must identify the segments of both the local and regional network that are currently experiencing congestion or safety deficiencies, or where planned land use changes will prompt the need to evaluate the demands on and the capacity of the transportation system. The study area includes the affected existing and proposed interchanges/ intersections upstream and downstream from the proposed access point revision. Extend the study area far enough that the proposal creates no significant impacts to the adjacent interchanges/intersections, then analyze only through the area of influence. When the area of influence extends beyond one interchange/intersection upstream and downstream, extend the analysis to include the extent of the traffic impacts.

Segments of the local and regional network within the study area will be evaluated for system improvements. Part of the study process is to identify local infrastructure needs and develop a proposal. The study must investigate investments in local infrastructure improvements to meet the purpose and need of the proposal. It must be shown that the local infrastructure alone cannot be improved to address the purpose and need. The limited access facility should not be used to solve congestion problems on the local network.

During the feasibility study process and while developing a proposal, it is important to use the data and analysis methods required for an IJR. If the study indicates that an IJR is warranted, the study data can then be utilized in the IJR. The feasibility study and the IJR can also be used to support the transportation analysis requirements in the project's environmental documentation (CE, EA, or EIS).

550.02(1)(d) Analysis and Data to Support Proposal

The proposal analysis tools, data, and study area must be agreed upon by the support team. Use the Methods and Assumptions Document to detail the specific items and record the team's agreement to them. Establishing assumptions upfront ensures the project will have the highest rate of success. For further guidance and examples on assumptions documents, see:

www.wsdot.wa.gov/design/accessandhearings

Show that a preliminary (planning level) analysis, comparing build to no-build data, was conducted for the current year, year of opening, and design year, comparing baseline, no-build condition, and build alternatives. Include the following steps:

1. Define the study area. The study area is a minimum of one interchange upstream and downstream from the proposal. The study area should be expanded as necessary to capture operational impacts of adjacent interchanges in the vicinity that are, or will be, bottlenecks or chokepoints that influence the operations of the study interchange.
2. Establish baseline transportation networks and future land use projections for the study area. The baseline transportation network typically includes local, regional, and state transportation improvement projects that are funded. The land use projection includes population and employment forecasts consistent with the regional (MPO or RTPO) and local jurisdiction forecasts.
3. Establish the environmental classification (CE, EA, EIS), level of environmental analysis (feasibility study or NEPA documentation), and timing of environmental work (concurrent with or subsequent to IJR analysis). If a feasibility study is selected, determine if PEL principles will be implemented and if resource agencies will be invited to participate.
4. Collect and analyze current traffic volumes to develop current year, year of opening, and design year (see Chapter 1103) peak hour traffic estimates for the regional and local systems in the area of the proposal. Use regional transportation planning organization-based forecasts, refined by accepted travel demand estimating procedures. Forecasts for specific ramp traffic may require other methods of estimation procedures and must be consistent with the projections of the travel demand models. Modeling must include increased demand caused by anticipated development.
5. Identify the origins and destinations of trips on the local systems, the existing interchange/intersections, and the proposed access using existing information.
6. Develop travel demand forecasts corresponding to proposed alternatives that might be made to the following:
 - The local system: widen, add new surface routes, coordinate the signal system, control access, improve local circulation, or improve parallel roads or streets.
 - The existing interchanges: lengthen or widen ramps, add park & ride lots, or add frontage roads.
 - The freeway lanes: add collector-distributor roads or auxiliary lanes.
 - Transportation system management and travel demand management measures.
7. Describe the current year, year of opening, and design year level of service at all affected locations within the study area, including local systems, existing ramps, and freeway lanes.

550.02(2) Conduct Analysis and Prepare IJR

Prepare a detailed IJR using the guidance in [550.03](#), Interchange Justification Report and Supporting Analyses, and [Exhibit 550-3](#).

550.02(2)(a) IJR Policy Points

The IJR addresses the following eight specific policy points, which are described in detail in [550.04](#):

1. Need for the Access Point Revision
2. Reasonable Alternatives
3. Operational and Crash Analyses

4. Access Connections and Design
5. Land Use and Transportation Plans
6. Future Interchanges
7. Coordination
8. Environmental Processes

550.03 Interchange Justification Report and Supporting Analyses

The eight policy points are presented below. Factors that affect the scope include location (rural or urban), access points (new or revised), ramps (new or existing), ramp terminals (freeway or local road), complexity of the environmental context, and potential for significant environmental impacts or controversy on environmental grounds.

550.03(1) Policy Point 1: Need for the Access Point Revision

What are the current and projected needs? Why are the existing access points and the existing or improved local system unable to meet the proposal needs? Is the anticipated demand short or long trip?

Describe the need for the access point revision and why the existing access points and the existing or improved local system cannot address the need. How does the proposal meet the design year travel demand? Provide the analysis and data to support the need for the access request.

550.03(1)(a) Project Description

Describe the needs being addressed, and define the current problem or deficiency that the project is looking to address or overcome. Using specific performance measures can be helpful; for example, state the average speed or throughput during the A.M. or P.M. peak. The need for improvement should be established using factors such as existing conditions and the conditions anticipated to occur in the analysis years under the “no-build” alternative, or other factors such as the need for system linkage.

Demonstrate that improvements to the local transportation system and the existing interchanges cannot be improved to satisfactorily accommodate the design year travel demands. Describe traffic mitigation measures considered at locations where the level of service (LOS) is (or will be) below agreed-upon service standards in the design year. (See the State Highway System Plan for further information on LOS standards.) Additional measures of effectiveness (such as density, speed changes, delay, and travel times) should be discussed and documented in the Methods and Assumptions Document.

The access point revision should meet regional, not local, travel demands. Describe the local and regional traffic (trip link and/or route choice) benefiting from the proposal.

550.03(2) Policy Point 2: Reasonable Alternatives

Describe the reasonable alternatives that have been evaluated.

Describe all reasonable alternatives that have been considered. These include the design options, locations, project phasing, and transportation system management-type improvements such as ramp metering, public transportation, and HOV facilities that have been assessed and that meet the proposal's design year needs. The alternatives analysis must be the same as that used in the environmental documentation.

After describing each of the alternatives that were proposed, explain why reasonable alternatives were omitted or dismissed from further consideration. Where operational and safety concerns are some of the reasons that alternatives are rejected, the support group may need operational and/or safety analyses for those alternatives (see [Policy Point 3](#) below).

Future projects must be coordinated as described in [Policy Point 7](#), Coordination.

Environmental concerns may preclude consideration of some alternatives. Detailed analysis of sensitive resources and possible concurrence by resource agencies may be required (see [Policy Point 8](#) below).

550.03(3) Policy Point 3: Operational and Crash Analyses

How will the proposal affect safety and traffic operations at year of opening and design year?

Policy Point 3 documents the operational and safety effects of the proposal(s) and the results that support the final proposal, including any mitigation measures that compensate for operational and/or safety tradeoffs. Information from the Basis of Design and Alternatives Comparison Table (see Division 11) can be used to support the analysis in Policy Point 3. Include a conceptual plan of the type and location of the signs proposed to support the design alternative.

The preferred operational alternative is selected, in part, by showing that it will meet the access needs without causing a significant adverse impact on the operation and safety of the freeway and the affected local network, or that the proposal impacts will be mitigated.

Document the results of the following analyses in the report:

- Operational Analysis – “No-Build” Alternative: An operational analysis of the current year, year of opening, and design year for the existing limited access freeway and the affected local roadway system. This is the baseline plus state transportation plan and comprehensive plan improvements expected to exist at the year of opening or design year. All of the alternatives will be compared to the no-build condition. The report should document the calibration process and results that show the current year operations closely match actual field conditions.
- Operational Analysis – “Build” Alternative: An operational analysis of the year of opening and design year for the proposed future freeway and the affected local roadway system.
- Crash Analysis – “Observed crash history”: Document the observed crash history, for the most current data years, of the existing limited access freeway and the affected local roadway system. The support team will determine the number of years as well as the scope and detail of this section.

- Crash Analysis – “Proposal(s)”: A crash analysis should be performed for the year of opening and design year of the existing limited access freeway and the affected local roadway system for the “no-build,” “build,” and possibly other scenarios as determined by the support team. The support team will also determine the year of opening and design year as well as the scope and detail of this section.

The data used for the operational and safety analyses must be the same as the data used in the environmental documentation (see [Policy Point 8](#) below). If not, describe and justify the discrepancies in the Methods and Assumptions Document as well as in this section of the IJR. The transportation section of the environmental document should include a similar discussion, and the Methods and Assumption Document should be included in the appendix of the environmental document.

550.03(3)(a) Operational Analyses

Demonstrate that the proposal does not have a significant adverse impact on the operation of the freeway and the affected local roadway system. If there are proposal impacts, explain how the impacts will be mitigated.

To understand the proposal’s positive and negative impacts to main line, crossroad, and local system operations, the selection of the appropriate analysis tool(s) is critical. This is a major piece of the assumptions process. Record the support team’s tool selection agreement in the Methods and Assumptions Document. FHWA’s [Traffic Analysis Toolbox](#) provides an overview and details for making the best tool category selection.

Document the selected operational analysis procedures. For complex urban projects, a refined model might be necessary. WSDOT supports the traffic analysis and traffic simulation software listed on the HQ Traffic Operations website: www.wsdot.wa.gov/design/traffic/analysis/

All operational analyses shall be of sufficient detail, and include sufficient data and procedure documentation, to allow independent analysis during FHWA and Headquarters evaluation of the proposal. For Interstate proposals, Headquarters must provide concurrence before it transmits the proposal to FHWA with its recommendation.

Prepare a layout displaying adjacent interchanges/intersections and the data noted below, based on support team determination, which should show:

- Distances between intersections or ramps of a proposed interchange, and those of adjacent existing and known proposed interchanges.
- Design speeds. WSDOT uses a target speed approach for determining design speed. The objective of the target speed approach is to establish the design speed at the desired operating speed (see Chapter 1103).
- Grades.
- Truck volume percentages on the freeway, ramps, and affected roadways.
- Adjustment factors (such as peak hour factors).
- Affected freeway, ramp, and local roadway system traffic volumes for the “no-build” and each “build” option. This will include: A.M. and P.M. peaks (noon peaks, if applicable); turning volumes; average daily traffic (ADT) for the current year; and forecast ADT for year of opening and design year.

- Affected main line, ramp, and local roadway system lane configurations.

The study area of the operational analysis on the local roadway system includes documenting that the local network is able to safely and adequately collect and distribute any new traffic loads resulting from the access point revision. Expand the limits of the study area, if necessary, to analyze the coordination required with an in-place or proposed traffic signal system. Record the limits of the analysis as well as how the limits were established in the project Methods and Assumptions Document.

Document the results of analyzing the existing access and the proposed access point revision at all affected locations within the limits of the study area, such as weave, merge, diverge, ramp terminals, crash sites, and HOV lanes; along the affected section of freeway main line and ramps; and on the affected local roadway system. In the report, highlight the following:

- Any location for which there is a significant adverse impact on the operation or safety of the freeway facility, such as causing a reduction of the operational efficiency of a merge condition at an existing ramp; introducing a weave; or significantly reducing the level of service on the main line due to additional travel demand. Note what will be done to mitigate this adverse impact.
- Any location where a congestion point will be improved or eliminated by the proposal, such as proposed auxiliary lanes or collector-distributor roads for weave sections.
- Any local roadway network conditions that will affect traffic entering or exiting the freeway. If entering traffic is to be metered, explain the effect on the connecting local system (for example, vehicle storage).
- When the existing local and freeway network does not meet agreed-upon level of service standards, show how the proposal will improve the level of service or keep it from becoming worse than the no-build condition in the year of opening and the design year. Level of service should not be the only performance measure evaluated. There are other measures of effectiveness that can be used to illustrate a broader traffic operation perspective.

550.03(3)(b) Crash Analysis

This section describes the two parts of an IJR crash analysis: the existing (observed) condition as well as the proposed “no-build,” “build,” and possibly other scenarios as determined by the support team. It is the intent of this section that future readers will fully understand the existing condition and all of the presented scenarios without the need for other documents. The study limits (area and years) are the same as the study limits of the operational analyses. If the support team determines that some limits are different from the operational analysis, document them by describing and justifying the differences in the Methods and Assumptions Document as well as in Policy Point 3 of the IJR. Document all the tools used and all assumptions made and agreed to as well as the basis and reason(s) for using those tools and assumptions. The data used for the crash analysis must be the same as the data used in the operational analysis and the environmental documentation. If not, describe and justify the differences. ([Chapter 321](#), Sustainable Safety, gives crash analysis guidance.)

Crash analysis data needs to include a disclaimer: “Under Section 409 of Title 23 of the United States Code, crash data is prohibited from use in any litigation against state, tribal, or local government that involves the location(s) mentioned in the crash data.”

550.03(3)(b)(1) Existing (Observed) Portion of Crash Analysis

Identify and document the crash histories, severities, and types for the existing freeway section and the adjacent affected local surface system within the study area as determined by the support team. A five-year crash history is a good default; however, the support team will determine the number of years.

Document all the tools used and all assumptions made and agreed to as well as the basis and reason(s) for using those tools and assumptions.

Detailed list of the existing (observed) portion of the crash analysis:

Document the existing safety performance of the freeway section and the adjacent affected local surface system within the study area.

- Produce a diagram of the crash history of the freeway section and the adjacent affected local surface system within the study limits.
- Analyze the existing performance of the freeway section and the adjacent affected local surface system within the study area for over dispersions of crash types, contributing circumstances, and/or severities.
 - o What types of crashes are occurring (overturns, rear-ends, enter-at-angle, hitting fixed object)?
 - o What types of crashes are most prevalent?
 - o Are there any patterns of crash type or cause?
 - o Use ISATe (Enhanced Interchange Safety Analysis Tool) to determine if there are any over dispersions of crash types or causes.
- Determine severity (fatalities, serious injuries, evident injuries, possible injuries, and/or property damage only).
 - o What crash severities are most prevalent?
 - o Are there any crash severity patterns?
 - o Use ISATe to determine if there are any over dispersions of severities.
- Use ISATe to perform an expected safety performance analysis using the observed crashes to determine if the existing safety performance is normal for the existing configuration as compared to others like it (see [Chapter 321](#) for guidance).

550.03(3)(b)(2) Proposed Portion of Crash Analysis

Identify and document the predicted safety performance of the proposed access point revision proposal(s), including the freeway section, speed change lanes, ramps, collector-distributor (c-d) lanes, ramp terminal intersections, and the adjacent affected local surface system, including segments and intersections.

Demonstrate that (1) the final proposal does not have a significant adverse impact on the safety of the freeway or the adjacent affected local surface system, or (2) a list of the mitigation measures mitigate each adverse impact.

Document all the tools used and all assumptions made and agreed to as well as the basis and reason(s) for using those tools and assumptions.

Detailed list of the predicted safety performance portion of the crash analysis.

- Document the predicted safety performance of the freeway section using the Highway Safety Manual (to access ISATe), speed change lanes, ramps, c-d lines, ramp terminal intersections, and the adjacent affected local surface system, including segments and intersections within the study limits for each of the proposed “no-build,” “build,” and possibly other scenarios and alternatives as determined by the support team.
- Document the design elements that contribute to the predicted safety performance, including types and severities of crashes, especially design elements that contribute to significant adverse safety impacts of the freeway or the adjacent affected local surface system.
- Compare the safety performances of the “no-build” scenario(s) with the safety performance of the proposed scenario(s) to demonstrate that the final proposal(s) do not have a significant adverse impact on the safety of the freeway or the adjacent affected local surface system.
 - o Break out fatal and serious injuries in this analysis.

550.03(4) Policy Point 4: Access Connections and Design

Will the proposal provide fully directional interchanges connected to public streets or roads, spaced appropriately, and designed to meet the identified performance needs?

Provide for all directions of traffic movement on Interstate system-to-system type interchanges, unless justified. The intent is to provide full movement at all interchanges, whenever feasible. Partial interchanges are discouraged and will not likely be approved for Interstate access. Less than fully directional interchanges for special-purpose access for transit vehicles, for HOVs, or to or from park & ride lots will be considered on a case-by-case basis.

A proposed new or revised interchange access must connect to a public freeway, road, or street and be endorsed by the local governmental agency or tribal government having jurisdiction over said public freeway, road, or street.

Explain how the proposed access point relates to present and future proposed interchange configurations and the Design Manual spacing criteria. Note that urban and rural interchange spacing for crossroads also includes additional spacing requirements between adjacent ramps, as noted in [Chapter 1360](#).

Develop the proposal in sufficient detail to conduct a design and operational analysis. Include the number of lanes, horizontal and vertical curvature, lateral clearance, lane width, shoulder width, weaving distance, ramp taper, interchange spacing, and all traffic movements. This information is presented as a sketch or a more complex layout, depending on the complexity of the proposal. The resulting footprint should be used to assess the potential environmental impacts for each alternative (See [Policy Point 8](#) below).

The status of all known or anticipated project design analyses must be noted in this policy point, as described in [Chapter 300](#).

550.03(5) Policy Point 5: Land Use and Transportation Plans

Is the proposed access point revision compatible with all land use and transportation plans for the area?

Show that the proposal is consistent with local and regional land use and transportation plans. Before final approval, all requests for access point revisions must be consistent with the regional or statewide transportation plan, as appropriate. The proposed access point revision may affect adjacent land use and, conversely, land use may affect the travel demand generated. Therefore, reference and show compatibility with the land use plans, zoning controls, and transportation ordinances in the affected area.

Explain the consistency of the proposed access point revision with the plans and studies, the applicable provisions of [23 CFR Part 450](#), the applicable transportation conformity requirements of [40 CFR Parts 51 and 93](#), and [Chapter 36.70A RCW](#).

The support team reviews regional and state transportation plans to determine whether the need and proposed solution are already identified. Proposals to request new or reconstructed interchanges must be consistent with those plans.

If the proposed access is not specifically referenced in the transportation plans, define its consistency with the plans and indicate the process for the responsible planning agency to incorporate the project. In urbanized areas, the plan refinement must be adopted by the metropolitan planning organization (MPO) before the project is designed. The action must also be consistent with the multimodal State Transportation Plan. The results should be consistent with the data used to support the Social and Economic analysis conducted in the Environmental Documentation (see [Policy Point 8](#) below).

550.03(6) Policy Point 6: Future Interchanges

Is the proposed access point revision compatible with a comprehensive network plan? Is the proposal compatible with other known new access points and known revisions to existing points?

The report must demonstrate that the proposed access point revision is compatible with other planned access points and revisions to existing points.

Reference and summarize any comprehensive freeway network study, plan refinement study, or traffic circulation study.

Explain the consistency of the proposed access point revision with those studies.

550.03(7) Policy Point 7: Coordination

Are all coordinating projects and actions programmed and funded?

When the request for an access point revision is generated by new or expanded development, demonstrate appropriate coordination between the development and the changes to the transportation system. Coordination will include local agencies, local groups, and public outreach. See [Section 1100.03 Community Engagement](#).

Show that the proposal includes a commitment to complete the other non-interchange/non-intersection improvements that are necessary for the interchange/intersection to function as proposed. For example, if improvements to the local circulation system are necessary for the

proposal to operate, they must be in place before new ramps are opened to traffic. If future reconstruction is part of the mitigation for design year level of service, the reconstruction projects must be in the State Highway System Plan and Regional Transportation Plan.

All elements for improvements are encouraged to include known fiscal commitments and an anticipated time for completion. If the project is to be constructed in phases, it must be demonstrated in Policy Point 3 that each phase can function independently and does not affect the safety and operational efficiency of the freeway. Identify the funding sources, both existing and projected, and the estimated time of completion for each project phase. Review PEL principles to ensure that community engagement efforts implemented during a planning/feasibility study IJR will be robust enough to carry forward into the environmental documentation phase (see [Policy Point 8](#) below).

550.03(8) Policy Point 8: Environmental Processes

What is the status of the proposal's environmental processes? This section should be something more than just a status report of the environmental process; it should be a brief summary of the environmental process.

All requests must closely adhere to the planning and environmental review processes as required in [23 CFR parts 450](#) and [771](#). This means the final FHWA approval of requests for new or revised access cannot precede the completion of these processes or necessary actions.

All requests for access point revisions on freeways must contain information on the status of the environmental approval and permitting processes.

The following are just a few examples of environmental status information that may apply:

- Have the environmental documents been approved? If not, when is the anticipated approval date?
- Did the study team determine that a planning/feasibility study will be completed for the IJR? Will PEL principles be followed during the study to minimize rework during the environmental documentation phase of the project as recorded in the Methods and Assumptions document?
- What applicable permits and approvals have been obtained and/or are pending?
- Are there hearings still to be held?
- Is the environmental process waiting for an engineering and operational acceptability decision?
- Are the assumptions, methodology, study area, traffic analysis, crash data, coordination and public outreach results used in the environmental analysis consistent with the IJR? If no, explain why not and provide justification.

The environmental documentation process followed for the IJR will be the same process used for any other WSDOT project consistent with the respective environmental classification (CE, EA, EIS). Follow the procedures outlined in the *Environmental Manual Chapter 400* and the WSDOT [EA/EIS](#) and [CE](#) web pages. A general description of how this work coincides with the IJR process is provided in [Exhibits 550-3](#) and [550-4](#). Consult with your Region Environmental Office and the HQ NEPA/SEPA Specialist prior to beginning work on the Environmental Documentation to

ensure that the effort is still consistent with the environmental classification made in the Methods and Assumption document.

If the project is being led by a local agency, follow the guidance provided in [NEPA Categorical Exclusions A Guidebook for Local Agencies](#), WSDOT.

550.04 Report Organization and Appendices

Begin the IJR with an executive summary. Briefly describe the access point revision being submitted for a decision and why the revision is needed. Include a brief summary of the proposal.

The IJR must be assembled in the policy point order noted in [550.02\(2\)](#).

Formatting for the IJR includes providing numbered tabs in the report for each policy point section and each appendix and numbering all pages, including references and appendices. A suggestion for page numbering is to number each individual section, such as “Policy Point 3, PP3–4” and “Appendix 2, A2–25.” This allows for changes without renumbering the entire report.

On the bottom of each page, place the revision date for each version of the IJR. As an individual page is updated, this revision date will help track the most current version of that page. Also, include the title of the report on the bottom of each page.

Use a three-ring binder for ease of page replacement. Do not use comb or spiral binding.

Appendix A is reserved for the Methods and Assumptions Document. Include meeting notes where subsequent decisions are made as additional appendices to the original signed document.

Additional appendices may include documents such as [Intersection Control Analysis](#), technical memorandums, memos, and traffic analysis operations output.

550.05 IJR Review and Approval

Concurrence and approval of a new or revised access point is based on the IJR. The IJR must contain sufficient information about and evaluation/analysis of the proposal to provide assurance that the safety and operations of the freeway and local systems are not significantly impacted.

The region, or proponents, with the help of the support team, prepares the IJR and submits four draft copies, including backup traffic data, to the HQ Access and Hearings Section for review.

For a final IJR submittal, contact the HQ Access and Hearing Section for the necessary number of copies.

550.05(1) Interstate IJR Approval

On Interstate projects, a submittal letter is sent by the region to the HQ Access and Hearings Section, requesting final FHWA approval of the IJR. Interstate IJR's are submitted by Headquarters to FHWA for approval.

Interstate access point revisions are reviewed by both WSDOT Headquarters and FHWA. This can be a two-step process:

- If environmental documentation has not yet been approved, an [FHWA](#) finding of engineering and operational acceptability can be given.
- If the environmental documentation is complete, final approval can be given.

Some Interstate IJR's are reviewed and approved by the Washington FHWA Division Office. Other Interstate IJR's are reviewed and approved by the FHWA Headquarters Office in Washington DC. Additional review time is necessary for reports that have to be submitted to Washington DC (see [Exhibit 550-1](#)).

Final IJR approval by FHWA is provided when the appropriate final environmental decision is complete: [ECS](#), [FONSI](#), or [ROD](#).

550.05(2) Non-Interstate IJR Approval

On non-Interstate projects, concurrence from the support team is required on the Methods and Assumptions to document the acceptance of the scope and complexity of the IJR or the acceptance of the decision that an IJR is not required. If an IJR is prepared, the appropriate WSDOT HQ Assistant State Design Engineer grants the final approval (see [Exhibits 550-2](#) and [550-4](#)).

This can be a two-step process:

- If environmental documentation has not yet been approved, a finding of engineering and operational acceptability can be given.
- If the environmental documentation is complete, final approval can be given.

550.06 Updating an IJR

Recognizing that the time period between the approval of the IJR, completion of the environmental documentation, and the construction contract commonly spans several years, the approved IJR will be reviewed and updated to identify changes that may have occurred during this time period. If no work has begun within three years of completion of the environmental documentation, a re-evaluation of the CE/EA/EIS will be required. Submit a summary assessment to the HQ Design Office for evaluation to determine whether the IJR needs to be updated. Contact the HQ NEPA/SEPA Specialist to determine if the environmental documentation must be re-evaluated. The HQ Design Office will forward the assessment to FHWA if necessary. The assessment is a document summarizing the significant changes since it was approved. Contact the HQ Access and Hearings Section and the NEPA/SEPA Specialist to coordinate this summary assessment.

If the project is being led by a local agency, follow the guidance provided in [NEPA Categorical Exclusions A Guidebook for Local Agencies](#), WSDOT.

550.07 Documentation

Refer to [Chapter 300](#) for design documentation requirements.

550.08 References

550.08(1) Federal/State Laws and Codes

[23 Code of Federal Regulations \(CFR\) Part 450](#) (implementing 23 United States Code [USC] Section 135)

[40 CFR Parts 51 and 93](#) (regarding federal conformity with state and federal air quality implementation plans)

[23 USC Sections 111](#) (requires the U.S. Secretary of Transportation to approve access revisions to the Interstate System), [134](#) (metropolitan transportation planning), and [135](#) (statewide transportation planning)

FHWA “Interstate System Access Information Guide”

www.fhwa.dot.gov/design/interstate/pubs/access/access.pdf

Notice of policy statement: “Additional Interchanges to the Interstate System,” FHWA notice published in the Federal Register, February 11, 1998 (Vol. 63, No. 28)

www.access.gpo.gov/su_docs/fedreg/a980211c.html

[Revised Code of Washington \(RCW\) 36.70A](#), Growth management – Planning by selected counties and cities

550.08(2) Design Guidance and Supporting Information

Design Manual, [Chapter 320](#), Traffic Analysis

Design Manual, [Chapter 321](#), Sustainable Safety

Design Manual Glossary – Defines many of the terms encountered in this chapter

FHWA Traffic Analysis Toolbox (tools used in support of traffic operations analyses)

www.ops.fhwa.dot.gov/trafficanalysistools/index.htm

FHWA Environmental Review Toolkit

www.environment.fhwa.dot.gov/integ/index.asp

Highway Capacity Manual, (HCM) 2010, Transportation Research Council

Highway Safety Manual (HSM), AASHTO, 2010

Local Agency Guidelines (LAG), M 36-63, WSDOT

[NEPA Categorical Exclusions A Guidebook for Local Agencies](#), WSDOT

State Highway System Plan www.wsdot.wa.gov/planning/HSP

WSDOT GeoPortal – Tool for viewing WSDOT spatial data (like Functional Class, Interchange Drawings, City Limits, and State Routes) via a web browser. Users can check a box to select from a variety of base maps and data layers.

http://wwwi.wsdot.wa.gov/planning/data/gis/tools/geoportal_int.htm

WSDOT HQ Access and Hearings web page (provides guidance and timelines for preparing IJR and example Methods and Assumptions Documents):

www.wsdot.wa.gov/design/accessandhearings

Exhibit 550-1 Interstate Routes: IJR Content and Review Levels

Project Type	Support Team	Policy Point								Concurrence	Approval
		1	2	3	4	5	6	7	8		
Interstate Routes											
New freeway-to-crossroad interchange in a Transportation Management Area ^[1]	Yes	✓	✓	✓	✓	✓	✓	✓	✓	FHWA and HQ	FHWA DC
New partial interchange	Yes	✓	✓	✓	✓	✓	✓	✓	✓	FHWA and HQ	FHWA DC
New HOV direct access	Yes	✓	✓	✓	✓	✓	✓	✓	✓	FHWA and HQ	FHWA DC
New freeway-to-freeway interchange	Yes	✓	✓	✓	✓	✓	✓	✓	✓	FHWA and HQ	FHWA DC
Revision to freeway-to-freeway interchange in a Transportation Management Area ^{[1][2]}	Yes	✓	✓	✓	✓	✓	✓	✓	✓	FHWA and HQ	FHWA
New freeway-to-crossroad interchange not in a Transportation Management Area ^[1]	Yes	✓	✓	✓	✓	✓	✓	✓	✓	HQ	FHWA
Revision to freeway-to-freeway interchange not in a Transportation Management Area ^{[1][2]}	Yes	✓	✓	✓	✓	✓	✓	✓	✓	HQ	FHWA
Revision to interchange ^{[2][3]}	Yes	✓	✓	✓	✓	✓	✓	✓	✓	HQ	FHWA
Transit flyer stop on main line	Yes	✓	✓	✓	✓	✓	✓	✓	✓	HQ	FHWA
Transit flyer stop on an on-ramp	No	✓		✓	✓				✓	HQ	FHWA
Addition of entrance or exit ramps that complete basic movements at an existing interchange	Yes	✓	✓	✓	✓	✓	✓	✓	✓	HQ	FHWA
Abandonment of a ramp ^[4]	Yes	✓	✓	✓	✓	✓	✓	✓	✓	HQ	FHWA
Locked gate ^[6]	No	✓			[5]				✓	HQ	FHWA
Access breaks that do not allow any type of access to main line or ramps	No	✓	✓		[5]				✓	HQ	FHWA
Pedestrian structure	No	✓			[5]				✓	HQ	FHWA
Construction/emergency access break	No	✓	✓	✓	✓				✓	Region	FHWA

Notes:

All policy points must be addressed on all studies. The scale and scope of the project dictate the level of effort needed to address each policy point. Blank cells in the table above indicate that the policy point will need to be addressed briefly in the IJR. Consult the HQ Access and Hearings Section for direction.

- [1] In Washington, designated Transportation Management Areas include Clark, King, Kitsap, Pierce, Snohomish, and Spokane counties.
- [2] "Revision" includes changes in interchange configuration, even though the number of access points does not change. Changing from a cloverleaf to a directional interchange is an example of a "revision."
- [3] Revisions that might adversely affect the level of service of the through lanes. Examples include: doubling lanes for an on-ramp with double entry to the freeway; adding a loop ramp to an existing diamond interchange; and replacing a diamond ramp with a loop ramp. Revisions to the ramp terminal intersections may not require an IJR unless the traffic analysis shows an impact to the main line traffic.
- [4] Unless it is a condition of the original approval.
- [5] Update the right of way/limited access plan as necessary.
- [6] As part of [Policy Point 1](#), include a narrative stating that all other alternatives are not feasible.

Exhibit 550-2 Non-Interstate Routes: IJR Content and Review Levels

Project Type	Support Team	Policy Point								Concurrence	Approval
		1	2	3	4	5	6	7	8		
Non-Interstate Routes											
New freeway-to-crossroad interchange on a predominately grade-separated corridor	Yes	✓	✓	✓	✓	✓	✓	✓	✓	Region	HQ
New freeway-to-freeway interchange	Yes	✓	✓	✓	✓	✓	✓	✓	✓	Region	HQ
Revision to freeway-to-freeway interchange	Yes	✓	✓	✓	✓	✓	✓	✓	✓	Region	HQ
New freeway-to-crossroad interchange on a predominately at-grade corridor ^[5]	No	✓		✓	✓				✓	Region	HQ
Revision to interchange ^[1]	No	✓		✓	✓				✓	Region	HQ
Addition of entrance or exit ramps that complete basic movements at an existing interchange	No	✓		✓	✓				✓	Region	HQ
Abandonment of a ramp ^[2]	No	✓		✓					✓	Region	HQ
Transit flyer stop on main line	Yes	✓	✓	✓	✓	✓	✓	✓	✓	Region	HQ
Transit flyer stop on an on-ramp	No	✓		✓	✓				✓	Region	HQ
Locked gate ^[4]	No	✓			[3]				✓	Region	HQ
Pedestrian structure	No	✓			[3]				✓	Region	HQ
Construction/emergency access break	No	✓	✓	✓					✓	Region	HQ

Notes:

Policy points to be addressed will be determined by the IJR support team. The scale and scope of the project dictate the level of effort needed to address each policy point. Blank cells in the table above indicate that the policy point will need to be addressed briefly in the IJR as determined by the support team. Consult the HQ Access and Hearings Section for direction.

- [1] Revisions that might adversely affect the level of service of the through lanes. Examples include: doubling lanes for an on-ramp with double entry to the freeway; adding a loop ramp to an existing diamond interchange; and replacing a diamond ramp with a loop ramp.
- [2] Unless it is a condition of the original approval.
- [3] Update the right of way/limited access plan as necessary.
- [4] As part of [Policy Point 1](#), include a narrative stating that all other alternatives are not feasible.
- [5] Example: Revising an existing at-grade intersection into an access controlled grade-separated interchange.

Exhibit 550-3 Interstate IJR: Process Flow Chart

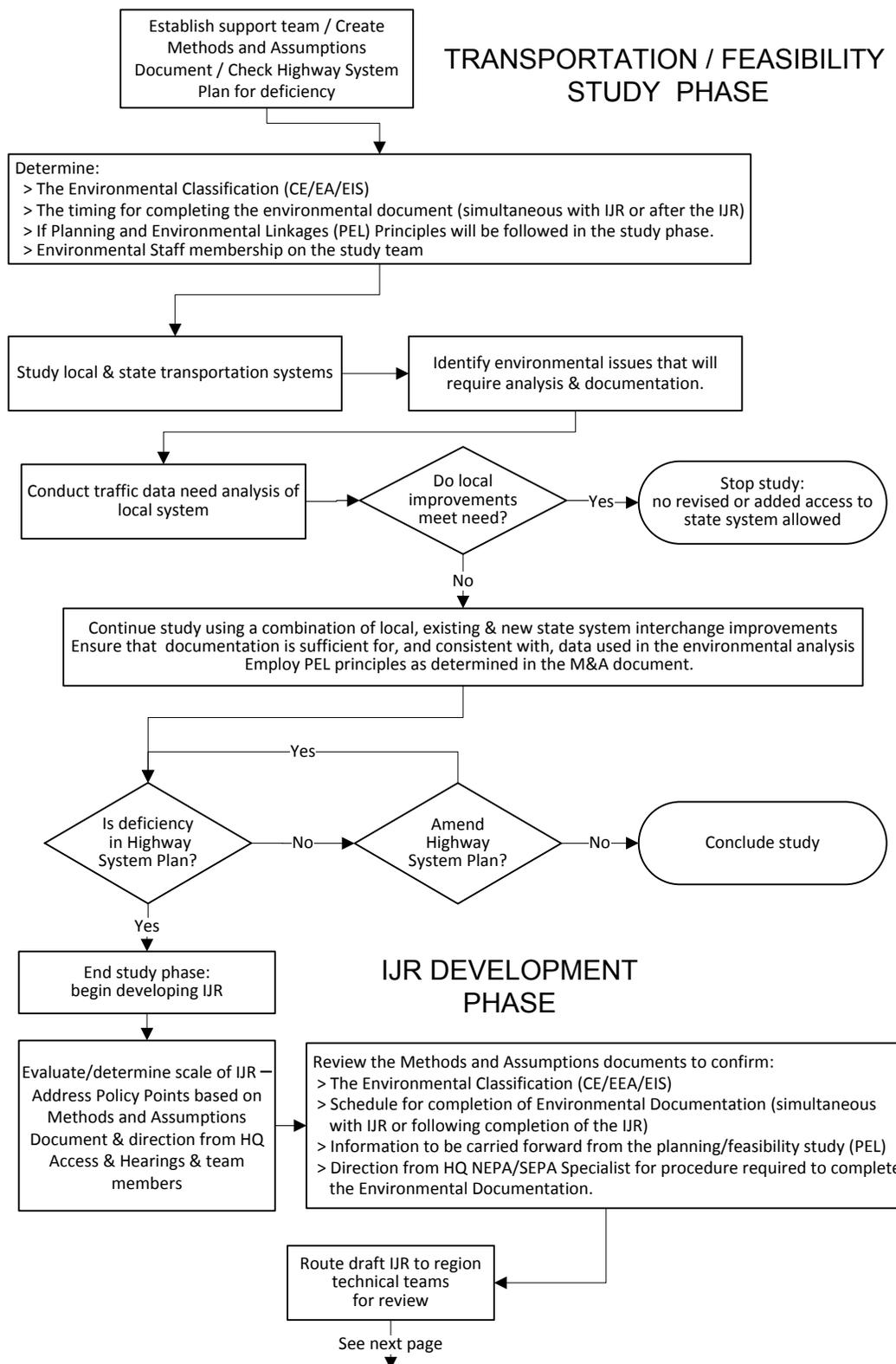


Exhibit 550-3 Interstate IJR: Process Flow Chart (continued)

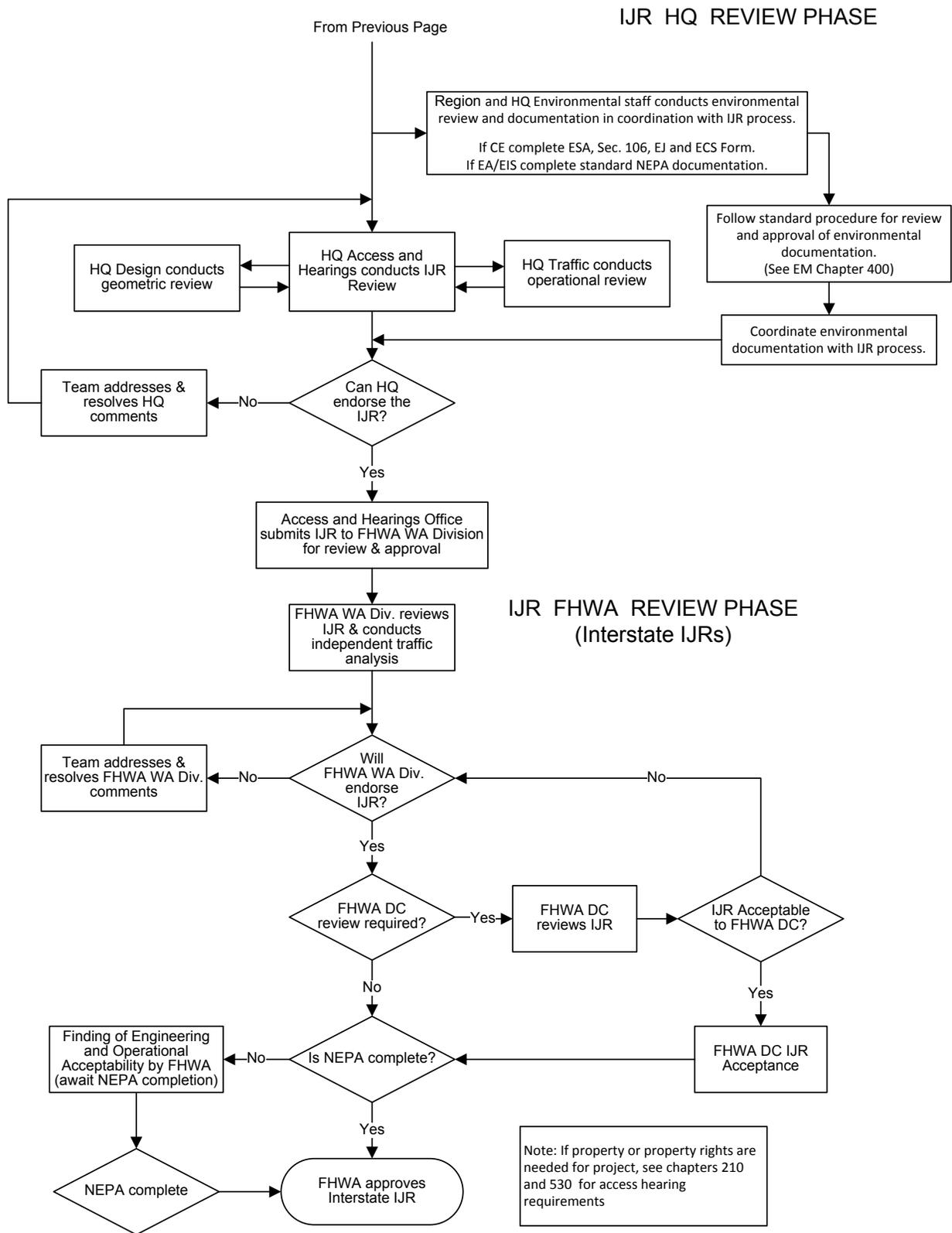


Exhibit 550-4 Non-Interstate IJR: Process Flow Chart

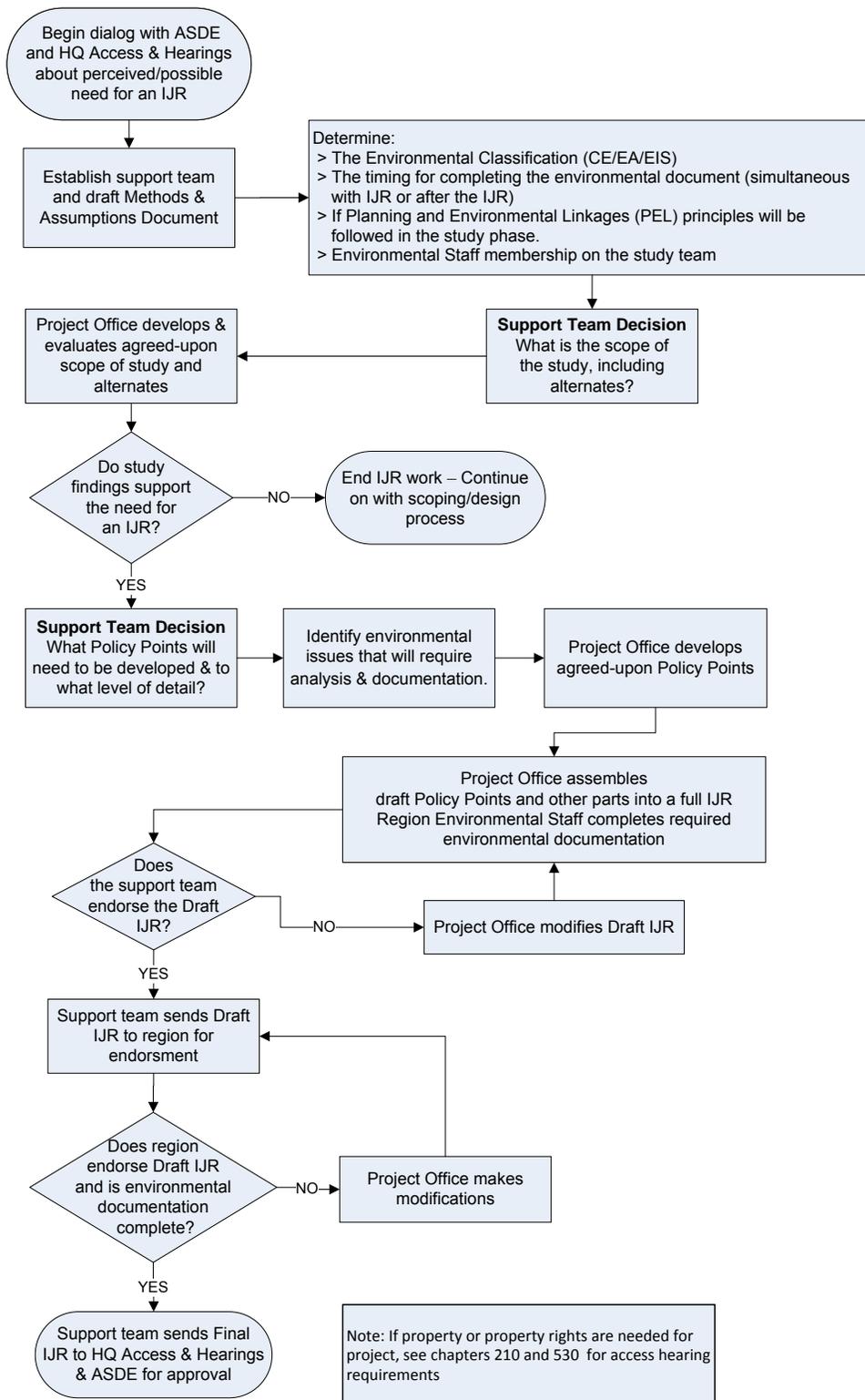


Exhibit 550-5 Methods and Assumptions Document for IJR: Concurrence Form Example

**Methods and Assumptions Document Concurrence Form
for Interchange Justification Report
"Project Title" "MP to MP"**

We the undersigned hereby concur with the methods and assumptions used for the (INSERT PROJECT NAME) Interchange Justification Report.	
IJR Engineer of Record:	By: _____ Date: _____
Traffic Analysis Engineer	By: _____ Date: _____
Region Traffic Engineer	By: _____ Date: _____
Project Development Engineer	By: _____ Date: _____
Development Services and Access Manager	By: _____ Date: _____
Region Environmental Manager	By: _____ Date: _____
Assistant State Design Engineer	By: _____ Date: _____
FHWA Area Engineer	By: _____ Date: _____
FHWA Safety and Design Engineer	By: _____ Date: _____
City Representative	By: _____ Date: _____
County Representative	By: _____ Date: _____

Exhibit 550-6 IJR: Stamped Cover Sheet Example

Interchange Justification Report
“Project Title”
“MP to MP”

This **Interchange Justification Report** has been prepared under my direct supervision, in accordance with Chapter 18.43 RCW and appropriate Washington State Department of Transportation manuals.

<input type="checkbox"/>	IJR Engineer of Record	By: _____ P.E. Project Engineer Date: _____
<input type="checkbox"/>	Traffic Analysis Engineer	By: _____ P.E. Traffic Analysis Engineer Date: _____
<input type="checkbox"/>	Concurrence – Region Traffic Engineer	By: _____ P.E. Date: _____
<input type="checkbox"/>	Concurrence – Project Development Engineer	By: _____ P.E. Date: _____
<input type="checkbox"/>	Concurrence – Environmental Manager	By: _____ Date: _____
<input type="checkbox"/>	WSDOT Approval – Development Services and Access Manager	By: _____ P.E. Date: _____
<input type="checkbox"/>	WSDOT Approval – Assistant State Design Engineer	By: _____ P.E. Date: _____
<input type="checkbox"/>	FHWA Approval – FHWA Safety and Design Engineer	By: _____ Date: _____