Appendix 8 -

Interstate & Other Freeway

Access Control & Modifications
# PROJECT DEVELOPMENT MANUAL

## APPENDIX 8

INTERSTATE & OTHER FREEWAY
ACCESS CONTROL & MODIFICATIONS

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1.0 INTRODUCTION

1.1 PURPOSE

This appendix provides guidance for:

- obtaining required Federal Highway Administration (FHWA) approval for all new or revised access points to Interstate Highways.
- obtaining required NYSDOT Chief Engineer approval for similar access modifications to non-Interstate freeways.

All proposals for motor vehicle access modifications to freeways with full control of access, including work permit projects by municipalities or the private sector, must be processed and approved in accordance with this appendix. For non-motor vehicle access modifications (e.g., locked gate access for billboard or utility maintenance activities), contact the Regional Real Estate Group for the appropriate procedures.

1.2 DEFINITIONS

**Access Control** - As defined in Highway Design Manual (HDM) Section 2.6.15, control of access is defined as the regulated limitation of access rights to and from properties abutting the highway facilities. Control of access is measured by the degree to which access is controlled, that is, fully controlled, partially controlled or uncontrolled. Control of access is a critical design element only for interstate highways and other freeways.

Freeways and freeway ramps shall have full control of access. AASHTO’s “A Policy on Design Standards - Interstate System,” July, 1991, states that control for connections to the crossroad should be effected beyond the ramp terminals by purchasing access rights, providing frontage roads, controlling added corner right of way areas, or denying driveway permits. This policy is used for other non-Interstate freeways as well.

Control of access is to extend beyond the ramp terminal at least 30 m in urban areas and 90 m in rural areas. These limits are applicable to diamond interchanges. Refer to HDM Section 6.04.09 and figures 6-Q to 6-V for the access control limits to be used along the crossroads for diamond and other types of interchanges.

**Access Modification** - For the purpose of this appendix, access modification shall mean any proposed new access point or revised access point to a freeway or ramps. Freeway access modifications can involve trails, bikeways, utility placements or other non-highway use.

Note that a change in the access control line is not necessarily an access modification, as defined in this appendix. Similarly, an access modification may not change the access control lines (e.g., reconfiguring a freeway to freeway interchange).
Access Modification Report - The technical document used to request and justify freeway access modification acceptability and approval when a Design Approval Document and Access Modification Appendix are not required.

Access Point - In this appendix, each entrance point or exit point, including “locked gate” access, to the main line is considered to be an access point. For example, a diamond interchange configuration has four access points.

Department Project - New or revised points of access proposed for construction by Department forces or a construction contractor hired to accomplish the work for the Department.

Freeway - The highest type of principal arterial public highway with full control of access to give preference to through traffic by providing access connections with selected public roads only and by prohibiting at-grade crossings or direct private driveway connections. All highways on the Interstate System in New York State are freeways.

Freeway Access Modification Final Approval - A control point that occurs in Design Phase IV based on the results of an engineering analysis of the operating characteristics of the proposal. Final approval of the access modification can occur only after the conclusion of the environmental (NEPA and/or SEQR) process.

Interchange - A system of interconnecting roadways in conjunction with one or more grade separations that provides for movement of traffic between two or more roadways or highways on different levels.


Interstate - A freeway on the Interstate System.

New York State Thruway Authority (NYSTA) Project - A project proposed for construction on a portion of the State Thruway Route that will be let by the NYSTA. Refer to Appendix M, Section 1.1 for a definition of the State Thruway Route.

Revised Access Point - A revised access point is a change in the interchange configuration, even though the number of access points may remain the same. For example, replacing an existing ramp with a different type of ramp, such as replacing a direct ramp of a diamond interchange with a loop ramp, or adding a lane to the ramp is revised access. Adding a lane to a portion of the ramp or a minor ramp realignment to improve safety or operations without altering the interchange configuration is not revised access. Such minor realignments might include relocating access points 30 m or less, lengthening a speed change lane, increasing a ramp radius or changing between a taper and parallel type speed change lane.

Work Permit Project - New or revised points of access proposed for construction by other than Department forces or a construction contractor hired by the department and subject to issuance of a highway work permit and/or use and occupancy permit by the Department.
PERG - Property Executive Review Group reviews every proposed disposition of real property by the Department.

1.3 ACCESS CONTROL CHANGES

Refer to Figure 8-1 for the flow chart of the approval authority when changing access control. The following items correspond to the numbered steps in the flow chart.

1. Refer to 23 CFR 713 for management and disposal of real property acquired in connection with Federal-aid highway projects and 23 CFR 620 for relinquishment of highway facilities where Federal-aid funds have previously participated in either right-of-way or physical construction costs of the highway section.

2. FHWA approval is required for ROW relinquishment for non-transportation purposes where federal funds were used for construction, right of way acquisition, or improvement. Refer to the Regional Real Estate Group for guidance on how to obtain FHWA’s ROW relinquishment approval. Additionally, the NYSDOT Property Executive Review Group (PERG) must process all cases involving disposal of NYSDOT real property rights.

3. Access is defined in Section 1.2.

4. Changes in access control that create new access points or revised access points on the main line or ramps are access modifications, and are subject to the procedures in this appendix.

5. Crossroads with either a new break in access along the crossroad or a reduction in the length of access control require special documentation and approval unless the change in access is a minor adjustment.

6. Minor adjustments to bring the access control up to standards or minor shifts in the location of existing access points that do not meet the definition of revised access in Section 1.2 of this appendix do not require any special approvals in accordance with this appendix.

7. The Interstate System includes the ramps. Contact the Design Quality Assurance Bureau, Regional Liaison Section for segments that are part of the future Interstate System.

8. FHWA has access modification authority for Interstate toll facilities that previously used federal funds for ROW, construction, or improvements.

9. FHWA approval is required for:

   • Access modification on the non-toll portions of the Interstate System mainline or ramps.
   • Access modification on the toll portions of the Interstate System that received federal funds for construction, right of way acquisition, or improvement.
Access modifications requiring FHWA approval shall follow the procedures in Section 2.0 of this appendix. Note that the requirement for FHWA’s approval also requires compliance with NEPA, regardless of funding.

10. NYSDOT Chief Engineer approval is required for:

   a) Access modifications on:
      • Interstate toll facilities that did not receive federal funds for construction, right of way acquisition, or improvement.
      • Non-Interstate freeways.

      Access modifications requiring the Chief Engineer approval shall follow the procedures in Section 2.0 of this appendix.

   b) New breaks in access on the crossroad at an Interstate or other freeway ramp terminal.*

   c) A reduction in the length of access control along the crossroad at an Interstate or other freeway ramp terminal.*

   * Items b and c, above, shall be justified in accordance with HDM Section 2.8.

11. The retention of non-standard access control on the crossroad at an Interstate or other freeway ramp terminal shall be justified in accordance with HDM Section 2.8. Non-standard feature approval shall be in accordance with the TEA-21 “Design Related Approvals Matrix.”

A project with multiple independent access control issues may require multiple approval authorities.
Figure 8-1  Flow Chart of Access Change Process

1. Relinquishment of ROW for non-transportation purposes where federal funds were used for ROW, construction, or improvement?
   - Yes
   - No

2. Contact the Regional Real Estate Group for guidance on obtaining FHWA's approval of ROW relinquishment for non-transportation purposes.

3. Access modification on the Interstate, other freeways, or ramps; or, access control change on the crossroad at the ramp terminals?
   - Yes
   - No

4. Creation of new access points or revised access points on the main line or ramps?
   - Yes
   - No

5. Crossroad with either a new break in access or a reduction in the length of access control?
   - Yes
   - No

6. Minor adjustment to bring up to standards or minor shifts in the location of existing access points?
   - Yes
   - No

7. Is it on the Interstate System (including ramps and mainline)?
   - Yes
   - No

8. Is it a toll facility with no federal funds used for ROW, construction, or improvement?
   - Yes
   - No

9. Comply w/ NEPA, Approval by FHWA
   - Follow standard procedures. Justify Non-Standard Access Control, as needed.

10. Approval by NYS DOT Chief Engineer

APPENDIX 8
Interstate & Other Freeway
Access Control & Modifications

2.0 PROCEDURES

2.1 RESPONSIBILITIES

NYSDOT Regional Office/NYSTA - For NYSDOT or NYSTA administered projects, the NYSDOT Regional Office/NYSTA is responsible for all engineering documentation. The Regional Office/NYSTA will initiate coordination with FHWA for proposals to modify access on the Interstate System. The Regional Office/NYSTA shall include the following certification statement in the memo to DQAB when recommending access modification approval by the Chief Engineer or FHWA:

"An independent quality control review separate from the functional group reviews has been conducted and all policies, procedures, standards, rules and regulations requisite to Access Modification Approval have been followed except as otherwise noted and explained."

For highway work permits, the NYSDOT Regional Office/NYSTA is the primary contact with the Permittee. The Regional Office/NYSTA will initiate coordination with FHWA for proposals to modify access on the Interstate System. The Regional Office/NYSTA shall include the following certification statement when recommending access modification approval:

"From our review for completeness and the attached certification by a New York State Licensed Professional Engineer in responsible charge of the project it appears that all requirements requisite to access modification approval have been met. The Professional Engineer has informed us that the project has been sufficiently reviewed to assure that the work is consistent with established standards, policies, regulations and procedures, except as explained in the attached."

Permittee - “Permittee” is a general term for the private developers, authorities or local governments who initiate a request for an access modification. The Permittee will be required to prepare all necessary engineering documentation. Engineering documentation must be approved by a New York State Licensed Professional Engineer in responsible charge of the design.

When a municipality is the Permittee, they will be responsible for the SEQR determination.

Main Office Liaison - For NYSTA and NYSDOT administered projects, Design Quality Assurance Bureau (DQAB) will recommend access modification approval by the Chief Engineer or FHWA.

For highway work permits, the Safety Management Bureau in the NYSDOT Traffic Engineering and Highway Safety Division will recommend access modification approval to the Director of the Traffic Engineering and Highway Safety Division. The Director will recommend approval to the Chief Engineer or FHWA.

Mobility Management Bureau - The Mobility Management Bureau in the Planning and Strategy Group will review the Regional Office’s initial feasibility assessment when proposals (possibly from a Permittee) include a new access point or a revised access point that may have systemwide implications.
FHWA - On the Interstate System, with the exception of Interstate toll facilities that have never been improved with federal funds, FHWA determines acceptability of access modification and grants approval. Based on the magnitude of the access modification, the Division Office of FHWA may request Washington D.C. FHWA approval (See Attachment 2). Additionally, access modifications must be approved by FHWA if the ROW will be relinquished and federal funds were used for construction, ROW, or improvements.

NYSDOT Chief Engineer - Based on the recommendation of the Main Office Liaison, the NYSDOT Chief Engineer grants access modification approvals that do not require FHWA approval. Note that FHWA needs to be kept informed on all projects that will have an effect on the operation of the Interstate System, even though the actual construction may not be on the Interstate.

2.2 STEPS

The following steps apply to all access modifications, as defined in Section 1.2 of this appendix. Therefore, NYSDOT and NYSTA administered projects should skip steps and procedures for the permittee, as defined in Section 2.1 of this appendix.

Design approval, issuance of highway work permits, and real property transactions shall not occur prior to:

- the formal issuance of a favorable decision on the proposed access modification.
- Completion of legally enforceable arrangements for highway work permits in accordance with current Department policy for mitigation of adverse impacts on transportation by site development.

2.2.1 Project Scoping Stage

1. Permittee - Develops a conceptual access modification proposal and submits a copy to the NYSDOT Regional Office or NYSTA (if on the State Thruway Route). Note that FHWA approval of an access modification request can never be guaranteed, even if it is a municipally and Department mandated action to mitigate adverse transportation impacts of a site development. In cases where the Department is the Lead Agency under SEQR, this statement shall be incorporated directly into the SEQR documentation.

2. Regional Office/NYSTA - Determines that a freeway access modification approval is likely to be needed. Performs an initial feasibility to identify major issues that could preclude eventual approval (such as partial interchanges, interchange spacing, mainline level of services, real estate appraisal and PERG issues, etc.). A study of the cumulative traffic impacts from planned development along a freeway corridor may be required to assure compatible geometric design and minimize adverse impacts on freeway traffic.
Coordinates with FHWA and DQAB when Interstate System access modifications are proposed. Early FHWA involvement is needed to facilitate FHWA’s NEPA determination on the access modification approval action. (A NEPA determination is required for FHWA approvals, regardless of fund source.)

For NYSTA projects with impacts off the State Thruway Route, the NYSTA coordinates with the Regional Office. The Regional Office/NYSTA will coordinate with the Mobility Management Bureau for any new access point or any access modification that may have systemwide implications.

3. **Mobility Management Bureau** - The Mobility Management Bureau in the Planning and Strategy Group reviews, provides guidance, and performs an initial feasibility assessment when proposals include a new access point or a revised access point may have systemwide implications.

4. **FHWA** - When requested, reviews proposal, provides guidance, and (if appropriate) provides concurrence that the proposed access modification appears feasible.

### 2.2.2 Design Phase I - Preliminary Design

1. **NYSDOT Regional Office/NYSTA or Permittee** - Prepares the Draft Design Approval Document for Department projects or Access Modification Report for highway work permits using the format discussed in Section 3.0 of this appendix.

2. **Permittee** - Submits the requested number of copies of the Draft Access Modification Report to the Regional Office. The submittal memo should be signed by a New York State Licensed Professional Engineer in responsible charge of the engineering work for the proposed access modification.

3. **NYSDOT Regional Office/NYSTA** - Reviews the Draft Access Modification Report. Transmits copies for an advisory review, as follows:
   
   - Main Office Liaison
   - FHWA (if FHWA approval is required. The submission to FHWA should request concurrence on whether or not FHWA Headquarters in Washington, D.C. must approve the access modification. See Attachment 2);
   - Metropolitan Planning Organization Staff (for new access points in urban area);
   - Safety Program Management Bureau (for new access points if DQAB is the Main Office Liaison);
   - Mobility Management Bureau (for new access points);
   - Real Estate Division (for ROW relinquishment);
   - Office of Legal Affairs (for highway work permits);
   - NYSDOT Regional Office (if a highway work permit or NYSTA project with impacts off the State Thruway Route);
   - NYSTA (if a highway work permit or Department project may impact the State Thruway Route); and
• Other stakeholders from whom advice or input is prudent.

4. **Reviewers** - Reply directly to the Regional Office/NYSTA and provide copies of their comments to the Main Office Liaison.

2.2.3 **Design Phase IV - Design Approval**

Access modification approval should be requested with the NEPA environmental determination if FHWA approval is needed. Access modification approval should be requested at Design Approval if the NYSDOT Chief Engineer will grant Design Approval.

1. **NYSDOT Regional Office/NYSTA or Permittee** - Revises the Design Approval Document or Access Modification Report to resolve review comments received.

2. **Permittee** - Submits 4 copies of the Final Access Modification Report to the NYSDOT Regional Office/NYSTA with a cover memo signed by a New York State Licensed Professional Engineer in responsible charge of the engineering work for the access modification.

3. **Regional Director/NYSTA Chief Engineer** - Ensures that all comments have been satisfactorily resolved. Recommends access modification approval to the Main Office Liaison by a memorandum that includes a certification statement (from the permittee, as applicable) and 2 copies of the Final Access Modification Report or Design Approval Document.

4. **Main Office Liaison** - Ensures that all comments have been satisfactorily resolved and will request the Chief Engineer’s or FHWA’s access modification approval.

5. **FHWA or NYSDOT Chief Engineer** - Approves access modification. The FHWA Division Office will request FHWA Headquarters in Washington, D.C. to approve access modification for certain projects described in Attachment 2.

6. **Main Office Liaison** - Upon receipt of the access modification decision, the Main Office Liaison will distribute the written decision to the Regional Office/NYSTA, who will forward it on to the permittee, as applicable.
2.3 RELATIONSHIP TO OTHER PROCEDURES, LAWS, REGULATIONS, ETC.

The requirements in this appendix are in addition to all other current state and federal laws, regulations, policies and procedures, and is not a substitute for any of them. For example, Appendix 7 (Scoping and Design Approval Documents) of this manual requires a “full” Design Approval Document for new and reconstruction projects.

Compliance with this procedure is not a substitute for compliance with requirements for site developer mitigation of adverse traffic impacts, processing of requests for exceptions to level of service policy for site developments on opening day, and requests for phased mitigation of site development traffic impacts. Refer to the NYSDOT “Policy and Standards for Entrances to State Highways,” February, 1998 for these additional requirements.

3.0 FREEWAY ACCESS MODIFICATION REPORT FORMAT & CONTENT

To document the engineering and environmental acceptability of the access modification while simultaneously complying with applicable Federal and State procedures, laws, and regulations, the access modification documentation shall consist of:

A. An Access Modification Report included as a separate appendix to a standard Design Approval Document. The appendix shall follow the format and content of Attachment 1. Additionally, it should refer to the Design Approval Document wherever possible to reduce/eliminate redundancy.

OR

B. A Design Approval Document using the format and content in Appendix B of this manual that incorporates the content of Attachment 1.

Option A should be used when FHWA approval is needed for a non-federal-aid project that includes a substantial amount of work unrelated to the access modification. Option B should be used when the access modification is an integral part of a locally administered federal-aid project, NYSDOT project, NYSTA project, or a highway work permit.
I INTRODUCTION

This section should include the reason for preparing the appendix. For example:

“In order to maintain the integrity of the freeway, access modifications must be clearly and convincingly justified based on adequate information in areas such as safety, traffic operations, and coordination with land use. This appendix documents the Department and FHWA’s decisions to modify access at the Rte. 85/I-90 interchange in the City of Albany. This appendix was prepared in accordance with the NYSDOT Project Development Manual Appendix 8 - Freeway Access Modifications.”

II EXISTING CONDITIONS

Refer to sections of the Design Approval Document wherever possible to reduce repetition. Add additional information as required below or as needed due to different study area. Refer to Appendix 7 of this manual for additional requirements and guidance on what to include in the following sections if the access modification appendix will not refer to the Design Approval Document.

A. Project Identification - Reference and indicate limits on a location map. Generally the limits of analysis will extend outward from the proposal site to the highway network nodes at which motorists choose which competing alternative routing they will take to move through the freeway corridor being studied. The analysis should be included for Interstate mainline segments and interchanges with traffic impact changes due to the interchange modification proposal. As a minimum this should extend one full interchange before and after the access modification.

B. Project Evolution

C. Conditions and Needs

   1. Transportation Conditions, Deficiencies and Engineering Considerations

      a. Functional Classification and National Highway System (NHS)
b. Culture, Terrain and Climatic Conditions

c. Control of Access

d. Existing Highway Section - Refer to plans, profiles and typical section.

e. Abutting Highway Segments and Future Plans for Abutting Highway Segments - The work being proposed should be consistent with future plans, including long-range system plans, for abutting highway segments. Include a brief statement regarding plans to reconstruct or widen the abutting highway segment within 20 years. If the project involves a state highway, a brief statement should be provided by the Regional Planning and Program Manager. If the project is on a non-state highway, a written statement from the unit of government having authority over the facility should be obtained.

f. Speeds and Delay

g. Traffic Volumes

h. Level of Service

i. Non-Standard Features and Non-Conforming Features

j. Safety Considerations, Accident History and Analysis - The accident analysis should extend for the entire study area to identify areas for improvement to ensure the access modification will not degrade safety.

k. Planned Development for Area

l. System Elements and Conditions - Review and coordination sufficient to avoid piece-meal consideration of added access is necessary to identify and evaluate potential proposals in the interstate corridor that may better serve planned traffic patterns and that might otherwise be precluded by approval of the current proposal. For example, where two freeways junction with one another, the operational requirements of the freeway to freeway movements take precedence over community access to the freeway. In the same way, community access to the freeway should normally take precedence over private business site access (via a public road) to the freeway.

2. Needs

a. Project Level Needs - Discuss need for access modification. Document that the existing interchanges and/or local roads and streets in the corridor can neither provide the necessary access nor be improved to satisfactorily accommodate the design-year traffic demands while at the same time providing the access intended by the proposal.
b. Corridor or Area Level Needs - Discuss corridor level needs.

c. Transportation Plans - New/expanded development and transportation improvements must be coordinated. The intent is to require consistency between transportation planning and land use planning in the area of proposed change, including endorsement of the proposed land uses by appropriate authorities.

The relationship of the current proposal to adopted municipal, county, and urban area land use and transportation plans should be clearly explained. If the current proposal is an addition to currently adopted land use and transportation plans, the impacts of the proposal on those plans should be clearly explained. Prior to final approval, all requests must be consistent with the municipal and/or statewide transportation plan, applicable provisions of 23 CFR 450, and the transportation conformity requirements of 40 CFR parts 51 and 93.

III ALTERNATIVES

Refer to sections of the Design Approval Document wherever possible to reduce repetition. Add additional information as required below or as needed due to different study area.

A. Design Criteria


2. Critical Design Elements - Refer to Section III.A of the Design Approval Document. Design Criteria must be provided for the freeway, ramps and cross streets to be modified by the access modification. Note that access control is a critical design element for the main line and ramps since both shall have full control of access. For the cross road, refer to HDM Section 6.04.09 for the control of access limits, which extend beyond the ramp terminal.

3. Other Controlling Parameters

   a. Interchange Spacing - Interchange spacing is measured from gore area to gore area since the actual crossroads may not be located near the physical entrance to the freeway. Interchanges should be 1.5 km apart in urban areas and 4.5 km apart in rural areas. The interchange spacing guidelines are based on AASHTO’s “A Policy on Design Standards - Interstate System,” 1991. These values should be considered as good guidance and followed to the maximum extent possible.

   b. Connection - Must connect to public roads.
c. Configuration - All interchanges should provide for all movements. Less than “full interchanges” for special purpose access for transit vehicles, for HOV's, or into park and ride lots may be considered on a case-by-case basis.

d. Design Vehicle - See HDM Section 5.8.1.

e. LOS (For non-Interstate System access modifications)

B Alternatives - All reasonable alternative for design options, location, and transportation system management options (such as ramp metering, mass transit, and HOV facilities) should be considered and provided for if currently justified, or provisions included for accommodating such facilities if a future need is identified.

C Feasible Alternative

1. Description - Reference or include a plan of the access modification. The plan should include pavement markings, dimensioned lane and shoulder widths, and alignment data.

2. Engineering Considerations

a. Special Geometrics - Non-standard features must be justified based on HDM Chapter 2, Section 2.8 and approved in accordance with the TEA-21 Matrix in the Introduction of this manual. Refer to Section III.C.2.a of the DAD.

i. Spacing - Interchanges that violate the spacing parameters may be acceptable based on further analysis. For example, the construction of a collector distributor road that violates the interchange spacing parameters may actually reduce collision rates and congestion on the freeway. However, more detailed design information may be needed to ensure that traffic operations with the modified access will be acceptable. For example, guide signing plans through a series of closely spaced interchanges may be necessary to demonstrate that positive guidance and sign spacing issues can be resolved.

ii. Connection - Access points must be connected to a public road. Direct access from a freeway to a private driveway will not be permitted.

iii. Interchange Configuration - Except in the most extreme circumstances, all interchanges should provide for all movements. When initial construction of a partial interchange can be clearly justified, commitments for completion of the full interchange must be made prior to the initial construction. Purchase of right-of-way for the full interchange at the time of purchase for the initial partial interchange stage should be considered.
b. Safety Considerations - The safety implications of the access modification must be determined by comparing the existing accident rates with the anticipated accident rates of the access modification.

c. Traffic Considerations - Access modifications must be justified based on regional traffic needs and not only to solve local system needs or problems. Additionally, the freeway should not become part of the local traffic circulation system. However, special purpose access for high occupancy vehicles, for transit vehicles, or into park and ride lots may be decided on a case by case basis.

This section should demonstrate by analysis that the network of crossroads and parallel roads in the traffic study area can satisfactorily accommodate design-year demand traffic volumes induced by the proposed modification. The concept “satisfactorily accommodate design-year demand traffic volumes” is defined as not having a significant adverse impact on the safety and operation of the freeway.

The analysis may be based on comparison of highway segment and intersection volume/capacity ratio performance measures provided by traffic simulation models.

Note that a benefit-cost analysis is not required. However, it has application to show that the proposal is cost effective and minor adverse traffic operations impacts at some network locations are a tolerable consequence of substantial benefits to freeway corridor highway users. Benefit-cost analysis is a valuable input to the decision making process. However, it is not the sole or even a major determinant when considering access modifications or the selection of a particular geometric design configuration for the access modification. Benefit-cost analysis is not a method applicable to justification for single or isolated ramps and partial versus full interchanges.

Use of a calibrated computer assisted traffic simulation model, such as TMODEL or TRANPLAN, is suggested as an effective and efficient means of evaluating the travel pattern impacts of network modifications. Use of selected link origin-destination matrices for freeway entrance and exit ramps to show use by non-local traffic is encouraged.

In urban areas with many relatively closely spaced interchanges and recurring freeway congestion, operational analysis may include microscopic traffic performance simulation using computer software such as Traf-Netsim or CORSIM. Contact the Data Analysis and Forecasting Bureau, Planning and Strategy Division, for additional information on transportation modeling.

d. Traffic Control Devices - Reference a preliminary signing plan and ITS measures, as appropriate.
e. Phased Mitigation - Phased construction of developer mitigating measures in accordance with current Department policy may be used where extensive private development is not expected to be completed for several years. Explanation of the phasing of the access modification proposal with other site development actions and transportation mitigating measures should be clearly explained.

f. Right-of-Way

D. Project Costs and Schedule

1. Costs

2. Schedule

IV SOCIAL, ECONOMIC, AND ENVIRONMENTAL CONSIDERATIONS

For non-federal-aid projects with access modifications on the Interstate System, this chapter must provide sufficient information for FHWA to base their NEPA determination. The format should follow the Chapter IV format in Appendix 7 of this manual (Scoping and Design Approval Documents).

For all other projects, refer to Chapter IV of the Design Approval Document to reduce repetition. Add additional information, as needed, due to different study area.
### Attachment 2 - FHWA Delegation of Authority*

<table>
<thead>
<tr>
<th>Types of New Access</th>
<th>Transportation Management Area (TMA)**?</th>
<th>Washington, D.C. FHWA Approval</th>
<th>Division FHWA Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>• New Freeway-to-Freeway Interchange</td>
<td>all</td>
<td>✅</td>
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<tr>
<td>• Major Modification of Freeway-to-Freeway Interchange</td>
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<td>• New Partial Interchange or New Ramps To/From Continuous Frontage Roads That Create a Partial Interchange</td>
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<tr>
<td>• New Freeway-to-Crossroad Interchange</td>
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<td>• Modification of Existing Freeway-to-Crossroad Interchange</td>
<td>No</td>
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<tr>
<td>• Completion of Basic Movements at Partial Interchange</td>
<td>all</td>
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<tr>
<td>• Locked Gate Access</td>
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<tr>
<td>• Abandonment of Ramps or Interchanges</td>
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**Note:**

* Reference Rodney E. Slater, FHWA Administrator, August 19, 1996 memo “Delegation of Authority - Requests for New or Revised Access Points on Completed Interstate Highways.”

** TMA’s, as defined in 23 USC 134(i), are the areas covered by Metropolitan Planning Organizations (MPO’s) in metropolitan areas with over 200,000 people. For the purpose of this table, TMA includes only the urbanized portion of the MPO area, as defined by the Bureau of the Census.