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C.1. Cover Sheet

Each EIS should have a cover sheet containing the following information:

1. EIS Number
2. Route, termini, city or borough, and state
3. Draft (Final) (Supplement) Environmental Impact Statement
4. Submitted pursuant to 42 U.S.C. 4332 (2) (c) (and where applicable, 49 U.S.C. 303) by the U.S. Department of Transportation, Federal Highway Administration, and state highway agency, and as applicable, any other joint lead agency
5. Cooperating agencies (Include list here, as applicable)A one-paragraph abstract of the statement:

“Comments on this draft EIS are due by

_____ (date) and should be sent to (name and address).”

6. The top left-hand corner of the cover sheet of all draft final and supplemental EISs contains an identification number. The following is an example:

FHWA-AK-EIS-87-01-D(F)(S)

- FHWA: Name of federal agency
- AK: Name of state
- EIS: Environmental impact statement
- 87: Year draft statement was prepared
- 01: Sequential number of draft statement for each calendar year
- D: Designates the statement as the draft statement
- F: Designates the statement as the final statement
- S: Designates supplemental statement and should be combined with draft (DS) or final (FS) statement designation. The year and sequential number will be the same as those used for the original draft EIS.

_____	_____
Date of Approval	Preconstruction Engineer
_____	_____
Date of Approval	Regional Director
_____	_____
Date of Approval	for FHWA
The following persons may be contacted for additional information concerning this document:	
_____	_____
(name, address, and telephone for environmental coordinator)	(name, address, and telephone for FHWA division reality/environmental officer)

C.2. Summary

The summary should include:

1. A brief description of the proposed FHWA action indicating route, termini, type of improvement, number of lanes, length, county, city, state, and other information, as appropriate
2. A description of any major actions proposed by other governmental agencies in the same geographic area as the proposed FHWA action
3. A summary of all reasonable alternatives considered. The draft EIS must identify the preferred alternative or alternatives officially identified by DOT&PF (40 CFR 1502.14[e]). The final EIS must identify the preferred alternative and should discuss the basis for its selection (23 CFR 771.125[a][1])
4. A summary of major environmental impacts, both beneficial and adverse
5. Any areas of controversy (including issues raised by agencies and the public)
6. Any major unresolved issues with other agencies
7. A list of other federal actions required for the proposed action (i.e., permit approvals, land transfer, Section 106 agreements, etc.)

C.3. Format

For consistency with Council on Environmental Quality regulations, use the following standard format:

1. Cover sheet
2. Summary
3. Table of Contents
4. Purpose of and need for action
5. Alternatives
6. Affected environment
7. Environmental consequences
8. List of preparers
9. List of agencies, organizations, and persons to whom copies of the statement are sent
10. Comments and coordination
11. Index

12. Appendices (if any)

Print the EIS on 8 1/2 x 11-inch paper with any foldout sheets folded to that size. The wider sheets should be 8 1/2 inches high and should open to the right with the title or identification on the right. The standard size allows for administrative record-keeping.

Consultant logos are not to be included on any pages or text, figures, or tables in the EIS.

C.4. Purpose of and Need for Action

Identify and describe the proposed action and the transportation problem(s) or other needs that are addressed (40 CFR 1502.13). This section should clearly demonstrate that a need exists and should define the need in terms understandable to the public. This discussion should clearly describe the problems that the proposed action is to correct. It will form the basis for the “no action” discussion in the “Alternatives” section, and assist with the identification of reasonable alternatives and the selection of the preferred alternative. Charts, tables, maps, and other illustrations (e.g., typical cross-section, photographs, etc.) are encouraged as useful presentation techniques.

The following is a list of items that may assist in the explanation of the need for the proposed action. This is a guide and by no means all-inclusive or applicable in every situation. But the format must be followed.

1. *Project Status*: Briefly describe the project history including actions taken to date, other agencies and governmental units involved, action spending, schedules, etc.
2. *System Linkage*: Is the proposed project a “connecting link?” How does it fit in the transportation system?
3. *Capacity*: Is the capacity of the present facility inadequate for the present traffic? Projected traffic? What capacity is needed? What is the level(s) of service for existing and proposed facilities?
4. *Transportation Demand*: Including relationship to any statewide plan or adopted urban transportation plan together with an explanation of the project’s traffic forecasts

that are substantially different from those estimates from the 23 U.S.C. 134 (Section 134) planning process.

5. *Legislation*: Is there a federal, state, or local governmental mandate for the action?
6. *Social Demands or Economic Development*: New employment, schools, land use plans, recreation, etc. What projected economic development/land use changes indicate the need to improve or add to the highway capacity?
7. *Modal Interrelationships*: How will the proposed facility interface with and serve to complement airports, rail and port facilities, mass transit services, etc.?
8. *Safety*: Is the proposed project necessary to correct an existing or potential safety hazard? Is the existing accident rate excessively high? Why? How will the proposed project improve it?
9. *Roadway Deficiencies*: Is the proposed project necessary to correct existing roadway deficiencies (e.g., substandard geometrics, load limits on structures, inadequate cross-section, or high maintenance costs)? How will the proposed project improve it?

C.5. Alternatives

This section of the draft EIS must discuss a range of alternatives, including all “reasonable alternatives” under consideration and those “other alternatives” that were eliminated from detailed study (23 CFR 771.123(c)). The section should begin with a concise discussion of how and why the reasonable alternatives were selected for detailed study and explain why other alternatives were eliminated. The following range of alternatives are evaluated when determining reasonable alternatives:

1. *"No-action" alternative*: The “no-action” alternative normally includes short-term minor restoration types of activities (safety and maintenance improvements, etc.) that maintain continuing operation of the existing roadway.
2. *Transportation System Management (TSM) alternative*: The TSM alternative includes those activities that maximize the efficiency of the present system. Possible subject areas to include

in this alternative are options such as fringe parking, ridesharing, high-occupancy vehicle (HOV) lanes on existing roadways, and traffic signal timing optimization. This limited construction alternative is usually relevant only for major projects proposed in urbanized areas with populations over 200,000.

For all major projects in these urbanized areas, HOV lanes should be considered. Accomplish this by referring to the regional transportation plan, when that plan considers this option. Where a regional transportation plan does not reflect consideration of this option, it may be necessary to evaluate the feasibility of HOV lanes during early project development. Where a TSM alternative is identified as a reasonable alternative for a “connecting link” project, it should be evaluated to determine the effect that not building a highway link in the transportation plan will have on the remainder of the system. Make a similar analysis where a TSM element(s) (e.g., HOV lanes) is part of a build alternative and reduces the scale of the highway link.

While the above discussion relates primarily to major projects in urbanized areas, the concept of achieving maximum utilization of existing facilities is equally important in rural areas. Before selecting an alternative on new location for major projects in rural areas, it is important to demonstrate that reconstruction and rehabilitation of the existing system will not adequately correct the identified deficiencies and meet the project need.

3. *Mass Transit*: This alternative includes those reasonable and feasible transit options (bus systems, rail, etc.) even though they may not be within the existing FHWA funding authority. Consider it in all proposed major highway projects in urban areas with populations over 200,000. Accomplish this by referencing the regional or area transportation plan where that plan considers mass transit or by an independent analysis during early project development.

Where urban projects are multi-modal and are proposed for federal funding, close coordination is necessary with the Urban Mass Transportation Administration (UMTA). In these situations, you should consult UMTA early in the project-development process. Where UMTA funds are likely to be requested for portions of the proposal,

UMTA must be requested to be either a joint lead agency or a cooperating agency at the earliest stages of project development (23 CFR 771.111[d]). Where applicable, summarize in the EIS the cost-effectiveness studies that have been performed.

4. *Build alternatives:* You should evaluate both improvement of existing highway(s) and alternatives on new location. Present and evaluate in detail in the draft EIS a representative number of reasonable alternatives (40 CFR 1502.14[a]). For most major projects, there is a potential for a large number of reasonable alternatives. Where there is a large number of alternatives, present only a representative number of the most reasonable examples, covering the full range of alternatives. The determination of the number of reasonable alternatives in the draft EIS, therefore, depends on the particular project and the facts and circumstances in each case.

Briefly describe each alternative using maps or other visual aids such as photographs, drawings, or sketches to help explain the various alternatives. The material should provide a clear understanding of each alternative's termini, location, costs, and the project concept (number of lanes, right-of-way requirements, median width, access control, etc.). Where land has been or will be reserved or dedicated by local government(s), donated by individuals, or acquired through advanced or hardship acquisition for use as highway right-of-way for any alternative under consideration, the draft EIS should identify the status and extent of such property and the alternatives involved. Where such lands are reserved, the EIS should state that the reserved lands will not influence the alternative to be selected.

Development of more detailed design for some aspects (e.g., Section 4[f], USACE or CG permits, noise, wetlands, etc.) of one or more alternatives may be necessary during preparation of the draft and final EIS in order to evaluate impacts or mitigation measures or to address issues raised by other agencies or the public. However, avoid unnecessarily specifying features that preclude cost-effective final design options.

Develop all reasonable alternatives under consideration (including the no-build) to a comparable level of detail in the draft EIS so that

their comparative merits may be evaluated (40 CFR 1502.14[b] and [d]). In those situations where the DOT&PF has officially identified a "preferred" alternative based on its early coordination and environmental studies, we should indicate this in the draft EIS. In these instances, the draft EIS should include a statement indicating that the final selection of an alternative will not be made until the alternatives' impacts and comments on the draft EIS and from the public hearing (if held) have been fully evaluated. Where a preferred alternative has not been identified, the draft EIS should state that all reasonable alternatives are under consideration and that a decision will be made after full evaluation of the alternatives' impacts and comments on the draft EIS and from the public hearing (if held).

The final EIS must identify the preferred alternative and should discuss the basis for its selection (23 CFR 771.125[a][1]). The discussion should provide the information and rationale identified in Section VIII (Record of Decision), paragraph (B). If the preferred alternative is modified after the draft EIS, the final EIS should clearly identify the changes and discuss the reasons why any new impacts are not significant.

C.6. Affected Environment

This section provides a concise description of the existing social, economic, and environmental setting for the area affected by all alternatives presented in the EIS. Where possible, the description should be a single description for the general project area rather than a separate one for each alternative. The general population served and/or affected (city, county, etc.) by the proposed action should be identified by race, color, national origin, and age. Obtain demographic data from available secondary sources (e.g., census data, planning reports) unless more detailed information is necessary to address specific concerns. All socially, economically, and environmentally sensitive locations or features in the proposed project impact area (e.g., neighborhoods, elderly/minority/ethnic groups, parks, hazardous material sites, historic resources, wetlands, etc.), should be identified on exhibits and briefly described in the text. However, it may be desirable to exclude from environmental documents the specific location of archeological sites to prevent vandalism.

To reduce paperwork and eliminate extraneous background material, the discussion should be limited to data, information, issues, and values that will have a bearing on possible impacts, mitigation measures, and on the selection of an alternative. Data and analyses should be commensurate with the importance of the impact, with the less important material summarized or referenced rather than be reproduced. You should use photographs, illustrations, and other graphics with the text to give a clear understanding of the area and the important issues. Also describe other federal activities that contribute to the significance of the proposed action's impacts.

This section should also briefly describe the scope and status of the planning processes for the local jurisdictions and the project area. Maps of any adopted land use and transportation plans for these jurisdictions and the project area would be helpful in relating the proposed project to the planning processes.

C.7. Environmental Consequences

This section includes the probable beneficial and adverse social, economic, and environmental effects of alternatives under consideration and describes the measures proposed to mitigate adverse impacts. The information should have sufficient scientific and analytical substance to provide a basis for evaluating the comparative merits of the alternatives. The discussion of the proposed project impacts *should not use the term "significant"* in describing the level of impacts. There is no benefit to be gained from its use. If the term "significant" is used, however, it should be consistent with the CEQ definition and be supported by factual information.

There are two principal ways of preparing this section. One is to discuss the impacts and mitigation measures separately for each alternative with the alternatives as headings. The second (which is advantageous where there are few alternatives or where impacts are similar for the various alternatives) is to present this section with the impacts as the headings. Where appropriate, a sub-section should be included that discusses the general impacts and mitigation measures that are the same for the various alternatives under consideration. This would reduce or eliminate repetition under each of the alternative discussions. Charts, tables, maps, and other graphics illustrating comparisons between the alternatives (e.g., costs, residential displacements, noise impacts, etc.) are useful as a presentation technique.

When preparing the final EIS, the impacts and mitigation measures of the alternatives, particularly the preferred alternative, may need to be discussed in more detail to elaborate on information, firm-up commitments, or address issues raised following the draft EIS. The final EIS should also identify any new impacts (and their significance) resulting from modification of or identification of substantive new circumstances or information regarding the preferred alternative following the draft EIS circulation. *Note:* Where new significant impacts are identified, a supplemental draft EIS is required (40 CFR 1502.9[c]).

The following information should be included in both the draft and final EIS for each reasonable alternative:

1. A summary of studies undertaken, any major assumptions made and supporting information on the validity of the methodology (where the methodology is not generally accepted as state-of-the-art)
2. Sufficient supporting information or results of analyses to establish the reasonableness of the conclusions on impacts
3. A discussion of mitigation measures. These measures normally should be investigated in appropriate detail for each reasonable alternative so they can be identified in the draft EIS. The final EIS should identify, describe and analyze all proposed mitigation measures for the preferred alternative.

In addition to normal FHWA program monitoring of design and construction activities, special instances may arise when a formal program for monitoring impacts or implementation of mitigation measures will be appropriate. Examples are monitoring ground or surface waters that are sources for drinking water supply; monitoring noise or vibration of nearby sensitive activities (e.g., hospitals, schools); or providing an on-site professional archeologist to monitor excavation activities in highly sensitive archeological areas. In these instances, the final EIS should describe the monitoring program.

4. A discussion, evaluation and resolution of important issues on each alternative. If important issues raised by other agencies on

the preferred alternative remain unresolved, the final EIS must identify those issues and the consultations and other efforts made to resolve them (23 CFR 771.125[a][2]).

Listed below are potentially significant impacts most commonly encountered by highway projects. These factors should be discussed for each reasonable alternative where a potential for impact exists. This list is not all-inclusive and on specific projects there may be other impact areas that should be included.

C.7.1 Land Use Impacts

This discussion should identify the current development trends and the state and/or local government plans and policies on land use and growth in the area that will be impacted by the proposed project.

These plans and policies are normally reflected in the area's comprehensive development plan, and include land use, transportation, public facilities, housing, community services, and other areas.

The land use discussion should assess the consistency of the alternatives with the comprehensive development plans adopted for the area and (if applicable) other plans used in the development of the transportation plan required by Section 134. The secondary social, economic, and environmental impacts of any substantial, foreseeable, induced development should be presented for each alternative, including adverse effects on existing communities. Where possible, the distinction between planned and unplanned growth should be identified.

C.7.2 Farmland Impacts

Not applicable to Alaska.

C.7.3 Social Impacts

Where there are foreseeable impacts, the draft EIS should discuss the following items for each alternative commensurate with the level of impacts and to the extent they are distinguishable:

1. Changes in the neighborhoods or community cohesion for the various social groups as a result of the proposed action. These changes may be beneficial or adverse, and may include splitting neighborhoods, isolating a portion of a neighborhood or an ethnic group, generating new development, changing property values, or

separating residents from community facilities, etc.

2. Changes in travel patterns and accessibility (e.g., vehicular, commuter, bicycle, or pedestrian)
3. Impacts on school districts, recreation areas, churches, businesses, police and fire protection, etc. This should include both the direct impacts to these entities and the indirect impacts resulting from the displacement of households and businesses.
4. Impacts of alternatives on highway and traffic safety as well as on overall public safety
5. General social groups specially benefited or harmed by the proposed project. The effects of a project on the elderly, handicapped, nondrivers, transit-dependent, and minority and ethnic groups are of particular concern and should be described to the extent these effects can be reasonably predicted. Where impacts on a minority or ethnic population are likely to be an important issue, the EIS should contain the following information broken down by race, color, and national origin: the population of the study area, the number of displaced residents, the type and number of displaced businesses, and an estimate of the number of displaced employees in each business sector. Changes in ethnic or minority employment opportunities should be discussed and the relationship of the project to other federal actions that may serve or adversely affect the ethnic or minority population should be identified.

The discussion should address whether any social group is disproportionately impacted and identify possible mitigation measures to avoid or minimize any adverse impacts. Secondary sources of information, such as census and personal contact with community leaders, supplemented by visual inspections normally should be used to obtain the data for this analysis. However, for projects with major community impacts, a survey of the affected area may be needed to identify the extent and severity of impacts on these social groups.

C.7.4 Relocation Impacts

Summarize the relocation information in sufficient detail to adequately explain the relocation situation, including anticipated problems and proposed solutions. Project relocation documents from which information is summarized should be referenced in the

draft EIS. Secondary sources of information such as census, economic reports, and contact with community leaders, supplemented by visual inspections (and, as appropriate, contact with local officials) may be used to obtain the data for this analysis. Where a proposed project will result in displacements, discuss for each alternative the following information regarding households and businesses, commensurate with the level of impacts and to the extent they are likely to occur:

1. An estimate of the number of households to be displaced, including the family characteristics (e.g., minority, ethnic, handicapped, elderly, large family, income level, and owner/tenant status). However, where there are very few displacements, do not include in the EIS information on race, ethnicity and income levels to protect the privacy of those affected.
2. A discussion comparing available (decent, safe, and sanitary) housing in the area with the housing needs of the displaced parties. The comparison should include (1) price ranges, (2) sizes (number of bedrooms), and (3) occupancy status (owner/tenant).
3. A discussion of any affected neighborhoods, public facilities, nonprofit organizations, and families having special composition (e.g., ethnic, minority, elderly, handicapped, or other factors) that may require special relocation considerations and the measures proposed to resolve these relocation concerns.
4. A discussion of the measures to be taken where the existing housing inventory is insufficient, does not meet relocation standards, or is not within the financial capability of the displaced people. You should include a commitment to last-resort housing when sufficient comparable replacement housing may not be available.
5. An estimate of the numbers, descriptions, types of occupancy (owner/tenant), and sizes (number of employees) of businesses and farms to be displaced. Additionally, the discussion should identify (1) sites available in the area to which the affected businesses may relocate, (2) likelihood of such relocation, and (3) potential impacts on individual businesses and farms caused by displacement or proximity of the proposed highway if not displaced.

6. A discussion of the results of contacts, if any, with local governments, organizations, groups, and individuals regarding residential and business relocation impacts, including any measures or coordination needed to reduce general and/or specific impacts. These contacts are encouraged for projects with large numbers of relocations or complex relocation requirements. Specific financial and incentive programs or opportunities (beyond those provided by the Uniform Relocation Act) to residential and business relocations to minimize impacts may be identified, if available through other agencies or organizations.
7. A statement that (1) the acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and (2) relocation resources are available to all residential and business relocations without discrimination.

C.7.5 Economic Impacts

Where there are foreseeable economic impacts, the draft EIS should discuss the following for each alternative commensurate with the level of impacts:

1. The economic impacts on the regional and/or local economy such as the effects of the project on development, tax revenues and public expenditures, employment opportunities, accessibility, and retail sales. Where substantial impacts on the economic viability of affected municipalities are likely to occur, they should also be discussed with a summary of any efforts undertaken and agreements reached for using the transportation investment to support both public and private economic development plans. To the fullest extent possible, this discussion should rely on results of coordination with and views of affected state, county, and city officials and upon studies performed under Section 134.
2. The impacts on the economic vitality of existing highway-related businesses (e.g., gasoline stations, motels, etc.) and the resulting impact, if any, on the local economy. An example is the loss of business or employment resulting from building an alternative on new location bypassing a local community.
3. Impacts of the proposed action on established business districts, and any opportunities to

minimize or reduce such impacts by the public and/or private sectors. This concern is likely to occur on a project that might lead to or support new large commercial development outside of a central business district.

C.7.6 Joint Development

Where appropriate, the draft EIS should identify and discuss those joint development measures that will preserve or enhance an affected community's social, economic, environmental, and visual values. This discussion may be presented separately or combined with the land use and/or social impacts presentations. You should identify the benefits to be derived, those who will benefit (communities, social groups, etc.), and the entities responsible for maintaining the measures.

C.7.7 Considerations Relating to Pedestrians and Bicyclists

Where current pedestrian or bicycle facilities or indications of use are identified, the draft EIS should discuss the current and anticipated use of the facilities, the potential impacts of the affected alternatives, and proposed measures, if any, to avoid or reduce adverse impacts to the facility(ies) and its users. Where new facilities are proposed as a part of the proposed highway project, the EIS should include sufficient information to explain the basis for providing the facilities (e.g., proposed bicycle facility is a link in the local plan or sidewalks will reduce project access impact to the community). The final EIS should identify those facilities to be included in the preferred alternative. Where the preferred alternative would sever an existing major route for nonmotorized transportation traffic, the proposed project needs to provide a reasonably alternative route or demonstrate that such a route exists (23 U.S.C. 109[n]). To the fullest extent possible, describe this in the final EIS.

C.7.8 Air Quality Impacts

The draft EIS should contain a brief discussion of the transportation-related air quality concerns in the project area and a summary of the project-related carbon monoxide (CO) analysis if such analysis is performed. Present the following information, as appropriate.

Mesoscale Concerns

Ozone (O₃), Hydrocarbons (HC), and Nitrogen Oxide (NO) air quality concerns are regional; therefore, meaningful evaluation on a project-by-project basis is

not possible. Where these pollutants are an issue, reference the air quality emissions inventories in the State Implementation Plan (SIP) and summarize them briefly in the draft EIS. Further, the relationship of the project to the SIP should be described in the draft EIS by including one of the following statements:

1. This project is in an area where the SIP does not contain any transportation control measures. Therefore, the conformity procedures of 23 CFR 770 do not apply to this project.
2. This project is in an area that has transportation control measures in the SIP, which was (conditionally) approved by the Environmental Protection Agency (EPA) on (date). The FHWA has determined that both the transportation plan and the transportation improvement program conform to the SIP. The FHWA has determined that this project is included in the transportation improvement program for the (indicate 3C planning area). Therefore, pursuant to 23 CFR 770, this project conforms to the SIP.
3. Under certain circumstances, neither of these statements will precisely fit the situation and may need to be modified. Additionally, if the project is a Transportation Control Measure from the SIP, this should be highlighted to emphasize the project's air quality benefits.

Microscale Concerns

Carbon monoxide is a project-related concern and as such should be evaluated in the draft EIS. A microscale CO analysis is unnecessary where such impacts (project CO contribution plus background) can be judged to be well below the one- and eight-hour National Ambient Air Quality Standards, or other applicable state or local standards. This judgment may be based on (1) previous analyses for similar projects; (2) previous general analyses for various classes of projects; or (3) simplified graphical or "look-up" table evaluations. In these cases, a brief statement stating the basis for the judgment is sufficient.

For those projects where a microscale CO analysis is performed, analyze each reasonable alternative for the estimated time of completion and design year. Include in the draft EIS a brief summary of the methodologies and assumptions used. Lengthy discussions, if needed, should be included in a separate technical report and referenced in the EIS. Total CO concentrations (project contribution plus estimated background) at

identified reasonable receptors for each alternative should be reported. Make a comparison between alternatives and with applicable state and national standards. For clarity, we recommend using a table for this comparison.

As long as the total predicted 1-hour CO concentration is less than 9 ppm (the eight-hour CO standard), no separate eight-hour analysis is necessary. If the one-hour CO concentration is greater than 9 ppm, perform an eight-hour analysis. Where the preferred alternative would result in violations of the one- or eight-hour CO standards, try to develop reasonable mitigation measures through early coordination between FHWA, EPA, and appropriate state and local highway and air quality agencies. The final EIS should discuss the proposed mitigation measures and include evidence of the coordination.

C.7.9 Noise Impacts

The draft EIS should contain a summary of the noise analysis, including consistency with the DOT&PF Noise Policy and the following for each alternative under detailed study:

1. A brief description of noise-sensitive areas (residences, businesses, schools, parks, etc.), including information on the number and types of activities that may be affected. This should include developed lands and undeveloped lands for which development is planned, designed, and programmed.
2. The extent of the impact (in decibels) at each sensitive area. This includes a comparison of the predicted noise levels with both the FHWA noise abatement criteria and the existing noise levels. (Traffic noise impacts occur when the predicted traffic noise levels approach or exceed the noise abatement criteria or when they substantially exceed the existing noise levels.) Where there is a substantial increase in noise levels, DOT&PF should identify the criterion used for defining “substantial increase.” For clarity, we recommend using a table for this comparison.
3. Noise abatement measures that have been considered for each impacted area, and those measures that are reasonable and feasible and that would likely be incorporated into the proposed project. Show estimated costs, decibel reductions, and height and length of barriers for all abatement measures.

Where it is desirable to qualify the term “likely,” the following statement or similar wording would be appropriate: “Based on the studies completed to date, the state intends to install noise abatement measures in the form of a barrier at (locations). These preliminary indications of likely abatement measures are based on preliminary design for a barrier of _____ high and _____ long and a cost of \$_____ that will reduce the noise level by _____ dBA for _____ residences (businesses, schools, parks, etc.). (Where there is more than one barrier, provide information for each one.) If during final design these conditions substantially change, the abatement measures might not be provided. A final decision on the installation of abatement measure(s) will be made upon completion of the project design and the public involvement process.”

4. Noise impacts for which no prudent solution is reasonably available and the reasons why not.

C.7.10 Water Quality Impacts

The draft EIS should include summaries of analyses and consultations with the state and/or local agency responsible for water quality. Coordination with the EPA under the Federal Clean Water Act may also provide assistance in this area. The discussion should include sufficient information to describe the ambient conditions of streams and water bodies that are likely to be affected, and identify the potential impacts of each alternative and proposed mitigation measures. Under normal circumstances, existing data may be used to describe ambient conditions. We encourage the inclusion of water quality data spanning several years to reflect trends.

The draft EIS should also identify any locations where roadway runoff or other non-point source pollution may have an adverse impact on sensitive water resources such as water supply reservoirs, ground water recharge areas, and high quality streams. The 1981 FHWA research report titled “Constituents of Highway Runoff,” the 1985 report titled “Management Practices for Mitigation of Highway Stormwater Runoff Pollution,” and the 1987 report, “Effects of Highway Runoff on Receiving Waters” contain procedures for estimating pollutant loading from highway runoff and would be helpful in determining the level of potential impacts and appropriate mitigation. The draft EIS should identify the potential impacts of each alternative and proposed mitigation measures.

Where an area designated as principal or sole-source aquifer under Section 1424(e) of the Safe Drinking Water Act may be affected by a proposed project, early coordination with EPA will assist in identifying potential impacts. The EPA will furnish information on whether any of the alternatives affect the aquifer. This coordination should also identify any potential impacts to the critical aquifer protection area (CAPA), if designated, within affected sole-source aquifers. If none of the alternatives affect the aquifer, the requirements of the Safe Drinking Water Act are satisfied. If an alternative is selected that affects the aquifer, a design must be developed to ensure, to the satisfaction of EPA, that it will not contaminate the aquifer (40 CFR 149). The draft EIS should document coordination with EPA and identify its position on the impacts of the various alternatives. The final EIS should show that EPA's concerns about the preferred alternative have been resolved.

Wellhead protection areas were authorized by the 1986 Amendments to the Safe Drinking Water Act. Each state will develop state wellhead protection plans with final approval by EPA. When a proposed project encroaches on a wellhead protection area, the draft EIS should identify the area, the potential impact of each alternative and proposed mitigation measures. Coordination with the state agency responsible for the protection plan will aid in identifying the areas, impacts, and mitigation. If the preferred alternative impacts these areas, the final EIS should document that it complies with the approved state wellhead protection plan.

C.7.11 Permits

If a facility such as a safety rest area is proposed and it will have a point source discharge, a Section 402 permit will be required for point source discharge (40 CFR 122). The draft EIS should discuss potential adverse impacts resulting from such proposed facilities and identify proposed mitigation measures. The need for a Section 402 permit and Section 401 water quality certification should be identified in the draft EIS.

For proposed actions requiring a Section 404 or Section 10 (Corps of Engineers) permit, the draft EIS should identify by alternative the general location of each dredge or fill activity; discuss the potential adverse impacts; identify proposed mitigation measures (if not addressed elsewhere in the draft EIS); and include evidence of coordination with the Corps of Engineers (in accordance with the U.S. DOT/Corps

of Engineers Memorandum of Agreement) and appropriate federal, state, and local resource agencies, and state and local water quality agencies. Where the preferred alternative requires an individual Section 404 or Section 10 permit, the final EIS should identify for each permit activity the approximate quantities of dredge or fill material, general construction grades, and proposed mitigation measures.

For proposed actions requiring Section 9 (U.S. Coast Guard bridge) permits, the draft EIS should identify by alternative the location of the permit activity, potential effects on navigation and the environment (if not addressed elsewhere in the document), proposed mitigation measures and evidence coordination with the U.S. Coast Guard (in accordance with the FHWA/U.S. Coast Guard Memorandum of Understanding). Where the preferred alternative requires a Section 9 permit, the final EIS should identify for each permit activity the proposed horizontal and vertical navigational clearances and include an exhibit showing the various dimensions.

For all permit activities, the final EIS should include evidence that every reasonable effort has been made to resolve the issues raised by other agencies regarding the permit activities. If important issues remain unresolved, the final EIS must identify those issues, the positions of the respective agencies on the issues, and the consultations and other efforts made to resolve them (23 CFR 771.125[a]).

C.7.12 Wetland Impacts

When an alternative will affect wetlands, the draft EIS should (1) identify the type, quality, and function of wetlands involved, (2) describe the impacts on the wetlands, (3) evaluate alternatives which would avoid these wetlands, and (4) identify practicable measures to minimize harm to the wetlands. Identify wetlands using the Corps of Engineers definition, which requires the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Provide exhibits showing wetlands in the project impact area in relation to the alternatives.

In evaluating the impact of the proposed project on wetlands, the following two items should be addressed: (1) the importance of the impacted wetland(s) and (2) the severity of this impact. Merely listing the number of acres taken by the various alternatives of a highway proposal does not provide sufficient information for determining the degree of impact on the wetland ecosystem. The wetlands

analysis should be sufficiently detailed to provide an understanding of these two elements.

In evaluating the importance of the wetlands, the analysis should consider such factors as: (1) the primary functions of the wetlands, such as flood control, wildlife habitat, ground water recharge, etc., (2) the relative importance of these functions to the total wetland resource of the area, and (3) other factors, such as uniqueness, that may contribute to the wetlands' importance.

In determining the wetland impact, the analysis should show the project's effects on the stability and quality of the wetlands. This analysis should consider the short- and long-term effects on the wetlands and the importance of any loss such as: (1) flood control capacity, (2) shore line anchorage potential, (3) water pollution abatement capacity, and (4) fish and wildlife habitat value. The methodology developed by FHWA and described in reports numbered FHWA-IP-82-23 and FHWA IP-82-24, "A Method for Wetland Functional Assessment Volumes I and II," is recommended for use in conducting this analysis. Knowing the importance of the wetlands involved and the degree of the impact, DOT&PF and FHWA will be in a better position to determine the mitigation efforts necessary to minimize harm to these wetlands. Mitigation measures that should be considered include preservation and improvement of existing wetlands and creation of new wetlands (consistent with 23 CFR 777).

If the preferred alternative is located in wetlands, to the fullest extent possible, the final EIS needs to contain the finding required by Executive Order 11990 that there are no practicable alternatives to construction in wetlands. Where the finding is included, approval of the final EIS will document compliance with the Executive Order 11990 requirements (23 CFR 771.125[a][1]). The finding should be included in a separate subsection, called "Only Practicable Alternative Finding," and should be supported by the following information:

1. A reference to Executive Order 11990
2. An explanation of why there are no practicable alternatives to the proposed action
3. An explanation of why the proposed action includes all practicable measures to minimize harm to wetlands

4. A concluding statement that: "Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."

C.7.13 Water Body Modification and Wildlife Impacts

For each alternative under detailed study, the draft EIS should contain exhibits and discussions identifying the location and extent of water body modifications (e.g., impoundment, relocation, channel deepening, filling, etc.). The use of the stream or body of water for recreation, water supply, or other purposes should be identified. Also discuss impacts on fish and wildlife resulting from the loss degradation, or modification of aquatic or terrestrial habitat, and document in the draft EIS the results of coordination with appropriate federal, state, and local agencies. For example, document coordination with FWS that occurred in accordance with the Coordination Act of 1958.

C.7.14 Floodplain Impacts

National Flood Insurance Program (NFIP) maps or, if NFIP maps are not available, information developed by the highway agency, should be used to determine whether an alternative will encroach on the base (100-year) floodplain. The location hydraulic studies required by 23 CFR 650, Subpart A, must include a discussion of the following items commensurate with the level of risk or environmental impact, for each alternative which encroaches on base floodplains or would support base floodplain development:

1. The flooding risks
2. The impacts on natural and beneficial floodplain values
3. The support of probable incompatible floodplain development (i.e., any development that is not consistent with a community's floodplain development plan)
4. The measures to minimize floodplain impacts
5. The measures to restore and preserve the natural and beneficial floodplain values

The draft EIS should briefly summarize the results of the location hydraulic studies. The summary should also identify the number of encroachments and any

support of incompatible floodplain developments and their potential impacts. Where an encroachment or support of incompatible floodplain development results in substantial impacts, the draft EIS should provide more detailed information on the location, impacts and appropriate mitigation measures. In addition, if any alternative (1) results in a floodplain encroachment or supports incompatible floodplain development having significant impacts, or (2) requires a commitment to a particular structure size or type, the draft EIS must include an evaluation and discussion of practicable alternatives to the structure or to the significant encroachment. The draft EIS should include exhibits of the alternatives, the base floodplains and, where applicable, the regulatory floodways.

If the preferred alternative includes a floodplain encroachment having significant impacts, the final EIS must include a finding that it is the only practicable alternative as required by 23 CFR 650, Subpart A. The finding should refer to Executive Order 11988 and 23 CFR 650, Subpart A. Include it in a separate subsection called “Only Practicable Alternative Finding,” and support it with the following information.

1. The reasons the proposed action must be located in the floodplain
2. The alternatives considered and why they were not practicable
3. A statement indicating whether the action conforms to applicable state or local floodplain protection standards

For each alternative encroaching on a designated or proposed regulatory floodway, the draft EIS should provide a preliminary indication of whether the encroachment would be consistent with or require a revision to the regulatory floodway. Undertake engineering and environmental analyses commensurate with the level of encroachment, to permit the consistency evaluation and identify impacts. Coordinate with the Federal Emergency Management Agency (FEMA) and appropriate state and local government agencies for each floodway encroachment. If the preferred alternative encroaches on a regulatory floodway, the final EIS should discuss the consistency of the action with the regulatory floodway. If a floodway revision is necessary, the EIS should include evidence from FEMA and local or

state agency indicating that such revision would be acceptable.

C.7.15 Wild and Scenic Rivers

If the proposed action could have foreseeable adverse effects on a river on the National Wild and Scenic Rivers System or a river under study for designation to the National Wild and Scenic Rivers System, the draft EIS should identify early coordination undertaken with the agency responsible for managing the listed or study river (i.e., National Park Service [NPS], Fish and Wildlife Service [FWS], Bureau of Land Management [BLM], or Forest Service [FS]). For each alternative under consideration, the EIS should identify the potential adverse effects on the natural, cultural, and recreational values of the listed or studied river. Adverse effects include alteration of the free-flowing nature of the river, alteration of the setting, or deterioration of water quality. If it is determined that any of the alternatives could foreclose options to designate a study river under the act, or adversely affect those qualities of a listed river for which it was designated, to the fullest extent possible, the draft EIS must reflect consultation with the managing agency on avoiding or mitigating the impacts (23 CFR 771.123[c]). The final EIS should identify measures that will be included in the preferred alternative to avoid or mitigate such impacts.

Section 4(f) protects publicly owned waters of designated wild and scenic rivers. Additionally, public lands adjacent to a wild and scenic River may be subject to Section 4(f) protection. An examination of any adopted or proposed management plan for a listed river should help in making the determination on applicability of Section 4(f). For each alternative that takes such land, coordination with the agency responsible for managing the river (NPS, FWS, BLM, or FS) will provide information on the management plan, specific affected land uses, and any necessary Section 4(f) coordination.

C.7.16 Coastal Zone Impacts

Where the proposed action is within, or is likely to affect land or water uses within the area covered by a state Coastal Zone Management Program (CZMP) approved by the Department of Commerce, the draft EIS should briefly describe the portion of the affected CZMP plan, identify the potential impacts, and include evidence of coordination with the state coastal zone management agency or appropriate local agency.

The final EIS should include the state coastal zone management agency's determination on consistency with the state CZMP plan. (In some states, an agency will make a consistency determination only after the final EIS is approved, but will provide a preliminary indication before the final EIS that the project is "not inconsistent" or "appears to be consistent" with the plan.) (For direct federal actions, the final EIS should include the lead agency's consistency determination and agreement by the state CZM agency.) If the preferred alternative is inconsistent with the state's approved CZMP, it can be federally funded only if the secretary of commerce makes a finding that the proposed action is consistent with the purpose or objectives of the CZM Act or is necessary in the interest of national security. To the fullest extent possible, include such a finding in the final EIS. If the finding is denied, the action is not eligible for federal funding unless modified to remove the inconsistency finding. The final EIS should document such results.

C.7.17 Threatened or Endangered Species

We must obtain information from the FWS of the Department of the Interior and/or the National Marine Fisheries Service (NMFS) of the Department of Commerce to determine the presence or absence of listed and proposed threatened or endangered species and designated and proposed critical habitat in the proposed project area (50 CFR 402.12[c]). The information may be (1) a published geographical list of such species or critical habitat; (2) a project-specific notification of a list of such species or critical habitat; or (3) substantiated information from other credible sources. Where the information is obtained from a published geographical list, explain the reasons this would satisfy the coordination with DOI. If there are no species or critical habitat in the proposed project area, the Endangered Species Act requirements have been met. Include the results of this coordination in the draft EIS.

When a proposed species or a proposed critical habitat may be present in the proposed project area, make an evaluation or, if appropriate, a biological assessment, of the potential impacts to identify whether any such species or critical habitat are likely to be adversely affected by the project. Informally consult with FWS and/or NMFS during the evaluation. The draft EIS should include exhibits showing the location of the species or habitat, summarize the evaluation and potential impacts, identify proposed mitigation measures, and evidence of coordination with FWS

and/or NMFS. If the project is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat, DOT&PF in consultation with the FHWA must confer with FWS and/or NMFS to attempt to resolve potential conflicts by avoiding, minimizing, or reducing the project impacts (50 CFR 402.10[a]). If the preferred alternative is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat, a conference with FWS and/or NMFS must be held to assist in identifying and resolving potential conflicts. To the fullest extent possible, the final EIS needs to summarize the results of the conference and identify reasonable and prudent alternatives to avoid the jeopardy to such proposed species or critical habitat. If no alternatives exist, the final EIS should explain the reasons and identify any proposed mitigation measures.

When a listed species or a designated critical habitat may be present in the proposed project area, prepare a biological assessment to identify any such species or habitat (50 CFR 402.12). Consult informally or, if desirable, hold a conference with FWS and/or NMFS during preparation of the biological assessment. The draft EIS should summarize the following data from the biological assessment:

1. The species distribution, habitat needs, and other biological requirements
2. The affected areas of the proposed project
3. Possible effects on the species, including opinions of recognized experts
4. Measures to avoid or minimize adverse impacts
5. Results of consultation with FWS and/or NMFS

In selecting an alternative, avoid jeopardy to a listed species, or the destruction or adverse modification of designated critical habitat (50 CFR 402.01[a]). If the biological assessment indicates that there are no listed species or critical habitat present that are likely to be adversely affected by the preferred alternative, the final EIS should document concurrence by the FWS and/or NMFS in such a determination and identify any proposed mitigation for the preferred alternative.

If the results of the biological assessment or consultation with FWS and/or NMFS show that the preferred alternative is likely to jeopardize the

continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat, to the fullest extent possible, the final EIS needs to contain: (1) a summary of the biological assessment (see data above for draft EIS); (2) a summary of the steps taken, including alternatives or measures evaluated and conferences and consultations held, to resolve the project's conflicts with the listed species or critical habitat; (3) a copy of the biological opinion; (4) a request for an exemption from the Endangered Species Act; (5) the results of the exemption request; and (6) a statement that, if the exemption is denied, the action is not eligible for federal funding.

C.7.18 Historic and Archeological Preservation

The draft EIS should contain a discussion demonstrating that historic and archeological resources have been identified and evaluated in accordance with the requirements of 36 CFR 800.4 for each alternative under consideration. The information and level of effort needed to identify and evaluate historic and archeological resources will vary from project to project as determined by the FHWA after considering existing information, the views of the SHPO and the Secretary of Interior's "Standards and Guidelines for Archeology and Historic Preservation." The information for newly identified historic resources should be sufficient to determine their significance and eligibility for the National Register of Historic Places. The information for archeological resources should be sufficient to identify whether each warrants preservation in place or whether it is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place. Where archeological resources are not a major factor in the selection of a preferred alternative, the determination of eligibility for the National Register of newly identified archeological resources may be deferred until after circulation of the draft EIS.

The draft EIS discussion should briefly summarize the methodologies used in identifying historic and archeological resources. Because Section 4(f) of the DOT Act applies to the use of historic resources on or eligible for the National Register and to archeological resources on or eligible for the National Register and which warrant preservation in place, the draft EIS should describe the historical resources listed in or eligible for the National Register and identify any archeological resources that warrant preservation in

place. The draft EIS should summarize the impacts of each alternative on and proposed mitigation measures for each resource. The document should evidence coordination with the SHPO on the significance of newly identified historic and archeological resources, the eligibility of historic resources for the National Register, and the effects of each alternative on both listed and eligible historic resources. Where the draft EIS discusses eligibility for the National Register of archeological resources, the coordination with the SHPO on eligibility and effect should address both historic and archeological resources.

The draft EIS can serve as a vehicle for affording the Advisory Council on Historic Preservation (ACHP) an opportunity to comment pursuant to Section 106 requirements if the document contains the necessary information required by 36 CFR 800.8. The draft EIS transmittal letter to the ACHP should specifically request its comments pursuant to 36 CFR 800.6.

To the fullest extent possible, the final EIS needs to demonstrate that all the requirements of 36 CFR 800 have been met. If the preferred alternative has no effect on historic or archeological resources on or eligible for the National Register, the final EIS should indicate coordination with and agreement by the SHPO. If the preferred alternative has an effect on a resource on or eligible for the National Register, the final EIS should contain (a) a determination of no adverse effect concurred in by the Advisory Council on Historic Preservation, (b) an executed memorandum of agreement (MOA), or (c) in the case of a rare situation where FHWA is unable to conclude the MOA, a copy of comments transmitted from the ACHP to the FHWA and the FHWA response to those comments.

The proposed use of land from an historic resource on or eligible for the National Register will normally require an evaluation and approval under Section 4(f) of the DOT Act. Section 4(f) also applies to all archeological sites on or eligible for the National Register and which warrant preservation in place (See Section IX for information on Section 4(f) evaluation).

C.7.19 Hazardous Waste Sites

Hazardous waste sites are regulated by the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). During early planning, identify the locations of permitted and

nonregulated hazardous waste sites. Early coordination with the appropriate regional office of the EPA and the appropriate state agency will aid in identifying known or potentially hazardous waste sites. If known or potential waste sites are identified, clearly mark their locations on a map showing their relationship to the alternatives under consideration. If a known or potential hazardous waste site is affected by an alternative, information about the site, the potential involvement, impacts and public health concerns of the affected alternative(s), and the proposed mitigation measures to eliminate or minimize impacts or public health concerns should be discussed in the draft EIS.

If the preferred alternative affects a known or potential hazardous waste site, the final EIS should address and resolve the issues raised by the public and government agencies.

C.7.20 Visual Impacts

The draft EIS should state whether the project alternatives have a potential for visual quality impacts. When this potential exists, the draft EIS should identify the impacts on the existing visual resource, the relationship of the impacts to potential viewers of and from the project, as well as measures to avoid, minimize, or reduce the adverse impacts. When there is potential for visual quality impacts, the draft EIS should explain the consideration given to design quality, art, and architecture in the project planning. These values may be particularly important for facilities located in visually sensitive urban or rural settings. When a proposed project will include features associated with design quality, art or architecture, the draft EIS should be circulated to officially designated state and local arts councils and, as appropriate, other organizations with an interest in design, art, and architecture. The final EIS should identify any proposed mitigation for the preferred alternative.

C.7.21 Energy

Except for large-scale projects, a detailed energy analysis including computations of BTU requirements, etc., is not needed. For most projects, the draft EIS should discuss in general terms the construction and operational energy requirements and conservation potential of various alternatives under consideration. The discussion should be reasonable and supportable. It might recognize that the energy requirements of various construction alternatives are

similar and are generally greater than the energy requirements of the no-build alternative. Additionally, the discussion could point out that the post-construction, operational energy requirements of the facility should be less with the build alternative as opposed to the no-build alternative. In such a situation, one might conclude that the savings in operational energy requirements would more than offset construction energy requirements and thus, in the long term, result in a net savings in energy usage.

For large-scale projects with potentially substantial energy impacts, the draft EIS should discuss the major direct and/or indirect energy impacts and conservation potential of each alternative. Direct energy impacts refer to the energy consumed by vehicles using the facility. Indirect impacts include construction energy and such items as the effects of any changes in automobile usage. The alternative's relationship and consistency with a state and/or regional energy plan, if one exists, should also be indicated.

The final EIS should identify any energy conservation measures that will be part of the preferred alternative. Measures to conserve energy include the use of high-occupancy vehicle incentives and measures to improve traffic flow.

C.7.22 Construction Impacts

The draft EIS should discuss the potential adverse impacts (particularly air, noise, water, traffic congestion, detours, safety, visual, etc.) associated with construction of each alternative and identify appropriate mitigation measures. Also, where the impacts of obtaining borrow or disposal of waste material are important issues, discuss them in the draft EIS along with any proposed measures to minimize these impacts. The final EIS should identify any proposed mitigation for the preferred alternative.

C.7.23 Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

The EIS should discuss in general terms the proposed action's relationship of local short-term impacts and use of resources, and the maintenance and enhancement of long-term productivity. This general discussion might recognize that the build alternatives would have similar impacts. The discussion should point out that transportation improvements are based on state and/or local comprehensive planning that

considers the need for present and future traffic requirements within the context of present and future land use development. In such a situation, one might conclude that the local short-term impacts and use of resources by the proposed action is consistent with the maintenance and enhancement of long-term productivity for the local area, state, etc.

C.7.24 Any Irreversible and Irrecoverable Commitments of Resources That Would be Involved in the Proposed Action

The EIS should discuss in general terms the proposed action's irreversible and irretrievable commitment of resources. This general discussion might recognize that the build alternatives would require a similar commitment of natural, physical, human, and fiscal resources. An example of such discussion would be as follows:

“Implementation of the proposed action involves a commitment of a range of natural, physical, human, and fiscal resources. Land used in the construction of the proposed facility is considered an irreversible commitment during the time period that the land is used for a highway facility. However, if a greater need arises for use of the land or if the highway facility is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion will ever be necessary or desirable.

“Considerable amounts of fossil fuels, labor, and highway construction materials such as cement, aggregate, and bituminous material are expended. Additionally, large amounts of labor and natural resources are used in the fabrication and preparation of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use will not have an adverse effect upon continued availability of these resources. Any construction will also require a substantial one-time expenditure of both state and federal funds, which are not retrievable.

“The commitment of these resources is based on the concept that residents in the immediate area, state, and region will benefit by the improved quality of the transportation system. These benefits will consist of improved accessibility and safety, savings in time, and greater availability of quality services which are anticipated to outweigh the commitment of these resources.”

C.8. List of Preparers

This section should include lists of:

1. State (and local agency) personnel, including consultants, who were primarily responsible for preparing the EIS or performing environmental studies, and a brief summary of their qualifications, including educational background and experience
2. The FHWA personnel primarily responsible for preparation or review of the EIS and their qualifications
3. The areas of EIS responsibility for each preparer

C.9. List of Agencies, Organizations, and Persons to Whom Copies of the Statement are Sent

Draft EIS: List all entities from which comments are being requested (40 CFR 1502.10).

Final EIS: Identify those entities that submitted comments on the draft EIS and those receiving a copy of the final EIS (23 CFR 771.125[a] and [g]).

C.10. Comments and Coordination

1. The draft EIS should contain copies of pertinent correspondence with each cooperating agency, other agencies and the public and summarize: 1) the early coordination process, including scoping; 2) the meetings with community groups (including minority and nonminority interests) and individuals; and 3) the key issues and pertinent information received from the public and government agencies through these efforts.
2. The final EIS should include a copy of substantive comments from the U.S. Secretary of Transportation (OST), each cooperating agency, and other commentors on the draft EIS. Where the response is exceptionally voluminous, the comments may be summarized. Provide an appropriate response to each substantive comment. When the EIS text is revised as a result of the comments received, a copy of the comments should contain marginal references indicating where revisions were made, or the response to the comments should contain such references. The response should adequately address the issue or concern raised by the commentor or, where substantive comments do not warrant further response, explain why they do

not, and provide sufficient information to support that position.

The FHWA and DOT&PF are not commentors within the meaning of NEPA, and their comments on the draft EIS should not be included in the final EIS. However, the document should include adequate information for FHWA and DOT&PF to ascertain the disposition of the comments.

3. The final EIS should (1) summarize the substantive comments on social, economic, environmental, and engineering issues made at the public hearing, if one is held, or the public involvement activities or which were otherwise considered and (2) discuss the consideration given to any substantive issue raised and provide sufficient information to support that position.
4. The final EIS should document compliance with requirements of all applicable environmental laws, executive orders, and other related requirements, such as Title VI of the Civil Rights Act of 1964. To the extent possible, all environmental issues should be resolved prior to the submission of the final EIS. When disagreement on project issues exists with another agency, coordinate with the agency to resolve the issues. Where the issues cannot be resolved, the final EIS should identify any remaining unresolved issues, the steps taken to resolve the issues, and the positions of the respective parties. Where issues are resolved through this effort, the final EIS should demonstrate resolution of the concerns.

C.11. Index

The index should include important subjects and areas of major impacts so that a reviewer need not read the entire EIS to obtain information on a specific subject or impact.

C.12. Appendices

The EIS should briefly explain or summarize methodologies and results of technical analyses and research. Lengthy technical discussions should be contained in a technical report. Material prepared as appendices to the EIS should:

1. Consist of material prepared specifically for the EIS
2. Consist of material that substantiates an analysis fundamental to the EIS

3. Be analytic and relevant to the decision to be made
4. Be circulated with the EIS within FHWA, to EPA (region), and to cooperating agencies and be readily available on request by other parties. Other reports and studies referred to in the EIS should be readily available for review or for copying at a convenient location.

C.13. Options for Preparing Final EIS

The CEQ regulations place heavy emphasis on reducing paperwork, avoiding unnecessary work, and producing documents useful to decision-makers and to the public. With these objectives in mind, three different approaches to preparing a final EIS are presented below. The first two approaches are appropriate for any project. The third approach is restricted to the conditions specified by CEQ (40 CFR 1503.4[c]).

C.13.1 Traditional Approach

Under this approach, the final EIS incorporates the draft EIS (essentially in its entirety) with changes made as appropriate throughout the document to reflect the selection of an alternative, modifications to the project, updated information on the affected environment, changes in the assessment of impacts, the selection of mitigation measures, wetland and floodplain findings, the results of coordination, comments received on the draft EIS, and responses to these comments, etc. Since so much information is carried over from the draft to the final, important changes are sometimes difficult for the reader to identify. Nevertheless, this is the approach most familiar to participants in the NEPA process.

C.13.2 Condensed Final EIS

This approach avoids repetition of material from the draft EIS by incorporating, by reference, the draft EIS. The final EIS is, thus, a much shorter document than under the traditional approach; however, it should afford the reader a complete overview of the project and its impacts on the human environment.

The crux of this approach is to briefly reference and summarize information from the draft EIS that has not changed, and to focus the final EIS discussion on changes in the project, its setting, impacts, technical analysis, and mitigation that have occurred since circulation of the draft EIS. In addition, the condensed final EIS must identify the preferred alternative,

explain the basis for its selection, describe coordination efforts; and include agency and public comments, responses to these comments, and any required findings or determinations (40 CFR 1502.14[e] and 23 CFR 771.125[a]).

The format of the final EIS should parallel the draft EIS. Each major section of the final EIS should briefly summarize the important information contained in the corresponding section of the draft, reference the section of the draft that provides more detailed information, and discuss any noteworthy changes that have occurred since the draft was circulated.

At the time that the final is circulated, an additional copy of the draft EIS need not be provided to those parties that received a copy of the draft EIS when it was circulated. Nevertheless, if, due to the passage of time or other reasons, it is likely that they will have disposed of their original copy of the draft EIS, provide a copy of the draft EIS with the final. In any case, sufficient copies of the draft EIS should be on hand to satisfy requests for additional copies. Both the draft EIS and the condensed final EIS should be filed with EPA under a single final EIS cover sheet.

C.13.3 Abbreviated Version of Final EIS

The CEQ regulation (40 CFR 1503.4[c]) provides the opportunity to expedite the final EIS preparation where the only changes needed in the document are minor and consist of factual corrections and/or an explanation of why the comments received on the draft EIS do not warrant further response. In using this approach, take care to ensure the draft EIS contains sufficient information to make the findings in (2) below, that the number of errata sheets used to make required changes is small, and that these errata sheets together with the draft EIS constitute a readable, understandable, full disclosure document. The final EIS should consist of the draft EIS and an attachment containing the following:

1. Errata sheets making any necessary corrections to the draft EIS
2. A section identifying the preferred alternative and a discussion of the reasons it was selected. The following should also be included in this section where applicable:
 - a. Final Section 4(f) evaluations containing the information described in Section IX of these guidelines

- b. Wetland and finding(s)
- c. Floodplain finding(s)
- d. A list of commitments for mitigation measures for the preferred alternative

3. Copies (or summaries) of comments received from circulation of the draft EIS and public hearing and responses thereto

Only provide the attachment to parties who received a copy of the draft EIS, unless it is likely that they will have disposed of their original copy, in which case, provide both the draft EIS and the attachment (40 CFR 1503.4[c]). Both the draft EIS and the attachment must be filed with EPA under a single final EIS cover sheet (40 CFR 1503.4[c]).

C.14. Distribution of EIS and Section 4(f) Evaluations

C.14.1 Environmental Impact Statement

1. After clearance by FHWA, copies of all draft EISs must be made available to the public and circulated for comments by the DOT&PF to all public officials, private interest groups, and members of the public known to have an interest in the proposed action or the draft EIS; all federal, state, and local government agencies expected to have jurisdiction, responsibility, interest, or expertise in the proposed action; and states and federal land management entities that may be affected by the proposed action or any of the alternatives (40 CFR 1502.19 and 1503.1). Distribution must be made no later than the time the document is filed with EPA for Federal Register publication and must allow for a minimum 45-day review period (40 CFR 1506.9 and 1506.10). Internal FHWA distribution of draft and final EISs is subject to change and is noted in memorandums to the regional administrators as requirements change.
2. Copies of all approved final EISs must be distributed to all federal, state, and local agencies and private organizations; and to members of the public who provided substantive comments on the draft EIS or who requested a copy (40 CFR 1502.19). Distribution must be made no later than the time the document is filed with EPA for Federal Register publication and must allow for a minimum 30-day review period before the Record of Decision is approved (40 CFR 1506.9 and

1506.10). Forward two copies of all approved EISs to the FHWA Washington Headquarters (HEV-11) for record-keeping.

offices may be helpful to expedite their review.

3. Distribute copies of all EISs to EPA and DOI as follows, unless the agency has indicated to the FHWA offices the need for a different number of copies:

- a. The EPA Headquarters: five copies of the draft EIS and five copies of the final EIS (This is the “filing requirement” in Section 1506.9 of the CEQ regulation.) to the following address:

Environmental Protection Agency, Office of Federal Activities (A-104)
401 M Street, SW
Washington, D.C. 20460

- b. The appropriate EPA Regional Office responsible for EPA’s review pursuant to Section 309 of the Clean Air Act: five copies of the draft EIS and five copies of the final EIS

- c. The DOI Headquarters to the following address:

U.S. Department of the Interior
Office of Environmental Project Review
Room 4239
18th and C Streets, NW
Washington, D.C. 20240

- d. All states in FHWA Regions 1, 3, 4, and 5, plus Hawaii, Guam, American Samoa, Virgin Islands, Arkansas, Iowa, Louisiana, and Missouri: 12 copies of the draft EIS and seven copies of the final EIS
- e. Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas: 13 copies of the draft EIS and eight copies of the final EIS
- f. New Mexico and all states in FHWA Regions 8, 9, and 10, except Hawaii, North Dakota, and South Dakota: 14 copies of the draft EIS and nine copies of the final EIS

Note: DOI Headquarters will make distributions within its Department. While not required, advance distribution to DOI field

C.14.2 Section 4(f) Evaluation

If the Section 4(f) evaluation is included in a draft EIS, the DOI Headquarters does not need additional copies of the draft or final EIS/Section 4(f) evaluation. If the Section 4(f) evaluation is processed separately or as part of an EA, send the DOI seven copies of the draft Section 4(f) evaluation for coordination and seven copies of the final Section 4(f) evaluation for information. In addition to coordination with DOI, coordinate draft Section 4(f) evaluations with the officials having jurisdiction over the Section 4(f) property and the Department of Housing and Urban Development (HUD) and the United States Department of Agriculture (USDA) where these agencies have an interest in or jurisdiction over the affected Section 4(f) resource (23 CFR 771.135[I]). The point of coordination for HUD is the appropriate regional office and for USDA, the forest supervisor of the affected national forest. Provide one copy to the officials with jurisdiction and two copies to HUD and USDA when coordination is required.

C.15. Record of Decision: Format and Content

The Record of Decision (ROD) will explain the reasons for the project decision, summarize any mitigation measures that will be incorporated in the project, and document any required Section 4(f) approval. While cross-referencing and incorporation by reference of the final EIS (or final EIS supplement) and other documents are appropriate, the ROD must explain the basis for the project decision as completely as possible, based on the information contained in the EIS (40 CFR 1502.2). DOT&PF should prepare a draft ROD and submit it to the division office with the final EIS. Address the following key items in the ROD:

C.15.1 Decision

Identify the selected alternative. Reference to the final EIS (or final EIS supplement) may be used to reduce detail and repetition.

C.15.2 Alternatives Considered

This information can be most clearly organized by briefly describing each alternative and explaining the balancing of values that formed the basis for the decision. This discussion must identify the

environmentally preferred alternative(s) (i.e., the alternative(s) that causes the least damage to the biological and physical environment) (40 CFR 1505.2[b]). Where the selected alternative is other than the environmentally preferable alternative, the ROD should clearly state the reasons for not selecting the environmentally preferred alternative. If lands protected by Section 4(f) were a factor in the selection of the preferred alternative, the ROD should explain how the Section 4(f) lands influenced the selection.

The values (social, economic, environmental, cost-effectiveness, safety, traffic, service, community planning, etc.) which were important factors in the decision-making process should be clearly identified along with the reasons some values were considered more important than others. The federal-aid highway program mandate to provide safe and efficient transportation in the context of all other federal requirements and the beneficial impacts of the proposed transportation improvements should be included in this balancing. While any decision represents a balancing of the values, the ROD should reflect the manner in which these values were considered in arriving at the decision.

C.15.3 Section 4(f)

Summarize the basis for any Section 4(f) approval when applicable (23 CFR 771.127[a]). The discussion should include the key information supporting such approval. Where appropriate, this information may be included in the alternatives discussion above and referenced in this paragraph to reduce repetition.

C.15.4 Measures to Minimize Harm

Describe the specific measures adopted to minimize environmental harm and identify those standard measures (e.g., erosion control, appropriate for the proposed action). State whether all practicable measures to minimize environmental harm have been incorporated into the decision and, if not, why they were not (40 CFR 1505.2[c]).

C.15.5 Monitoring or Enforcement Program

Describe any monitoring or enforcement program that has been adopted for specific mitigation measures, as outlined in the final EIS.

C.15.6 Comments on Final EIS

Identify all substantive comments received on the final EIS and give them appropriate responses.

Summarize other comments and provide responses where appropriate.

For record-keeping purposes, provide a copy of the signed ROD to the Washington Headquarters (HEV-11). For a ROD approved by the division office, send copies to both the Washington Headquarters and the regional office.

C.16. Section 4(f) Evaluations: Format and Content

Prepare a Section 4(f) evaluation for each location within a proposed project before the use of Section 4(f) land is approved (23 CFR 771.135[a]). For projects processed with an EIS or an EA/FONSI, include the individual Section 4(f) evaluation as a separate section of the document, and for projects processed as categorical exclusions, as a separate Section 4(f) evaluation document. Pertinent information from various sections of the EIS or EA/FONSI may be summarized in the Section 4(f) evaluation to reduce repetition. Where an issue on constructive use Section 4(f) arises and FHWA decides that Section 4(f) does not apply, the environmental document should contain sufficient analysis and information to demonstrate that the resource(s) is not substantially impaired.

The use of Section 4(f) land may involve concurrent requirements of other federal agencies. Examples include consistency determinations for the use of public lands managed by the Bureau of Land Management, compatibility determinations for the use of land in the National Wildlife Refuge System and the National Park System, determinations of direct and adverse effects for Wild and Scenic Rivers, and approval of land conversions under Section 6(f) of the Land and Water Conservation Fund Act. The mitigation plan developed for the project should include measures that would satisfy the various requirements. For example, Section 6(f) directs the Department of the Interior (National Park Service) to ensure that replacement lands of equal value, location, and usefulness are provided as conditions to approval of land conversions. Therefore, where a Section 6(f) land conversion is proposed for a highway project, replacement land will be necessary. Regardless of the mitigation proposed, the draft and final Section 4(f) evaluations should discuss the results of coordination with the public official having jurisdiction over the Section 4(f) land and document the National Park

Service's position on the Section 6(f) land transfer, respectively.

C.16.1 Draft Section 4(f) Evaluation

We suggest the following format and content. Include the listed information in the Section 4(f) evaluation, as applicable.

Proposed Action

Where a separate Section 4(f) evaluation is prepared, describe the proposed project and explain the purpose and need for the project.

Section 4(f) Property

Describe each Section 4(f) resource that would be used by any alternative under consideration. Provide the following information:

1. A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the Section 4(f) property
2. Size (acres or square feet) and location (maps or other exhibits such as photographs, sketches, etc.) of the affected Section 4(f) property
3. Ownership (city, county, State, etc.) and type of Section 4(f) property (park, recreation, historic, etc.)
4. Function of or available activities on the property (ball playing, swimming, golfing, etc.)
5. Description and location of all existing and planned facilities (ball diamonds, tennis courts, etc.)
6. Access (pedestrian, vehicular) and usage (approximate number of users/visitors, etc.)
7. Relationship to other similarly used lands in the vicinity
8. Applicable clauses affecting the ownership, such as lease, easement, covenants, restrictions, or conditions, including forfeiture
9. Unusual characteristics of the Section 4(f) property (flooding problems, terrain conditions, or other features) that either reduce or enhance the value of all or part of the property

Impacts on the Section 4(f) Property

Discuss the impacts on the Section 4(f) property for each alternative (e.g., amount of land to be used,

facilities and functions affected, noise, air pollution, visual, etc.). Where an alternative (or alternatives) uses land from more than one Section 4(f) property, a summary table would be useful in comparing the various impacts of the alternative(s). Impacts (such as facilities and functions affected, noise, etc.) that can be quantified should be quantified. Other impacts (such as visual intrusion) that cannot be quantified should be described.

Avoidance Alternatives

Identify and evaluate location and design alternatives that would avoid the Section 4(f) property. Generally, this would include alternatives to either side of the property. Where an alternative would use land from more than one Section 4(f) property, the analysis needs to evaluate alternatives which avoid each and all properties (23 CFR 771.135[i]). The design alternatives should be in the immediate area of the property and consider minor alignment shifts, a reduced facility, retaining structures, etc. individually or in combination, as appropriate. Detailed discussions of alternatives in an EIS or EA need not be repeated in the Section 4(f) portion of the document, but should be referenced and summarized. However, when alternatives (avoiding Section 4[f] resources) have been eliminated from detailed study the discussion should also explain whether these alternatives are feasible and prudent and, if not, the reasons why.

Measures to Minimize Harm

Discuss all possible measures that are available to minimize the impacts of the proposed action on the Section 4(f) property(ies). You may reference and appropriately summarize detailed discussions of mitigation measures in the EIS or EA, rather than repeat them.

Coordination

Discuss the results of preliminary coordination with the public official having jurisdiction over the Section 4(f) property and with regional (or local) offices of DOI and, as appropriate, the regional office of HUD and the forest supervisor of the affected national forest. Generally, the coordination should include discussion of avoidance alternatives, impacts to the property, and measures to minimize harm. In addition, the coordination with the public official having jurisdiction should include, where necessary, a discussion of significance and primary use of the property.

Note: The conclusion that there are no feasible and prudent alternatives is not normally addressed at the draft Section 4(f) evaluation stage. Such conclusion is made only after the draft Section 4(f) evaluation has been circulated and coordinated and any identified issues adequately evaluated.

C.16.2 Final Section 4(f) Evaluation

When the preferred alternative uses Section 4(f) land, the final Section 4(f) evaluation must contain (23 CFR 771.135[i] and [j]):

1. All the above information for a draft evaluation
2. A discussion of the basis for concluding that there are no feasible and prudent alternatives to the use of the Section 4(f) land. The supporting information must demonstrate that “there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes” (23 CFR 771.135[a][2]). This language should appear in the document with the supporting information.
3. A discussion of the basis for concluding that the proposed action includes all possible planning to minimize harm to the Section 4(f) property. When there are no feasible and prudent alternatives that avoid the use of Section 4(f) land, the final Section 4(f) evaluation must demonstrate that the preferred alternative is a feasible and prudent alternative with the least harm on the Section 4(f) resources after considering mitigation to the Section 4(f) resources.
4. A summary of the appropriate formal coordination with the headquarters offices of DOI (and/or appropriate agency under that department) and, as appropriate, the involved offices of USDA and HUD
5. Copies of all formal coordination comments and a summary of other relevant Section 4(f) comments received an analysis and response to any questions raised. Where new alternatives or modifications to existing alternatives are identified and will not be given further consideration, provide and

support by facts the basis for dismissing these alternatives. Where Section 6(f) land is involved, document the National Park Service’s position on the land transfer.

6. Concluding statement as follows: “Based on the above considerations, there is no feasible and prudent alternative to the use of land from the (identify Section 4[f] property) and the proposed action includes all possible planning to minimize harm to the (Section 4[f] property) resulting from such use.”

C.17. Other Agency Statements

1. The FHWA review of statements prepared by other agencies will consider the environmental impact of the proposal on areas within FHWA’s functional area of responsibility or special expertise (40 CFR 1503.2).
2. Agencies requesting comments on highway impacts usually forward the draft EIS to the FHWA Washington Headquarters for comment. The FHWA Washington Headquarters will normally distribute these EIS to the appropriate regional or division office (per regional office request) and will indicate where the comments should be sent. The regional office may elect to forward the draft statement to the division office for response.
3. When a field office has received a draft EIS directly from another agency, it may comment directly to that agency if the proposal does not fall within the types indicated in item (d) of this section. If more than one DOT administration is commenting at the regional level, the comments should be coordinated by the DOT regional representative to the secretary or designee. Distribute copies of the FHWA comments as follows:
 - a. Requesting agency: original and one copy
 - b. P-14: one copy
 - c. DOT secretarial representative: one copy
 - d. HEV-11: one copy
4. The following types of actions contained in the draft EIS require FHWA Washington Headquarters review and such EISs should be forwarded to the director, Office of

Environmental Policy, along with regional comments, for processing:

- a. Actions with national implications
- a. Legislation or regulations having national impacts, or national program proposals