

PART 2, CHAPTER 15

AESTHETIC EFFECTS

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PART 2, CHAPTER 15

AESTHETIC EFFECTS

15.1 OVERVIEW

15.1.1 Purpose

This chapter contains the Florida Department of Transportation (FDOT) procedures for evaluating aesthetic effects (AE) during project delivery. Aesthetic effects can be either positive or negative and should be evaluated based on the context of the project area. The aesthetic qualities of a community or area are defined by a combination of visual resources (i.e., vistas, landscape, topography, architecture, roadways and structures) and other qualities that define the character of the community and site (i.e., sounds, vibration, and air quality). **Table 15.1** highlights relevant areas to help identify potential AE; however, it is not intended to be all inclusive.

Transportation actions can affect communities and influence aesthetic qualities. FDOT values the consideration of AE in project development because it influences community cohesion and community values, and can enhance the travel experience. During development of a project, AE is evaluated through the Efficient Transportation Decision Making (ETDM) screening for qualifying projects (see [Part 1, Chapter 2, Environmental Class of Action Determination](#)), impact evaluation during Project Development and Environment (PD&E), and through the impact review process during final design. For PD&E projects, consideration of AE is an integral component of the Sociocultural Effects Evaluation (SCE) (see [Part 2, Chapter 9, Sociocultural Effects Evaluation](#) and the [SCE web page](#)).

The purpose of the process described in this chapter is to assess the existing aesthetic context of the project area, evaluate a proposed project's aesthetic effects, and consider opportunities for enhancement within the project area while remaining consistent with federal and state aesthetic requirements (for legislative and policy references see **Table 15.2**) by:

1. Providing aesthetically pleasing surroundings;
2. Providing compatibility of transportation facilities with the surrounding natural and/or man-made environment; and
3. Selecting materials and appropriate design approaches based upon existing and proposed scale, color, pattern, texture, form, materials and architectural style.

4. Preserving existing plants or landscape, when feasible, and considering opportunities for new landscaping and/or relocating existing plants that may be impacted by the project.

Aesthetic considerations are an integral part of FDOT's transportation projects. The evaluation of AE should address the community's aesthetic ideals while producing an affordable, biddable, constructible, and maintainable design. The AE evaluation described in this chapter ensures that the community's values and concerns related to aesthetic issues are addressed during project development. FDOT should do as much as practical and feasible to identify opportunities to improve the project aesthetics even when a project is a minor design project, or AE is not an issue. Often these improvements are integral to the design, have minimal or no cost, and add little or no time to the project schedule.

The consideration of AE begins early in the planning of a transportation project, with the necessary data collected as part of the SCE and is built upon through the PD&E process. Commitments should be carried forward as the project advances.

The completed AE evaluation delineates the magnitude of aesthetic effects as well as the aesthetic needs and desires of the community. It also prescribes community preferred opportunities to conserve or enhance the aesthetic qualities using good basic design principles.

The intent of the AE evaluation for a proposed transportation project is to meet the following objectives:

1. Identify current aesthetic resources, e.g., existing forested areas, wildflower areas, trees, landscape, community features, ponds and drainage features, bridge structures and other architectural features;
2. Analyze/categorize the aesthetic resources that could be affected;
3. Consider the value of each of these aesthetic resources to the community or area;
4. Assess the potential impacts; and
5. Identify potential avoidance, minimization, enhancement and mitigation measures, e.g., preserving architectural features, existing forested areas, wildflower areas, trees, landscape, aesthetic consideration for ponds and drainage features.

The typical considerations of an AE evaluation are summarized in **Table 15.1**. These evaluation factors highlight relevant areas to help identify potential AE and may be used as guidance to ensure the legislative intent and compliance requirements are met.

TABLE 15.1 Typical Aesthetic Effects Considerations

CHARACTER	Used to understand the aesthetic resources unique to the studied community and its environment(s). Each of the following may be identified and described before any value and/or impact assessments begin: adjoining architectural styles; adjoining land uses; available transportation modes; corridor width and alignment; density (urban, rural); level of (historical) maintenance; lighting; common materials; visual rhythms, patterns, forms, lines, colors and textures; vegetation; and vehicle speed; sounds; odors; and vibrations.
COMPATIBILITY	These base considerations may be evaluated in the context of 'fit for the transportation component' proposed: access; community cohesiveness; existing design characteristics; planned growth and land use patterns; sense of ownership /public boundaries; traffic patterns/congestion; design compatibility with community setting; and color and materials coordination (with evident patterns).
COMMUNITY VALUES	To utilize in understanding how the transportation project can contribute to public perceptions, and will inform the 'measurement' of the intensity of potential AE. May include the following: community goals; cultural significance; gateways and focal points; local plan consistency; open space; quality of life; safety; and special community designations.
SENSITIVE AREAS	Many of these contribute subtly to a community's identity and may need to be considered in the broader Community Values context (level of sensitivity to each): areas of recognized beauty; bicycle routes; commercial centers; historic or other culturally-important resources; parks and recreation areas; pedestrian facilities; public facilities (hospitals, colleges, universities); public parking areas (and access to them); residential areas; specific historic or cultural features; transit facilities; and 'name-sake' water bodies.
VISUAL FEATURES	These are usually rated as very important and highly valuable by communities. They should be considered in the context of potential for both short- and long-term impacts of the project. They may include: scenic spaces (views and vistas); tree cover; natural shade/shadow patterns; vegetation and screening; water bodies; light features and evident lighting levels; other natural green spaces; recognized safety features; visual clutter (if present); and, simplicity and attractiveness of signage.

15.1.2 Legislative Authority and Policies

It is federal policy to emphasize design quality in all projects which involve public use areas or sensitive locations, utilizing art, architecture and quality engineering in the development of transportation projects. The **USDOT Order 5610.1C** established joint agency revised procedures for considering aesthetic and design quality impacts required to be included in the transportation projects development process. The FHWA published the **Visual Impact Assessment for Highway Projects (USDOT, 2013)** to increase the responsiveness of highway planning and design to the national commitment to aesthetic quality in federal projects. FDOT policies and programs such as context sensitive solutions, highway landscaping, wildflowers, scenic overlooks, scenic highways, preservation of parks and historic places, art in public spaces, screening and control of objectionable views, complete streets, and Outdoor Advertising control (federal and state requirements) all support FHWA policy.

Table 15.2 identifies the major federal and state laws, and agency rules and policies requiring the FDOT to consider AE and impacts on the community and is not meant to be all inclusive. These citations together form the basis of the agency’s responsibility and intent to emphasize aesthetic design quality in all transportation projects which involve public use areas or sensitive locations.

TABLE 15.2 Legislation and Policies that include Aesthetic Effects

Title and Citation	Relevance to Aesthetic Effects (in general and/or implicit)
Federal Legislation	
<i>National Environmental Policy Act of 1969 (NEPA) as amended (42 USC § 4331)</i>	Requires analysis of the environmental impacts of projects using federal funds. Further, the Act declares that it is the continuous responsibility of agencies to “use all practical means to assure for all Americans safe, healthful, productive, and aesthetically pleasing surroundings.” It also directs agencies to use an interdisciplinary approach to “identify and develop methods and procedures which will insure that presently un-quantified environmental amenities and values may be given appropriate consideration in decision-making.”
<i>Federal Aid Highway Act of 1970 (23 USC 109(h))</i>	Defines specific impacts that must be considered in developing any project on any federal-aid system, including the constructed and natural environment of the area; the environmental, scenic, aesthetic, historic, community, and preservation impacts of the activity.
<i>Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500-1508)</i>	Requires federal agencies to use all practicable means consistent with the requirements of NEPA, to avoid or minimize any possible adverse effects of their actions upon the quality of the environment.
<i>Environmental Impact and Related Procedures (23 CFR 771)</i>	Prescribes policies and procedures of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) regulations for implementing the NEPA, and the Council on Environmental Quality (CEQ). Among these being, early and continuing opportunities during project development for the public to be involved in the identification of environmental impacts against a balanced consideration of the need for safe and efficient transportation; the review of the project environmental impacts related to national, state, and local environmental protection goals; and measures necessary to mitigate adverse impacts.
<i>Guidance for Preparing and Processing Environmental and Section 4(f) Documents (TA6640.8A) FTA TOD Development</i>	Prescribes early coordination with agencies and the public to determine the scope of issues to be addressed and to identify and focus on the proposed action's important issues. It includes specific requirements to identify the impacts to the existing visual resource; the relationship of the impacts to potential viewers of and from the project; measures to avoid, minimize, or reduce the adverse impacts; the consideration given to design quality, art, and architecture in the project planning; and final EIS requirements to identify any proposed mitigation for the preferred alternative.
<i>1994 FHWA Environmental Policy Statement</i>	Formal commitment to ensure that policies and investments embrace the concerns of neighborhoods, communities, and society as a whole. Additionally emphasizes design quality in all projects which involve public use areas or sensitive locations, utilizing art, architecture and quality engineering in the development of highways.
<i>USDOT Act of 1966 , Section 4(f), 49 U.S.C. 303</i>	Declared to be the national policy that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

Title and Citation	Relevance to Aesthetic Effects (in general and/or implicit)
<i>National Historic Preservation Act, Section 106, CFR 800, 2004</i>	Establishes a basis for coordination (consultation) with appropriate parties involved in other NEPA required determinations; confirms the role of the State Historic Preservation Officer (SHPO) in these consultations; mandates public involvement as part of the required assessment of adverse effects on historic properties, including aesthetic integrity criteria; confers coordination with other required environmental documents.
<i>US Highway Beautification Act of 1965, Section 131 of Title 23, USC</i>	The Act called for control of outdoor advertising including removal of certain types of signs, along the nation's Interstate Highway System and the existing federal-aid highway system. It also required certain junkyards and other adverse scenery along Interstate or primary highways to be removed or screened and encouraged scenic enhancement and roadside development.
<i>Moving Ahead for Progress in the 21st Century (MAP-21). (Includes changes throughout 23 U.S.C.)</i>	Requires increased consideration of the environment in both statewide and metropolitan planning and public participation activities in the development of transportation projects.
State Legislation	
<i>Article II, Section 7(A) Constitution of the State of Florida</i>	It shall be the policy of the state to conserve and protect its natural resources and scenic beauty.
<i>Chapter 187, F.S. - State Comprehensive Plan</i>	Establishes statewide comprehensive plans that include goals, objectives, and strategies for the overall transportation system in Florida which must consider community effects.
<i>Chapter 267, F.S. - Historical Resources, 2009</i>	Establishes State Division of Historical Resources, and confers powers and duties to manage processes required by <i>National Historic Preservation Act</i> (see above), including the required assessment of adverse effects on historic properties, including aesthetic integrity criteria.
<i>Section 334.044(26) F.S. - Department; powers and duties</i>	Requires the Department to provide for the enhancement of environmental benefits, including conservation of the natural roadside growth and scenery; and to provide for the implementation and maintenance of roadside conservation, enhancement, landscape and stabilization programs.
<i>Chapter 479, F.S. - Outdoor Advertising</i>	Establishes legislative authority to regulate commercial signage in areas adjacent to state highways; assuring information of interest to the traveling public is presented safely and aesthetically; establishes special mitigation programs for beautification and aesthetic improvements.
<i>Section 336.045 (1) F.S. - Uniform minimum standards for design, construction, and maintenance; advisory committees</i>	Enabling legislation that required FDOT to develop and adopt uniform minimum standards and criteria for the design, construction, and maintenance of all public streets, roads, highways, bridges, sidewalks, curbs and curb ramps, crosswalks, where feasible, bicycle ways, underpasses, and overpasses used by the public for vehicular and pedestrian traffic. Specifically calls for the development of such standards and criteria to consider design approaches which provide for the compatibility of such facilities with the surrounding natural or manmade environment; the safety and security of public spaces; and the appropriate aesthetics based upon scale, color, architectural style, materials used to construct the facilities, and the landscape design and landscape materials around the facilities. The FDOT shall also annually provide funds in its tentative work program to implement the provisions of this subsection relating to aesthetic design standards.

Title and Citation	Relevance to Aesthetic Effects (in general and/or implicit)
<i>Section 336.045 (6) F.S. - Uniform minimum standards for design, construction, and maintenance; advisory committees</i>	Requires that if the governing body of a county or municipality has adopted a design element as part of its comprehensive plan pursuant to part II of chapter 163, FDOT shall consider such element during project development of transportation facilities. The design of transportation facilities constructed by FDOT within the boundaries of that county or municipality must be consistent with that element to the maximum extent feasible.
<i>Section 339.155, F.S. - Florida Transportation Plan</i>	Describes requirements of an annual Florida Transportation Plan, including procedures for public participation (subsection 6).
<i>Section 339.175 (6)(b), F.S. Metropolitan planning organization powers; duties and responsibilities</i>	Requires the Long Range Transportation Plan and the Transportation Improvement Program to consider the overall social, economic, energy, and environmental effect of transportation decisions, including objectives to protect and enhance the environment, promote energy conservation, and improve quality of life.
<i>Section 334.046, F.S. FDOT mission, goals, and objectives.</i>	The mission of FDOT of Transportation shall be to provide a safe statewide transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities.
FDOT Policies	
<i>Context Sensitive Solution No. 000-650-002</i>	Establishes policy to consider the physical setting, and to enhance and conserve community defining features. Specific guidance on the CSS process can be found in Chapter 9 – Context Sensitive Solutions, FDOT Project Management Handbook, Part 1 – Issues Common to all Project Managers.
<i>Highway Beautification No. 000-650-011</i>	Establishes policy to conserve, protect, restore, and enhance Florida's natural resources and scenic beauty.
<i>Environmental Policy No. 000-625-001</i>	Establishes policy to balance quality engineering and aesthetic design principles with consideration of environmental and economic aspects of the transportation program.
<i>Sociocultural Effects Evaluation No. 000-650-015</i>	Establishes policy to provide effective community based solutions to transportation while addressing appropriate community concerns.
<i>Complete Streets No. 000-625-017</i>	Establishes policy to promote safety, quality of life, and economic development.

15.2 PROCEDURE

This section describes the suggested criteria and steps necessary to complete an AE evaluation. Consideration of aesthetics begins during planning, is updated and refined throughout the PD&E process, and continues through the Construction phase (see **Figure 15.1**). This would include improvements related to AE that require maintenance agreements to allow implementation, which must be reviewed by the District Maintenance Office prior to execution of the agreement by the maintaining authority.

The consideration of AE typically begins with and is a component of the SCE conducted as part of the ETDM process as established in [Part 2, Chapter 9, Sociocultural Effects Evaluation](#). The evaluation, completed by the Community Liaison Coordinator (CLC) [FDOT and/or Metropolitan Planning Organization (MPO)] and other experts, provides descriptions of the existing visual resources, experiences and features that could be

affected or improved by the proposed transportation project, including forested areas, wildflower areas, trees, landscaping and other aesthetic features. The AE evaluation builds upon information gathered during the SCE, and is used to determine the level of effort necessary to adequately address aesthetic issues during the PD&E Study. The level of effort and the level of expertise required are dependent upon the nature and scope of the project and its potential for effects. At the end of the ETDM process, the CLC transmits this information to the Project Manager who develops the project's scope of work.

15.2.1 Determine the Level of Effort

The level of assessment and documentation during the PD&E phase depends on the potential for AE. The PD&E Project Manager and the District Environmental Office must coordinate with other functional areas, for example, Design, Drainage, Structures, and the District Landscape Architect to determine appropriate evaluation given the project context. The project area should be appropriately scoped by District personnel to ensure appropriate consideration of AE and opportunities.

Detailed evaluations are generally not warranted for transportation projects not qualifying for screening in the ETDM Environmental Screening Tool (EST) [typically Type 1 and Programmatic Categorical Exclusions (CEs) and Non-Major State Actions (NMSA)]. These projects, based on analysis, have no significant effects. They typically require a flexible approach, but due to their less complex and comprehensive nature the evaluation can be streamlined. See [Part 1, Chapter 2, Environmental Class of Action Determination](#) for clarification on projects that qualify for screening.

A higher potential for AE typically exists with transportation projects qualifying for screening [typically Type 2 Categorical Exclusion (CE), Environmental Assessment (EA), Environmental Impact Statement (EIS), or State Environmental Impact Report (SEIR)]. These project classifications may warrant a more detailed level of analysis and documentation. Most PD&E projects will have received prior consideration of AE during the ETDM process.

The results of the SCE conducted during the Programming Screen are available for review and verification in the **Programming Screen Summary Report**. The SCE evaluation in the PD&E Study focuses on important aesthetic topics identified during the Programming Screen and through public involvement efforts. Previous efforts do not need to be repeated. If an issue was not identified or evaluated in the **Programming Screen Summary Report**, then it must be evaluated during the PD&E phase.

The level of project assessment for AE during the PD&E phase depends on the potential for impacts, as defined by FDOT analysis during EST screening and agency comments. The analyst determines what is reasonable in the given context. If after inter-office coordination, review, and analysis no impacts are identified, documentation can be as simple as a statement such as; *"No aesthetic impacts are anticipated as a result of this*

project". If an impact is identified, it should be assessed regardless of the nature of the project. This will help ensure that all AEs are addressed prior to design thus reducing the probability that community impacts will alter the project later in production. A more extensive AE evaluation may be needed, but is not limited to transportation projects that:

1. Require large amounts of Right of Way (ROW) or would displace a large number of residences or businesses (e.g., stores, outdoor advertising, etc.)
2. Conflict with local government comprehensive plans
3. Impact aesthetic qualities of community facilities, historic resources or landmarks
4. Affect aesthetic features, such as canopy roads or scenic vistas
5. Disrupt or divide an established or cohesive neighborhood

Recent major shifts in the demographics of a region or the introduction of a community planning initiative [for example, sustainable development, community redevelopment areas (CRA), complete streets, or a Main Street program] may also indicate the need for a more extensive analysis.

The AE evaluation is intended to be flexible within the PD&E phase, as well as FDOT standard reviews for projects outside of PD&E. Since PD&E studies may result in commitments and recommendations developed to address the specific AE of a project, it is critical that appropriate internal coordination efforts within the District are completed before such commitments and/or recommendations are made.

15.2.1.1 Outdoor Advertising Considerations

It is important to consider the existing permitted outdoor advertising signs, their permit status, and their view zones which may be affected by the project, as early as possible during planning and project development. Outdoor advertising regulations are found in **Chapter 479, Florida Statutes**, and in **Rule Chapter 14-10 and 14-40, Florida Administrative Code**. Coordinate with the FDOT Office of Outdoor Advertising Control (OAC), as appropriate, as issues with the anticipated blocking of the view of or impacts to outdoor advertising signs are identified. Consideration of the view of or impacts to the outdoor advertising signs being affected by the proposed project should be carried throughout project implementation as summarized below:

1. **ETDM Screenings** – During the screening process, current permitted sign locations can be identified utilizing the EST, the OAC website, and confirmed by contacting the OAC, as appropriate. The District should consider the status (Planning or Programming) of the project and determine the level of effort required at that time. This early in the process, the District should consider how the view or

disposition of the permitted sign could be affected by the proposed project. Consider for example, is it a conforming or non-conforming sign (coordinate with OAC). Also note if any community preferences have been identified regarding the role of outdoor advertising in the proposed project.

2. **PD&E** – Identify or confirm the presence of existing signs and their permit status. Identify or confirm the presence of proposed signs and their permit status. Determine how each sign or its view zone is affected by the proposed project. Guidance on outdoor advertising sign impacts is provided in [Part 2, Chapter 17, Noise](#). Continue coordination with OAC, and District ROW Office as appropriate. Transfer commitments to design as applicable.
3. **Design** – The design project manager should identify or confirm existing signs and their permit status. The design project manager should also identify or confirm the presence of proposed signs and their permit status. The design project manager should initiate or continue coordination with OAC. The design project manager should update any pertinent signage related commitments as appropriate and advise the PD&E staff of the changes. Review design plans and consider view zones [see [Chapter 9 of the Plans Preparation Manual \(PPM\), Topic No. 625-000-005](#)].
4. **Construction** – Transfer commitments as appropriate.

For projects that do not qualify for EST screening only items 3 and 4 apply. At a minimum, permitted signs should be identified and addressed during the Design phase.

15.2.1.2 Perimeter Walls

This section establishes guidelines for the consistent statewide application and inclusion of perimeter walls on department projects.

The request for consideration of a perimeter wall must come from the local municipality in which the project is located or from a group of directly affected residences/property owners adjacent to the project. These requests should be documented in the project file as early in the project's life as possible (i.e., during the PD&E phase of the project). If a request for perimeter wall consideration has been made, it is the responsibility of the Environmental Office Project Manager to forward the request to the appropriate design staff/project manager to ensure complete follow through on the request.

Perimeter walls are not intended to provide any noise reduction, nor are they intended to serve as a substitute for noise barriers at locations where a noise analysis has determined that the construction of noise barriers is not feasible and cost reasonable. Perimeter walls are not intended to be used as mitigation for environmental impacts. Perimeter walls will not be considered as a retrofit for existing conditions, and shall only be given consideration when a minimum of one of the following conditions are met:

1. Expanding the capacity of an existing highway by adding lanes to the outside of the existing travel lanes;
2. The significant alteration of the vertical or horizontal alignment of an existing highway;
3. A new highway on a new alignment;
4. The removal of existing extensive vegetation or other visual barrier within the FDOT ROW;
5. Exceptions to any of the items listed above will be considered on a case by case basis by the Assistant Secretary of Engineering and Operations.

If at least one of the above conditions is met, further consideration for the construction of a perimeter wall can proceed. The following requirements must also be met:

1. Building permits for the structures on the adjacent land that would realize a benefit from the perimeter wall must be issued prior to the approval of the project's environmental documentation.
2. Traffic on the project roadway must be visible from the adjacent property.
3. All structures for which the perimeter wall is being considered must be immediately adjacent to the FDOT's ROW and within 150 feet of the edge of the nearest travel lane. Additionally, the perimeter wall must be constructible within the FDOT's ROW or an easement must be granted to facilitate construction, if necessary.
4. The perimeter wall must be continuous, with no openings to accommodate driveways or other access requirements.
5. The cost of the perimeter wall shall not exceed \$25,000 per adjacent land owner. A unit cost equal to 2/3 that of a noise wall (currently \$30/ft²) shall be used for estimating and programming purposes.
6. The height of a perimeter wall is limited to eight feet.
7. A simple majority of the adjacent property owners must support the construction of the perimeter wall.

15.2.2 Transportation Projects Not Qualifying for Screening

For transportation projects not qualifying for screening in the ETDM EST, the AE evaluation consists of following the steps listed in **Section 15.2.3.2**, in sufficient detail to ensure that the project considers AEs, and appropriately addresses each through incorporation into the final design plans. This evaluation includes the consideration of existing forested areas, wildflower areas, trees, landscaping and other aesthetic features that may be impacted by the project.

15.2.3 Transportation Projects Qualifying for Screening

Transportation projects qualifying for screening in the ETDM EST, generally are more complex. For these projects, the AE evaluation is conducted as a component of the SCE ([Part 2, Chapter 9, Sociocultural Effects Evaluation](#)). Additional sources of AE information may be in the summary of public comments and community desired features. In accordance with [Part 1, Chapter 2, Environmental Class of Action Determination](#), qualifying projects must complete the ETDM Programming Screen and may also have completed the Planning Screen. As projects advance, AE should be considered as follows:

1. **Planning Screen Evaluation** - identify flaws or controversies related to aesthetics that could prevent the project from moving forward or require significant adjustments to the project concept.
2. **Programming Screen Evaluation** - provide commentary about effects, summarize scoping recommendations, and identify public concerns to further understand the magnitude of potential aesthetic impacts and to determine methods for resolving each.
3. **PD&E Evaluation** – build upon previous evaluations by filling information gaps, focus on issues of concern identified in planning and programming screens, and based on the project and associated impacts complete the appropriate level of AE documentation. Develop necessary commitments and recommendations and document in the Environmental Document.
4. **Project Commitment Tracking** – Complete the [Project Commitment Tracking Procedure, Topic No. 700-011-035](#) and transmit to Final Design.
5. **Final Design** – incorporate any commitments and recommendations. Verify compliance in the final plans. If there are any changes or updates, they should be documented in the Reevaluation to maintain compliance. Ensure design meets federal and state regulations (e.g., **Chapter 479, F.S. Outdoor Advertising**).

6. **Construction** – verify completion (inclusion, installation, etc.) of any aesthetic commitments. Verify compliance with federal and state regulations.

For clarification, refer to the **Process Flow Chart** illustrated in **Figure 15.1**.

15.2.3.1 Project Development and Environment

15.2.3.1.1 Develop PD&E Scope

This section includes the components of the AE evaluation to be completed as projects proceed through the PD&E phase. It builds upon previous phase AE evaluation by filling information gaps, focuses on issues of concern identified in planning and programming, and completes the appropriate level of documentation. There may be additional interim re-examination procedures necessary, depending on the complexity of project aesthetic issues, and new information that would require validation of baseline data to maintain communication with the community. When existing aesthetic features or trees or other long lived plants and landscape are impacted, Landscape Architecture should be identified as one of the work types in the scope for the PD&E Study. If landscape and other aesthetic features are being proposed and included, coordinate with the District Landscape Architect or Environmental Office, or other offices as needed.

The results of the SCE evaluations ([Part 2, Chapter 9, Sociocultural Effects Evaluation](#)) conducted during the ETDM Planning and Programming Screens include a specific component related to aesthetics, which provides the basis of evaluation for PD&E studies. The evaluation should include input provided by the public and local planning organizations. Information from SCEs is found in the ETDM **Programming Screen Summary Report**, available on the ETDM EST and the ETDM Public Access Web site. The **Programming Screen Summary Report** should be reviewed prior to beginning PD&E. Specific consideration should be given to existing forested areas, wildflower areas, trees, landscape and other aesthetic features. The review should include, but not be limited to, Environmental Technical Advisory Team (ETAT) commentary and Summary Degrees of Effect including the SCE (e.g., Community Characteristics Inventory) and other relevant issues.

Although much AE quantitative data can be found in databases and Geographic Information System (GIS) libraries, an accurate assessment cannot be completed without checking the data through field reviews, aerial photography, and communications with data sources and the public. This process includes using AE information stored on the EST for ETDM projects, the State Highway System (SHS) Videolog, and other online tools, and suggests potential AE resources for evaluating local level and quantitative data. Professional judgment should be used to determine the level of analysis and the data needed to perform the subsequent steps of the AE evaluation.

Review AE data and comments that were generated during the Programming Screen. Determine the project's involvement with aesthetics from information included in the

Programming Screen Summary Report. Review ETAT comments for the Aesthetics issue in the report. It may be helpful to also review ETAT comments on other issues. Other sections of the report should be reviewed such as the General Project Recommendations, Community Desired Features, and Summary of Public Comments.

15.2.3.1.2 Aesthetics Effects Evaluation

The ETDM **Programming Screen Summary Report** should provide a starting point for AE discussion and development. The analyst should not assume that the screening has resolved any or all the aesthetic issues. If the analyst determines the evaluation completed during screening is sufficient to address aesthetic issues, then summarize this finding in the final Environmental Document. At a minimum, the analyst evaluates the AE from the screening and identifies any changes in the community since completion of the Programming Screen.

The AE evaluation should be tailored to the nature and scope of the project and its potential for aesthetic effects. The Typical Aesthetic Effects Considerations in **Table 15.1** should be considered during each step of the AE evaluation. For some projects the details found in the Programming Screen may provide sufficient information to complete the AE. For other projects, the PD&E AE evaluation may consist of the following steps: 1) describing existing conditions, 2) describing effects, 3) determining significance of impacts, and 4) recommending ways to resolve issues. The steps are outlined in **Figure 15.2**. While these steps are logically sequential in nature, they are interrelated and the study approach should be integrated to balance simultaneous input and results for each.

Step 1: Describe Existing Conditions - The description of the affected environment incorporates information from the **Programming Screen Summary Report**. Define the study area and describe the existing aesthetic characteristics, such as existing forested areas, wildflower areas, trees, and landscape that could be preserved or if impacted relocated elsewhere, decorative lighting, sidewalk treatments, etc. If the proposed project is located on a designated Scenic Highway see [Part 2, Chapter 29, Scenic Highways](#). The study area is determined by the project analyst and will vary depending on the resources involved, project impacts, and the project context. Consider the SCE and its aesthetic components, related public commentary, results of field reviews, etc. Related community stakeholder concerns must be documented and addressed.

Step 2: Describe Effects - Documenting the aesthetic effects (positive and negative) of a proposed project is necessary to ensure compliance with state and federal requirements. The Council of Environmental Quality's (CEQ) Regulations for implementing the Procedural Provisions of the **National Environmental Policy Act of 1969 (NEPA)** require that three general types of environmental effects, including aesthetics, be evaluated for proposed transportation and other federal projects (**CEQ, 1997**). The AE evaluation must address direct, indirect, and cumulative effects as defined in **40 CFR 1508.7 and 1508.8**. For projects that have less than significant impacts,

indirect and cumulative impact assessments will generally not be warranted. There may be exceptions, which can be evaluated on a case-by-case basis.

Aesthetic Effects can be either positive or negative. The evaluation should clearly identify and quantify the effects a project may have on an area. Determine the project's effects on the visual resources and qualitative physical characteristics of the study area. Using the Typical Aesthetic Effects Considerations in **Table 15.1**, assess the effects of the project on aesthetic issues. AE and SCE effects are interconnected; thus it is important that the analyst recognize the relationship. The interrelationship of effects varies with the type of transportation action and the affected community. The analyst should coordinate with appropriate program specialists (e.g., cultural resources, landscape architecture, water quality, noise, air quality) to determine how the project affects these areas from an aesthetic perspective. The analysis should describe the intensity of the effects providing sufficient information to determine their magnitude. If there are multiple alternatives, provide sufficient information to differentiate between them (including the no-build alternative).

Step 3: Determine Significance of Impacts – Based on the analyst's knowledge of the affected area and impact analysis, the analyst must determine if the perceived AE is significant as defined by CEQ regulations (**40 CFR 1500-1508**), which is a function of both context and intensity. Significance of the impact will vary with the setting of the proposed action and the surrounding area. To determine significance, the severity of the aesthetic impact must be examined in terms of the type, quality and sensitivity of the aesthetic resource involved; the location of the proposed project; the duration of the impact (short- or long-term); and within the context of the community's value of the aesthetic resource. The determination of each impact must be documented in the Environmental Document.

Step 4: Recommend Ways to Resolve Issues - As a project moves through the PD&E process and AE are identified, the analyst considers potential solutions to address adverse effects or enhance the aesthetic experience. The analyst actively participates in the role of problem solving through ongoing interaction with the community to ensure that an identified AE is documented and addressed in a manner consistent with community values and desires, as well as FDOT standards and requirements. In keeping with FDOT's [Context Sensitive Solutions Policy No. 000-650-002](#) and [Complete Streets Policy No. 000-625-017](#); (see **Section 15.3** for links to these documents), consider context sensitive solutions that would make the project "fit" the needs of the community. This is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation project that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, as appropriate, while maintaining safety and mobility. Individually and collectively, the public can provide additional input to identify ways to avoid, minimize or mitigate adverse AE or identify aesthetic enhancements through the public involvement process (**Part 1, Chapter 11, Public Involvement**).

Methods for resolving adverse AE of a transportation project can include: **avoidance, minimization, mitigation, and enhancement**, for example, the preservation of existing forested areas, wildflower areas, or relocation or preservation of trees, landscape and/or other aesthetic features. Some of the solutions will address short-term effects (during construction), and others are implemented to address long-term effects. The analyst considers the effects of these measures on the affected community and confirms that the approach supports the project purpose and need. Prior to making any commitments, potential solutions identified during PD&E must be coordinated with other FDOT disciplines. There may be engineering, financial and/or maintenance reasons that make a potential solution not feasible.

During the AE evaluation process of the PD&E phase the analyst should routinely consider aesthetic treatments that provide safe, constructible and cost-feasible enhancement beyond what is required as mitigation for impacts. The available design solutions often considered as standard practices utilized by FDOT for efficiency, cost effectiveness and safety are not exclusive of aesthetic treatments. Although standardization has advantages, it is typically the starting point for a project's design framework. The analyst should consider both standard and unique aesthetic enhancements for a specific project where deviations are possible in response to the community's input. In this way standardization in combination with such enhancements can result in a sense of unity among project elements and furthers a project's objective of developing a consistent and context sensitive theme.

Direct application of aesthetic enhancements that are to be considered on structural elements, such as bridges and sound or retaining walls, should reflect documented community desires. Other examples should meet adopted engineering standards, materials and specifications so that the enhancements provide visual significance and subtle recognition beyond the usual treatments, while still using proven and effective transportation management means. Such options that are possible on a specific project should be identified, and evaluated for safety, constructability, construction costs, maintainability and maintenance costs. Project enhancements may need to be funded and maintained by local government agencies.

The analyst should confirm project specific design guidelines for safe and aesthetically pleasing corridor treatments that avoid conflicts with permitted outdoor advertising signs and can balance the mobility needs of pedestrians, bicyclists, riders and motorists with community values specific to a project. This can serve as a guide to the final design team in developing specific design solutions in response to the community's identified aesthetic issues, and can establish a strong basis for community support of the transportation project.

15.2.3.1.3 Commitments

Adverse AE can be addressed through a variety of solutions in design, construction and maintenance. However, prior to the development of the aesthetic commitments,

coordinate with the District Design Office, and other FDOT offices as appropriate, to ensure the FDOT standards are considered. Some aesthetic enhancements may require a maintenance agreement before such commitments can be made. When preparing to make commitments, the Districts should review the **Section 106** Memorandum of Agreement with SHPO, if applicable. Commitments must be documented per the [Project Commitment Tracking, Topic No. 700-011-035](#).

15.2.3.1.4 Documentation

The final step in the PD&E phase is to document the AE findings. Project documentation consists of:

1. Maintaining the Administrative Record;
2. Completing the appropriate AE section of the Environmental Document;
3. Preparing AE information for future commitment compliance.

Each of these documentation components are discussed in further detail below.

1. Administrative Record – The District’s Project Manager is responsible for collecting and maintaining the information gathered during the AE evaluation as part of the project file. The documentation provides information for the next project phase and contains AE commitments. All AE assessment materials (e.g., maps, analyses, public comments, survey responses, FDOT discipline comments, etc.) are contained in the project file in order to document public involvement and community outreach activities used to support the AE process. All agreements should be included.
2. Environmental Documentation - The results of the AE evaluation are documented as described below:

Categorical Exclusions (CE) - Documentation of the AE evaluation must demonstrate the proposed project has no significant aesthetic effects. For Type 2 CEs, AE evaluation material should be briefly summarized and included in the Type 2 CE documentation. This documentation should include a summary of pertinent AE information on the selected alternative.

Environmental Assessments (EA) and Environmental Impact Statements (EIS) - The findings of the AE evaluation are summarized for direct inclusion in the Environmental Document. This AE information and documentation is provided in the Affected Environment and Environmental Consequences sections of the EIS and the Impacts section of the EA, as well as the Comments and Coordination, and Commitments and Recommendations sections of the EA, EA with FONSI, DEIS, and FEIS document. In the Impacts section or the

Environmental Consequences section the AE summary should present the impact analysis findings and recommend avoidance, minimization, mitigation, and enhancement measures.

State Environmental Impact Report (SEIR) - The results of the AE evaluation are included in the Impact Evaluation section of the SEIR.

3. Commitment Compliance – As required by the level of AE environmental documentation indicated above, ensure clear and concise transmittal of the commitments to the subsequent project Final Design and Construction phases. Commitments related to AE made by FDOT over the course of the project study should be documented in the Commitments and Recommendations section of the Environmental Document. These should match the commitments tracked using the ***Project Commitment Tracking, Topic No. 700-011-035***. See [Part 2, Chapter 32, Commitments and Recommendations](#) for further guidance.

15.2.3.2 Design and Construction

Aesthetic commitments and recommendations established as a result of the PD&E Study must be transmitted to the Design Office to be included in contract documents. The Districts should verify commitment and regulatory compliance as the project advances through Design.

AE review during Design and compliance during Construction consists of the following steps:

1. Review Commitments specific to aesthetics.
2. Plans Received – Review for completeness; identify/confirm project limits.
3. Field Review – Conduct on-site field review(s) with appropriate project design professionals to confirm existing aesthetic resources within project limits, adjacent community resources, and roadside features (e.g., Outdoor Advertising signs, existing forested areas, wildflower areas, trees, landscape, and other aesthetic features) that are addressed in the plans.
4. Impact Review – Review plans and provide comments on AE that were identified and resolutions that should be incorporated into the contract design plans.
5. Bid Document Review - Subsequently verify that completed final design plans and specifications incorporate required AE commitments and/or considerations into the bid documents.

6. Compliance during Construction – Ensure that the Construction Office verifies compliance with aesthetic commitments as well as federal and state regulations incorporated into the final design.
7. Final Acceptance – Ensure that aesthetic features were constructed as specified in the contract plans, including modifications approved during construction. This is done by the Construction Office, but may require the Environmental Office involvement on occasion ([Construction Project Administration Manual, Topic No. 700-000-000, Chapter 12, Section 12.1](#)).

For projects developed through a PD&E Study the District must ensure commitment compliance and identify any changes that have occurred since the approval of the Environmental Document, and document it in the project Reevaluation per **Part 1, Chapter 13, Reevaluations**. Applicable projects should address AE compliance according to the [Construction Project Administration Manual, Topic No. 700-000-000, Chapter 8, Section 8.2](#) and [Project Commitment Tracking, Topic No. 700-001-035](#).

15.3 REFERENCES

- American Association of State Highway and Transportation Officials (AASHTO) Highway Subcommittee on Design Task Force for Environmental Design. June 1991. A Guide for Transportation Landscape and Environmental Design.
- Florida Department of Transportation. April 1995. Florida Highway Landscape Guide.
- Florida Department of Transportation. Current edition. Plans Preparation Manual, Volume 1, Chapters 1, 4, 8, 9, 21; Topic No. 625-000-005.
- Florida Department of Transportation. April 6, 2010. Construction Project Administration Manual, Chapters 8, 12; Topic No. 700-000-000.
- Florida Department of Transportation. November 2012. Project Commitment Tracking, Topic No. 700-011-035.
- Florida Department of Transportation. September 2014. Complete Streets, Topic No. 000-625-017.
- Moving Ahead for Progress in the 21st Century (MAP-21).
- U.S. Department of Transportation. November 1980. Aesthetics in Transportation, Contract No. DOT-OS-90040; Report No. DOT.OST.P-20.30, U.S. Government Printing Office, Washington D.C.

U.S. Department of Transportation, Federal Highway Administration. October 30, 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents, FHWA Technical Advisory T6640.8A.

U.S. Department of Transportation, Federal Highway Administration. 1988. Visual Impact Assessment for Highway Projects, Washington D.C., Publication No. FHWA-HI-88-054.

U.S. Department of Transportation, Federal Highway Administration. June 1997. Flexibility in Highway Design, Publication No. FHWA-PD-97-062; HEP-30/7-97(10M)E.

U.S. Department of Transportation, Federal Railroad Administration. May, 1999. Procedures for Considering Environmental Impacts, Order 5610.4, Docket No. EP-1, Notice 5.

15.4 HISTORY

2/15/1999, 11/14/2012, 9/30/2014

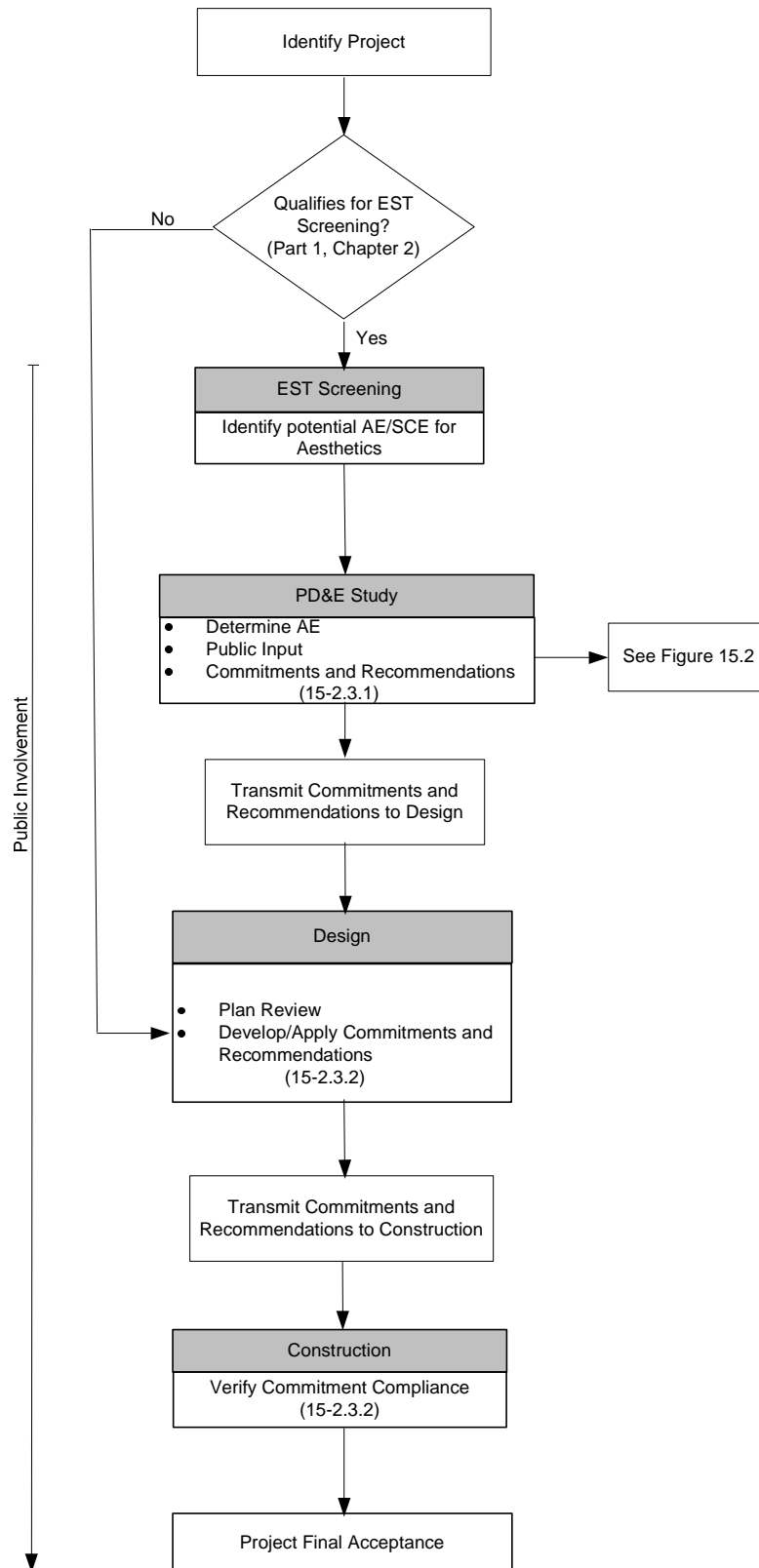


Figure 15.1 Aesthetic Effects Process Flow Chart

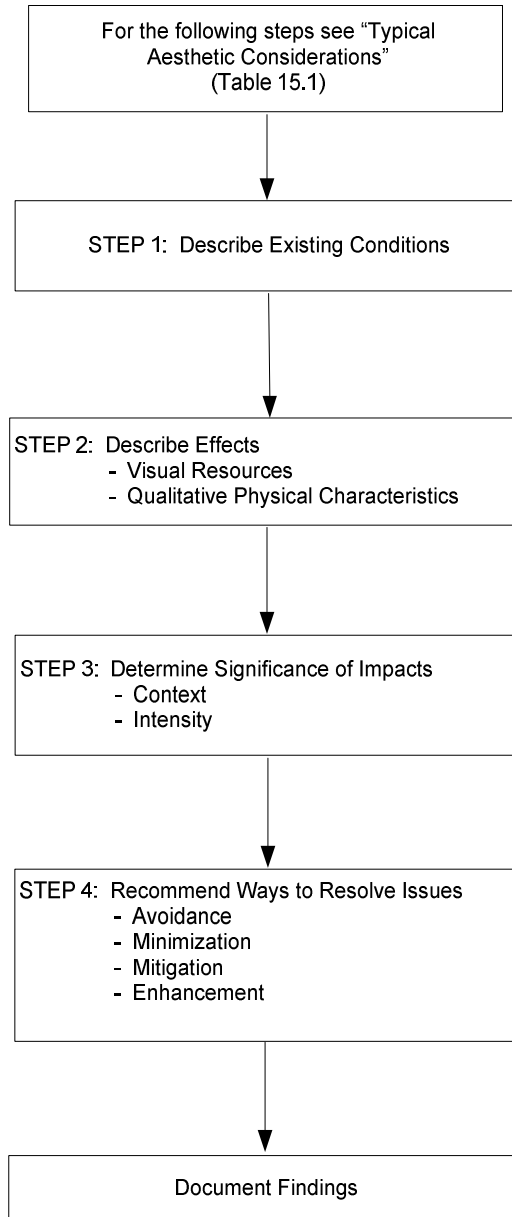


Figure 15.2 Aesthetic Effect Process Steps for PD&E

Additional references to provide further guidance for the preparation of an AE Evaluation

1. AASHTO – *Recurring Community Impacts*; September 2008
2. AASHTO – *RSDG-3-M, Roadside Design Guide, 3rd Edition*; 2002/2006
3. AASHTO - *A Guide for Achieving Flexibility in Highway Design, 1st Edition*; 2004
4. FAC - *Highway Beautification and Landscape Management, Chapter 14-40 Parts I, II & III*; February 2006
5. FDOT – *ETDM Manual, Topic No. 650-000-002*; March 2013
6. FDOT – *Florida Scenic Highways Program Manual*; October 2003
7. FDOT – *Florida Highway Landscape Guide*; April 1995
8. FDOT – *Utility Accommodation Manual* ; October 2007
9. FDOT / Project Management Handbook, Part 1 – *Chapter 9, Context Sensitive Solutions*; March 2008
10. FDOT / PPM Chapter 21 – *Transportation Design for Livable Communities*; Jan. 2015
11. FHWA – *Planning & Environment, Linkages Implementation Resource*; September 2008
12. FHWA – *Results of Joint AASHTO/FHWA Context Sensitive Solutions Strategic Planning Process*, March 2007
13. ITE – *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*; 2006
14. NEA; Project for Public Spaces – *Great Corridors, Great Communities*; 2008
15. NEA; Project for Public Spaces – *Streets as Places*; 2008
16. Nevada DOT – *Aesthetic Alternatives for NDOT Design Standards*, 2009

FIGURE 15.3 Additional Recommended Reference Materials

17. Scenic America – *Getting it Right in the Right-of-Way: A Citizen’s Guide to Context Sensitive Solutions*; 2004
18. TRB - *NCHRP Report 500: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan Transportation Research*; 1998
19. TRB – *Attributes and Amenities of Highway Systems Important to Tourists*; 2004
20. TRB - *NCHRP Report 612, Safe & Aesthetic Design of Urban Roadside Treatments*; 2008
21. TRB – *Aesthetic Initiative Measurement System, A Means to Achieve Context - Sensitive Design*; 2004
22. TRB – *Aesthetic s, Design-Build, and Workhorse Bridges*; 2007
23. US Congress - *National Environmental Policy Act (NEPA) of 1969*; January 1, 1970
24. USCEQ – *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*; November 1978 (Reprinted)
25. USDOT - *Visual Impact Assessment for Highway Projects*; 2013 (FHWA, Office of Environmental Policy)

FIGURE 15.3 Additional Recommended Reference Materials