



Integration of Aesthetics and  
Beautification into the process of planning  
and designing of transportation projects

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# A Paradigm Shift...

- Landscape Architecture
- Beautification
- Aesthetics



*It starts with the PD&E*

# Aesthetics and Project Planning and Production – The Old Way...

- Project Planning – typically did not address aesthetics
- PD&E – Typically did not address aesthetics
- Geometric Design
- Drainage Design
- Utility Design
- ITS Design
- Lighting Design
- Landscape Design (see if you can find a spot to put it)



# The new paradigm...



*“Make Beautification Everyone’s Business”*

# It's The Law...

- **Federal Laws**

Federal policy established in **23 CFR 752** :

Highway ***esthetics is a most important consideration in Federal highway program...Highways must.. blend with our natural, social, and cultural environment... provide pleasure and satisfaction***

Authorization to use federal funds for landscaping and scenic enhancement along Federal-aid highways is found in **23 U.S.C. § 319 (2010)**.

***...restoration, preservation, and enhancement of scenic beauty***

# It's The Law...

- **State of Florida...**
  - **Article II, Section 7(A) of the Constitution of the State of Florida** establishes the State's policy to *“conserve and protect its natural resources and scenic beauty”*
  - **Section 336.045, F.S.,** *The department is **directed** to consider design approaches which provide for appropriate aesthetics...*
  - **Section 339.61(2), F.S., ...** The Legislature further finds that our transportation system must be designed and operated in such a way that it *preserves the abundance of natural and manmade amenities that have been so successful in attracting new residents, businesses, and tourists to this state.....*
  - The Secretary may approve as a part of the construction of Federal-aid highways the costs of landscape and roadside development, including ... improvement of strips of land necessary for the *restoration, preservation, and enhancement of scenic beauty* adjacent to such highways.

# It's The Law...

State Laws cont'd.

- In 1999, the Legislature enacted ch. 99-250, L.O.F., which amended s. 334.044(26), F.S., to *establish a minimum percentage that the FDOT must annually spend for roadside beautification.*
- In subsequent years, the amount increased to *at least 1.5 percent.*
- Modifications were made to the law again during the 2007 and 2009 Sessions.

# The Importance of Aesthetics

(Financial)

- Tourism is the chief contributor to the economy of Florida.
- Florida is the top travel destination in the world.
- Statistically, it amounts to \$57 billion in GDP.
- 60 million visitors travel to Florida every year.
- Tourism is the largest quarter of the state's economy.

• Source: Altius Directory

# The Importance of Aesthetics (Financial)

The impact per dollar of landscape investment was:

- \$1.53 in output
- \$0.92 in value added
- \$0.62 in labor income, and
- \$0.03 in state and local taxes

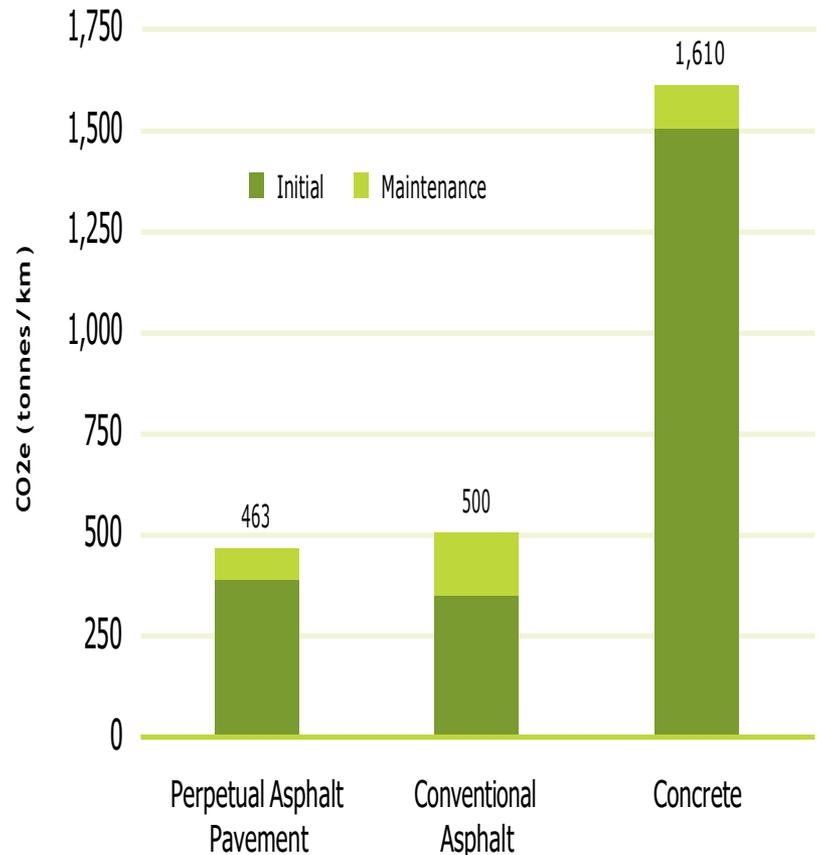
**ROI = 3.1**

Source: UF IFAS Economic Impacts of Highway Beautification in Florida <http://edis.uf.edu/>

# The Importance of Aesthetics (Quality of Life)

## Carbon Footprint of Pavements\*

Figure 2 – 50-Year Life-cycle greenhouse gas Production



\*Does not include asphaltic cement  
• Source: Asphalt Pavement Alliance

# Departmental Policy...



**Enhances economic prosperity  
and  
preserves the quality of our environment and  
communities.**

# Departmental Policy...



*Florida Department of Transportation*

RICK SCOTT  
GOVERNOR

605 Suwannee Street

ANANTH PRASAD  
SECRETARY

## Make Highway Beautification everyone's business.

this policy, Florida can have:

- The nation's most beautiful highways that attract and grow business.

Accommodate existing and proposed trees and other long lived plants by **consistently integrating landscape conservation and highway beautification into the processes that are used to plan, design, construct and maintain roadways.**

# Aesthetics are inherent in practically everything we see in our daily lives...

- Your Desk
- Your Clothes
- Your House
- Your Car



# The Absence of Aesthetics

- Soviet Era Cars
- Communist China Dress Codes
- Soviet Era Housing
- The New Jersey Turnpike
- A road near you...



# The new paradigm...



*“Make Beautification Everyone’s Business”*

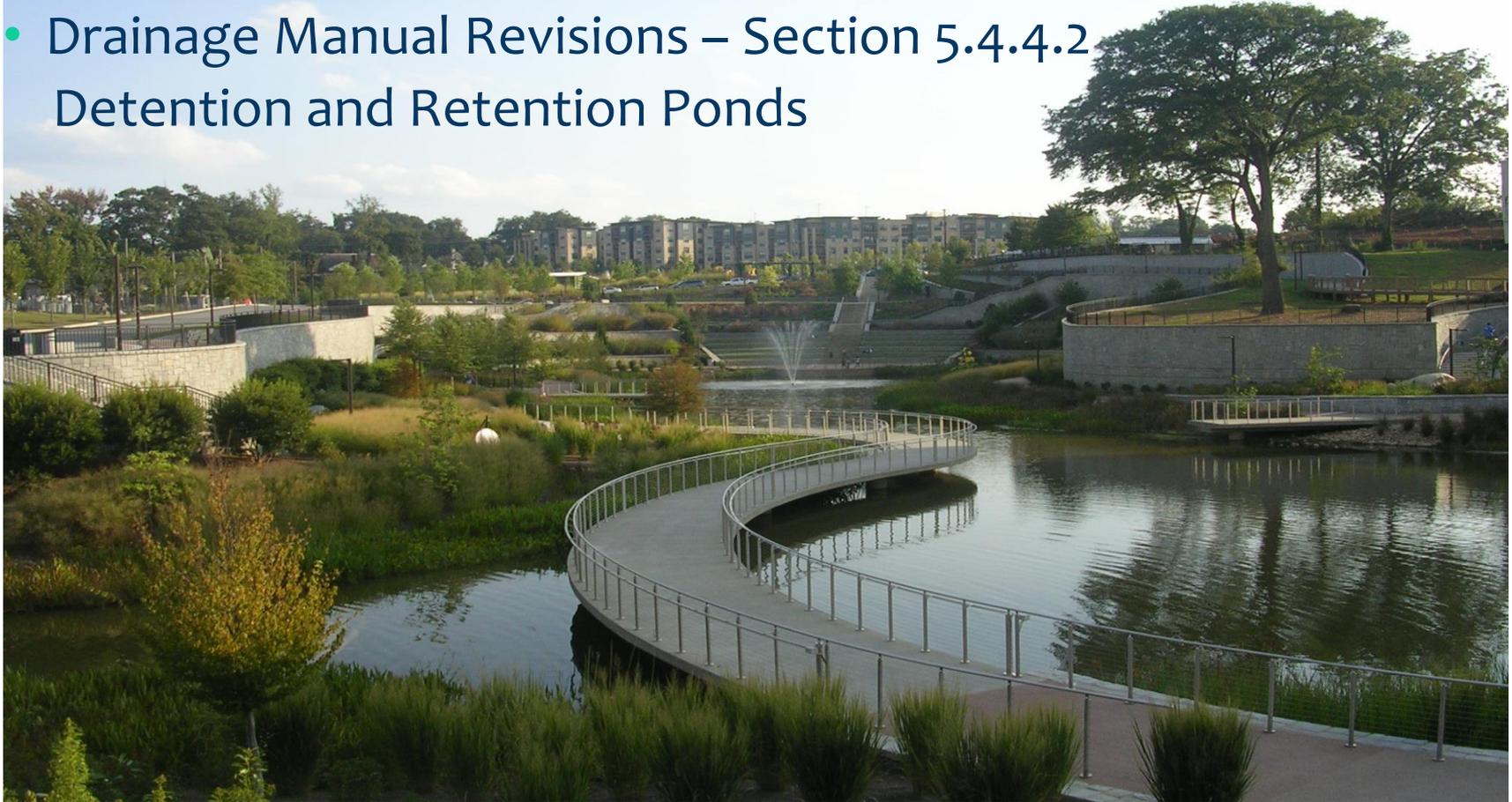
# Aesthetics and Project Planning and Production – A new Paradigm

- PPM – Changes are on the way...
- Complete Streets...

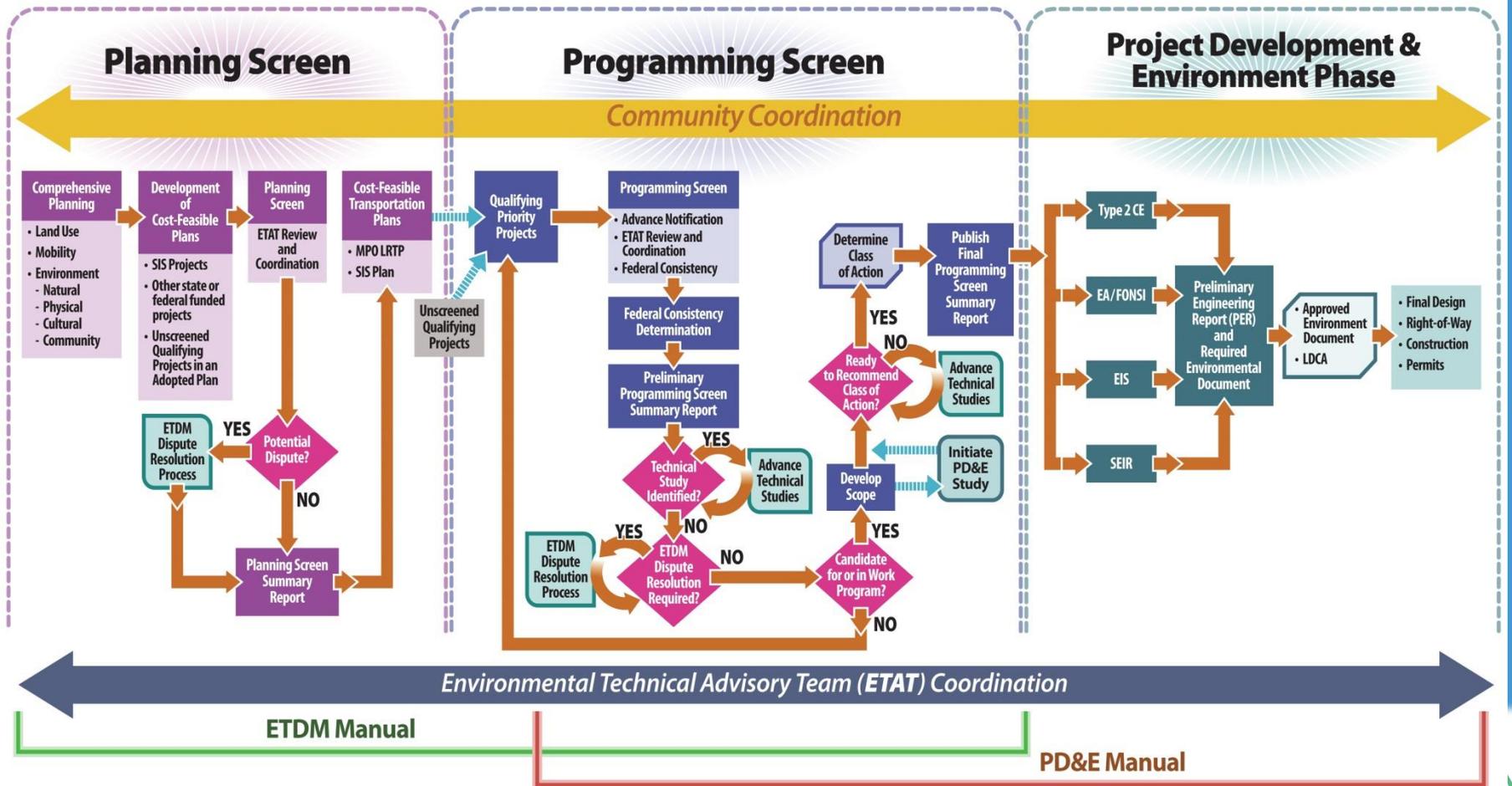


# Aesthetics and Project Planning and Production – A new Paradigm

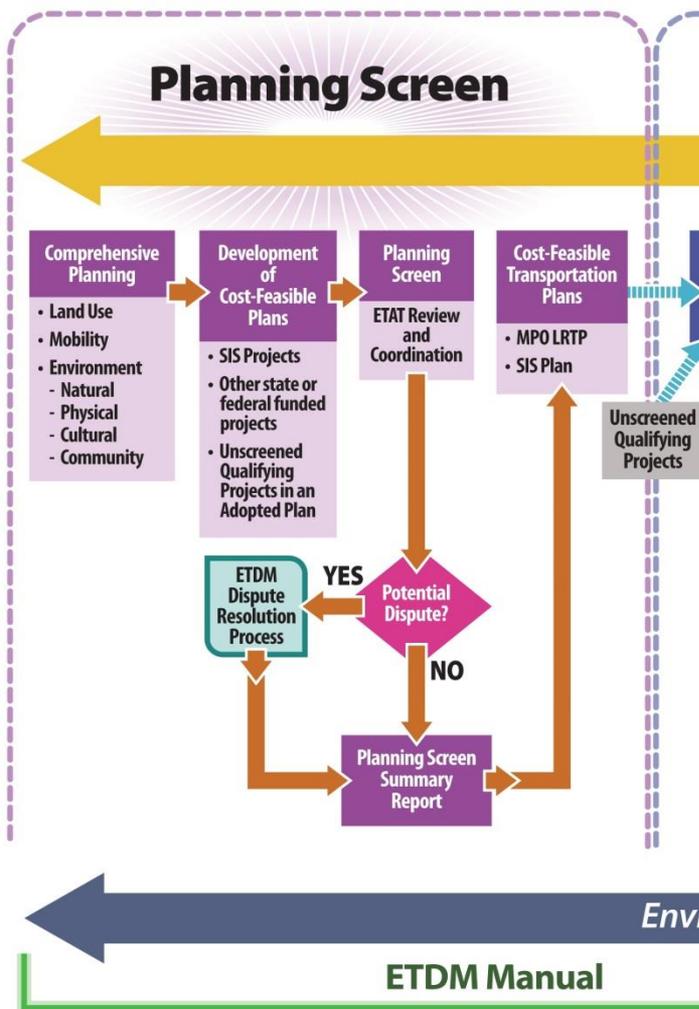
- Drainage Manual Revisions – Section 5.4.4.2  
Detention and Retention Ponds



# Aesthetics and Project Planning and Production – A new Paradigm



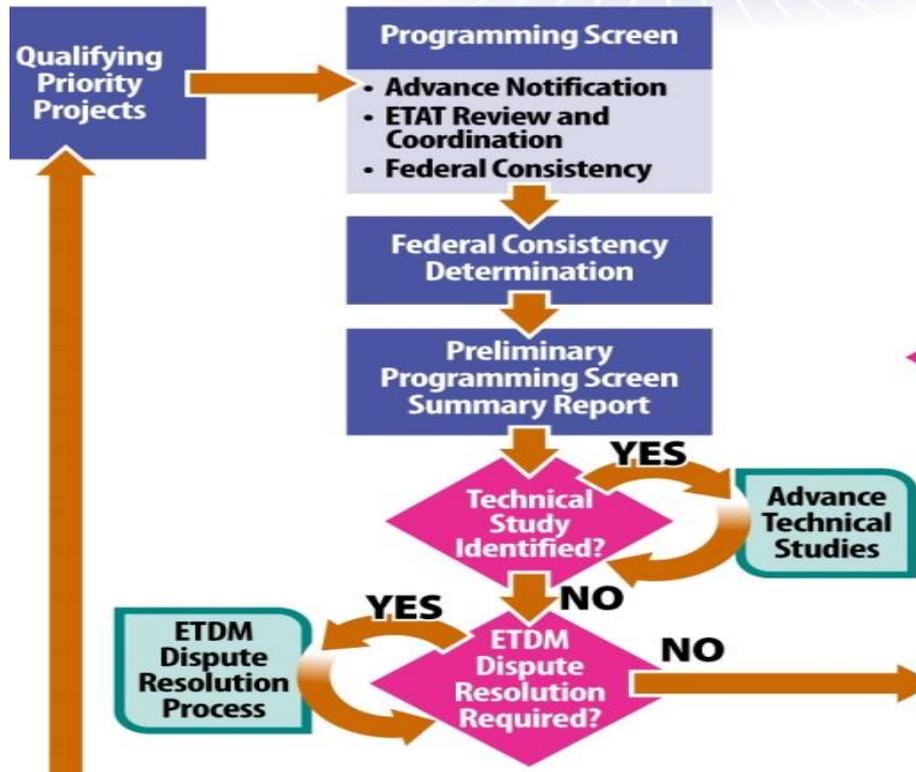
# Aesthetics and Project Planning and Production – A new Paradigm



# Aesthetics and Project Planning and Production – A new Paradigm

## Programming Sc

### ty Coordination



# Aesthetics and Project Planning and Production – A new Paradigm

- Project Planning/ETDM

Are you making project stakeholders aware of potential impacts on, or opportunities for improvements to community aesthetics?



# Aesthetics and PD&E - A new Paradigm

Topic No. 650-000-001  
Project Development and Environment Manual  
Aesthetic Effects

Effective: August 7, 2015

## PART 2, CHAPTER 15

### AESTHETIC EFFECTS

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[http://www.dot.state.fl.us/emo/pubs/pdeman/Pt2Ch15\\_080715-current.pdf](http://www.dot.state.fl.us/emo/pubs/pdeman/Pt2Ch15_080715-current.pdf)

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## PART 2, CHAPTER 15

### AESTHETIC EFFECTS

#### 15.1 OVERVIEW

##### 15.1.1 Purpose

Aesthetic effects can either be positive or negative and should be evaluated based on context

# Aesthetics and PD&E Project Scoping

- PD&E should now require Group 15

## 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.

# Aesthetics and PD&E Project Scoping

- PD&E should now require Group 15

**Contract Number :** 17801 **Major Project Selection Procedure:** Letter of Response and Oral Presentation **Financial Management Number(s):** 42337412201

**Major Work :** 2.0 - Proj. Dev. & Environ. (PD&E) Studies 3.3 - Controlled Access Highway Design

**Minor Work :** 4.1.1 - Miscellaneous Structures 4.1.2 - Minor Bridge Design 4.2.1 - Major Bridge Design - Concrete 4.2.2 - Major Bridge Design - Steel 6.3.1 - Intelligent Trans Sys. Analysis & Design 6.3.2 - Intelligent Trans Systems Implementation 6.3.3 - Intelligent Trans Traffic Eng. Communications 7.1 - Signing, Pavement Marking & Channelization 7.2 - Lighting 7.3 - Signalization 8.1 - Control Surveying 8.2 - Design, Right of Way, & Const. Surveying 8.3 - Photogrammetric Mapping 8.4 - Right of Way Mapping 9.1 - Soil Exploration 9.2 - Geotechnical Classification Lab Testing 9.4.1 - Standard Foundation Studies 14.0 - Architect 15.0 - Landscape Architect

**Under-Utilized Work Groups:** GROUP3 - Highway Design - Roadway GROUP4 - Highway Design - Bridge

# Aesthetics and PD&E

## PD&E Scope of Services

### **Economic**

The ETDM Screening has resulted in a Summary Degree of Effect of **XXXXXXXXX**. *Issues identified as needing further study include:*

- Commerce: business and/or business district access, visibility, traffic patterns, and parking issues. Input from business interests along the corridor.
- Tax Base: business impacts that affect the tax base, employment opportunities and property values.

### **Mobility**

The ETDM Screening has resulted in a Summary Degree of Effect of **XXXXXXXXX**. *Issues identified as needing further study include:*

- Accessibility: transit facilities, intermodal connectivity, transportation disadvantaged access, residential to non-residential connectivity, bicycle and pedestrian issues, public parking, park and ride facilities, walkability, emergency response and evacuation routes, and safety.

### **Aesthetics**

The ETDM Screening has resulted in a Summary Degree of Effect of **XXXXXXXXX**. *Issues identified as needing further study include:*

- Aesthetics: viewshed, project aesthetics, community character and aesthetic values, landscaping.

### **3.2 Socio-cultural Effects Evaluation Report**

The CONSULTANT will prepare a Socio-cultural Effects Report in accordance with Part 2, Chapter 15 of the PD&E Manual

### **3.3 Relocation Potential**

The ETDM Screening has resulted in a Summary Degree of Effect of **XXXXXXXXX**. *Issues identified as needing further study include:*

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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.

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**TABLE 15.1 Typical Aesthetic Effects Considerations**

<b>CHARACTER</b>	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.
<b>COMPATIBILITY</b>	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).
<b>COMMUNITY VALUES</b>	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.
<b>SENSITIVE AREAS</b>	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.
<b>VISUAL FEATURES</b>	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.

# Aesthetics and PD&E - A new Paradigm

## 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.

## 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:

# Aesthetics and PD&E - A new Paradigm

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## **Aesthetic Effects 15-4**

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.

# In Summary

- Federal and State law as well as Departmental Policy require aesthetics to be addressed.
- Our economy depends on it!
- Part 2, Chapter 15 tells you what you need to do.
- Stay-tuned for changes this year.

**Beautification is Everyone's  
Business.**

# Aesthetics and PD&E - A new Paradigm

Questions/Comments?