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11.1 General .....	<i>No Changes</i>
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**Chapter 12 – Right of Way**

12.1 General .....	<i>12-1</i>
12.2 Procedures for Establishing R/W Requirements .....	<i>No Changes</i>
12.2.1 Open Cut and Fill Roadway Sections .....	<i>No Changes</i>
12.2.2 Curb and Gutter Roadway Section .....	<i>No Changes</i>
12.2.3 Access Management .....	<i>12-1</i>
12.2.4 Procedures for Decision Making .....	<i>No Changes</i>
12.2.5 Transmittal of R/W Requirements .....	<i>No Changes</i>
12.3 Process for Establishing Right of Way Requirements .....	<i>No Changes</i>
12.3.1 New or Major Reconstruction Projects .....	<i>No Changes</i>
12.3.2 Reconstruction Projects With Anticipated R/W Requirements .....	<i>No Changes</i>
12.3.3 Projects Without an Identified R/W Phase .....	<i>No Changes</i>
12.4 Property Owner Contacts .....	<i>12-1</i>
12.5 Construction Issues .....	<i>12-2</i>



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12.3.3 R/W Requirements Generalized Process Flow Diagram .....	<i>No Changes</i>
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**Chapter 13 – Initial Engineering Design Process**

13.1 General .....	<i>No Changes</i>
13.2 Initial Engineering Design (Phase I) .....	<i>13-1</i>
13.3 Scope, Objectives, Schedule and Budget .....	<i>No Changes</i>
13.4 Project Design Controls and Standards .....	<i>No Changes</i>
13.5 Support Services .....	<i>No Changes</i>
13.5.1 Aviation Office Coordination .....	<i>No Changes</i>
13.5.2 Projects Involving Bridges With Lead Based Paint .....	<i>No Changes</i>
13.6 Preliminary Geometry, Grades, and Cross Sections .....	<i>No Changes</i>

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13.5.1 Construction of Airspace Obstructions – Notification .....	<i>No Changes</i>
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**Exhibits**

13-A Major Activities – Initial Engineering Process .....	<i>No Changes</i>
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**Chapter 14 – Final Engineering Design Process**

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14.2 Final Engineering Design .....	<i>No Changes</i>
14.3 Contract Plans Preparation .....	<i>No Changes</i>
14.4 Specifications and Special Provisions .....	<i>14-1</i>
14.5 Pay Items and Summaries of Quantities .....	<i>14-1</i>
14.6 Assemble Contract Plans Package .....	<i>14-1</i>

**Exhibits**

14-A Major Activities – Final Engineering Design Process .....	14-2
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**Chapter 15 – Update Engineering Design Process**

15.1 General .....	No Changes
15.2 Design Update Review and Decision Process .....	No Changes
15.3 Updating Engineering Design and Documents .....	No Changes
15.4 Revised Contract Plans Package .....	No Changes

**Exhibits**

15-A Major Activities - Update Engineering Design Process .....	No Changes
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**Chapter 16 – Design Submittals**

16.1 General .....	No Changes
16.2 Design Documentation Submittals .....	No Changes
16.2.1 Field Survey Data .....	No Changes
16.2.2 Project Traffic .....	No Changes
16.2.3 Typical Section Package .....	16-1
16.2.4 Preliminary Drainage Design .....	16-2
16.2.5 Preliminary Geometry and Grades .....	16-2
16.2.5.1 Turnpike Preliminary Line and Grade Submittal .....	16-2
16.2.6 Preliminary Traffic Control Plan .....	16-3
16.2.7 Pavement Selection and Design .....	16-3
16.2.7.1 Turnpike Pavement Design Submittals .....	16-3
16.2.8 Preliminary Utilities .....	No Changes

16.3	Structures Submittals .....	<i>No Changes</i>
16.3.1	Coordination of Structural Design – (Bridges and Retaining Walls) .....	<i>No Changes</i>
16.3.2	Bridges .....	<i>No Changes</i>
16.3.3	Other Structural Submittals and Reviews .....	<i>No Changes</i>
16.4	Plans Phase Reviews .....	<i>No Changes</i>
16.4.1	Phase III Submittals .....	<i>16-3</i>
16.4.2	Phase IV Submittals .....	<i>16-3</i>
16.4.3	Final Submittal .....	<i>16-4</i>
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16.4.3.3	Architectural Plans .....	<i>16-4</i>

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16-A	List of Requests and Contacts .....	<i>16-5</i>
16-B	Typical Section Package .....	<i>16-6</i>

## **Chapter 17 – Engineering Design Estimate Process**

17.1	General .....	<i>No Changes</i>
17.2	Pay Item List .....	<i>No Changes</i>
17.3	Designer Interface for TRNS*PORT .....	<i>No Changes</i>
17.4	Estimated Quantities .....	<i>No Changes</i>
17.4.1	Computation Book and Summary of Quantities .....	<i>17-1</i>
17.4.1.1	Plan Quantity .....	<i>No Changes</i>
17.4.1.2	Final Measurement Concept .....	<i>No Changes</i>
17.4.2	Breakdown of Quantities .....	<i>No Changes</i>

17.4.3	Utility Contract Plans (Joint Project Agreements) .....	<i>No Changes</i>
17.4.4	Plan Notes .....	<i>No Changes</i>
17.5	Specifications (Method of Measurement) .....	<i>No Changes</i>
17.6	Pay Items .....	<i>No Changes</i>
17.7	Contract Time .....	<i>No Changes</i>
17.8	Alternative Contracting Practices .....	<i>17-1</i>

## **Exhibits**

17-A	Major Activities - Engineering Design Estimate Process .....	<i>No Changes</i>
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## **Chapter 18 – Quality Assurance & Quality Control**

18.1	General .....	<i>No Changes</i>
18.2	Quality Assurance .....	<i>No Changes</i>
18.2.1	Authority .....	<i>No Changes</i>
18.2.2	Accountability .....	<i>No Changes</i>
18.2.3	Critical Areas to be Monitored .....	<i>No Changes</i>
18.2.4	Documentation .....	<i>No Changes</i>
18.2.5	Training .....	<i>No Changes</i>
18.3	Quality Control .....	<i>No Changes</i>
18.3.1	Authority .....	<i>No Changes</i>
18.3.2	Accountability .....	<i>No Changes</i>
18.3.3	Critical Areas to be Monitored .....	<i>No Changes</i>
18.3.4	Documentation .....	<i>No Changes</i>
18.3.5	Training .....	<i>No Changes</i>
18.4	Turnpike Quality Control and Assurance Process .....	<i>18-1</i>
18.4.1	Quality Goals and General Requirements .....	<i>18-1</i>

18.4.2	Quality Control Procedure Requirement .....	18-3
18.4.2.1	Completion Checklists Requirements .....	18-3
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18-A	Project Staffing List .....	18-6
18-B	Quality Process Log .....	18-11
18-C	Certificate of Compliance .....	18-12

## **Chapter 19 – Sealing Design Documents**

19.1	General .....	<i>No Changes</i>
19.2	Sealing of Contract Plans/Record Set .....	<i>No Changes</i>
19.2.1	Manual Sealing .....	<i>No Changes</i>
19.2.2	Electronic Sealing .....	<i>No Changes</i>
19.3	Sealing Other Engineering Documents .....	<i>No Changes</i>
19.4	Sealing of Revisions .....	<i>No Changes</i>
19.4.1	Plans .....	<i>No Changes</i>
19.4.2	Other Engineering Documents .....	<i>No Changes</i>
19.5	Support Documents .....	<i>No Changes</i>
19.5.1	18 KIP Equivalent Single Axle Loads (ESAL) .....	<i>No Changes</i>
19.5.2	Project Traffic .....	<i>No Changes</i>

## **Chapter 20 – Plans Processing and Revisions**

20.1	General .....	<i>No Changes</i>
20.2	Glossary .....	<i>No Changes</i>
20.3	Plans Processing .....	<i>No Changes</i>
20.3.1	District Activities .....	<i>No Changes</i>
20.3.2	Submittal to Tallahassee .....	<i>20-1</i>
20.4	Revisions to the Contract Plans Package .....	<i>No Changes</i>
20.5	Resubmittal of Withdrawn Project .....	<i>No Changes</i>

### **Figures**

20.1	District Revisions .....	<i>No Changes</i>
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### **Exhibits**

20-A	Transmittal of Contract Plans Set .....	<i>No Changes</i>
20-B	Contract File Index .....	<i>No Changes</i>
20-C	Revision Memo .....	<i>No Changes</i>
20-E	Plans, Specifications and Computation Book .....	<i>No Changes</i>
20-F	Project Certification to Federal Standards .....	<i>No Changes</i>
20-G	Preliminary Engineering Certification .....	<i>No Changes</i>
20-H	Request for Control Group Change .....	<i>No Changes</i>
20-I	Change Memo .....	<i>No Changes</i>

## **Chapter 21 – Transportation Design for Livable Communities**

21.1	General .....	<i>No Changes</i>
21.2	Planning .....	<i>No Changes</i>
21.3	Application .....	<i>No Changes</i>

21.4	Techniques .....	<i>No Changes</i>
21.5	Design Criteria .....	<i>No Changes</i>
21.5.1	Design Speed .....	<i>No Changes</i>
21.5.2	Number of Lanes .....	<i>No Changes</i>
21.5.3	Lane Widths .....	<i>No Changes</i>
21.5.4	Horizontal Alignment .....	<i>No Changes</i>
21.5.5	Medians .....	<i>No Changes</i>
21.5.6	Horizontal Clearance and Clear Zones .....	<i>No Changes</i>
21.5.7	Intersections .....	<i>No Changes</i>
21.5.8	Lighting .....	<i>No Changes</i>
21.5.9	Traffic Control .....	<i>No Changes</i>
21.5.10	Landscaping .....	<i>No Changes</i>
21.5.11	Parking .....	<i>No Changes</i>
21.5.12	Alternative Roadway Paving Materials .....	<i>No Changes</i>
21.5.13	Conversion to One-Way Pairs .....	<i>No Changes</i>
21.6	Pedestrian and Bicycle Considerations .....	<i>No Changes</i>
21.6.1	Sidewalks .....	<i>No Changes</i>
21.6.2	Crosswalks .....	<i>No Changes</i>
21.6.3	Curb Extensions (Bulb-Outs) .....	<i>No Changes</i>
21.6.4	Personal Security and Safety Amenities .....	<i>No Changes</i>
21.6.5	Bicycle Facilities .....	<i>No Changes</i>
21.7	Transit-Systems and Amenities .....	<i>No Changes</i>

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21.1	Lane Widths .....	<i>No Changes</i>
21.2	Horizontal Clearance to Utility Installations .....	<i>No Changes</i>

21.3	Horizontal Clearance to Trees .....	<i>No Changes</i>
21.4	Horizontal Clearance to Other Roadside Obstacles .....	<i>No Changes</i>
21.5	TDLC Clear Zone .....	<i>No Changes</i>

## **Figures**

21.1	Curb Extension .....	<i>No Changes</i>
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## **Exhibits**

21-A	General Techniques .....	<i>No Changes</i>
21-B	Techniques To Reduce Speed Or Traffic Volume .....	<i>No Changes</i>
21-C	Techniques To Support Shifts Between Modes .....	<i>No Changes</i>
21-D	Area-Wide Techniques .....	<i>No Changes</i>

## **Chapter 22 – Lump Sum Project Guidelines**

22.1	General .....	<i>No Changes</i>
22.2	Project Selection .....	<i>No Changes</i>
22.3	Plans Preparation .....	<i>No Changes</i>
22.4	Preliminary Estimate .....	<i>No Changes</i>
22.5	Specifications .....	<i>No Changes</i>
22.6	Contracts Administration .....	<i>No Changes</i>
22.7	Construction Contract Administration .....	<i>No Changes</i>
22.8	Materials Sampling and Testing .....	<i>No Changes</i>

## **Exhibits**

22-A	Items of Work .....	<i>No Changes</i>
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## Chapter 23 – Design Exceptions and Design Variations

23.1	General .....	<i>No Changes</i>
23.2	Design Exceptions .....	<i>No Changes</i>
23.2.1	Coordination and Conceptual Concurrence .....	<i>No Changes</i>
23.2.2	Justification and Documentation .....	<i>No Changes</i>
23.2.3	Approval and Concurrence .....	<i>23-1</i>
23.2.3.1	Turnpike Design Exceptions .....	<i>23-1</i>
23.2.3.2	Turnpike Design Variations .....	<i>No Changes</i>
23.2.4	Sealing .....	<i>No Changes</i>
23.2.5	Concurrence Review .....	<i>No Changes</i>
23.2.6	Copies and Distribution .....	<i>No Changes</i>
23.3	Design Variations .....	<i>No Changes</i>
23.4	AASHTO Criteria for Critical Design Elements .....	<i>No Changes</i>

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Criteria Tables Cross Reference .....	<i>No Changes</i>
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23-A	Sample Request Letter for Design Exception .....	<i>No Changes</i>
23-B	Sample Request Letter for Design Variation .....	<i>No Changes</i>
23-C	Design Exceptions Variations and Utility Exceptions Process ...	<i>No Changes</i>

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24.1	General .....	<i>No Changes</i>
24.2	Exemption Coverage .....	<i>No Changes</i>
24.2.1	Exclusions .....	<i>No Changes</i>

24.3	Certification Responsibilities .....	<i>No Changes</i>
24.4	Certification Documentation and Reviews .....	<i>No Changes</i>
24.5	Certification Statement .....	<i>No Changes</i>

## **Exhibits**

24-A	Approval and Concurrence Process .....	<i>No Changes</i>
24-B	Design Plans Phase Review .....	<i>No Changes</i>
24-C	Special Provisions .....	<i>No Changes</i>

## **Chapter 25 – Florida’s Design Criteria For Resurfacing, Restoration and Rehabilitation (RRR) of Streets and Highways**

25.1	Introduction .....	<i>No Changes</i>
25.1.1	General .....	<i>No Changes</i>
25.1.2	Application .....	<i>No Changes</i>
25.2	Planning and Programming RRR Projects .....	<i>No Changes</i>
25.2.1	Projects Requiring Right of Way .....	<i>No Changes</i>
25.2.2	Projects With Bridges Within Project Limits .....	<i>No Changes</i>
25.2.3	Project Features Requiring Exceptions and Variations ...	<i>No Changes</i>
25.3	RRR Project Design Process .....	<i>No Changes</i>
25.3.1	Review of Project Purpose .....	<i>No Changes</i>
25.3.1.1	Principal Reason(s) for the RRR Project .....	<i>No Changes</i>
25.3.1.2	General Nature of Proposed Improvements (Type of Work).....	<i>No Changes</i>
25.3.1.3	Review Project Budget and Priority .....	<i>No Changes</i>
25.3.2	Assessment of Conditions .....	<i>No Changes</i>
25.3.2.1	Office Reviews .....	<i>No Changes</i>

25.3.2.2	Field Reviews .....	<i>No Changes</i>
25.3.3	Project Scopes .....	<i>No Changes</i>
25.3.4	Survey Guidelines for RRR Projects .....	<i>No Changes</i>
25.3.4.1	Types of Work for RRR Projects .....	<i>No Changes</i>
25.3.4.2	Definition of Levels of Survey Effort .....	<i>No Changes</i>
25.3.5	Review Project Plans .....	<i>No Changes</i>
25.3.6	Document the Design Process .....	<i>No Changes</i>
25.4	RRR Design Criteria .....	<i>No Changes</i>
25.4.1	Design Period .....	<i>No Changes</i>
25.4.2	Project Traffic Volume .....	<i>No Changes</i>
25.4.3	Pavement Design .....	<i>No Changes</i>
25.4.4	Design Speed .....	<i>No Changes</i>
25.4.5	Lane and Shoulder Widths .....	<i>No Changes</i>
25.4.6	Roadway Cross Slopes .....	<i>No Changes</i>
25.4.7	Superelevation .....	<i>No Changes</i>
25.4.8	Shoulder Treatment .....	<i>No Changes</i>
25.4.9	Side Slopes .....	<i>No Changes</i>
25.4.10	Vertical Alignment .....	<i>No Changes</i>
25.4.10.1	Vertical Curvature .....	<i>No Changes</i>
25.4.10.2	Grades .....	<i>No Changes</i>
25.4.11	Horizontal Alignment .....	<i>No Changes</i>
25.4.11.1	Horizontal Curves .....	<i>No Changes</i>
25.4.12	Stopping Sight Distance .....	<i>No Changes</i>
25.4.13	Vertical Clearance .....	<i>No Changes</i>
25.4.14	Horizontal Clearance .....	<i>No Changes</i>
25.4.15	Control Zones .....	<i>No Changes</i>

25.4.16	Border .....	<i>No Changes</i>
25.4.17	Intersections .....	<i>No Changes</i>
25.4.18	Drainage .....	<i>No Changes</i>
25.4.19	Pedestrian, Bicyclist and Transit Needs .....	<i>No Changes</i>
25.4.20	Utilities (Underground and Overhead) .....	<i>No Changes</i>
25.4.21	At-grade Railroad Crossings .....	<i>No Changes</i>
25.4.22	Aesthetics and Landscaping .....	<i>No Changes</i>
25.4.23	Highway Lighting .....	<i>No Changes</i>
25.4.24	Highway Traffic Control Devices .....	<i>No Changes</i>
25.4.25	Bridges .....	<i>No Changes</i>
25.4.25.1	Bridge Loading .....	<i>No Changes</i>
25.4.25.2	Bridge Width .....	<i>No Changes</i>
25.4.25.3	Bridge Railing .....	<i>No Changes</i>
25.4.25.4	Vertical Clearance .....	<i>No Changes</i>
25.4.25.5	Considerations .....	<i>No Changes</i>
25.4.26	Roadside Safety Hardware .....	<i>No Changes</i>
25.4.26.1	Longitudinal Barriers, Guardrails, Median Barriers .....	<i>No Changes</i>
25.4.26.2	Guardrail to Bridge Rail Transitions .....	<i>No Changes</i>
25.4.26.3	Guardrail Terminals .....	<i>No Changes</i>
25.4.26.4	Crash Cushions and Attenuators .....	<i>No Changes</i>
25.5	Design Exceptions and Variations .....	<i>No Changes</i>

## Tables

25.4.5.1	Lane and Shoulder Widths - Rural Multilane .....	<i>No Changes</i>
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25.4.5.2	Lane and Shoulder Widths Two-Lane Rural and Urban, Without Curb and Gutter .....	<i>No Changes</i>
25.4.5.3	Lane Widths Urban Multilane or Two-Lane With Curb and Gutter .....	<i>No Changes</i>
25.4.5.4	Lane and Shoulder Widths Urban Multilane Without Curb and Gutter .....	<i>No Changes</i>
25.4.6	Roadway Cross Slopes .....	<i>No Changes</i>
25.4.10.1	K Values for Vertical Curvature .....	<i>No Changes</i>
25.4.11.1	Safe Criteria for State Highway System With Maximum Superelevation .....	<i>No Changes</i>
25.4.12	Stopping Sight Distance .....	<i>No Changes</i>
25.4.14.1	Clear Zone Width (feet) .....	<i>No Changes</i>
25.4.14.2	Horizontal Clearance for Traffic Control Signs .....	<i>No Changes</i>
25.4.14.3	Horizontal Clearance for Light Poles .....	<i>No Changes</i>
25.4.14.4	Horizontal Clearance for Utility Installations .....	<i>No Changes</i>
25.4.14.5	Horizontal Clearance to Signal Poles and Controller Cabinets for Signals .....	<i>No Changes</i>
25.4.14.6	Horizontal Clearance to Trees .....	<i>No Changes</i>
25.4.14.7	Horizontal Clearance to Bridge Piers and Abutments .....	<i>No Changes</i>
25.4.14.8	Horizontal Clearance to Railroad Grade Crossing Traffic Control Devices .....	<i>No Changes</i>
25.4.14.9	Horizontal Clearance to Other Roadside Obstacles .....	<i>No Changes</i>
25.4.25.1	Bridge Loading .....	<i>No Changes</i>
25.4.25.2	Clear Width Criteria for Bridges .....	<i>No Changes</i>

**Exhibits**

25-A Control Zones .....	<i>No Changes</i>
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**Chapter 26 – Bridge Project Development**

26.1 General .....	<i>No Changes</i>
26.2 Organization .....	<i>No Changes</i>
26.3 Definitions .....	<i>No Changes</i>
26.3.1 Category 1 Structures .....	<i>No Changes</i>
26.3.2 Category 2 Structures .....	<i>No Changes</i>
26.4 Abbreviations Used in Structures Design .....	<i>No Changes</i>
26.5 Responsibility .....	<i>No Changes</i>
26.6 FHWA Oversight .....	<i>No Changes</i>
26.7 Bridge Project Development .....	<i>No Changes</i>
26.8 Bridge Analysis.....	<i>No Changes</i>
26.8.1 General .....	<i>No Changes</i>
26.8.2 Contents .....	<i>No Changes</i>
26.9 Bridge Development Report (BDR)/30% Structures Plans .....	<i>No Changes</i>
26.9.1 General .....	<i>No Changes</i>
26.9.2 Contents .....	<i>No Changes</i>
26.9.3 Format .....	<i>No Changes</i>
26.9.4 Aesthetics .....	<i>No Changes</i>
26.9.5 Construction and Maintenance Considerations .....	<i>No Changes</i>
26.9.6 Historical Significance Considerations .....	<i>No Changes</i>
26.9.7 Alternative Designs .....	<i>No Changes</i>
26.9.8 Conclusions and Recommendations .....	<i>No Changes</i>
26.9.9 30% Structures Plans .....	<i>No Changes</i>

26.10	Bridge Development Report (BDR) Submittal Checklist .....	<i>No Changes</i>
26.10.1	Typical Sections for Roadway and Bridge .....	<i>No Changes</i>
26.10.2	Roadway Plans .....	<i>No Changes</i>
26.10.3	Maintenance of Traffic Requirements .....	<i>No Changes</i>
26.10.4	Bridge Hydraulics Report and Bridge Hydraulics Recommendation Sheet .....	<i>26-1</i>
26.10.5	Geotechnical Report .....	<i>No Changes</i>
26.10.6	Bridge Corrosion Environment Report .....	<i>No Changes</i>
26.10.7	Existing Bridge Plans .....	<i>No Changes</i>
26.10.8	Existing Bridge Inspection Report .....	<i>No Changes</i>
26.10.9	Utility Requirements .....	<i>No Changes</i>
26.10.10	Railroad Requirements .....	<i>No Changes</i>
26.10.11	Retaining Wall and Bulkhead Requirement .....	<i>No Changes</i>
26.10.12	Lighting Requirements .....	<i>No Changes</i>
26.10.13	Handicap Access Requirements .....	<i>No Changes</i>
26.11	Final Plans and Specifications Preparation .....	<i>No Changes</i>
26.11.1	General .....	<i>No Changes</i>
26.11.2	60% Substructure Submittal / 60% Structures Plans ....	<i>No Changes</i>
26.11.3	90% Structures Plans .....	<i>No Changes</i>
26.11.4	100% Structures Plans and Specifications .....	<i>No Changes</i>
26.12	Plans Assembly .....	<i>No Changes</i>
26.13	Plans Submittal .....	<i>No Changes</i>
26.13.1	Schedule .....	<i>No Changes</i>
26.13.2	Submittal Schedule .....	<i>No Changes</i>
26.14	Review for Constructability and Maintainability .....	<i>No Changes</i>
26.14.1	Purpose .....	<i>No Changes</i>

26.14.2 Responsibility .....	<i>No Changes</i>
26.15 Review for Biddability .....	<i>No Changes</i>
26.15.1 Purpose .....	<i>No Changes</i>
26.15.2 Responsibility .....	<i>No Changes</i>
26.16 Bridge Load Rating .....	<i>26-1</i>
26.17 Review of Non-FDOT Funded Projects (New Construction) ...	<i>No Changes</i>

### **Exhibits**

26-A Bridge Development Report (BDR) Submittal Checklist .....	<i>No Changes</i>
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## **Chapter 27 – Hydraulic Data and U.S. Coast Guard Permits**

27.1 Bridge Hydraulic Report (BHR) .....	<i>No Changes</i>
27.2 Bridge Hydraulic Recommendation Sheet (BHRS) .....	<i>No Changes</i>
27.3 U.S. Coast Guard Permit .....	<i>No Changes</i>
27.4 Scour Considerations .....	<i>No Changes</i>
27.4.1 Development of Scour Design Criteria .....	<i>No Changes</i>
27.4.2 Submittal Requirements for Scour Design .....	<i>No Changes</i>
27.5 Debris Accumulation .....	<i>No Changes</i>
27.6 Widenings .....	<i>No Changes</i>
27.7 Scour Elevations .....	<i>No Changes</i>

### **Exhibits**

27-A Structural Plans Development .....	<i>No Changes</i>
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## **Chapter 28 – Shop and Erection Drawings**

28.1 Introduction .....	<i>28-1</i>
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28.2	Drawing Submittals Required .....	28-1
28.3	Contractor Information Required .....	28-1
28.4	Submittals Requiring a Specialty Engineer .....	28-1
28.5	Scheduling of Submittals .....	28-1
28.6	Transmittal of Submittals .....	28-2
28.6.1	General Submittal Requirements .....	28-2
28.6.2	Requirements for Department EOR .....	<i>No Changes</i>
28.6.3	Requirements for Consultant EOR (Full Services) .....	<i>No Changes</i>
28.6.3.1	Review by Engineer of Record only .....	<i>No Changes</i>
28.6.3.2	Review by Engineer of Record and the Department .....	<i>No Changes</i>
28.6.4	Requirements for Consultant EOR (Design Services Only) .....	<i>No Changes</i>
28.6.5	Requirements for Architectural or Building Structures ...	<i>No Changes</i>
28.6.6	Requirements for Roadway Submittal Items .....	<i>No Changes</i>
28.6.7	Requirements for Overhead Sign Structures and Nonstandard Miscellaneous Structures .....	<i>No Changes</i>
28.6.8	Miscellaneous Requirements and Assistance .....	<i>No Changes</i>
28.7	Disposition of Submittals .....	<i>No Changes</i>
28.7.1	Minor Modifications .....	<i>No Changes</i>
28.7.2	Major Modifications .....	<i>No Changes</i>
28.8	Segmental Bridges - Shop Drawing Checklist .....	<i>No Changes</i>
28.8.1	Construction Methods and Sequence (Overall Scheme) ..	<i>No Changes</i>
28.8.2	Casting Curves and Geometry Control .....	<i>No Changes</i>
28.8.3	Post-Tensioning System and Computation .....	<i>No Changes</i>
28.8.4	Segment Shop Drawings .....	<i>No Changes</i>

28.8.5 Erection Equipment .....	<i>No Changes</i>
28.9 Distribution of Submittals .....	<i>No Changes</i>
28.10 Review of Prequalified Joint Welding Procedures .....	<i>No Changes</i>
28.11 Submittal Activity Record (Logbook) .....	28-3
28.11.1 Shop Drawing Website .....	28-3
28.11.2 RFI Log Website .....	28-4
28.12 Archiving Record Shop Drawings .....	<i>No Changes</i>

## **Tables**

28.1 FDOT Changes to Minor Modifications .....	<i>No Changes</i>
28.2 FDOT Changes to Major Modifications .....	<i>No Changes</i>
28.3 Shop Drawing Distribution Schedule .....	<i>No Changes</i>

## **Figures**

28.1 Record Shop Drawing Transmittal .....	<i>No Changes</i>
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## **Exhibits**

28-A Shop Drawing Flow Diagram for Review by Consultant EOR Only (Structural Items) .....	<i>No Changes</i>
28-B Shop Drawing Flow Diagram for EOR & DOT Review (Structural Items) .....	<i>No Changes</i>
28-C Shop Drawing Flow Diagram for Review by DOT Only (Structural Items) .....	<i>No Changes</i>
28.6-A Turnpike Enterprise Shop Drawing Review Office; Routing Chart for Shop Drawing Review Process .....	28-5

28.6-B	Turnpike Enterprise Shop Drawing Review Office; Overview Distribution Chart .....	28.6
28.6-C	Turnpike Enterprise Shop Drawing Review Office; Shop Drawing Submittal Checklist .....	28-7
28.6-D	Turnpike Enterprise Shop Drawing Review Office; Contact Information .....	28-8

## **Chapter 29 – Miscellaneous Highway Related Structures**

29.1	Design of Overhead Sign Structures and Foundations .....	29-1
29.1.1	Overhead Signs in Urban Locations .....	<i>No Changes</i>
29.1.2	Overhead Signs in Rural Locations .....	29-1
29.1.3	Overhead Signs on Bridge Structures .....	<i>No Changes</i>
29.2	Design of High Mast Light Poles and Foundations .....	<i>No Changes</i>
29.3	Design of Mast Arm Assemblies and Foundations .....	<i>No Changes</i>
29.3.1	General Requirements .....	<i>No Changes</i>
29.3.2	Standard Mast Arm Assemblies .....	<i>No Changes</i>
29.3.3	Standard Mast Arm Assemblies for Site Specific Loadings .....	<i>No Changes</i>
29.3.4	Special Mast Arm Assemblies .....	<i>No Changes</i>
29.3.5	Anchor Bolt Installation on Existing Foundations .....	<i>No Changes</i>
29.3.6	Design of Monotube Signal Structures and Foundations.....	<i>No Changes</i>
29.4	Structural Design of Aluminum Light Poles .....	<i>No Changes</i>
29.4.1	General Requirements .....	<i>No Changes</i>
29.4.2	Standard Aluminum Light Poles and Foundations .....	<i>No Changes</i>
29.4.3	Special Aluminum Light Poles and Foundations .....	<i>No Changes</i>

29.5	Design of Strain Poles and Span Wire Assembly .....	<i>No Changes</i>
29.6	Design of Sound Barrier Walls .....	<i>No Changes</i>
29.6.1	Geotechnical Investigation .....	<i>No Changes</i>
29.6.2	Preparation of Control Drawings .....	<i>No Changes</i>
29.6.3	Detail Drawings .....	<i>No Changes</i>

## Tables

29.1	Design Wind Speeds (mph) .....	<i>No Changes</i>
29.2	Design Wind Speeds for Mast Arms .....	<i>No Changes</i>

## Figures

29.1	(Showing Actual Signs) .....	<i>No Changes</i>
29.2	(Showing Signs for Design Purposes) .....	<i>No Changes</i>

## Exhibits

29-A	Flowchart for Designing and Detailing Mast Arm Assemblies ..	<i>No Changes</i>
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## Chapter 30 – Retaining Walls

30.1	Purpose .....	<i>No Changes</i>
30.2	Conventional (CIP) Retaining Walls and Proprietary Retaining Walls (Permanent Walls) .....	<i>No Changes</i>
30.2.1	Retaining Walls (Conventional Design).....	<i>No Changes</i>
30.2.2	Retaining Walls (Proprietary Design) (Design Required in Contract Plans) .....	<i>No Changes</i>
30.2.3	Retaining Walls (Proprietary Design) (Design not Required in Contract Plans - Control Plans only) .....	<i>No Changes</i>

30.2.4	Wall System Selection .....	<i>No Changes</i>
30.3	Critical Temporary Walls .....	<i>No Changes</i>
30.4	Experimental Wall Projects .....	<i>No Changes</i>
30.5	Shop Drawing Review .....	<i>No Changes</i>
30.6	Bidding Procedure .....	<i>No Changes</i>

## **Figures**

30.1	Proprietary Retaining Walls .....	<i>No Changes</i>
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## **Exhibits**

30-A	Sample Invitation Letter .....	<i>No Changes</i>
30-B	Sample Letter .....	<i>No Changes</i>
30-C	Procedure for Wall System Selection .....	<i>No Changes</i>

## **Chapter 31 – Geosynthetic Design**

31.1	Purpose .....	<i>No Changes</i>
31.2	Contract Plans Content .....	<i>No Changes</i>
31.3	Bid Procedure .....	<i>No Changes</i>
31.4	Shop Drawings / Redesigns .....	<i>No Changes</i>
31.5	Geosynthetic Reinforcement Design Methodology .....	<i>No Changes</i>
31.5.1	Design Considerations .....	<i>No Changes</i>
31.5.2	Requirements .....	<i>31-1</i>
31.5.3	Design Guidelines .....	<i>No Changes</i>

## **Exhibits**

31-A	Geosynthetic Reinforced Soil Slopes .....	<i>No Changes</i>
31-B	Geosynthetic Reinforced Foundations Over Soft Soils .....	<i>No Changes</i>