



## Florida Department of Transportation

CHARLIE CRIST  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS  
SECRETARY

### Mail Station 32

#### ROADWAY DESIGN BULLETIN 09-02

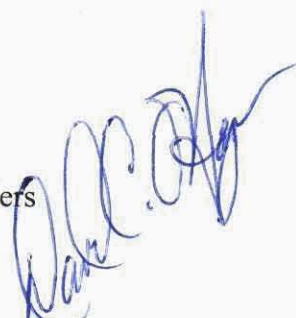
**DATE:** January 13, 2009

**TO:** District Design Engineers, Plans Preparation Manual Holders

**FROM:** David C. O'Hagan, PE, State Roadway Design Engineer

**COPIES:** Lora Hollingsworth, David Sadler, Tim Lattner, Robert Robertson,  
Duane Brautigam, Mark Wilson, Chris Richter, FHWA

**SUBJECT:** Design Standards Modifications July 1, 2009



The Design Standards Modifications to the 2008 Design Standards booklet, Effective Date July 1, 2009, have been posted on the Roadway Design Office web site.

The Design Standards Modifications includes a listing of all Interim Design Standards issued since publication of the applicable booklet, plus all changes and corrections to notes and text within the booklet that do not warrant issuing Interim Indexes.

All plans beginning with the July 2009 letting shall include a reference to Design Standards Modifications Effective Date July 1, 2009, on the lower left corner of the Key Sheet below the Governing Specifications and Standards note, and above the Revisions area. For more information please see the Plans Preparation Manual, Volume II, Section 3.8 and Exhibit KS-1.

All Interim Indexes listed in the Design Standards Modifications publication will be applicable unless otherwise indicated in the contract documents. The July 1, 2009, Design Standards Modifications includes Interim Indexes as follows:

Interim Index No. 288 (Sheet 1 of 1), DEEP WELL INJECTION BOX – Dated 01/01/09: New Design Standard.

Interim Index No. 291 (Sheets 1 & 5 of 5), SUPPLEMENTAL DETAILS FOR PRECAST CONCRETE BOX CULVERTS - Dated 01/01/09: Changed Class I Concrete to Class NS Concrete (Sheets 1 & 5) Changed Bond Beams to Link Slab and Note 1 to eliminate link slabs for differential settlements less than 1/2" (Sheet 5).

Interim Index No. 400 (Sheet 24 of 24), GUARDRAIL – Dated 01/01/09: Added details for guardrail on slopes.

Interim Index No. 400 (Sheet 25 of 25), GUARDRAIL – Dated 01/01/09: New sheet added showing limits of pay for guardrail, details of shoulder treatment and miscellaneous asphalt for guardrail approach end treatments.

Interim Index No.501 (Sheets 4-9 of 9), GEOSYNTHETIC REINFORCED SOILS - Dated 07/01/08: Deleted AMOCO 2006, 2016 & 2044. Added GEOTEX 315ST, 2x2HF, 4x4, 3x3HF, 4x4HF & 4x6 woven geogrids (Sheet 4), Fornit 20 (Sheet 8), Combigrid 30/30, Secugrid 20/20 & 30/30 extruded geogrids (Sheet 9). Revise other selected values (Sheet 5, 6 & 8).

Interim Index No. 546 (Sheets 1 & 6 of 6), SIGHT DISTANCE AT INTERSECTIONS – Dated 01/01/09: Added median treatment detail (Sheet 1). Added note for wide median sight distances (Sheet 6).

Interim Index No. 5100 (Sheet 2 of 2), RETAINING WALL - CAST IN PLACE - Dated 01/01/09: Changed wall joint and expansion joint key.

Interim Index No. 5202 (Sheet 3 of 4), PRECAST SOUND BARRIERS - FLUSH PANEL OPTION - Dated 01/01/09: Added Bars P5 & P6 to reinforcing steel detail.

Interim Index No. 5203 (Sheet 3 of 5), PRECAST SOUND BARRIERS - RECESSED PANEL OPTION - Dated 01/01/09: Corrected call out for Bars P5 & P6 in Corner Post Options A,B & E.

Interim Index No. 5210 (Sheet 2 of 5), TRAFFIC RAILING/SOUND BARRIER (8'-0") - Dated 01/01/09: Changed NAME, DATE AND BRIDGE NUMBER note, and "Ribbed" to "Slotted" in NEOPRENE DIAPHRAGM PLUG DETAIL. Added REFLECTIVE RAILING MARKERS note and RELECTIVE RAILING MARKER SPACING table.

Interim Index No. 5212 (Sheet 2 of 2), TRAFFIC RAILING/SOUND BARRIER (8'-0") - JUNCTION SLAB - Dated 01/01/09: Added note for "Full Depth Structural Asphalt" above junction slab and changed coping dimension to 6" Min.

Interim Index No. 11310 (Sheets 1, 2 & 5 of 5), CANTILEVER SIGN STRUCTURE - Dated 01/01/09: Deleted grout pad and added wire screen (Sheets 1 & 2). Added CSL tubes note (Sheet 1). Added CSL tubes (Sheet 2). Changed FC & FL reinforcing (Sheet 2). Changed bolt spacing connection details (Sheet 5).

Interim Index No. 11320 (Sheets 1, 2, 4 & 5 of 5), SPAN SIGN STRUCTURE - Dated 01/01/09: Deleted grout pad and added wire screen (Sheets 1 & 2). Added CSL tubes note (Sheet 1). Changed bolt spacing connection details (Sheet 4). Added CSL tubes (Sheet 5).

Interim Index No. 11860 (Sheets 1, 4 & 5 of 8), SINGLE COLUMN GROUND SIGNS – Dated 01/01/09: Modified concrete classification (Sheet 1). Changed panel overhang length (Sheet 4). Modified "DRIVEN POST DETAIL IN CONCRETE" (Sheet 5).

Interim Index No. 13417 (Sheet 1 of 1), MOUNTING EXIT NUMBERING PANELS TO HIGHWAY SIGNS – Dated 01/01/09: Changed size of hanger bolts.

Interim Index No. 17302 (Sheet 1 of 1), TYPICAL SECTIONS FOR PLACEMENT OF SINGLE & MULTI-COLUMN SIGNS – Dated 01/01/09: Case II and Case VIII dimensions and notes revised.

Interim Index No. 17344 (Sheets 1-6 of 6), SCHOOL SIGNS AND MARKINGS – Dated 01/01/09: Revised signs; added notes and revised spacing of signs.

Interim Index No. 17346 (Sheets 1-14 of 14), SPECIAL MARKING AREAS – Dated 01/01/09: Index completely revised; added audible and vibratory markings; bicycle markings removed to new index.

Interim Index No. 17347 (Sheets 1-4 of 4), BICYCLE MARKINGS – Dated 01/01/09: New Design Standard.

Interim Index No. 17355 (Sheet 9 of 11), SPECIAL SIGN DETAILS – Dated 01/01/09: Added signs FTP-82-08 and FTP-83-08.

Interim Index No. 17500 (Sheets 1-3 of 3), CONVENTIONAL LIGHTING – Dated 01/01/09: Deleted concrete pole detail; added notes (Sheet 1). Revised Note 7 (Sheet 2 & 3).

Interim Index No. 17502 (Sheets 3-7 of 7), HIGHMAST LIGHTING - Dated 01/01/09: Deleted grout pad and added wire screen (Sheets 3-5). Added CSL tubes note (Sheet 3). Changed drilled shaft reinforcing (Sheet 4). Added CSL tubes (Sheet 5). Changed class of concrete (Sheet 7).

Interim Index No. 17504 (Sheet 1 of 1), SERVICE POINT DETAILS – Dated 01/01/09: Added dimension to meter base; changed pole type.

Interim Index No. 17505 (Sheet 1 of 2), EXTERNAL LIGHTING FOR SIGNS – Dated 01/01/09: Changed type of luminaires; changed luminaire spacing.

Interim Index No. 17715 (Sheets 1 & 3 of 3), STANDARD ROADWAY ALUMINUM LIGHTING - Dated 01/01/09: Modified concrete classification (Sheets 1 & 3).

Interim Index No. 17600 (Sheet 3 of 3), MOTORIST AID CALL BOX – Dated 01/01/09: Changed class of concrete and method of payment.

Interim Index No. 17723 (Sheets 1-3 of 3), STEEL STRAIN POLE - Dated 01/01/09: Deleted grout pad and added wire screen (Sheets 1-2). Added CSL tubes note (Sheet 1). Changed drilled shaft reinforcing (Sheet 2). Added CSL tubes (Sheet 2). Changed clevis size (Sheet 3).

Interim Index No. 17725 (Sheets 1-2 of 2), CONCRETE POLES – Dated 01/01/09: Changed ground wire note (Sheet 1). Revised notes and pole taper rate (Sheet 2).

Interim Index No. 17727 (Sheets 1-2 of 2), SIGNAL CABLE & SPAN WIRE INSTALLATION DETAILS – Dated 01/01/09: Added back plates to signals.

Interim Index No. 17736 (Sheet 1 of 1), ELECTRICAL POWER SERVICE – Dated 01/01/09: Added notes 5 and 6.

Interim Index No. 17743 (Sheets 1-3 of 3), STANDARD MAST ARM ASSEMBLIES - Dated 01/01/09: Changed drilled shaft reinforcing (Sheets 1-3). Changed T3-BF (Sheet 2).

Interim Index No. 17745 (Sheets 1-2 of 5), MAST ARM ASSEMBLIES – Dated 01/01/09: Added back plates to signals (Sheet 1). Removed grout pad; added CSL tubes to foundation; added screen detail (Sheet 2).

Interim Index No. 17784 (Sheets 1-2 of 2), PEDESTRIAN DETECTOR ASSEMBLY INSTALLATION DETAILS – Dated 01/01/09: Revised dimensions on Figures A & B; revised Note 5 and Note to Designers.

Interim Index No. 18111 (Sheet 1-2 of 2), STEEL CCTV POLE – Dated 01/01/09: Sheets were reordered. Added table for H & D; added foundation diameter (Sheet 1). Notes completely revised (Sheet 2).

Interim Index No. 18113 (Sheet 1-2 of 2), CONCRETE CCTV POLE – Dated 01/01/09: Added class of concrete; added plan views (Sheet 1). Added table for L, H, & D; notes completely revised (Sheet 2).

Interim Index No. 20350 (Sheets 1-3 of 3), PRESTRESSED SLAB UNITS DETAILS AND NOTES, Dated 01/01/09: New Design Standard.

Interim Index No. 20353 (Sheet 1 of 1), 12" CUSTOM WIDTH PRESTRESSED SLAB UNIT - STANDARD DETAILS, Dated 01/01/09: New Design Standard.

Interim Index No. 20354 (Sheet 1 of 1), 12"x48" PRESTRESSED SLAB UNIT - STANDARD DETAILS, Dated 01/01/09: New Design Standard.

Interim Index No. 20355 (Sheet 1 of 1), 12"x60" PRESTRESSED SLAB UNIT - STANDARD DETAILS, Dated 01/01/09: New Design Standard.

Interim Index No. 20363 (Sheet 1 of 1), 15" CUSTOM WIDTH PRESTRESSED SLAB UNIT - STANDARD DETAILS, Dated 01/01/09: New Design Standard.

Interim Index No. 20364 (Sheet 1 of 1), 15"x48" PRESTRESSED SLAB UNIT - STANDARD DETAILS, Dated 01/01/09: New Design Standard.

Interim Index No. 20365 (Sheet 1 of 1), 15"x60" PRESTRESSED SLAB UNIT - STANDARD DETAILS, Dated 01/01/09: New Design Standard.

Interim Index No. 20399 (Sheet 1 of 1), BUILD-UP & DEFLECTION DATA FOR PRESTRESSED SLAB UNITS, Dated 01/01/09: New Design Standard.

Interim Index No. 21100 (Sheets 1 & 3 of 3), STRIP SEAL EXPANSION JOINT - Dated 01/01/09: Deleted redundant notes that are in Specification Section 458. Changed Dimension "A" size (Sheet 1); Changed Sidewalk Cover Plate edge treatment (Sheet 3).

Interim Index No. 21110 (Sheets 1-2 of 2), POURED JOINT WITH BACKER ROD EXPANSION JOINT SYSTEM - Dated 01/01/09: Deleted redundant notes that are in Specification Section 458. Changed last line of title of bottom left detail to "DECK WITH SLOPES 2% OR GREATER" (Sheet 1) Changed Sidewalk Cover Plate edge treatment (Sheet 2).

Interim Index No. 21200 (Sheets 1-2 of 2), LIGHT POLE PILASTER - Dated 01/01/09: Added design of anchor bolts and accessories (Sheets 1-2).

Interim Index No. 21802 (Sheet 1 of 1), POST-TENSIONING ANCHORAGE PROTECTION - Dated 01/01/09: Changed "Methyl Methacrylate" to "High Molecular Weight Methacrylate".

Interim Index No. 21803 (Sheets 1-3 of 3), POST-TENSIONING ANCHORAGE AND GROUTING DETAILS - Dated 01/01/09: Revised call-outs for Grout Outlets; Changed "Methyl Methacrylate" to "High Molecular Weight Methacrylate".

The design Standards, Interim Indexes and Design Standards Modifications can be accessed at the following web site:

<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>

If you have any questions please contact this office.