**SIGNIFICANT CHANGES IN CDOT's 2011**

***STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION***

The following are significant changes from the 2005 Standard Specifications Book to the new 2011 Standard Specifications Book. Most of the changes were previously adopted by CDOT's Specification Committee as standard special provisions and have been applicable to projects put under construction since their adoption.

The following general changes have been made:

* Several subsections in Sections 105 and 106 were rewritten to establish proper quality control and testing requirements for both concrete and asphalt pavements.
* New subsection 107.06 was added to address *Safety, Health, and Sanitation Provisions*
* Much of subsection 107.25, *Water Quality Control* and all of Section 208, *Erosion Control* were rewritten. These changes accommodate a consent order agreement that CDOT entered into with the Water Quality Control Division of the Colorado Department of Public Health and Environment (CDPHE). The consent order deals with enforcement of Environmental Protection Agency (EPA) regulations regarding water quality control on CDOT projects. The provisions of the consent order went into effect on January 1, 2009.
* Section 502, Piling, was completely rewritten to conform to current pile driving practice.
* Parts of Section 601, Structural Concrete were rewritten to conform to current practice.
* Sections 613 and 715 were rewritten to conform current lighting and electrical material standards.
* Section 617, *Culvert Pipe*, was deleted. And Section 624, *Drainage Pipe*, was rewritten to better specify what pipe materials may used for given on site conditions.
* New section 641, *Shotcrete*, was added.
* Section 702, *Bituminous Materials,* was rewritten to conform to current requirements for asphalt cement, and related materials.
* Grammar and syntax have been improved in certain locations to conform to a more uniform style.

The following Sections of the Specification Book contain significant revisions [there are other sections that have minor changes]:

**Significant Changes to the 2011 Standard Specifications**

| **Specification Sections with Significant Changes** | **What was Changed** |
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| 101 – *Definitions and Terms*  | Added or revised definitions for: Best Management Practices, Falsework, Formwork, Ordinary Highwater Mark, Safety Critical Work, Shoring, State Waters, and Stormwater Management Plan (SWMP). |
| 104 – *Scope of Work* | 104.07: This subsection on *Value Engineering Change Proposals by the Contractor* was completely rewritten. |
| 105 – *Control of Work* | 105.04: Revised the process for evaluating SuperPave Performance Graded Binders. |
|  | 105.07 and 105.08: Revised the smoothness evaluation processes for both asphalt pavement and concrete pavement. |
|  | 105.22, 105.23, and 105.24: The Contract dispute resolution process was evaluated and completely rewritten by a team of CDOT personnel, contractors, and other stakeholders. |
| 106 – *Control of Material* | 106.05: Added requirements for a Hot Mix Asphalt [HMA] Quality Control Plan and for Record Keeping. |
|  | 106.06: Sampling and testing requirements for Portland Cement Concrete Pavement [PCCP] were completely rewritten. |
|  | 106.11: Buy America requirements were updated to better match federal regulations. |
|  | 106.12 and 106.13: Added signatory requirements for certificates of compliance and certified test reports. |
| 107 – *Legal Relations and Responsibility to Public* | 107.06: Rewritten to more thoroughly cover *Safety, Health, And Sanitary Provisions*. Includes requiring a safety management plan. |
|  | 107.15: Completely rewritten subsection on damage claims and insurance coverage. |
|  | 107.25: Major changes made to water quality requirements. |
| 108 – *Prosecution and Progress* | 108.04: New subsection requires the Contractor to submit a Payment Schedule estimating the dollar amount of work that will be completed each month. |
| 109 – *Measurement and Payment* | 109.01: Updated the requirements for scales. |
|  | 109.06: Changed the requirements for release of subcontractor's retainage. |
| 203 – *Excavation and Embankment* | 203.03: Required sulfate testing of embankment material. |
|  | 203.04: Addressed asbestos contamination of the soil. |
| 206 – *Excavation and Backfill for Structures* | 206.03: Addressed asbestos contamination of the soil. |
| 206 - *Shoring* | Added new section on specialty shoring. |
| 208 – *Erosion Control* | Entire section was completely rewritten.  |
| 212 – *Seeding, Fertilizer, Soil Conditioner, and Sodding* | 212.02: Added requirements for compost. |
| 213 - *Mulching* | 213.02, 213.03: Added requirements for spray-on mulch blanket. |
| 250 – *Environmental, Health, and Safety Management* | 250.07: Added new subsection addressing asbestos-containing material management. |
|  | 250.08: Added new subsection addressing methamphetamine lab sites. |
| 401 – Plant Mix Pavements General | Made several small changes throughout to hot mix asphalt requirements. |
|  | 401.16: Made changes to address material segregation. |
|  | 401.17: Made changes to address to address density at pavement joints. |
| 411 – *Asphalt Materials* | 411.04: Revised method of measuring emulsified asphalt for payment. |
| 412 – *Portland Cement Concrete Pavement* | 412.12: Subsection on finishing concrete pavement was completely rewritten. |
|  | 412.16: Subsection on repair of defective concrete pavement was completely rewritten. |
| 420 - *Geosynthetics* | 420.02: Classification and materials requirements for geosynthetics were revised to conform to current national standards. |
| 502 - *Piling* | Entire Section was rewritten. |
| 509 – *Steel Structures* | 509.27: Made major changes to the requirements for erecting steel structures. Added requirements for the Contractor to submit a structure erection plan and participate in a pre-erection conference. |
| 601 – *Structural Concrete* | 601.02: Completely rewrote the subsection on concrete classification. |
|  | 601.04: Added new subsection addressing sulfate resistance of concrete. |
|  | 601.05: Completely rewrote subsection on proportioning of concrete. |
|  | 601.08: Rewrote subsection on air content adjustment. |
|  | 601.11: Made changes to the falsework requirements. |
|  | 601.12: Added requirements for placing concrete by pumping. |
|  | 601.17: Revised subsection on acceptance and pay factors for concrete. |
| 612 – *Delineators and Reflectors* | Made several small changes throughout the section and added requirements for reflector strips. |
| 613 – *Lighting*  | Section was completely rewritten to conform to current materials requirements and standard practices. |
| 614 – *Traffic Control Devices* | Several minor changes were made throughout the section.  |
|  | 614.06: Added subsection on flashing beacons. |
|  | 614.08: Added requirements for special prefabricated loop detector wire. |
|  | 614.09: Added requirements for tubular steel sign posts. |
| 617 – Formerly, *Culvert Pipe* | Section deleted. All culvert pipe is addressed in Sections 603 and 624. |
| 618 – *Prestressed Concrete* | 618.14: Included additional requirements for erection of pre-cast concrete members; Contractor must submit an erection plan and participate in a pre-erection conference. |
| 624 – *Drainage Pipe* | This section was completely rewritten. Materials for drainage pipe are based on site requirements as addressed in CDOT's new Pipe Selection Guide. Most drainage pipes will conform to this section and be paid for as 624 items.  |
| 627 – *Pavement Marking* | 627.03: Requirements for temporary pavement markings were completely rewritten. |
|  | 627.04: Added requirements for waterborne and low volatile organic compound based pavement marking. |
|  | 627.08: Added requirements for installing the various types of plastic pavement marking materials. |
| 630 – *Construction Zone Traffic Control*. | Several minor changes were made throughout this section. |
|  | 630.02: Made several changes to the material requirements for signs and barricades. |
|  | 630.07: Added new subsection for stackable vertical panels and stackable tubular markers. |
|  | 630.10: Rewrote this entire subsection to require a complete Transportation Management Plan. |
| 641 - *Shotcrete* | Added entirely new section for this commonly used material. |
| 701 – *Hydraulic Cement* | 701.01: Completely rewrote the materials requirements for hydraulic cement. |
|  | 701.02: Completely rewrote the materials requirements for fly ash used as a pozzolan. |
| 702 – *Bituminous Materials* | Most of this section was revised to conform to current standard materials requirements. |
|  | 702.01: Rewrote the requirements for Superpave Performance Graded Binders and for dampproofing materials in this subsection. |
|  | 702.02: Rewrote the requirements for liquid asphaltic materials used on CDOT projects. |
|  | 702.03: Rewrote the requirements for the various types of emulsified asphalts used on CDOT projects. |
|  | 702.04: Rewrote the requirements for asphalt rejuvenating agents used on CDOT projects. |
|  | 702.06: Rewrote the requirements for hot poured joint and crack sealant used on CDOT projects. |
| 703 - *Aggregates* | 703.03: Revised the classification table for aggregate base course. |
|  | 703.04: Revised the classification table for stone matrix asphalt. |
| 705 – *Joint, Waterproofing, and Bearing Materials* | 705.09: Updated the requirements for single component, hot applied, elastomeric membrane. |
| 708 - *Paints* | 708.01: Rewrote the general requirements, including a list of unacceptable chemical components. |
|  | 708.05: Requirements for pavement marking materials were completely updated. |
| 712 - *Miscellaneous* | 712.03: Requirements for hydrated lime were brought up to date. |
|  | 712.07 & 712.08: Material requirements for geosynthetics and geotextiles were brought up to date and separated into 2 subsections. |
|  | 712.13: Material requirements for plastic pipe were brought up to date. |
| 713 – *Traffic Control Materials* | 713.13: The requirements for preformed plastic pavement marking were rewritten to conform to current standards. |
| 715 – *Lighting and Electrical Materials* | This section was completely rewritten to conform to current standards. |