

Summary of Major Revisions from the 2011 to 2018 Specification Book

- Deleted Metric.
 - Some metric will remain in the book to meet industry standards/practices throughout the book.

Project Special Provisions/Notice to Bidders (NTB) - Added to Book:

- Labor Supply.
- NTB regarding Absence of the Engineer.
- NTB – Contract Insurance Requirements.
- NTB – Additional Contract Requirement.
- NTB – Cargo Preference Requirement.
- NTB – Re-Designation of VTrans Officials.
- NTB – Requirements for Nighttime Work (Lighting).
- NTB – Temporary Construction Signs Requirements.
- NTB – Permanent Sign Sheeting Type.
- Interstate and Highway Parking Restrictions were added.
- “Special Construction Requirements” were added where appropriate in the book.
- Asphalt Price Adjustments – all but monthly price will be added.
- Section 653 will be added to the book.

Division 100:

- Updated several definitions.
 - Reflects organizational changes and roles and responsibilities.
- Formalized “Authorization to Proceed” and “Notice to Proceed”.
- Defined “Approve” vs “Review for Conformance”.
- Added some specifications related to railroad and crossing projects.
- **SECTION 104 – SCOPE OF WORK**
 - Added a 104.04 A and B Subsection to separate maintenance and protection vehicular and railroad traffic.
- **SUBSECTION 105.03 – PLANS AND WORKING DRAWINGS**
 - Now in line with Doc Express requirements and clarified timeframes for submittals.
- **SUBSECTION 105.09 – CONSTRUCTION STAKES**
 - Revised the responsibility of the Engineer.
- **SUBSECTION 105.20 – CLAIMS FOR ADJUSTMENTS**
 - Updated section – revised some language and added timeline for claims process.
- **SUBSECTION 105.30 – VALUE ENGINEERING**
 - Revised requirements for submitting VE proposals.
- **SUBSECTION 106.05 – STORAGE OF MATERIALS**
 - Revised due to the accident in Atlanta.
 - Will update to revise from “any bridge” to “any bridge with active traffic”.

Deleted/Moved:

- Subsection 105.03 – List of Working Drawings. (*Deleted*)
- Subsection 105.16 (b) (4) – Load Restrictions – loads allowed on concrete structures. (*Deleted*)
- Subsection 105.16 (c) – Speed Prior to Wearing Surface; Expansion Joints on Structures. (Partly deleted, the rest *moved to Division 500*)
- Subsection 106.03 – SAMPLES AND TESTS – A large portion regarding asphalt was moved to Division 400. (*Moved*)
- Subsection 107.13 (j) – WATER; INVESTIGATION OF CLAIMS (*Deleted*).
- Subsection 108.11(a) – Added sentence to indicate that an Extension of Time can be requested during construction.
- Subsection 108.11(b)(12) – Deleted.

Division 200:

Section 201 - CLEARING

- Revised Subsection 201.02 to a “General Construction Requirements” Subsection. The addition of this subsection combined numerous aspects of the specification that are applicable to all work associated with this Section, putting all general requirements at the beginning of the document allowing work associated with specific items to be detail in the applicable Subsections.
- Subsection 201.03 was the previous Clearing Subsection. This was revised by adding Grubbing to this Subsection. This was done to maintain a consistent format as Clearing and Grubbing is an item and should be described in the same Subsection as the Thinning and Trimming is.
- Subsection 201.03 also removed allowing stumps to remain in embankments.
- Subsection 201.04 Removing Trees and Stumps was revised to include the classification (small, medium, large). This was previously included in the basis of payment but shouldn't be.
- Subsection 201.06 Disposal was revised to state that all material becomes property of the contractor rather than trying to tell them what they need to do with it.
- Subsection 201.06 requires all Elm trees to be chip and remain on project to reduce the likelihood of spreading Dutch elm disease.

Section 202 - DEMOLITION AND DISPOSAL OF BUILDINGS

- Updated the 202.02 General Requirements Subsection to reflect requirements from the Agency's Hazardous Materials Coordinator.
- Updated the 202.02 Subsection to identify what is needed to remove lead or asbestos.
- Updated the basis of payment to include the removal of hazardous materials.

Section 203 - EXCAVATION AND EMBANKMENTS

- Updated “Gravel Backfill for Slope Stabilization” to “Granular Filter for Slope Stabilization” based on changes proposed to the material spec. by Geotech.
- Changed Compaction requirement from 90 percent to 95 percent based on Geotech's recommendation.
- Deleted duplicate airport requirements.

Section 204 - EXCAVATION FOR STRUCTURES

- Deleted Subsections “Preservation of Channel” and “Footing Modifications” and “Bedding for Structures”
- Changed the term “ledge” to “bedrock”.

Section 205 - DRILLING AND BLASTING

- No major changes.

Section 206 - COFFERDAMS

- Removed Subsection “Footing Modifications” as this would require a change order anyway.

- Update AASHTO references.

Section 210 - COLD PLANING

- Major update, incorporated the Micro-Milling spec however the items were changed to Coarse-Milling and Fine-Milling as those are really the application we are using compared to industry, micro-milling is actually finer than our current micro-milling.

Section 213 - MILLED RUMBLE STRIPES

- No major changes.

Division 300:

Section 301 - SUBBASE

- 301.03: Added compaction requirement for unpaved shoulders.

Section 303 – ASPHALT TREATED PERMEABLE BASE

- Deleted – will be reserved as a Special Provision if used in the future.

Section 310 – FULL DEPTH RECLAMATION

- Name changed to from Reclaimed Stabilized Base (RSB) to Full Depth Reclamation (FDR).
- Added Calcium Chloride as an optional dust control agent.

Division 400:

- Updated specification overall (Legacy Language) and deleted metric references.

SECTION 401 – AGGREGATE SURFACE COURSE

- No major changes.

SECTION 402 – AGGREGATE SHOULDERS

- Modified compaction requirements for aggregate shoulder material.

SECTION 403 - AGGREGATE SHOULDERS, RAP WITH RAS

- New Section – Previously Special Provision (Aggregate Shoulders, RAP with RAS).

SECTION 404 – SURFACE TREATMENT MATERIALS

- Deleted tar emulsion.
- Changed application temperature condition from ambient to air and surface temperatures of at least 40°F and rising.
- Revised Traffic Control requirements.

SECTION 406 – BITUMINOUS CONCRETE PAVEMENT

- Combined portions of 106 and all of sections 406 and 490 into one specification.
- Created 406.03A – COMPOSITION OF MIXTURE - MARSHALL, 406.03B - COMPOSITION OF MIXTURE - SUPERPAVE, AND 406.03C – REQUIREMENTS FOR MARSHALL AND SUPERPAVE BITUMINOUS CONCRETE PAVEMENT
- Aggregate requirements from previous sections 406 and 490 were combined as much as possible in section 704.10.
- Increased and defined tack rate requirements for different surfaces.
- Incorporated 6.3 mm superpave and is now known as Type VS and renamed original Type VS to Type VIS. Type V Marshall has also been renamed to Type VI.
- Incorporated, asphalt price adjustment, drive paving, Type IVB, surface preparation requirements and pay items.
- **Subsection 406.03C - REQUIREMENTS FOR MARSHALL AND SUPERPAVE BITUMINOUS CONCRETE PAVEMENT:**
 - Converted table 406.03C and 406.03F to 70-28 base grade.
 - Revised some equipment calibration intervals.
- **Subsection 406.04 – WEATHER AND SEASONAL LIMITATIONS.**
 - Defined ambient/surface temperature requirements for WMA.
- **Subsection 406.05 – BITUMINOUS MIXING PLANT AND TESTING:**
 - New lab square footage requirements increased from 240 to 320. Effective date to be determined based on specification implementation.
 - Lab requirements were revised.
 - Eliminated hot bins requirements for mix designs.
- **Subsection 406.13 – PLACING AND FINISHING:**
 - Included provision requiring separate rolling trains when tandem paving.

- Incorporated that rollers be operated in static mode on bridge decks.
- Incorporated field QC plan.
- Subsection 406.15 – JOINTS.
 - Defined temporary butt joints.
 - Increased the incentive and disincentive for longitudinal joint compaction pay adjustment.
- Subsection 406.18 – ASPHALT PRICE ADJUSTMENT.
 - Added Asphalt Price Adjustment – Previously a Supplemental Specification. The monthly prices will still be included in each Project Special Provision as required.

SECTION 407 – BONDED WEARING COURSE

- New Section – Previously used as Special Provision (Paver Placed Surface Treatment).
- Reverted “end of season” paving to 10/15.
- Added separate pay item for polymer modified emulsion.

SECTION 410 – MATERIAL TRANSFER VEHICLE (MTV)

- New Section – Previously used as Special Provision (Material Transfer Vehicle) and Special Provision (Material Transfer Vehicle, Cold Mix).

SECTION 415 – COLD MIXED RECYCLED BITUMINOUS PAVEMENT

- No major changes.

SECTION 417 – BITUMINOUS CRACK SEALING

- No major changes.

Division 500:

SECTION 501 – PERFORMANCE BASED STRUCTURAL CONCRETE

- Complete rewrite.

SECTION 502 – SHORING SUPERSTRUCTURES

- Added requirement to conform to *AASHTO LRFD Bridge Construction Specifications*.

SECTION 504 – FURNISHING EQUIPMENT FOR DRIVING PILING

- Added restriction that no test pile work will be done prior to acceptance of hammer/driving documentation.

SECTION 505 – PILING

- Removal of Material - Bar Reinforcing
- Removal of Metric
- Removal of Static Pile Loading Test
- Splicing the pile or extending the footing will no longer be allowed on a single row of piles
- Pile driving proximity – Concrete requirements modified.
- Removal of redundant information identified in other division sections

SECTION 506 – STRUCTURAL STEEL

- Revised “award of the contract” to “contract execution”
- Revised “Agency’s Research and Materials Section” to “Agency’s Materials Section”
- Revised position titles – Fabrication Engineer, Quality Assurance Inspector
- Revised code references and required materials in fabricator library
- Removed quoted material from code references such as heat requirements.
- Minor editorial changes
- Section 506.02 - MATERIALS:
 - Removed Materials: 715.01, 715.02.
- Section 506.03 – GENERAL FABRICATION REQUIREMENTS:
 - Notice to fabrication from 7 to 10 days.
- Section 506.10 (1) - WELDING:
 - Provided clarification to repair requirements.
 - Pre authorization limited to indoor shop welding – Items added to list.
- Section 506.12 - ASSEMBLY:
 - (c) Heat cambering and heat temps corrected
 - (g) intermediate stiffeners – Specified maximum allowable gap
- Section 506.13 – TOLERANCES:
 - Removed Paragraph 3 – no permissible tolerance for overgrinding.
- Section 506.14 – SURFACE PREPARATION:
 - No need to blast to a SP10 twice if blasted before fabrication. Assure the surface is still clean to a SP10 standard after fabrication.
- Section 506.18 – ERECTION:
 - Clarification of code requirements.

- Section 506.24 – METHOD OF MEASUREMENT:
 - Removed (8) bearings or bearing connection as part of this work.
- Section 506.25 – BASIS OF PAYMENT:
 - Removed paragraph 4 – surface preparation of rehabilitated or reconditioned steel.

SECTION 507 – REINFORCING STEEL

- Added continuously galvanized reinforcing steel under Level II.

SECTION 508 – SHEAR CONNECTORS

- No major changes.

SECTION 509 – LONGITUDINAL DECK GROOVING

- No major changes.

SECTION 510 – PRESTRESSED CONCRETE

- Complete rewrite

SECTION 514 – WATER REPELLENT SILANE

- No major changes.

SECTION 516 – EXPANSION DEVICES

- Added new item and associated language – 516.20, Partial Removal and Modification of Bridge Joint.

SECTION 540 – PRECAST CONCRETE

- Complete rewrite

SECTION 541 – STRUCTURAL CONCRETE

- Adopted appropriate changes from 501 rewrite

SECTION 580 – STRUCTURAL CONCRETE REPAIR

- Updated to reflect changes in section 780

Division 600:

- **SECTION 601 – CULVERTS AND STORM DRAINS**
 - No major changes.
- **SECTION 602 - MASONRY**
 - No major changes.
- **SECTION 604 – DROP INLETS, CATCH BASINS, AND MANHOLES**
 - No major changes.
- **SECTION 605 – UNDERDRAINS**
 - No major changes.
- **SECTION 607 – ROADWAY PATROL MAINTENANCE**
 - No major changes.
- **SECTION 608 – EQUIPMENT RENTAL**
 - Removed “dragline rental” items which were used only once in 2006 & 2011 Spec Books
 - Added Type III Power Broom appropriate for micro-milling operations
- **SECTION 609 – DUST AND ICE CONTROL**
 - Removal of Metric only
- **SECTION 613 – STONE FILL, RIPRAP, AND GABION BASKETS**
 - Removed Slope Paving (no longer accepted environmental practice)
 - Renamed section to reflect new/removed content
 - Gabion Wall language, which had been added by GSP several
- **Sections 616 – CURBS AND GUTTERS**
 - No major changes.
- **SECTION 617 – MAILBOXES**
 - Removed references to metal posts as construction and the district both indicated they are not used and not desirable
- **SECTION 618 – SIDEWALKS**
 - Removed metric
- **SECTION 619 – MARKERS**
 - No major changes.
- **SECTION 620 – FENCES**
 - No major changes.
- **Section 621 – TRAFFIC BARRIERS**
 - No major changes.
- **SECTION 622 – INSULATION BOARD**
 - Removed metric
- **SECTION 625 – SLEEVES FOR UTILITIES**
 - Revised installation to more clearly require trenchless installations
 - Added requirements for ASTM conformance (steel sleeves) and carrier pipe restraint
- **SECTION 626 – WELLS AND CASINGS**
 - Deleted.

- **SECTION 627 – PUMP AND TANK INSTALLATION**
 - Deleted.
- **SECTION 628 – SANITARY SEWER**
 - Removed bedding requirements, reference 601.05
 - Added reference to SOV Drinking Water and Ground Water Prevention Division Standards
 - Replaced Dept. of Health with ANR
- **SECTION 629 – WATER SYSTEMS**
 - Revised standard references in “Laying Pipe” subsection
 - Added “retainer glands” as allowable anchorage to match current standard practice
 - Removed hacksaw as allowable means of cutting copper tubing
 - Allowed compression fitting to match current standard practices
- **SECTION 630 – UNIFORMED TRAFFIC OFFICERS AND FLAGGERS**
 - Moved pay item, Flaggers, Railroad to Section 632.
- **SECTION 631 – FIELD OFFICE**
 - Updated language.
 - Added Item 631.08, Testing Equipment, Grout
- **SECTION 632 – RAILROAD FLAGGERS**
 - New Section – Language from Special Provision (Maintenance of Railroad Traffic) item.
- **SECTION 633 – CRITICAL PATH METHOD (CPM) SCHEDULE**
 - New Section – Language from Special Provision (CPM Schedule) item.
- **SECTION 634 – EMPLOYEE TRAINEESHIP**
 - No major changes.
- **SECTION 635 – MOBILIZATION/DEMobilIZATION**
 - No major changes.
- **SECTION 641 – TRAFFIC CONTROL**
 - No major changes.
- **SECTION 646 – RETROREFLECTIVE PAVEMENT MARKINGS**
 - Language added for paint thickness on new vs. old pavement to avoid project special on all maintenance marking construction contracts.
 - Agency may (rather than will) select evaluation section by request from construction.
 - Reordered sentences in thermoplastic “primer” to make more sense.
 - Added “manufacturer recommendations” to thermoplastic application temperature.
- **SECTION 649 – GEOTEXTILE FABRIC**
 - No major changes.
- **SECTION 651 – TURF ESTABLISHMENT**
 - No major changes.

- **SECTION 653 – EROSION PREVENTION AND SEDIMENT CONTROL**
 - Combined major sections with 652.
- **SECTION 656 – PLANTING TREES, SHRUBS, AND VINES**
 - No major changes.
- **SECTION 675 – TRAFFIC SIGNS**
 - Added language for sign decal.
- **SECTION 676 – DELINEATORS**
 - No major changes.
- **SECTION 677 – OVERHEAD TRAFFIC STRUCTURES**
 - Added wording for bolt tightening procedure from 2013 AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaires and Traffic Signals.
 - Removed language for grounding supports.
- **SECTION 678 – TRAFFIC CONTROL SIGNALS**
 - New section added for submittals (678.01A).
 - Several sections added for equipment that has been used on majority of projects within the past few years (678.02A – 678.02D).
 - 30-day test period language was revised based on conversations with TSMO.
- **SECTION 679 – STREET LIGHTING**
 - Updated Material number references for 753.
- **SECTION 680 – TRAVEL INFORMATION SIGNS**
 - Language regarding wooden signposts removed.
 - Plywood sign fabrication language, which was struck from 675, added here as these are the only signs which are still sometimes fabricated from plywood.

Division 700:

- All AASHTO, ASTM and other standards referenced in 700 Section have been updated to reflect current material standards.
- All references to material certification have been deleted and will be moved to Materials Manual.
- Any reference to APL shall have language similar to 'Agency's Approved Products List' instead of 'Approved products list on file with the Materials and Research etc.'
- Materials previously referenced in 406 and 490 have been consolidated.
- Following materials were moved:
 - 728.06 – Manufactured Terminal Section
 - 728.07 – Energy Absorption Attenuators
- Following materials were deleted:
 - 702.05 - Tar emulsion
 - 704.03 - Aggregate for asphalt treated permeable base
 - 706.05 - Stone for slope paving
 - 728.04 - Delineation Devices
 - 729.02 – Granite Bridge Curb
 - 747.01 – Sodium Chloride
 - 750.06 - High Density Overlaid Plywood
 - 750.07 - Acrylic Plastic Reflectors
- New materials added or moved to 700 section:
 - 704.19 - Lightweight Fine Aggregate for Structural Concrete
 - 727.03 – Barrier Fence
 - 727.04 – Plank Rail Fence