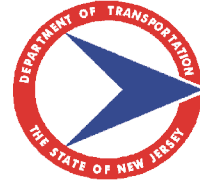


**New Jersey Department of Transportation**  
1035 Parkway Avenue, PO Box 600, Trenton, New Jersey 08625-0600



## ***Baseline Document Change Announcement***

### **2007 NJDOT Standard Specifications book**

**BDC07S-03**

**November 16, 2007**

**SUBJECT: Release of Standard Specifications for Road and Bridge Construction, 2007**

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The 2007 NJDOT Standard Specifications book for Road and Bridge Construction is hereby issued. These specifications are written in active voice and are in U.S. customary English units only. Also, these specifications follow the four part AASHTO format: Description, Materials, Construction, and Measurement and Payment. This book includes the required text from the current Standard Input (SI 2001E1). This new specifications book presents a significant reorganization of various Divisions and Sections as compared to the 2001 Specifications book. Several new Divisions have been added in order to better compile the information. For example, the new Division 150 contains general contract requirements that may be associated with a pay items, such as: Mobilization, Field Office, Insurances, Soil Erosion and Sediment Control, Traffic Control, etc. found elsewhere in the 2001 Specifications book. Further, the new Division 450 includes, increasingly used, repairs and rehabilitative work specifications on HMA and concrete pavements. New Division 550 contains bridge/structures rehabilitation works. Specifications for utility related works are compiled in the new Division 650, and the new Division 1000 contains Equipment specifications. Therefore, the users of these 2007 specifications must read the specifications in its entirety to be thoroughly familiar with the new format, style and requirements. The Special Provisions to be prepared for each project must follow the format and style of these Specifications. Several “unused” and unnecessary items have been deleted and some new items have been added upon meetings with the Department subject matter experts (SMEs).

The new specifications do not include typical “*Separate payment for.....*” statements in the Measurement and Payment subsection; simply because, if such works are necessary in order to construct an “Item” or such works are incorporated in the “Construction” subsection; then the payments for those works are included in the Item for which the payment is being made. Several Landscaping items describing names and species of the plants have been deleted; instead, the payment will be made under a specified generic Item and the plans will depict the names of trees/bushes, etc. and provide necessary information for bidding and constructing. Similar concept has been utilized throughout the new specifications.

The technical, editorial and organizational changes from the 2001 Specifications book are significantly high; therefore, it is not feasible to list all of them. The users of these specifications are urged to utilize the search tool of the MS Word and use the hyper links to navigate through this new document.

Some of the notable changes include in the 2007 Specifications are as follows:

## **DIVISION 100 – GENERAL PROVISIONS**

### **101.03 TERMS**

- If the term is capitalized, it is capitalized in the Specifications.
- Several new terms have been added.
- Some existing terms have been redefined.
- Term RE replaces Resident Engineer, with few exceptions other representatives with the Department are simply referred to as the “Department” rather than by “unit” or “division”.

### **103.05 ESCROW OF BID DOCUMENTS**

- Escrow of bid documents by Contractor is optional. However, escrow is required to pursue certain costs under 104.03.

### **104.02 VALUE ENGINEERING**

#### **104.02.05 Payment**

- Agreement of a VE Proposal requires Contractor to bear the risk for all costs resulting as a consequence of the change, including but not limited to quantity increases to Items, and unanticipated work or expenses arising out of the change.

#### **104.03.03 Types of Changes**

- Significantly revised.
- Quantity Increases/Decreases – bid prices hold only for increases and decreases that are within 25% of proposal quantity. Outside that, prices may be renegotiated. There are many details governing this specification.
- Differing Site Conditions – formerly *Unusual Site Conditions*. Specification follows federal legal standard. Claims based on differing site conditions must exceed threshold value.

#### **104.03.03 Types of Changes**

- Recovery for costs incurred prior to providing notice is barred.

#### **104.03.09 Delay Damages**

- Method of calculating delay damages have been established.

### **105.07 COOPERATION WITH UTILITIES**

- Contractor is required to send all Utilities within the project limits an initial notice when beginning construction operations.
- Contractor is required to provide protection of Utility facilities as required by Utility companies.
- Work by Utilities – the contractor is responsible for providing the Utility with advance notice as required in Special Provisions. Contractor is responsible for coordination of work.

### **106.09 SUBSTITUTES FOR PROPRIETARY ITEMS**

- If material is specified using a proprietary item, the Contractor may propose a substitute except when the Special Provisions state that no substitution is permitted, or material required by QPL.

### **108.01 SUBCONTRACTING**

- Requirements for subcontractor to be prequalified with NJDOT Procurement is eliminated

### **108.09 MAINTENANCE WITHIN THE PROJECT LIMITS**

- Contractor’s maintenance responsibilities has been defined.

### **108.11 MODIFICATIONS TO CONTRACT TIME**

- The Department will only extend Contract Time if an “excusable delay”, delays work on the critical path beyond the Contract Time using the approved Progress Schedule that is current at the time the delay occurred.
- Excusable, noncompensable delays have been listed. If excusable noncompensable delays exceed 180 days, the time in excess of 180 days will be excusable, compensable.

- Extreme Weather - Time extensions for weather only granted if controlling activity on critical path is delayed due to weather and the cumulative delay due to weather exceeds the number of days specified in Table 108.11.01-1 for any month.

#### **108.21 WARRANTIES**

- Warranty for work for 1 year on projects funded without FHWA participation has been eliminated.

#### **109.01 MEASUREMENT OF QUANTITIES**

- Measured Items vs. Proposal Items: The Department will designate Items as Measured Items or as Proposal Items by having a suffix of P or M in the Item number respectively.
- The Department will not measure quantities for Proposal Items, except quantities designated on the Plans as “if and where directed,” for payment. The Department will measure quantities for Proposal Items that are designated on the plans as “if and where directed” for payment when the RE directs work using the “if and where directed” quantity.

#### **109.05 ESTIMATES**

- The date that the Department receives the certification will initiate the 20-day approval period under N.J.S.A. 2A:30A-1, et seq. The Department will not accept the certification before being requested by the RE.
- The Department will not make payment for an Estimate having a value less than \$5000, unless it is for the Final Certificate.

### **DIVISION 150 – CONTRACT REQUIREMENTS**

#### **SECTION 152 – INSURANCE**

- Policies must be underwritten by companies with a current A.M. Best rating of A- with a Financial Size Category of VII or better.
- Deductibles for each policy are limited to \$250,000 per occurrence.
- CGL requires - Waiver of Subrogation for all claims and suits, including recovery of any applicable deductibles; Severability of Interest/Separation of Insureds; Per project aggregate.
- Marine Liability Insurance - If construction operations require marine operations, procure Marine Liability Insurance with a minimum limit of liability in the amount of \$2,000,000 per occurrence.
- Pollution Liability Insurance will be required on all projects.

#### **153.03 PROCEDURE**

##### **153.03.01 CPM Progress Schedule**

- Float belongs to the Project and is not for the exclusive use of the Contractor or the Department.
- New Item for Bar Chart Progress Schedule & Update has been added.
- A progress meeting scheduled every two months to review activity progress. Within 14 days after the meeting, the Contractor must submit an update for review and approval.
- If the Contractor’s update is not approved by the date of the following progress meeting, liquidated damages will be assessed for each delinquent update.

#### **SECTION 158 – SOIL EROSION AND SEDIMENT CONTROL AND WATER QUALITY CONTROL**

- Soil Erosion and Sediment Control specifications have been updated and expanded.

##### **159.03.02 Traffic Control Devices**

- Construction Barrier Curb quality standards have been revised.
- At least 30 days before delivering construction barrier curb to the Project Limit, the contractor must provide the RE notice that the barrier curb is available for inspection. The RE will inspect the barrier curb and approve individual pieces for delivery to the Project Limits.
- **Traffic Control Truck with Mounted Crash Cushions** - When using ballast, ensure that it is secured to the truck. Submit working drawings for certification detailing the manner of securing the ballast, signed and sealed by a Professional Engineer, to ensure that it is capable of withstanding the impact forces for which the impact attenuator is rated.

## **DIVISION 200 – EARTHWORK**

### **SECTION 201 – CLEARING SITE**

- Plugging pipe (Miscellaneous Concrete) is included in Item Clearing Site
- The regulations governing wells, underground storage tanks and contaminated soils have been updated.
- Building demolition and Asbestos removal is being handled on a building and Parcel by Parcel basis.

### **SECTION 202 – EXCAVATION**

- Excavation specifications have been significantly changed. There are only 3 types of excavation Items.
  1. Excavation Unclassified (which includes all excavation except the following )
  2. Excavation Regulated (new specifications added for Regulated Hazardous and Regulated)
  3. Excavation Acid Producing Soil (new specification added)

**202.03.01 Stripping** –Specifications have been updated.

**202.03.07 Reuse or Disposal of Excess Material** –Reuse and disposal of Regulated Material types and Acid Producing Soil have been added.

- There are 3 disposal Items
  1. Disposal of Regulated Material
  2. Disposal of Regulated Material, Hazardous
  3. Disposal of Acid Producing Material
- The “storing of soil” specification has been added

### **SECTION 203 – EMBANKMENT**

- The Zone designations of 1, 2 and 3 along with Porous Fill, BEBF and Select material have been replaced with Soil Aggregate designations (I-7, I-9, I-10, I-11, I-13, I-14 and I-15).
- Placing and compacting methods have been reduced in number and are better defined.

## **DIVISION 300 – SUBBASE AND BASE COURSES**

- Subbase has been moved to Section 301 from the 200 Section.
- Sections dealing with Road-Mixed Stabilization, Plant-Mixed Stabilization, and Lime-Pozzolan Stabilized Base Course have been deleted as these items were rarely used.
- Two new sections have been added – Asphalt Stabilized Drainage Course and Rubilizing Concrete Pavement.
- The Asphalt Stabilized Drainage Course (aka, Bituminous Stabilized Open Graded Drainage Layer) and Rubilizing Concrete Pavement have been added to deal with these items in the standard specification.
- Concrete Base Course remains in Division 300.

## **DIVISION 400 – PAVEMENTS**

- Sections dealing with Aggregate Surface Courses and Bituminous Surface Treatment have been deleted due to the lack of use of these items.
- The Materials Transfer Vehicle (MTV) is required for all projects unless determined during design due to project specific constraints that would bar its use.
- Marshall Mix design hot mix asphalt (HMA) has been deleted. Only Superpave mixes are used but the term “Superpave” has been deleted as there is no need to differentiate Superpave from Marshall HMA.
- The IRI specifications have been adopted as the standard method for assessing ride quality for all pavements. Treatments that are typically done prior to HMA overlay have been moved to Section 401. These treatments include milling, crack sealing, and HMA pavement repair. The milling items have been reduced to 4 standard items.
- OGFC and MOGFC specifications have been updated to current standards. Ultra-Thin Friction Course and Stone Matrix Asphalt (SMA) have been added as standards. These specialty mixes have increased in use in the past few years.

Changes in construction requirements for Concrete Surface Course are significant.

- Underlayer Preparation has been moved to Section 405.

- Slip-formed paving is allowed.
- Typical concrete pavement will be unreinforced and will have shorter slab lengths with contraction joints.
- Diamond grinding will be the typical surface texturing technique and the ride quality will be required to be the same as for HMA.

### **DIVISION 450 – CONCRETE PAVEMENT REHABILITATION (CPR)**

- This is a new Division
- Standardizes the specifications for concrete slab stabilization, partial and full depth concrete pavement repair, retrofit dowel bars, diamond grinding existing concrete pavement, and sealing existing joints in concrete pavement.

### **DIVISION 500 – BRIDGES AND STRUCTURES**

#### **DIVISION 550 – STRUCTURE REHABILITATION**

- The order of the Division 500 sections is based on an expected order of construction with respect to the construction of a bridge that typically begins with any required dewatering and subsequent foundation construction. This should facilitate a more practical way to find required specifications.
- Specifications for the construction of deck and approach slabs are included in a separate Section (507).
- Specifications for other concrete work; such as, substructure items of work that are included in Section 504.
- Section 513 now includes specifications for all types of retaining walls; such as, Mechanically Stabilized Earth Wall systems and Prefabricated Modular Wall systems.
- A new Division 550 Section includes all work that is associated with existing bridge structures; such as, bridge deck repairs and painting existing bridges.

### **DIVISION 600 – MISCELLANEOUS CONSTRUCTION**

#### **SECTION 601 – PIPE**

- Installing Pipe using alternate method replaces the old jacking and tunneling specification. The contractor is required to submit a plan for approval.
- High Density Polyethylene Pipe (HDPE) specification has been added.

#### **SECTION 608 – NON-VEGETATIVE SURFACES**

- Item and specification moved here from Landscaping section of 2001 specifications

#### **SECTION 609 – BEAM GUIDE RAIL**

- New Items have been added including updated end terminals.

#### **SECTION 610 – TRAFFIC STRIPES, TRAFFIC MARKINGS, AND RUMBLE STRIPS**

- Specifications updated and Rumble Strips has been moved here.

### **DIVISION 650 – UTILITIES**

- This is a new Division.
- Section 622 of the 2001 Std Specification has been moved to Division 650 with sections for Water, Sewer, Gas. Detailed specifications are provided for each section.

#### **SECTION 651 – WATER**

- Placement of water pipe includes installation of gate valves, inserting valves, tapping sleeves, tapping valves, valve boxes, blow-offs, and miscellaneous fittings. Placement of thrust blocks included in respective pipe items.
- Item is established for submission of an as-built plan of the completed utility work.

### **DIVISION 700 – ELECTRICAL**

- All Electrical and Intelligent Transportation Systems (ITS) work share common underground construction specifications and pay items in this Division, but also include additional items of work for their specialized areas of discipline. Section 701 introduces the construction work common to all. Sections 702 and 703

follow previous Book's scope in that they describe the standards for traffic signals and highway lighting, with specification format changes and Tower Lighting included under 703. Section 704 provides for ITS.

#### **SECTION 701 – GENERAL ITEMS**

- Several Electrical Items describing names and types have been deleted; instead, the payment will be under one Item. You will notice that the item, RIGID METALLIC CONDUIT, is now one item, where in the prior specifications it was RIGID METALLIC CONDUIT, TYPE \_\_\_\_, which may have been broken up as CUR and CUG.
- The Item CABLE RACK has been clarified.

#### **SECTION 702 – TRAFFIC SIGNALS**

- Several Electrical items describing names and types have been deleted; instead, the payment will be under one Item. In the past the items were combined and called assemblies.
- Assembly charts which showed combinations of parts have been removed. This is now replaced with individual items, such as Standards, Traffic Signal Mast Arm, Traffic Signal Head, Pedestrian Signal Head etc.
- TRAFFIC SIGNAL MAST ARM, STEEL is the pay item for any length steel arm.

#### **SECTION 703 – HIGHWAY LIGHTING.**

- Similar to Traffic Signals the Items are now being constructed as component parts versus Assemblies. For instance a LIGHTING STANDARD, LIGHTING MAST ARM AND LUMINAIRE make up an assembly. There is no differentiation for sizes for standards, mast arms, or differentiation for luminaires. The plans will show the types, sizes etc.
- The contractor will design a TEMPORARY HIGHWAY LIGHTING SYSTEM when required. The designer must provide any criteria necessary to do this.

#### **SECTION 704 – INTELLIGENT TRANSPORTATION SYSTEMS (ITS)**

- This section replaces the Section 706 of 2001 specification book.
- 704 is separated into subsections of the various types of ITS device systems. Each subsection is further broken into parts that contain information on the system components, construction, testing, maintenance, documentation and training.
- The first ITS system listed in Section 704 serves the additional purpose of defining common language for all subsequent systems. Each device as it follows refers back to this first subsection so that the identical requirements are not repeated unnecessarily.
- Job specific requirements that will vary between projects will still require input for the Special Provision.
- Some material specifications are included in Section 900, however most are described in the stand alone "EB" and "ITS" material specifications for components soon to be listed in the NJDOT on-line references with the various component construction detail drawings.

### **DIVISION 800 – LANDSCAPING**

#### **SECTION 801 – SELECTIVE VEGETATION REMOVAL**

- Combined Selective Thinning and Selective Clearing

#### **SECTION 802 – TRIMMING AND REMOVING TREES**

- Combined Trimming of Existing Trees and Tree Removal

#### **SECTION 807 – TOPSOIL STABILIZATION**

Added additional types of Topsoil Stabilization Matting

- Type 1 – Jute and Excelsior Matting
- Type 2 – Erosion Mulch Blanket
- Type 3 – Turf Reinforcement Mat
- Type 4 - Mechanically Bonded Fiber Matrix

#### **811.03.01 B. Optimal Planting Seasons**

- Optimal planting seasons instead of prescribed seasons

**SECTION 811.03.01G Setting Plants**

1. Balled and Burlapped Plants: Wire baskets have been deleted.

**811.03.02 Plant Establishment Period**

- 2 year paid plant establishment period is required.
- Inclusion of Highway Occupancy Permit.
- Inclusion of a Maintenance Bond.
- Non – Vegetative Surfaces moved to Section 608 – Non-Vegetative Surfaces.

**DIVISION 900 – MATERIALS**

One of the major changes to 900 was a complete reorganization. Materials that go together are grouped in sections. Another major change throughout 900 is clarification on which materials are required to be taken from a qualified products list (QPL).

- Section 901 is aggregates with no major changes.
- Section 902 is asphalt and it includes both the bituminous materials and the various HMA mixes. HMA mixes have been expanded to include OGFC, ultra-thin HMA, SMA, and asphalt stabilized drainage course. Also, as noted in the 400 section, Marshall mix design has been eliminated and Superpave mix design is now the standard but the name “Superpave” has been dropped.
- Section 903 is Concrete and includes sections for cement, admixtures, quick set patch, grout and mortar, curing materials, and concrete. Concrete has been expanded to include the requirements for mixing of concrete which used to be in Section 405. Standardized specifications have been added for pavement repair mixes, high performance concrete (HPC), self-consolidating concrete (SCC), and controlled low strength material (CLSM).
- Section 904 is a new section on Precast and Prestressed Concrete. It takes requirements that were scattered throughout the old specifications regarding fabrication of precast and prestressed concrete and consolidates them concisely in Section 904 for the various precast and prestressed concrete elements.
- Section 905 and 906 are Structural Steel and Bearing Assemblies, respectively. These sections include requirements on the fabrication that were previously in the 500 Section.

The remainder of the 900 section incorporated previously issued BDC’s including the addition of a section on fiberglass composite materials. There were also modifications to individual materials’ specifications to make them consistent with current practice and to address concerns on proprietary specifications.

**917.02.02 Compost**

- New section to allow use of compost as an organic soil additive

**917.08 TOPSOIL STABILIZATION MATTING**

- Description of the various existing and new matting products

**917.10 PLANT MATERIALS**

- More detailed quality and inspection requirements

**DIVISION 1000 – EQUIPMENT**

- This is a new Division that contains all the equipment/requirements from the other Divisions. Some equipment specifications have been added and some are removed. Notable within this division are the plant equipment requirements in Section 1009 HMA Plant Equipment, Section 1010 Concrete Plant And Mixing Equipment and Section 1011 Precast and Prestressed Concrete Plant Equipment.

**Other Supporting Engineering Documents to be issued:**

Following the new 2007 Standard Specifications book, other 2007 Engineering documents, as listed below, will be issued via separate BDC Announcements:

- 2007 Standard Roadway/Bridge Construction and Traffic Control details
- 2007 Standard Input (SI)
- 2007 Standard Electrical and ITS Details
- 2007 Sample Plans
- 2007 Item List
- 2007 Electrical Materials
- 2008 Design Manual – Roadway
- 2008 Design Manual - Bridge

**Distribution of hard copy of the book:**

A hard copy and compact disk of the *English 2007 Standard Specifications for Road and Bridge Construction* can be obtained by contacting:

New Jersey Department of Transportation  
Engineering Documents Unit  
E & O Building, 1<sup>st</sup> Floor  
1035 Parkway Avenue, PO Box 600  
Trenton, NJ 08625-0600

Phone: (609) 530-5587  
Fax: (609) 530-6626

**Cost:** Contact Engineering Documents Unit for applicable cost and shipping

**Implementation Code S (SPECIAL)**

**US Customary English units - Design Projects:**

2007 Standard Specifications shall be used on projects that are scheduled for the final design submission (FDS) **after April 15, 2008** regardless of their PDS dates.

**Metric units - Design Projects:**

Current projects designed using Metric units may continue using the 2001 Standard Specifications in Metric units and current Standard Input (SI) in Metric units. It should be noted that the Metric Specifications will no longer be updated.

**Recommended By:**

Original Signed By

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Walter McGrosky  
Director,  
Capital Program Support

**Approved By:**

Original Signed By

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Richard T. Hammer  
Assistant Commissioner,  
Capital Program Management

Attachment: *2007 Standard Specifications for Road and Bridge Construction* on a CD