

# Standard Specifications - 2012 Edition Changes

## PART 1 GENERAL REQUIREMENTS AND COVENANTS

### **SECTION 104 SCOPE OF WORK**

Revise 104.1(1) to clarify that the contract defines the contract obligations of the contractor and department.

### **SECTION 106 CONTROL OF MATERIALS**

Revise 106.3.3.3.1(1) to allow precast plant certification by the Precast/Prestressed Concrete Institute.

*Revise 106.3.4.3 to reflect incorporating the 3 concrete QMP special provisions into part 7. Process control requirements for control charts and corrective actions are no longer required under the contract for concrete. The department will continue to use contractor process control information to settle disputes over potentially nonconforming materials.*

### **SECTION 108 PROSECUTION AND PROGRESS**

*Revise 108.11(3) to update the amounts charged for liquidated damages based on fiscal 2009 and 2010 analysis.*

## PART 2 EARTHWORK

### **SECTION 211 PREPARING THE FOUNDATION**

Revise 211.3.4 to emphasize that an aggregate base course is the foundation for concrete pavement or base and to replace outdated machine paving on forms with hand placement techniques.

## PART 3 BASES AND SUBBASES

### **SECTION 320 CONCRETE BASE**

*Revise 320.2(1) to require QMP testing as specified for class II ancillary concrete under standard spec part 7. Concrete base was previously covered under the concrete pavement QMP special provision.*

Delete 320.3.3 to eliminate the Concrete Base Widening bid item.

Revise 320.5(1) and delete 320.5(4) to eliminate the Concrete Base Widening bid item.

### **SECTION 390 BASE PATCHING**

Revise 390.2 (2) to specify QMP for class II ancillary concrete under section 716.

## PART 4 PAVEMENTS

### **SECTION 405 COLORING CONCRETE**

*Add section 405 to specify special materials and construction procedures required to provide colored concrete in association with work bid under other concrete bid items in the contract. Additional costs associated with coloring and working with colored concrete are bid under the Coloring Concrete bid items in this section. All other costs for providing colored concrete work are included in associated contract bid items.*

- *Add new bid item for Coloring Concrete Red.*

#### **SECTION 415 CONCRETE PAVEMENT**

*Rewrite section 415 to reflect current practice and institute key changes as follows:*

- *Add new bid items for 12 1/2, 13, & 13 1/2 inch concrete pavement.*
- *Move the bid items from section 416 that must conform to the class I concrete QMP provisions here to section 415:*
  - *Concrete Pavement Gaps*
  - *Concrete Alley and Concrete Alley HES*
  - *Concrete Pavement Approach Slab and Concrete Pavement Approach Slab HES*
- *Eliminate continuously reinforced concrete pavement.*
- *Eliminate continuous diamond grinding now done by special provision.*
- *Replace tabulated crack repair costs with a pay equation and reduce the amount reimbursed.*

#### **SECTION 416 CONCRETE PAVEMENT - APPURTENANT CONSTRUCTION**

*Revise section 416 to reflect current practice and institute key changes as follows:*

- *Incorporate SPV special provision for roundabout truck aprons.*
- *Incorporate SPV special provision for concrete shoulder rumble strips.*
- *Incorporate STSP 415-030 for intersection concrete rumble strips.*
- *Move the Concrete Pavement Gaps, Concrete Alley, and Concrete Pavement Approach Slab bid items to section 415.*
- *Eliminate pavement widening work now done under the the Concrete Pavement bid items.*
- *Eliminate concrete header work now done under the Concrete Pavement Gaps bid items.*
- *Eliminate pavement terminal unit work no longer done on new work.*
- *Eliminate continuous diamond grinding now done by special provision.*

### **PART 5 STRUCTURES**

#### **SECTION 502 CONCRETE BRIDGES**

Revise 502.2.1 to require QMP testing as specified under 715 for class I structure concrete and require that all hardware embedded in concrete structures be corrosion resistant.

Revise 502.2.12.2(1) to switch from AASHTO M232 to the equivalent ASTM A 153 supplemented by ASTM F 2329 for hot-dip galvanizing. Also switch from AASHTO M 298 to ASTM B 695 for mechanical galvanizing.

Revise 502.4.6(1) to eliminate additional measurement for re-sealing over pavement marking.

*Revise 502.5.6(1) to specify that payment for re-sealing over pavement marking is incidental to pavement marking.*

## **SECTION 504 CULVERTS, RETAINING WALLS, AND ENDWALLS**

Revise 504.2 to require QMP testing as class I structure concrete under 715 for culverts and retaining walls and as class III ancillary concrete under 716 for endwalls.

Revise and retitle 504.3.1 to define general construction requirements for culverts, retaining walls, and endwalls. Parapets placed on retaining walls cannot be slip formed unless explicitly allowed in the special provisions.

Revise 504.3.3(1) and 504.3.3(2) to simplify the falsework removal requirements for culverts.

## **SECTION 506 STEEL BRIDGES**

Revise 506.2.5.1(7) to supplement ASTM A 153 with ASTM F 2329 for hot-dip galvanizing.

## **SECTION 507 TIMBER STRUCTURES**

Revise 507.2.5(1) to switch from AASHTO M 111 to the equivalent ASTM A 123 for hot-dip galvanizing.

## **SECTION 509 CONCRETE OVERLAY AND STRUCTURE REPAIR**

Revise 509.2 (5) to specify QMP for class II ancillary concrete under section 716.

Add subsection 509.3.1 to require repair of existing reinforcement uncovered or caused by contractor operations.

Add subsection 509.5.1(2) to specify that repairing existing reinforcement is incidental.

## **SECTION 513 RAILING**

Revise 513.2.3(3) to supplement ASTM A 153 with ASTM F 2329 for hot-dip galvanizing.

## **SECTION 514 FLOOR DRAINS, DECK DRAINS, AND DOWNSPOUTS**

Add 514.2 (7) to specify QMP for class II ancillary concrete under section 716.

## **SECTION 515 STEEL GRID FLOORS**

Revise 515.2 (4) to specify QMP for class I structure concrete under section 715.

## **SECTION 517 PAINT AND PAINTING**

Revise 517.2.4.2(1) to require an epoxy system from the department's approved products list for new structural steel.

*Add 517.3.1.8.3 to require a second coat of urethane as a top coat to exterior girders. This revision incorporates STSP 517-040 Painting Epoxy System Structure.*

## **SECTION 519 BRICK MASONRY AND CONCRETE BRICK OR BLOCK MASONRY**

Revise 519.2.2 (2) to specify QMP for class III ancillary concrete under section 716.

# **PART 6 INCIDENTAL CONSTRUCTION**

## **SECTION 601 CONCRETE CURB AND GUTTER**

Revise 601.2 (2) to specify QMP for class II ancillary concrete under section 716.

**SECTION 602 CONCRETE SIDEWALKS, LOADING ZONES, SAFETY ISLANDS, AND STEPS**

Revise 602.2 (2) to specify QMP for class II ancillary concrete under section 716.

*Revise 602.2(3) to require cast iron detectable warning fields regardless of color.*

**SECTION 603 CONCRETE BARRIER**

Revise 603.2 (2) to specify QMP for class II ancillary concrete under section 716.

**SECTION 604 SLOPE PAVING**

Revise 604.2 (2) to specify QMP for class III ancillary concrete under section 716.

**SECTION 605 DITCH CHECKS**

Revise 605.2 (3) to specify QMP for class III ancillary concrete under section 716.

**SECTION 606 RIPRAP**

Reorganize and revise 606.2 to require a portland cement mortar or concrete for grouting riprap.

**SECTION 607 STORM SEWERS**

*Add 607.3.3(4) to require ties on the last 3 joints of concrete storm sewer infall and outfall installations. Ties are also required for work done under sections 608, 609, and 610.*

**SECTION 611 CATCH BASINS, MANHOLES, AND INLETS**

Revise 611.2.1 (2) to specify QMP for class III ancillary concrete under section 716.

**SECTION 614 SEMI-RIGID BARRIER SYSTEMS AND END TREATMENTS**

Add 614.2.1(2) to specify QMP for class II ancillary concrete under section 716.

Revise 614.2.1(4) to specify ASTM standards for base materials for nuts, bolts, and washers for guardrail.

*Revise 614.2.2(1) to require strength testing according to ASTM D 4832 and eliminate the 90-day requirement.*

Replace 614.3 to add general requirements to paint drilled, cut , or otherwise damaged galvanized coatings.

*Add 614.3.2.5 to specify grading, shaping, and finishing for barrier systems. This revision incorporates STSP 205-009 Grading, Shaping, and Finishing for Barrier Terminals.*

Revise 614.3.3(2) to prohibit pre-packaged sand.

Revise 614.3.3(3) to require marking the foundation pads with design details required for array maintenance.

Revise 614.4(1) to specify measurement for the Barrier System Grading Shaping Finishing bid item by each location.

Revise 614.5(1) to add new Midwest Guardrail System (MGS) and Barrier System Grading Shaping Finishing bid items.

Revise 614.5(4) to specify payment for the MGS Guardrail, and various transition bid items.

Add 614.5(14) to specify payment for the Barrier System Grading Shaping Finishing bid item.

### **SECTION 615 TREATED RUSTIC TIMBER ITEMS AND HISTORICAL MARKERS**

Add 615.2.1 (2) to specify QMP for class III ancillary concrete under section 716.

### **SECTION 616 PROPERTY AND RIGHT-OF-WAY FENCE**

Revise 616.2.1 (2) to specify QMP for class III ancillary concrete under section 716.

### **SECTION 619 MOBILIZATION**

Revise 619.5(3) to delay mobilization payment in excess of 10% of the total contract amount until 90 % completion. Actual payments will be determined using a spreadsheet, WS 6191, published in the CMM and available online at:

<http://roadwaystandards.dot.wi.gov/standards/cmm/forms/ws6191.xls>

This change was implemented in ASP 6 effective with the March 2011 letting.

### **SECTION 620 CONCRETE CORRUGATED MEDIAN AND CONCRETE MEDIAN NOSE**

Revise 620.2 (2) to specify QMP for class II ancillary concrete under section 716.

### **SECTION 621 LANDMARK REFERENCE MONUMENTS**

Revise 621.2 (4) to specify QMP for class II ancillary concrete under section 716.

### **SECTION 632 FURNISHING AND PLANTING PLANT MATERIALS**

Revise 632.3.19.1(2) to clarify that each care cycle is about 2 weeks long. One and two-year contracts should thus typically have a quantity of about 10 or 20 care cycles respectively.

### **SECTION 633 DELINEATORS AND MARKERS**

Revise 633.2.1(3) to switch from AASHTO M 111 to the equivalent ASTM A 123 for hot-dip galvanizing.

Revise 633.2.5 to eliminate plastic reflectors and instead use sheet aluminum disks with type SH reflective sheeting.

### **SECTION 635 STRUCTURAL STEEL SIGN SUPPORTS**

Revise 635.2(2) and 635.2(3) to eliminate weathering steel and switch from AASHTO to the equivalent ASTM standards.

Revise 635.3.3(2) to switch from AASHTO M 111 to the equivalent ASTM A 123 for hot-dip galvanizing.

### **SECTION 636 CONCRETE SIGN SUPPORTS**

Revise 636.2 (2) to specify QMP for class II ancillary concrete under section 716.

### **SECTION 637 SIGNING**

Revise 637.2.1.2(1) to require 7-ply sign bases rather than the current 5-ply allowed under U.S. Product Standard PS 1

Delete 637.2.2.1 to eliminate standard reflective sheeting.

Revise 637.2.2.4(1) to require type XI sheeting. Other types are no longer acceptable regardless of their retroreflection and luminance properties.

Revise 637.3.2.8.1(1) to require aluminum for small signs.

### **SECTION 638 STATE OWNED SIGNS AND SUPPORTS**

Revise 638.3.4(2) & (3) to specify that aluminum signs are department property; plywood signs belong to the contractor.

### **SECTION 639 DRILLING WELLS**

Revise 639.2.1 (1) to specify QMP for class III ancillary concrete under section 716.

### **SECTION 641 SIGN BRIDGES AND SUPPORTS**

Revise 641.2.2(1) and 641.2.2(3) to switch from AASHTO M232 to the equivalent ASTM A 153 supplemented by ASTM F 2329 for hot-dip galvanizing. Also switch from AASHTO M 298 to ASTM B 695 for mechanical galvanizing.

### **SECTION 643 TRAFFIC CONTROL**

***Revise 643 to incorporate STSP 643-050 Traffic Control Signs Portable Changeable Message.***

Revise 643.2.7 to add equipment requirements for portable changeable message signs.

Revise 643.2.9.1(6) to eliminate the use of standard reflective sheeting on all signs.

Revise 643.2.9.1(10) to eliminate standard reflective sheeting.

Delete 643.2.9.2(4) to eliminate the use of standard reflective sheeting on all signs.

***Revise 643.2.9.5 to provide specific requirements for sign covering materials and allow for engineer-approved alternates.***

Revise 643.3.2(4)-(7) to require two traffic control inspections per workday and one on non-workdays.

Revise 643.3.7 to add construction requirements for portable changeable message signs.

***Revise 643.3.8.1(1) to add construction requirements for sign covers.***

Add 643.4.3(7) to specify measurement by the calendar day for portable changeable message signs.

Add 643.5.1(1) to add a new bid item for portable changeable message signs.

Add 643.5.4(12) to specify payment for portable changeable message signs and remote programming.

### **SECTION 646 PAVEMENT MARKINGS**

Revise 646.2.1(2) to allow the contractor to use 1 1/2 year old paint and epoxy.

Revise 646.2.3(3) to specify limits for arsenic and lead in glass beads.

Revise 646.3.1 to require removal of protective surface treatment on structures before marking and to require only epoxy marking on epoxy overlays.

*Add 646.3.1.4 to specify late season marking for all pavement marking applied after November 15th.*

Add 646.4(4) to specify measurement of epoxy marking placed as a substitution on epoxy overlays.

Revise 646.5(2) to make resealing structures after marking incidental to the pavement marking bid items.

*Add 646.5(3) to make late season marking required under 646.3.1.4 incidental to the contract unless required because of an excusable compensable delay or if the Pavement Marking Late Season bid item is added by special provision.*

Add 646.5(7) to specify payment for epoxy marking placed as a substitution on epoxy overlays.

### **SECTION 651 GENERAL REQUIREMENTS FOR ELECTRICAL WORK**

Revise 651.2(3) to require only 1 copy of the materials list instead of 5.

Revise 651.3.3(3) to require 5 days notice for signal inspection.

### **SECTION 654 BASES**

Revise 654.2.1(2) to switch from AASHTO M232 to the equivalent ASTM A 153 for hot-dip galvanizing.

Revise 654.2.1 (5) to specify QMP for class III ancillary concrete under section 716.

### **SECTION 655 ELECTRICAL WIRING**

Revise 655.2.1(2) to require colored duct.

### **SECTION 658 TRAFFIC SIGNALS**

Revise 658.2.2. to require stainless steel bolt with wing nut closures for signal housing doors and LED display modules.

Revise 658.2.3. to require z-crate visors for use with 16-inch housing doors and LED pedestrian display modules.

Replace 658.2.4. to add material requirements for programmable traffic signal faces.

Revise 658.3.3 to specify construction requirements for programmable signal faces.

Revise 658.4(1) to add measurement requirements for programmable signal faces and LED displays.

Revise 658.5 to add new bid items and payment requirements for programmable signal faces and LED displays.

### **SECTION 659 LIGHTING**

Revise 659.3.2 to upgrade and clarify fusing requirements require insulated multi-tap terminal blocks.

### **SECTION 660 HIGH MAST LIGHTING**

Revise 660.2.1 (3) to specify QMP for class II ancillary concrete under section 716.

Revise 660.2.3(4) to supplement ASTM A 153 with ASTM F 2329 for hot-dip galvanizing.

#### **SECTION 661 TEMPORARY TRAFFIC SIGNALS AND TEMPORARY RAMP METERS**

Revise 661.2.1(4) to allow engineer-approved used temporary signal faces and LED modules.

Revise 661.3.3.1(2) to require trailer mounted signals from the department's approved products list

#### **SECTION 672 INTELLIGENT TRANSPORTATION SYSTEMS - BASES**

Add 672.2.1 (3) to specify QMP for class III ancillary concrete under section 716.

Revise 672.2.3(1) to switch from AASHTO M232 to the equivalent ASTM A 153 for hot-dip galvanizing.

### **PART 7 QUALITY MANAGEMENT PROGRAM**

*Add part 7 to describe the department's quality management program. This revision incorporates the following standardized special provisions:*

- STSP 415-065 QMP Concrete Pavement
- STSP 501-065 QMP Concrete Ancillary
- STSP 502-045 QMP Concrete Structures

#### **SECTION 701 GENERAL QMP REQUIREMENTS**

*Add section 701 to describe general requirements common to all QMP's under part 7 of the standard specs.*

#### **SECTION 710 GENERAL CONCRETE QMP**

*Add section 710 to describe general requirements common to the 3 concrete related QMP's under part 7.*

#### **SECTION 715 QMP CONCRETE PAVEMENT AND STRUCTURES**

*Add section 715 to describe specific QMP requirements for class I concrete used in pavement and structures. This revision incorporates the following standardized special provisions:*

- STSP 415-065 QMP Concrete Pavement
- STSP 502-045 QMP Concrete Structures

#### **SECTION 716 QMP ANCILLARY CONCRETE**

*Add section 716 to describe specific QMP requirements for class II and III concrete used in ancillary applications. This revision incorporates standardized special provision 501-065 QMP Concrete Ancillary.*

## **SCHEDULE OF BID ITEMS**

### **Part 3 Bid Items**

Retire the Concrete Base Widening bid item.

### **Part 4 Bid Items**

Add bid items for coloring concrete red for roundabout truck aprons and other bid items using concrete.

Add bid items for 12 1/2, 13, 13 1/2 inch concrete pavement.

Move bid items for gaps, alleys and approach slabs covered class 1 QMP specifications to section 415.

Add bid items for 12 1/2, 13, 13 1/2 inch HES concrete pavement.

Move bid items for HES alleys and approach slabs covered class 1 QMP specifications to section 415.

Retire the Concrete Pavement Continuous Reinforcement bid item.

Retire the Concrete Pavement Widening bid items now bid as the appropriate concrete pavement item.

Retire the Concrete Pavement Header bid items now bid as the Concrete Pavement Gaps item.

Add bid items for concrete truck aprons used on roundabouts. Use with Coloring Concrete Red bid item.

Retire the Concrete Pavement Continuous Diamond Grinding bid item now bid only by special provision.

Incorporate concrete rumble strip special provision bid items for shoulders (SPV) and intersections (415.1180.S).

### **Part 5 Bid Items**

Add new bid item for Type L masonry anchor using No. 10 bars.

Add new bid items for 5/8 inch and 3/4 inch diameter shear studs.

### **Part 6 Bid Items**

Retire bid item 601.0318 and add 601.0319 to switch from 18" to 19" curb & gutter used on City of Milwaukee projects.

Add new bid item for a type BW inlet cover.

Add new grading, shaping, and finishing bid items for barrier Systems.

Add new Midwest Guardrail System (MGS) bid items.

Add new Refurbish Guardrail Terminal EAT bid item.

Add bid item for portable changeable message sigs previously bid under the special provision item 643.1050.S.

Add bid items for new bike shared lane symbols.

Add new bid items for LED display modules.

Add new bid item for programmable traffic signal faces.

### **Part 7 Bid Items**

Add contingency items for concrete strength incentives.

## ***Look Ahead - 2013 Bid Items***

### ***BID ITEMS ADDED***

Add these additional bid via ASP 6 effective with the August 2012 letting:

<b><u>ITEM NUMBER</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>UNIT</u></b>
643.0910	Traffic Control Covering Signs Type I	EACH
643.0920	Traffic Control Covering Signs Type II	EACH

Add these additional bid items effective with the December 2012 letting:

<b><u>ITEM NUMBER</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>UNIT</u></b>
614.2510	Guardrail Transition	LF
637.0620	Sign Flags Permanent Type II	EACH
637.0630	Sign Flags Permanent Type III	EACH

### ***BID ITEMS RETIRED***

Retire these bid items effective with the December 2012 letting:

<b><u>ITEM NUMBER</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>UNIT</u></b>
611.0526	Manhole Covers Type J Hinged	EACH
611.0528	Manhole Covers Type J Hinged-Special	EACH
*614.0105	Anchorage for Steel Plate Beam Guard	EACH
*614.0110	Anchorage for Steel Plate Beam Guard Temporary	EACH
659.0300	Luminaires Sign Lighting	EACH
659.0500	Sign Lighting (location)	LS

**\*Current in TrnsPort. All other items, both added or retired, are be tentative and subject to change.**