

**Supplemental Specifications to the August 2001 Standard Specifications**  
**(Revised May 15, 2006)**

**\*\*\* Note: Modifications to the Supplemental Specifications under this Revision have been highlighted in gray for easy identification.\*\*\***

**Subsection 101.78 Subcontractor. (3/18/2004)**

Modify the second paragraph as follows:

Exceptions to this definition are suppliers limited to delivering and depositing, but not incorporating material, suppliers of services that transport material, and the work performed which does not advance the completion of the Contract and is not considered as an item of work.

**Subsection 101.79 Substantial Completion. (3/18/2004)**

Modify the sentence as follows:

The point at which all Contract items are complete as deemed by the Department excluding any warranties or vegetation growth.

**Subsection 102.07 Irregular Proposals. (5/15/2006)**

Modify Paragraph B. as follows:

B. There are unauthorized additions, interlineations, conditional bids, or irregularities of any kind that may tend to make the proposal incomplete, indefinite, or ambiguous.

Delete paragraph G.

Modify Paragraph I. as follows:

I. The Contractor fails to provide a proposal guaranty.

**Subsection 104.04 Accident Notification. (5/15/2006)**

Modify the paragraph as follows:

Notify the Transportation Management Center (T.M.C.) at 659-2400 and Engineer concerning any accidents.

**Subsection 105.04 Plans and Working Drawings. (5/15/2006)**

Modify the 4<sup>th</sup> paragraph as follows:

Working drawings for concrete structures shall provide such details as are required for successful prosecution of the work. These shall include plans for items

such as falsework, bracing, sheeting, shoring, cofferdams, formwork, masonry layout diagrams and bending diagrams for reinforcing steel.

**Subsection 105.13 Maintenance During Construction. (3/18/2004)**

Add the following:

The contractor shall mow all grass and weeds within the limits of the Contract, as directed by the Engineer, up to 4 times a year to a height in compliance with subsection 107.01.

**Subsection 105.20 Project Acceptance. (3/18/2004)**

Modify the first paragraph as follows:

Final acceptance will not occur until completion of the Project in accordance with Subsection 101.16. The Contract time will be stopped at substantial completion.

**Subsection 106.09 Disposal of Unacceptable Materials. (5/15/2006)**

Modify the paragraph as follows:

All waste materials removed by earthwork operations shall become the property of the Contractor and shall be removed from the Project or otherwise disposed of as specified. Unless specific disposal sites are designated on the Plans, the Contractor shall procure disposal sites. Such disposal sites shall be submitted to and approved by the Engineer. If the contract is federally funded or Federally permitted, the Engineer will submit the proposed site to the State Historic Preservation Office for their approval prior to utilization by the Contractor. No areas that are designated as wetlands will be permitted for use as disposal sites. The submittal shall include a plan of the disposal area, proposed sediment and erosion control devices, existing and proposed final contours, and proposed security measures. All permit requirements such as those required by the Department of Natural Resources and Environmental Control (DNREC) and the U.S. Army Corps of Engineers shall be met by the Contractor when preparing and utilizing off-site disposal areas. The Contractor shall submit a similar proposal for use of designated disposal sites if such detail is not included in the Contract documents. Costs for preparing these plans are incidental to [Section 201](#). For disposal sites designated on the Plans, payment will be made separately under applicable bid items for all necessary erosion and sediment controls, seeding, and mulching. For Contractor-procured disposal sites, such costs are incidental to [Section 201](#). The Department will not consider any delays or monetary claims of any nature resulting from the Contractor's failure or difficulty in finding the necessary disposal sites.

**Subsection 107.04 Contractor's Responsibility for Utility Property and Services. (5/15/2006)**

Modify the 3<sup>rd</sup> paragraph as follows:

Fire hydrants on or adjacent to the highway shall be kept accessible to fire apparatus at all times and no material or obstruction shall be placed within 15' (4.5 m) of any such hydrant. Work shall be left entirely accessible at all points to fire apparatus at all times. Whenever any work is done in the area of a fire hydrant or whenever a fire

hydrant is relocated or installed, the center of the hose outlet shall be a minimum of 18 in. (457 mm) above the final grade directly beneath the hose outlet.

**Subsection 107.09 Protection and Restoration of Property. (5/15/2006)**

Modify the 4<sup>th</sup> sentence in the first paragraph as follows:

The Contractor shall not injure or destroy trees or shrubs outside the limits of construction, nor remove or cut them without proper authority.

**Subsection 108.01 Subletting of Contract. (3/18/2004)**

Modify the second paragraph as follows:

If the Contractor to whom a contract is awarded proposes to subcontract any part of the work, the scope and value of the work to be done by the subcontractor shall be outlined. The cost of materials to be used by the subcontractor shall be outlined. The cost of materials to be used by the subcontractor shall be included in the value of the subcontracted work. A subcontractor shall not subcontract further a portion of the work intended to be done by the original subcontractor without the express written permission of the Engineer. In granting such permission, the Engineer shall ensure that the subcontractor seeking to subcontract the work to be performed by another shall nonetheless perform with its own organization work amounting to not less than 50% of the total subcontracted bid price.

**Subsection 108.09 Schedule of Liquidated Damages. (5/15/2006)**

Update table with these new numbers.

**Schedule of Liquidated Damages**

Awarded Contract Value		Daily Charge	
For More Than –	To and Including –	Work Day	Calendar Day
\$ 0	\$ 25,000	\$ 380.00	\$ 275.00
25,000	50,000	400.00	290.00
50,000	100,000	540.00	390.00
100,000	500,000	840.00	600.00
500,000	1,000,000	1,090.00	780.00
1,000,000	2,000,000	1,350.00	960.00
2,000,000	5,000,000	1,410.00	1,010.00
5,000,000	10,000,000	1,590.00	1,130.00
10,000,000	15,000,000	2,510.00	1,790.00
15,000,000	20,000,000	4,180.00	2,990.00
20,000,000	25,000,000	5,850.00	4,180.00
25,000,000	30,000,000	7,520.00	5,370.00
30,000,000	35,000,000	9,190.00	6,570.00
35,000,000	Over	10,870.00	7,760.00

**Subsection 109.04 Payment for Differing Site Conditions, Major Changes, Extra Work, and Force Account. D.8. Subcontracting. (5/15/2006)**

Modify the paragraph as follows:

**Subsection 201.03 Trees and Roadside Amenities Designated to Remain. (5/15/2006)**

Modify the subsection title as shown above and modify the paragraph as follows:

The Engineer shall designate such trees, shrubbery, plants and roadside amenities, such as signs, light posts, or other improvements, which are not to be removed, and the Contractor shall protect them from any damage. If any such shrubbery, plants or roadside amenities are damaged, they shall be replaced or repaired. Any trees that are designated to remain that are damaged shall be evaluated by a certified tree surgeon and the contractor shall follow their recommendations to repair or for replacement of the trees. Branches of trees overhanging the roadbed shall be properly trimmed to maintain a clearance height of 20' (6 m), unless otherwise directed. All pruning shall be performed in accordance with the International Society of Arboriculture's Current Tree Pruning Guidelines, Publication ISBN 1-881956-07-5, and as illustrated on the Standard Construction Details.

**Subsection 201.10 Basis of Payment. (5/15/2006)**

Modify the 1<sup>st</sup> paragraph as follows:

The quantity of clearing and grubbing will be paid for at the Contract lump sum. Price and payment will constitute full compensation for replacement of suitable material below required depth that was cleared and grubbed; for furnishing and compacting approved material to fill all depressions; for protecting trees, shrubbery, plants and other roadside amenities that are designated to remain, for replacement or repair of damaged trees, shrubbery, plants or other roadside amenities that are designated to remain; for disposal; and for all labor, equipment, tools, and incidentals required to complete the work.

**Subsection 302.02 Materials. (5/15/2006)**

Modify the paragraph as follows:

The material used to construct graded aggregate base course shall conform to the requirements of Section 821. Crushed portland cement concrete may be used as graded aggregate base course, Type B, provided it conforms to the requirements of Section 821.

**Subsection 302.04 Placement. Subpart (c) Performance. (5/15/2006)**

Delete the first sentence in the 2<sup>nd</sup> paragraph as follows:

Compaction of graded aggregate Type B shall continue until each layer is thoroughly and uniformly compacted to 98% or more of the laboratory maximum density obtained on a sample of the same material. If the material is too coarse to use the test

methods listed below, compaction shall continue until there is no movement of the material under the compaction equipment.

**Subsection 601.07 Hardware. (3/18/2004)**

Modify the first paragraph as follows:

Machine bolts, drift pins, dowels, nuts, washers, lag screws, and nails shall conform to the requirements of ASTM A307 Grade A.

Modify the first sentence of the second paragraph as follows:

Machine bolts shall have a hex head and nut, unless otherwise specified and shall conform to the requirements of ASTM A307, Grade A.

**Subsection 602.17 Finishing Concrete Surfaces, (b) Ordinary Surface Finish. (5/15/2006)**

Modify the 2<sup>nd</sup> sentence as follows:

On all surfaces, the cavities produced by form ties and all other holes, honeycomb spots, broken corners or edges, and other defects shall be thoroughly cleaned, saturated with water, and carefully pointed and trued with mortar mixed in the proportion of one part portland cement to three parts fine aggregate.

**Subsection 612.05 Excavation. (3/18/2004)**

Delete the entire paragraph and insert the following:

The trench in which the pipe is laid shall be excavated to the required depth in accordance with Section 208 and the Standard Construction Details.

**Subsection 612.06 Bedding of Pipe. (3/18/2004)**

Delete the entire paragraph and insert the following:

Unless noted otherwise, all pipes shall receive a Class C bedding as shown on the Standard Construction Details.

**Subsection 612.11 Basis of Payment. (3/18/2004)**

Modify the second sentence of the first paragraph as follows:

Price and payment will constitute full compensation for furnishing, hauling, and installing pipe; for all cribbing or foundation treatment (Class C bedding) necessary to prevent settlement; for all shoring and sheeting; for the replacement of any pipe which is not true in alignment or which shows any settlement after laying; and for all material, labor, equipment, tools, and incidentals required to complete the work.

Modify the first sentence of the second paragraph as follows:

For round pipe under 24" (600 mm) nominal inside diameter, and elliptical pipe under 24" (600 mm) nominal inside horizontal dimension, the excavation (excluding rock), Class C bedding, backfill, and backfilling will be included in the price for this work.

Modify the last paragraph as follows:

Payment for excavation and replacement of unsuitable material encountered below the Class C bedding will be provided for under Section 208.

**Subsection 614.11 Basis of Payment. (3/18/2004)**

Modify the second sentence of the first paragraph as follows:

Price and payment will constitute full compensation for furnishing, hauling, and installing pipe; for all cribbing or foundation treatment (Class C bedding) necessary to prevent settlement; for all shoring and sheeting; for the replacement of any pipe which is not in true alignment or which shows any detrimental settlement after laying; for coating if required; and for all material, labor, equipment, tools, and incidentals required to complete the work.

Modify the first sentence of the second paragraph as follows:

For pipe under 24" (600 mm) nominal inside diameter and arch pipe under 24" (600 mm) nominal inside horizontal dimension, the excavation (excluding rock), Class C bedding, backfill, and backfilling will be included in the price of this work.

Modify the last paragraph as follows:

Payment for excavation and replacement of unsuitable material encountered below the Class C bedding will be provided for under Section 208.

**Subsection 617.02 Materials. (5/15/2006)**

Add the following sentence:

Reinforced concrete flared end sections shall be Class III for all types and class of pipes unless otherwise noted in the Plans.

**Subsection 619.11 Test Piles. (3/18/2004)**

In paragraph (a) (7) modify the second sentence as follows:

However, in no case shall the pile be driven to exceed 240 blows per 12" (300 mm) or 20 blows per 1" (25 mm) of driving for 3 consecutive inches (75 mm).

**Subsection 619.12 Driving Production Piles. (3/18/2004)**

In paragraph (5) modify the first sentence as follows:

In no case shall production piles be driven to exceed 240 blows per 12 inches (300 mm) or 20 blows per 1" (25 mm) for 3 consecutive inches (75 mm).

### **Subsection 623.07 Non-Shrink Grout. (3/18/2004)**

Delete the entire paragraph and replace with the following:

Non-shrink grout shall conform to ASTM C1107, Grade C with one modification. The minimum 24-hour strength shall be increased to 5.0 KSI. The sampling and testing procedures of ASTM C1107 need not be changed.

### **Section 701 - Curb and Integral Curb and Gutter (5/15/2006)**

Section 701 of the Standard Specifications is replaced with the following:

**701.01 Description.** This work consists of constructing curbs and integral curbs and gutters on a prepared foundation using either fixed forms or slip forms.

#### **MATERIALS.**

**701.02 Portland Cement Concrete.** Portland cement concrete shall conform to the requirements of Section 812, Class B for either fixed-form work or slip-form work.

**701.03 Liquid Membrane Curing Compounds.** Liquid membrane curing compound shall comply with Subsection 812.02 (i), (1) Curing Materials.

**701.04 Preformed Expansion Joint Material.** Preformed cork expansion joint material shall be 1/2" (13 mm) nominal thickness and conform to the requirements of Subsection 808.06.

**701.05 Bituminous Joint Sealant.** Bituminous joint sealant when needed for longitudinal joints as noted on C-1 and P-2 of the Standard Construction Details shall conform to the requirements of Subsection 808.04 (c).

#### **CONSTRUCTION METHODS.**

**701.06 Preparation of Foundation.** The foundation shall be prepared at the required grade to accommodate the elevations, dimensions, and details shown on the Plans. Grades shall be checked to ensure the drainage is adequate to prevent ponding. Existing subgrade shall be compacted until the surface is firm and unyielding. All unsuitable material shall be removed and replaced with approved material. Graded Aggregate Base Course Type B, (GABC) meeting the requirements of Subsection 302.02 shall be used unless otherwise directed. GABC shall be compacted with water as required in Subsection 302.04 except no spreader box will be required. Where rock is encountered, the grade shall be excavated to 6" (150 mm) below the bottom of the curb and integral curb and gutter and backfilled with GABC.

**701.07 Fixed Forms.** Fixed forms shall be of wood or metal and shall extend the full depth of the concrete. Composite material forms may be used for radii work. Forms shall be straight, free from warp greater than 1/8" in 10' (3 mm in 3 m), and of sufficient strength to resist the pressure of the concrete, and shall not displace more than 1/4" in 10' (3 mm in 3 m) from the vertical or horizontal plane. Forms shall remain in both horizontal and vertical alignment until their removal. Forms shall be clean and coated with an approved form release agent before concrete is placed. Divider plates shall be 1/8" thick metal.

**701.08 Slip-Forming.** Slip forming may be used provided that only approved equipment is used and the surface adjacent to the curb is firm and unyielding to support the weight of the machine.

**701.09 Placing Concrete.** The concrete shall be placed on a moist foundation, wetting the foundation if necessary. The concrete shall then be consolidated to eliminate air voids and worked sufficiently to bring mortar to the surface. The surface shall be struck off to the required contour and finished smooth and even with an approved float.

Limitations on placing concrete during hot or cold weather shall be as specified in Subsection 501.04.

**701.10 Joints.** Expansion joints shall be formed using templates or saw cut at no greater than 160' (49 m) intervals. Joints must be cut or formed vertically to the full depth of the curb to allow full contact of the expansion material with the entire surface. Additional expansion joints shall be constructed at each end of radii and at both sides of all structures or obstructions.

Contraction joints shall be constructed at 10' (3m) intervals. If not templated, all surfaces, front, top and back shall be tooled or saw cut to a minimum depth of 1" (25 mm) and a minimum width of 1/8" (3 mm). Saw cutting shall be done as soon as the concrete has sufficiently set or no more than 16 hours from the time of placement of the concrete to avoid shrinkage cracking. Any curb showing shrinkage cracks shall be removed and replaced at no cost to the Department.

When constructed adjacent to concrete pavement, joints shall coincide with joints in the pavement. When sidewalk is behind the curb all joints shall be in alignment and the expansion joints in the curb shall coincide with expansion joints in the sidewalk.

When curb is placed adjacent to Portland Cement Concrete pavement the curb or pavement shall be formed or tooled to allow sealing as shown in the Standard Construction Details C-1 and P-2.

**701.11 Finishing.** A wood or magnesium float shall be used to rub the surface smooth while the concrete is still green. Front and back edges of the curb shall be rounded to a 1/4" (6 mm) radius. A steel trowel finish shall next be applied, and finally a soft dampened brush shall be used longitudinally along the surface. Finishing shall be performed to a depth of 2" (50 mm) below the proposed pavement surface elevation.

Before the concrete is given the final finish, the flow line of the gutter shall be checked to ensure positive drainage. Vertical alignment shall match adjacent surfaces such as curbs and drainage inlets. Any deviations in the flow line of more than 1/8" in 10' (3 mm in 3 m) shall be corrected. Irregularities in grade or alignment of the front and back edges of the curb shall not exceed 1/4" in 10' (6 mm in 3 m).

The ends of all curbs shall be transitioned to be flush with the pavement at a ratio of twelve to one (12:1). All approach and exit ends of median island and curb shall also be transitioned flush with the pavement at a ratio of twelve to one (12:1). Triangular (pork chop) island curb shall have all corners transitioned flush with pavement at a slope of four to one (4:1).

**701.12 Removal of Forms.** Forms may be removed as soon as concrete has hardened sufficiently. Fill all defects with mortar mixed in the proportion of one part portland cement to three parts fine aggregate.

**701.13 Curing.** Within 30 minutes of the completion of finishing to any portion of the concrete work and prior to any dehydration of the concrete surface, all exposed concrete surfaces shall be cured according to Section 501 for a period of no less than five days. The curb may be opened to traffic prior to the expiration of the five-day cure period if compressive strengths of the representative cores taken by the Department indicate that the strength of the concrete exceeds 2000 psi (14 Mpa). Any additional surfaces exposed prior to the expiration of the five-day cure period, by removing forms for example, shall be immediately cured to the same requirements for the remainder of the five-day period. Formwork that is allowed to remain in place and eliminate the need to cure the respective surfaces must remain tight against the surface to prevent drying of the concrete surface.

The application rate shall be not more than 200 ft<sup>2</sup>/gal (4.9 m<sup>2</sup>/L). During the curing period, pedestrian and vehicular traffic shall not disturb newly completed curb or integral curb and gutter other than as noted above.

**701.14 Method of Measurement.** The quantity of portland cement concrete curb and integral curb and gutter will be measured as the number of linear feet (linear meters) along the front face of the finished curb. Any curb showing cracks shall be replaced in sections that have a minimum length of 10' (3 m), at no cost to the Department.

**701.15 Basis of Payment.** The quantity of portland cement concrete curb and integral curb and gutter will be paid for at the Contract price per linear foot (linear meter). Price and payment will constitute full compensation for excavating (unless it is included in the excavation for the roadway box and paid for under Section 202), furnishing, and placing all materials; for forming, placing, finishing, and curing concrete; for backfilling, compacting, and disposing of surplus materials; for rounding curb edges, for sealing joints; and for all labor, equipment, tools, and incidentals required to complete the work. Grade Aggregate Base Course will be measured and paid for under Section 302. Isolated rock removal shall be paid for under Section 206 unless already removed and included within Section 205.

#### **Subsection 705.09 Curing. (5/15/2006)**

Modify the sentence as follows:

Concrete shall be cured according to Section 501 for a period of 72 hours. The sidewalk shall not be opened to pedestrian traffic for 72 hours. Vehicular traffic shall not be permitted until after 5 days.

#### **Subsection 705.12 Basis of Payment. (5/15/2006)**

Add the following sentence:

Curb ramps constructed along the new P.C.C. sidewalk shall be incidental to the sidewalk item in this Section 705-Portland Cement Concrete Sidewalk.

### **Subsection 708.05 – Frames. (3/18/2004)**

Add the following paragraph:

Frames for drainage grates fabricated from structural steel that meets or exceeds requirements of AASHTO M 270 Grade 36 or ASTM A 36 will also be acceptable. Such frames shall be fabricated from ½" (minimum thickness) stock, provide a 1 ¼" lip for support of the grate, have a 2" depth to accommodate a 2" thick grate, and have a bottom width of 4". Tolerances shall be + 1/8", -0". All cutting and welding shall be done in accordance with applicable portions of Subsection 826.12 by certified welders. The fabricated frame shall be hot dip galvanized in accordance with AASHTO M 111 (ASTM A 123) with a minimum of 2 ounces per square foot of zinc coating.

### **Subsection 708.06 Gratings. (3/18/2004)**

Add the following paragraph:

Gratings for drainage inlets fabricated from structural steel that meets or exceed requirements of AASHTO M 270 or ASTM A 36 capable of HS-25 load rating will also be acceptable. Grates shall be of the Type 1, 2, or 3 style as shown in the Standard Construction Details. Type 1 shall have 1" x 2" perimeter bars. Type 2 and 3 shall have ¾" x 2" perimeter bars. Type 1, 2, and 3 shall have ½" x 2" internal bars. Grating spacers shall be flush with the top surface of the grate. Tolerances shall be + 1/8", -0". All cutting and welding shall be done in accordance with applicable portions of Subsection 812.12 by certified welders. The fabricated grate shall be hot dip galvanized in accordance with AASHTO M 111 (ASTM A 123) with a minimum of 2 ounces per square foot of zinc coating.

### **Subsection 708.10 Precast and Cast-In-Place Drainage Inlets and Manholes. (5/15/2006)**

Modify the subsection title as shown above and modify the 1<sup>st</sup> paragraph as follows:

Precast and Cast-In-Place drainage inlets and manholes shall be constructed as shown on the Standard Construction Details. Cast-In-Place construction shall be used for drainage structures that tie into existing pipes and structures unless the Engineer approves the use of Precast. Shop drawings are not required for drainage inlets and manholes that match the Standard Construction Details. Shop drawing and design calculations, signed and sealed by a professional engineer, registered in the State of Delaware, shall be submitted for approval for all drainage structures that differ from the Standard Construction Details.

### **Subsection 708.13 Inlet and Outlet Pipes. (5/15/2006)**

Modify the third sentence as follows:

Any space between the pipe and the walls of the drainage inlet shall be filled with non-shrink grout conforming to the requirements of ASTM C1107 with a strength of 5000 psi.

**Subsection 715.03 Perforated, Corrugated Polyethylene Tubing (CPT). (5/15/2006)**

Delete the entire paragraph and replace with the following:

Perforated, CPT shall conform to the requirements of AASHTO M252.

**Subsection 715.04 Stone. (3/18/2004)**

Modify the first sentence as follows:

Stone for backfill shall conform to the requirements of Section 813, Delaware No. 57.

**Subsection 715.07 – Video Inspection. (3/18/2004)**

Delete the first sentence. Insert the following two sentences:

The entire underdrain system shall be videoed prior to the Project's final inspection. The Contractor may video the underdrain system prior to the placement of the final surface course over the area of the underdrain. If guardrail is placed within 3' (.9 m) from the underdrain, that section shall be videoed after installation of the guardrail.

**Section 720 Galvanized Steel Beam Guardrail. (5/15/2006)**

Change "Reflectorized Washers" to "Guardrail Reflectors".

**Subsection 720.05 Basis of Payment. (5/15/2006)**

After the third sentence, add the following sentences:

When specified in the Plans to place/replace or salvage individual elements of guardrail, and an item is listed for those items, then those individual components will be measured/paid as the number of each component under their respective bid item. When installing new guardrail, paid by the linear foot, these items are incidental to guardrail.

**Section 725 Guardrail-to-Barrier Connection (Approach and Exit Types). (5/15/2006)**

Change "Reflectorized Washers" to "Guardrail Reflectors".

**Section 726 Guardrail End Treatment. (5/15/2006)**

Change "Reflectorized Washers" to "Guardrail Reflectors".

**Subsection 732.02 Materials. (5/15/2006)**

Modify the third paragraph as follows:

Topsoil shall have an acidity range of pH 6.0 to pH 6.5. If necessary, lime shall be incorporated into the topsoil to raise the acidity or a sulfur-based product shall be

incorporated into the topsoil to lower the acidity. The rate shall be determined by the Engineer, and shall be accomplished prior to or at the time of seeding.

**Subsection 732.10 Basis of Payment. (5/15/2006)**

Modify the second sentence as follows:

Price and Payment will constitute full compensation for preparing the grade; for furnishing, hauling, and placing all materials, including necessary quantities of lime or sulfur; for maintaining topsoil, for loosening of the topsoil and subgrade to a total depth of 6" (150 mm); and for all labor, equipment, tools, and incidentals required to complete the work.

**Subsection 746.03 Construction Methods. (3/18/2004)**

Delete the last paragraph. Insert the following two sentences:

The concrete for pole bases shall be placed in accordance with the applicable requirements of Section 602. The bases shall be edged and have a broom finish.

**Subsection 748.09 Application. (5/15/2006)**

Add the following at the end of this subsection:

*(f) Removal of Pavement Markings when they are not properly applied.*

When it is necessary to remove pavement markings the following shall apply:

(1.) For paint and epoxy resin, shot/abrasive grit blasting or water blasting equipment shall be used.

(2.) For alkyd thermoplastic, in addition to the removal techniques discussed for paint and epoxy, burning or grinding equipment may be used.

The removal operation shall be performed in a manner that will not damage the pavement surface to a depth more than 1/8 inch. The contractor must satisfactorily demonstrate his/her proposed equipment and method of removal. Alternative equipment and methods will be considered if satisfactory results can be demonstrated.

The contractor shall collect and dispose of all shot/abrasive grit and pavement marking materials removed from the pavement surface. Washing or sweeping such materials to the roadside will not be permitted.

(3.) After removal of striping on bituminous concrete pavement, approved flat black paint or asphalt sealer shall be used to cover any exposed aggregate or embedded paint. Price and payment will also include payment for black paint or asphalt sealer.

**Subsection 760.04 Basis of Payment. (5/15/2006)**

Modify the paragraph as follows:

The quantity of pavement-milling will be paid for at the Contract unit price per square yard per inch of depth (square meter per 25 millimeters of depth) or at the Contract unit price per square yard (square meter). Price and payment will constitute full compensation for milling or planing the existing pavement; for the cleanup of the hot mix or concrete residue wedge left from the milling operation including but not limited to along the curb line, adjacent to speed humps, across intersecting streets, around manholes, and at the beginning and ending points of the milling operation, for removing and disposing of the milled material; and for all labor, tools, equipment, and incidentals required to complete the work.

**Subsection 808.02 Portland Cement Concrete Pavement. (5/15/2006)**

Modify Subpart (a) as follows:

a. *Hot-Poured Joint Sealant.* Hot-poured joint sealant shall conform to AASHTO M 324(Type-IV) or AASHTO M 282.

**Subsection 808.04 Portland Cement Concrete Structures. (5/15/2006)**

Modify Subpart (c) as follows:

c. *Bituminous Joint Sealant.* Bituminous joint sealants may be hot applied conforming to AASHTO M 324 Type-I, or cold applied elastomeric sealant conforming to Federal Specification SS-S-200E (2), Type H.

**Subsection 808.06 Portland Cement Concrete Curb and Integral Curb and Gutter. (5/15/2006)**

Modify the 1<sup>st</sup> Sentence as follows:

Materials for portland cement concrete curb and integral curb and gutter shall be preformed expansion joint material of ½" (13 mm) nominal thickness and shall conform to the requirements of AASHTO M 153, Type II.

**Subsection 812.04 Composition of Mix. (3/18/2004)**

Add the following to the notes under Table 812-A:

Note 13: Concrete (all classes), which fails to reach full 28 day design strength (fc') will be considered defective and will be evaluated in accordance with Subsection 602.25 Defective Work. Payment for the item with low strength concrete will be determined in accordance with Subsection 602.27 Basis of Payment (b) Price Adjustment for Low Strength Concrete.

Modify the statement in the bottom of box of Table 812-A as follows:

Notes 8, 9, 10, 11, and 13 refer to all classes of concrete. Note 12 refer to Class D concrete.

**Section 814 – Timber Preservatives. (3/18/2004)**

Delete Paragraph (a).

**Subsection 821.01 Description. (5/15/2006)**

Modify the paragraph as follows:

This material consists of coarse crushed stone, crushed slag fragments or portland cement concrete fragments. The Contractor shall certify that any recycled material, which is being proposed for use as graded aggregate, is neither hazardous nor toxic.

**Subsection 821.03 Material Details. (c) Gradation. (5/15/2006)**

Remove all references to graded aggregate, Type A (CR-1). Replace all of Subpart (c) Gradation with the following:

<b>WEIGHT PERCENT PASSING</b>	
<b>Sieve Size</b>	<b>% Passing</b>
<b>Type B</b>	
2 ½" (63.0 mm)	---
1 ½" (37.5 mm)	100
1" (25.0 mm)	---
¾" (19.0 mm)	50-95
No. 4 (4.75 mm)	20-50
No. 10 (2.00 mm)	15-40
No. 20 (850 um)	---
No. 100 (150 um)	2-20
No. 200 (75 um)	0-10

**Materials.** The graded aggregate shall meet the following properties:

<b>Property</b>	<b>Range</b>
Liquid Limit (T89) <sup>1</sup>	30 max
Plasticity Index (T90) <sup>1</sup>	4 max
Sand Equivalency <sup>1</sup>	25 min
Bituminous Concrete <sup>2</sup>	5% max
Brick <sup>2</sup>	5% max
Wood <sup>2</sup>	0.1% max
Metals <sup>2</sup>	0.1% max
Plaster <sup>2</sup>	0.1% max
Deleterious materials <sup>2</sup>	0.1% max
Los Angeles Abrasion	45% max

<sup>1</sup>Minus 0.425 mm (No. 40) sieve material

<sup>2</sup>By weight

Once a stockpile of material has been tested and approved, no material shall be added to it until the stockpile is depleted.

**Subsection 828.02 (f) Guardrail Reflectors. (5/15/2006)**

Change “Reflectorized Washers” to “Guardrail Reflectors”.

Modify the paragraph as follows:

Guardrail reflectors shall be fabricated from steel sheet plates conforming to the requirements of ASTM A-6, galvanized to ASTM A153. Retroreflectorized sheeting shall be AR-1000 (Type V) Abrasive resistant and shall be applied in accordance with Subsection 720.03.