2020 Standard Specifications

- Overall formatting and language changes
- Examples of 2020 Standard Spec changes with a side by side comparison (2016 vs. 2020)
2020 Standard Specifications
Formatting and Language Changes

• On-line Navigation
• Formatting
• Voice and Mood
• More concise language
• Use of lists
• Use of References
Resources

Standard Specifications

Standard Specifications 2020
- Standard Specifications 2020
- Standard Items and Special Provisions 2020
- Memo to Current Holders

Standard Specifications 2016
- Standard Specifications 2016
- Standard Items and Special Provisions 2016
  - 04-29-2019 Additions & Revisions
  - 12-28-2018 Additions & Revisions
  - 06-15-2018 Additions & Revisions
Section 000 – Title

- 000.1 – Description.
  - short and brief
- 000.2 – Materials.
  - item materials
- 000.3 – Construction.
  - how to construct
- 000.4 – Method of Measurement.
  - measurement
- 000.5 – Basis of payment.
  - payment information
DIVISION 400 — BITUMINOUS MATERIALS

SECTION 401 — BITUMINOUS PAVEMENT

401.1 Description.

Construct one or more courses of bituminous pavement on either a prepared foundation or an existing surface course. Construct butt joints by saw cutting and removing the existing hot-laid bituminous concrete or Portland cement concrete pavement to provide an area to butt the new hot-laid bituminous concrete pavement against the existing pavement.

DIVISION 400 — BITUMINOUS MATERIALS

SECTION 401 — BITUMINOUS PAVEMENT

401.1 Description.

This work consists of providing, placing, and compacting bituminous pavement.
401.2 Materials.

A. Release Agents

B. Tack Coat

C. Thin Lift Tack Coat

D. Asphalt Cement

E. Asphalt Production

F. Joint Sealant

Section 1010

Section 1011

PG 64-22

Section 1012

Section 1014

Section 1042
# Construction

<table>
<thead>
<tr>
<th>2016 Specifications</th>
<th>2020 Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>401.03 Construction</strong></td>
<td><strong>401.3 Construction.</strong></td>
</tr>
<tr>
<td>A. Mix Design.</td>
<td>A. Before Paving</td>
</tr>
<tr>
<td>B. Delivery of Mixture.</td>
<td>B. Mix Design.</td>
</tr>
<tr>
<td>C. Hauling Equipment.</td>
<td>C. Delivery of Mixture.</td>
</tr>
<tr>
<td>E. Rollers.</td>
<td>E. Paver.</td>
</tr>
<tr>
<td>F. Weather Limitations.</td>
<td>F. Rollers.</td>
</tr>
<tr>
<td>G. Preparing Base or Excising Surface.</td>
<td>G. Weather Limitations.</td>
</tr>
<tr>
<td>H. Tack Coat.</td>
<td>H. Preparing Base or Existing Surface.</td>
</tr>
<tr>
<td>I. Placement.</td>
<td>I. Tack Coat.</td>
</tr>
<tr>
<td>M. Joints.</td>
<td>M. Joints.</td>
</tr>
<tr>
<td>N. Surface Tolerances.</td>
<td>N. Wearing Surface.</td>
</tr>
</tbody>
</table>
401.4 Method of Measurement.

A. The quantity of bituminous pavement materials will be measured as the actual number of tons placed and accepted. The weight will be calculated in accordance with Section 109.1.

B. The Department will not measure the safety edge.
Basis of Payment

A. The Department will pay for the accepted quantity of bituminous pavement materials at the contract unit price per ton. Payment constitutes full compensation for:
   1. Preparing the surface;
   2. providing, preparing, and placing all materials, including tack coat, joint sealant, and safety edge;
   3. removing material from around manholes, drainage valves, and similar features;
   4. removing and replacing excess asphalt cement; and
   5. constructing the safety edge.

B. The Department will pay for Superpave Type B, placed instead of Superpave Type BCBC, at the contract unit price for Superpave Type BCBC. The Department will make the asphalt cement cost adjustment based on the virgin asphalt of the Superpave Type B.

C. The Department will make adjustments to payments in accordance with Special Provision 401699.

D. The Department will apply any incentive or disincentive pay adjustments as established by special provision 401699.
Voice and Mood

• The 2020 Specifications are written in **Active Voice** and **Imperative Mood**

• Passive Voice Sentence: “A sample will be taken.”

• Active Voice Sentence: “The Engineer will take a sample.”

• Imperative Mood is used for instructions to the contractor.

• Example – “Pour the concrete”
  • It is understood that the manual is providing direction to the responsible party, the contractor.
More Concise Language

• The 2020 Specifications eliminates unnecessary language.

2016 Specifications

701.01 Description. Construct Portland Cement Concrete Curb, Integral Portland Cement Concrete Curb, Portland Cement Concrete Median and Curb Openings in accordance with Contract Documents or as directed by Engineer.

2020 Specifications

701.1 Description.
This work consists of constructing PCC curbing.
Use of Lists

• The 2020 Specifications utilize itemize lists for easier reading.

2016 Specifications

705.05 Basis of Payment.

705.05.1 Sidewalk. The quantity of sidewalk shall be paid for at the Contract Unit Price per square foot of sidewalk acceptably completed. Price and payment constitutes full compensation for excavation within the template of this Item, forms and forming, GABC, concrete, expansion joint material, backfill and backfilling, removal of surplus Materials, removal and replacement of cracked and/or damaged sidewalk in complete 5 foot long sections, and for all labor, Equipment, tools and incidentals required to complete the Work.

2020 Specifications

705.5 Basis of Payment.

705.5.1 Sidewalk.

A. The Department will pay the quantity at the contract unit price per square feet. Price and payment constitute full compensation for:

1. Excavation within the template of the item including the foundation;
2. removal and disposal of existing materials;
3. foundation preparation;
4. providing and placing all materials;
5. compaction;
6. forms and forming;
7. supplying, placing, finishing, and curing PCC;
8. joints;
9. expansion joint material;
10. sealing;
11. backfill and backfilling;
12. removing surplus materials; and
13. removing and replacing cracked or damaged sidewalk in complete 5-foot-long sections.
Use of References

• The 2020 Specifications utilize references instead of repeating information that has already been stated.

2020 Specifications

B. Place concrete in accordance with Section 501.3 with special attention to the weather limitations described in Section 501.3.8.

C. Construction of PCC Sidewalk and Pedestrian Connections.
   1. Saw cut in accordance with Section 701.3.
   2. Remove bituminous concrete pavement, or PCC pavement, and dispose of in accordance with Section 202.
   3. Prepare the foundation in accordance with Section 701.3.
   4. Place GABC at the location and depths shown in the contract and in accordance with Section 301.3.
   5. Layout and place concrete in accordance with Section 701.3, unless otherwise specified in the contract.
2020 Standard Specifications
Section 100: General Provisions

• Section 101: General Information, Definitions, and Terms
• Section 102: Bidding Requirements and Conditions
• Section 103: Award and Execution of the Contract
• Section 104: Scope of Work
• Section 105: Responsibilities of the Department; Interpretation of the Contract
  Documents; Maintenance During Construction; Claims; Project Acceptance
• Section 106: Material Quality and Testing Requirements
• Section 107: Legal Relations and Responsibility to the Public
• Section 108: Subcontracting; NTP; Progress Schedules; Time Extensions; Liquidated
  Damages; Termination
• Section 109: Measurement and Payment
• **Section 101: General Information, Definitions, and Terms**
  • 101.3 Definitions
  • 101.4 Units of Measure

• **Section 102: Bidding Requirements and Conditions**
  • Added electronic bidding

• **Section 103: Award and Execution of the Contract**
  • Escrow requirements

• **Section 104: Scope of Work**
  • Scope of work with bid amounts
  • 104.3 Notification of Contract Changes
  • 104.8 Maintaining Traffic (4 options for the TTC)
  • 104.13 Contractor’s Responsibility for Work
104.13 Contractor's Responsibility for the Work.

A. **The contractor is solely and absolutely responsible for the work.** Provide for the protection and safety of all agents and employees of State and federal agencies, contractors, subcontractors, suppliers, and members of the general public until achieving substantial completion or the engineer permits opening a section of the work in accordance with Section 105.14, Opening Sections of the Project to Traffic.

B. Rebuild, repair, restore, and make good all losses, injuries, or damage to any portion of the work under the contractor’s control due to the contractor’s fault or inactivity, at no cost to the Department, except as allowed by Section 105.14, Opening Sections of the Project to Traffic. Rebuild, repair, restore, and make good all losses, injuries, or damage to any portion of the work, not under the control of the contractor, under agreed unit prices or as extra work under Section 109.4, Compensation for Changes. The Department defines "items not under the control of the contractor" as earthquakes, tidal waves, tornadoes, or hurricanes; catastrophic conditions such as hazardous waste materials spills or explosions; or, acts of public enemy or of governmental authorities.
104.13 Contractor's Responsibility for the Work. (Cont.)

C. In case of a work suspension:

1. Maintain responsibility for the project and take precautions necessary to prevent damage to the project.
2. Provide for normal drainage and normal traffic operations.
3. Erect temporary bridges, signs, or other facilities as needed.
4. Continuously maintain living material in newly established plantings, seedings, and sod provided under the contract.
• Sections 105: Responsibilities of the Department; Interpretation of the Contract Documents; Maintenance During Construction; Claims; Project Acceptance
  • 105.4 Plan, Shop Drawings, and Working Drawings
  • 105.9 Utilities within the Project Limits; Miss Utility One-Calls
  • 105.15 Claims Resolutions
    • Complete edit
    • Waiver considerations for claims under $50,000.00
    • Edits made to the day requirements for responsible parties
    • Removed Arbitration, Secretary’s Decision is final
  • 105.16 Partial Acceptance; Project Acceptance; Final Acceptance; and Project Closeout
    • Edits with calendar day responsibility
• Section 106: Material Quality and Testing Requirements
• Section 107: Legal Relations and Responsibility to the Public
  • General edits and listing for reading
  • Clarify responsibilities
• **Section 108: Subcontracting; NTP; Progress Schedule; Time Extensions; Liquidated Damage; Termination**

  • 108.1 Contractor Subletting
    • Specialty items clarification
  • 108.4 Progress Schedules
    • Definitions for scheduling
    • *Per the Bid Proposal as items are required
      • Barchart Schedules
      • Type 1 CPM
      • Type 2 CPM
        • Contract factors will determine if required
  • 108.7 Extensions of Contract Time
• Sections 109: Measurement and Payment
  • General edits and listing for reading
  • Clarify responsibilities
2020 Standard Specifications
Section 200: Earthwork

- Section 201: Clearing and Grubbing
- Section 202: Excavation and Embankment
- Section 203: Channel Excavation
- Section 204: Test Holes
- Section 207: Structural Excavation and Backfilling
- Section 208: Flowable Fill
- Section 209: Borrow
- Section 211: Removal of Structures and Obstructions
• **Section 201: Clearing and Grubbing**

  • **Added to 201.3 Construction (201.3.2.F)**
    - D. Prune tree branches overhanging the roadbed to maintain a vertical clearance height of 20 feet above the roadway.
    - E. Prune trees or shrubs overhanging the pedestrian path to achieve a vertical clearance height of 10 feet above and 2 feet adjacent to the sidewalk, trail, or shared-use path on either side.
    - F. Prune trees and shrubs overhanging the utility limits within the right of way and easement limits of construction. Remove obstructions at the edges of the utility limits and the easement limits from the ground up in a vertical plane until no trees or shrubs cross the utility and easement limit lines at any point.

  • **Revised 201.3 Construction (201.3.4.D)**
    - D. If the contract requires cross sectioning, level and fill voids or cavities caused by the clearing and grubbing activities. Compact the existing material after clearing and grubbing before cross sectioning and placement of embankment lifts.
**Section 202: Excavation and Embankment**

- Major Rewrite and Format Change

<table>
<thead>
<tr>
<th>2016 Construction</th>
<th>2020 Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>General</td>
</tr>
<tr>
<td>Obstruction</td>
<td>Preparing for Earthwork Operations and Maintaining the Site during Earthwork Operations</td>
</tr>
<tr>
<td>Stockpile suitable Excess Material for Later Use</td>
<td>Excavation</td>
</tr>
<tr>
<td>Topsoil</td>
<td>Obstructions Encountered during Excavation</td>
</tr>
<tr>
<td>Common Excavation</td>
<td>Preparation of Subgrade</td>
</tr>
<tr>
<td>Rock Excavation</td>
<td>Proof Rolling</td>
</tr>
<tr>
<td>Borrow Excavation</td>
<td>Undercut Excavation</td>
</tr>
<tr>
<td>Unsuitable Excavation</td>
<td>Embankment Construction</td>
</tr>
<tr>
<td>Undercut Excavation</td>
<td>Compaction Procedures</td>
</tr>
<tr>
<td>Embankment Construction</td>
<td>Rock Excavation</td>
</tr>
</tbody>
</table>
• **Section 202: Excavation and Embankment**

• **Major Rewrite and Format Change**

• **Specified Borrow Type For Undercut** (202.3.7.B.5)

  5. Upon acceptance of the undercut excavation, unless otherwise directed, use **Borrow Type C** in accordance with Section 1001 to backfill and compact the area in accordance with this section. Conduct undercut operations in a manner that allows the engineer time to take necessary measurements before placing backfill. The Department will not allow placement of backfill material in water unless approved by the engineer.

• **Added Method of Measurement** (202.4.1.B.2)

  B. The Department may compute the volume by any of the following methods:
  
  • 1. The method of average end areas measured by cross-sections taken by the Department at regular intervals and at breaks in grade.
  
  • **2. Comparison of electronic surveyed surfaces.**
  
  • 3. Other means as determined by the engineer.
• **Section 203 – Channel Excavation**
  - Minor Changes

• **Section 204 – Test Holes**
  - Minor Changes

• **Section 207 – Structural Excavation and Backfilling**
  - Changed Title and Backfill References to Backfilling
  - Changed Cover from 18” to 24” (207.3.D.2.c)
    - c. When backfilling over structures, use heavy mechanical compacting equipment only after placing a minimum of 24 inches of cover over the structural unit or in accordance with the structure manufacturer’s recommendations.
  - Method of Measurement Volume limits, Added 18” Vertical Plane for Pipes (207.4.A.1.a)
    - a. Excavation volume by vertical planes located 24 inches outside of the neat line perimeter of the vertical faces of the structural element and 18 inches outside of the pipe.

• **Section 208 – Flowable Fill**
  - Minor Changes
• **Section 209 – Borrow**
  • **Method of Measurement, Borrow for Utility Companies or Others (209.4.E)**
    • E. The Department will measure borrow material provided and stockpiled for utility companies or others using the borrow source tickets only.
  • **Furnishing Borrow Pay Items Now Titles “Borrow, Type F, Providing Only”**
    • Measured in Ton
      • BORROW, TYPE B, PROVIDING ONLY, TON
      • BORROW, TYPE C, PROVIDING ONLY, TON
      • BORROW, TYPE F, PROVIDING ONLY, TON

• **Section 211 – Removal of Structures and Obstructions**
  • **New Standard Item - 211002 – REMOVAL OF GUARDRAIL AND FENCE, LF**
2020 Standard Specifications
Section 300: Base Courses

• Section 301: Graded Aggregate Base Course
  • Minor Changes

• Section 302: Stone
  • Minor Changes
2020 Standard Specifications
Section 400: Bituminous Materials

• Section 401: Bituminous Pavement
• Section 402: Bituminous Pavement Materials, Patching
• Section 403: Bituminous Pavement Materials for Temporary Roadway Material
• **Section 401: Bituminous Pavement**
  
  • **Changed Review Time (401.3.B)**
    
    • B. Mix Design. Develop the JMF in accordance with Section 1014 and submit test results for review a minimum of 30 calendar days before application. Include aggregate type and gradation and percentages of polymer-modified emulsion, water, and cement by dry aggregate weight.
  
  • **Added to 401.3 Construction (401.3.J.2)**
    
    • “…Place a longitudinal joint between the travel way and shoulder on the shoulder side with a 6 inch offset of the lane line….”
  
  • **Added to 401.3 Construction (401.3.F.4)**
    
    • 4. Do not use rollers that mar the surface.

• **Section 402: Bituminous Pavement Materials, Patching**
  
  • **Changed Reference for Sealing (402.3.C)**
    
    • C. For patches that will not receive an overlay, apply a perimeter joint seal in accordance with Section 504.

• **Section 402: Bituminous Pavement Materials for Temporary Roadway Material (TRM)**
  
  • Minor Changes
Item No. 401
side-by-side at a Glance

**2020**

**2016 with updates**

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**JMF 30 days**

---

**format**
Item No. 401

2020

Mar the surface

2016

with updates

see detail

Tack coat

side-by-side at a Glance

Table 401-A Minimum Ambient Air Temperature for Placement of Types of Bituminous Concrete

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCBC</td>
<td>32°F</td>
</tr>
<tr>
<td>B</td>
<td>32°F</td>
</tr>
<tr>
<td>Stone Matrix Asphalt, Thin Lift, and Wedge Lift</td>
<td>50°F</td>
</tr>
</tbody>
</table>

H. Preparing Base or Existing Surface.

Clear surface of debris. Apply and cure tack coat before placing the mixture. Apply a tack coat on all curbs, gutters, manholes, or other structure surfaces the mixture will contact.

1. Tack Coat.

Apply on all dry and broom-cleaned surfaces at a uniform surface application rate in accordance with Table 401-B. Apply at a temperature range of 120 to 160 degrees F using pressurized distribution equipment with a spray bar or other approved system that results in uniform coverage across the pavement surface. Apply in advance of the asphalt paving operation. Do not permit placement of subsequent lifts or return to traffic until the mat temperature is below 140 degrees Fahrenheit.

Placement of bituminous concrete is not permitted when the ambient air temperature at the location of the paving operation is below the temperatures indicated in Table 401-A below.

Table 401-A Replaced Revision 09/15/2016

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bituminous Concrete</td>
<td>50°F</td>
</tr>
<tr>
<td>Bituminous Concrete</td>
<td>50°F</td>
</tr>
</tbody>
</table>

G. Preparing Base or Existing Surface. Clear surface of debris. Apply and cure tack coat before placing the mixture. Apply a tack coat on all curbs, gutters, manholes, or other structure surfaces that will be in contact with the mixture.

Repair damaged areas of the tacked surface, and restore the existing pavement or base to a uniform grade and crown section before placing the mix.

1. Tack Coat.

Apply on all dry and broom-cleaned surfaces at a uniform rate of 0.05 gallons per square yard to 0.15 gallons per square yard at a temperature of 70 degrees Fahrenheit to 160 degrees Fahrenheit using pressurized distributor equipment with a spray bar or other approved distribution system. Apply in advance of the asphalt paving operation, but no further than is anticipated for the current day's operation.

Placement. Place mixture in a continuous operation by paving machine methods of spreading and spreading to the thickness shown in the Contract Documents and conform to the grade and surface contour required.

1. Outside edges of pavement are to be in true alignment, parallel to the centerline of the roadway with the longitudinal joint in the surface course at the lane line.

2. When placing multiple lifts or courses, offset individual successive lifts or a minimum of 6 inches.

3. Place the base course with an approved power or spreader in approximately equal layers of not less than 6 inches thickness and not more than 6 inches in depth after compaction. Submit for approval requirements, if any, to the Type B Specifier in lieu of BCBC. If approved by the Engineer, the Type B Specifier may be placed in lifts of not less than 3 inches and not to exceed 6 inches in depth after compaction.

Paragraph removed Revision 06/15/2016

The Type B Specifier in lieu of BCBC will be placed at the Contract Unit Price for BCBC and the Asphalt Correct Cost Adjustment will be based on the same cost of the Type B Specifier. After the bituminous concrete base course is placed, exposure is permitted for a period longer than ten days. 10 due to conditions of emergency, storm or rain (10) Days. Visualize uniformly spray a fog coat of CSS-16 on the exposed base course before placing the wearing course of bituminous concrete. In addition, the Contractor shall plan the paving operation so that no bituminous concrete base courses remain unshaped after the "water shut-down" unless authorized by the Engineer.

4. Carefully plan the placement of the surface course so that the joints in the surface course will correspond with the proposed traffic lanes and will not be located in the wheel path of vehicles using the roadway. Locate longitudinal joints at the lane line (center and edge). Longitudinal joints must also be parallel to the centerline unless otherwise shown on the Plans. Place the longitudinal joint between the travel way and shoulder on the shoulder side of the lane line. Establish and follow reference lines or other approved markings to control the true alignment of the longitudinal joints.

Take immediate action to correct unsatisfactory work should unevenness of texture, taping, or show occur during the paving operation due to unsatisfactory material, methods, or equipment.
### Item No. 401

#### 2020

**Tack coat Cont.**

**2016 with updates**

**Item No. 401 side-by-side at a Glance**

**2020**

**consolidated**

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### BITUMINOUS PAVEMENT SECTION 401

permit activity on the tack surface until the material has set per the manufacturer’s recommendations, but no farther than needed for the current working day’s operation.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 150 GRYRATIONS, PG 64-22</td>
</tr>
<tr>
<td>4002</td>
<td>BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GRYRATIONS, PG 64-22</td>
</tr>
<tr>
<td>4003</td>
<td>BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 165 GRYRATIONS, PG 64-22</td>
</tr>
<tr>
<td>4004</td>
<td>BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GRYRATIONS, PG 70-22</td>
</tr>
<tr>
<td>4010</td>
<td>BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 150 GRYRATIONS, PG 64-22</td>
</tr>
<tr>
<td>4011</td>
<td>BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GRYRATIONS, PG 64-22</td>
</tr>
<tr>
<td>4012</td>
<td>BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GRYRATIONS, PG 70-22</td>
</tr>
<tr>
<td>4013</td>
<td>BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GRYRATIONS, PG 70-22</td>
</tr>
</tbody>
</table>

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### Table 401-B. Tack Coat Application Rates

<table>
<thead>
<tr>
<th>Surface Type</th>
<th>Residue Rate (gallons per sy)</th>
<th>Application Rate, Undiluted* (gallons per sy)</th>
<th>Application Rate, Diluted 1.1 (gallons per sy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Asphalt</td>
<td>0.03 - 0.05</td>
<td>0.05 - 0.08</td>
<td>0.09 - 0.15</td>
</tr>
<tr>
<td>Existing (aging) Asphalt</td>
<td>0.05 - 0.07</td>
<td>0.08 - 0.11</td>
<td>0.15 - 0.25</td>
</tr>
<tr>
<td>Millied Surface (asphalt &amp; PCI)</td>
<td>0.06 - 0.08</td>
<td>0.09 - 0.12</td>
<td>0.18 - 0.24</td>
</tr>
<tr>
<td>PCC</td>
<td>0.04 - 0.07</td>
<td>0.06 - 0.11</td>
<td>0.12 - 0.21</td>
</tr>
</tbody>
</table>

*Undiluted emulsion is 67% asphalt and 33% water.

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**I. Placement.**

1. Place the mixture in a continuous operation using an approved paver. The Department will not allow stopping the paver to adjust the attachment described in Section 401.3.E.2. at crossroads, driveways, or obstructions.

2. Ensure that the outside edges of pavement are in true alignment parallel to the roadway centerline with the longitudinal joint in the surface course at the lane line. Plan placement of the surface course to ensure that the longitudinal joints in the surface course are parallel to the lane lines and not in the wheel path of vehicles using the roadway. Conduct surface course paving operations to utilize the full lane width unless directed by the engineer. Make longitudinal joints parallel to the centerline unless otherwise specified in the contract. Place a longitudinal joint between the travel way and shoulder on the shoulder side with a 6 inch offset of the lane line. Establish and follow reference lines or other approved markings to control the true alignment of the longitudinal joints.

3. When paving multiple lifts or courses, offset individual successive lifts a minimum of 6 inches.

4. After placement of a bituminous concrete course, place the subsequent bituminous concrete lift within 10 calendar days. If more than 10 calendar days elapse between the placement of any 2 bituminous courses, spray a fog coat of CSIL on the exposed base course.

5. If the contractor cannot complete spreading and compacting a full truck load of mixture by sunset, do not unload the truck unless the engineer has granted approval for nighttime paving.

**K. Compaction.**

Compact the bituminous pavement mixture after spreading, striking off, and correcting surface irregularities.

**L. Compaction Testing.**

1. Perform quality control of pavement compaction by testing in-place pavement density. The contractor is limited to taking a single core on the first day of paving or after the change of a JMF for gauge calibration. Repair core holes in accordance with 401699 - Quality Control/Quality Assurance of Bituminous Concrete, Appendix A Repairing Core Holes in Hot-Mix Asphalt Paving.

2. The engineer will perform quality assurance testing, evaluate material production, and evaluate compaction quality in accordance with 401699 - Quality Control/Quality Assurance of Bituminous Concrete.
Item No. 401

side-by-side at a Glance

Wearing not Tolerance

Listed as what the Department will pay for as compensation to the item description vs what the Department will pay for separately.
Item No. 401 side-by-side at a Glance

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>401300</td>
<td>SUPERPAVE TYPE B, PG 64-22, PATCHING</td>
<td>TON</td>
</tr>
<tr>
<td>401301</td>
<td>SUPERPAVE TYPE BC, PG 64-22, PATCHING</td>
<td>TON</td>
</tr>
<tr>
<td>401306</td>
<td>SUPERPAVE TYPE C, PG 64-22, WEDGE</td>
<td>TON</td>
</tr>
<tr>
<td>401307</td>
<td>SUPERPAVE TYPE B, PG 64-22, WEDGE</td>
<td>TON</td>
</tr>
<tr>
<td>401304</td>
<td>SUPERPAVE TYPE C, PG 64-22 (NON-CARBONATE STONE)</td>
<td>TON</td>
</tr>
<tr>
<td>401305</td>
<td>SUPERPAVE TYPE C, PG 70-22 (NON-CARBONATE STONE)</td>
<td>TON</td>
</tr>
<tr>
<td>401306</td>
<td>SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)</td>
<td>TON</td>
</tr>
<tr>
<td>401303</td>
<td>SUPERPAVE TYPE C, PG 64-22, THIN LIFT</td>
<td>TON</td>
</tr>
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2020 Standard Specifications
Section 500: Rigid Pavement

• Section 501: Portland Cement Concrete Pavement
• Section 503: Patching Portland Cement Concrete Pavement
• Section 504: Crack and Joint Sealing
• Section 505: PCC Patching, Partial Depth
• Section 501 – Portland Cement Concrete Pavement

• Reduced Slip-Form and Fixed-Form with a Reference to 501.3.1
• Added to 501.2 Materials – L. Joint Sealants, Section 1042
• Added to 501.3 Construction, Texturing (501.3.5.F)
  • “Submit information on similar types of work performed with the proposed grinding equipment, including references if requested by the engineer.”
• Changed 501,3 Construction, Weather Limitations (501.3.8.A.3)
  • 3. Maintain a temperature of not less than 40 degrees F surrounding the concrete pavement for a curing period of 3 days following placement. Provide all necessary monitoring devices such as high-low thermometers or other tools and a plan for monitoring the temperature during the 3 day period. Address use of insulating blankets, straw, polyethylene, or other protection, in the quality control plan (Was 50 degrees and 5 days)
• Added to 501.3 Construction (501.3.9.B)
  • B. Clean and seal all joints with hot-poured sealant material within 5 days after concrete placement in accordance with Section 504, if no overlay is planned
• **Section 503 – Patching Portland Cement Concrete Pavement**
  - Removed
    - “Patch lengths shall be at least 6 feet and no more than 15 feet without a load-transfer device. The patch shall be the full width of the existing slab or as noted on the Contract Documents. The patch depth shall be no less than the existing slab.”
  - **Added to 503.3 Construction, Dowel Hole Cleanout** (503.3.5.C.2)
    - “….Use compressed air that is dry and oil free at a continuous pressure of at least 100 pounds per square inch, measured at the source, to clean the holes before placing grout or epoxy.”
  - **Added to 503.3 Construction** (503.3.6.E)
    - E. Do not place plastic concrete if the temperature reaches 95 degrees F, unless otherwise allowed by the engineer.
  - **Removed Broom Finish and Replaced** (503.3.8.B)
    - “Provide a tined finish on the concrete patch…..”
  - **Curing** (503.3.9)
    - Removed burlap material removed from curing methods.
  - **Added to 503.3 Construction, Joints** (503.3.10.A)
    - A. Install in accordance with the Standard Construction Details.

• **Section 504 – Crack and Joint Sealing** - Removed Backer Rods

• **Section 505 – PCC Patching, Partial Depth** - Minor Changes
2020 Standard Specifications
Section 600: Structures

- Section 601: Pipe Culverts
- Section 602: Drainage Structures
- Section 604: Temporary Works
- Section 605: Driven Piles
- Section 606: Drilled Shafts
- Section 607: Earth Retaining Wall Systems
- Section 608: Permanent Sheet Piles
- Section 610: Concrete Structures
- Section 611: Concrete Reinforcement
- Section 612: Precast Concrete
- Section 613: Concrete Coatings and Membranes
- Section 615: Steel Structures
- Section 616: Steel Coatings
- Section 617: Steel Sign Structures
- Section 619: Stone and Brick Masonry
- Section 621: Wood Structures
- Section 623: Bearing Devices
- Section 624: Joints
- Section 625: Concrete Overlays
- Section 626: Metal Railings
- Section 628: Concrete Repair and Rehabilitation
• **Section 601 – Pipe Culverts**
  
  • **Revised 601.3 Construction (601.3.3.C)**
    • “The engineer will reject pipe pre-installation for any of the following reasons: ….. c. cracks greater than 0.01 inch in width extending 12” or greater regardless of position in the pipe wall or is continuous through the wall of the pipe and in accordance with AASHTO M207 or M170.” (Was 0.1 inch or 0.01 inch in width and showing efflorescence or differential movement.)
  
  • **Removed** – Metal pipe deleted from Section.
  
  • **Changed** - High Density Polyethylene Pipe to Thermoplastic Pipe.

• **Added to 601.3 Construction, Defects (601.3.4.C.2.f)**
  • “one inch” for joint separation.

• **Changed 601.3 Construction (601.3.6.C)**
  • Backfill lifts from 12 inches to 8 inches.

• **Section 602 — Drainage Structures**

• **Changed** – loading requirement from HS-20 to HS-25
• **Section 604 — TEMPORARY WORKS**
  
  • Collected all language concerning construction and removal of formwork in 604.3.2. Some language from section 610 moved here, however, section on when to remove formwork remains in 610.3.7
  
  • **Added** — Section on form liners from item 610502 and project notes. New item 604005.
  
  • Reorganized section 604.3.8 and included temporary timber matting. Former item 621500 is now part of standard item 604004.

• **Section 605 — DRIVEN PILES**
  
  • Information on submittals (esp. the wave equation) was scattered and repeated in the old section. Collected and streamlined requirements in section 605.3.1 (subsection D for wave equation)
  
  • Jetting and Auguring removed as these are uncommon activities.
  
  • Pile driving procedures re-organized into sections for Test Piles (605.3.3), Production Piles (605.3.4) and Pile Re-Strikes (605.3.5) and follow the same format with subsections of Preparation, Driving and Post-driving.
• Section 606 – Drilled Shafts
  • Significant edit for organization
  • Added rock sockets (606.3.7) and added new items 606040-606047
  • Updated testing requirement in 606.3.11
  • Added subsection about Exploratory Drilling. Item 606031 existed, but there was no guidance. Used in conjunction with Rock Socket section.

• Section 607 – EARTH RETAINING WALL SYSTEMS
  • Changed title from - MECHANICALLY STABILIZED EARTH WALL
  • Added to 607.3 Construction, Type of Stone Backfill (607.3.5.A)
    • “Place #57 stone for at least the first 3 feet perpendicular to the back face of the panel for the full height of the wall.”

• Section 608 – Permanent Sheet Piles - Minor Changes
• **Section 610 – Concrete Structures**
  • Revised to give a uniform structure and make referencing a particular point easier.
  • Not much change in content for the section, but significantly re-organized.
  • A couple of specific points:
    • Mass concrete pours need to be noted on the plans (610.3.1.A.2.c). Applies to both CIP and precast. The designer should discuss with M&R during design to decide which elements are designated mass concrete.
    • Slip forming of bridge barrier (subsection 610.3.4.D.6) is not allowed unless the contract includes a special provision allowing it. In cases where it is not allowed, but the contractor requests the change and it is allowed, then follow the same provision performance spec.
    • UHPC remains a special provision item for now, but expect it to become standard in the future.
  • **Added to 610.3 Construction** (610.3.4.D.2.a)
    • “Submit a placement plan when placing concrete underwater.”
    • Changed 610.3 Construction, Tremie Tube Minimum from 10” to 8” (610.3.4.D.2.c.i)
    • Use a minimum 8-inch diameter tremie tube with a smooth interior face, a watertight discharge, long enough to reach the bottom of the placement and marked in 1-foot increments.

• **Section 611 – Concrete Reinforcement** - Minor Changes

• **Section 612 – Precast Concrete** - Minor Changes
• **Section 613 – Concrete Coatings and Membranes**
  • Removed several specific requirements (like the type of brush was specified) that may conflict with manufacturer’s instructions.
  • **Added** – Section on Aesthetic Staining (613.3.G) - Intended for use with form-liners to create stone or brick patterns.

• **Section 615 – Steel Structures** – Minor Changes

• **Section 616 – Steel Coatings** – Minor Changes

• **Section 617 – Steel Sign Structures** – Minor Changes

• **Section 619 – Stone and Brick Masonry** – Minor Changes

• **Section 621 – Wood Structures** – Minor Changes
• **Section 623 – Bearing Devices**
  
  • It is the intent to pay for all bearing devices as separate items. In new construction, past practice had been to make the bearings incidental to the beams. The items were used for replacement of bearings on rehab projects. However, the was no reason for this distinction.
  
  • **Moved** – Language about designing bearings using Method B of AASHTO moved from 623.3.D to 623.3.B.2.
  
  • **Added** – Pay Item for Steel Reinforced Elastomeric Bearings, 623005 - STEEL REINFORCED ELASTOMERIC BEARINGS, EA – added this item to have standard items for the common bearing types.

• **Section 624 – JOINTS**

  • **Changed 624.2 Materials** – Steel Coating to Galvanizing and changed Reference. (624.2.B)
  
  • This section was assembled from a number of special provision items (‘01 specs). The text was repetitive between subsections and highly directive. Significantly condensed.
• **Section 625 – CONCRETE OVERLAYS**
  
  • **Removed** – Microsilica Modified Concrete (MSMC)
  
  • **Added to 625.2 Materials** – Polyester Polymer Concrete (PPC) (625.2.B)
  
  • **Added to 625.2 Materials** – Modified Class D PCC (MCD) (625.2.C)

• **Section 626 – Metal Railings** – Minor Changes

• **Section 628 – Concrete Repair and Rehabilitation** – Minor Changes
2020 Standard Specifications
Section 700: Miscellaneous Construction

• Section 701: PCC Curb, Integral PCC Curb, PCC Monolithic Median, and Curb Openings
• Section 702: Triangular Channelizing Islands
• Section 705: PCC Sidewalk, Pedestrian Connections, and Detectable Warning Surface
• Section 706: Monument
• Section 707: Riprap
• Section 708: Geotextiles
• Section 709: Underdrains
• Section 710: Sanitary Sewer System

• Section 720: Guardrail
• Section 721: Guardrail End Sections and Transitions
• Section 722: High-Tension Cable Barrier
• Section 723: Concrete Barrier
• Section 724: Impact Attenuator
• Section 727: Fence
• Section 760: Pavement Milling and Rumble Strips
• Section 762: Saw Cutting and Butt Joints
• Section 763: Initial Expense, De-Mobilization
• **Section 701 – PCC CURB, INTEGRAL PCC CURB, PCC MONOLITHIC MEDIAN, AND CURB OPENINGS**

  • **Added to 701.3 Construction (701.3.F.2)**
    • 2. Remove bituminous concrete pavement, or PCC pavement, and dispose of in accordance with Section 202.

  • **Changed 701.3 Construction – Expansion Joints from 160’ to 150’ (701.3.G.3.b)**
    • b. at a maximum of 150-foot intervals and aligned with adjacent joints;

  • **Added to 701.3 Construction (701.3.J.1)**
    • 1. Construct contraction joints in accordance with the Standard Construction Details at a maximum of 10-foot and a minimum of 4-foot intervals using a tool or by saw cutting to a 1/8-inch minimum width and to a depth of 1 inch minimum on all finished surfaces.

  • **Added to 701.3 Construction (701.3.L)**
    • L. For cracked or damaged curbs, remove and replace within the joint sections in accordance with Section 701.3.J.

  • **Added to 701.5 Basis of Payment (701.5.D.1)**
    • “Excavation and embankment outside the template of the item in accordance with Section 202 at the direction of the engineer or as otherwise required by the contact.”

• **Section 702 – Triangular Channelizing Islands – Minor Changes**
• **Section 705 – PCC Sidewalk, Pedestrian Connections, and Detectable Warning Surface**
  • Added to 705.3 Construction, Joint Width, Reduced Interval from 10’ to 5’ (705.3.C.6.a)
    • a. Construct contraction joints by tool or saw cutting at a maximum width of 1/2-inch. Place at 5-foot intervals, with the exception of pedestrian connection items, when concrete has cured sufficiently.
  • Added to 705.3 Construction, Detectable Warning Surface (705.3.1.M)
    • M. Place the mortar in accordance with manufacturer’s recommendations. *(New Specification does not give direction to a manufacturer’s item)*
  • Added to 705.5 Basis of Payment (705.5.3.B)
    • B. including all curb and curb taper lengths required for connection compliance.

• **Section 706 – Monument** – Minor Changes

• **Section 707 – Pre-Sacked Concrete Riprap**
  • Added to 707.3 Construction (707.3.1.B)
    • B. Follow the manufacturer’s recommendations for weather limitations.
• **Section 708 – Geotextiles** – Minor Changes

• **Section 709 – Underdrains** – Minor Changes

• **Section 710 – Water Services**
  
  • Section has been reduced to convey guidance to the Utility owner’s specifications for all construction, installation, testing, connecting and necessary sterilization for water service. If the utility owner does not provide a specification, then construction is to follow the DelDOT Standard Specifications, the DelDOT Standard Details, and DelDOT Utility Manual.

• **Added to 710.3 Construction (710.3.A)**
  
  • A. Perform the work in accordance with the contract and the utility owner’s specifications. In cases of conflict between the contract and the utility owner’s specifications, the utility owner’s specifications take precedence.
• **Section 710 – Water Services** (Cont.)

  • **Added to 710.3 Construction– Adjusting Water Service within Pavement (710.3.B)**

    • B. Adjusting water services within pavement.
      • 1. Saw cut existing bituminous concrete or PCC pavement a minimum of 2 feet from the face of the utility service.
      • 2. Excavate materials from the perimeter in accordance with Section 207.3. Dispose of waste materials in accordance with Section 106.08.
      • 3. Remove existing castings. Clean and set castings aside for reuse or replacement in accordance with the contract. If the engineer determines the casting is damaged and not suitable for reuse, provide a new casting as provided by the utility owner.
      • 4. Place forms for the top unit.
      • 5. Do not place the frame on bricks, blocks, or other materials.
      • 6. Place required steel reinforcement and encase in PCC, Class B.
      • 7. Dispose of removed utility as directed by the utility owner.

    • C. Pavement Patching.
      • 1. Prepare subgrade for patching to match contract documents or the existing pavement section.
      • 2. Provide bituminous patching material in accordance with Section 403.3.
      • 3. Seal all patches in accordance with Section 504.
• **Section 711 – Sanitary Sewer System**

  • Section has been reduced to convey guidance to the Utility owner’s specifications for all construction, installation, testing, connecting and necessary sterilization for water service. If the utility owner does not provide a specification, then construction is to follow the specifications Details and DelDOT utility manual.

  • “Perform the work in accordance with the contract and the utility owners' specifications. In case of conflicts between the contract and the utility owner’s specifications, the utility owner’s specifications take precedence.” (711.3A)
• **Section 711 – Sanitary Sewer System** (Cont.)

  • **Added to 711.3 Construction – Adjusting Sanitary Sewer Service within Pavement** (711.3.B)
    
    • B. Adjusting Sanitary Sewer Services Within Pavement.
      
      • 1. Saw cut existing bituminous concrete or PCC pavement a minimum of 2 feet from face of the utility service.
      
      • 2. Excavate materials from the perimeter in accordance with Section 207.03. Dispose of waste materials in accordance with Section 106.08.
      
      • 3. Remove existing castings. Clean and set castings aside for reuse or replacement in accordance with the contract. If the engineer determines the casting is damaged and not suitable for reuse, provide a new casting as provided by the utility owner.
      
      • 4. Place forms for the top unit.
      
      • 5. Do not place the frame on bricks, blocks, or other materials.
      
      • 6. Place required steel reinforcement and encase in PCC, Class B.
      
      • 7. Dispose of removed utility as directed by the utility owner.
    
    • B. Adjusting Sanitary Sewer Services Within Pavement.
      
      • 1. Prepare subgrade for patching to match contract documents or the existing pavement section.
      
      • 2. Provide bituminous patching material in accordance with Section 403.3.
      
      • 3. Seal all patches in accordance with Section 504.
BREAK !!
• **Section 720 – Guardrail**
  • **720.2.H.2 – Recycled Composite Offset Blocks**
    • Removed reference to NCHRP 350
    • Must meet latest MASH testing requirements
  • **720.3 – Construction**
    • Added “Provide and install guardrail and components in accordance with the Contract Documents.”
    • **720.3.4 – Guardrail reflectors**
      • Removed sheeting information and placed in the Standard Construction Details (Detail B-13, Sheet 9)
      • Added “Provide reflective sheeting meeting the requirements of ASTM D4956 Type IV.”
    • **720.3.5 – removed payment reference from sub-section and relocated to Basis of Payment.**
    • **720.3.7 – added new sub-section for installation of Standard Construction Items in accordance with Standard Construction Details (see Detail B-3)**
  • **720.4 – Method of Measurement**
    • Added reference to the limit of payment shown in the Standard Construction Details for the components and guardrail-over-culverts
  • **720.5 – Basis of Payment**
    • Added test pits as an item included to the pay item
    • All items within Section 720 are to be paid according to the construction section 720.3 with the items listed.
• **Section 721 – Guardrail End Sections and Transitions**
  
  • **721.2 – Materials**
    - Remove NCHRP 350 and MASH references
    - Products will need to be submitted and approved per the Approved Products List ([https://deldot.gov/Business/prodlists/pdfs/APL_EndTerminals.pdf?cache=1603391579291](https://deldot.gov/Business/prodlists/pdfs/APL_EndTerminals.pdf?cache=1603391579291))
    - Added requirements for retroreflective material and sizes according to end treatment type
  
  • **721.3 – Construction**
    - 721.3.A: Removed the “purpose” of the pre-installation field meeting
    - 721.3.3: Added “Entrance Special End Anchorage” as an item to the title
    - 721.3.4: Removed unnecessary language covered in the 100 Division
  
  • **721.4 – Method of Measurement**
    - 721.4.1 – added the limit of payment length of 50 feet (per Detail B-2)
    - 721.4.2 – Added “Entrance Special End Anchorage” as an item to the title.
    - 721.4.2 – Combined items as they are measured as similar products per the Standard Construction Details
  
  • **721.5 – Basis of Payment**
    - 721.5.3 – Buried End Section is now “Buried in Back Slope” and added “Entrance Special End Anchorage” as an item to the title.
    - Added pay item listings according to item payment to be consistent with guardrail and components in Section 720.3
• Section 722 – High-Tension Cable Barrier (HTCB)
  • Section rewritten to accommodate the manufacturer’s recommendations for HTCB
  • 722.2 – Materials
    • MASH Test Level 4 system
    • Maximum lateral defection of 8 feet
    • One HTCB system for entire length of contract
    • Compatible HTCB end terminals meeting MASH Test Level 3
• Section 723 – Concrete Barrier
  • New items (see Standard Construction Details)
  • 723.3 – Construction
    • 723.3.J.2 – updated to account for changes in barrier heights:
      • Barriers 42” or taller – place reflector 39” above final roadway surface
      • Barriers less than 42” tall – place reflector 29” above final roadway surface
  • 723.5 – Basis of Payment
    • 723.5.A – added reinforcing steel and joints
    • 723.5.A.4 – clarified backfill and backfilling
• **Section 724 – Impact Attenuator**  

  • **724.2 – Materials**  
    • Remove NCHRP 350 and MASH references  
    • Products will need to be submitted and approved per the Approved Products List ([https://deldot.gov/Business/prodlists/pdfs/APL_ImpactAttenuators.pdf?cache=1603394172900](https://deldot.gov/Business/prodlists/pdfs/APL_ImpactAttenuators.pdf?cache=1603394172900))

  • **724.3 – Construction**  
    • Removed damage replacement caused by contractor as this is referenced in the 100 Division.  
    • 724.3.B – Added reference to construct as applicable to Section 720.3

  • **724.4 – Method of Measurement**  
    • 724.4.B – Added “The Department will measure the quantity of impact attenuators replaced due to damage not caused by the contractor as the number of provided, assembled, installed, and accepted.”

  • **724.5 – Basis of Payment**  
    • 724.5.A – Added the pay item listing according to item payment to be consistent with guardrail and components in Section 720.3  
    • 724.5.B – Foundation will be paid in accordance with the following:  
      • Excavation and backfill in accordance with Section 202  
      • Saw cutting in accordance with Section 762  
      • Pavement patching in accordance with Section 402 or Section 503

    • 724.5.C – Added “The Department will pay the quantity of damaged impact attenuators replaced and disposed of at the contract unit price, if complete replacement is required, or at a negotiated price if a partial replacement or repair is required.”
• **Section 727 – Fence**
  • Added to 727.3 Construction (727.3.6.A)
    • A. Place metal right-of-way fence posts plumb and in accordance with the Standard Construction Details.

• **Section 760 – Pavement Milling and Rumble Strips**
  • Removed
    • “An entrance, driveway and intersecting street pavement surcharge (a separate pay item) will only be considered for areas adjacent to the roadway milling that cannot be completed as part as the mainline or auxiliary operations, as determined by the Engineer. An intersecting street milling, measured along the centerline, that is 300 linear feet or greater will not be paid as a surcharge.”

• **Section 762 – Saw Cutting and Butt Joints**
  • Added to 762.4 Method of Measurement (762.4.B)
    • B. Composite pavement of asphalt over concrete is to be measured as sawcutting concrete.
  • Added to 762.5 Basis of Payment (762.5.B.4)
    • 4. sealing overcuts in accordance with Section 504.3.
• **Section 763 – Initial Expense, De-Mobilization**

  • **Added to 763.3 Construction (763.3.A,B)**

    • A. Perform operations necessary for assembling and setting up of the project, including:
      • 1. The initial movement of personnel and equipment to the project site;
      • 2. establishing the contractor’s offices, shops, plants, storage areas, and sanitary facilities;
      • 3. other activities required by the contract and by law or regulation;
      • 4. other work and operations required before beginning compensable items of work; and
      • 5. obtaining the required insurance, bonds, and all other items required for the start of work.

    • B. Perform operations necessary for final jobsite cleanup including:
      • 1. De-mobilization of personnel and equipment; and
      • 2. Submitting all project closeout paperwork including subcontractor releases.
• Section 831: Conduit
• Section 832: Electric and ITMS Cable and Splicing
• Section 833: Grounding
• Section 834: Pole Bases, Extensions, and Sheeting
• Section 835: Cabinet Bases
• Section 836: Traffic Signal Poles and Mast Arms
• Section 837: Traffic Signal Indications
• Section 838: Span Wire and Messenger Wire
• Section 839: Wood Poles
• Section 840: Down Guys and Anchors
• Section 841: Weatherheads
• Section 842: Service Pedestal and Safety Switch
• Section 843: Electrical Testing
• Section 844: Emergency Preemption Detector
• Section 846: Loop Detector
• Section 847: Lighting Control Cabinets
• Section 850: Luminaire
• Section 851: Aluminum Lighting Standard
• **Section 801 – Temporary Traffic Control, General**
  • 801.3 Construction, Travel Lane and Road Closure Restrictions (801.3.5)
    • Added - # 7- Special Events

• **Section 802 – Arrow Boards** – Minor Changes

• **Section 803 – Portable Changeable Message Sign** – Minor Changes

• **Section 804 – Portable Light Assembly** – Minor Changes

• **Section 805 – Plastic Traffic Control Drums** – Minor Changes

• **Section 806 – Traffic Officers**
  • Updated 806.5 Basis of Payment (806.5.B)

  B. For bidding purposes, the Department has fixed the unit price at $110.00 per hour. The Department will pay for traffic officers based on a submitted invoice from the police department plus 10 percent.
• Section 807 – Temporary Safety Barrier  – Minor Changes
• Section 808 – Truck Mounted Attenuator – Minor Changes
• Section 809 – Temporary Impact Attenuator  – Minor Changes
• Section 810 – Temporary Warning Signs  – Minor Changes
• Section 811 – Flaggers  – Minor Changes
• Section 812 – Certified Traffic Control Supervisor – Minor Changes
• Section 813 – Temporary Barricades  – Minor Changes
• Section 817 – Pavement Markings

• General Updates to Construction (8.17.3)

817.3.1 – General

- 817.3.1.A – Removed “and as directed by the Engineer”
- 817.3.1.B – Added “Use only application equipment approved by the engineer before starting work”
- 817.3.1.C – Added “Provide free access to the epoxy application equipment for inspection by the engineer at any time during the project”
- 817.3.1.D – Added “Do not use an application speed of the paint machine greater than 10 miles per hour, unless approved by the engineer”
- 817.3.1.G – Removed “Due to safety requirements, this section overrides section 108.03 which prevents work on Sundays and holidays”
- 817.3.1.G – Added “…in accordance with Section 801”

817.3.2 – Equipment

- 817.3.2.A.1 – Removed “Use Equipment meeting the following minimum requirements to apply latex paint pavement markings”.
- 817.3.2.B.1 – Removed “Use only application Equipment, approved by the Engineer prior to the start of Work, for the placement of epoxy reflectorized pavement markings”
- 817.3.2.B.2 – Removed “At any time throughout the duration of the Project, provide free access to the epoxy application Equipment for inspection by the Engineer”
- 817.3.2.B.4 – Replaced “The Engineer may approve the use of a portable applicator in lieu of truck-mounted accessories, for use in applying special markings only, provided such Equipment can demonstrate satisfactory application of reflectorized epoxy markings in accordance with these Specifications” with “817.3.2.B.2 Portable Applicator; 817.3.2.B.2.a. for use in applying special markings only”
• **Section 817 – Pavement Markings** (Cont.)
  
  • **General Updates to Construction (8.17.3)**

817.3.3 – Latex Paint
  
  - 817.3.3.A.1 – Replaced “temporary paint be applied at approximately 7 mils.” With “apply temporary paint at 9 mils plus or minus one mil.”
  
  - 817.3.3.A.1 – Added “Refresh temporary paint as necessary to maintain the minimum reflectivity specified in section 1071”
  
  - 817.3.3.B – Removed subsections 1 and 2
  
  - 817.3.3.B – Replaced “During and after Material application, both daylight and nighttime inspections of the markings will be made by the Engineer, and if found to be defective or if they fail in any way to meet these Specifications, such markings will be rejected and shall be replaced at no cost to the Department within the time limit specified by the Engineer” with “The engineer will perform both daylight and nighttime inspections of the markings, during and after material application”
• **Section 818 – Sign Panels**
  • Materials (818.2)
    • **Removed** – The Department actions to date all signs at the time of application as the signs will be provided by the contractor rather than ordering the signs from the sign shop.”

• **Section 819 Signposts**
  • Added to 819.3 Construction (819.3.A)
    • A. Traffic Signs.
      • The contractor shall provide sign materials for use on the project, including signs, posts, and associated hardware, unless otherwise indicated in the contract.
  • Replaced (819.3.B.2)
    • Replaced – “Install signpost at the location depicted in the Contract Documents” with “Place signpost in accordance with the DE MUTCD and MASH.”

• **Section 820 – Breakaway I-Beam Signs** – Minor Changes

• **Section 821 – Barrier Mounted Signs**
  • Removed from Construction (821.3)
    • Handling and Transport Information (821.3.B.2-3). (Contractors Responsibility)
• Section 821 – Barrier Mounted Signs – Minor Changes
• Section 822 – Overhead and Cantilever Sign Panels – Minor Changes
• Section 823 – Span Wire and Mast Arm Sign Panels – Minor Changes
• Section 824 – Delineators – Minor Changes
• Section 825 – Flexible Tubular Markers, Permanent – REMOVED
• Section 826 – Permanent Wood Barricade – Minor Changes
• Section 830 – Conduit Junction Wells – Minor Changes
• Section 831 – Conduit – Minor Changes
• Section 832 – Electric and ITMS Cable and Splicing – Minor Changes
• Section 833 – Grounding – Minor Changes
• **Section 834 – Pole Bases, Extensions, and Sheeting** – Minor Changes

• **Section 835 – Cabinet Bases** – Minor Changes

• **Section 836 – Traffic Signal Poles and Mast Arms**
  • Added to 836.3 Construction (836.3.1.B)
    • “....Before erecting a pole, ensure that the anchor bolt is revealed per the manufacturer’s specifications and Standard Construction Details.....”

• **Section 837 – Traffic Signal Indications** – Minor Changes

• **Section 838 – Span Wire and Messenger Wire** – Minor Changes

• **Section 839 – Wood Poles** – Minor Changes

• **Section 840 – Down Guys and Anchors** – Minor Changes

• **Section 841 – Weatherheads** – Minor Changes

• **Section 842 – Service Pedestal and Safety Switch** – Minor Changes
• Section 843 – Electrical Testing – Minor Changes

• Section 844 – Emergency Preemption Detector – Minor Changes

• Section 846 – Loop Detector – Minor Changes

• Section 847 – Lighting Control Cabinets – Minor Changes

• Section 850 – Luminaire
  • Added to 850.2 Materials, Chart to include LED Fixtures and HPS Equivalents (850.2.D)

<table>
<thead>
<tr>
<th>LED Fixtures (HPS Equivalent)</th>
<th>Wattage</th>
<th>Lumens Range</th>
<th>Drive Current</th>
<th>Color Temperature*</th>
<th>Rated Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>90 Watts</td>
<td>8,000 - 12,000</td>
<td>1050 mA Maximum</td>
<td>3,000K and 4,000K</td>
<td>60,000 Hours</td>
</tr>
<tr>
<td>250</td>
<td>175 Watts</td>
<td>16,000 - 20,000</td>
<td>1050 mA Maximum</td>
<td>3,000K and 4,000K</td>
<td>60,000 Hours</td>
</tr>
<tr>
<td>400</td>
<td>250 Watts</td>
<td>27,000 - 31,000</td>
<td>1050 mA Maximum</td>
<td>3,000K and 4,000K</td>
<td>60,000 Hours</td>
</tr>
</tbody>
</table>

*High mast luminaires may have a color temperature up to 5,000K

• Section 851 – Aluminum Lighting Standard – Minor Changes
2020 Standard Specifications
Section 900: Erosion, Sediment, and Stormwater Measures

- Section 901: Erosion, Sediment, and Stormwater Management
- Section 902: Pumping or Dewatering Operations
- Section 903: Pollution Prevention
- Section 905: Sediment Trapping Devices
- Section 906: Dewatering Practices
- Section 907: Water Control Practices
- Section 908: Soil Stabilization Practices
- Section 909: Waterway Construction Practices
- Section 910: Stormwater Management Facilities
- Section 911: Plantings
• **Section 901 – Erosion, Sediment, and Stormwater Management**
  • Added to 901.1 Description, Definition (901.1.1.E)
    • E. Responsible Person - A foreman or superintendent in charge of on-site clearing and land disturbing activities and for sediment and stormwater control.
  • Added to 901.3 Construction, Responsibility (901.3.2.D)
    • D. Ensure that the responsible person oversees implementation of the Sediment and Stormwater Management Plan and provides daily oversight and guidance to construction personnel during land disturbing activities.
  • Clarified Responsibility, 901.3 Construction (901.3.2.F,H)
    • F. The contractor may be subject to violations or fines received from regulatory agencies as a result of site conditions.
    • H. Designate a certified Erosion & Sediment Control (ESC) supervisor...

• **Section 902 – Pumping or Dewatering Operations**
  • Minor Changes
• **Section 903 – Pollution Prevention**
  
  • **Added to 903.3 Construction**
    
    • 903.3.1 Application Law and Regulations. Follow the Delaware Erosion and Sediment Control Handbook. (http://www.dnrec.delaware.gov/swc/Pages/SedimentStormwater.aspx)

  • **Added to 903.3 Construction, List of Prohibited Discharges (903.3.2)**
    
    • A. Wastewater from concrete washout operations, unless managed by an appropriate control;
    • B. Wastewater from stucco washout, paint, form release oils, curing compounds, and other construction materials, unless managed by an appropriate control;
    • C. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
    • D. Soaps, solvents, or detergents used in vehicle and equipment washing; and
    • E. Toxic or hazardous substances from a spill or other release.

  • **Added to 903.3 Construction, Direction for Clean-up Methods (903.3.2)**
    
    • 903.3.3 Maintenance.
      
      • A. Inspect pollutant-generating activities and the pollution prevention Best Management.
        • 1. Immediately upon discovery of spilled pollutants, initiate clean-up operations.
        • 2. **Do not hose down surfaces, use dry clean-up methods only**
• **Section 905 – Sediment Trapping Devices**
  • Added to 905.3 Construction (905.3.B.3)
    • 3. Super Silt Fence
      • Place fence in accordance with the Standard Construction Details and Section 905.3.A. Fasten geotextile to chain link fence with ties spaced every 24 inches at the top and midsection.

• **Section 906 – Dewatering Practices**
  • Added to 906.2 Materials (906.2.B)
    • B. Approved equal sediment tank.

• **Section 907 – Water Control Practices**
  • Added to 907.3 Construction (907.3.A)
    • A. Inspect weekly and immediately after every rainfall to maintain and make repairs as needed.
  • Added to 907.3 Construction (907.3.B.2)
    • Check Dam, Compost Filter Log section
• **Section 908 – Soil Stabilization Practices** – Minor Changes

• **Section 909 – Waterway Construction Practices**
  • Added to 909.3 Construction (909.3.A)
    • A. Inspect weekly and immediately after every rainfall to maintain and make repairs as needed.

• **Section 910 – Stormwater Management Facilities** – Minor Changes

• **Section 911 – Plantings**
  • Moved from Basis of Payment and 1021 and added to 911.2 Materials (911.2.9.A-C)
    • A. Provide clean water free of oil, salts, acids, alkalis, sugars, organics, or other undesirable materials. Where water is drawn from a surface source, enclose the intake to exclude silt, mud, organics, trash, or other foreign materials.
    • B. Watering quantity is per 1,000 gallons of water applied and based on the following schedule:
      • 1. Major trees-15 gallons per tree;
      • 2. minor trees-10 gallons per tree;
      • 3. shrubs-5 gallons per shrub; and
      • 4. perennials-10 gallons per 100 square feet of planting bed.
    • C. Document the quantity of watering on the breakout sheet provided for this item.
Too Much to Cover in One Presentation

READ THE SPECIFICATIONS!!

When questions arise, I can still hear my first boss.....

“What does the Spec say?”
“What does the Standard Detail show?”