2020 STANDARD SPECIFICATION Updates
Re-write for 2020 that includes new language

- Written to the contractor
- Removed passive voice
- Replaced with active voice

- Improve Readability
- Format and restructure sections

To-Do-List
1. make
2. things
3. better

- Use Imperative mood

DANGER SLOW DOWN
Schedule

- Division 100 final review
- Division 200 Summary shared
- Division 300 Summary shared
- Division 400 Summary shared
- Division 500 Summary shared
- Division 600 creating summary
- Division 700 Summary shared
- Division 800 creating summary
- Division 900 Summary shared
- Division 1,000 final review
*INCIDENTAL…

Currently used 341

2020 INCIDENTAL ref. < 50
401.5 Basis of Payment.

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

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 consider the quantity of the safety edge as incidental to the paving items.

E. The Department will apply any incentive or disincentive pay adjustments as established by this specification.
And latest supplementals created during the review

Subsection 607.03 Construction, (6/15/2018)
F. Backfill Placement

Replace the third sentence in (1.) with the following:

Place #57 stone for at least the first 3 feet normal to the back face of the panel for the full height of the wall.

Reduce errors with a single document
Format

Section 000 – Title

• 000.1 – Description.
  o short and brief
• 000.2 – Materials.
  o item materials
• 000.3 – Construction.
  o how to construct
• 000.4 – Method of Measurement.
  o measurement
• 000.5 – Basis of payment.
  o payment information
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.

This work consists of providing and placing bituminous pavement.
## 901.2 Materials

Not applicable.

### 501.2 Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Insulation materials</td>
<td>610.03.D.3.d</td>
</tr>
<tr>
<td>B. Reinforcing steel</td>
<td>611, 1037</td>
</tr>
<tr>
<td>C. Fine aggregate</td>
<td>1003</td>
</tr>
<tr>
<td>D. Coarse aggregate</td>
<td>1004</td>
</tr>
<tr>
<td>E. Ground granulated blast furnace slag (GGBFS)</td>
<td>1020</td>
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<tr>
<td>F. Fly ash</td>
<td>1020</td>
</tr>
<tr>
<td>G. Water</td>
<td>1021</td>
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<tr>
<td>H. Portland cement</td>
<td>1022</td>
</tr>
<tr>
<td>I. Air-entraining admixtures</td>
<td>1022</td>
</tr>
<tr>
<td>J. Chemical admixtures</td>
<td>1022</td>
</tr>
<tr>
<td>K. Curing materials</td>
<td>1022</td>
</tr>
<tr>
<td>L. Embedded hardware:</td>
<td></td>
</tr>
<tr>
<td>1. Load-transfer devices</td>
<td>1037</td>
</tr>
<tr>
<td>2. Tie bars - hook bolts, bent bars or W-bolts</td>
<td>1037</td>
</tr>
<tr>
<td>3. Coated dowel bars</td>
<td>1037</td>
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<tr>
<td>4. Tie bolts - hook bolts or W-bolts</td>
<td>1037</td>
</tr>
</tbody>
</table>
Section 401.03 Construction

2016

A. Mix Design.
B. Delivery of Mixture.
C. Hauling Equipment.
D. Paver.
E. Rollers.
F. Weather Limitations.
G. Preparing Base or Excising Surface.
H. Tack Coat.
I. Placement.
J. Compaction.
K. Compaction Testing.
L. Material Production.
M. Joints.
N. Surface Tolerances.

2020

A. Before Paving
B. Mix Design.
C. Delivery of Mixture.
D. Hauling Equipment.
E. Paver.
F. Rollers.
G. Weather Limitations.
H. Preparing Base or Existing Surface.
I. Tack Coat.
J. Placement.
K. Compaction.
L. Compaction Testing.
M. Joints.
N. Wearing Surface.
000.4 – Method of Measurement

701.04 Method of Measurement. The Engineer will measure Portland Cement Concrete Curb and Integral Portland Cement Concrete Curb as the number of linear feet measured along the linear face of acceptably installed and completed curb as specified. Any curb showing cracks shall be replaced in sections that have a minimum length of 10 feet, at no cost to the Department.

Item 701026 - Portland Cement Concrete Monolithic Median will be measured as the number of linear feet measured along the centerline of the median.
Curb openings will be measured as the number of curb openings installed.

2020

701.3 Construction

L. For cracked or damaged curbs, remove and replace within the joint sections in accordance with Section 701.3.L.

701.5 Basis of Payment

A. Price and payment shall constitute full compensation for:

12. removing and replacing cracked or damaged curb.

Not Measured and Paid
Has been relocated
701.5 Basis of Payment.

A. Price and payment shall constitute full compensation for:

1. Excavating within the template of the item;
2. removal and disposal of existing materials;
3. foundation preparation;
4. providing and placing materials;
5. compaction;
6. forms and forming;
7. supplying, placing, finishing, and curing PCC;
8. expansion joint material;
9. sealing and saw cutting
10. backfilling;
11. removing surplus materials; and
12. removing and replacing cracked or damaged curb.

B. The Department will pay for:

1. Excavation and embankment outside the template of the item in accordance with Section 202 at the direction of the Engineer or contact.
2. Rock removal in accordance with Section 202.
3. Undercut excavation in accordance with Section 202.

C. For curb removal and replacement, the Department will pay for:

1. PCC removal in accordance with Section 211;
2. saw cutting in accordance with Section 762; and
3. bituminous pavement patching in accordance with Section 402 in addition to the curb item.
Ensure consistency with the 2020 Standard Specifications

The detectable warning system shall extend at least 2'-0" in length, measured in the direction of travel from the back of the curb along the pedestrian connection surface. See specification for additional information.
It's 2020, Do we need Metric?
BARRIER section to meet the 2016 edition of MASH

This section is under construction
CURB & GUTTER

DEPRESS Curb [See Notes 2 & 8]

PCC CURB
Type 1.4

PCC CURB
Type 1.4

PCC CURB
Type 1.4

FINISH 2" BELOW FINISH GRADE

Pavement

Curb or Curb & Gutter
Type may vary

9" COMM.

MEDIAN

4" MIN. (See Note 6)

Pavement

PCC CURB
Type 1-2 Roundabout

PCC CURB
Type 1-2 Roundabout

PCC CURB
Type 1-2 Roundabout

TYPICAL CURB SECTION

TYPICAL TAPER SECTION
AT NOSE OF MEDIANS

DETECTABLE WARNING
SURFACE DETAILS

NOTES:
A. ENTIRE DEPRESSED AREA OF CURB EXCLUDING THE TAPERED CURB
SHALL HAVE DETECTABLE WARNING SURFACE.
B. THE DETECTABLE WARNING SYSTEM SHALL EXTEND AT LEAST 2'-6"
IN LENGTH, MEASURED IN THE DIRECTION OF TRAVEL, FROM THE
BACK OF THE CURB ALONG THE PEDESTRIAN CONNECTION SURFACE.
C. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
### DRAINAGE

**D-4 sheet 1 of 1**

<table>
<thead>
<tr>
<th>L</th>
<th>W</th>
<th>FABRICATION TOLERANCE</th>
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<tr>
<td>17(\frac{1}{2})&quot;</td>
<td>11(\frac{1}{2})&quot;</td>
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<td>72&quot;</td>
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</table>

* - THESE BOXES ARE TO BE USED FOR LAWN INLETS AND ARE NOT INTENDED TO BE USED IN THE TRAVELWAY. THE MAX DEPTH FOR THESE BOXES IS 4'. SEE NOTE 8 FOR REINFORCEMENT.

** - THE MAX DEPTH FOR THIS BOX IS 4'.

<table>
<thead>
<tr>
<th>INTERIOR WALL DIMENSION</th>
<th>AREA OF HORIZONTAL REINFORCEMENT PER FOOT (^2)</th>
<th>AREA OF VERTICAL REINFORCEMENT PER FOOT (^2)</th>
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<tbody>
<tr>
<td>LESS THAN 4'</td>
<td>0.132</td>
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<tr>
<td>4' TO 4.5'</td>
<td>0.163</td>
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<tr>
<td>4.5' TO 5'</td>
<td>0.198</td>
<td>0.132</td>
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<tr>
<td>5' TO 5.5'</td>
<td>0.239</td>
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<tr>
<td>5.5' TO 6'</td>
<td>0.284</td>
<td>0.132</td>
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### Curbing Details

<table>
<thead>
<tr>
<th>Top Unit</th>
<th>Curb</th>
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<tbody>
<tr>
<td>Type A</td>
<td>Use in non-curbed</td>
</tr>
<tr>
<td>Type B</td>
<td>Integral PCC curb &amp; gutter, Types 1-8 &amp; 3-6, PCC curb Type 1-8</td>
</tr>
<tr>
<td>Type C</td>
<td>Integral PCC curb &amp; gutter, Types 1-6, 3-4, 1-4, 1-2 and 1-2, and PCC curb Type 1-4, 1-2, 1-1, and 1-2</td>
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<tr>
<td>Type D</td>
<td>Integral PCC curb &amp; gutter, Type 2</td>
</tr>
<tr>
<td>Type E</td>
<td>PCC curb Type 2</td>
</tr>
</tbody>
</table>

**Curb Opening Details**

- 2" x 4" temporary drainage opening
- Drainage inlet box (Typ.)

**Isometric View**

- Type E unit shown
- Drainage inlet box (Typ.)

**Isometric View**

- Type B top unit shown with integral curb & gutter Type 3
- Drainage inlet box (Typ.)

**Unit of Payment**

- Outside of drainage inlet box + 1'-0"
DRAINAGE CHANGES AHEAD

- DOG BOX INLET BOX
- MANHOLE DETAILS
- FLARED END SUPPORT
Updates for:
- STANDARD SPECIFICATIONS
- DNREC
- FIELD APPLICATIONS

SILT FENCE uniformity
EROSION

Use post and fence
EROSION

COMPOST FILTER LOG & STONE IS THE OPTION
Erosion Check Dams

**Plan**

- **Remove Sake**
- Sacks should be placed 5' 0" on center
- 2' 6" x 3' 3" wooden stakes

**Section A-A**

- Dimensions and section details
- Material placement and cross-section view

**Section A-A**

- Plan view
- Elevation details

**Notes:**
1. The maximum height of the check dam is 6' 7" at the center of the toe.
2. Check dam shall be constructed of the material specified in Section 8.17.1.1.
3. Check dam shall be placed at the top of the embankment.
4. Check dam shall be placed such that the toe of the check dam is not less than 200' apart when the slope is 1:3.

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**Compost Filter Log Check Dam**

- Delaware Department of Transportation
- Standard No.: E-9 (2009)
- Approved: 2 of 2 Recommended
EROSION

TEMPORARY

INSTALL

NO EXCAVATION
PAVEMENT

SEALANT DETAIL-
TRANSVERSE AND LONGITUDINAL JOINT

- 0.3T (10" PCC PAVEMENT)
0.4T (12" PCC PAVEMENT)
Pavement

Pavement Safety Edge

DESIGNED PAVEMENT WIDTH

RANGE 26° - 40°

THICKNESS

NEW PAVEMENT BASE

TOPSOIL

COMPACTED FILL OR IN SITU MATERIAL

NEW PAVEMENT BOX
TRAFFIC

TEMPORARY PEDESTRIAN PATHWAY

TEMPORARY PEDESTRIAN PATHWAY

NOTES:
- PROVIDE A WIDTH OF TEMPORARY PATHWAY, SUPPLY CONCRETE, HOT MIX, COLD PATCH OR MILLINGS TO A MINIMUM DEPTH OF 4", FLUSH WITH EXISTING GRADE.
- IN THE EVENT THAT THE WALKING SURFACE OF THE TEMPORARY SIDEWALK IS LOCATED MORE THAN 3" FROM GRADE AT ANY POINT ALONG THE PROPOSED PATH, PROVIDE TYPE 2 TEMPORARY SIDEWALK.
- ANY REQUIRED EXCAVATION TO CONSTRUCT THE PATHWAY IS INCIDENTAL TO ITEM 1(B)1.
- ADD NOTE: MAXIMUM ALLOWABLE RUNNING SLOPE NOT TO EXCEED 2%. MAXIMUM ALLOWABLE CROSS SLOPE NOT TO EXCEED 1%. AND VERTICAL SURFACES NOT TO EXCEED 2%. FURTHER GUIDANCE IN ACCORDANCE WITH THE LATEST VERSION OF THE Pedestrian Accessibility Standards for Facilities in the Public Right of Way.

For Review
TRAFFIC

PEDESTRIAN PUSHBUTTONS

NOTES:
1) WHEN CUTTING IS REQUIRED, CONTRACTOR SHALL CONFIRM PROPER HEIGHT OF PEDESTAL IS MAINTAINED PRIOR TO CUTTING POLE.
2) REFER TO POLE MOUNTING FOR PEDESTRIAN SIGNAL HEADS STANDARD PLATES FOR DETAILS.

PUSHBUTTON TEMPLATE

1/4" MIN. DIA. HOLE FOR BUTTON WIRES

3/8" MIN. TO 40" MAX

42" MIN. TO 48" MAX

6-32" MIN. TO 32" MAX

PUSHBUTTON ASSEMBLY

LEVEL GRADE

GRADE

14"

32"

PUSHBUTTON TEMPLATE

PUSHBUTTON ASSEMBLY

SIGNAL POLE

BASE COLLAR ASSEMBLY

BASE COLLAR ASSEMBLY

SQUARE PEDESTAL BREAKAWAY BASE

PEDESTAL POLE

PEDESTAL POLE

SIGNAL POLE

SIGNAL POLE

NOTES:
1) PUSHBUTTON ASSEMBLY SHALL BE SECURED TO WOOD POLES WITH 3/16" LAG BOLTS.

For Review
TRAFFIC

ELECTRICAL
SERVICE
PEDESTALS

For Review
THANK YOU