

# 66

**November 17, 2017 Letting**

# **Notice to Bidders, Specifications, and Proposal**



**Illinois Department  
of Transportation**

**Springfield, Illinois 62764**

**Contract No. 61D64  
MCHENRY County  
Section 14-00438-00-BR  
Route FAU 186 (Bay Road)  
Project H3X8 612-0000(000)  
District 1 Construction Funds**

Prepared by

Checked by

F

(Printed by authority of the State of Illinois)



- 1. TIME AND PLACE OF OPENING BIDS.** Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 10:00 a.m. November 17, 2017 prevailing time at which time the bids will be publicly opened from the iCX SecureVault.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 61D64  
MCHENRY County  
Section 14-00438-00-BR  
Project H3X8 612-0000(000)  
Route FAU 186 (Bay Road)  
District 1 Construction Funds**

**Structure rehabilitation and pavement reconstruction on FAU Route 186 (Bay Road) over Lily Lake Drain, located 1.0 mile southeast of Chapel Hill Road.**

- 3. INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.  
  
(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the  
Illinois Department of Transportation

Randall S. Blankenhorn,  
Secretary

INDEX  
FOR  
SUPPLEMENTAL SPECIFICATIONS  
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2017

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction  
(Adopted 4-1-16) (Revised 1-1-17)

**SUPPLEMENTAL SPECIFICATIONS**

| <b><u>Std. Spec. Sec.</u></b> |                                                          | <b><u>Page No.</u></b> |
|-------------------------------|----------------------------------------------------------|------------------------|
| 106                           | Control of Materials .....                               | 1                      |
| 403                           | Bituminous Surface Treatment (Class A-1, A-2, A-3) ..... | 2                      |
| 420                           | Portland Cement Concrete Pavement .....                  | 3                      |
| 502                           | Excavation for Structures .....                          | 5                      |
| 503                           | Concrete Structures .....                                | 7                      |
| 504                           | Precast Concrete Structures .....                        | 10                     |
| 542                           | Pipe Culverts .....                                      | 11                     |
| 586                           | Sand Backfill for Vaulted Abutments.....                 | 12                     |
| 670                           | Engineer's Field Office and Laboratory.....              | 14                     |
| 704                           | Temporary Concrete Barrier .....                         | 15                     |
| 888                           | Pedestrian Push-Button .....                             | 17                     |
| 1003                          | Fine Aggregates .....                                    | 18                     |
| 1004                          | Coarse Aggregates .....                                  | 19                     |
| 1006                          | Metals .....                                             | 21                     |
| 1020                          | Portland Cement Concrete.....                            | 22                     |
| 1103                          | Portland Cement Concrete Equipment .....                 | 24                     |

CHECK SHEET  
FOR  
RECURRING SPECIAL PROVISIONS

Adopted January 1, 2017

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

RECURRING SPECIAL PROVISIONS

| <u>CHECK SHEET #</u> |                                                                        | <u>PAGE NO.</u> |
|----------------------|------------------------------------------------------------------------|-----------------|
| 1                    | X Additional State Requirements for Federal-Aid Construction Contracts | 26              |
| 2                    | X Subletting of Contracts (Federal-Aid Contracts)                      | 29              |
| 3                    | X EEO                                                                  | 30              |
| 4                    | Specific EEO Responsibilities Non Federal-Aid Contracts                | 40              |
| 5                    | Required Provisions - State Contracts                                  | 45              |
| 6                    | Asbestos Bearing Pad Removal                                           | 51              |
| 7                    | Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal       | 52              |
| 8                    | Temporary Stream Crossings and In-Stream Work Pads                     | 53              |
| 9                    | Construction Layout Stakes Except for Bridges                          | 54              |
| 10                   | Construction Layout Stakes                                             | 57              |
| 11                   | Use of Geotextile Fabric for Railroad Crossing                         | 60              |
| 12                   | Subsealing of Concrete Pavements                                       | 62              |
| 13                   | Hot-Mix Asphalt Surface Correction                                     | 66              |
| 14                   | Pavement and Shoulder Resurfacing                                      | 68              |
| 15                   | Patching with Hot-Mix Asphalt Overlay Removal                          | 69              |
| 16                   | Polymer Concrete                                                       | 70              |
| 17                   | PVC Pipeliner                                                          | 72              |
| 18                   | Bicycle Racks                                                          | 73              |
| 19                   | X Temporary Portable Bridge Traffic Signals                            | 75              |
| 20                   | Work Zone Public Information Signs                                     | 77              |
| 21                   | Nighttime Inspection of Roadway Lighting                               | 78              |
| 22                   | English Substitution of Metric Bolts                                   | 79              |
| 23                   | Calcium Chloride Accelerator for Portland Cement Concrete              | 80              |
| 24                   | Quality Control of Concrete Mixtures at the Plant                      | 81              |
| 25                   | X Quality Control/Quality Assurance of Concrete Mixtures               | 89              |
| 26                   | Digital Terrain Modeling for Earthwork Calculations                    | 105             |
| 27                   | Reserved                                                               | 107             |
| 28                   | Preventive Maintenance – Bituminous Surface Treatment (A-1)            | 108             |
| 29                   | Preventive Maintenance – Cape Seal                                     | 114             |
| 30                   | Preventive Maintenance – Micro-Surfacing                               | 129             |
| 31                   | Preventive Maintenance – Slurry Seal                                   | 140             |
| 32                   | Temporary Raised Pavement Markers                                      | 149             |
| 33                   | Restoring Bridge Approach Pavements Using High-Density Foam            | 150             |
| 34                   | Portland Cement Concrete Inlay or Overlay                              | 153             |

CHECK SHEET  
FOR  
LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

The following LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

| <u>CHECK SHEET #</u>                                                                            | <u>PAGE NO.</u> |
|-------------------------------------------------------------------------------------------------|-----------------|
| LRS 1 <b>Reserved</b> .....                                                                     | 158             |
| LRS 2 <input type="checkbox"/> Furnished Excavation .....                                       | 159             |
| LRS 3 <input checked="" type="checkbox"/> Work Zone Traffic Control Surveillance .....          | 160             |
| LRS 4 <input type="checkbox"/> Flaggers in Work Zones .....                                     | 161             |
| LRS 5 <input type="checkbox"/> Contract Claims .....                                            | 162             |
| LRS 6 <input type="checkbox"/> Bidding Requirements and Conditions for Contract Proposals ..... | 163             |
| LRS 7 <input type="checkbox"/> Bidding Requirements and Conditions for Material Proposals ..... | 169             |
| LRS 8 <b>Reserved</b> .....                                                                     | 175             |
| LRS 9 <input type="checkbox"/> Bituminous Surface Treatments .....                              | 176             |
| LRS 10 <b>Reserved</b> .....                                                                    | 177             |
| LRS 11 <input type="checkbox"/> Employment Practices .....                                      | 178             |
| LRS 12 <input type="checkbox"/> Wages of Employees on Public Works .....                        | 180             |
| LRS 13 <input type="checkbox"/> Selection of Labor .....                                        | 182             |
| LRS 14 <input type="checkbox"/> Paving Brick and Concrete Paver Pavements and Sidewalks .....   | 183             |
| LRS 15 <input type="checkbox"/> Partial Payments .....                                          | 186             |
| LRS 16 <input type="checkbox"/> Protests on Local Lettings .....                                | 187             |
| LRS 17 <input type="checkbox"/> Substance Abuse Prevention Program.....                         | 188             |
| LRS 18 <input type="checkbox"/> Multigrade Cold Mix Asphalt .....                               | 189             |

**INDEX OF SPECIAL PROVISIONS**

LOCATION OF THE IMPROVEMENTS ..... 1  
 DESCRIPTION OF THE IMPROVEMENTS ..... 1  
 COMPLETION DATE PLUS WORKING DAYS ..... 1  
 MAINTENANCE OF ROADWAYS ..... 2  
 COORDINATION WITH OTHER CONTRACTORS ..... 2  
 STATUS OF UTILITIES (D-1) ..... 3  
 LIST OF WORK ITEMS NOT PAID FOR SEPARATELY ..... 5  
 TRAFFIC CONTROL PLAN ..... 6  
 TRAFFIC CONTROL AND PROTECTION (ARTERIALS) ..... 7  
 PUBLIC CONVENIENCE AND SAFETY (DIST 1) ..... 7  
 EMBANKMENT I ..... 8  
 RECLAIMED ASPHALT PAVEMENT FOR NON-POROUS EMBANKMENT AND BACKFILL.. 10  
 AGGREGATE SUBGRADE IMPROVEMENT (D-1) ..... 11  
 FRICTION AGGREGATE (D-1) ..... 13  
 HMA MIXTURE DESIGN REQUIREMENTS (D-1) ..... 17  
 GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1) ..... 23  
 COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1) ..... 25  
 RECESSED REFLECTIVE PAVEMENT MARKER ..... 26  
 STEEL RAILING (SPECIAL) ..... 27  
 TEMPORARY PAVEMENT ..... 28  
 TURBIDITY BARRIER ..... 29  
 AVAILABLE REPORTS ..... 30

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG) 31

LPC-662 33

U.S. ARMY CORPS OF ENGINEERS REGIONAL PERMIT 38

**INDEX LOCAL ROADS AND STREETS SPECIAL PROVISIONS**

| <u>LR #</u> | <u>Pg #</u> | <u>Special Provision Title</u>                                                                                                        | <u>Effective</u> | <u>Revised</u> |
|-------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|
| LR SD12     |             | <input type="checkbox"/> Slab Movement Detection Device                                                                               | Nov. 11, 1984    | Jan. 1, 2007   |
| LR SD13     |             | <input type="checkbox"/> Required Cold Milled Surface Texture                                                                         | Nov. 1, 1987     | Jan. 1, 2007   |
| LR 107-2    |             | <input type="checkbox"/> Railroad Protective Liability Insurance for Local Lettings                                                   | Mar. 1, 2005     | Jan. 1, 2006   |
| LR 107-4    | 43          | <input checked="" type="checkbox"/> Insurance                                                                                         | Feb. 1, 2007     | Aug. 1, 2007   |
| LR 108      |             | <input type="checkbox"/> Combination Bids                                                                                             | Jan. 1, 1994     | Mar. 1, 2005   |
| LR 109      |             | <input type="checkbox"/> Equipment Rental Rates                                                                                       | Jan. 1, 2012     |                |
| LR 109-2    |             | <input type="checkbox"/> Bituminous Materials Cost Adjustment for Local Lettings                                                      | June 16, 2017    |                |
| LR 109-3    |             | <input type="checkbox"/> Fuel Cost Adjustment for Local Lettings                                                                      | June 16, 2017    |                |
| LR 109-4    |             | <input type="checkbox"/> Steel Cost Adjustment for Local Lettings                                                                     | June 16, 2017    |                |
| LR 212      |             | <input type="checkbox"/> Shaping Roadway                                                                                              | Aug. 1, 1969     | Jan. 1, 2002   |
| LR 355-1    |             | <input type="checkbox"/> Bituminous Stabilized Base Course, Road Mix or Traveling Plant Mix                                           | Oct. 1, 1973     | Jan. 1, 2007   |
| LR 355-2    |             | <input type="checkbox"/> Bituminous Stabilized Base Course, Plant Mix                                                                 | Feb. 20, 1963    | Jan. 1, 2007   |
| LR 400-1    |             | <input type="checkbox"/> Bituminous Treated Earth Surface                                                                             | Jan. 1, 2007     | Apr. 1, 2012   |
| LR 400-2    |             | <input type="checkbox"/> Bituminous Surface Plant Mix (Class B)                                                                       | Jan. 1, 2008     |                |
| LR 400-3    |             | <input type="checkbox"/> Hot In-Place Recycling (HIR) – Surface Recycling                                                             | Jan. 1, 2012     |                |
| LR 400-4    |             | <input type="checkbox"/> Full-Depth Reclamation (FDR) with Emulsified Asphalt                                                         | Apr. 1, 2012     | Jun. 1, 2012   |
| LR 400-5    |             | <input type="checkbox"/> Cold In-Place Recycling (CIR) With Emulsified Asphalt                                                        | Apr. 1, 2012     | Jun. 1, 2012   |
| LR 400-6    |             | <input type="checkbox"/> Cold In Place Recycling (CIR) with Foamed Asphalt                                                            | June 1, 2012     |                |
| LR 400-7    |             | <input type="checkbox"/> Full-Depth Reclamation (FDR) with Foamed Asphalt                                                             | June 1, 2012     |                |
| LR 400-8    |             | <input type="checkbox"/> Pulverization                                                                                                | Jan. 24, 2017    |                |
| LR 402      |             | <input type="checkbox"/> Salt Stabilized Surface Course                                                                               | Feb. 20, 1963    | Jan. 1, 2007   |
| LR 403-1    |             | <input type="checkbox"/> Surface Profile Milling of Existing, Recycled or Reclaimed Flexible Pavement                                 | Apr. 1, 2012     | Jun. 1, 2012   |
| LR 403-2    |             | <input type="checkbox"/> Bituminous Hot Mix Sand Seal Coat                                                                            | Aug. 1, 1969     | Jan. 1, 2007   |
| LR 403-3    |             | <input type="checkbox"/> Preventive Maintenance - Bituminous Surface Treatment (A-1)                                                  | July 1, 2016     |                |
| LR 403-4    |             | <input type="checkbox"/> Bituminous Surface Treatment (Class A-1, A-2, A-3) for Local Lettings                                        | June 16, 2017    |                |
| LR 406      |             | <input type="checkbox"/> Filling HMA Core Holes with Non-Shrink Grout                                                                 | Jan. 1, 2008     |                |
| LR 420      |             | <input type="checkbox"/> PCC Pavement (Special)                                                                                       | May 12, 1964     | Jan. 2, 2007   |
| LR 442      |             | <input type="checkbox"/> Bituminous Patching Mixtures for Maintenance Use                                                             | Jan. 1, 2004     | Jun. 1, 2007   |
| LR 451      |             | <input type="checkbox"/> Crack Filling Bituminous Pavement with Fiber-Asphalt                                                         | Oct. 1, 1991     | Jan. 1, 2007   |
| LR 503-1    |             | <input type="checkbox"/> Furnishing Class SI Concrete                                                                                 | Oct. 1, 1973     | Jan. 1, 2002   |
| LR 503-2    |             | <input type="checkbox"/> Furnishing Class SI Concrete (Short Load)                                                                    | Jan. 1, 1989     | Jan. 1, 2002   |
| LR 542      |             | <input type="checkbox"/> Pipe Culverts, Type _____ (Furnished)                                                                        | Sep. 1, 1964     | Jan. 1, 2007   |
| LR 542-1    |             | <input type="checkbox"/> Pipe Culverts, Special                                                                                       | Apr. 1, 2016     |                |
| LR 663      |             | <input type="checkbox"/> Calcium Chloride Applied                                                                                     | Jun. 1, 1958     | Jan. 1, 2007   |
| LR 702      |             | <input type="checkbox"/> Construction and Maintenance Signs                                                                           | Jan. 1, 2004     | Jun. 1, 2007   |
| LR 1000-1   |             | <input type="checkbox"/> Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) with Emulsified Asphalt Mix Design Procedures | Apr. 1, 2012     | Jun. 1, 2012   |
| LR 1000-2   |             | <input type="checkbox"/> Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) with Foamed Asphalt Mix Design Procedures     | June 1, 2012     |                |
| LR 1004     |             | <input type="checkbox"/> Coarse Aggregate for Bituminous Surface Treatment                                                            | Jan. 1, 2002     | Jan. 1, 2007   |
| LR 1030     |             | <input type="checkbox"/> Growth Curve                                                                                                 | Mar. 1, 2008     | Jan. 1, 2010   |
| LR 1032-1   |             | <input type="checkbox"/> Emulsified Asphalts                                                                                          | Jan. 1, 2007     | Feb. 7, 2008   |
| LR 1102     |             | <input type="checkbox"/> Road Mix or Traveling Plan Mix Equipment                                                                     | Jan. 1, 2007     |                |
| LR 80029-1  |             | <input type="checkbox"/> Disadvantaged Business Enterprise Participation for Local Lettings                                           | Aug. 26, 2016    |                |

## BDE SPECIAL PROVISIONS

The following special provisions indicated by an "x" are applicable to this contract. An \* indicates a new or revised special provision for the letting.

| <u>File Name</u> | <u>Pg.</u> | <u>Special Provision Title</u>                                                       | <u>Effective</u> | <u>Revised</u> |
|------------------|------------|--------------------------------------------------------------------------------------|------------------|----------------|
| 80099            |            | Accessible Pedestrian Signals (APS)                                                  | April 1, 2003    | Jan. 1, 2014   |
| 80382            |            | Adjusting Frames and Grates                                                          | April 1, 2017    |                |
| 80274            |            | Aggregate Subgrade Improvement                                                       | April 1, 2012    | April 1, 2016  |
| 80192            |            | Automated Flagger Assistance Device                                                  | Jan. 1, 2008     |                |
| 80173            |            | Bituminous Materials Cost Adjustments                                                | Nov. 2, 2006     | Aug. 1, 2017   |
| 80241            |            | Bridge Demolition Debris                                                             | July 1, 2009     |                |
| 50261            |            | Building Removal-Case I (Non-Friable and Friable Asbestos)                           | Sept. 1, 1990    | April 1, 2010  |
| 50481            |            | Building Removal-Case II (Non-Friable Asbestos)                                      | Sept. 1, 1990    | April 1, 2010  |
| 50491            |            | Building Removal-Case III (Friable Asbestos)                                         | Sept. 1, 1990    | April 1, 2010  |
| 50531            |            | Building Removal-Case IV (No Asbestos)                                               | Sept. 1, 1990    | April 1, 2010  |
| 80366            |            | Butt Joints                                                                          | July 1, 2016     |                |
| * 80386          |            | Calcium Aluminate Cement for Class PP-5 Concrete Patching                            | Nov. 1, 2017     |                |
| 80384            | 44         | X Compensable Delay Costs                                                            | June 2, 2017     |                |
| 80198            |            | Completion Date (via calendar days)                                                  | April 1, 2008    |                |
| 80199            |            | Completion Date (via calendar days) Plus Working Days                                | April 1, 2008    |                |
| 80293            |            | Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet              | April 1, 2012    | July 1, 2016   |
| 80311            |            | Concrete End Sections for Pipe Culverts                                              | Jan. 1, 2013     | April 1, 2016  |
| 80277            |            | Concrete Mix Design – Department Provided                                            | Jan. 1, 2012     | April 1, 2016  |
| 80261            | 48         | X Construction Air Quality – Diesel Retrofit                                         | June 1, 2010     | Nov. 1, 2014   |
| * 80387          |            | Contrast Preformed Plastic Pavement Marking                                          | Nov. 1, 2017     |                |
| 80029            | 51         | X Disadvantaged Business Enterprise Participation                                    | Sept. 1, 2000    | July 2, 2016   |
| 80378            |            | Dowel Bar Inserter                                                                   | Jan. 1, 2017     |                |
| * 80388          | 62         | X Equipment Parking and Storage                                                      | Nov. 1, 2017     |                |
| 80229            |            | Fuel Cost Adjustment                                                                 | April 1, 2009    | Aug. 1, 2017   |
| * 80304          |            | Grooving for Recessed Pavement Markings                                              | Nov. 1, 2012     | Nov. 1, 2017   |
| 80246            | 63         | X Hot-Mix Asphalt – Density Testing of Longitudinal Joints                           | Jan. 1, 2010     | April 1, 2016  |
| * 80347          |            | Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits - Jobsite Sampling | Nov. 1, 2014     | Nov. 1, 2017   |
| * 80383          |            | Hot-Mix Asphalt – Quality Control for Performance                                    | April 1, 2017    | Nov. 1, 2017   |
| 80376            | 64         | X Hot-Mix Asphalt – Tack Coat                                                        | Nov. 1, 2016     |                |
| 80368            |            | Light Tower                                                                          | July 1, 2016     |                |
| 80336            |            | Longitudinal Joint and Crack Patching                                                | April 1, 2014    | April 1, 2016  |
| 80369            |            | Mast Arm Assembly and Pole                                                           | July 1, 2016     |                |
| 80045            |            | Material Transfer Device                                                             | June 15, 1999    | Aug. 1, 2014   |
| 80165            |            | Moisture Cured Urethane Paint System                                                 | Nov. 1, 2006     | Jan. 1, 2010   |
| 80349            |            | Pavement Marking Blackout Tape                                                       | Nov. 1, 2014     | April 1, 2016  |
| 80371            | 65         | X Pavement Marking Removal                                                           | July 1, 2016     |                |
| * 80390          | 66         | X Payments to Subcontractors                                                         | Nov. 2, 2017     |                |
| 80377            | 67         | X Portable Changeable Message Signs                                                  | Nov. 1, 2016     | April 1, 2017  |
| * 80389          |            | Portland Cement Concrete                                                             | Nov. 1, 2017     |                |
| * 80359          | 68         | X Portland Cement Concrete Bridge Deck Curing                                        | April 1, 2015    | Nov. 1, 2017   |
| 80338            |            | Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching                      | April 1, 2014    | April 1, 2016  |
| 80385            |            | Portland Cement Concrete Sidewalk                                                    | Aug. 1, 2017     |                |
| 80300            |            | Preformed Plastic Pavement Marking Type D - Inlaid                                   | April 1, 2012    | April 1, 2016  |
| 80328            | 70         | X Progress Payments                                                                  | Nov. 2, 2013     |                |



| <u>File Name</u> | <u>Pg.</u> | <u>Special Provision Title</u>                                                                                    | <u>Effective</u> | <u>Revised</u> |
|------------------|------------|-------------------------------------------------------------------------------------------------------------------|------------------|----------------|
| 34261            |            | Railroad Protective Liability Insurance                                                                           | Dec. 1, 1986     | Jan. 1, 2006   |
| 80157            |            | Railroad Protective Liability Insurance (5 and 10)                                                                | Jan. 1, 2006     |                |
| 80306            |            | Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)                                             | Nov. 1, 2012     | April 1, 2016  |
| 80340            |            | Speed Display Trailer                                                                                             | April 2, 2014    | Jan. 1, 2017   |
| 80127            |            | Steel Cost Adjustment                                                                                             | April 2, 2014    | Aug. 1, 2017   |
| 80379            | 71         | X Steel Plate Beam Guardrail                                                                                      | Jan. 1, 2017     |                |
| * 80391          | 74         | X Subcontractor Mobilization Payments                                                                             | Nov. 2, 2017     |                |
| 80317            |            | Surface Testing of Hot-Mix Asphalt Overlays                                                                       | Jan. 1, 2013     | April 1, 2016  |
| 80298            | 75         | X Temporary Pavement Marking (NOTE: This special provision was previously named "Pavement Marking Tape Type IV".) | April 1, 2012    | April 1, 2017  |
| 20338            | 78         | X Training Special Provision                                                                                      | Oct. 15, 1975    |                |
| 80318            |            | Traversable Pipe Grate                                                                                            | Jan. 1, 2013     | April 1, 2014  |
| 80381            |            | Traffic Barrier Terminal, Type 1 Special                                                                          | Jan. 1, 2017     |                |
| 80380            |            | Tubular Markers                                                                                                   | Jan. 1, 2017     |                |
| 80288            |            | Warm Mix Asphalt                                                                                                  | Jan. 1, 2012     | April 1, 2016  |
| 80302            | 81         | X Weekly DBE Trucking Reports                                                                                     | June 2, 2012     | April 2, 2015  |
| 80071            |            | Working Days                                                                                                      | Jan. 1, 2002     |                |

The following special provisions have been deleted from use:

80289 Wet Reflective Thermoplastic Pavement Marking  
80367 Light Poles

The following special provisions are in the 2017 Supplemental Specifications and Recurring Special Provisions.

| <u>File Name</u> | <u>Special Provision Title</u>                              | <u>New Location</u>                         | <u>Effective</u> | <u>Revised</u> |
|------------------|-------------------------------------------------------------|---------------------------------------------|------------------|----------------|
| 80360            | Coarse Aggregate Quality                                    | Article 1004.01                             | July 1, 2015     |                |
| 80363            | Engineer's Field Office                                     | Article 670.07                              | April 1, 2016    |                |
| 80358            | Equal Employment Opportunity                                | Recurring CS #1 and #5                      | April 1, 2015    |                |
| 80364            | Errata for the 2016 Standard Specifications                 | Supplemental                                | April 1, 2016    |                |
| 80342            | Mechanical Side Tie Bar Inserter                            | Articles 420.03, 420.05, and 1103.19        | Aug. 1, 2014     | April 1, 2016  |
| 80370            | Mechanical Splicers                                         | Article 1006.10                             | July 1, 2016     |                |
| 80361            | Overhead Sign Structures Certification of Metal Fabricator  | Article 106.08                              | Nov. 1, 2015     | April 1, 2016  |
| 80365            | Pedestrian Push-Button                                      | Article 888.03                              | April 1, 2016    |                |
| 80353            | Portland Cement Concrete Inlay or Overlay                   | Recurring CS #34                            | Jan. 1, 2015     | April 1, 2016  |
| 80372            | Preventive Maintenance – Bituminous Surface Treatment (A-1) | Recurring CS #28                            | Jan. 1, 2009     | July 1, 2016   |
| 80373            | Preventive Maintenance – Cape Seal                          | Recurring CS #29                            | Jan. 1, 2009     | July 1, 2016   |
| 80374            | Preventive Maintenance – Micro Surfacing                    | Recurring CS #30                            | Jan. 1, 2009     | July 1, 2016   |
| 80375            | Preventive Maintenance – Slurry Seal                        | Recurring CS #31                            | Jan. 1, 2009     | July 1, 2016   |
| 80362            | Steel Slag in Trench Backfill                               | Articles 1003.01 and 1003.04                | Jan. 1, 2016     |                |
| 80355            | Temporary Concrete Barrier                                  | Articles 704.02, 704.04, 704.05, and 704.06 | Jan. 1, 2015     | July 1, 2015   |

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Bridge Demolition Debris
- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

**GUIDE BRIDGE SPECIAL PROVISION INDEX/CHECK SHEET**  
Effective as of the: June 16, 2017 Letting

| <u>Pg #</u> | <u>√</u> | <u>File Name</u> | <u>Title</u>                                                             | <u>Effective</u> | <u>Revised</u> |
|-------------|----------|------------------|--------------------------------------------------------------------------|------------------|----------------|
|             |          | GBSP 4           | Polymer Modified Portland Cement Mortar                                  | June 7, 1994     | Apr 1, 2016    |
|             |          | GBSP 12          | Drainage System                                                          | June 10, 1994    | Jun 24, 2015   |
|             |          | GBSP 13          | High-Load Multi-Rotational Bearings                                      | Oct 13, 1988     | Apr 1, 2016    |
|             |          | GBSP 14          | Jack and Remove Existing Bearings                                        | April 20, 1994   | Jan 1, 2007    |
|             |          | GBSP 15          | Three Sided Precast Concrete Structure                                   | July 12, 1994    | Dec 21, 2016   |
|             |          | GBSP 16          | Jacking Existing Superstructure                                          | Jan 11, 1993     | Jan 1, 2007    |
|             |          | GBSP 17          | Bonded Preformed Joint Seal                                              | July 12, 1994    | Jan 1, 2007    |
|             |          | GBSP 18          | Modular Expansion Joint                                                  | May 19, 1994     | Dec 29, 2014   |
|             |          | GBSP 21          | Cleaning and Painting Contact Surface Areas of Existing Steel Structures | June 30, 2003    | May 18, 2011   |
|             |          | GBSP 25          | Cleaning and Painting Existing Steel Structures                          | Oct 2, 2001      | Apr 22, 2016   |
|             |          | GBSP 26          | Containment and Disposal of Lead Paint Cleaning Residues                 | Oct 2, 2001      | Apr 22, 2016   |
|             |          | GBSP 28          | Deck Slab Repair                                                         | May 15, 1995     | Oct 15, 2011   |
|             |          | GBSP 29          | Bridge Deck Microsilica Concrete Overlay                                 | May 15, 1995     | Apr 1, 2016    |
|             |          | GBSP 30          | Bridge Deck Latex Concrete Overlay                                       | May 15, 1995     | Jun 24, 2015   |
|             |          | GBSP 31          | Bridge Deck High-Reactivity Metakaolin (HRM) Conc Overlay                | Jan 21, 2000     | Apr 1, 2016    |
|             |          | GBSP 33          | Pedestrian Truss Superstructure                                          | Jan 13, 1998     | Dec 29, 2014   |
| 82          | X        | GBSP 34          | Concrete Wearing Surface                                                 | June 23, 1994    | Oct 4, 2016    |
|             |          | GBSP 35          | Silicone Bridge Joint Sealer                                             | Aug 1, 1995      | Oct 15, 2011   |
|             |          | GBSP 45          | Bridge Deck Thin Polymer Overlay                                         | May 7, 1997      | Feb 6, 2013    |
| 84          | X        | GBSP 51          | Pipe Underdrain for Structures                                           | May 17, 2000     | Jan 22, 2010   |
| 85          | X        | GBSP 53          | Structural Repair of Concrete                                            | Mar 15, 2006     | Apr 1, 2016    |
|             |          | GBSP 55          | Erection of Curved Steel Structures                                      | June 1, 2007     |                |
|             |          | GBSP 56          | Setting Piles in Rock                                                    | Nov 14, 1996     | Apr 1, 2016    |
|             |          | GBSP 59          | Diamond Grinding and Surface Testing Bridge Sections                     | Dec 6, 2004      | Mar 29, 2017   |
|             |          | GBSP 60          | Containment and Disposal of Non-Lead Paint Cleaning Residues             | Nov 25, 2004     | Apr 22, 2016   |
|             |          | GBSP 61          | Slipform Parapet                                                         | June 1, 2007     | Apr 22, 2016   |
|             |          | GBSP 67          | Structural Assessment Reports for Contractor's Means and Methods         | Mar 6, 2009      | Oct 5, 2015    |
|             |          | GBSP 71          | Aggregate Column Ground Improvement                                      | Jan 15, 2009     | Oct 15, 2011   |
|             |          | GBSP 72          | Bridge Deck Fly Ash or GGBF Slag Concrete Overlay                        | Jan 18, 2011     | Jun 24, 2015   |
|             |          | GBSP 75          | Bond Breaker for Prestressed Concrete Bulb-T Beams                       | April 19, 2012   |                |
|             |          | GBSP 77          | Weep Hole Drains for Abutments, Wingwalls, Retaining Walls And Culverts  | April 19, 2012   | Oct 22, 2013   |
|             |          | GBSP 78          | Bridge Deck Construction                                                 | Oct 22, 2013     | Dec 21, 2016   |
|             |          | GBSP 79          | Bridge Deck Grooving (Longitudinal)                                      | Dec 29, 2014     | Mar 29, 2017   |
|             |          | GBSP 81          | Membrane Waterproofing for Buried Structures                             | Oct 4, 2016      |                |
|             |          | GBSP 82          | Metallizing of Structural Steel                                          | Oct 4, 2016      |                |
|             |          | GBSP 83          | Hot Dip Galvanizing for Structural Steel                                 | Oct 4, 2016      |                |
|             |          | GBSP 85          | Micropiles                                                               | Apr 19, 1996     | Oct 5, 2015    |
|             |          | GBSP 86          | Drilled Shafts                                                           | Oct 5, 2015      | Oct 4, 2016    |
|             |          | GBSP 87          | Lightweight Cellular Concrete Fill                                       | Nov 11, 2011     | Apr 1, 2016    |
|             |          | GBSP 88          | Corrugated Structural Plate Structures                                   | Apr 22, 2016     |                |
|             |          | GBSP 89          | Preformed Pavement Joint Seal                                            | Oct 4, 2016      |                |
|             |          | GBSP 90          | Three Sided Precast Concrete Structure (Special)                         | Dec 21, 2016     | Mar 29, 2017   |
|             |          | GBSP 91          | Crosshole Sonic Logging Testing of Drilled Shafts                        | Apr 20, 2016     |                |
|             |          | GBSP 92          | Thermal Integrity Profile Testing of Drilled Shafts                      | Apr 20, 2016     |                |

| Pg # | √ | File Name | Title                                               | Effective    | Revised      |
|------|---|-----------|-----------------------------------------------------|--------------|--------------|
|      |   | GBSP 93   | Preformed Bridge Joint Seal                         | Dec 21, 2016 |              |
|      |   | GBSP 94   | Warranty for Cleaning and Painting Steel Structures | Mar 3, 2000  | Nov 24, 2004 |
|      |   |           |                                                     |              |              |

**LIST ANY ADDITIONAL SPECIAL PROVISIONS BELOW**

|  |
|--|
|  |
|  |

The following Guide Bridge Special Provisions have been incorporated into the 2016 Standard Specifications:

| File Name | Title                                                   | Std Spec Location |
|-----------|---------------------------------------------------------|-------------------|
| GBSP32    | Temporary Sheet Piling                                  | 522               |
| GBSP38    | Mechanically Stabilized Earth Retaining Walls           | 522               |
| GBSP42    | Drilled Soldier Pile Retaining Wall                     | 522               |
| GBSP43    | Driven Soldier Pile Retaining Wall                      | 522               |
| GBSP44    | Temporary Soil Retention System                         | 522               |
| GBSP46    | Geotextile Retaining Walls                              | 522               |
| GBSP57    | Temporary Mechanically Stabilized Earth Retaining Walls | 522               |
| GBSP62    | Concrete Deck Beams                                     | 504               |
| GBSP64    | Segmental Concrete Block Wall                           | 522               |
| GBSP65    | Precast Modular Retaining Wall                          | 522               |
| GBSP73    | Cofferdams                                              | 2017 Supp         |
| GBSP74    | Permanent Steel Sheet Piling (LRFD)                     | 522               |
| GBSP76    | Granular Backfill for Structures                        | 2017 Supp         |
| GBSP80    | Fabric Reinforced Elastomeric                           | 1028              |
| GBSP84    | Precast, Prestressed Concrete Beams                     | 2017 Supp         |

The following Guide Bridge Special Provisions have been discontinued or have been superseded:

| File Name | Title                       | Disposition:                                      |
|-----------|-----------------------------|---------------------------------------------------|
| GBSP70    | Braced Excavation           | Use TSRS per Sec 522                              |
| GBSP95    | Bridge Deck Concrete Sealer | Use July 1, 2012 version for Repair projects only |
|           |                             |                                                   |
|           |                             |                                                   |

STATE OF ILLINOIS  
SPECIAL PROVISIONS

The following Special Provisions supplement the Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction," adopted April 1, 2016 (hereinafter referred to as the "Standard Specifications"); the most recent "Supplemental Specifications and Recurring Special Provisions"; and the latest edition of the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" in effect on the date of invitation for bids; all of which apply to and govern the construction of Bay Road over the Lily Lake Drain, and in case of conflict with any part or parts of said Specifications, these Special Provisions shall take precedence and shall govern the construction of Bay Road bridge replacement improvements, Project No. H3X8(612), Job No. C-91-280-15, Contract No. 61D64, in the Village of Lakemoor, McHenry County, and in case of conflict with any part or parts of said specifications, the said special provisions shall take precedence and shall govern.

**LOCATION OF THE IMPROVEMENTS**

This project is located on Bay Road (A-26) over Lily Lake Drain, between Bay Oak Drive and Regner Road within the limits of the Village of Lakemoor and the Village of Johnsburg in McHenry County, Illinois. The net and gross length of the project is 224 feet (0.042 miles).

**DESCRIPTION OF THE IMPROVEMENTS**

The work consists of superstructure replacement, pavement reconstruction and resurfacing, drainage improvements, erosion control, guardrail replacement, and all included in the cost of and collateral work necessary to complete the project as shown on the plans and as described herein.

**COMPLETION DATE PLUS WORKING DAYS**

Effective: September 30, 1985  
Revised: January 1, 2007

Revise Article 108.05 (b) of the Standard Specifications as follows:

"When a completion date plus working days is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on October 26, 2018 except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within 5 working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for cleanup work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

Article 108.09 or the Special Provision for "Failure to Complete the Work on Time", if included in this contract, shall apply to both the completion date and the number of working days.

## **MAINTENANCE OF ROADWAYS**

Effective: September 30, 1985  
Revised: November 1, 1996

Beginning on the date that the Contractor begins work on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided for in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

## **COORDINATION WITH OTHER CONTRACTORS**

The Contractor is advised that certain operations will involve cooperation with Contractors performing work on or adjacent to this contract. The Contractor shall cooperate to the fullest extent with the Contractors working on adjacent projects in compliance with the provisions of Article 105.08 of the Standard Specifications.

The following projects in the vicinity of Contract 61E11 may be under construction during the term of this Contract:

Chapel Hill Road (FAU 0167) Over The Fox River Bridge Rehabilitation (Contract No. 61E11).

**STATUS OF UTILITIES (D-1)**

Effective: June 1, 2016

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information in regard to their facilities and the proposed improvements. The tables below contain a description of specific conflicts to be resolved and/or facilities which will require some action on the part of the Department's contractor to proceed with work. Each table entry includes an identification of the action necessary and, if applicable, the estimated duration required for the resolution.

UTILITIES TO BE ADJUSTED

No conflicts to be resolved.

UTILITIES TO BE WATCHED AND PROTECTED

The areas of concern noted below have been identified by following the suggested staging plan included for the contract. The information provided is not a comprehensive list of all remaining utilities, but those which during coordination were identified as ones which might require the Department's contractor to take into consideration when making the determination of the means and methods that would be required to construct the proposed improvement. In some instances the contractor will be responsible to notify the owner in advance of the work to take place so necessary staffing on the owners part can be secured.

| LOCATION / STAGE                                                           | TYPE                  | DESCRIPTION                                                                                                                                                                                                                                                                                                | OWNER | ACTION                                                                                             |
|----------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------|
| Bay Road; Sta. 218+36.54 to Sta. 220+60.00, 75' LT and varies; All stages. | Aerial Electric Lines | The Contractor is alerted that there are aerial electric power lines adjacent to the project limits.<br><br>There are no conflicts with proposed improvements, however Contractor shall take caution with all construction vehicles passing near or crossing under overhead electric facilities.           | ComEd | Overhead electric facilities shall be protected from damage by the Contractor during construction. |
| Bay Road; Sta. 218+36.54 to Sta. 220+60.00, 75' LT and varies; All stages. | Gas lines             | The Contractor is alerted that there are underground 6" high pressure natural gas pipelines within and adjacent to the project limits.<br><br>There are no conflicts with proposed improvements, however Contractor shall take caution with all construction vehicles passing near or over gas facilities. | Nicor | Underground gas facilities shall be protected from damage by the Contractor during construction.   |

The following contact information is what was used during the preparation of the plans as provided by the owner of the facility.

| Agency/Company Responsible to Resolve Conflict | Name of Contact      | Address                                                     | Phone                        | E-mail Address                  |
|------------------------------------------------|----------------------|-------------------------------------------------------------|------------------------------|---------------------------------|
| AT&T (Distribution)                            | USIC<br>Steve Larson | 1000 Commerce Drive, Oak Brook, IL 60523                    | 800-762-0592<br>708-709-2523 |                                 |
| Comcast                                        | Martha Gieras        | 688 Industrial Dr<br>Elmhurst, IL 60126                     | 630-600-6352                 | martha_gieras@cable.comcast.com |
| ComEd                                          | Angela Harrell       | One Lincoln Centre Suite 600,<br>Oakbrook Terrace, IL 60181 | 630-576-6185                 |                                 |
| McHenry County Division of Transportation      | Benjamin Redding     | 16111 Nelson Rd<br>Woodstock, IL 60098                      | 815-334-4960                 | baredding@co.mchenry.il.us      |
| Nicor                                          | Bruce Koppang        | 1844 Ferry Rd<br>Naperville, IL 60563                       | 630-388-3046                 | bkoppang@aglresources.com       |
| Village of Johnsburg                           | Dave Walsh           | 3200 Richmond Rd<br>Johnsburg, IL 60051                     | 815-363-8667                 | villagehall@johnsburg.org       |
| Village of Lakemoor                            | Terry Conley         | 333 Wegner Rd<br>Lakemoor, IL 60051                         | 815-385-2936                 | publicworks@lakemoor.net        |

The above represents the best information available to the Department and is included for the convenience of the bidder. The days required for conflict resolution should be taken into account in the bid as this information has also been factored into the timeline identified for the project when setting the completion date. The applicable portions of the Standard Specifications for Road and Bridge Construction shall apply.

Estimated duration of time provided in the action column for the first conflicts identified will begin on the date of the executed contract regardless of the status of the utility relocations. The responsible agencies will be working toward resolving subsequent conflicts in conjunction with contractor activities in the number of days noted.

The estimated relocation dates must be part of the progress schedule submitted by the contractor. A utility kickoff meeting will be scheduled between the Department, the Department's contractor and the utility companies. The Department's contractor is responsible to contact J.U.L.I.E. prior to any and all excavation work.

**LIST OF WORK ITEMS NOT PAID FOR SEPARATELY**

The Contractor's attention is called to several specific work items not paid for separately as noted on the Contract Plans and Special Provisions and in addition to the lists in the Standard Specifications. Below is a listing of these items for general information only. The list is not intended to be all-inclusive and, therefore, the Contractor is responsible to perform all work according to the Plans, Special Provisions and the Standard Specifications.

| <b>PAY ITEM NO.</b>                          | <b>DESIGNATION</b>                                                                       | <b>WORK ITEM</b>                                                                                                                            |
|----------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 20200100                                     | EARTH EXCAVATION                                                                         | Excavation of bench cuts within existing embankment.                                                                                        |
| 44000100<br>44000157<br>44004250<br>50102400 | PAVEMENT REMOVAL<br>HMA SURFACE<br>REMOVAL, 2"<br>PAVED SHOULDER REM<br>CONCRETE REMOVAL | Saw cuts.                                                                                                                                   |
| 50102400                                     | CONCRETE REMOVAL                                                                         | Cleaning existing reinforcement extending into new concrete.<br>Repairing existing reinforcement damaged while performing Concrete Removal. |
| 50300225                                     | CONCRETE<br>STRUCTURES                                                                   | Drilling and grouting new reinforcement into existing concrete.                                                                             |
| 50300255                                     | CONCRETE<br>SUPERSTRUCTURE                                                               | Construction of end blocks and backwalls.                                                                                                   |



## **TRAFFIC CONTROL PLAN**

Effective: September 30, 1985  
Revised: January 1, 2007

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

### **STANDARDS:**

|           |                                                                   |
|-----------|-------------------------------------------------------------------|
| 701006-05 | OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE          |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS                       |
| 701311-03 | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY                  |
| 701321-16 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER                  |
| 701326-04 | LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS $\geq$ 45 MPH |
| 701901-06 | TRAFFIC CONTROL DEVICES                                           |
| 720011-01 | METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS                    |
| 728001-01 | TELESCOPING STEEL SIGN SUPPORT                                    |
| 729001-01 | APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS & MARKERS)   |

### **DETAILS:**

|       |                                                                                 |
|-------|---------------------------------------------------------------------------------|
| TC-11 | TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS<br>(SNOW-PLOW RESISTANT) |
| TC-13 | TYPICAL PAVEMENT MARKINGS                                                       |

### **SPECIAL PROVISIONS:**

MAINTENANCE OF ROADWAYS  
TRAFFIC CONTROL AND PROTECTION (ARTERIALS)  
PUBLIC CONVENIENCE AND SAFETY (D1)  
TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS  
WORK ZONE TRAFFIC CONTROL SURVEILLANCE

## **TRAFFIC CONTROL AND PROTECTION (ARTERIALS)**

Effective: February 1, 1996  
Revised: March 1, 2011

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

Method of Measurement: All traffic control (except "Traffic Control and Protection (Expressways)" and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

Basis of Payment: All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

Temporary pavement markings will be paid for separately unless shown on a Standard.

## **PUBLIC CONVENIENCE AND SAFETY (DIST 1)**

Effective: May 1, 2012  
Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

"If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply."

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

"The Length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday After"

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

"On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical."

## EMBANKMENT I

Effective: March 1, 2011  
Revised: November 1, 2013

Description. This work shall be according to Section 205 of the Standard Specifications except for the following.

Material. All material shall be approved by the District Geotechnical Engineer. The proposed material must meet the following requirements.

- a) The laboratory Standard Dry Density shall be a minimum of 90 lb/cu ft (1450 kg/cu m) when determined according to AASHTO T 99 (Method C).
- b) The organic content shall be less than ten percent determined according to AASHTO T 194 (Wet Combustion).
- c) Soils which demonstrate the following properties shall be restricted to the interior of the embankment and shall be covered on both the sides and top of the embankment by a minimum of 3 ft (900 mm) of soil not considered detrimental in terms of erosion potential or excess volume change.
  - 1) A grain size distribution with less than 35 percent passing the number 75 um (#200) sieve.
  - 2) A plasticity index (PI) of less than 12.
  - 3) A liquid limit (LL) in excess of 50.
- d) Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.
  - The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

## CONSTRUCTION REQUIREMENTS

Samples. Embankment material shall be sampled, tested, and approved before use. The contractor shall identify embankment sources, and provide equipment as the Engineer requires, for the collection of samples from those sources. Samples will be furnished to the Geotechnical Engineer a minimum of three weeks prior to use in order that laboratory tests for approval and compaction can be performed. Embankment material placement cannot begin until tests are completed and approval given.

Placing Material. In addition to Article 202.03, broken concrete, reclaimed asphalt with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities shall be placed in 6 inches (150 mm) lifts and disked with the underlying lift until a uniform homogenous material is formed. This process also applies to the overlaying lifts. The disk must have a minimum blade diameter of 24 inches (600 mm).

When embankments are to be constructed on hillsides or existing slopes that are steeper than 3H:1V, steps shall be keyed into the existing slope by stepping and benching as shown in the plans or as directed by the engineer.

Compaction. Soils classification for moisture content control will be determined by the Soils Inspector using visual field examination techniques and the IDH Textural Classification Chart.

When tested for density in place each lift shall have a maximum moisture content as follows.

- a) A maximum of 110 percent of the optimum moisture for all forms of clay soils.
- b) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

Stability. The requirement for embankment stability in Article 205.04 will be measured with a Dynamic Cone Penetrometer (DCP) according to the test method in the IDOT Geotechnical Manual. The penetration rate must be equal or less than 1.5 inches (38 mm) per blow.

Basis of Payment. This work will not be paid separately but will be considered as included in the various items of excavation.

## **RECLAIMED ASPHALT PAVEMENT FOR NON-POROUS EMBANKMENT AND BACKFILL**

Effective: April 1, 2001  
Revised: January 1, 2007

Add the following sentence to Article 1004.05 (a) of the Standard Specifications:

"Reclaimed Asphalt Pavement (RAP) may be used as aggregate in Non-porous Granular Embankment and Backfill. The RAP material shall be reclaimed asphalt pavement material resulting from the cold milling or crushing of an existing hot-mix bituminous concrete pavement structure, including shoulders. RAP containing contaminants such as earth, brick, concrete, sheet asphalt, sand, or other materials identified by the Department will be unacceptable until the contaminants are thoroughly removed.

Add the following sentence to Article 1004.05 (c)(2) of the Standard Specifications:

"One hundred percent of the RAP when used shall pass the 3 inch (75 mm) sieve. The RAP shall be well graded from coarse to fine. RAP that is gap-graded or single-sized will not be accepted."

## AGGREGATE SUBGRADE IMPROVEMENT (D-1)

Effective: February 22, 2012  
Revised: April 1, 2016

Add the following Section to the Standard Specifications:

### "SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

**303.01 Description.** This work shall consist of constructing an aggregate subgrade improvement.

**303.02 Materials.** Materials shall be according to the following.

| Item                                                          | Article/Section |
|---------------------------------------------------------------|-----------------|
| (a) Coarse Aggregate .....                                    | 1004.07         |
| (b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2 and 3) ..... | 1031            |

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradation CS 01 but shall not exceed 40 percent by weight of the total product. The top size of the Coarse RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradation CS 01 is used in lower lifts. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders. The final product shall not contain more than 40 percent by weight of RAP.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

**303.03 Equipment.** The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer. The calibration for the mechanical feeders shall have an accuracy of  $\pm 2.0$  percent of the actual quantity of material delivered.

**303.04 Soil Preparation.** The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

**303.05 Placing Aggregate.** The maximum nominal lift thickness of aggregate gradation CS 01 shall be 24 in. (600 mm).

**303.06 Capping Aggregate.** The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When Reclaimed Asphalt Pavement (RAP) is used, it shall be crushed and screened where 100 percent is passing the 1 1/2 in. (37.5 mm) sieve and being well graded. RAP that has been fractionated to size will not be permitted for use in capping. Capping aggregate will not be required when the aggregate subgrade improvement is used as a cubic yard pay item for undercut applications. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

**303.07 Compaction.** All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

**303.08 Finishing and Maintenance of Aggregate Subgrade Improvement.** The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

**303.09 Method of Measurement.** This work will be measured for payment according to Article 311.08.

**303.10 Basis of Payment.** This work will be paid for at the contract unit price per cubic yard (cubic meter) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.

Add the following to Section 1004 of the Standard Specifications:

**"1004.07 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

- (a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. The top 12 inches of the aggregate subgrade improvement shall be 3 inches of capping material and 9 inches of crushed gravel, crushed stone or crushed concrete. In applications where greater than 36 inches of subgrade material is required, rounded gravel, meeting the CS01 gradation, may be used beginning at a depth of 12 inches below the bottom of pavement.
- (b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials. Non-mechanically blended RAP may be allowed up to a maximum of 5.0 percent.

(c) Gradation.

- (1) The coarse aggregate gradation for total subgrade thicknesses of 12 in. (300 mm) or greater shall be CS 01.

| COARSE AGGREGATE SUBGRADE GRADATIONS |                                |        |         |         |         |
|--------------------------------------|--------------------------------|--------|---------|---------|---------|
| Grad No.                             | Sieve Size and Percent Passing |        |         |         |         |
|                                      | 8"                             | 6"     | 4"      | 2"      | #4      |
| CS 01                                | 100                            | 97 ± 3 | 90 ± 10 | 45 ± 25 | 20 ± 20 |

| COARSE AGGREGATE SUBGRADE GRADATIONS (Metric) |                                |        |         |         |         |
|-----------------------------------------------|--------------------------------|--------|---------|---------|---------|
| Grad No.                                      | Sieve Size and Percent Passing |        |         |         |         |
|                                               | 200 mm                         | 150 mm | 100 mm  | 50 mm   | 4.75 mm |
| CS 01                                         | 100                            | 97 ± 3 | 90 ± 10 | 45 ± 25 | 20 ± 20 |

- (2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10.

**FRICITION AGGREGATE (D-1)**

Effective: January 1, 2011  
 Revised: April 29, 2016

Revise Article 1004.03(a) of the Standard Specifications to read:

**“1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA).** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

| Use                          | Mixture                                            | Aggregates Allowed                                                                                                                                                                                                                             |
|------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Class A                      | Seal or Cover                                      | <u>Allowed Alone or in Combination</u> <sup>5/</sup> :<br>Gravel<br>Crushed Gravel<br>Carbonate Crushed Stone<br>Crystalline Crushed Stone<br>Crushed Sandstone<br>Crushed Slag (ACBF)<br>Crushed Steel Slag<br>Crushed Concrete               |
| HMA<br>Low ESAL              | Stabilized<br>Subbase or<br>Shoulders              | <u>Allowed Alone or in Combination</u> <sup>5/</sup> :<br>Gravel<br>Crushed Gravel<br>Carbonate Crushed Stone<br>Crystalline Crushed Stone<br>Crushed Sandstone<br>Crushed Slag (ACBF)<br>Crushed Steel Slag <sup>1/</sup><br>Crushed Concrete |
| HMA<br>High ESAL<br>Low ESAL | Binder<br>IL-19.0<br>or IL-19.0L<br><br>SMA Binder | <u>Allowed Alone or in Combination</u> <sup>5/ 6/</sup> :<br>Crushed Gravel<br>Carbonate Crushed Stone <sup>2/</sup><br>Crystalline Crushed Stone<br>Crushed Sandstone<br>Crushed Slag (ACBF)<br>Crushed Concrete <sup>3/</sup>                |



| Use                          | Mixture                                                                        | Aggregates Allowed                                                                                                                                                                                                                                                                         |                                                   |
|------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| HMA<br>High ESAL<br>Low ESAL | C Surface and<br>Leveling Binder<br>IL-9.5 or IL-9.5L                          | <u>Allowed Alone or in Combination</u> <sup>5/</sup> :<br>Crushed Gravel<br>Carbonate Crushed Stone <sup>2/</sup><br>Crystalline Crushed Stone<br>Crushed Sandstone<br>Crushed Slag (ACBF)<br>Crushed Steel Slag <sup>4/</sup><br>Crushed Concrete <sup>3/</sup>                           |                                                   |
|                              | SMA<br>Ndesign 50<br>Surface                                                   |                                                                                                                                                                                                                                                                                            |                                                   |
| HMA<br>High ESAL             | D Surface and<br>Leveling Binder<br>IL-9.5<br><br>SMA<br>Ndesign 50<br>Surface | <u>Allowed Alone or in Combination</u> <sup>5/</sup> :<br>Crushed Gravel<br>Carbonate Crushed Stone (other than<br>Limestone) <sup>2/</sup><br>Crystalline Crushed Stone<br>Crushed Sandstone<br>Crushed Slag (ACBF)<br>Crushed Steel Slag <sup>4/</sup><br>Crushed Concrete <sup>3/</sup> |                                                   |
|                              |                                                                                | <u>Other Combinations Allowed:</u>                                                                                                                                                                                                                                                         |                                                   |
|                              |                                                                                | <i>Up to...</i>                                                                                                                                                                                                                                                                            | <i>With...</i>                                    |
|                              |                                                                                | 25% Limestone                                                                                                                                                                                                                                                                              | Dolomite                                          |
|                              |                                                                                | 50% Limestone                                                                                                                                                                                                                                                                              | Any Mixture D<br>aggregate other<br>than Dolomite |
|                              |                                                                                | 75% Limestone                                                                                                                                                                                                                                                                              | Crushed Slag<br>(ACBF) or Crushed<br>Sandstone    |
| HMA<br>High ESAL             | E Surface<br>IL-9.5<br><br>SMA<br>Ndesign 80<br>Surface                        | <u>Allowed Alone or in Combination</u> <sup>5/ 6/</sup> :<br><br>Crystalline Crushed Stone<br>Crushed Sandstone<br>Crushed Slag (ACBF)<br>Crushed Steel Slag<br><br>No Limestone.                                                                                                          |                                                   |
|                              |                                                                                | <u>Other Combinations Allowed:</u>                                                                                                                                                                                                                                                         |                                                   |
|                              |                                                                                | <i>Up to...</i>                                                                                                                                                                                                                                                                            | <i>With...</i>                                    |
|                              |                                                                                | 50% Dolomite <sup>2/</sup>                                                                                                                                                                                                                                                                 | Any Mixture E<br>aggregate                        |

| Use              | Mixture                                                 | Aggregates Allowed                                                                                           |                                                                                          |
|------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|                  |                                                         | 75% Dolomite <sup>2/</sup>                                                                                   | Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone |
|                  |                                                         | 75% Crushed Gravel <sup>2/</sup> or Crushed Concrete <sup>3/</sup>                                           | Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag |
| HMA<br>High ESAL | F Surface<br>IL-9.5<br><br>SMA<br>Ndesign 80<br>Surface | <u>Allowed Alone or in Combination</u> <sup>5/ 6/</sup> :                                                    |                                                                                          |
|                  |                                                         | Crystalline Crushed Stone<br>Crushed Sandstone<br>Crushed Slag (ACBF)<br>Crushed Steel Slag<br>No Limestone. |                                                                                          |
|                  |                                                         | <u>Other Combinations Allowed:</u>                                                                           |                                                                                          |
|                  |                                                         | <i>Up to...</i>                                                                                              | <i>With...</i>                                                                           |
|                  |                                                         | 50% Crushed Gravel <sup>2/</sup> , Crushed Concrete <sup>3/</sup> , or Dolomite <sup>2/</sup>                | Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone |

- 1/ Crushed steel slag allowed in shoulder surface only.
- 2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.
- 3/ Crushed concrete will not be permitted in SMA mixes.
- 4/ Crushed steel slag shall not be used as leveling binder.
- 5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."
- 6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80."

## **COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1)**

Effective: November 1, 2011  
Revised: November 1, 2013

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet bottom boiler slag. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of  $\pm 2.0$  percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP. Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

## HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013  
 Revised: April 1, 2016

### 1) Design Composition and Volumetric Requirements

Revise the table in Article 406.06(d) of the Standard Specifications to read:

| "MINIMUM COMPACTED LIFT THICKNESS |                     |
|-----------------------------------|---------------------|
| Mixture Composition               | Thickness, in. (mm) |
| IL-4.75                           | 3/4 (19)            |
| SMA-9.5, IL-9.5, IL-9.5L          | 1 1/2 (38)          |
| SMA-12.5                          | 2 (50)              |
| IL-19.0, IL-19.0L                 | 2 1/4 (57)"         |

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

| Use               | Size/Application                                          | Gradation No.                                                      |
|-------------------|-----------------------------------------------------------|--------------------------------------------------------------------|
| Class A-1, 2, & 3 | 3/8 in. (10 mm) Seal                                      | CA 16                                                              |
| Class A-1         | 1/2 in. (13 mm) Seal                                      | CA 15                                                              |
| Class A-2 & 3     | Cover                                                     | CA 14                                                              |
| HMA High ESAL     | IL-19.0<br>IL-9.5                                         | CA 11 <sup>1/</sup><br>CA 16, CA 13 <sup>3/</sup>                  |
| HMA Low ESAL      | IL-19.0L<br>IL-9.5L<br>Stabilized Subbase<br>or Shoulders | CA 11 <sup>1/</sup><br>CA 16                                       |
| SMA <sup>2/</sup> | 1/2 in. (12.5mm)<br>Binder & Surface<br>IL 9.5<br>Surface | CA13 <sup>3/</sup> , CA14 or CA16<br><br>CA16, CA 13 <sup>3/</sup> |

1/ CA 16 or CA 13 may be blended with the gradations listed.

2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption  $\leq 2.0$  percent."

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

“IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steel slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours.”

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

|            |                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------|
| “High ESAL | IL-19.0 binder;<br>IL-9.5 surface; IL-4.75; SMA-12.5,<br>SMA-9.5                                             |
| Low ESAL   | IL-19.0L binder; IL-9.5L surface;<br>Stabilized Subbase (HMA) <sup>1/</sup> ;<br>HMA Shoulders <sup>2/</sup> |

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift.”

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

“**1030.02 Materials.** Materials shall be according to the following.

| Item.....                                            | Article/Section |
|------------------------------------------------------|-----------------|
| (a) Coarse Aggregate .....                           | 1004.03         |
| (b) Fine Aggregate .....                             | 1003.03         |
| (c) RAP Material .....                               | 1031            |
| (d) Mineral Filler .....                             | 1011            |
| (e) Hydrated Lime .....                              | 1012.01         |
| (f) Slaked Quicklime (Note 1)                        |                 |
| (g) Performance Graded Asphalt Binder (Note 2) ..... | 1032            |
| (h) Fibers (Note 3)                                  |                 |
| (i) Warm Mix Asphalt (WMA) Technologies (Note 4)     |                 |

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be an Elvaloy or SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type 1 or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies".

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

| High ESAL, MIXTURE COMPOSITION (% PASSING) <sup>1/</sup> |            |     |                                 |                   |                                |                   |                  |                  |            |                 |
|----------------------------------------------------------|------------|-----|---------------------------------|-------------------|--------------------------------|-------------------|------------------|------------------|------------|-----------------|
| Sieve Size                                               | IL-19.0 mm |     | SMA <sup>4/</sup><br>IL-12.5 mm |                   | SMA <sup>4/</sup><br>IL-9.5 mm |                   | IL-9.5 mm        |                  | IL-4.75 mm |                 |
|                                                          | min        | max | min                             | max               | min                            | max               | min              | max              | min        | max             |
| 1 1/2 in.<br>(37.5 mm)                                   |            |     |                                 |                   |                                |                   |                  |                  |            |                 |
| 1 in.<br>(25 mm)                                         |            | 100 |                                 |                   |                                |                   |                  |                  |            |                 |
| 3/4 in.<br>(19 mm)                                       | 90         | 100 |                                 | 100               |                                |                   |                  |                  |            |                 |
| 1/2 in.<br>(12.5 mm)                                     | 75         | 89  | 80                              | 100               |                                | 100               |                  | 100              |            | 100             |
| 3/8 in.<br>(9.5 mm)                                      |            |     |                                 | 65                | 90                             | 100               | 90               | 100              |            | 100             |
| #4<br>(4.75 mm)                                          | 40         | 60  | 20                              | 30                | 36                             | 50                | 34               | 69               | 90         | 100             |
| #8<br>(2.36 mm)                                          | 20         | 42  | 16                              | 24 <sup>5/</sup>  | 16                             | 32 <sup>5/</sup>  | 34 <sup>6/</sup> | 52 <sup>2/</sup> | 70         | 90              |
| #16<br>(1.18 mm)                                         | 15         | 30  |                                 |                   |                                |                   | 10               | 32               | 50         | 65              |
| #30<br>(600 μm)                                          |            |     | 12                              | 16                | 12                             | 18                |                  |                  |            |                 |
| #50<br>(300 μm)                                          | 6          | 15  |                                 |                   |                                |                   | 4                | 15               | 15         | 30              |
| #100<br>(150 μm)                                         | 4          | 9   |                                 |                   |                                |                   | 3                | 10               | 10         | 18              |
| #200<br>(75 μm)                                          | 3          | 6   | 7.0                             | 9.0 <sup>3/</sup> | 7.5                            | 9.5 <sup>3/</sup> | 4                | 6                | 7          | 9 <sup>3/</sup> |
| Ratio<br>Dust/Asphalt<br>Binder                          |            | 1.0 |                                 | 1.5               |                                | 1.5               |                  | 1.0              |            | 1.0             |

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
- 3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
- 4/ The maximum percent passing the #635 (20 μm) sieve shall be ≤ 3 percent.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

- 6/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

- "(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

| VOLUMETRIC REQUIREMENTS<br>High ESAL |                                                 |        |                       |                                           |
|--------------------------------------|-------------------------------------------------|--------|-----------------------|-------------------------------------------|
| Ndesign                              | Voids in the Mineral Aggregate (VMA), % minimum |        |                       | Voids Filled with Asphalt Binder (VFA), % |
|                                      | IL-19.0                                         | IL-9.5 | IL-4.75 <sup>1/</sup> |                                           |
| 50                                   | 13.5                                            | 15.0   | 18.5                  | 65 - 78 <sup>2/</sup>                     |
| 70                                   |                                                 |        | 65 - 75               |                                           |
| 90                                   |                                                 |        | 65 - 75               |                                           |

1/ Maximum Draindown for IL-4.75 shall be 0.3 percent

2/ VFA for IL-4.75 shall be 72-85 percent"

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

- "(3) SMA Mixtures.

| Volumetric Requirements<br>SMA <sup>1/</sup> |                           |                                              |                                    |
|----------------------------------------------|---------------------------|----------------------------------------------|------------------------------------|
| Ndesign                                      | Design Air Voids Target % | Voids in the Mineral Aggregate (VMA), % min. | Voids Filled with Asphalt (VFA), % |
| 80 <sup>4/</sup>                             | 3.5                       | 17.0 <sup>2/</sup>                           | 75 - 83                            |
|                                              |                           | 16.0 <sup>3/</sup>                           |                                    |

1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F.

2/ Applies when specific gravity of coarse aggregate is  $\geq 2.760$ .

3/ Applies when specific gravity of coarse aggregate is  $< 2.760$ .

4/ Blending of different types of aggregate will not be permitted. For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse

aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Add to the end of Article 1030.05 (d) (2) a. of the Standard Specifications:

"During production, the Contractor shall test SMA mixtures for draindown according to AASHTO T305 at a frequency of 1 per day of production."

Delete last sentence of the second paragraph of Article 1102.01(a) (4) b. 2.

Add to the end of Article 1102.01 (a) (4) b. 2.:

"As an option, collected dust (baghouse) may be used in lieu of manufactured mineral filler according to the following:

(a.) Sufficient collected dust (baghouse) is available for production of the SMA mix for the entire project.

(b.) A mix design was prepared based on collected dust (baghouse).

## 2) Design Verification and Production

Revise Article 1030.04 (d) of the Standard Specifications to read:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:

(1) Hamburg Wheel Test criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements <sup>1/</sup>

| Asphalt Binder Grade  | # Repetitions | Max Rut Depth (mm) |
|-----------------------|---------------|--------------------|
| PG 70 -XX (or higher) | 20,000        | 12.5               |
| PG 64 -XX (or lower)  | 10,000        | 12.5               |

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.



Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.  
For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

- (2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 80 psi (550 kPa) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise first paragraph of Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Add the following after the sixth paragraph in Article 1030.06 (a) of the Standard Specifications:

"The Hamburg Wheel test shall also be conducted on all HMA mixtures from a sample taken within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract. If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"

Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

"The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design's Gmb."

Basis of Payment.

Replace the fourth paragraph of Article 406.14 of the Standard Specifications with the following:

"Stone matrix asphalt will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified; and POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified."

**GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1)**

Effective: June 26, 2006  
 Revised: April 1, 2016

Add the following to the end of article 1032.05 of the Standard Specifications:

“(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a). Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

| Test                                                                                                                                                     | Asphalt Grade<br>GTR 70-28 | Asphalt Grade<br>GTR 64-28 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------|
| Flash Point (C.O.C.),<br>AASHTO T 48, °F (°C), min.                                                                                                      | 450 (232)                  | 450 (232)                  |
| Rotational Viscosity,<br>AASHTO T 316 @ 275 °F (135 °C), Poises,<br>Pa·s, max.                                                                           | 30 (3)                     | 30 (3)                     |
| Softening Point,<br>AASHTO T 53, °F (°C), min.                                                                                                           | 135 (57)                   | 130 (54)                   |
| Elastic Recovery,<br>ASTM D 6084, Procedure A (sieve waived)<br>@ 77 °F, (25 °C), aged, ss,<br>100 mm elongation, 5 cm/min.,<br>cut immediately, %, min. | 65                         | 65                         |

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, a 50 g sample of the GTR shall conform to the following gradation requirements:

| Sieve Size       | Percent Passing |
|------------------|-----------------|
| No. 16 (1.18 mm) | 100             |
| No. 30 (600 μm)  | 95 ± 5          |
| No. 50 (300 μm)  | > 20            |

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

“A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering

systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of  $\pm 0.40$  percent."

Revise 1030.02(c) of the Standard Specifications to read:

"(c) RAP Materials (Note 5) .....1031"

Add the following note to 1030.02 of the Standard Specifications:

Note 5. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

## **COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1)**

Effective: November 1, 2011

Revised: November 1, 2013

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet bottom boiler slag. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of + 2.0 percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP. Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

## **RECESSED REFLECTIVE PAVEMENT MARKER**

This work shall be according to Section 781 of the Standard Specifications except as modified herein.

### **Installation.**

- 1) Groove Depth dimensions shall be per detail.
- 2) Groove width should be 5.25 inches which is 0.75 inches wider than the reflector housing. This 0.75 inches of clearance around the sides of the housing provides space for water to flow around the marker and drain off.
- 3) The recessed reflective pavement markers shall be constructed by removing a 5.25" x 24" area of the HMA pavement at a depth of 0.9". This depressed area shall be tapered vertically from the full depth of  $\frac{3}{4}$  inches to 0 inches in 30 inches at both ends for the two-way markers and at the approach end only for the one-way markers. The depressed area shall be orientated lengthwise and longitudinally with respect to the roadway.

A 3M 290 series pavement marker shall be placed and cemented with epoxy in the center of the 0.9" deep depressed area.

The recessed area shall be cleaned free of all loose material by means of sand blasting and also free of moisture before the placement of the pavement marker. All excess material resulting from the construction of the recessed area shall be completely removed from the surface of the roadway by means of vacuum sweeper truck.

**Basis of Payment.** This work shall be measure and paid for at the contract unit price per each for RECESSED REFLECTIVE PAVEMENT MARKER, which price shall be payment in full for all labor, materials, and equipment necessary to complete the work as described herein.

## **STEEL RAILING (SPECIAL)**

**Description.** This work shall consist of furnishing and installing the Wyoming 2-tube steel rail, including anchoring details to be cast in the concrete curb. The steel rail shall be installed in accordance with the details indicated in the Plans and as directed by the Engineer.

**Materials.** Materials shall be in accordance with Section 509.02 of the Standard Specifications. The railing and posts shall be galvanized according to the requirements of AASHTO M111. All bolts, nuts, and anchors shall be zinc coated according to AASHTO M232. After installation, the exposed bolt threads should be painted with two coats of zinc rich paint conforming to the requirements of ASTM A780.

**Construction Requirements.** Fabrication, inspection, and erection of steel railings shall be according to Section 505 of the Standard Specifications. Storage of galvanized railing and accessories shall be according to Article 1006.34(d) of the Standard Specifications.

Shim plates shall be provided in accordance with Article 509.05(a).

**Method of Measurement.** STEEL RAILING (SPECIAL) shall be measured for payment in linear feet of such rail in place. The length measured will be the overall length along the top longitudinal railing members through all posts and gaps.

**Basis of Payment.** This work will be paid for at the Contract unit price per linear foot for STEEL RAILING (SPECIAL), which price shall be payment in full for all labor, materials, tools, equipment and appurtenances to complete the work specified herein, as indicated in the Plans, and as directed by the Engineer.

## TEMPORARY PAVEMENT

Effective: March 1, 2003  
Revised: April 10, 2008

Description. This work shall consist of constructing a temporary pavement at the locations shown on the plans or as directed by the engineer.

The contractor shall use either Portland cement concrete according to Sections 353 and 354 of the Standard Specifications or HMA according to Sections 355, 356, 406 of the Standard Specifications, and other applicable HMA special provisions as contained herein. The HMA mixtures to be used shall be specified in the plans. The thickness of the Temporary Pavement shall be as described in the plans. The contractor shall have the option of constructing either material type if both Portland cement concrete and HMA are shown in the plans.

Articles 355.08 and 406.11 of the Standard Specifications shall not apply.

The removal of the Temporary Pavement, if required, shall conform to Section 440 of the Standard Specification.

Method of Measurement. Temporary pavement will be measured in place and the area computed in square yards (square meters).

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for TEMPORARY PAVEMENT and TEMPORARY PAVEMENT (INTERSTATE).

Removal of temporary pavement will be paid for at the contract unit price per square yard (square meter) for PAVEMENT REMOVAL.

## **TURBIDITY BARRIER**

**Description.** This work shall consist of furnishing, installation, and removal of sediment containment within a body of water for work in or near the body of water, as well as to deflect natural flow around the work area.

**Materials.** All materials shall conform to the applicable requirements of Materials, Division 1000 and specific references as follows:

Turbidity barrier system shall be a flexible fabric silt barrier system such as Cape Canaveral Marine Services Turbidity Barrier, Triton Type II DOT silt and turbidity barrier, or Siltmax Type II DOT turbidity barrier.

**Construction Requirements.** The turbidity barrier shall be installed at the location(s) as shown on the plans.

The barrier shall be placed parallel to or at an angle to the direction of flow, not perpendicular to the flow and shall not extend across an entire waterway. The barrier shall extend the full depth of the water body. The barrier depth shall be 10% longer than the water depth to ensure the barrier rests on the bottom of the water body. The barrier shall be installed in such a manner as to prevent drift shoreward or downstream.

Anchors shall be installed per the manufacturer's recommendations on both the shore and stream side to maximize stability. Shore anchors shall consist of a post with dead man or approved equal. Stream anchors shall be of sufficient size, type and strength to stabilize the barrier with the number and spacing dependent on the current velocities. Anchors shall be buoyed to prevent the barrier from being pulled underwater.

The Contractor shall be responsible for maintenance of the barrier throughout construction operations.

Upon completion of the project, the Contractor shall remove the barrier in a manner that will prevent siltation of the waterway.

**Method of Measurement.** This work will be measured for payment in linear feet as measured along the water surface.

**Basis of Payment.** This work will be paid for at the contract unit price per linear foot for TURBIDITY BARRIER.



## AVAILABLE REPORTS

No project specific reports were prepared.

When applicable, the following checked reports and record information is available for Bidders' reference upon request:

- Record structural plans
- Preliminary Site Investigation (PSI)
- Preliminary Environmental Site Assessment (PESA)
- Soils/Geotechnical Report
- Boring Logs
- Pavement Cores
- Location Drainage Study (LDS)
- Hydraulic Report
- Noise Analysis
- Other: \_\_\_\_\_

Those seeking these reports should request access from:

McHenry County Division of Transportation  
16111 Nelson Road  
Woodstock, IL 60098  
815-334-4960  
Hours 8:00 AM to 4:30 PM (Monday through Friday)

## **IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)**

Effective: August 1, 2012

Revised: February 1, 2014

In addition to the Contractor's equal employment opportunity affirmative action efforts undertaken as elsewhere required by this Contract, the Contractor is encouraged to participate in the incentive program to provide additional on-the-job training to certified graduates of IDOT funded pre-apprenticeship training programs outlined by this Special Provision.

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at \$15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving other reimbursement. For purposes of this Special Provision the Contractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under the Contract and the number of hours for which the incentive payment provided under this Special Provision will be or has been claimed for the TPG.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting its performance under this Special Provision.

**METHOD OF MEASUREMENT:** The unit of measurement is in hours.

**BASIS OF PAYMENT:** This work will be paid for at the contract unit price of \$15.00 per hour for certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journey worker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is 1. During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the TPGs are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Special Provision. The Contractor shall also insure that this Training Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision, the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision \$15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Source Site Certification by Owner or Operator for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-662

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by source site owners and operators to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1) (A), that soil (i) was removed from a site that is not potentially impacted property and is presumed to be uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Bay Road Bridge Rehabilitation Office Phone Number, if available: 815-334-4960

Physical Site Location (Street, Road): Bay Road Bridge over Lily Lake Drain

City: Lakemoor State: IL Zip Code: 60051

County: McHenry Township: McHenry

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.36548 Longitude: -88.2199  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

Illinois Department of Transportation Master Structure Report (S-107) for Bay Road Bridge (056-3106)

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: McHenry County Division of Transportation

Street Address: 16111 Nelson Road

PO Box: \_\_\_\_\_

City: Woodstock State: IL

Zip Code: 60098 Phone: 815-334-4960

Contact: Benjamin Redding

Email, if available: BARedding@co.mchenry.il.us

Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: \_\_\_\_\_

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Bay Road Bridge Rehabilitation

Latitude: 42.36548 Longitude: -88.2199

(Decimal Degrees)

(-Decimal Degrees)

**Source Site Certification**

**III. Descriptions of Current and Past Uses of Source Site**

Describe the current and past uses of the site and nearby properties.\* Attach additional information as needed. The description must take into account, at a minimum, the following for the source site and for nearby property: (1) use of the properties for commercial or industrial purposes; (2) the use, storage or disposal of chemical or petroleum products in individual containers greater than 5 gallons or collectively more than 50 gallons; (3) the current or past presence of any storage tanks (above ground or underground); (4) any waste storage, treatment or disposal at the properties; (5) any reported releases or any environmental cleanup or removal of contaminants; (6) any environmental liens or governmental notification of environmental violations; (7) any contamination in a well that exceeds the Board's groundwater quality standards; (8) the use, storage, or disposal of transformers or capacitors manufactured before 1979; and (9) any fill dirt brought to the properties from an unknown source or site.

Number of pages attached: 2

See attached

\*The description must be sufficient to demonstrate that the source site is not potentially impacted property, thereby allowing the source site owner or operator to provide this certification.

**IV. Soil pH Testing Results**

Describe the results of soil pH testing showing that the soil pH is within the range of 6.25 to 9.0 and attach any supporting documentation.

Number of pages attached: 1

See attached

**V. Source Site Owner, Operator or Authorized Representative's Certification Statement and Signature**

In accordance with the Illinois Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I Benjamin Redding (owner, operator or authorized representative of source site) certify that this site is not a potentially impacted property and the soil is presumed to be uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. I further certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. Additionally, I certify that I am either the site owner or operator or a duly authorized representative of the site owner or site operator and am authorized to sign this form. Furthermore, I certify that all information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete.

*Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))*

- Owner
- Operator
- Owner's Duly Authorized Representative
- Operator's Duly Authorized Representative

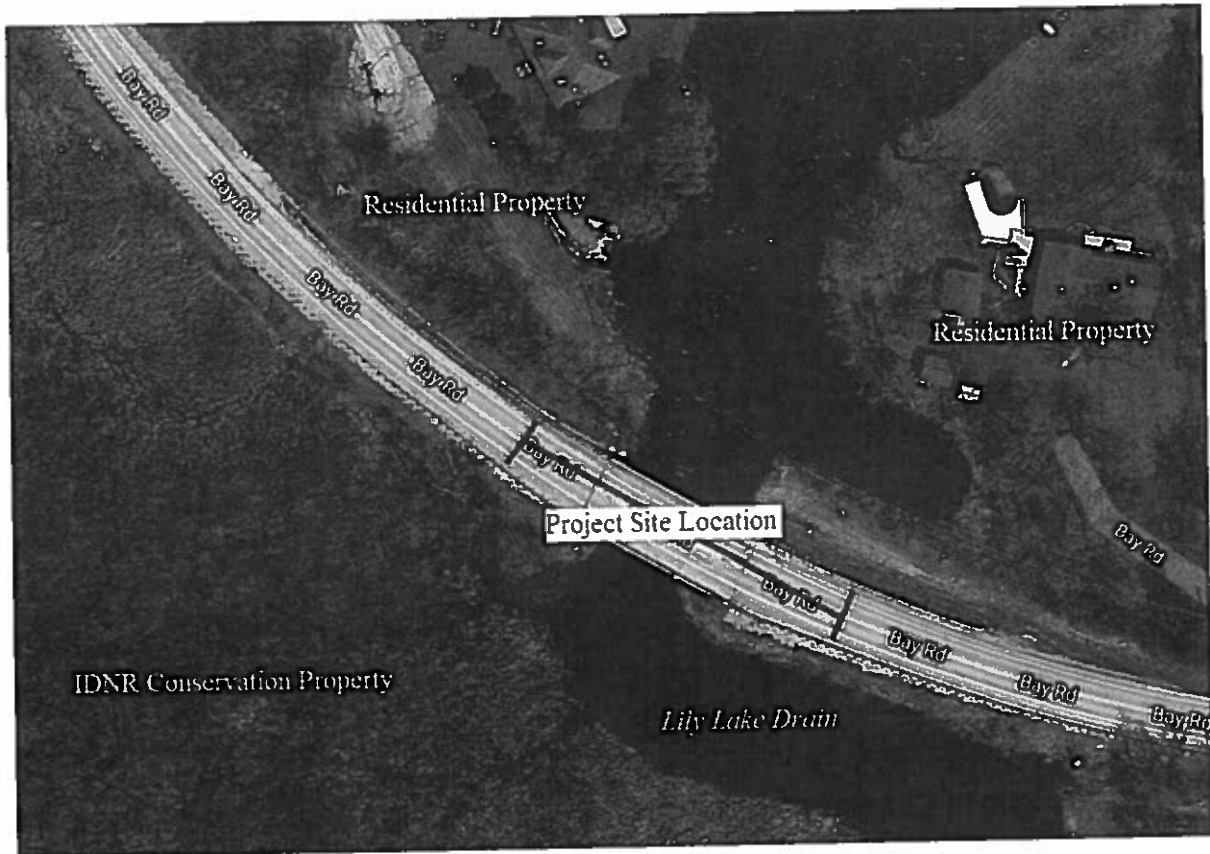
Benjamin Redding

Printed Name

Ben Redding  
Signature

26/7.08.21  
Date

### III. Descriptions of Current and Past Uses of Source Site



*Describe the current and past uses for the site and nearby properties.*

The site is Bay Road Bridge over Lily Lake Drain. The current bridge was built in 1968. The project site will be directly at the bridge and extend approximately 60 feet in both the east and west direction from the bridge. Adjacent to the northeast and northwest quadrants of the bridge are residential properties. The southwest quadrant of the bridge is IDNR owned conservation property. The southeast quadrant of the bridge is lined by the Lily Lake Drain and subsequently bordered by a commercial property, located more than 500 ft from the site.

*The description must take into account, at a minimum, the following for the source site and for nearby property:*

*(1) use of the properties for commercial or industrial purposes*

Response: The nearest commercial property to the site (Bay Road Bridge) is over 500 ft away to the southeast. The other adjoining properties are residential and conservation property.

*(2) the use, storage or disposal of chemical or petroleum products in individual containers greater than 5 gallons or collectively more than 50 gallons*

Response: There is no usage, storage, or disposal of chemical or petroleum products in individual containers greater than 5 gallons or collectively more than 50 gallons on or near the site.

### III. Descriptions of Current and Past Uses of Source Site (continued)

(3) *the current or past presence of any storage tanks (above ground or underground)*

Response: There are no current or past presence of any above ground or underground storage tanks on or near the site.

(4) *any waste storage, treatment or disposal at the properties*

Response: There is/has been no waste storage, treatment or disposal on or near the site.

(5) *any reported releases or any environmental cleanup or removal of contaminants*

Response: There is/has been no reported releases or environmental cleanup or removal of contaminants on or near the site.

(6) *Any environmental liens or governmental notification of environmental violations*

Response: There is/has been no environmental liens or governmental notification of environmental violations on or near the site.

(7) *Any contamination in a well that exceeds the Board's groundwater quality standards*

Response: There is/has been no contamination in a well that exceeds the Board's groundwater quality standards on or near the site.

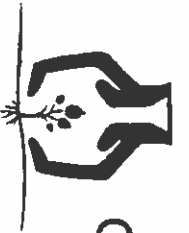
(8) *The use, storage, or disposal of transformers or capacitors manufactured before 1979*

Response: There are no transformers or capacitors manufactured before 1979 stored, used, or disposed of on or near the site.

(9) *Any fill dirt brought to the properties from an unknown source or site*

Response: There is/has been no fill dirt brought to property from an unknown source or site.

Report Number  
F17215-0160  
Account Number  
99990



**a&lgreatlakes**  
LABORATORIES  
*Scientists who don't mind getting dirty.*

3505 Conestoga Dr.  
Fort Wayne, IN 46808  
260.483.4759  
a@greatlakes.com

To: MCHENRY CO. DIV. OF TRANSPORTA  
16111 NELSON RD  
WOODSTOCK, IL 60098

For: MCHENRY COUNTY  
BAY ROAD BRIDGE  
BAY ROAD BRIDGE

P.O. Number:

Date Received: 08/03/2017

Date Reported: 08/07/2017 Page: 1 of 1

Attn: REBECCA BRAZAS

### REPORT OF ANALYSIS

| Lab Number | Sample ID | Analysis    | Result | Unit      | Method               |
|------------|-----------|-------------|--------|-----------|----------------------|
| 37311      | SOUTHEAST | pH          | 7.1    | Std. Unit | NCR-13 No. 221, 1998 |
|            |           | pH - Buffer | 7.5    | Std. Unit | NCR-13 No. 221, 1998 |

LR





**DEPARTMENT OF THE ARMY**  
**CHICAGO DISTRICT, CORPS OF ENGINEERS**  
231 SOUTH LA SALLE STREET  
CHICAGO, ILLINOIS 60604-1437

REPLY TO  
ATTENTION OF:

March 29, 2017

Technical Services Division  
Regulatory Branch  
LRC-2015-00710

**SUBJECT: Bay Road Bridge Replacement, Lily Lake Drain, Lakemoor/Johnsburg/McHenry, McHenry County, Illinois**

Ben Redding  
McHenry County Division of Transportation  
16111 Nelson Road  
Woodstock, Illinois 60098

Dear Mr. Redding:

This office has verified that your proposed activity complies with the terms and conditions of Regional Permit 3 and the General Conditions for all activities authorized under the Regional Permit Program.

This verification expires three (3) years from the date of this letter and covers only your activity as described in your notification and as shown on the plans entitled "FAU Route 0186 (Bay Road) over Lily Lake Drain – Section 14-00438-00-BR, Bridge Rehabilitation, McHenry County – C-91-280-15", dated 10/05/2016, prepared by RS&H. Caution must be taken to prevent construction materials and activities from impacting waters of the United States beyond the scope of this authorization. If you anticipate changing the design or location of the activity, you should contact this office to determine the need for further authorization.

The activity may be completed without further authorization from this office provided the activity is conducted in compliance with the terms and conditions of the RPP, including conditions of water quality certification issued under Section 401 of the Clean Water Act by the Illinois Environmental Protection Agency (IEPA). If the design, location, or purpose of the project is changed, you should contact this office to determine the need for further authorization.

The following special conditions are a requirement of your authorization:

1. This authorization is contingent upon implementing and maintaining soil erosion and sediment controls in a serviceable condition throughout the duration of the project. You shall comply with the McHenry-Lake Soil and Water Conservation District's (SWCD) written and verbal recommendations regarding the soil erosion and sediment control (SESC) plan and the installation and maintenance requirements of the SESC practices on-site.

- a. You shall schedule a preconstruction meeting with SWCD to discuss the SESC plan and the installation and maintenance requirements of the SESC practices on the site. You shall contact the SWCD at least 10 calendar days prior to the preconstruction meeting so that a representative may attend.
  - b. You shall notify the SWCD of any changes or modifications to the approved plan set. Field conditions during project construction may require the implementation of additional SESC measures. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC measures are acceptable.
  - c. Prior to commencement of any in-stream work, you shall submit constructions plans and a detailed narrative to the SWCD that disclose the contractor's preferred method of cofferdam and dewatering method. Work in the waterway shall NOT commence until the SWCD notifies you, in writing, that the plans have been approved.
2. Prior to commencement of work, you shall submit constructions plans and a narrative of the contractor's preferred method of cofferdam. Work in the waterway shall not commence until this office notifies you, in writing, that the plans have been approved.
3. Under no circumstances shall the Contractor prolong final grading and shaping so that the entire project can be permanently seeded at one time. Permanent stabilization within the wetland and stream buffers identified in the plans shall be initiated immediately following the completion of work. Final stabilization of these areas should not be delayed due to utility work to be performed by others.
4. This site is within the aboriginal homelands of several American Indian Tribes. If any human remains, Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA), or archaeological evidence are discovered during any phase of this project, interested Tribes request immediate consultation with the entity of jurisdiction for the location of discovery. In such case, please contact Julie Rimbault by telephone at 312-846-5542, or email at [Julie.C.Rimbault@usace.army.mil](mailto:Julie.C.Rimbault@usace.army.mil).
5. You are responsible for all work authorized herein and for ensuring that all contractors are aware of the terms and conditions of this authorization.
6. A copy of this authorization must be present at the project site during all phases of construction.
7. You shall notify this office of any proposed modifications to the project, including revisions to any of the plans or documents cited in this authorization. You must receive approval from this office before work affected by the proposed modification is performed.
8. You shall notify this office prior to the transfer of this authorization and liabilities

associated with compliance with its terms and conditions.

9. Work in the waterway should be timed to take place during low or no-flow conditions. Low flow conditions are flow at or below the normal water elevation.
10. The plan will be designed to allow for the conveyance of the 2-year peak flow past the work area without overtopping the cofferdam. The Corps has the discretion to reduce this requirement if documented by the applicant to be infeasible or unnecessary.
11. Water shall be isolated from the in-stream work area using a cofferdam constructed of non-erodible materials (steel sheets, aqua barriers, rip rap and geotextile liner, etc.). Earthen cofferdams are not permissible.
12. The cofferdam must be constructed from the upland area and no equipment may enter flowing water at any time. If the installation of the cofferdam cannot be completed from shore and access is needed to reach the area to be coffered, other measures, such as the construction of a causeway, will be necessary to ensure that equipment does not enter the water. Once the cofferdam is in place and the isolated area is dewatered, equipment may enter the coffered area to perform the required work.
13. If bypass pumping is necessary, the intake hose shall be placed on a stable surface or floated to prevent sediment from entering the hose. The bypass discharge shall be placed on a non-erodible, energy dissipating surface prior to rejoining the stream flow and shall not cause erosion. Filtering of bypass water is not necessary unless the bypass water has become sediment-laden as a result of the current construction activities.
14. During dewatering of the coffered work area, all sediment-laden water must be filtered to remove sediment. Possible options for sediment removal include baffle systems, anionic polymers systems, dewatering bags, or other appropriate methods. Water shall have sediment removed prior to being re-introduced to the downstream waterway. A stabilized conveyance from the dewatering device to the waterway must be identified in the plan. Discharge water is considered clean if it does not result in a visually identifiable degradation of water clarity.
15. The portion of the side slope that is above the observed water elevation shall be stabilized as specified in the plans prior to accepting flows. The substrate and toe of slope that has been disturbed due to construction activities shall be restored to proposed or pre-construction conditions and fully stabilized prior to accepting flows.

The authorization is without force and effect until all other permits or authorizations from local, state, or other Federal agencies are secured. Please note that IEPA has issued Section 401 Water Quality Certification for this RP. These conditions are included in the enclosed fact sheet. If you have any questions regarding Section 401 certification, please contact Mr. Dan Heacock at IEPA's Division of Water Pollution Control, Permit Section #15, by telephone at (217) 782-3362.

Once you have completed the authorized activity, please sign and return the enclosed compliance certification. If you have any questions, please contact Julie Rimbault of my staff by telephone at 312-846-5542, or email at [Julie.C.Rimbault@usace.army.mil](mailto:Julie.C.Rimbault@usace.army.mil).

Sincerely,



Keith L. Wozniak  
Chief, West Section  
Regulatory Branch

Enclosures

Copy Furnished:

Illinois Department of Natural Resources/OWR (Gary Jereb)  
McHenry County Department of Planning and Development (Joanna Colletti)  
McHenry-Lake County SWCD (Ed Weskerna)  
2iM Group, LLC (John Morgan)



**PERMIT COMPLIANCE  
CERTIFICATION**

Permit Number: LRC-2015-00710  
Permittee: Ben Redding  
McHenry County Division of Transportation  
Date: March 29, 2017

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of said permit and if applicable, compensatory wetland mitigation was completed in accordance with the approved mitigation plan.<sup>1</sup>

\_\_\_\_\_  
PERMITTEE

\_\_\_\_\_  
DATE

Upon completion of the activity authorized by this permit and any mitigation required by the permit, this certification must be signed and returned to the following address:

U.S. Army Corps of Engineers  
Chicago District, Regulatory Branch  
231 South LaSalle Street, Suite 1500  
Chicago, Illinois 60604-1437

Please note that your permitted activity is subject to compliance inspections by Corps of Engineers representatives. If you fail to comply with this permit, you may be subject to permit suspension, modification, or revocation.

---

<sup>1</sup> If compensatory mitigation was required as part of your authorization, you are certifying that the mitigation area has been graded and planted in accordance with the approved plan. You are acknowledging that the maintenance and monitoring period will begin after a site inspection by a Corps of Engineers representative or after thirty days of the Corps' receipt of this certification. You agree to comply with all permit terms and conditions, including additional reporting requirements, for the duration of the maintenance and monitoring period.

State of Illinois  
Department of Transportation  
Bureau of Local Roads and Streets

SPECIAL PROVISION  
FOR  
INSURANCE

Effective: February 1, 2007  
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

McHenry County Division of Transportation

---

---

---

---

---

---

---

---

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

## COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

Revise Article 107.40(b) of the Standard Specifications to read:

"(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

- (1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.
- (2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.
- (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

Revise Article 107.40(c) of the Standard Specifications to read:

"(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

- (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

- (2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the Contractor's yard or another job and the cost to re-mobilize, whichever is less.

Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

- (3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13."

Revise Article 108.04(b) of the Standard Specifications to read:

"(b) No working day will be charged under the following conditions.

- (1) When adverse weather prevents work on the controlling item.
- (2) When job conditions due to recent weather prevent work on the controlling item.
- (3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.
- (4) When delays caused by utility or railroad adjustments prevent work on the controlling item.
- (5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.
- (6) When any condition over which the Contractor has no control prevents work on the controlling item."

Revise Article 109.09(f) of the Standard Specifications to read:

- "(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead



other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited."

Add the following to Section 109 of the Standard Specifications.

**"109.13 Payment for Contract Delay.** Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

| Contract Type   | Cause of Delay                               | Length of Delay                                                                                             |
|-----------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Working Days    | Article 108.04(b)(3) or Article 108.04(b)(4) | No working days have been charged for two consecutive weeks.                                                |
| Completion Date | Article 108.08(b)(1) or Article 108.08(b)(7) | The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08. |

Payment for each of the various costs will be according to the following.

(a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.

(b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.

(1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

| Original Contract Amount               | Supervisory and Administrative Personnel                                   |
|----------------------------------------|----------------------------------------------------------------------------|
| Up to \$5,000,000                      | One Project Superintendent                                                 |
| Over \$ 5,000,000 - up to \$25,000,000 | One Project Manager, One Project Superintendent or Engineer, and One Clerk |
| Over \$25,000,000 - up to \$50,000,000 | One Project Manager, One Project Superintendent, One Engineer, and         |

|                   |                                                                                        |
|-------------------|----------------------------------------------------------------------------------------|
|                   | One Clerk                                                                              |
| Over \$50,000,000 | One Project Manager,<br>Two Project Superintendents,<br>One Engineer, and<br>One Clerk |

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid. For working day contracts the payment will be made according to Article 109.04. For completion date contracts, an adjustment will be determined as follows.

Extended Traffic Control occurs between April 1 and November 30:

$$\text{ETCP Adjustment (\$)} = \text{TE} \times (\% / 100 \times \text{CUP} / \text{OCT})$$

Extended Traffic Control occurs between December 1 and March 31:

$$\text{ETCP Adjustment (\$)} = \text{TE} \times 1.5 (\% / 100 \times \text{CUP} / \text{OCT})$$

Where: TE = Duration of approved time extension in calendar days.

% = Percent maintenance for the traffic control, % (see table below).

CUP = Contract unit price for the traffic control pay item in place during the delay.

OCT = Original contract time in calendar days.

| Original Contract Amount     | Percent Maintenance |
|------------------------------|---------------------|
| Up to \$2,000,000            | 65%                 |
| \$2,000,000 to \$10,000,000  | 75%                 |
| \$10,000,000 to \$20,000,000 | 85%                 |
| Over \$20,000,000            | 90%                 |

When an ETCP adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

## CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

Revised: November 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

| Effective Dates            | Horsepower Range | Model Year |
|----------------------------|------------------|------------|
| June 1, 2010 <sup>1/</sup> | 600-749          | 2002       |
|                            | 750 and up       | 2006       |
| June 1, 2011 <sup>2/</sup> | 100-299          | 2003       |
|                            | 300-599          | 2001       |
|                            | 600-749          | 2002       |
|                            | 750 and up       | 2006       |
| June 1, 2012 <sup>2/</sup> | 50-99            | 2004       |
|                            | 100-299          | 2003       |
|                            | 300-599          | 2001       |
|                            | 600-749          | 2002       |
|                            | 750 and up       | 2006       |

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.

2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

- a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (<http://www.epa.gov/cleandiesel/verification/verif-list.htm>), or verified by the California Air Resources Board (CARB) (<http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

### **Diesel Retrofit Deficiency Deduction**

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

80261

## **DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (DBE)**

Effective: September 1, 2000

Revised: July 2, 2016

**FEDERAL OBLIGATION.** The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

**STATE OBLIGATION.** This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

**CONTRACTOR ASSURANCE.** The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor.

The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (a) Withholding progress payments;
- (b) Assessing sanctions;
- (c) Liquidated damages; and/or
- (d) Disqualifying the Contractor from future bidding as non-responsible.

**OVERALL GOAL SET FOR THE DEPARTMENT.** As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a

good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 14.00 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

- (a) The bidder documents that enough DBE participation has been obtained to meet the goal or,
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217) 785-4611, or by visiting the Department's website at:

<http://www.idot.illinois.gov/doing-business/certifications/disadvantaged-business-enterprise-certification/il-ucp-directory/index>.

BIDDING PROCEDURES. Compliance with this Special Provision is required prior to the award of the contract and the failure of the low bidder to comply will render the bid not responsive.

In order to assure the timely award of the contract, the low bidder shall submit:

- (a) The bidder shall submit a DBE Utilization Plan on completed Department forms SBE 2025 and 2026.

- (1) The final Utilization Plan must be submitted within five calendar days after the date of the letting in accordance with subsection (a)(2) of Bidding Procedures herein.

- (2) To meet the five day requirement, the bidder may send the Utilization Plan electronically by scanning and sending to [DOT.DBE.UP@illinois.gov](mailto:DOT.DBE.UP@illinois.gov) or faxing to (217) 785-1524. The subject line must include the bid Item Number and the Letting date. The Utilization Plan should be sent as one .pdf file, rather than multiple files and emails for the same Item Number. It is the responsibility of the bidder to obtain confirmation of email or fax delivery.

Alternatively, the Utilization Plan may be sent by certified mail or delivery service within the five calendar day period. If a question arises concerning the mailing date of a Utilization Plan, the mailing date will be established by the U.S. Postal Service postmark on the certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service when the Utilization Plan is received by the Department. It is the responsibility of the bidder to ensure the postmark or receipt date is affixed within the five days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Utilization Plan is to be submitted to:

Illinois Department of Transportation  
Bureau of Small Business Enterprises  
Contract Compliance Section  
2300 South Dirksen Parkway, Room 319  
Springfield, Illinois 62764

The Department will not accept a Utilization Plan if it does not meet the five day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Utilization Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration.

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of Utilization Plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and scanned or faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:



- (1) The names and addresses of DBE firms that will participate in the contract;
- (2) A description, including pay item numbers, of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
- (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
- (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the Utilization Plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal is not met, evidence of good faith efforts; the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors

are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.  
  
b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with subsection (c)(6) of the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
  - (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
  - (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
  - (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period in order to cure the deficiency.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217) 785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for consideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration

Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
  - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
  - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.
- (e) DBE as a material supplier:

- (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
- (2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.
- (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a DBE regular dealer or DBE manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

- (a) NO AMENDMENT. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, then a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

(c) SUBCONTRACT. The Contractor must provide DBE subcontracts to IDOT upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.

(d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
- (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
- (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

(e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor,

with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

60

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department shall provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) PAYMENT RECORDS. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (h) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.



## EQUIPMENT PARKING AND STORAGE (BDE)

Effective: November 1, 2017

Replace the first paragraph of Article 701.11 of the Standard Specifications with the following.

**“701.11 Equipment Parking and Storage.** During working hours, all vehicles and/or nonoperating equipment which are parked, two hours or less, shall be parked at least 8 ft (2.5 m) from the open traffic lane. For other periods of time during working and for all nonworking hours, all vehicles, materials, and equipment shall be parked or stored as follows.

- (a) When the project has adequate right-of-way, vehicles, materials, and equipment shall be located a minimum of 30 ft (9 m) from the pavement.
- (b) When adequate right-of-way does not exist, vehicles, materials, and equipment shall be located a minimum of 15 ft (4.5 m) from the edge of any pavement open to traffic.
- (c) Behind temporary concrete barrier, vehicles, materials, and equipment shall be located a minimum of 24 in. (600 mm) behind free standing barrier or a minimum of 6 in. (150 mm) behind barrier that is either pinned or restrained according to Article 704.04. The 24 in. or 6 in. measurement shall be from the base of the non-traffic side of the barrier.
- (d) Behind other man-made or natural barriers meeting the approval of the Engineer.”

80388

## HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010

Revised: April 1, 2016

**Description.** This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

**Quality Control/Quality Assurance (QC/QA).** Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

“Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

- a. **Confined Edge.** Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.
- b. **Unconfined Edge.** Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced 10 ft (3 m) apart longitudinally along the unconfined pavement edge and centered at the random density test location.”

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

| "Mixture Composition | Parameter                     | Individual Test (includes confined edges) | Unconfined Edge Joint Density Minimum |
|----------------------|-------------------------------|-------------------------------------------|---------------------------------------|
| IL-4.75              | N <sub>design</sub> = 50      | 93.0 – 97.4% <sup>11</sup>                | 91.0%                                 |
| IL-9.5               | N <sub>design</sub> = 90      | 92.0 – 96.0%                              | 90.0%                                 |
| IL-9.5, IL-9.5L      | N <sub>design</sub> < 90      | 92.5 – 97.4%                              | 90.0%                                 |
| IL-19.0              | N <sub>design</sub> = 90      | 93.0 – 96.0%                              | 90.0%                                 |
| IL-19.0, IL-19.0L    | N <sub>design</sub> < 90      | 93.0 <sup>21</sup> – 97.4%                | 90.0%                                 |
| SMA                  | N <sub>design</sub> = 50 & 80 | 93.5 – 97.4%                              | 91.0%”                                |

**HOT-MIX ASPHALT – TACK COAT (BDE)**

Effective: November 1, 2016

Revise Article 1032.06(a) of the Standard Specifications to read:

“(a) Anionic Emulsified Asphalt. Anionic emulsified asphalts shall be according to AASHTO M 140. SS-1h emulsions used as a tack coat shall have the cement mixing test waived.”

80376

**PAVEMENT MARKING REMOVAL (BDE)**

Effective: July 1, 2016

Revise Article 783.02 of the Standard Specifications to read:

**"783.02 Equipment.** Equipment shall be according to the following.

| Item                                         | Article/Section |
|----------------------------------------------|-----------------|
| (a) Grinders (Note 1)                        |                 |
| (b) Water Blaster with Vacuum Recovery ..... | 1101.12         |

Note 1. Grinding equipment shall be approved by the Engineer."

Revise the first paragraph of Article 783.03 of the Standard Specifications to read:

**"783.03 Removal of Conflicting Markings.** Existing pavement markings that conflict with revised traffic patterns shall be removed. If darkness or inclement weather prohibits the removal operations, such operations shall be resumed the next morning or when weather permits. In the event of removal equipment failure, such equipment shall be repaired, replaced, or leased so removal operations can be resumed within 24 hours."

Revise the first and second sentences of the first paragraph of Article 783.03(a) of the Standard Specifications to read:

"The existing pavement markings shall be removed by the method specified and in a manner that does not materially damage the surface or texture of the pavement or surfacing. Small particles of tightly adhering existing markings may remain in place, if in the opinion of the Engineer, complete removal of the small particles will result in pavement surface damage."

Revise the first paragraph of Article 783.04 of the Standard Specifications to read:

**"783.04 Cleaning.** The roadway surface shall be cleaned of debris or any other deleterious material by the use of compressed air or water blast."

Revise the first paragraph of Article 783.06 of the Standard Specifications to read:

**"783.06 Basis of Payment.** This work will be paid for at the contract unit price per each for RAISED REFLECTIVE PAVEMENT MARKER REMOVAL, or at the contract unit price per square foot (square meter) for PAVEMENT MARKING REMOVAL – GRINDING and/or PAVEMENT MARKING REMOVAL – WATER BLASTING."

Delete Article 1101.13 from the Standard Specifications.

80371

65

## **PAYMENTS TO SUBCONTRACTORS (BDE)**

Effective: November 2, 2017

Add the following to the end of the fourth paragraph of Article 109.11 of the Standard Specifications:

“If reasonable cause is asserted, written notice shall be provided to the applicable subcontractor and/or material supplier and the Engineer within five days of the Contractor receiving payment. The written notice shall identify the contract number, the subcontract or material purchase agreement, a detailed reason for refusal, the value of payment being withheld, and the specific remedial actions required of the subcontractor and/or material supplier so that payment can be made.”

80390

## PORTABLE CHANGEABLE MESSAGE SIGNS (BDE)

Effective: November 1, 2016

Revised: April 1, 2017

Revise the second paragraph of Article 701.20(h) of the Standard Specifications to read:

"For all other portable changeable message signs, this work will be paid for at the contract unit price per calendar day for each sign as CHANGEABLE MESSAGE SIGN."

Revise this second sentence of the first paragraph of Article 1106.02(i) of the Standard Specifications to read:

"The message panel shall be a minimum of 7 ft (2.1 m) above the edge of pavement in urban areas and a minimum of 5 ft (1.5 m) above the edge of pavement in rural areas, present a level appearance, and be capable of displaying up to eight characters in each of three lines at a time."

80377

**PORTLAND CEMENT CONCRETE BRIDGE DECK CURING (BDE)**

Effective: April 1, 2015

Revised: November 1, 2017

Revise the following two entries in the table in Article 1020.13 of the Standard Specifications to read:

| "INDEX TABLE OF CURING AND PROTECTION OF CONCRETE CONSTRUCTION" |                                 |                    |                                        |
|-----------------------------------------------------------------|---------------------------------|--------------------|----------------------------------------|
| TYPE OF CONSTRUCTION                                            | CURING METHODS                  | CURING PERIOD DAYS | LOW AIR TEMPERATURE PROTECTION METHODS |
| Superstructure (Approach Slab)                                  | 1020.13(a)(5)(6) <sup>19/</sup> | 3                  | 1020.13(d)(1)(2) <sup>17/</sup>        |
| Deck                                                            | 1020.13(a)(5)(6) <sup>19/</sup> | 7                  | 1020.13(d)(1)(2) <sup>17/</sup>        |

Add the following footnote to the end of the Index Table of Curing and Protection of Concrete Construction in Article 1020.13 of the Standard Specifications:

"19/ The cellulose polyethylene or synthetic fiber with polymer polyethylene blanket method shall not be used on latex modified concrete."

Revise Article 1020.13(a)(5) of the Standard Specifications to read:

"(5) Wetted Cotton Mat Method. After the surface of concrete has been textured or finished, it shall be covered immediately with dry or damp cotton mats. Cotton mats in poor condition will not be allowed. The cotton mats shall be placed in a manner which will not create indentations greater than 1/4 in. (6 mm) in the concrete surface. Minor marring of the surface is tolerable and is secondary to the importance of timely curing. The cotton mats shall then be wetted immediately and thoroughly soaked with a gentle spray of water. Thereafter, the cotton mats shall be covered with white polyethylene sheeting or burlap-polyethylene blankets. The cotton mats shall be kept saturated with water.

- a. Bridge Decks. For bridge decks, a foot bridge shall be used to place and wet the cotton mats. The cotton mats shall be maintained in a wetted condition until the concrete has hardened sufficiently to place soaker hoses without indentations to the concrete surface. The soaker hoses shall be placed on top of the cotton mats at a maximum 4 ft (1.2 m) spacing. The cotton mats shall be kept wet with a continuous supply of water for the remainder of the curing period. Other continuous wetting systems may be used if approved by the Engineer.

For areas inaccessible to the cotton mats, curing shall be according to Article 1020.13(a)(3)."

Add the following to Article 1020.13(a) of the Standard Specifications.

"(6) Cellulose Polyethylene Blanket Method and Synthetic Fiber with Polymer Polyethylene Blanket Method. After the surface of concrete has been textured or finished, it shall be covered immediately with a cellulose polyethylene or synthetic fiber with polymer polyethylene blanket. Damaged blankets will not be allowed. The blankets shall be installed with the white perforated polyethylene side facing up. Adjoining blankets shall overlap a minimum of 8 in. (200 mm). Any air bubbles trapped during placement shall be removed. The blankets fiber side shall be wetted immediately prior to placement or as the blanket is being placed, and the polyethylene side shall be thoroughly soaked with a gentle spray of water immediately after placement. Thereafter, the blankets shall be kept saturated with water. For bridge decks, the blankets shall be placed and kept wet according to Article 1020.13(a)(5)a."

Revise the first paragraph of Article 1022.03 of the Standard Specifications to read:

**"1022.03 Waterproof Paper Blankets, White Polyethylene Sheeting, Burlap-Polyethylene Blankets, Cellulose Polyethylene Blankets, and Synthetic Fiber with Polymer Polyethylene Blankets.** These materials shall be white and according to ASTM C 171.

The cellulose polyethylene blanket shall consist of a perforated white polyethylene sheeting with cellulose fiber backing and shall be limited to single use only. The cellulose polyethylene blankets shall be delivered to the jobsite unused and in the manufacturer's unopened packaging until ready for installation. Each roll shall be clearly labeled with product name, manufacturer, and manufacturer's certification of compliance with ASTM C 171.

The synthetic fiber with polymer polyethylene blanket shall consist of a perforated white polyethylene sheeting with absorbent synthetic fibers and super absorbent polymer backing, and shall be limited to single use only. The synthetic fiber with polymer polyethylene blankets shall be delivered to the jobsite unused and in the manufacturer's unopened packaging until ready for installation. Each roll shall be clearly labeled on the product with product name, manufacturer, and manufacturer's certification of compliance with ASTM C 171."

80359



## **PROGRESS PAYMENTS (BDE)**

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

80328

## STEEL PLATE BEAM GUARDRAIL (BDE)

Effective: January 1, 2017

Revise Article 630.02 of the Standard Specifications to read:

**"630.02 Materials.** Materials shall be according to the following.

| Item                                                                     | Article/Section           |
|--------------------------------------------------------------------------|---------------------------|
| (a) Steel Plate Beam Guardrail .....                                     | 1006.25                   |
| (b) Wood Posts and Wood Block .....                                      | 1007.01, 1007.02, 1007.06 |
| (c) Steel Posts, Blockouts, Restraints and Wire Rope for Guardrail ..... | 1006.23                   |
| (d) Preservative Treatment .....                                         | 1007.12                   |
| (e) Reinforcement Bars .....                                             | 1006.10                   |
| (f) Plastic Blockouts (Note 1)                                           |                           |
| (g) Chemical Adhesive Resin System .....                                 | 1027.01                   |
| (h) Controlled Low-Strength Material (CLSM) .....                        | 1019                      |

Note 1. Plastic blockouts may be used in lieu of wood blockouts for steel plate beam guardrail. The plastic blockouts shall be the minimum dimensions shown on the plans and shall be on the Department's qualified product list."

Revise Article 630.05 of the Standard Specifications to read:

**"630.05 Posts.** Posts shall be as follows.

- (a) Wood Posts. Wood posts and blocks shall be treated. The posts and blocks shall be cut to the proper dimensions before treatment. No cutting of the posts or blocks will be permitted after treatment. Posts shall be erected according to Article 634.05.
- (b) Steel Posts. Steel posts may be driven by hand or mechanical methods provided they are protected by a suitable driving cap and the earth around the posts compacted, if necessary, after driving. When steel posts are driven to incorrect alignment or grade, they shall be removed and set according to Article 634.05.

When it is necessary to shorten the posts in the field, the lower portion shall be cut off in a manner to provide a smooth cut with minimum damage to the galvanizing. Cut areas shall be repaired according to the requirements of AASHTO M 36."

Revise Article 630.06 of the Standard Specifications to read:

**"630.06 Shoulder Stabilization at Guardrail.** Shoulder stabilization shall be constructed at the locations of steel plate beam guardrail installation according to the details shown on the plans. On new construction projects, the material used in the shoulder stabilization shall be the same as that used in the adjacent paved shoulder. On shoulder resurfacing projects, the

material used in the shoulder stabilization shall be the same as that used for the shoulder resurfacing.

When portland cement concrete is used, shoulder stabilization shall be constructed according to the applicable portions of Section 483. The shoulder stabilization shall be constructed simultaneously with the adjacent portland cement concrete shoulder. Guardrail posts shall be driven through leaveouts or holes cored in the completed shoulder stabilization. The void around each post shall be backfilled with earth or aggregate and capped with hot-mix asphalt (HMA) or CLSM.

When HMA is used, shoulder stabilization shall be constructed according to the applicable portions of Section 482. On new construction, the shoulder stabilization shall be constructed simultaneously with the HMA shoulder. On shoulder resurfacing projects, the portion of the shoulder stabilization below the surface of the existing paved shoulder shall be placed and compacted separately. The guardrail posts shall be driven through holes cored in the completed shoulder stabilization. The void around each post shall be backfilled with earth or aggregate and capped with HMA or CLSM.

When driving guardrail posts through existing shoulders, shoulder stabilization, or other paved areas, the posts shall be driven through cored holes. The void around each post shall be backfilled with earth or aggregate and capped with HMA or CLSM."

Revise Article 630.08 of the Standard Specifications to read:

**"630.08 Basis of Payment.** This work will be paid for at the contract unit price per foot (meter) for NON-BLOCKED STEEL PLATE BEAM GUARDRAIL; STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT (1.83 M) POSTS; STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT (2.74 M) POSTS; STEEL PLATE BEAM GUARDRAIL, TYPE B, 6 FOOT (1.83 M) POSTS; STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT (2.74 M) POSTS; or STEEL PLATE BEAM GUARDRAIL, TYPE D, 6 FOOT (1.83 M) POSTS.

When end sections are specified, they will not be paid for as a separate item, but shall be considered as included in the unit price for steel plate beam guardrail.

Steel plate beam guardrail mounted on existing culverts will be paid for at the contract unit price per foot (meter) for STRONG POST GUARDRAIL ATTACHED TO CULVERT or WEAK POST GUARDRAIL ATTACHED TO CULVERT, of the case specified.

Portland cement concrete shoulder stabilization at guardrail will be paid for according to Article 483.10.

HMA shoulder stabilization at guardrail will be paid for according to Article 482.08.

Excavation in rock will be paid for according to Article 502.13.

Steel plate beam guardrail incorporating long-span spacing will be paid for at the contract unit price per foot (meter) for LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN (3.8 M) SPAN; LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN (5.7 M) SPAN; or LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT (7.6 M) SPAN.

Steel plate beam guardrail incorporating treated timber at the back side of the post will be paid for at the contract unit price per foot (meter) for BACK SIDE PROTECTION OF GUARDRAIL."

80379

**SUBCONTRACTOR MOBILILATION PAYMENTS (BDE)**

Effective: November 2, 2017

Replace the second paragraph of Article 109.12 of the Standard Specifications with the following:

“This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor’s work.

| Value of Subcontract Reported on Form BC 260A | Mobilization Percentage |
|-----------------------------------------------|-------------------------|
| Less than \$10,000                            | 25%                     |
| \$10,000 to less than \$20,000                | 20%                     |
| \$20,000 to less than \$40,000                | 18%                     |
| \$40,000 to less than \$60,000                | 16%                     |
| \$60,000 to less than \$80,000                | 14%                     |
| \$80,000 to less than \$100,000               | 12%                     |
| \$100,000 to less than \$250,000              | 10%                     |
| \$250,000 to less than \$500,000              | 9%                      |
| \$500,000 to \$750,000                        | 8%                      |
| Over \$750,000                                | 7%                      |

80391

**TEMPORARY PAVEMENT MARKING (BDE)**

Effective: April 1, 2012

Revised: April 1, 2017

Revise Article 703.02 of the Standard Specifications to read:

**"703.02 Materials.** Materials shall be according to the following.

- (a) Pavement Marking Tape, Type I and Type III ..... 1095.06
- (b) Paint Pavement Markings ..... 1095.02
- (c) Pavement Marking Tape, Type IV ..... 1095.11"

Revise the second paragraph of Article 703.05 of the Standard Specifications to read:

"Type I marking tape or paint shall be used at the option of the Contractor, except paint shall not be applied to the final wearing surface unless authorized by the Engineer for late season applications where tape adhesion would be a problem. Type III or Type IV marking tape shall be used on the final wearing surface when the temporary pavement marking will conflict with the permanent pavement marking such as on tapers, crossovers and lane shifts."

Revise Article 703.07 of the Standard Specifications to read:

**"703.07 Basis of Payment.** This work will be paid for as follows.

- a) Short Term Pavement Marking. Short term pavement marking will be paid for at the contract unit price per foot (meter) for SHORT TERM PAVEMENT MARKING. Removal of short term pavement markings will be paid for at the contract unit price per square foot (square meter) for SHORT TERM PAVEMENT MARKING REMOVAL.
- b) Temporary Pavement Marking. Where the Contractor has the option of material type, temporary pavement marking will be paid for at the contract unit price per foot (meter) for TEMPORARY PAVEMENT MARKING of the line width specified, and at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS.

Where the Department specifies the use of pavement marking tape, the Type III or Type IV temporary pavement marking will be paid for at the contract unit price per foot (meter) for PAVEMENT MARKING TAPE, TYPE III or PAVEMENT MARKING TAPE, TYPE IV of the line width specified and at the contract unit price per square feet (square meter) for PAVEMENT MARKING TAPE, TYPE III - LETTERS AND SYMBOLS or PAVEMENT MARKING TAPE, TYPE IV - LETTERS AND SYMBOLS.

Removal of temporary pavement markings will be paid for at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING REMOVAL.

When temporary pavement marking is shown on the Standard, the cost of the temporary pavement marking and its removal will be included in the cost of the Standard."

Add the following to Section 1095 of the Standard Specifications:

**"1095.11 Pavement Marking Tape, Type IV.** The temporary, preformed, patterned markings shall consist of a white or yellow tape with wet retroreflective media incorporated to provide immediate and continuing retroreflection during both wet and dry conditions. The tape shall be manufactured without the use of heavy metals including lead chromate pigments or other similar, lead-containing chemicals.

The white and yellow Type IV marking tape shall meet the Type III requirements of Article 1095.06 and the following.

- (a) **Composition.** The retroreflective pliant polymer pavement markings shall consist of a mixture of high-quality polymeric materials, pigments and glass beads distributed throughout its base cross-sectional area, with a layer of wet retroreflective media bonded to a durable polyurethane topcoat surface. The patterned surface shall have approximately 40% ± 10% of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed beads or particles.
- (b) **Retroreflectance.** The white and yellow markings shall meet the following for initial dry and wet retroreflectance.
  - (1) **Dry Retroreflectance.** Dry retroreflectance shall be measured under dry conditions according to ASTM D 4061 and meet the values described in Article 1095.06 for Type III tape.
  - (2) **Wet Retroreflectance.** Wet retroreflectance shall be measured under wet conditions according to ASTM E 2177 and meet the values shown in the following table.

**Wet Retroreflectance, Initial R<sub>L</sub>**

| Color  | R <sub>L</sub> 1.05/88.76 |
|--------|---------------------------|
| White  | 300                       |
| Yellow | 200                       |

- (c) **Color.** The material shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degrees circumferential/zero degree geometry, illuminant D65, and a two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

| Color   | Daylight Reflectance %Y |
|---------|-------------------------|
| White   | 65 minimum              |
| *Yellow | 36-59                   |

\*Shall match Federal 595 Color No. 33538 and the chromaticity limits as follows.

|   |       |       |       |       |
|---|-------|-------|-------|-------|
| x | 0.490 | 0.475 | 0.485 | 0.530 |
| y | 0.470 | 0.438 | 0.425 | 0.456 |

- (d) Skid Resistance. The surface of the markings shall provide an average minimum skid resistance of 50 BPN when tested according to ASTM E 303.
- (e) Sampling, Testing, Acceptance, and Certification. Prior to approval and use of the wet reflective, temporary, removable pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements as set forth herein. The certification test report shall state the lot tested, manufacturer's name, and date of manufacture.

After approval by the Department, samples and certification by the manufacturer shall be submitted for each batch used. The manufacturer shall submit a certification stating that the material meets the requirements as set forth herein and is essentially identical to the material sent for qualification. The certification shall state the lot tested, manufacturer's name, and date of manufacture.

- All costs of testing (other than tests conducted by the Department) shall be borne by the manufacturer."

80298



**TRAINING SPECIAL PROVISIONS (BDE)** This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 1. In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

## **WEEKLY DBE TRUCKING REPORTS (BDE)**

Effective: June 2, 2012

Revised: April 2, 2015

The Contractor shall submit a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used for DBE goal credit.

The report shall be submitted to the Engineer on Department form "SBE 723" within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

80302

## CONCRETE WEARING SURFACE

Effective: June 23, 1994

Revised: October 4, 2016

Description. This work consists of placing a concrete wearing surface, to the specified thickness, on precast concrete members such as deck beams and deck panels. Included in this work is cleaning and preparing the precast concrete surface prior to placement of the concrete wearing surface. This work shall be according to the applicable articles of Section 503 and the following.

Materials. The concrete wearing surface shall be class BS concrete, except as follows, when Steel Bridge Rail is used in conjunction with concrete wearing surface, the 14 day mix design shall be replaced by a 28 day mix design with a compressive strength of 5000 psi (34,500 kPa) and a design flexural strength of 800 psi (5,500 kPa).

Equipment: The equipment used shall be subject to the approval of the Engineer and shall meet the following requirements:

(a) Surface Preparation Equipment. Surface preparation equipment shall be according to the applicable portions of Section 1100 and the following:

(1) Hand-Held Blast Cleaning Equipment. Blast cleaning using hand-held equipment may be performed by high-pressure waterblasting or abrasive blasting. Hand-held blast cleaning equipment shall have oil traps.

Hand-held high-pressure waterblasting equipment shall have a minimum water pressure of 7000 psi (48 MPa).

(2) Vacuum Cleanup Equipment. The equipment shall be equipped with fugitive dust control devices capable of removing wet debris and water all in the same pass. Vacuum equipment shall also be capable of washing the deck with pressurized water prior to the vacuum operation to dislodge all debris and slurry from the deck surface.

(b) Concrete Equipment: Equipment for proportioning and mixing the concrete shall be according to Article 1020.03.

(c) Finishing Equipment. Finishing equipment shall be according to Article 503.03.

(d) Mechanical Fogging Equipment. Mechanical fogging equipment shall be according to 503.03.

## CONSTRUCTION REQUIREMENTS

Surface Preparation. Prior to placement of the concrete wearing surface, the top surface of the precast concrete members shall be clean and free of all foreign material.

All debris of every type, including dirty water, resulting from the cleaning operation shall be reasonably confined during the performance of the cleaning work and shall be immediately and thoroughly removed from the cleaned surfaces and all other areas where debris may have accumulated.

Prior to placement of the concrete wearing surface, the Engineer will inspect the cleaned surface, all areas still contaminated shall be cleaned again at the Contractor's expense.

Wearing Surface Placement. The concrete wearing surface placement shall be according to Article 503.16 of the Standard Specifications. Areas to receive the overlay shall be either thoroughly or continuously wetted with water at least one hour before placement of the concrete wearing surface is started. When the surface is pre-wetted any accumulations of water shall be dispersed or removed prior to placement of the concrete wearing surface.

Plans for anchoring support rails and the mixture-placing procedure shall be submitted to the Engineer for approval.

Curing and Protection. The concrete shall be continuously wet cured for at least 14 days according to Article 1020.13(a)(5). However, if the minimum specified compressive strength or flexural strength is obtained prior to 14 days, the cure time may be reduced, but at no time shall the wet cure be less than 7 days. The concrete shall be protected from low air temperatures according to Article 1020.13(d)(1) or (2), except the protection method shall remain in place for the entire curing period.

Opening to Traffic. The concrete wearing surface without Steel Bridge Rail attached may be opened to traffic when test specimens have obtained a minimum compressive strength of 4000 psi (27,500 kPa) or a minimum flexural strength of 675 psi (4650 kPa), but not prior to the completion of the wet cure. When Steel Bridge Rail is utilized, the concrete wearing surface may be opened when test specimens have obtained a minimum compressive strength of 5000 psi (34,500 kPa) or a minimum flexural strength of 800 psi (5500 kPa), but not prior to the completion of the wet cure.

Method of Measurement. Concrete wearing surface will be measured for payment in place and the area computed in square yards (square meters).

Basis of Payment. This work including cleaning and surface preparation will be paid for at the contract unit price per square yard (square meter) for CONCRETE WEARING SURFACE, of the thickness specified.

## **PIPE UNDERDRAINS FOR STRUCTURES**

Effective: May 17, 2000

Revised: January 22, 2010

Description. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

Construction Requirements. All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

Method of Measurement. Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

## STRUCTURAL REPAIR OF CONCRETE

Effective: March 15, 2006

Revised: April 1, 2016

Description. This work shall consist of structurally repairing concrete.

Materials. Materials shall be according to the following.

| Item                                             | Article/Section |
|--------------------------------------------------|-----------------|
| (a) Portland Cement Concrete (Note 1) .....      | 1020            |
| (b) R1 or R2 Concrete (Note 2)                   |                 |
| (c) Normal Weight Concrete (Notes 3 and 4)       |                 |
| (d) Shotcrete (High Performance) (Notes 5 and 6) |                 |
| (e) Reinforcement Bars .....                     | 1006.10         |
| (f) Anchor Bolts .....                           | 1006.09         |
| (g) Water .....                                  | 1002            |
| (h) Curing Compound .....                        | 1022.01         |
| (i) Cotton Mats .....                            | 1022.02         |
| (j) Protective Coat .....                        | 1023.01         |
| (k) Epoxy (Note 7) .....                         | 1025            |
| (l) Mechanical Bar Splicers .....                | 508.06(c)       |

Note 1. The concrete shall be Class SI, except the cement factor shall be a minimum 6.65 cwt/cu yd (395 kg/cu m), the coarse aggregate shall be a CA 16, and the strength shall be a minimum 4000 psi (27,500 kPa) compressive or 675 psi (4650 kPa) flexural at 14 days. A high range water-reducing admixture shall be used to obtain a 5-7 in. (125-175 mm) slump, but a cement factor reduction according to Article 1020.05(b)(8) is prohibited. A self-consolidating concrete mixture is also acceptable per Article 1020.04, except the mix design requirements of this note regarding the cement factor, coarse aggregate, strength, and cement factor reduction shall apply.

Note 2. The R1 or R2 concrete shall be from the Department's approved list of Packaged, Dry, Rapid Hardening, Cementitious Materials for Concrete Repairs. The R1 or R2 concrete shall comply with the air content and strength requirements for Class SI concrete as indicated in Note 1. Mixing shall be per the manufacturer's recommendations, except the water/cement ratio shall not exceed the value specified for Class SI concrete as indicated in Note 1. A high range water-reducing admixture shall be used to obtain a 5-7 in. (125-175 mm) slump, and a retarder may be required to allow time to perform the required field tests. The admixtures shall be per the manufacturer's recommendation, and the Department's approved list of Concrete Admixtures shall not apply.

Note 3. The "high slump" packaged concrete mixture shall be from the Department's approved list of Packaged, Dry, Formed, Concrete Repair Mixtures. The materials and preparation of aggregate shall be according to ASTM C 387. The cement



factor shall be 6.65 cwt/cu yd (395 kg/cu m) minimum to 7.05 cwt/cu yd (418 kg/cu m) maximum. Cement replacement with fly ash or ground granulated blast-furnace slag shall be according to Section 1020. The "high slump" packaged concrete mixture shall have a water soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the "high slump" packaged concrete mixture shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every two years, and the test results shall be provided to the Department. The coarse aggregate shall be a maximum size of 1/2 in. (12.5 mm). The packaged concrete mixture shall comply with the air content and strength requirements for Class SI concrete as indicated in Note 1. Mixing shall be per the manufacturer's recommendations, except the water/cement ratio shall not exceed the value specified for Class SI concrete as indicated in Note 1. A high range water-reducing admixture shall be used to obtain a 5-7 in. (125-175 mm) slump. The admixture shall be per the manufacturer's recommendation, and the Department's approved list of Concrete Admixtures shall not apply. A maximum slump of 10 in. (250 mm) may be permitted if no segregation is observed by the Engineer in a laboratory or field evaluation.

Note 4 The "self-consolidating concrete" packaged concrete mixture shall be from the Department's approved list of Packaged, Dry, Formed, Concrete Repair Mixtures. The materials and preparation of aggregate shall be according to ASTM C 387. The cement factor shall be 6.65 cwt/cu yd (395 kg/cu m) minimum to 7.05 cwt/cu yd (418 kg/cu m) maximum. Cement replacement with fly ash or ground granulated blast-furnace slag shall be according to Section 1020. The "self-consolidating concrete" packaged concrete mixture shall have a water soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the "self-consolidating concrete" packaged concrete mixture shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every two years, and the test results shall be provided to the Department. The concrete mixture should be uniformly graded, and the coarse aggregate shall be a maximum size of 1/2 in. (12.5 mm). The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used. The packaged concrete mixture shall comply with the air content and strength requirements for Class SI concrete as indicated in Note 1. Mixing shall be per the manufacturer's recommendations, except the water/cement ratio shall not exceed the value specified for Class SI concrete as indicated in Note 1. The admixtures used to produce self-consolidating concrete shall be per the manufacturer's recommendation, and the Department's approved list of Concrete Admixtures shall not apply. The packaged concrete mixture shall meet the self-consolidating requirements of Article 1020.04.

Note 5. Packaged shotcrete that includes aggregate shall be from the Department's approved list of Packaged High Performance Shotcrete, and independent

laboratory test results showing the product meets Department specifications will be required. The product shall be a packaged, pre-blended, and dry combination of materials, for the wet-mix shotcrete method according to ASTM C 1480. A non-chloride accelerator may be used according to the shotcrete manufacturer's recommendations. The shotcrete shall be Type FA or CA, Grade FR, and Class I. The fibers shall be Type III synthetic according to ASTM C 1116.

The packaged shotcrete shall have a water soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the hardened shotcrete shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every two years, and the test results shall be provided to the Department.

Each individual aggregate used in the packaged shotcrete shall have either a maximum ASTM C 1260 expansion of 0.16 percent or a maximum ASTM C 1293 expansion of 0.040 percent. However, the ASTM C 1260 value may be increased to 0.27 percent for each individual aggregate if the cement total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) does not exceed 0.60 percent. As an alternative to these requirements, ASTM C 1567 testing which shows the packaged shotcrete has a maximum expansion of 0.16 percent may be submitted. The ASTM C 1260, C 1293, or C 1567 test shall be performed a minimum of once every two years.

The 7 and 28 day compressive strength requirements in ASTM C 1480 shall not apply. Instead the shotcrete shall obtain a minimum compressive strength of 4000 psi (27,500 kPa) at 14 days.

The packaged shotcrete shall be limited to the following proportions:

The portland cement and finely divided minerals shall be 6.05 cwt/cu yd (360 kg/cu m) to 8.50 cwt/cu yd (505 kg/cu m) for Type FA and 6.05 cwt/cu yd (360 kg/cu. m) to 7.50 cwt/cu yd (445 kg/cu m) for Type CA. The portland cement shall not be below 4.70 cwt/cu yd (279 kg/cu m) for Type FA or CA.

The finely divided mineral(s) shall constitute a maximum of 35 percent of the total cement plus finely divided mineral(s).

Class F fly ash is optional and the maximum shall be 20 percent by weight (mass) of cement.

Class C fly ash is optional and the maximum shall be 25 percent by weight (mass) of cement.

Ground granulated blast-furnace slag is optional and the maximum shall be 30 percent by weight (mass) of cement.

Microsilica is required and shall be a minimum of 5 percent by weight (mass) of cement, and a maximum of 10 percent. As an alternative to microsilica, high-reactivity metakaolin may be used at a minimum of 5 percent by weight (mass) of cement, and a maximum of 10 percent.

Fly ash shall not be used in combination with ground granulated blast-furnace slag. Class F fly ash shall not be used in combination with Class C fly ash. Microsilica shall not be used in combination with high-reactivity metakaolin. A finely divided mineral shall not be used in combination with a blended hydraulic cement, except for microsilica or high-reactivity metakaolin.

The water/cement ratio as defined in Article 1020.06 shall be a maximum of 0.42.

The air content as shot shall be 4.0 – 8.0 percent.

Note 6 Packaged shotcrete that does not include pre-blended aggregate shall be from the Department's approved list of Packaged High Performance Shotcrete, and independent laboratory test results showing the product meets Department specifications will be required. The shotcrete shall be according to Note 5, except the added aggregate shall be according to Articles 1003.02 and 1004.02 in addition to each individual aggregate meeting the maximum expansion requirements of Note 5. The aggregate gradation shall be according to the manufacturer. The shotcrete shall be batched and mixed with added aggregate according to the manufacturer.

Note 7. In addition ASTM C 881, Type IV, Grade 2 or 3, Class A, B, or C may be used.

Equipment. Equipment shall be according to Article 503.03 and the following.

Chipping Hammer – The chipping hammer for removing concrete shall be a light-duty pneumatic or electric tool with a 15 lb. (7 kg) maximum class or less.

Blast Cleaning Equipment – Blast cleaning equipment for concrete surface preparation shall be the abrasive type, and the equipment shall have oil traps.

Hydrodemolition Equipment – Hydrodemolition equipment for removing concrete shall be calibrated, and shall use water according to Section 1002.

High Performance Shotcrete Equipment – The batching, mixing, pumping, hose, nozzle, and auxiliary equipment shall be for the wet-mix shotcrete method, and shall meet the requirements of ACI 506R.

### Construction Requirements

General. The repair methods shall be either formed concrete repair or shotcrete. The repair method shall be selected by the Contractor with the following rules.

- (a) Rule 1. For formed concrete repair, a subsequent patch to repair the placement point after initial concrete placement will not be allowed. As an example, this may occur in a vertical location located at the top of the repair.
- (b) Rule 2. Formed concrete repair shall not be used for overhead applications.
- (c) Rule 3. If formed concrete repair is used for locations that have reinforcement with less than 0.75 in. (19 mm) of concrete cover, the concrete mixture shall contain fly ash or ground granulated blast-furnace slag at the maximum cement replacement allowed.
- (d) Rule 4. Shotcrete shall not be used for any repair greater than 6 in. (150 mm) in depth, except in horizontal applications, where the shotcrete may be placed from above in one lift.
- (e) Rule 5. Shotcrete shall not be used for column repairs greater than 4 in. (100 mm) in depth, unless the shotcrete mixture contains 3/8 in. (9.5 mm) aggregate.

Temporary Shoring or Cribbing. When a temporary shoring or cribbing support system is required, the Contractor shall provide details and computations, prepared and sealed by an Illinois licensed Structural Engineer, to the Department for review and approval. When ever possible the support system shall be installed prior to starting the associated concrete removal. If no system is specified, but during the course of removal the need for temporary shoring or cribbing becomes apparent or is directed by the Engineer due to a structural concern, the Contractor shall not proceed with any further removal work until an appropriate and approved support system is installed.

Concrete Removal. The Contractor shall provide ladders or other appropriate equipment for the Engineer to mark the removal areas. Repair configurations will be kept simple, and squared corners will be preferred. The repair perimeter shall be sawed a depth of 1/2 in. (13 mm) or less, as required to avoid cutting the reinforcement. Any cut reinforcement shall be repaired or replaced at the expense of the Contractor. If the concrete is broken or removed beyond the limits of the initial saw cut, the new repair perimeter shall be recut. The areas to be repaired shall have all loose, unsound concrete removed completely by the use of chipping hammers, hydrodemolition equipment, or other methods approved by the Engineer. The concrete removal shall extend along the reinforcement bar until the reinforcement is free of bond inhibiting corrosion. Reinforcement bar with 50 percent or more exposed shall be undercut to a depth of 3/4 in. (19 mm) or the diameter of the reinforcement bar, whichever is greater.

If sound concrete is encountered before existing reinforcement bars are exposed, further removal of concrete shall not be performed unless the minimum repair depth is not met.

The repair depth shall be a minimum of 1 in. (25 mm). The substrate profile shall be  $\pm 1/16$  in. ( $\pm 1.5$  mm). The perimeter of the repair area shall have a vertical face.

If a repair is located at the ground line, any excavation required below the ground line to complete the repair shall be included in this work.

The Contractor shall have a maximum of 14 calendar days to complete each repair location with concrete or shotcrete, once concrete removal has started for the repair.

The Engineer shall be notified of concrete removal that exceeds 6 in. (150 mm) in depth, one fourth the cross section of a structural member, more than half the vertical column reinforcement is exposed in a cross section, more than 6 consecutive reinforcement bars are exposed in any direction, within 1.5 in. (38 mm) of a bearing area, or other structural concern. Excessive deterioration or removal may require further evaluation of the structure or installation of temporary shoring and cribbing support system.

Surface Preparation. Prior to placing the concrete or shotcrete, the Contractor shall prepare the repair area and exposed reinforcement by blast cleaning. The blast cleaning shall provide a surface that is free of oil, dirt, and loose material.

If a succeeding layer of shotcrete is to be applied, the initial shotcrete surface and remaining exposed reinforcement shall be free of curing compound, oil, dirt, loose material, rebound (i.e. shotcrete material leaner than the original mixture which ricochets off the receiving surface), and overspray. Preparation may be by lightly brushing or blast cleaning if the previous shotcrete surface is less than 36 hours old. If more than 36 hours old, the surface shall be prepared by blast cleaning.

The repair area and perimeter vertical face shall have a rough surface. Care shall be taken to ensure the sawcut face is roughened by blast cleaning. Just prior to concrete or shotcrete placement, saturate the repair area with water to a saturated surface-dry condition. Any standing water shall be removed.

Concrete or shotcrete placement shall be done within 3 calendar days of the surface preparation or the repair area shall be prepared again.

Reinforcement. Exposed reinforcement bars shall be cleaned of concrete and corrosion by blast cleaning. After cleaning, all exposed reinforcement shall be carefully evaluated to determine if replacement or additional reinforcement bars are required.

Reinforcing bars that have been cut or have lost 25 percent or more of their original cross sectional area shall be supplemented by new in kind reinforcement bars. New bars shall be lapped a minimum of 32 bar diameters to existing bars. A mechanical bar splicer shall be used when it is not feasible to provide the minimum bar lap. No welding of bars shall be performed.

Intersecting reinforcement bars shall be tightly secured to each other using 0.006 in. (1.6 mm) or heavier gauge tie wire, and shall be adequately supported to minimize movement during concrete placement or application of shotcrete.

For reinforcement bar locations with less than 0.75 in. (19 mm) of cover, protective coat shall be applied to the completed repair. The application of the protective coat shall be according to Article 503.19, 2nd paragraph, except blast cleaning shall be performed to remove curing compound.

The Contractor shall anchor the new concrete to the existing concrete with 3/4 in. (19 mm) diameter hook bolts for all repair areas where the depth of concrete removal is greater than 8 in. (205 mm) and there is no existing reinforcement extending into the repair area. The hook bolts shall be spaced at 15 in. (380 mm) maximum centers both vertically and horizontally, and shall be a minimum of 12 in. (305 mm) away from the perimeter of the repair. The hook bolts shall be installed according to Section 584.

Repair Methods. All repair areas shall be inspected and approved by the Engineer prior to placement of the concrete or application of the shotcrete.

- (a) Formed Concrete Repair. Falsework shall be according to Article 503.05. Forms shall be according to Article 503.06. Formwork shall provide a smooth and uniform concrete finish, and shall approximately match the existing concrete structure. Formwork shall be mortar tight and closely fitted where they adjoin the existing concrete surface to prevent leakage. Air vents may be provided to reduce voids and improve surface appearance. The Contractor may use exterior mechanical vibration, as approved by the Engineer, to release air pockets that may be entrapped.

The concrete for formed concrete repair shall be a Class SI Concrete, or a packaged R1 or R2 Concrete with coarse aggregate added, or a packaged Normal Weight Concrete at the Contractor's option. The concrete shall be placed and consolidated according to Article 503.07. The concrete shall not be placed when frost is present on the surface of the repair area, or the surface temperature of the repair area is less than 40 °F (4 °C). All repaired members shall be restored as close as practicable to their original dimensions.

Curing shall be done according to Article 1020.13.

If temperatures below 45°F (7°C) are forecast during the curing period, protection methods shall be used. Protection Method I according to Article 1020.13(d)(1), or Protection Method II according to Article 1020.13(d)(2) shall be used during the curing period.

The surfaces of the completed repair shall be finished according to Article 503.15.

- (b) Shotcrete. Shotcrete shall be tested by the Engineer for air content according to Illinois Modified AASHTO T 152. The sample shall be obtained from the discharge end of the nozzle by shooting a pile large enough to scoop a representative amount for filling the air meter measuring bowl. Shotcrete shall not be shot directly into the measuring bowl for testing.

For compressive strength of shotcrete, a 18 x 18 x 3.5 in. (457 x 457 x 89 mm) test panel shall be shot by the Contractor for testing by the Engineer. A steel form test panel shall have a minimum thickness of 3/16 in. (5 mm) for the bottom and sides. A wood form test panel shall have a minimum 3/4 in. (19 mm) thick bottom, and a minimum 1.5 in. (38 mm) thickness for the sides. The test panel shall be cured according to Article 1020.13 (a) (3) or (5) while stored at the jobsite and during delivery to the laboratory. After delivery to the laboratory for testing, curing and testing shall be according to ASTM C 1140.

The method of alignment control (i.e. ground wires, guide strips, depth gages, depth probes, and formwork) to ensure the specified shotcrete thickness and reinforcing bar cover is obtained shall be according to ACI 506R. Ground wires shall be removed after completion of cutting operations. Guide strips and formwork shall be of dimensions and a configuration that do not prevent proper application of shotcrete. Metal depth gauges shall be cut 1/4 in. (6 mm) below the finished surface. All repaired members shall be restored as close as practicable to their original dimensions.

For air temperature limits when applying shotcrete in cold weather, the first paragraph of Article 1020.14(b) shall apply. For hot weather, shotcrete shall not be applied when the air temperature is greater than 90°F (32°C). The applied shotcrete shall have a minimum temperature of 50°F (10°C) and a maximum temperature of 90°F (32°C). The shotcrete shall not be applied during periods of rain unless protective covers or enclosures are installed. The shotcrete shall not be applied when frost is present on the surface of the repair area, or the surface temperature of the repair area is less than 40°F (4°C). If necessary, lighting shall be provided to provide a clear view of the shooting area.

The shotcrete shall be applied according to ACI 506R, and shall be done in a manner that does not result in cold joints, laminations, sandy areas, voids, sags, or separations. In addition, the shotcrete shall be applied in a manner that results in maximum densification of the shotcrete. Shotcrete which is identified as being unacceptable while still plastic shall be removed and re-applied.

The nozzle shall normally be at a distance of 2 to 5 ft. (0.6 to 1.5 m) from the receiving surface, and shall be oriented at right angles to the receiving surface. Exceptions to this requirement will be permitted to fill corners, encase large diameter reinforcing bars, or as approved by the Engineer. For any exception, the nozzle shall never be oriented more than 45 degrees from the surface. Care shall be taken to keep the front face of the reinforcement bar clean during shooting operations. Shotcrete shall be built up from behind the reinforcement bar. Accumulations of rebound and overspray shall be continuously removed prior to application of new shotcrete. Rebound material shall not be incorporated in the work.

Whenever possible, shotcrete shall be applied to the full thickness in a single layer. The maximum thickness shall be according to Rules 4 and 5 under Construction Requirements, General. When two or more layers are required, the minimum number shall be used and shall be done in a manner without sagging or separation. A flash coat (i.e. a thin layer of up to 1/4 in. (6 mm) applied shotcrete) may be used as the final lift for overhead applications.

Prior to application of a succeeding layer of shotcrete, the initial layer of shotcrete shall be prepared according to the surface preparation and reinforcement bar cleaning requirements. Upon completion of the surface preparation and reinforcement bar treatment, water shall be applied according to the surface preparation requirements unless the surface is moist. The second layer of shotcrete shall then be applied within 30 minutes.

Shotcrete shall be cut back to line and grade using trowels, cutting rods, screeds or other suitable devices. The shotcrete shall be allowed to stiffen sufficiently before cutting. Cutting shall not cause cracks or delaminations in the shotcrete. For depressions, cut material may be used for small areas. Rebound material shall not be incorporated in the work. For the final finish, a wood float shall be used to approximately match the existing concrete texture. A manufacturer approved finishing aid may be used. Water shall not be used as a finishing aid. All repaired members shall be restored as close as practicable to their original dimensions.

Contractor operations for curing shall be continuous with shotcrete placement and finishing operations. Curing shall be accomplished using wetted cotton mats, membrane curing, or a combination of both. Cotton mats shall be applied according to Article 1020.13(a)(5) except the exposed layer of shotcrete shall be covered within 10 minutes after finishing, and wet curing shall begin immediately. Curing compound shall be applied according to Article 1020.13(a)(4), except the curing compound shall be applied as soon as the shotcrete has hardened sufficiently to prevent marring the surface, and each of the two separate applications shall be applied in opposite directions to ensure coverage. The curing compound shall be according to Article 1022.01. Note 5 of the Index Table in Article 1020.13 shall apply to the membrane curing method.

When a shotcrete layer is to be covered by a succeeding shotcrete layer within 36 hours, the repair area shall be protected with intermittent hand fogging, or wet curing with either



burlap or cotton mats shall begin within 10 minutes. Intermittent hand fogging may be used only for the first hour. Thereafter, wet curing with burlap or cotton mats shall be used until the succeeding shotcrete layer is applied. Intermittent hand fogging may be extended to the first hour and a half if the succeeding shotcrete layer is applied by the end of this time.

The curing period shall be for 7 days, except when there is a succeeding layer of shotcrete. In this instance, the initial shotcrete layer shall be cured until the surface preparation and reinforcement bar treatment is started.

If temperatures below 45°F (7°C) are forecast during the curing period, protection methods shall be used. Protection Method I according to Article 1020.13(d)(1), or Protection Method II according to Article 1020.13(d)(2) shall be used during the curing period

Inspection of Completed Work. The Contractor shall provide ladders or other appropriate equipment for the Engineer to inspect the repaired areas. After curing but no sooner than 28 days after placement of concrete or shooting of shotcrete, the repair shall be examined for conformance with original dimensions, cracks, voids, and delaminations. Sounding for delaminations will be done with a hammer or by other methods determined by the Engineer.

The acceptable tolerance for conformance of a repaired area shall be within 1/4 in. (6 mm) of the original dimensions. A repaired area not in dimensional conformance or with delaminations shall be removed and replaced.

A repaired area with cracks or voids shall be considered as nonconforming. Exceeding one or more of the following crack and void criteria shall be cause for removal and replacement of a repaired area.

1. The presence of a single surface crack greater than 0.01 in. (0.25 mm) in width and greater than 12 in. (300 mm) in length.
2. The presence of two or more surface cracks greater than 0.01 in. (0.25 mm) in width that total greater than 24 in. (600 mm) in length.
3. The presence of map cracking in one or more regions totaling 15 percent or more of the gross surface area of the repair.
4. The presence of two or more surface voids with least dimension 3/4 in. (19 mm) each.

A repaired area with cracks or voids that do not exceed any of the above criteria may remain in place, as determined by the Engineer.

If a nonconforming repair is allowed to remain in place, cracks greater than 0.007 in. (0.2 mm) in width shall be repaired with epoxy according to Section 590. For cracks less than or equal to

0.007 in. (0.2 mm) in width, the epoxy may be applied to the surface of the crack. Voids shall be repaired according to Article 503.15.

Publications and Personnel Requirements. The Contractor shall provide a current copy of ACI 506R to the Engineer a minimum of one week prior to start of construction.

The shotcrete personnel who perform the work shall have current American Concrete Institute (ACI) nozzlemen certification for vertical wet and overhead wet applications, except one individual may be in training. This individual shall be adequately supervised by a certified ACI nozzlemen as determined by the Engineer. A copy of the nozzlemen certificate(s) shall be given to the Engineer.

Method of Measurement. This work will be measured for payment in place and the area computed in square feet (square meters). For a repair at a corner, both sides will be measured.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 IN. (125 MM)), STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 IN. (125 MM)).

When not specified to be paid for elsewhere, the work to design, install, and remove the temporary shoring and cribbing will be paid for according to Article 109.04.

With the exception of reinforcement damaged by the Contractor during removal, the furnishing and installation of supplemental reinforcement bars, mechanical bar splicers, hook bolts, and protective coat will be paid according to Article 109.04.