SPECIAL PROVISIONS

Keslinger Road Bridge
Over Welch Creek

FAS 0110
Job No. C-91-196-04
Section No. 01-00267-00-BR
Project No. BRS-0110 (111)

Kane County Division of Transportation
Kane County, Illinois

May12, 2009

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2009

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 1-1-07) (Revised 1-1-08)

SUPPLEMENTAL SPECIFICATIONS

Std. Spec. Sec.		Page No.
201	Clearing, Tree Removal and Protection	1
205	Embankment	2
251	Mulch	3
253	Planting Woody Plants	4
280	Temporary Erosion Control	6
443	Reflective Crack Control Treatment	7
502	Excavation for Structures	10
503	Concrete Structures	11
504	Precast Concrete Structures	12
505	Steel Structures	13
540	Box Culverts	14
581	Waterproofing Membrane System	15
633	Removing and Re-erecting Guardrail and Terminals	16
669	Removal and Disposal of Regulated Substances	17
672	Sealing Abandoned Water Wells	18
701	Work Zone Traffic Control and Protection	19
733	Overhead Sign Structures	20
783	Pavement Marking and Marker Removal	21
801	Electrical Requirements	22
805	Electrical Service Installation – Traffic Signals	23
836	Pole Foundation	24
838	Breakaway Devices	25
862	Uninterruptable Power Supply	26
873	Electric Cable	28
878	Traffic Signal Concrete Foundation	30
1004	Coarse Aggregates	31
1008	Structural Steel Coatings	32
1010	Finely Divided Materials	33
1020	Portland Cement Concrete	34
1022	Concrete Curing Materials	43
1024	Nonshrink Grout	44
1042	Precast Concrete Products	45
1062	Reflective Crack Control System	47
1069	Pole and Tower	49
1074	Control Equipment	52
1076	Wire and Cable	57
1081	Materials for Planting	58
1083	Elastomeric Bearings	60
1094	Overhead Sign Structures	61
1101	General Equipment	62
1102	Hot-Mix Asphalt Equipment	63
1106	Work Zone Traffic Control Devices	64

RECURRING SPECIAL PROVISIONS

Adopted January 1, 2008

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

CHECK SHEET #			PAGE NO.
X	1	Additional State Requirements For Federal-Aid Construction Contracts (Eff. 2-1-69) (Rev. 1-1-07)	65
X	2	Subletting of Contracts (Federal-aid Contracts) (Eff. 1-1-88) (Rev. 5-1-93)	67
X	3	EEO (Eff. 7-21-78) (Rev. 11-18-80)	68
	4	Specific Equal Employment Opportunity Responsibilities Nonfederal-aid Contracts (Eff. 3-20-69) (Rev. 1-1-94)	78
	5	Required Provisions - State Contracts (Eff. 4-1-65) (Rev. 1-1-07)	83
	6	Reserved	88
	7	Reserved	89
	8	Haul Road Stream Crossings, Other Temporary Stream Crossings and In-Stream Work Pads (Eff. 1-2-92) (Rev. 1-1-98)	90
	9	Construction Layout Stakes Except for Bridges (Eff. 1-1-99) (Rev. 1-1-07)	91
X	10	Construction Layout Stakes (Eff. 5-1-93) (Rev. 1-1-07)	94
	11	Use of Geotextile Fabric for Railroad Crossing (Eff. 1-1-95) (Rev. 1-1-07)	97
	12	Subsealing of Concrete Pavements (Eff. 11-1-84) (Rev. 1-1-07)	99
	13	Hot-Mix Asphalt Surface Correction (Eff. 11-1-87) (Rev. 1-1-09)	103
	14	Pavement and Shoulder Resurfacing (Eff. 2-1-00) (Rev. 1-1-09)	105
	15	PCC Partial Depth Hot-Mix Asphalt Patching (Eff. 1-1-98) (Rev. 1-1-07)	106
	16	Patching with Hot-Mix Asphalt Overlay Removal (Eff. 10-1-95) (Rev. 1-1-07)	108
	17	Polymer Concrete (Eff. 8-1-95) (Rev. 1-1-08)	109
	18	PVC Pipe liner (Eff. 4-1-04) (Rev. 1-1-07)	111
X	19	Pipe Underdrains (Eff. 9-9-87) (Rev. 1-1-07)	112
X	20	Guardrail and Barrier Wall Delineation (Eff. 12-15-93) (Rev. 1-1-97)	113
	21	Bicycle Racks (Eff. 4-1-94) (Rev. 1-1-07)	117
	22	Temporary Modular Glare Screen System (Eff. 1-1-00) (Rev. 1-1-07)	119
	23	Temporary Portable Bridge Traffic Signals (Eff. 8-1-03) (Rev. 1-1-07)	121
X	24	Work Zone Public Information Signs (Eff. 9-1-02) (Rev. 1-1-07)	123
	25	Night Time Inspection of Roadway Lighting (Eff. 5-1-96)	124
	26	English Substitution of Metric Bolts (Eff. 7-1-96)	125
	27	English Substitution of Metric Reinforcement Bars (Eff. 4-1-96) (Rev. 1-1-03)	126
	28	Calcium Chloride Accelerator for Portland Cement Concrete (Eff. 1-1-01)	127
	29	Reserved	128
	30	Quality Control of Concrete Mixtures at the Plant-Double A (Eff. 8-1-00) (Rev. 1-1-04)	129
X	31	Quality Control/Quality Assurance of Concrete Mixtures (Eff. 4-1-92) (Rev. 1-1-07)	137
	32	Asbestos Bearing Pad Removal (Eff. 11-1-03)	149
	33	Asbestos Hot-Mix Asphalt Surface Removal (Eff. 6-1-89) (Rev. 1-1-09)	150

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

Adopted January 1, 2009

Table of Contents

CHECK SHEET #			PAGE NO.
	LRS1	Reserved	152
	LRS2	Furnished Excavation	153
X	LRS3	Work Zone Traffic Control	154
X	LRS4	Flaggers In Work Zones	155
	LRS5	Contract Claims	156
	LRS6	Bidding Requirements And Conditions For Contract Proposals	157
	LRS7	Bidding Requirements And Conditions For Material Proposals	163
	LRS8	Failure To Complete The Work On Time	169
	LRS9	Bituminous Surface Treatments	170
	LRS10	Reflective Sheeting Type C	171
	LRS11	Employment Practices	172
X	LRS12	Wages Of Employees On Public Works	174
	LRS13	Selection Of Labor	175
	LRS14	Paving Brick and Concrete Paver Pavements and Sidewalks	176
	LRS15	Partial Payments	179

TABLE OF CONTENTS

DESCRIPTION PAGE

1. GENERAL 1
   Special Provisions 1
   Location of Project 1
   Description of Project 1
   Existing Utilities 1
   Maintenance Of Roadways 2
   Completion Date 2
   Indemnification 2
   Status Of Utilities To Be Adjusted 3

2. ROADWAY AND DRIVEWAYS 3
   Earth Excavation 3
   Exploration Trench, Special 4
   Removal and Disposal of Unsuitable Material 5
   Porous Granular Embankment, Subgrade 5
   Aggregate Subgrade, 12" (300 mm) 7
   Reclaimed Asphalt Pavement For Non-Porous Embankment And Backfill 9
   Aggregate Surface Course For Temporary Access 9

3. MANINTENANCE OF TRAFFIC 11
   Traffic Control Plan 11
   Changeable Message Sign, Special 16
   Temporary Information Signing 16
   Kane County Special Provision For Flashing Lights 17

4. STORM SEWERS AND DRAINAGE STRUCTURES 18
   Grating for Concrete Flared End Section Equivalent Round Size 18
   Drain Tile Repair 18
   Pipe Underdrains, 4" (Special) 19

5. SANITARY SEWER 20
   Sanitary Manholes 20
   Sanitary Sewer Force Main 21
   Sewage Air and Vacuum Valve 23
   Gate Valves 23
   Connection to Existing Sewer Mains (Non-Pressure) 24
   Select Granular Backfill 25
   Polyethylene Encasement 26
   Fittings 26
   Reinforced Concrete Thrust Blocks 27
   Restrained Joints 27
   Abandon and Fill Existing Sanitary Sewer 28

6. REMOVALS AND ADJUSTMENTS 29
Removal of Existing Manholes 29
Removal of Existing Structures 29
Remove and Relocate Existing Mailbox 30
Pipe Culvert Removal 30
Driveway and Pavement Removal 31
Saw Cutting 31

7. SIGNING AND PAVEMENT MARKING 32
Signing 32
Epoxy Pavement Marking 32

8. RESTORATION AND EROSION CONTROL 33
Topsoil 33
Wetland Seeding 33
Temporary Ditch Checks, Rolled Excelsior 33
Inlet and Pipe Protection 34
Maintenance of Temporary Erosion Control Systems 34
Temporary Clear Water Diversion 35
Turbidity Curtain 35
Sediment Control, Silt Fence 37
Mowing and General Maintenance of Turf Areas 38
Temporary Erosion Control Seeding 38

9. GUARD RAIL 40
Steel Plate Beam Guardrail, (Short Radius) 40
Traffic Barrier Terminal Type 1, Special (Flared) 40
Guardrail Reflectors 40

10. MISCELLANEOUS ITEMS 42
Preservation of Trees and Shrubs 42
Protection of Property Markers 42
Furnishing and Installing Property Markers 42
Mailbox to be Removed and Replaced 42
Vandalism 43

DISTRICT ONE SPECIAL PROVISIONS
BDE SPECIAL PROVISIONS
STORM WATER POLLUTION PREVENTION PLAN

PERMITS:
Army Corps of Engineers (ACOE)
Kane-DuPage Storm Water Division (KDSWD)
Illinois Division of Natural Resources (IDNR)
Storm Water Pollution Prevention Plan (SWPPP)
Notice Of Intent (NOI)

STATE OF ILLINOIS

1. GENERAL

Special Provisions

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2007 (hereinafter referred to as the "Standard Specifications"); the latest edition of the "Manual on Uniform Traffic Control Devices"; the "Manual of Test Procedures for Materials" in effect on the date of the invitation for bids; and the "Supplemental Specifications and Recurring Special Provisions" indicated on the check sheets included herein; and the Standard Specifications For Water and Sewer Main Construction In Illinois, all of which apply to and govern the reconstruction of:

FAS Route 110 (Keslinger Road)
Job No. C-91-196-04
Section No. 01-00267-00-BR
Kane County, Illinois

In case of conflict with any part or parts of said Specifications, these Special Provisions shall take precedence and shall govern.

Location of Project

This improvement begins at a point on the centerline of Keslinger Road approximately 0.90 miles west of Illinois Route 47 and extends in the easterly direction for 846.72 feet within the Village of Elburn in Kane County. The net length of the improvement is 846.72 feet (0.16 mile).

Description of Project

This is a bridge replacement and roadway reconstruction project and the work to be preformed under this contract consists of bridge removal, twin box culvert installation, pavement removal and reconstruction, placement of embankment, shoulder construction, guardrail installation, placement of pavement marking, landscaping and all incidental and collateral work necessary to complete the project as shown on plans and as described herein.

Existing Utilities

Existing utilities are shown on the General Notes in plans according to information obtained from utility companies, municipalities, and surveys. The County does not guarantee the accuracy or completeness of this information. The Contractor shall notify J.U.L.I.E. at 800-892-1234 for utility locations at least seventy-two (72) hours prior to the construction start.

Maintenance Of Roadways
Effective: September 30, 1985
Revised: November 1, 1996

Beginning on the date that the Contractor begins work on this project, he 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.

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

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

*The final completion date for all work and ready for final payment shall be **September 26, 2010**."

An Interim Completion Date will be required for this contract. The interim date will be for the roadway closure and traffic detour. The detour route shall be established for a maximum of sixty (60) calendar days and begin no sooner than June 2, 2010 and end no later than August 26, 2010.

Indemnification

The Contractor shall include the County, Township and Engineer and the officers, employees, and agents of each and any of them in his indemnity obligations required by Article 107.26 of the Standard Specifications.

Status Of Utilities To Be Adjusted
Effective: January 30, 1987
Revised: July 1, 1994

Utility companies involved in this project have provided the following estimated dates:

Name of Utility	Type	Location	Estimated Dates for Start and Completion of Relocation or Adjustments
ComEd	Electric	South Side	Sept. 2009
Nicor	Gas	South Side	April 2010
Mediacom	Cable TV	Unknown location	April 2010
AT&T	Telephone	N/A	N/A
Vil. of Elburn	San. Force Main	North Side	May 2010
SBC	Telephone	Unknown location	April 2010
Sprint	Telephone	Unknown location	April 2010
Adesta	Fiber optic	N/A	N/A

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

2. ROADWAY AND DRIVEWAYS

Earth Excavation

This item shall be completed in accordance with the applicable portions of Section 202 of the Standard Specifications with the following general additions. This work shall include removal of all earth material shown on the cross sections or as directed by the Engineer. Earth Excavation will also include all aggregate surfaces. Earth excavation will also include the removal of the aggregate base course used in the temporary pavement. Earth excavation will not include the excavation of topsoil, unsuitable materials, and removal items for existing bituminous and concrete pavements, driveways, bike path, or curb and gutter.

For this project, it is the intention of this specification to pay for the handling of earthwork material only once, regardless of staging or Contractor's operations. The Contractor shall be responsible for his earthwork operations for excavating and stockpile excavated materials for re-handling at a later date. This applies to all excavated material to be used in embankments, shoulders or as topsoil re-spread.

Temporary earth stockpiles will not be allowed on the adjacent properties without the permission of the owner and approval of the City. It will be the contractor's responsibility to acquire permission from the appropriate owner prior to stock piling any materials on those properties. The contractor will provide the City with a written statement from the property

owner stating said permission has been granted. This work will be considered part of the contract. As such, if the Contractor chooses to do this work as part of the close out or punch list work, contract days will continue to be counted until all stockpiles are removed and all disturbed areas are restored to at least to their original condition.

A shrinkage Factor of 15% was used for this Project.

Overhaul will not be paid for separately but shall be included in the unit price per cubic yard for EARTH EXCAVATION.

Exploration Trench, Special

Description: This work shall be as required in Section 213 of the Standard Specifications and shall also consist of excavating a trench of sufficient width, (minimum 48"), length and depth (as field determined) to expose existing utilities, potential utility conflicts or other utility obstructions shown on the plans or as determined by the Engineer.

The depth and width of trench for the location of underdrains shall be as specified in Section 213. The depth of the trench shall be as necessary to uncover the existing utilities, potential utility conflict, or other utility obstructions and of adequate width to allow investigation of the investigated item in the trench. The maximum depth shall be based on the depth of the proposed utility depth or to the point of potential utility conflict.

The exploration holes will be completed at all locations where the proposed sanitary sewer, casing pipe or culvert and culvert pipes cross an existing utility line where meeting clearance requirements are essential and adjustment to the proposed utility may be necessary prior to starting construction operations to meet said clearance requirements. Other exploration trenches may be excavated at the locations noted on the plans or required by the Engineer.

The depth of the inspection hole shall be as necessary to uncover the existing utilities or other obstructions and of adequate width to allow investigation of the investigated item in the hole. In no case does the inspection hole need to be deeper than the proposed invert elevation of the proposed storm sewer or watermain being installed plus the clearance requirement.

After a determination of the condition and/or location adequacy by the Engineer, and at the direction of the Engineer. In areas of proposed structural embankment or pavement structures, the Contractor shall backfill the trench with materials meeting the requirement of TRENCH BACKFILL. All areas outside the improvements can be backfilled with the originally excavated material. All excess excavated material created by this work shall be disposed of offsite by the contractor. Disposal of this material will be considered INCLUDED in this item.

Basis of Payment. This work will be paid for at the contract unit price per linear foot for EXPLORATION TRENCH, SPECIAL, regardless of depth for utility exploration and as specified in Section 213 for underdrain exploration, which will be payment in full for all

required work as set forth above. Trench backfill shall be paid for separately, based on a maximum trench width of 48" and the actual depth as specified herein.

Removal and Disposal of Unsuitable Material

This item shall be completed in accordance with the applicable portions of Section 202 of the Standard Specifications with the following general additions. This work will include excavation, stockpiling, or removing of undercut material shown on the cross sections or as directed by the Engineer.

Unstable materials not suitable for embankments or unsuitable materials consisting of debris, concrete, stone, trees, shrubbery or mulch, building materials, contaminated dirt, or other non-organic material will not be permit within the project limits and shall be disposed of off County right-of-way per the Standard Specifications.

Unstable or Unsuitable materials that have a soil classification that is acceptable for use in the type of embankment specified, but are considered unstable only because the insitu moisture content of the soil is either to high or to low, will not be considered as unstable or unsuitable material. If these soils are needed for use in the formation of the proposed embankments, the soil will be worked or conditioned by discing, tilling, or adding a soil additive to bring the material to optimum moisture content. Moisture content and compaction requirements for embankments will be as specified in Section 205.05 of the Standard Specifications.

In cut sections, the final subgrade shall be prepared as specified in Section 301. In areas where undercuts have been called out on the plans, the final subgrade will be prepared as specified in Section 301 and the subgrade will then be proof rolled. Final determination of the undercut area will be based on the proof roll after the subgrade has been prepared.

It is the intention of this specification to pay for the handling earthwork material only once, except as directed herein and/or approved for additional payment in advance by the Engineer. In the event the Contractor elects to excavate and stockpile any excavated materials for re-handling at a later date, he shall do at his own expense.

Porous Granular Embankment, Subgrade
Effective: September 30, 1985
Revised: August 1, 2008

This work consists of furnishing, placing, and compacting porous granular material to the lines and grades shown on the plans or as directed by the Engineer in accordance with applicable portions of Section 207 of the Standard Specifications. The material shall be used as a bridging layer over soft, pumpy, loose soil and for placing under water and shall conform with Article 1004.05 of the Standard Specifications except the gradation shall be as follows:

1. Crushed Stone, Crushed Blast Furnace Slag, and Crushed Concrete

Sieve Size	Percent Passing
*6 in. (150 mm)	97 ± 3
*4 in. (100 mm)	90 ± 10
2 in. (50 mm)	45 ± 25
No. 200 (75 μm)	5 ± 5

2. Gravel** and Crushed Gravel

Sieve Size	Percent Passing
*6 in. (150 mm)	97 ± 3
*4 in. (100 mm)	90 ± 10
2 in. (50 mm)	55 ± 25
No. 4 (4.75 mm)	30 ± 20
No. 200 (75 μm)	5 ± 5

* For undercut greater than18 inches (450 mm) the percent passing the 6 inch (150 mm) sieve may be 90 ± 10 and the 4 inch (100 mm) sieve requirements eliminated.

** Not to be used in 30 or 40 year extended life concrete pavement or extended life bituminous concrete pavement (full depth).

The porous granular material shall be placed in one lift when the total thickness to be placed is 2 feet (600 mm) or less or as directed by the Engineer. Each lift of the porous granular material shall be rolled with a vibratory roller meeting the requirements of Article 1101.01(g) of the Standard Specifications to obtain the desired keying or interlock and compaction. The Engineer shall verify that adequate keying has been obtained.

A 3 inch (75 mm) nominal thickness top lift of capping aggregate having a gradation of CA 6 will be required when Aggregate Subgrade is not specified in the contract and Porous Granular Embankment, Subgrade will be used under the pavement and shoulders. Capping aggregate will not be required when embankment meeting the requirements of Section 207 of the Standard Specifications or granular subbase is placed on top of the porous granular material.

Construction equipment not necessary for the completion of the replacement material will not be allowed on the undercut areas until completion of the recommended thickness of the porous granular embankment subgrade.

Full depth subgrade undercut should occur at limits determined by the Engineer. A transition slope to the full depth of undercut shall be made outside of the undercut limits at a taper of 1 foot (300 mm) longitudinal per 1 inch (25 mm) depth below the proposed subgrade or bottom of the proposed aggregate subgrade when included in the contract.

Method of Measurement. This work will be measured for payment in accordance with Article 207.04 of the Standard Specifications. When specified on the contract, the theoretical elevation of the bottom of the aggregate subgrade shall be used to determine the upper limit of Porous Granular Embankment, Subgrade. The volume will be computed by the method of average end areas.

Basis of Payment. This work shall be paid for at the contract unit price per cubic yard (cubic meter) for POROUS GRANULAR EMBANKMENT, SUBGRADE.

The Porous Granular Embankment, Subgrade shall be used as field conditions warrant at the time of construction. No adjustment in unit price will be allowed for an increase or decrease in quantities from the estimated quantities shown on the plans.

Aggregate Subgrade, 12" (300 mm)
Effective: May 1, 1990
Revised: August 1, 2008

This work shall be done in accordance with the applicable portions of Section 207 of the Standard Specifications. The material shall conform to Article 1004.05 of the Standard Specifications except as follows:

Crushed Stone, Crushed Blast Furnace Slag, and Crushed Concrete will be permitted. Steel slag and other expansive materials as determined through testing by the Department will not be permitted.

Sieve Size	Percent Passing
6 in. (150 mm)	97 ± 3
4 in. (100 mm)	90 ± 10
2 in. (50 mm)	45 ± 25
No. 200 (75 μm)	5 ± 5

Gravel* and Crushed Gravel

Sieve Size	Percent Passing
6 in. (150 mm)	97 ± 3
4 in. (100 mm)	90 ± 10
2 in. (50 mm)	55 ± 25
No. 4 (4.75 mm)	30 ± 20
No. 200 (75 μm)	5 ± 5

Crushed Concrete with Bituminous Materials**

Sieve Size	Percent Passing
6 in. (150 mm)	97 ± 3
4 in. (100 mm)	90 ± 10
2 in. (50 mm)	45 ± 25
No. 4 (4.75 mm)	20 ± 20
No. 200 (75 μm)	5 ± 5

* Not to be used in 30 or 40 year extended life concrete pavement or extended life bituminous concrete pavement (full depth).

** The Bituminous material shall be separated and mechanically blended with the crushed concrete so that the bituminous material does not exceed 40% of the final products. The top size of the bituminous material in the final product shall be less than 4 inches (100 mm) and shall not contain more than 10.0% steel slag RAP or any material that is considered expansive by the Department.

The Aggregate subgrade shall be placed in two lifts consisting of a 9 inch (225 mm) and variable nominal thickness lower lift and a 3 inch (75 mm) nominal thickness top lift of capping aggregate having a gradation of CA 6. The CA 6 may be blended as follows. The bituminous materials shall be separated and mechanically blended with interlocking feeders with crushed concrete or natural aggregate, in a manner that the bituminous material does not exceed 40% of the final product. This process shall be approved by the engineer prior to start of production. The top side of the bituminous material in the final products shall be less than 1 ½ inches (37.5 mm) and shall not contain any material considered expansive by the department. Reclaimed Asphalt Pavement (RAP) (having a maximum of 10% steel slag RAP) meeting the requirements of Section 1031 and having 100% passing the 1 ½ inches (37.5 mm) sieve and well graded down through fines may also be used as capping aggregate. IDOT testing of the RAP material will be used in determining the percent of steel slag RAP or Expansive Material. When the contract specifies that an aggregate subbase is to be placed on the Aggregate Subgrade, the 3 inches (75 mm) of capping aggregate will be eliminated. A vibratory roller meeting the requirements of Article 1101.01(g) of the Standard Specifications shall be used to roll each lift of material to obtain the desired keying or interlock and necessary compaction. The Engineer will verify that adequate keying has been obtained.

When a recommended remedial treatment for unstable subgrades is included in the contract, the lower lift of Aggregate Subgrade may be placed simultaneously with the material for Porous Granular Embankment, Subgrade when the total thickness to be placed is 2 feet (600 mm) or less.

Method of Measurement.

Contract Quantities. Contract quantities shall be in accordance with Article 202.07 of the Standard Specifications.

Measured Quantities. Aggregate subgrade 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 AGGREGATE SUBGRADE, 12" (AGGREGATE SUBGRADE, 300 mm).

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 Surface Course For Temporary Access
Effective: April 1, 2001
Revised: January 2, 2007

Revise Article 402.10 of the Standard Specifications to read:

"402.10 For Temporary Access. The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances, and roads according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

(a) Private Entrance. The minimum width shall be 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.

(b) Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.

(c) Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface coarse for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03."

Add the following to Article 402.12 of the Standard Specifications:

"Aggregate surface course for temporary access will be measured for payment as each for every private entrance, commercial entrance or road constructed for the purpose of temporary access. If a residential drive, commercial entrance, or road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified."

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

"Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (FIELD ENTRANCE) or TEMPORARY ACCESS (ROAD).

Partial payment of the each amount bid for temporary access, of the type specified, will be paid according to the following schedule:

(a) Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.

(b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access."

3. MANINTENANCE OF TRAFFIC

Traffic Control Plan
Effective: August15, 2005
Revised: January 1, 2007

Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these Special provisions, and any special details and Highway Standards contained herein and in the plans.

Special attention is called to Sections 107 and 701 through 704 of the Standard Specifications for Road and Bridge Construction, and as amended by the Supplemental Specifications.

Recurring Special Provision, the Special Provisions contained herein, and the following highway standards relating to traffic control:

1. Traffic Control Standards:

701001	701006	701011	701301	701306	701311
701901	702001	TC-22			

Traffic control standards shall be applied as directed by the Engineer. Suggested applications for each standard are as follows:

701001 This standard should be used for, grading, seeding, and other miscellaneous work, which is performed beyond 15' to the edge of the traffic lane. Work performed under this traffic control application will not be paid for separately, but shall be INCLUDED in the cost for TRAFFIC CONTROL AND PROTECTION, Lump Sum.

Anticipated major operations for application of this standard:

- Constructing proposed embankments, sanitary sewers, fencing, and adjacent to Keslinger Road.

701006 This standard should be used for, grading, seeding, and other miscellaneous work which is performed within 15', but not closer than 2', to the edge of the traffic lane. Work performed under this traffic control application will not be paid for separately, but shall be INCLUDED in the cost for TRAFFIC CONTROL AND PROTECTION, Lump Sum.

Anticipated major operations for application of this standard:

- Constructing proposed embankments, sanitary sewer, drain tiles, landscaping, and signing adjacent to Keslinger Road.

701011 This standard should be used when the Contractor's work is confined to the shoulder, such as stringing guardrail posts and rail. Work performed under this traffic control application will not be paid for separately, but shall be INCLUDED in the cost for TRAFFIC CONTROL AND PROTECTION, Lump Sum.

701301 This standard will apply when short time work operations are being performed. Typical such operations are bituminous density testing, application of temporary pavement marking, marking patches, and miscellaneous survey operations. Operations performed under this traffic control application will not be paid for separately, but shall be INCLUDED in the cost for TRAFFIC CONTROL AND PROTECTION, Lump Sum.

701306 This standard is appropriate for use during construction for bituminous milling and resurfacing and utility operations. Work performed under this traffic control application will not be paid for separately, but shall be INCLUDED in the cost for TRAFFIC CONTROL AND PROTECTION, Lump Sum.

Anticipated major operations for application of this standard:

- Milling butt joints and surfacing paving operations.

701311 This standard should be used on two-lane, two-lane roadways for pavement marking operations. Work performed under this traffic control application will not be paid for separately, but shall be INCLUDED in the cost for TRAFFIC CONTROL AND PROTECTION, Lump Sum.

Anticipated major operations for application of this standard:

- Permanent pavement marking.

2. Related Standards: 701901, 702001

3. Recurring Special Provisions:

   a) Work Zone Public Information Signs (#24)

4. Related Special Provisions:

   a) Temporary Access
   b) Temporary Information Signing

c) Work Zone Traffic Control (Check Sheet LRS 3)
d) Flaggers in Work Zone (Check Sheet LRS 4)
e) Reflective Sheeting on Channelizing Devices (BDE)
f) Work Zone Traffic Control and Protection (Supplemental Specifications)
g) Kane County Special Provision Traffic Control Deficiency Deduction for Flashing Lights
h) Personal Protective Equipment

5. Plan Details:

a) Maintenance of Traffic Plan
b) Traffic Control Device Details (Miscellaneous Construction Details and Traffic control Standards)

Contacts

The Contractor will be required to coordinate all maintenance of traffic operations with all municipality, township, and county entities within the project limits. The following are the contacts for the Kane County Division of Transportation and the Village of Elburn.

Kane County Division of Transportation	**Mr. Dave Boesch**	**(630) 534-4823**
Village of Elburn	**Mr. Art Sanchez**	**(630) 365-5064**

Limitations of Construction

The Contractor shall coordinate the items of work in order to keep hazards and traffic inconveniences to a minimum, as specified below:

1. During the construction when the roadway is not closed, construction operations will be conducted so one lane in each direction on Keslinger Road.

2. The Contractor shall provide, erect, and maintain all the necessary signs, barricades, cones, drums, and lights for the warning and protection of traffic, as required by Sections 107 and 701 through 703 of the Standard Specifications, and as modified.

3. The Contractor shall furnish and erect “Road Construction Ahead” signs (W20-1 (O)-48) at both ends of the project and at all side roads within the limits of this section when working in the vicinity of the side road intersection.

4. If construction operation extends into winter months, drop-offs at the edge of any lane will not be allowed during winter shutdown. The Contractor shall schedule his operations so that leveling binder or surface course can be constructed across all adjacent lanes prior to winter shutdown.

6. Open trenches and excavations for storm sewers, inlets, etc. remaining overnight shall be marked with additional lighted Type II barricades at 25' centers and at appropriate locations to safely protect the vehicle and pedestrian traffic. This protection shall be provided in all cases; including areas within the defined work zones. These barricades will not be paid for separately, but shall be considered INCLUDED in the unit price for TRAFFIC CONTROL AND PROTECTION, Lump Sum.

Off-peak Hours

The "Off-Peak" hours are defined as the daytime hours from 9:00 A.M. to 3:00 P.M. and night time hours from 9:00 P.M. to 6:00 A.M., Monday through Friday.

Keeping Roads Open to Traffic

The Contractor shall schedule his sequence of operations to permit the construction of this section with the least inconvenience to the traveling public. The Contractor's schedule shall reflect the following requirements and sequence of construction. These requirements follow the Suggested Traffic Control Plan included in the drawings.

1. Side Roads shall be kept open to two lanes of traffic during the established peak hours for the duration of the construction of this project.

2. Keslinger Road may be completely closed to traffic for the duration specified in the contract documents.

3. Access to field and private entrances shall remain open at all times. On properties that have more than one access, one entrance may be temporarily closed, however, vehicular access must remain open to traffic for the opposite entrance. When it is necessary to close an entrance, the contractor shall coordinate with the Resident Engineer and the property owner forty-eight hours in advance of the work. In all cases, the entrance shall be open at the end of the workday.

Detours

In order to complete the roadway improvements, including structure removal, culvert, and headwalls, proposed storm sewers, bituminous base and surface course improvements on Keslinger Road, the roadway will be temporarily closed. The road closure will require traffic be re-directed by a detour route. The contractor will furnish, erect, maintain, and remove all applicable traffic control devices and signage required to set up the detour route. The closure will need to be coordinated with the Kane County Division of transportation, the Village of Elburn and the Illinois Department of Transportation, District One. The Detour Route is detail in the plans. The detour will be not be paid for separately but shall be included in this item for Traffic Control and Protection.

Portable, Changeable Message Board

The Kane County Department of Transportation requires that electronic changeable message signs be placed on the east and west side of the bridge to warn the public of the pending closure. See Special Provision this section.

Trailer Mounted Arrow Board

The use of a trailer mounted arrow board is not anticipated for this project.

Temporary Information Signs

The Kane County Department of Transportation requires that temporary information signing will be erected on the east and west side of the bridge to inform the public of the construction duration. The contractor will coordinate with the Resident Engineer on the exact placement of the sign. The sign shall be in place for the entire duration of the contract or as directed by the Resident Engineer. The temporary sign will be as dimensioned on Std. TC22 except the message shall be as detailed on the Detour Plan. The signing, which includes post and mounting, will be paid as TEMPORARY INFORMATION SIGNING, per each sign erected.

Sequence of Construction

In general, the staging of construction for this section shall be as follows:

Major Work Items – Keslinger Road

- Set up traffic control as required by contractor's sequence of operations.
- Set up temporary erosion control measures.
- Coordinate utility relocates.
- Remove existing pavements, driveways, and drainage structures (see removal plans sheets).
- Construct sanitary sewer force main and appurtenances.
- Construct the proposed twin culverts and headwalls, subgrade, pavements (to binder course) and sewers.
- Construct guardrails and surface course.
- Place permanent erosion control measures, landscaping, striping, and roadway signing.

Basis of Payment

The basis of payment for traffic control and protection will be as follows:

1. Traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, Lump Sum.

2. The detour traffic control and protection will be measured and paid for at the contract unit price each for TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.

The price for these items shall be payment in full for all labor, materials, transportation, signs, drums and barricades and incidental work necessary to furnish, install, maintain and remove all traffic control as shown in the plans and as required in these Special Provisions.

Changeable Message Sign, Special

Description: The Kane County Department of Transportation requires that electronic changeable message signs be placed on the east and west side of the bridge to warn the public of the pending closure. The message boards will need to be placed and set out for seven (7) days in advance of the anticipated first day of construction. The signs shall be removed after the seventh day. The contractor will coordinate with the Resident Engineer on the exact placement of the message boards and the message that is to be displayed. The message boards will be paid for as CHANGEABLE MESSAGE SIGN, per day for each message sign utilized.

Basis of Payment: The signs shall be removed after the specified number of days. The contractor will coordinate with the Engineer on the exact placement of the message boards and the message that is to be displayed. The message boards will be paid for as CHANGEABLE MESSAGE SIGN, SPECIAL, per calendar day for each message sign utilized.

Temporary Information Signing

Description: This work shall consist of furnishing, installing, maintaining, relocating for various states of construction, and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

Materials:

Materials shall be according to the following Articles of Section 1000- Materials:

Item	Article/Section
a. Sign Base (Notes I & 2)	1090
b. Sign Face (Note 3)	1091
c. Sign Legends	1092
d. Sign Supports	1093
e. Overlay Panels (Note 4)	1090.01

Note 1. The Contractor may use 16mm (5/8 inch) instead of 19mm (3/4 inch) thick plywood.
Note 2. Type A sheeting can be used on the plywood base.
Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1084.02(b).
Note 4. The overlay panels shall be 2mm (0.08 inch) thick.

General Construction Requirements:

Installation: the Contractor prior to fabrication shall verify the sign sizes and legend sizes.

Signs, which are placed along the roadway and/or within the construction zone, shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 2.1 m (7') above the near edge of the pavement and shall be a minimum of 600mm (2') beyond the edge of the paved shoulder. A minimum of 2 posts shall be used.

The Contractor shall place signs one (I) Week in advance of the start of any construction on• each side of the project limits that will state construction starting here, the start date of construction and the number of months the construction is anticipated to last.

The attachment of temporary signs to existing sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Signs that are placed on overhead bridge structures shall be fastened to the handrail with stainless steel bands. These signs shall rest on the concrete parapet where possible. The Contractor shall furnish mounting details for approval by the Engineer.

Method of Measurement: This work will not be measured for payment. All hardware, posts, or skids, supports, bases for ground-mounted signs, connections, which are required for mounting these signs will be included.

Basis of Payment: The signing, which includes post and mounting, will be paid as TEMPORARY INFORMATION SIGNING, per each sign erected, which shall be full compensation for all labor, equipment and materials required for performing the work as herein specified.

Kane County Special Provision For Flashing Lights

Flashing lights will be provided by the Contractor on barricades as required by the Engineer. These lights shall meet the requirements of the State of Illinois Manual on Uniform Traffic Control Devices. Any additional costs shall be considered INCLUDED in the contract.

4. STORM SEWERS AND DRAINAGE STRUCTURES

Grating for Concrete Flared End Section Equivalent Round Size

Description: This work shall be completed in accordance with Section 542.07 of the Standard Specifications.

Basis of Payment: Grating for precast reinforced concrete flared end sections will be paid for at the contract unit price per each GRATING FOR CONCRETE FLARED END SECTION EQUIVALENT ROUND SIZE, of the size specified.

Drain Tile Repair

Description: The Contractor shall exercise care to protect all drain tiles from damage and to carefully watch the trench to locate all drain tiles which are cut by the construction activities. Any drain tiles cut by the construction activities shall be replaced as detailed described herein and as detailed on the plans. All drain tiles, which crosses the proposed improvement trench, shall be replaced, and shall qualify for payment under this item. Drain tiles that parallel the proposed improvement trenches and are more than three feet from the centerline of the trench shall be protected or restored by the Contractor at his own expense. Drain tiles that parallel the proposed improvement trenches and are less than three feet from the centerline of the trench shall be replaced by the Contractor (if damaged) and shall qualify for payment under this item. However, if drain tiles are encountered which are within three feet of the centerline of the proposed improvement trench, the engineer shall have the right to adjust the alignment of the proposed improvement so that the drain tile is beyond three feet from the centerline of the trench.

Where the location of drain tiles are known, they are shown on the plans, but is anticipated that other drain or drain tiles exist which are not shown on the plans.

Materials: Replacement pipe shall be SDR 35 PVC pipe in accordance with ASTM D 3034, Type PMS for sizes 4" – 12" and ASTM D 303, Type PMS for 15" diameter pipe. Joints shall be rubber gasket joints. Elastomeric couplings shall be suitable for adapting between two dissimilar pipes and the bands shall be screw adjustable bands of stainless steel. Alternative pipe materials manufactured by ADS will be considered with the approval of the Engineer.

Bedding material below the replacement pipe shall meet the requirements specified under Section 209 of the Standard Specifications, but shall be INCLUDED in the cost of the drain tile replacement.

Construction Methods: After the proposed improvement is installed, the Contractor shall install and compact gravel cradle from the bottom of the trench to the top of the drain tile replacement. In the event of a direct grade conflict between the proposed improvement and the drain tile, the engineer shall direct adjustment of the grade of the proposed improvement. The Contractor shall excavate for replacement of the field tile to one foot beyond the edge of the

trench on each side. Replacement pipe shall be cut to the required length and the existing drain tile pipe shall be cut to allow butting of the pipes together. The replacement pipe shall be set and fastened to the existing drain tile with an elastomeric coupling and two stainless steel bands at each joint. Gravel cradle shall be extended to the centerline of the replacement pipe and then the remainder of the trench shall be backfilled as shown on the plans.

Method of Measurement: Drain tile repair will not be measured separately for payment but shall be considered INCLUDED in the contract.

Pipe Underdrains, 4" (Special)

Description: All underdrains supplied for this project shall be Perforated Corrugated Polyethylene Tubing encased in a fabric "sock". The fabric sock encasing the perforated corrugated pipe underdrain may be either a knitted, woven, or non-woven fabric. The fabric sock shall be factory applied to the pipe underdrain. The fabric envelope will also be required for this project.

Materials: The underdrain pipe and trench backfill shall meet the requirements of Section 601 of the Standard Specifications. The fabric "sock" and envelope shall meet the requirements of section 1080.01 of the Standard Specifications. All material shall be IDOT approved.

Trench backfill for the under drain shall meet IDOT gradation CA-16.

Handling and Storage: Knitted fabric sock shall be applied to the 4-inch Pipe Underdrain in the shop to maintain a uniform applied weight. Woven and non-woven fabric or tubing with knitted fabric sock shall be delivered to the job site in such manner as to facilitate handling and incorporation into the work without damage. Fabric sock materials shall be stored in UV-resistant bags until just prior to installation. In no case shall the fabric be stored or exposed to direct sunlight that might significantly diminish its strength or toughness. Torn or punctured fabric socks shall not be used.

Basis of Payment

This work shall be paid for at the contract unit price per lineal foot of PIPE UNDERDRAINS, 4" (SPECIAL). This price shall include the underdrain, sock and envelope, connections and fittings, trench backfill and all other materials, labor, tools, equipment and incidentals necessary to complete this item of work.

Trench backfill for the under drain will be not be paid for separately but shall be considered INCLUDED in the unit price of the Pipe Underdrain.

5. SANITARY SEWER

Sanitary Manholes

Description: This work shall consist of supplying and installation of a new sanitary manhole, complete with frame and lid and all appurtenant items specified herein and as detailed in the plans to the location and grades shown in the plans.

It will be the contractor's responsibility to investigate the existing manhole; air release valve and appurtenances to ascertain the correct combination of new manhole and components are compatible and correct for the re-installation of the air release valve.

Materials:

1. Sanitary manhole covers shall be heavy duty, top flange type with machined bearing surfaces and rubber gasket seal between the lid and frame, must have two concealed pick holes and have the word "SANITARY" stamped in the cover. The manhole cover and frame shall be as manufactured by Neenah Foundry, Model R-1713 or approved equal.

2. All manhole barrel sections joints between manhole sections are to be tongue and groove. Barrel sections, cone or flat tops shall be precast concrete conforming to ASTM 478.

3. The areas between the adjusting rings and the manhole frames must NOT be tuck pointed with mortar unless the structures are located in paved areas. Mortar will be required between adjusting rings and frames when the structures are located in paved areas.

4. All new barrel sections will have manhole steps. The manhole steps shall be plastic, with steel bar reinforcement, as manufactured by M.A. Industries, or approved equal.

5. The manhole barrel sections shall be installed with rubber gaskets or sealed with "Kent Seal No. 2 Joint Sealer", or approved equal.

6. All pinholes must be mortared with a brush finish to provide a watertight seal.

7. All manhole structures shall be free of any type of infiltration (water leaking into the structure).

8. All manholes shall be cleaned of any accumulation of silt, debris, or foreign matter of any kind, and shall be free from such accumulations at the time of final inspection.

9. A rubber gasket boot shall be used to cover the sanitary manhole adjustment rings.

Frame and Lid Final Adjustment: The total length of the manhole structure shall be such that not more than 6" of adjusting rings are necessary to set the frame and grate to the required

finished elevation. All joints between the last manhole section and the frame are to be of watertight construction.

Exterior Treatment: The exterior of all proposed manholes shall be waterproofed with a bitumastic material as approved by the Engineer.

Aggregate Base Material: Coarse aggregate material will be placed as a base course and as a drainable base for the manhole. The material gradation and thickness will be as detailed in the plans.

Shop Drawing: The contractor will submit a "shop drawing" to the Village of Elburn for their review and approval detailing the manhole components and air release valve installation. The contractor may submit alternative for consideration for the valve and manhole configuration and installation.

Basis of Payment: This work will be paid for at the contract unit price per each for MANHOLE, SANITARY 5' DIAMETER, TYPE 1 FRAME, CLOSED LID of the diameter specified, which price shall include the manhole, appurtenant structure components, new frame and lid, barrel sections, tops and base sections, plastic steps, all excavation, water proofing, joint sealer, select granular backfill and other incidentals as necessary to complete this item of work.

Sanitary Sewer Force Main

Description: Under this item, the Contractor shall furnish and install ductile iron pipeline to a minimum depth of cover of five feet, zero inches (5'0") (as measured from the existing or proposed ground line above the sewer main), or to the depth shown on the drawings, at the locations and to the details shown in the Contract Documents. This item shall include related work not specifically identified for inclusion in other scheduled items. The work generally comprises the following.

- Clearing
- Trench Excavation
- Dewatering, as required
- Sheeting, Shoring, and/or Bracing
- Pipeline Bedding
- Pipeline Material Installation
- Flushing
- Earth Backfill and Compaction
- Pressure Testing of Force mains (Note: pressure tests shall not be initiated until a minimum of 3 days have elapsed after the construction of affected concrete thrust blocks)
- Final Testing
- Topsoil Stripping, Stockpiling, and Replacement
- Clean-up

This item shall not include pipeline construction in casing pipe or restrained joint pipeline construction.

Applicable Standard Specifications: The work and materials shall conform to applicable provisions of Division II and Division IV of the "Standard Specifications for Water and Sewer Main Construction in Illinois".

Materials: The materials shall be as follows:

Sewer Main: Piping shall be Ductile Cast Iron Pipe in accordance with ANSI A21.51 (AWWA C-151) Class 52 with Push-on type joints per ANSI A21.11 (AWWA C-111); exterior bituminous (seal) coated; and either a standard 40 MIL ceramic epoxy (Protecto or equal) lining per ASTM D-2794, or a calcium aluminate mortar lining in accordance with ANSI 214-83 (AWWA C104). All ductile iron pipe shall be manufactured and stamped “Made in the USA”.

Gaskets: The gaskets specified shall be SBR (Styrene Butadiene) type gaskets.

Fittings: Fittings shall be Ductile Iron and shall conform to ANSI A21.10 (AWWA C-110) or ANSI A21.53 (AWWA C-153). Joints shall be mechanical joint in accordance with ANSI A21.11 (AWWA C-111 AND AWWA C-600). Fittings shall be bituminous (seal) coated on the exterior and ceramic epoxy or calcium aluminate mortar lined on the interior in accordance with AWWA C-104. Fittings shall be furnished and installed with accessories necessary for a complete and operating installation. All fittings shall be manufactured and stamped “Made in the USA”.

Bedding: Bedding shall meet the requirements as specified in Select Granular Backfill.

Field Cut Pipe: The outside edge on cut pipe shall be beveled and smoothed to prevent gasket damage caused by sharp edges. A 16 mil DFT field coat of Kop-coat Bitumastic 300-M, coal tart epoxy shall be field applied to the cut end sections of all force main to prevent corrosion. The manufacturer’s recommended application specification shall be strictly adhered to.

Lines And Grades: All forcemain piping shall be installed to the lines, grades, and details as shown on the Contract Drawings.

Minimum depth of cover for all force main shall be 5’0”. In general, the forcemain shall be laid sloping away from the air relief valves. To maintain slope, depth of forcemain may exceed 8’0”.

Basis of Payment: This work will be paid at the Contract Unit Price per lineal foot for SANITARY SEWER, SPECIAL**,** of the inside diameter and class specified, measured in-place along the centerline of the pipe, which price shall include the excavation, removal of surplus materials, installation, thrust blocks, testing and appurtenant items and other incidentals as necessary to complete this item and be full compensation for all work and materials required.

Sewage Air and Vacuum Valve

Description: This work shall consist of furnishing and installing sewage air and vacuum valves on the proposed sanitary sewer force main at the location and to the details shown on the drawings. The valve is to be installed in a precast concrete vault.

Material:

Air and Vacuum Valve: The air and vacuum valve shall have a 2" diameter inlet and a 1" diameter outlet and shall be similar or equal to Valmatic Model series 49ABW with backwash kit as manufactured by Valmatic Valve and Manufacturing Corp.

General Construction Requirements: The air and vacuum valve assembly is to be installed on the top of the force main pipe by tapping a 2" diameter threaded hole therein. The valve assembly shall be located in the vault so it is offset from the vault's top opening. Between the force main pipe and the valve assembly, a 2" shut-off gate valve shall be furnished and installed. During pressure testing of the force main, the valve assembly shall be checked for proper operation. The top of the valve assembly shall be adequately supported by steel bracket fastened to the vault's wall.

Basis of Payment: This work will be paid for at the contract unit price each for AIR RELEASE VALVE of the type and size specified, which price shall be full compensation for all work and materials required for a completed valve installation. Payment for the precast concrete valve vault will be made under a separate pay item of work for sanitary sewer manholes.

Gate Valves

Description: A gate valve of the size specified shall be constructed in the sanitary sewer manhole on the upstream end of the sewage air and vacuum valve and as detailed in the plans and these specifications.

Materials: The following valves shall be used for main lines:

Gate Valves: All gate valves shall be American Flow Control, Mueller, Kennedy, U.S. Pipe & Foundry, or approved equal. Gate valves shall conform to ANSI/AWWA C-515-99 latest revision. Gate valves shall have mechanical joints and shall open to the left. All nuts and bolts shall be stainless steel.

All nuts and bolts shall be stainless steel.

Measurement and Payment: Payment for valves shall be made at the contract unit price per each for GATE VALVE, of the size specified. Payment shall be full compensation for all materials, labor, equipment, and other appurtenant items to complete this item as specified. Valve Vaults will be measured separately for payment.

Connection to Existing Sewer Mains (Non-Pressure)

Description: Under this item, the Contractor shall connect the proposed sanitary sewer forcemain to the existing sanitary sewer forcemain at locations shown on the plans, as specified herein and described in Section 41 of the Standard Specifications for Water and Sewer Main Construction on Illinois. This item of work shall include cutting the existing sewer main, installation of fittings as required to connect the dissimilar pipe materials and sizes and restoring the existing sewer to service. The Village of Elburn personnel will close existing valves to isolate the connection point to the existing sewer main. Seventy-two (72) hour notice to the Engineer is required.

All connections to the existing mains shall be done after the proposed main has been tested and passed for leakage.

Adequate precautions shall be taken to prevent contaminants from entering the existing main. The inside surfaces of all new materials used in the adjustment shall be cleaned of all foreign material.

All materials, labor, and equipment necessary to connect proposed sanitary sewer forcemain shall be on hand before shutdown and cutting of the existing main. Each location of proposed sanitary sewer forcemain requires non-pressure connections that will need to be connected within a **four (4) hour** time frame unless otherwise approved by the Engineer. These connections can only be done Monday through Friday between the hours of 9:00 a.m. to 3:00 p.m.

Materials: All materials required completing the non-pressure connection, including the, reducer, fittings, and granular backfill shall be as described in previous sections of these special provisions.

Basis of Payment: Payment for the work associated with connecting to the existing sanitary sewer forcemain shall not be paid for separately but shall be considered INCLUDED in the contract unit price for Sanitary Sewer Forcemain, which work shall include excavation, pipe cutting, concrete thrust blocks, select granular backfill, disposal of surplus materials and all other items necessary to complete the work as described.

The DIP reducers, fittings and retainer glands (restrained joints) and appurtenant hardware, seals and incidental items will be paid for separately under Ductile Iron Fittings And Accessories.

Select Granular Backfill

Description: This item shall consist of furnishing, transporting, placing and compacting select granular backfill material in sanitary sewer force main trenches, which occur beneath proposed or existing pavement, driveways, entrances, culvert and culvert pipe crossings, and all other locations shown on the drawing and as specified in these Special Provisions.

Material: Granular backfill shall consist of CA-6 crushed limestone, CA-6 crushed gravel, or open graded material and shall be mechanically compacted in place to ninety-five percent (95%) of maximum density at optimum moisture as determined by the Modified Standard Proctor Test (ASTM 1557/AASHTO T180). The material used for select granular backfill shall be aggregate meeting the requirements for IDOT gradation FA-6 of the Standard Specifications.

Construction Methods: All trenches in the locations described above shall be backfilled with selected granular backfill to a point not less than two (2) feet from the outside edges of existing and proposed pavements.

Select granular backfill shall be placed from the spring line of the water main to the bottom of the pavement surface course. In the case of driveways, entrances, sewers, culvert pipes and culverts, the select granular backfill material shall extend to finished subgrade or bottom of the pipe or culvert above the sewer.

After backfilling is completed, all trenches shall be compacted by mechanical methods or jetting and water soaking in accordance with Section 20-2.20B of the Standard Specifications for Water and Sewer Main Construction in Illinois.

Select granular backfill shall be measured on a cubic yard basis. The quantity shall be computed based on the trench width (as detailed on the drawings) and the length and depth for which the select granular backfill is required along the water main pipe. Bedding and haunching (to the center of the pipe) will not be measured for payment.

Select granular backfill required around manholes and other appurtenances will not be measured for payment under this special provision.

Basis of Payment: Payment for select granular backfill shall be made at the contract unit price bid per cubic yard for SELECT GRANULAR BACKFILL. Payment shall be full compensation for all materials, labor, equipment, and incidentals to place and compact the material as shown on the plans and as specified. The quantity shall be computed based on the maximum trench width for payment listed in Standard Drawing No. 2 of the Standard Specifications for Water and Sewer Construction and the length and depth for which the select granular backfill is required along the sanitary sewer main pipe.

Polyethylene Encasement

Description: This work shall consist of furnishing and installing a polyethylene tubing around ductile iron pipelines and fittings for protection in corrosive soils at the locations herein specified.

Location Of Encasement: Under this Contract, the Contractor will be required to encase all ductile iron pipe watermains and fittings unless otherwise directed by the Engineer.

Material: The polyethylene tubing shall conform to the requirements of ASTM Designation D-1248 and shall have a minimum thickness of 8 mils.

General Construction Requirements: The polyethylene tubing shall be installed so as to provide full protection around the entire circumference of the pipe and shall be tied or taped securely to prevent displacement during backfilling. All lumps of clay, mud, cinders or other materials that might be on the pipe surface shall be removed prior to the installation of the polyethylene encasement. Polyethylene encasement shall be overlapped at the joint. Overlaps and ends shall be secured with polyethylene compatible adhesive tape, string, or any other material capable of holding the polyethylene in place during the backfilling operations.

Basis Of Payment: This work will be paid for at the contract unit price per pipe diameter per lineal foot for POLYETHYLENE ENCASEMENT, which price shall be full compensation for all work and materials specified.

Fittings

Description: This work shall consist of furnishing and installing all fittings required to achieve the vertical or horizontal alignment of the force main pipe as shown in the plans.

Materials: Fittings shall be Ductile Iron and shall conform to ANSI A21.10 (AWWA C-110) or ANSI A21.53 (AWWA C-153). Joints shall be mechanical joint in accordance with ANSI A21.11 (AWWA C-111 AND AWWA C-600). Fittings shall be bituminous (seal) coated on the exterior and ceramic epoxy or calcium aluminate mortar lined on the interior in accordance with AWWA C-104. Fittings shall be furnished and installed with accessories necessary for a complete and operating installation. All fittings shall be manufactured and stamped "Made in the USA". All the nut and bolts required for the installation of a fitting shall be stainless steel.

Measurement and Payment: Payment for ductile iron fittings shall be at the contract unit price per pound for DUCTILE IRON FITTINGS AND ACCESSORIES which shall include all materials, labor and equipment to connect the fittings to the main pipe and shall include all work and materials associated with construction of the thrust block. Fitting accessories such as gland, gasket, and set of bolts shall be furnished and installed as an included cost of this item Contractor will supply Engineer with shipping list complete with the individual weight for each

type and size of fitting. Fitting will be considered bends, reducers, tees and retainer glands (restrained joints).

Reinforced Concrete Thrust Blocks

Description: Reinforced Concrete Thrust Blocks, as detailed in the Contract Documents, shall be constructed at all bends of 11-1/4 degrees or greater, tees, caps, plugs, and reducers. Thrust Blocks shall be constructed in accordance with the specific pipe diameter and test pressure required. Thrust Blocks shall include #4 reinforcing steel.

Thrust Blocks shall be constructed of Class "SI" concrete in accordance with the "Standard Specifications for Road and Bridge Construction".

No pressure test of the pipeline shall be initiated until a minimum of three (3) days after the construction of the concrete thrust blocks.

Where conditions prevent the use of reinforced concrete thrust blocks, restrained joints shall be used. The number of restrained joints to adequately service the pipe shall be as directed by the Engineer.

Applicable Standard Specifications: Concrete work and materials shall conform to applicable provisions of Section 503 of the "Standard Specifications for Road and Bridge Construction", latest revision, as adopted by the Illinois Department of Transportation.

Basis Of Payment: This work will be not be paid for separately but shall be considered INCLUDED in the cost of the sanitary sewer forcemain.

Restrained Joints

Description: Where shown on the Contract Drawings or where directed by the Engineer, restrained pipe and fitting joints shall consist of mechanical joint pipe and/or fittings and ductile iron retainer gland with set screws tightened to 75 foot-pounds torque. Retainer gland shall conform to ANSI A21.11 (AWWA C-111). Use of restrained joints will require prior installation of mechanical joint ductile iron pipe, Class 52 in lieu of push-on type ductile iron pipe of the length required to secure fittings. Contractor shall be responsible for advanced excavation of areas where use of reinforced concrete thrust block is questionable.

Retaining gaskets and push-on pipe lock ring restraining systems similar to U.S. Pipe "Field-Lok" retaining gaskets or equal will be an acceptable alternate to retainer glands specified above. For estimating purposes, restrained joints were called out for all fittings and pipe joints to be restrained. Restrained joints will not be a pay item on previously specified restrained joint pipe. All fittings and restraint joints shall be manufactured and stamped “Made in the USA”.

Basis Of Payment: This work will be paid at the Contract Unit Price per pound for DUCTILE IRON FITTINGS AND ACCESSORIES, which price shall be full compensation for all work and materials.

Abandon and Fill Existing Sanitary Sewer

Description: This work shall consist of abandoning and filling the existing sanitary sewer force main after the new force main and appurtenances are installed and operational. This work shall include any provisions

Materials: The existing force main pipe shall be filled with Controlled Low Strength material (CLSM) per Section 593 of the Standard Specifications.

Construction Methods: Any materials removed shall be kept intact and transported to an approved landfill. The contractor will be responsible for following all rules and regulations (i.e.: IEPA, OHSA, etc.) pertaining to the work involving the cutting, removing, and disposal of the existing force main.

Basis of Payment: This item of work shall be paid for at the contract unit price per each for ABANDON AND FILL EXISTING SANITARY SEWER SYSTEM, regardless of the diameter and material of the pipe. This item of work shall include excavation, tapping, plugs and caps, disposal of surplus materials, filling and sealing of pipe, dumping fees, and appurtenant items and other incidentals as necessary to complete this item of work as specified herein. This item all work within the project area and will be paid for only once for this project.

6. REMOVALS AND ADJUSTMENTS

Removal of Existing Manholes

This work shall consist of the removal of existing manholes in accordance with appropriate articles of Section 605 of the Standard Specifications.

All existing frames and lids that are salvageable shall be returned to the Village of Elburn Public Works Department.

This work shall be paid for at the contract unit price each for, SANITARY MANHOLES TO BE REMOVED, which shall include payment in full for all labor, removal and disposal of the structure and frame and lid, select granular backfill and compaction, equipment, and other appurtenant items necessary to complete this item of work.

Removal of Existing Structures

Description: This work shall consist of the removal and satisfactory disposal of existing bridge and drainage structures identified on the plans as headwalls and bridges. The scope of this work shall also include saw cutting, removal and disposal of miscellaneous items appurtenant to the headwalls and bridge, including but not limit to reinforcing steels, footings, toe blocks, base material, etc.

Construction Requirements: The removal of the existing headwalls, culverts, and culvert pipes shall be performed in accordance with the applicable provisions of Section 501 of the Standard Specifications. In areas where the removed structure is under the proposed roadway or driveway pavement structure or other proposed structures (i.e. sidewalks, curbs and gutters, etc.), the trench shall be backfilled as specified under Section 208.03 of the Standard Specifications.

Method of Measurement: Removal of existing structures, regardless of size, will be measured in units of each for each structure designated for removal in the plans, regardless of size or type of materials, to be removed.

Basis of Payment: Removal of concrete bridge structure will be paid for at the contract unit price each for REMOVAL OF EXISTING STRUCTURE.

Trench backfill shall be measured separately for payment under Section 208 of the Standard Specifications.

Remove and Relocate Existing Mailbox

Description: This item will consist of removing, temporarily relocating and maintaining existing mail boxes as needed during the various stages of construction and mounting the existing mailboxes on a new post as shown on the plans.

Material: The new post will be constructed of cedar or pressure treated material (all post to be identical) comprised of 4"x 4" lumber. The post will be standard material available on the local market. The mailbox will be attached to the post using 2-1/2" x 2" lag bolts (see detail in plans).

Construction Requirements: The existing mailbox will be removed and relocated as needed to construct the various stages of construction. The contractor will provide a temporary post or support for the existing mailbox while it is in its temporary location. The contractor will maintain access to the mailbox throughout the construction of the project. Mailbox locations may be temporarily "clustered" together with the approval of the Post Office and residents. The location shall be as directed by the postal carrier.

As soon construction is completed that allows for the permanent installation of the mailboxes, the contractor shall supply and erect a new post as described above and as detailed on the plans. The post shall be placed in a hand or mechanically augured hole and the hole shall be backfilled with limestone screenings and compacted by hand tamping.

Once the proposed mailbox and post is erected in its permanent location, the existing supports will be disposed off site by the contractor.

Basis of Payment: Mail Box removal and relocation shall not be paid for separately for payment, but shall considered INCLUDED in the contract, which work includes removing and temporarily relocating of the mail box (regardless of the number of times its moved), temporary supports, disposal of existing mailbox supports, post, hardware and all labor, tools, equipment and incidentals required to complete the work as specified.

Pipe Culvert Removal

The removal and satisfactory disposal of existing pipe culverts, where indicated on the plans or otherwise directed by the Engineer, will be performed according to Section 501 of the "Standard Specifications" and will be paid for at the contract unit price per foot for PIPE CULVERT REMOVAL regardless of size of diameter of pipe or type of material.

Driveway and Pavement Removal

This item is intended for the removal of the existing permanent bituminous driveways and roadway pavements.

No pavement cores where taken for this project. Based on Kane County Division of Transportation record plans for project on Keslinger Road in the vicinity of this project, the original pavement structure generally consisted of 7”-10” of bituminous pavement on 4”-6” of aggregate base course. The County has stated that Keslinger at this project location has been over laid several times. The exact numbers of over lays and thickness of it is not known.

It shall be the responsibility of the Contractor to verify the thickness of the existing bituminous driveways and pavements to be removed, and the extent to which it is reinforced. No additional compensation will be allowed because of variations from the assumed thickness shown on the plans, or for variations in the amount of reinforcement.

No additional compensation will be allowed for any additional excavation below the driveway or pavement being removed whether it is due to the Contractor's operations or required by the plans or the Engineer, nor for any material required to bring the sub-base to the proper grade.

Basis of Payment

This work will be paid for at the contract unit price per square yard for PAVEMENT REMOVAL or DRIVEWAY PAVEMENT REMOVAL, regardless of the thickness of the existing pavement structure, which price shall include payment in full for all materials, saw cutting, removal and disposal, labor and equipment necessary to complete the work, as herein specified.

Saw Cutting

This item refers to all locations where the a saw cut is required for the removal of pavement, curb, gutter, medians, driveways, sidewalk, butt joints, patches or any other structure which are all one piece with no construction joints. This saw cut shall be made at the limits of construction or other areas as required to perform the proposed improvements shown on the plans. The saw cut shall be accomplished with a "pavement saw". Vermeer type trenchers will not be allowed for final saw cut at the limits of construction.

Saw cutting shall not be paid for separately, but shall be considered INCLUDED in the unit contract price of the related removal item.

7. SIGNING AND PAVEMENT MARKING

Signing

The Kane County Division of Transportation will remove and re-install all signs to be relocated or install all proposed signs. The County will supply the signs, post, and appurtenances for this project. Proposed signs shown in the plans are for reference only.

Epoxy Pavement Marking

Description

Furnishing and installing all epoxy pavement marking shall be done in accordance with Section 780 of the Standard Specifications in so far as the following specifications are not applicable. Locations, sizes, and colors of Epoxy Pavement Markings shall be as directed by the Engineer.

A. Epoxy pavement marking shall be placed on bridge approach pavement, concrete bridge decks, and concrete bridge overlays only as directed by the Engineer. All work shall be coordinated with the bridge Contractor(s) and shall be performed in accordance with Article 780.07 of the Standard Specifications.

B. All epoxy pavement marking proposed for applications other than stop bars and letters and symbols shall be Type B.

Method of Measurement

The lines will be measured for payment in feet of epoxy pavement marking lines applied and accepted, measured in place.

Basis of Payment

This work will be paid for at the contract unit prices per foot of applied line for EPOXY PAVEMENT MARKING — LINE, 4" measured as specified in the standard specifications.

8. RESTORATION AND EROSION CONTROL

Topsoil

This Special Provision amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2007 and shall be constructed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

Topsoil shall conform to the applicable requirements of Article 1081.05 (Topsoil and Compost) of the Standard Specifications except when tested for organic content, topsoil shall be between 1% and 10% as determined in accordance with AASHTO T-194 (Wet Combustion).

Wetland Seeding

Description: Areas on the plans designated as wetland areas shall be restored to the original grade and the area be seeded with a non-aggressive, non-permanent cover

Materials: The seed mixture for the wetland area to be restored shall be *Agrostis alba* @ 5 lbs/ac. The contractor may submit similar mixes for consideration. Any changes to the mix will need to be coordinate and approved with the Illinois Department of Transportation.

Bases of Payment: This work will be paid for at the contract unit price per square yard for SEEDING, SPECIAL, which price shall be full compensation for all seed, preparation and placing, labor, equipment and other incidental items required for performing the work as herein specified.

Temporary Ditch Checks, Rolled Excelsior

Description: This work consists of the installation of Temporary Ditch Checks, Rolled Excelsior in accordance with applicable articles of Section 280 of the Standard Specifications and as detailed on the plans. The work shall include supplying, installing, relocating, cleaning, and removal of Temporary Ditch Checks, Rolled Excelsior as directed by the Engineer.

Method of Measurement: This work shall be measured for payment as each.

Basis of Payment: This work will be paid for at the contract unit price per each for TEMPORARY DITCH CHECKS, ROLLED EXCELSIOR, which price shall be full compensation for all labor, equipment and materials required for performing the work as herein specified and detailed on the plans.

Inlet and Pipe Protection

Description: Inlet protection in turf areas shall consist of placing a 6' x 6' sod area around each inlet. The sod perimeter shall be wrapped with erosion control fencing. Filter fabric shall be placed in all inlets. The fabric shall overlay the frame by a minimum of 2" and shall conform to materials specified for fabric fence.

Maintenance: Filter fabric placed under the inlet grate in turf inlets shall be cleaned or replaced when the filter fabric is 25% covered. The filter fabric shall remain in place until the turf areas have developed a minimum of 80% coverage or as directed by the Engineer.

Basis of Payment: This work shall not be paid for separately, but shall be considered INCLUDED in the unit contract price of the INLET AND PIPE PROTECTION.

Maintenance of Temporary Erosion Control Systems

Description: This work shall include the inspection, maintenance, and the cleaning of inlet filters, perimeter erosion barriers, ditch checks and other temporary erosion control devices as shown on the plans.

Construction Requirements: All of temporary erosion control devices shall, at a minimum, be inspected weekly and within 24 hours after every rain event that produces 0.50 inches of rain or more during a 24-hour period.

Inlet filters: The filters shall be emptied if the sediment bag is more than half filled with sediment and debris, or as directed by the Engineer. Any caked on silt from the sediment bag shall be removed and reverse flush the bag for optimal filtration.

If the filter is torn, the filter shall be replaced.

Ditch checks: Sediment deposits shall be removed when sediments reach 0.5 the height of the barrier. The removal of the sediment may require the replacement of the ditch check.

Sediment shall be disposed in accordance with Section 202.

The devices damaged by the Contractor's operations or negligence shall be repaired at the Contractor's expense, or as directed by the Engineer.

The replacement of the inlet filters and ditch checks will not be paid for separately, but shall be incidental to this pay item.

Basis of Payment: This work will be paid not be paid for separately but shall be considered INCLUDED in the cost of the original erosion control items.

Temporary Clear Water Diversion

Description: This work shall consist of constructing a temporary clear water diversion the location shown on the plans, and as approved by the Engineer.

Submittals: The Contractor shall submit for approval to the Engineer and the Kane-DuPage Soil and Water Conservation District documents outlining the materials and procedures for the method of construction for the Temporary Clear Water Diversion. The furnishing of such plans and methods shall not relieve the Contractor of any of his responsibility for the safety of the work and for the successful completion of the project.

The Contractor may use inflatable dams, precast concrete units, or other types of protective facilities as approved by the Engineer and the Kane-DuPage Soil and Water Conservation District. All work and installation of water diversion devices or systems shall be limited to areas within the Right-of-Way.

Materials: The diversion system or cofferdam used for clear water diversion cannot be made of earthen fill or any practices that would result in the release of sediments into the water. The cofferdam or diversion system shall be constructed of nonerodible materials. Acceptable practices to the Corps of Engineers include pre-fabricated rigid cofferdams, sheet piling, inflatable bladders, sandbags and fabric lined basins.

Method of Measurement: This work shall be measured for payment on a lump sum basis. Where the Contractor's operations require relocating the diversion system for construction staging, the relocation will not be paid for separately, but shall be included in the lump sum price.

Basis of Payment: This work will be paid for at the contract unit price per lump sum for TEMPORARY CLEAR WATER DIVERSION, and payment shall include all costs for materials, equipment, and labor required to install, maintain, relocate, and remove the diversion system implemented.

Turbidity Curtain

Description: This work shall consist of furnishing, placing and removing a geosynthetic barrier totally enclosing construction within watercourses to confine sedimentation within the construction area. The Turbidity Curtain shall be a pre-assembled system, including the geotextile/geomembrane, connection and securing mechanisms, stakes, and ballast chain. The Contractor shall provide a system of adequate capability, appropriate for the site conditions such as depth (shown on plans as stream bottom elevation to normal water surface elevation), current, and wind/waves. The Turbidity Curtain shall be constructed according to the Manufacturer’s recommendations.

The turbidity curtain shall be IVI-66 manufactured by Indian Valley Industries, Inc. of Johnson City, NY (800-659-5111) or equivalent as approved by the Engineer.

The Contractor shall submit to the Engineer and the Kane-DuPage Soil and Water Conservation District the product information for the proposed Turbidity Curtain for approval prior to the start of work.

The Turbidity Curtain location and placement during demolition will be as specified by the Kane-DuPage Soil and Water Conservation District.

The geosynthetic shall meet the minimum physical requirements for Stabilization Geotextile, except the permittivity (ASTM D 4491) requirement shall be 0.06 sec-1 maximum. Geosynthetics may be polymer impregnated to negate permittivity and opening size requirements. Hemmed pockets shall be sewn or heat bonded for stakes and bottom weights. Panel ends shall have metal grommets placed through a reinforced hem. Connections between panels shall be tightly tied with synthetic or wire rope to prevent flow through the joint.

Stakes shall be hardwood or steel with sufficient length and cross-section to support the curtain and maintain sufficient freeboard to prevent overtopping. Stake spacing shall not exceed 6.5 feet.

All hardware such as stakes, ballast chain, connection bolts, reinforcement plates, and tension cables shall be galvanized, stainless steel, aluminum, or otherwise corrosion resistant. The ballast chain shall have sufficient mass to maintain the geosynthetic in a vertical position, but shall not be less than 0.7 lb/ft.

The Turbidity Curtain shall be placed according to locations shown on the plans and according to the manufacturer's published installation guidelines or as directed by the Engineer. The depth and location of the curtain shall be governed by stream depths anticipated at the time of construction and approved by the Engineer and the Kane-DuPage Soil and Water Conservation District. In streams, the Turbidity Curtain shall be placed parallel to currents or flow. The Turbidity Curtain system shall be designed to handle site-specific drainage or flow appurtenances. This design should be based on the current flow conditions and requirements of the Soil and Water Conservation District. The Contractor shall be responsible to provide and maintain sufficient anchors, tie-downs, or other mechanisms to insure proper position and performance of the Turbidity Curtain. The Turbidity Curtain shall include a re-directional barrier on the upstream end such as a concrete barrier or wood planking. Any visible plume of cloudy water outside the protected construction area shall constitute inadequate performance of the Turbidity Curtain. The Contractor shall immediately modify, adjust, or repair any portion of Turbidity Curtain to correct inadequate performance.

Turbidity Curtain shall maintain continuous contact with the bottom. Excess curtain shall lie without wrinkles on the bottom, away from construction activity.

The Contractor shall maintain the Turbidity Curtain until the construction activity within the watercourse is complete and the turbidity is reduced to acceptable levels as approved by the Engineer. Maintaining shall include keeping a tight alignment around the work area or shoreline.

Basis Of Payment: This work will be paid for at the contract unit price per lineal foot for TURBIDITY CURTAIN.

Sediment Control, Silt Fence

This Special Provision revises Section 280 and Section 1080 of the Standard Specifications for Road and Bridge Construction to eliminate the use of Perimeter Erosion Barrier and create two new items, one for Sediment Control, Silt Fence, and another for Sediment Control, Silt Fence Maintenance.

280.02 Materials. Revise Article 280.02 (f) to read:

"(f) Silt Fence ..... Article 1080.02"

1080.02 Geotextile Fabric. Add the following to Article 1080.02:

"Sediment Control, Silt Fence fabric shall conform to the specifications of AASHTO M288-00 for Temporary Silt Fence, < 50% elongation, unsupported. This fabric shall be 90 cm (36 in) in width.

Certification. The manufacturer shall furnish a certification with each shipment of silt fence material, stating the amount of product furnished, and that the material complies with these requirements.

Sediment Control, Silt Fence support posts shall be of 5x5 cm (2x2 in) nominal hardwood, a minimum of 1.2 m (48 in) long."

280.04 Temporary Erosion Control Systems. Delete Article 280.04 (b) and replace with:

"(b) Sediment Control, Silt Fence. This silt fence shall consist of a continuous silt fence adjacent to an area of construction to intercept sheet flow of water borne silt and sediment, and prevent it from leaving the area of construction.

The silt fence shall be supported on hardwood posts spaced on a maximum of 2.4 m (8 ft) centers. The bottom of the fabric shall be installed in a backfilled and compacted trench a minimum of 150 mm (6 in) deep and securely attached to the hardwood post by a method approved by the Engineer. The minimum height above ground for all silt fence shall be 760 mm (30 in)."

280.05 Maintenance. Add the following to Article 280.05:

"Sediment Control, Silt Fence Maintenance shall consist of maintaining silt fence that has fallen down or become ineffective as a result of natural forces. This work shall include the removal of sediment buildup from behind the silt fence when the sediment has reached a level of half the above ground height of the fence, or as directed by the Engineer.

Silt fence damaged by the Contractor's operations or negligence shall be repaired at the Contractor's expense, or as directed by the Engineer."

280.06 Method of Measurement. Revise Article 280.06 (c) to read:

"(c) Sediment Control, Silt Fence. This work will be measured for payment in meters (feet) in place and removed. Silt fence designated not to be removed, by either the plans or the Engineer, will be measured for payment by this item also.

Sediment Control, Silt Fence Maintenance. This work will be measured for payment, each incident, in meters (feet) of silt fence cleaned, re-erected, or otherwise maintained."

280.07 Basis of Payment. Revise Article 280.07 (c) to read:

"(c) Sediment Control, Silt Fence. This work will be paid for at the contract unit price per meter (feet) for SEDIMENT CONTROL, SILT FENCE.

Sediment Control, Silt Fence Maintenance. This work will be paid for at the contract unit price per meter (feet) for SEDIMENT CONTROL, SILT FENCE MAINTENANCE."

Mowing and General Maintenance of Turf Areas

This item of work shall include protecting permanently landscaped areas against traffic or other use. Surface otherwise gullied, rutted, or otherwise damaged once the seed or sod has been placed shall be repaired by regarding, adding topsoil and re-sodding or re-seeding the damaged area. In addition, the contractor shall mow, water as directed, and otherwise maintain permanently landscaped areas in a satisfactory condition until the final inspection.

Mowing will be required to maintain a grass height of not more than five (5) inches.

Mowing and general maintenance of turf areas will not be measured separately for payment, but shall be considered INCLUDED in the various items for seeding and sodding.

Temporary Erosion Control Seeding
Effective: November 1, 1999

Description: This work shall consist of seeding all erodable/bare earth areas every 7 days to minimize the amount of erodable surface area within the contract limits.

Materials: Seeds shall meet the requirements of Article 1081.04 of the Standard Specifications and shall not consist of Oats from March 1 to July 31 and Winter Wheat from August 1 to November 15. Seed shall be delivered to the job site in unopened, labeled bags. A certification from the supplier stating the weight and contents of the bag shall be printed on or attached to each bag along with a certification stating that the seed meets the requirements of Article 1081.04(c) of the Standard Specifications.

Construction Requirements: Seedbed preparation will not be required for Temporary Erosion Control Seeding if the soil is in a loose condition. Light disking shall be done if the soil is hard or caked. The Contractor shall coordinate his work so no more than a total of 10 acres is disturbed at a time. All earthwork shall be completed, and temporary or permanently seeding complete before additional areas are disturbed. Under no conditions shall the Contractor prolong final grading and shaping so the entire project can be permanently seeded at one time. Wherever possible, final grading should be permanently seeded and the permanent erosion control should be installed. The ditch bottoms and back slopes shall not be disturbed again unless the seeding has not become established. When fore slopes need to be regarded to the new shoulder, all work shall be confined to the fore slopes, and any damage to the ditch bottom, back slope, or permanent erosion control shall be repaired at the Contractor expense. Fertilizer nutrients will not be required (unless directed by the Engineer).

Hand broadcasting of the seed or other seeding method approved by the Engineer that will achieve a broad and reasonably uniform application, will be allowed. Seed bags shall be opened in the presence of the Engineer and the seed shall be evenly broadcast onto bare earth area at a rate of 110 kg/hectacre (100 lbs./acre). If an area that was seeded is germinating or has growth, it need not be seeded again until it is disturbed.

The Contractor shall apply seed to all erodable bare earth areas within the contract limits every 7 days, regardless or weather conditions or progress of the work unless otherwise directed by the Engineer. The Engineer may require critical locations be given special treatment and seeded immediately. The Contractor shall have 48 hours to comply with the request.

The Contractor shall name a person at the preconstruction meeting who shall be on the jobsite and who is responsible for assuring that the erosion control work is completed in a timely manner.

Method of Measurement: Temporary Erosion Control Seeding will be measured for payment in acres applied. Open, broken, or partial bags of seed will not be acceptable for use and will not be measured for payment.

Basis of Payment: This work will be not be paid for separately but shall be considered INCLUDED in the various restoration items.

9. GUARD RAIL

Steel Plate Beam Guardrail, (Short Radius)

Description: This work shall consist of installing steel plate beam guardrail, (short radius) and posts at locations shown on the plans or as directed by the Engineer.

Materials: The guardrail shall consist of materials in accordance of Article 1006 and 1007 of the Standard Specifications.

Construction Requirements: The guardrail shall be constructed in accordance of Section 630.

Basis of Payment: Steel plate beam guardrail, short radius shall be paid for at the contract unit price lineal foot for STEEL PLATE BEAM GUARDRAIL, (SHORT RADIUS).

Traffic Barrier Terminal Type 1, Special (Flared)

Description: This work shall consist of furnishing and erecting Traffic Barrier Terminal Type 1, Special (Flared) at locations shown on the plans or as directed by the Engineer.

Materials: The barrier terminal shall consist of materials in accordance of Article 1006 of the Standard Specifications.

Construction Requirements: The guardrail shall be constructed in accordance of Section 631.

Basis of Payment: Traffic barrier terminal type 1, special (flared) shall be paid for at the contract unit price each for TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED).

Guardrail Reflectors

Description: Furnishing and installing all Guardrail Mounted Reflectors. The Kane County Division of Transportation pre-approved Guardrail Mounted Delineator "AKT-567", or approved equivalent, shall be provided for all proposed Steel Plate Beam Guardrail locations shown in plan.

The reflective area shall be approximately nine (9) square inches of encapsulated lens reflective sheeting permanently mounted to the bracket by either pressure sensitive or heat. The color of the reflective sheeting shall be chosen in the field by the Engineer. The delineator shall be mounted at each post location per the manufacturer's specifications and details.

The bracket shall be 12 gauge galvanized steel. The bracket shall be of the same size and shape as the reflective sheeting that is mounted on it. The bracket shall have slotted holes in such a manner as to fit under the collars of the existing guardrail bolts when tightened down.

There shall be no open area between the guardrail and the reflector to prohibit vandalism. The delineator shall mount within the channel section of the guardrail and shall not protrude further than the guardrail itself. No epoxy shall be used to install the delineator to the guardrail. The delineator shall be capable of holding reflective material for either one way or two way application. The galvanizing shall be G-90 or better.

Basis of Payment: This work shall be paid for at the contract unit price each for MONODIRECTIONAL GUARD RAIL REFLECTORS of the type and lens color specified.

10. MISCELLANEOUS ITEMS

Preservation of Trees and Shrubs

The Contractor shall remove only those trees and shrubs so designated by the Engineer, or those, which directly interfere with the safety or quality of construction practices. The Contractor shall exercise extreme care when working near existing trees and shrubs to avoid damaging those not scheduled for removal, and shall replace any damaged plants at his own expense.

Protection of Property Markers

The Contractor shall avoid disturbing property markers during construction. If the marker is damaged, the Contractor shall replace it with the same materials as the existing. The marker will be placed under the direction of a Registered Land Surveyor of the State of Illinois. This work will not be paid for separately but shall be considered included in the cost of the project.

Furnishing and Installing Property Markers

Description: This work shall consist of furnishing and placing property markers at the locations shown on the plans.

Construction Requirements: The property markers will consist of a 3/4-inch diameter pipe, 36" in length, will be set at the location shown on the plans. The property pin will be placed under the direction of a Registered Land Surveyor of the State of Illinois. Monument records will not be required for property pins.

Basis of Payment: The work of furnishing and installing property markers will be paid for at the contract unit price each for FURNISHING AND INSTALLING PROPERTY MARKERS, which price shall include furnishing the pipe, labor, tools, equipment and incidentals required to complete the work as specified.

Supervision by a registered Land Surveyor and all collateral work necessary to establish the property pin, will not be paid for separately, but shall be considered incidental to setting the property pin as specified.

Mailbox to be Removed and Replaced

Description: This item will consist of removing and salvaging the existing mail box and installing a new mailbox and post as shown on the plans. The existing mailbox and post shall be returned to the property owner.

Temporary Installation: The existing mailbox will be removed and relocated as needed to construct the various stages of construction. The contractor will provide a temporary post or support for the existing mailbox while it is in its temporary location. The contractor will

maintain access to the mailbox throughout the construction of the project. Mailbox locations may be temporarily "clustered" together with the approval of the Post Office and residents. The location shall be as directed by the postal carrier.

Once the proposed mailbox and post is erected in its permanent location, the existing supports and mailbox will be disposed off site by the contractor.

Material: The Contractor shall obtain an approved United States Postal Service mailbox from a local hardware store.

The new post will be constructed of cedar or pressure treated material (all post to be identical) comprised of 4"x 4" lumber. The post will be standard material available on the local market. The mailbox will be attached to the post using 2-1/2" x 2" lag bolts (see detail in plans).

Construction Requirements: Before installing the mailbox, the Contractor shall contact the postmaster prior to installing the mailbox and supports.

The mailbox shall be installed with bottom of the box at a vertical height of between 41-45" from the road surface.

As soon construction is completed that allows for the permanent installation of the mailboxes, the contractor shall supply and erect a new post as described above and as detailed on the plans. The post shall be placed in a hand or mechanically augured hole and the hole shall be backfilled with limestone screenings and compacted by hand tamping.

Basis of Payment: The work will not be measured separately for payment but shall be considered incidental to the contract. The work includes removing the existing mail box, temporarily relocating of the mail box (regardless of the number of times its moved), temporary supports, and installing the new mailbox, supports, post, hardware and all labor, tools, equipment and incidentals required to complete the work as specified.

Vandalism

Any work (finished concrete, asphalt, etc.), which has been vandalized, will be REPLACED, not repaired, by the contractor at their expense. It is recommended by the County that the contractor finish a normal day's concrete pour by 2:00 p.m. to allow the concrete to set up before the crews leave the job.

DISTRICT ONE SPECIAL PROVISIONS

Fine Aggregate for Hot-Mix Asphalt (HMA) (District One)
Effective: May 1, 2007

Revise Article 1003.03 (c) to read:

"Gradation. The fine aggregate gradation for all HMA shall be FA1, FA 2, FA 20, or FA 21. When Reclaimed Asphalt Pavement (RAP) is incorporated in the HMA design, the use of FA 21 Gradation will not be permitted.

Temperature Control for Concrete Placement (District One)
Effective: May 1, 2007

Delete the second and third sentences of the second paragraph of Article 1020.14(a) of the Standard Specifications.

Hot Mix Asphalt – Density Testing of Longitudinal Joints (D-1)
Effective: January 1, 2007
Revised: February 26, 2008

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). This work shall be according to Section 1030 of the Standard Specifications except as follows.

Definitions:

Density Test Location: The station location used for density testing.

Density Test Site: Individual test site where a single density value is determined.

Density Reading: A single, one minute nuclear density reading.

Density Value: The density determined at a given density test site from the average of two "density readings".

Quality Control / Quality Assurance (QC/QA)

1030.05(d) (3) add the following paragraphs:

> 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 two inches, from each pavement edge. For Example, on a four inch HMA lift the near edge of the nuclear gauge or core barrel shall be within four inches from the edge of

pavement. The remaining 3 density test sites shall be equally spaced between the two edge readings. Documentation shall indicate whether the joint was confined or unconfined.

The joint density value shall be determined using either a correlated nuclear gauge or cores. When using a correlated nuclear gauge, two "density readings" shall be taken at the given density test site. The gauge shall be rotated 180 degrees between "density readings". If the two "density readings" are not within 1.5 lb/cu ft (23 kg/cu m) then one additional "density reading" shall be taken. Additional "density readings" taken at a given site shall not be allowed to replace the original "density readings" unless an error has occurred (i.e. the nuclear gauge was sitting on debris).

1030.05(d) (4) Replace the density control limits table with the following:

DENSITY CONTROL LIMITS			
Mixture Composition	Parameter	Individual Test [2/]	Minimum Joint Density Value
IL-9.5, IL-12.5	Ndesign ≥ 90	92.0 – 96.0 %	90.0 %
IL-9.5,IL-9.5L, IL-12.5	Ndesign < 90	92.5 – 97.4 %	90.0 %
IL-19.0, IL-25.0	Ndesign ≥ 90	93.0 – 96.0 %	90.0 %
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0 – 97.4 %	90.0 %
All Other	Ndesign = 30	93.0 [1/] - 97.4 %	90.0 %

1/ 92.0 % when placed as first lift on an unimproved subgrade.
2/ "Density values" shall meet the "Individual Test" density control limits specified herein.

Bituminous Prime Coat for Hot-Mix Asphalt Pavement (Full Depth) (District One)
Effective: May 1, 2007

Revise Article 407.06(b) of the Standard Specifications to read:

"A bituminous prime coat shall be applied between each lift of HMA according to Article 406.05(b) at a rate of 0.02 to 0.05 gal/sq yd (0.1 to 0.2 L/sq m), the exact rate to be determined by the Engineer."

Revise the second paragraph of Article 407.12 of the Standard Specifications to read:

"Prime Coat will be paid for at the contract unit price per gallon (liter) or per ton (metric ton) for BITUMINOUS MATERIALS (PRIME COAT)."

Use of RAP (District One)

Effective: January 1, 2007
Revised: August 1, 2008

In Article 1030.02(g), delete the last sentence of the first paragraph in (Note 2).

Revise Section 1031 of the Standard Specifications to read:

"**SECTION 1031. RECLAIMED ASPHALT PAVEMENT**

1031.01 Description. Reclaimed asphalt pavement (RAP) is reclaimed asphalt pavement resulting from cold milling or crushing of an existing dense graded hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction. The contractor can also request that a processed pile be tested by the Department to determine the aggregate quality.

1031.02 Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type and size as listed below (i.e. "Homogenous Surface").

Prior to milling or removal of an HMA pavement, the Contractor shall request the District to provide verification of the quality of the RAP to clarify appropriate stockpile.

(a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.

(b) Conglomerate 5/8. Conglomerate 5/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent

gradation and/or asphalt binder content prior to processing. All conglomerate 5/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate 5/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(c) Conglomerate 3/8. Conglomerate 3/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least B quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 3/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 3/8 in (9.5mm) or smaller screen. Conglomerate 3/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(d) Conglomerate Variable Size. Conglomerate variable size RAP shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least B quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate variable size RAP shall be processed prior to testing by crushing and screening to where all RAP is separated into various sizes. All the conglomerate variable size RAP shall pass the ¾ in. (19mm) screen and shall be a minimum of two sizes. Conglomerate variable size RAP stockpiles shall not contain steel slag or other expensive material as determined by the Department.

(e) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low Esal), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an in consistent gradation and/or asphalt binder content. Conglomerate DQ Rap stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(f) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

1031.03 Testing. When used in HMA, the RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

(a) Testing Conglomerate 3/8 and Conglomerate Variable Size. In addition to the requirements above, conglomerate 3/8 and variable size RAP shall be tested for maximum theoretical specific gravity (G_{mm}) at a frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

(b) Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous/ Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
3/4 in. (19mm)		
1/2 in. (12.5mm)	± 8 %	± 15 %
No. 4 (4.75 mm)	± 6 %	± 13 %
No. 8 (2.36 mm)	±5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 µm)	± 5. %	
No. 200 (75 µm)	± 2.0 %	± 4.0 %
Asphalt Binder	± 0.4 % [1/]	± 0.5 %
Gmm	±0.02 % [2/]	

G_{mm}	±0.03 % [3/]	

1/ The tolerance for conglomerate 3/8 shall be ± 0.3 %.

2/ Applies only to conglomerate 3/8. When variation of the G_{mm} exceeds the ± 0.02 % tolerance, a new conglomerate 3/8 stockpile shall be created which will also require an additional mix design.

3/ Applies only to conglomerate variable size. When variation of the G_{mm} exceeds the ± 0.03 tolerance, a new conglomerate variable size stockpile shall be created which will also require an additional mix design.

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt binder content test results fall outside the appropriate tolerances, the RAP shall not be used in HMA unless the RAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

1031.04 Quality Designation of Aggregate in RAP. The quality of the RAP shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(a) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) surface mixtures are designated as containing Class B quality coarse aggregate.

(b) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder and IL-9.5L surface mixtures are designated as Class D quality coarse aggregate.

(c) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

(d) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

1031.05 Use of RAP in HMA. The use of RAP in HMA shall be as follows.

(a) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(b) Steel Slag Stockpiles. RAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) surface mixtures only.

(c) Use in HMA Surface Mixtures (High and Low ESAL). RAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be either homogeneous or conglomerate 3/8 or variable size in which the coarse aggregate is Class B quality or better.

(d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be homogeneous, conglomerate 5/8, or conglomerate 3/8, conglomerate variable size, in which the coarse aggregate is Class C quality or better.

(e) Use in Shoulders and Subbase. RAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be homogeneous, conglomerate 5/8, conglomerate 3/8, conglomerate variable size, or conglomerate DQ.

(f) The use of RAP shall be a contractor's option when constructing HMA in all contracts. When the contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table for a given N Design.

Max Mix Rap Percentage

HMA Mixtures 1/ 3///		Maximum % Rap	
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30/40 2/	30	10
50	25/40 2/	15/25 2/	10
70	25/30 2/	10/20 2/	10
90	10/15 2/	10/15 2/	10
105	10/15 2/	10/15 2/	10

1/ For HMA Shoulder and Stabilized Sub-Base (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.

2/ Value of Max % RAP If 3/8 Rap or conglomerate variable size RAP is utilized.

3/ When RAP exceeds 20%, and used in an overlay and AC shall be PG 58-22. When used in full depth HMA, base course, shoulders, or stab subbase the AC shall be PG58-28.

1031.06 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP material meeting the above detailed requirements.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

1031.07 HMA Production. The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design. When producing mixtures containing conglomerate 3/8 or conglomerate variable size RAP, a positive dust control system shall be utilized.

HMA plants utilizing RAP shall be capable of automatically recording and printing the following information.

(a) Drier Drum Plants

(1) Date, month, year, and time to the nearest minute for each print.

(2) HMA Mix number assigned by the Department

(3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton)

(4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton)

(5) Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

(6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

(7) Residual asphalt binder in the RAP material (per size) as a percent of the total mix to the nearest 0.1 unit.

(8) Aggregate and RAP moisture compensators in percent as set on the control panel (Required when accumulated or individual aggregate and RAP are printed in wet condition).

(b) Batch Plants

(1) Date, month, year, and time to the nearest minute for each print.

(2) HMA mix number assigned by the Department.

(3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram)

(4) Mineral filler weight to the nearest pound (kilogram).

(5) Individual RAP Aggregate weight to the nearest pound (kilogram).

(6) Virgin asphalt binder weight to the nearest pound (kilogram)

(7) Residual asphalt binder of each RAP size material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.08 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP in aggregate surface course and aggregate shoulders shall be as follows.

(a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except “Other”. The testing requirements of Article 1031.03 shall not apply.

(b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

Storm Sewer Adjacent to or Crossing Water Main
Effective: February 1, 1996
Revised: January 1, 2007

This work consists of constructing storm sewer adjacent to or crossing a water main, at the locations shown on the plans. The material and installation requirements shall be according to the latest edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and the applicable portions of Section 550 of the Standard Specifications; which may include concrete collars and encasing pipe with seals if required.

Pipe materials shall meet the requirements of Sections 40 and 41-2.01 of the "Standard Specifications for Water and Sewer Main Construction in Illinois", except PVC pipe will not be allowed. Ductile-Iron pipe shall meet the minimum requirements for Thickness Class 50.

Encasing of standard type storm sewer, according to the details for "Water and Sewer Separation Requirements (Vertical Separation)" in the "STANDARD DRAWINGS" Division of the "Standard Specifications for Water and Sewer Main Construction in Illinois", may be used for storm sewers crossing water mains.

Basis of Payment: This work will be paid according to Article 550.10 of the Standard Specifications, except the pay item shall be STORM SEWER (WATER MAIN REQUIREMENTS), of the diameter specified.

BDE SPECIAL PROVISIONS
For the July 31 and September 18, 2009 Lettings

The following special provisions indicated by an "x" are applicable to this contract and will be included by the Project Development and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

	File Name	#		Special Provision Title	Effective	Revised
*	80240	1		Above Grade Inlet Protection	July 1, 2009	
	80099	2		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2007
*	80243	3		American Recovery and Reinvestment Act Provisions	April 1, 2009	
*	80236	4		American Recovery and Reinvestment Act Signing	April 1, 2009	April 15, 2009
	80186	5	✔	Alkali-Silica Reaction for Cast-in-Place Concrete	Aug. 1, 2007	Jan. 1, 2009
	80213	6	✔	Alkali-Silica Reaction for Precast and Precast Prestressed Concrete	Jan. 1, 2009	
	80207	7	✔	Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside Illinois State Borders	Nov. 1, 2008	
	80192	8		Automated Flagger Assistance Device	Jan. 1, 2008	
	80173	9	✔	Bituminous Materials Cost Adjustments	Nov. 2, 2006	April 1, 2009
*	80241	10		Bridge Demolition Debris	July 1, 2009	
	5026I	11		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
	5048I	12		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
	5049I	13		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
	5053I	14		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	Jan. 1, 2007
	80166	15	✔	Cement	Jan. 1, 2007	April 1, 2009
	80198	16		Completion Date (via calendar days)	April 1, 2008	
	80199	17		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80094	18	✔	Concrete Admixtures	Jan. 1, 2003	April 1, 2009
	80193	19		Concrete Barrier	Jan. 1, 2008	
	80214	20		Concrete Gutter, Type A	Jan. 1, 2009	
	80215	21		Concrete Joint Sealer	Jan. 1, 2009	
	80226	22	✔	Concrete Mix Designs	April 1, 2009	
*	80237	23	✔	Construction Air Quality – Diesel Vehicle Emissions Control	April 1, 2009	July 1, 2009
*	80239	24	✔	Construction Air Quality – Idling Restrictions	April 1, 2009	
	80227	25	✔	Determination of Thickness	April 1, 2009	
	80177	26		Digital Terrain Modeling for Earthwork Calculations	April 1, 2007	
	80029	27	✔	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Nov. 1, 2008
	80178	28	✔	Dowel Bars	April 1, 2007	Jan. 1, 2008
	80179	29		Engineer's Field Office Type A	April 1, 2007	Aug. 1, 2008
	80205	30	✔	Engineer's Field Office Type B	Aug. 1, 2008	
	80175	31		Epoxy Pavement Markings	Jan. 1, 2007	
	80189	32	✔	Equipment Rental Rates	Aug. 2, 2007	Jan. 2, 2008
	80228	33	✔	Flagger at Side Roads and Entrances	April 1, 2009	
	80229	34		Fuel Cost Adjustment	April 1, 2009	
*	80169	35		High Tension Cable Median Barrier	Jan. 1, 2007	April 1, 2009
	80194	36	✔	HMA – Hauling on Partially Completed Full-Depth Pavement	Jan. 1, 2008	
	80181	37	✔	Hot-Mix Asphalt – Field Voids in the Mineral Aggregate	April 1, 2007	April 1, 2008
	80201	38	✔	Hot-Mix Asphalt – Plant Test Frequency	April 1, 2008	
	80202	39	✔	Hot-Mix Asphalt – Transportation	April 1, 2008	
	80136	40		Hot-Mix Asphalt Mixture IL-4.75	Nov. 1, 2004	Jan. 1, 2008
	80195	41		Hot-Mix Asphalt Mixture IL-9.5L	Jan. 1, 2008	
	80109	42		Impact Attenuators	Nov. 1, 2003	Nov. 1, 2008
	80110	43		Impact Attenuators, Temporary	Nov. 1, 2003	Jan. 1, 2007
	80230	44	✔	Liquidated Damages	April 1, 2009	
	80196	45		Mast Arm Assembly and Pole	Jan. 1, 2008	Jan. 1, 2009
	80045	46		Material Transfer Device	June 15, 1999	Jan. 1, 2009

	File Name	#		Special Provision Title	Effective	Revised
	80203	47		Metal Hardware Cast into Concrete	April 1, 2008	April 1, 2009
	80165	48		Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2007
*	80238	49		Monthly Employment Report	April 1, 2009	
	80082	50		Multilane Pavement Patching	Nov. 1, 2002	
	80180	51	✔	National Pollutant Discharge Elimination System / Erosion and Sediment Control Deficiency Deduction (NOTE: This special provision was previously named *"Erosion and Sediment Control Deficiency Deduction"*.)	April 1, 2007	Nov. 1, 2008
	80208	52		Nighttime Work Zone Lighting	Nov. 1, 2008	
	80129	53		Notched Wedge Longitudinal Joint	July 1, 2004	Jan. 1, 2007
	80182	54		Notification of Reduced Width	April 1, 2007	
	80069	55		Organic Zinc-Rich Paint System	Nov. 1, 2001	Jan. 1, 2008
	80216	56		Partial Exit Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
	80231	57	✔	Pavement Marking Removal	April 1, 2009	
	80022	58	✔	Payments to Subcontractors	June 1, 2000	Jan. 1, 2006
*	80235	59	✔	Payrolls and Payroll Records	March 1, 2009	July 1, 2009
	80209	60	✔	Personal Protective Equipment	Nov. 1, 2008	
	80232	61		Pipe Culverts	April 1, 2009	
	80134	62	✔	Plastic Blockouts for Guardrail	Nov. 1, 2004	Jan. 1, 2007
	80119	63		Polyurea Pavement Marking	April 1, 2004	Jan. 1, 2009
	80210	64		Portland Cement Concrete Inlay or Overlay	Nov. 1, 2008	
	80170	65		Portland Cement Concrete Plants	Jan. 1, 2007	
	80217	66		Post Clips for Extruded Aluminum Signs	Jan. 1, 2009	
	80171	67	✔	Precast Handling Holes	Jan. 1, 2007	
	80218	68		Preventive Maintenance – Bituminous Surface Treatment	Jan. 1, 2009	April 1, 2009
	80219	69		Preventive Maintenance – Cape Seal	Jan. 1, 2009	April 1, 2009
	80220	70		Preventive Maintenance – Micro-Surfacing	Jan. 1, 2009	
	80221	71		Preventive Maintenance – Slurry Seal	Jan. 1, 2009	
	80211	72		Prismatic Curb Reflectors	Nov. 1, 2008	
	80015	73		Public Convenience and Safety	Jan. 1, 2000	
	3426I	74		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157	75		Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
	80223	76		Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
	80172	77	✔	Reclaimed Asphalt Pavement (RAP)	Jan. 1, 2007	April 1, 2009
	80183	78	✔	Reflective Sheeting on Channelizing Devices	April 1, 2007	Nov. 1, 2008
	80151	79	✔	Reinforcement Bars	Nov. 1, 2005	April 1, 2009
	80206	80	✔	Reinforcement Bars – Storage and Protection	Aug. 1, 2008	April 1, 2009
	80224	81		Restoring Bridge Approach Pavements Using High-Density Foam	Jan. 1, 2009	
	80184	82		Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	April 1, 2007	
*	80131	83	✔	Seeding	July 1, 2004	July 1, 2009
	80152	84	✔	Self-Consolidating Concrete for Cast-In-Place Construction	Nov. 1, 2005	Jan. 1, 2009
	80132	85	✔	Self-Consolidating Concrete for Precast Products	July 1, 2004	Jan. 1, 2007
	80212	86	✔	Sign Panels and Sign Panel Overlays	Nov. 1, 2008	
	80197	87	✔	Silt Filter Fence	Jan. 1, 2008	
	80127	88		Steel Cost Adjustment	April 2, 2004	April 1, 2009
	80153	89	✔	Steel Plate Beam Guardrail	Nov. 1, 2005	Aug. 1, 2007
	80191	90	✔	Stone Gradation Testing	Nov. 1, 2007	
	80234	91		Storm Sewers	April 1, 2009	
	80143	92	✔	Subcontractor Mobilization Payments	April 2, 2005	
	80075	93		Surface Testing of Pavements	April 1, 2002	Jan. 1, 2007
	80087	94	✔	Temporary Erosion Control	Nov. 1, 2002	Jan. 1, 2008
	80225	95		Temporary Raised Pavement Marker	Jan. 1, 2009	

File Name	#		Special Provision Title	Effective	Revised
80176	96	✔	Thermoplastic Pavement Markings	Jan. 1, 2007	
20338	97		Training Special Provisions	Oct. 15, 1975	
80185	98		Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	April 1, 2007	
80149	99		Variable Spaced Tining	Aug. 1, 2005	Jan. 1, 2007
80071	100		Working Days	Jan. 1, 2002	
80204	101		Woven Wire Fence	April 1, 2008	

The following special provisions are in the 2009 Supplemental Specifications and Recurring Special Provisions:

File Name	Special Provision Title	New Location	Effective	Revised
80108	Asbestos Bearing Pad Removal	Check Sheet #32	Nov. 1, 2003	
7254I	Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal	Check Sheet #33	June 1, 1989	Jan. 2, 2007
80167	Electrical Service Installation – Traffic Signals	Section 805	Jan. 1, 2007	
80164	Removal and Disposal of Regulated Substances	Section 669	Aug. 1, 2006	Jan. 1, 2007
80161	Traffic Signal Grounding	Sections 873 and 1076	April 1, 2006	Jan. 1, 2007
80162	Uninterruptable Power Supply (UPS)	Sections 801, 862 and 1074	April 1, 2006	Jan. 1, 2007
80163	Water Blaster with Vacuum Recovery	Articles 783.02 and 1101.12	April 1, 2006	Jan. 1, 2007

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

ALKALI-SILICA REACTION FOR CAST-IN-PLACE CONCRETE (BDE)

Effective: August 1, 2007
Revised: January 1, 2009

Description. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to precast products or precast prestressed products.

Aggregate Expansion Values. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

Aggregate Groups. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

AGGREGATE GROUPS			
Coarse Aggregate or Coarse Aggregate Blend ASTM C 1260 Expansion	Fine Aggregate or Fine Aggregate Blend ASTM C 1260 Expansion		
	≤ 0.16%	> 0.16% - 0.27%	> 0.27%
≤ 0.16%	Group I	Group II	Group III
> 0.16% - 0.27%	Group II	Group II	Group III
> 0.27%	Group III	Group III	Group IV

Mixture Options. Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

Group I - Mixture options are not applicable. Use any cement or finely divided mineral.
Group II - Mixture options 1, 2, 3, 4, or 5 shall be used.
Group III - Mixture options 1, 2 and 3 combined, 4, or 5 shall be used.

Group IV - Mixture options 1, 2 and 4 combined, or 5 shall be used.

For Class PP-3 concrete the mixture options are not applicable, and any cement may be used with the specified finely divided minerals.

a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

   When a coarse or fine aggregate is blended, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

   Weighted Expansion Value = (a/100 x A) + (b/100 x B) + (c/100 x C) + …

   Where: a, b, c... = percentage of aggregate in the blend;
   A, B, C…= expansion value for that aggregate.

b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as “finely divided mineral:portland cement”.

   1) Class F Fly Ash. For Class PV, BS, MS, DS, SC, and SI concrete and cement aggregate mixture II (CAM II), Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

   2) Class C Fly Ash. For Class PV, MS, SC, and SI Concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.

      For Class PP-1, RR, BS, and DS concrete and CAM II, Class C fly ash with less than 26.5 percent calcium oxide content shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

   3) Ground Granulated Blast-Furnace Slag. For Class PV, BS, MS, SI, DS, and SC concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.

      For Class PP-1 and RR concrete, ground granulated blast-furnace slag shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

      For Class PP-2, ground granulated blast-furnace slag shall replace 25 to 30 percent of the portland cement at a minimum replacement ratio of 1:1.

4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.

c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.

d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.

e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. For latex concrete, the ASTM C 1567 test shall be performed without the latex. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

   If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content ($Na_2O + 0.658K_2O$), a new ASTM C 1567 test will not be required.

Testing. If an individual aggregate has an ASTM C 1260 expansion value > 0.16 percent, an ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The ASTM C 1293 test shall be performed with Type I or II cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will not accept the result if the precision and bias for the test methods are not met.

The laboratory performing the ASTM C 1567 test shall either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement Concrete or Aggregate; or shall be inspected for Hydraulic Cement - Physical Tests by the Cement and Concrete Reference Laboratory (CCRL) and shall be approved by the Department. The laboratory performing the ASTM C 1293 test shall be inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

ALKALI-SILICA REACTION FOR PRECAST AND PRECAST PRESTRESSED CONCRETE (BDE)

Effective: January 1, 2009

Description. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in precast and precast prestressed concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to cast-in-place concrete.

Aggregate Expansion Values. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

Aggregate Groups. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

AGGREGATE GROUPS			
Coarse Aggregate or Coarse Aggregate Blend ASTM C 1260 Expansion	Fine Aggregate or Fine Aggregate Blend ASTM C 1260 Expansion		
	≤ 0.16%	> 0.16% - 0.27%	> 0.27%
≤ 0.16%	Group I	Group II	Group III
> 0.16% - 0.27%	Group II	Group II	Group III
> 0.27%	Group III	Group III	Group IV

Mixture Options. Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

Group I - Mixture options are not applicable. Use any cement or finely divided mineral.
Group II - Mixture options 1, 2, 3, 4, or 5 shall be used.
Group III - Mixture options 1, 2 and 3 combined, 4, or 5 shall be used.

Group IV - Mixture options 1, 2 and 4 combined, or 5 shall be used.

a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

When a coarse or fine aggregate is blended, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

Weighted Expansion Value = (a/100 x A) + (b/100 x B) + (c/100 x C) + …

Where: a, b, c... = percentage of aggregate in the blend;
A, B, C…= expansion value for that aggregate.

b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as “finely divided mineral:portland cement”.

1) Class F Fly Ash. For Class PC concrete, precast products, and PS concrete, Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

2) Class C Fly Ash. For Class PC Concrete, precast products, and Class PS concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.

3) Ground Granulated Blast-Furnace Slag. For Class PC concrete, precast products, and Class PS concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.

4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.

c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.

d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.

e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in

the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content ($Na_2O + 0.658K_2O$), a new ASTM C 1567 test will not be required.

Testing. If an individual aggregate has an ASTM C 1260 expansion value > 0.16 percent, an ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The ASTM C 1293 test shall be performed with Type I or II cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will not accept the result if the precision and bias for the test methods are not met.

The laboratory performing the ASTM C 1567 test shall either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement or Aggregate; or shall be inspected for Hydraulic Cement - Physical Tests by the Cement and Concrete Reference Laboratory (CCRL) and shall be approved by the Department. The laboratory performing the ASTM C 1293 test shall be inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

80213

APPROVAL OF PROPOSED BORROW AREAS, USE AREAS, AND/OR WASTE AREAS INSIDE ILLINOIS STATE BORDERS (BDE)

Effective: November 1, 2008

Revise the title of Article 107.22 of the Standard Specifications to read:

"**107.22 Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside Illinois State Borders.**"

Add the following sentence to the end of the first paragraph of Article 107.22 of the Standard Specifications:

"Proposed borrow areas, use areas, and/or waste areas outside of Illinois shall comply with Article 107.01."

80207

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)

Effective: November 2, 2006
Revised: April 1, 2009

Description. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and pavement preservation type surface treatments. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, or joint filling/sealing.

The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$

Where: CA = Cost Adjustment, $.
BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, $/ton ($/metric ton).
BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting, $/ton ($/metric ton).
$\%AC_V$ = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: Q, tons = A x D x (G_{mb} x 46.8) / 2000. For HMA mixtures measured in square meters: Q, metric tons = A x D x (G_{mb} x 24.99) / 1000. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: Q, tons = V x 8.33 lb/gal x SG / 2000
For bituminous materials measured in liters: Q, metric tons = V x 1.0 kg/L x SG / 1000

Where: A = Area of the HMA mixture, sq yd (sq m).
D = Depth of the HMA mixture, in. (mm).
G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.
V = Volume of the bituminous material, gal (L).
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

Percent Difference = $\{(BPI_L - BPI_P) \div BPI_L\} \times 100$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Return With Bid

ILLINOIS DEPARTMENT OF TRANSPORTATION

OPTION FOR
BITUMINOUS MATERIALS COST ADJUSTMENTS

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments. After award, this form, when submitted, shall become part of the contract.

Contract No.: _____

Company Name:_____

Contractor's Option:

Is your company opting to include this special provision as part of the contract?

Yes ☐ No ☐

Signature: _____ **Date:** _____

80173

CEMENT (BDE)

Effective: January 1, 2007
Revised: April 1, 2009

Revise Section 1001 of the Standard Specifications to read:

"**SECTION 1001. CEMENT**

1001.01 Cement Types. Cement shall be according to the following.

(a) Portland Cement. Acceptance of portland cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland cement shall be according to ASTM C 150, and shall meet the standard physical and chemical requirements. Type I or Type II may be used for cast-in-place, precast, and precast prestressed concrete. Type III may be used according to Article 1020.04, or when approved by the Engineer. All other cements referenced in ASTM C 150 may be used when approved by the Engineer.

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. The total of all inorganic processing additions shall be a maximum of 4.0 percent by weight (mass) of the cement. However, a cement kiln dust inorganic processing addition shall be limited to a maximum of 1.0 percent. Organic processing additions shall be limited to grinding aids that improve the flowability of cement, reduce pack set, and improve grinding efficiency. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust.

(b) Portland-Pozzolan Cement. Acceptance of portland-pozzolan cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland-pozzolan cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IP may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The pozzolan constituent for Type IP shall be a maximum of 21 percent of the weight (mass) of the portland-pozzolan cement.

For cast-in-place construction, portland-pozzolan cement shall not be used in concrete mixtures when the air temperature is below 40 ºF (4 ºC) without permission of the Engineer. If permission is given, the mix design strength requirement may require the Contractor to increase the cement or eliminate the cement factor reduction for a water-

reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall be limited to cement kiln dust at a maximum of 1.0 percent.

(c) Portland Blast-Furnace Slag Cement. Acceptance of portland blast-furnace slag cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland blast-furnace slag cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IS portland blast-furnace slag cement may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The blast-furnace slag constituent for Type IS shall be a maximum of 25 percent of the weight (mass) of the portland blast-furnace slag cement.

For cast-in-place construction, portland blast-furnace slag cement shall not be used in concrete mixtures when the air temperature is below 40 ºF (4 ºC) without permission of the Engineer. If permission is given, the mix design strength requirement may require the Contractor to increase the cement or eliminate the cement factor reduction for a water-reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall be limited to cement kiln dust at a maximum of 1.0 percent.

(d) Rapid Hardening Cement. Rapid hardening cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall be on the Department's current "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs", and shall be according to the following.

(1) The cement shall have a maximum final set of 25 minutes, according to Illinois Modified ASTM C 191.

(2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, 3200 psi (22,100 kPa) at 6.0 hours, and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified ASTM C 109.

(3) The cement shall have a maximum drying shrinkage of 0.050 percent at seven days, according to Illinois Modified ASTM C 596.

(4) The cement shall have a maximum expansion of 0.020 percent at 14 days, according to Illinois Modified ASTM C 1038.

(5) The cement shall have a minimum 80 percent relative dynamic modulus of elasticity; and shall not have a weight (mass) gain in excess of 0.15 percent or a weight (mass) loss in excess of 1.0 percent, after 100 cycles, according to AASHTO T 161, Procedure B.

(e) Calcium Aluminate Cement. Calcium aluminate cement shall be used only where specified by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to ASTM C 150, except the time of setting shall not apply. The chemical requirements shall be determined according to ASTM C 114 and shall be as follows: minimum 38 percent aluminum oxide (Al_2O_3), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide (SO_3), maximum 1 percent loss on ignition, and maximum 3.5 percent insoluble residue.

1001.02 Uniformity of Color. Cement contained in single loads or in shipments of several loads to the same project shall not have visible differences in color.

1001.03 Mixing Brands and Types. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall not be mixed or used alternately in the same item of construction unless approved by the Engineer.

1001.04 Storage. Cement shall be stored and protected against damage, such as dampness which may cause partial set or hardened lumps. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall be kept separate."

80166

CONCRETE ADMIXTURES (BDE)

Effective: January 1, 2003
Revised: April 1, 2009

Replace the first paragraph of Article 1020.05(b) of the Standard Specifications to read:

"(b) Admixtures. The use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted when approved by the Engineer. Admixture dosages shall result in the mixture meeting the specified plastic and hardened properties. The Department will maintain an Approved List of Corrosion Inhibitors. Corrosion inhibitor dosage rates shall be according to Article 1020.05(b)(12). The Department will also maintain an Approved List of Concrete Admixtures, and an admixture technical representative shall be consulted when determining an admixture dosage from this list. The dosage shall be within the range indicated on the approved list unless the influence by other admixtures, jobsite conditions (such as a very short haul time), or other circumstances warrant a dosage outside the range. The Engineer shall be notified when a dosage is proposed outside the range. To determine an admixture dosage, air temperature, concrete temperature, cement source and quantity, finely divided mineral sources(s) and quantity, influence of other admixtures, haul time, placement conditions, and other factors as appropriate shall be considered. The Engineer may request the Contractor to have a batch of concrete mixed in the lab or field to verify the admixture dosage is correct. An admixture dosage or combination of admixture dosages shall not delay the initial set of concrete by more than one hour. When a retarding admixture is required or appropriate for a bridge deck or bridge deck overlay pour, the initial set time shall be delayed until the deflections due to the concrete dead load are no longer a concern for inducing cracks in the completed work. However, a retarding admixture shall not be used to further extend the pour time and justify the alteration of a bridge deck pour sequence.

When determining water in admixtures for water/cement ratio, the Contractor shall calculate 70 percent of the admixture dosage as water, except a value of 50 percent shall be used for a latex admixture used in bridge deck latex concrete overlays."

Revise Section 1021 of the Standard Specifications to read:

"**SECTION 1021. CONCRETE ADMIXTURES**

1021.01 General. Admixtures shall be furnished in liquid form ready for use. The admixtures shall be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer and trade name of the material. Containers shall be readily identifiable as to manufacturer and trade name of the material they contain.

Corrosion inhibitors will be maintained on the Department's Approved List of Corrosion Inhibitors. All other concrete admixture products will be maintained on the Department's

Approved List of Concrete Admixtures. For the admixture submittal, a report prepared by an independent laboratory accredited by the AASHTO Materials Reference Laboratory (AMRL) for Portland Cement Concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, for corrosion inhibitors the ASTM G 109 test information specified in ASTM C 1582 is not required to be from and independent lab. All other information in ASTM C 1582 shall be from and independent lab.

Tests shall be conducted using materials and methods specified on a "test" concrete and a "reference" concrete, together with a certification that no changes have been made in the formulation of the material since the performance of the tests. Per the manufacturer's option, the cement content for all required tests shall either be according to applicable specifications or 5.65 cwt/cu yd (335 kg/cu m). Compressive strength test results for six months and one year will not be required.

Prior to the approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to AASHTO T 161, Procedure B. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The test and reference concrete mixture shall contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

The manufacturer shall include in the submittal the following admixture information: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and the manufacturing range for pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM C 494. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to ASTM C 260.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, and 1021.07, the pH allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to ASTM C 494.

When test results are more than seven years old, the manufacturer shall re-submit the infrared spectrophotometer trace and the report prepared by an independent laboratory accredited by AASHTO.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass).

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material.

1021.02 Air-Entraining Admixtures. Air-entraining admixtures shall be according to AASHTO M 154.

1021.03 Retarding and Water-Reducing Admixtures. The admixture shall be according to the following.

(a) The retarding admixture shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).

(b) The water-reducing admixture shall be according to AASHTO M 194, Type A.

(c) The high range water-reducing admixture shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

1021.04 Accelerating Admixtures. The admixture shall be according to AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating).

1021.05 Self-Consolidating Admixtures. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete mixture that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

The high range water-reducing admixture shall be according to AASHTO M 194, Type F.

The viscosity modifying admixture shall be according to ASTM C 494, Type S (specific performance).

1021.06 Rheology-Controlling Admixture. The rheology-controlling admixture shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. The rheology-controlling admixture shall be according to ASTM C 494, Type S (specific performance).

1021.07 Corrosion Inhibitor. The corrosion inhibitor shall be according to one of the following.

(a) Calcium Nitrite. The corrosion inhibitor shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution, and shall comply with the requirements of AASHTO M 194, Type C (accelerating).

(b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582."

80094

CONCRETE MIX DESIGNS (BDE)

Effective: April 1, 2009

Add the following to Article 1020.05(c) of the Standard Specifications:

"(5) Performance Based Finely Divided Mineral Combination. For Class PV and SI concrete a performance based finely divided mineral combination may be used. The minimum cement factor, maximum cement factor, and water cement ratio of Article 1020.04 shall be replaced with the values below, and the performance based finely divided mineral combination herein is an alternative to Articles 1020.05(c)(1), (c)(2), (c)(3), and (c)(4). The mix design shall meet the following requirements and the Engineer may request a trial batch.

a. The mixture shall contain a minimum of 375 lbs/cu yd (222 kg/cu m) of portland cement. For a blended cement, a sufficient amount shall be used to obtain the required 375 lbs/cu yd (222 kg/cu m) of portland cement in the mixture. For example, a blended cement stated to have 20 percent finely divided mineral, ignoring any ASTM C 595 tolerance on the 20 percent, would require a minimum of 469 lbs/cu yd (278 kg/cu m) of material in the mixture. When the mixture is designed for cement content from 375 lbs/cu yd (222 kg/cu m) to 400 lbs/cu yd (237 kg/cu m), the total of organic processing additions, inorganic processing additions, and limestone addition in the cement shall not exceed 5.0 percent.

b. The mixture shall contain a maximum of two finely divided minerals. The finely divided mineral in a blended cement shall count toward the total number of finely divided minerals allowed. The finely divided mineral(s) shall constitute a maximum of 35.0 percent of the total cement plus finely divided mineral(s). The fly ash portion shall not exceed 30.0 percent for Class C fly ash or 25.0 percent for Class F fly ash. The Class C and F fly ash combination shall not exceed 30.0 percent. The ground granulated blast-furnace slag portion shall not exceed 35.0 percent. The microsilica or high-reactivity metakaolin portion used together or separately shall not exceed 5.0 percent. The finely divided mineral in the blended cement shall apply to the maximum 35.0 percent, and shall be determined as discussed in a. above for determining portland cement in blended cement.

c. For central mixed Class PV and SI concrete, the mixture shall contain a minimum of 535 lbs/cu yd (320 kg/cu m) of cement and finely divided mineral(s) summed together, and a water-reducing admixture shall be used. The value shall be 565 lbs/cu yd (335 kg/cu m) without a water-reducing admixture.

For truck mixed or shrink mixed Class PV and SI concrete, the mixture shall contain a minimum of 575 lbs/cu yd (345 kg/cu m) of cement and finely

divided mineral(s) summed together, and a water-reducing admixture shall be used. The value shall be 605 lbs/cu yd (360 kg/cu m) without a water-reducing admixture.

d. The mixture shall contain a maximum of 705 lbs/cu yd (418 kg/cu m) of cement and finely divided mineral(s) summed together.

e. The mixture shall have a water/cement ratio of 0.32 – 0.44.

f. The mixture shall not be used for placement underwater.

g. The combination of cement and finely divided mineral(s) shall have an ASTM C 1567 expansion value ≤ 0.16 percent, and shall be performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly.

   If during the two year time period the Contractor needs to replace the portland cement, and the replacement portland cement has an equal or lower total equivalent alkali content ($Na_2O + 0.658K_2O$), a new ASTM C 1567 test will not be required. However, replacement of a blended cement with another cement will require a new ASTM C 1567 test."

80226

CONSTRUCTION AIR QUALITY - DIESEL VEHICLE EMISSIONS CONTROL (BDE)

Effective: April 1, 2009
Revised: July 1, 2009

Diesel Vehicle Emissions Control. The reduction of construction air emissions shall be accomplished by using cleaner burning diesel fuel. The term "equipment" refers to any and all diesel fuel powered devices rated at 50 hp and above, to be used on the project site in excess of seven calendar days over the course of the construction period on the project site (including any "rental" equipment).

All equipment on the jobsite, with engine ratings of 50 hp and above, shall be required to: use Ultra Low Sulfur Diesel fuel (ULSD) exclusively (15 ppm sulfur content or less).

Diesel powered equipment in non-compliance will not be allowed to be used on the project site, and is also subject to a notice of non-compliance as outlined below.

The Contractor shall submit copies of monthly summary reports and include certified copies of the ULSD diesel fuel delivery slips for diesel fuel delivered to the jobsite for the reporting time period, noting the quantity of diesel fuel used.

If any diesel powered equipment is found to be in non-compliance with any portion of this specification, the Engineer will issue the Contractor a notice of non-compliance and identify an appropriate period of time, as outlined below under environmental deficiency deduction, in which to bring the equipment into compliance or remove it from the project site.

Any costs associated with bringing any diesel powered equipment into compliance with these diesel vehicle emissions controls 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 also not be grounds for a claim.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists, he/she will notify the Contractor in writing, and direct the Contractor to correct the deficiency within a specified time period. The specified time-period, which begins upon Contractor notification, will be from 1/2 hour to 24 hours long, based on the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge regarding the time period.

The deficiency will be based on lack of repair, maintenance and diesel vehicle emissions control.

If the Contractor fails to correct the deficiency within the specified time frame, 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.

If a Contractor or subcontractor accumulates three environmental deficiency deductions 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 contract time, waiver of penalties, or be grounds for any claim.

80237

CONSTRUCTION AIR QUALITY - IDLING RESTRICTIONS (BDE)

Effective: April 1, 2009

Idling Restrictions. The Contractor shall establish truck-staging areas for all diesel powered vehicles that are waiting to load or unload material at the jobsite. Staging areas shall be located where the diesel emissions from the equipment will have a minimum impact on adjacent sensitive receptors. The Department will review the selection of staging areas, whether within or outside the existing highway right-of-way, to avoid locations near sensitive areas or populations to the extent possible. Sensitive receptors include, but are not limited to, hospitals, schools, residences, motels, hotels, daycare facilities, elderly housing and convalescent facilities. Diesel powered engines shall also be located as far away as possible from fresh air intakes, air conditioners, and windows. The Engineer will approve staging areas before implementation.

Diesel powered vehicle operators may not cause or allow the motor vehicle, when it is not in motion, to idle for more than a total of 10 minutes within any 60 minute period, except under any of the following circumstances:

1) The motor vehicle has a gross vehicle weight rating of less than 8000 lb (3630 kg).
2) The motor vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.
3) The motor vehicle idles when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency.
4) A police, fire, ambulance, public safety, other emergency or law enforcement motor vehicle, or any motor vehicle used in an emergency capacity, idles while in an emergency or training mode and not for the convenience of the vehicle operator.
5) The primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is necessary for such activity.
6) A motor vehicle idles as part of a government inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.
7) When idling of the motor vehicle is required to operate auxiliary equipment to accomplish the intended use of the vehicle (such as loading, unloading, mixing, or processing cargo; controlling cargo temperature; construction operations, lumbering operations; oil or gas well servicing; or farming operations), provided that this exemption does not apply when the vehicle is idling solely for cabin comfort or to operate non-essential equipment such as air conditioning, heating, microwave ovens, or televisions.
8) When the motor vehicle idles due to mechanical difficulties over which the operator has no control.
9) The outdoor temperature is less than 32 °F (0 °C) or greater than 80 °F (26 °C).

When the outdoor temperature is greater than or equal to 32 °F (0 °C) or less than or equal to 80 °F (26 °C), a person who operates a motor vehicle operating on diesel fuel shall not cause or allow the motor vehicle to idle for a period greater than 30 minutes in any 60 minute period while waiting to weigh, load, or unload cargo or freight, unless the vehicle is in a line of vehicles that regularly and periodically moves forward.

The above requirements do not prohibit the operation of an auxiliary power unit or generator set as an alternative to idling the main engine of a motor vehicle operating on diesel fuel.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists based on non-compliance with the idling restrictions, he/she will notify the Contractor, and direct the Contractor to correct the deficiency.

If the Contractor fails to correct the deficiency a monetary deduction will be imposed. The monetary deduction will be $1,000.00 for each deficiency identified.

80239

DETERMINATION OF THICKNESS (BDE)

Effective: April 1, 2009

Revise Articles 353.12 and 353.13 of the Standard Specifications to Articles 353.13 and 353.14 respectively.

Add the following Article to the Standard Specifications:

"**353.12 Tolerance in Thickness.** The thickness of base course pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction, bike paths, and individual locations less than 500 ft (150 m) long, will be evaluated. Temporary construction is defined as those areas constructed and removed under the same contract. If the base course cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course thickness.

The procedure described in Article 407.10(b) will be followed, except the option of correcting deficient pavement with additional lift(s) shall not apply."

Revise Article 354.09 of the Standard Specifications to read:

"**354.09 Tolerance in Thickness.** The thickness of base course widening pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 3 ft (1 m) wide or 1000 ft (300 m) long, will be evaluated. Temporary construction is defined as those areas constructed and removed under the same contract. If the base course widening cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course widening thickness.

The procedure described in Article 407.10(b) will be followed, except:

(a) The width of a unit shall be the width of the widening along one edge of the pavement.

(b) The length of the unit shall be 1000 ft (300 m).

(c) The option of correcting deficient pavement with additional lift(s) shall not apply."

Revise Article 355.09 of the Standard Specifications to read:

"**355.09 Tolerance in Thickness.** The thickness of HMA base course pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 500 ft (150 m) long, will be evaluated according to Article 407.10(b). Temporary construction is defined as those areas constructed and removed under the same contract. If the base course cannot be cored for thickness prior to

placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course thickness."

Revise Article 356.07 of the Standard Specifications to read:

"**356.07 Tolerance in Thickness.** The thickness of HMA base course widening pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 3 ft (1 m) wide or 1000 ft (300 m) long, will be evaluated according to Article 407.10(b) except, the width of a unit shall be the width of the widening along one edge of the pavement and the length of a unit shall be 1000 ft (300 m). Temporary locations are defined as those constructed and removed under the same contract. If the base course widening cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s)and subtract them from the measured core thickness to determine the base course widening thickness."

Revise Article 407.10 of the Standard Specifications to read:

"**407.10 Tolerance in Thickness.** Determination of pavement thickness shall be performed after the pavement surface tests and corrective action have been completed according to Article 407.09. Pay adjustments made for pavement thickness will be in addition to and independent of those made for pavement smoothness. Pavement pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous pavement shall be evaluated with the following exclusions: temporary pavements; variable width pavements; radius returns; short lengths of contiguous pavements less than 500 ft (125 m) in length; and constant width portions of turn lanes less than 500 ft (125 m) in length. Temporary pavements are defined as pavements constructed and removed under the same contract.

The method described in Article 407.10(a), shall be used except for those pavements constructed in areas where access to side streets and entrances necessitates construction in segments less than 1000 ft (300 m). The method described in Article 407.10(b) shall be used in areas where access to side streets and entrances necessitates construction in segments less than 1000 ft (300 m).

(a) Percent Within Limits. The percent within limits (PWL) method shall be as follows.

(1) Lots and Sublots. The pavement will be divided into approximately equal lots of not more than 5000 ft (1500 m) in length. When the length of a continuous strip of pavement is 500 ft (150 m) or greater but less than 5000 ft (1500 m), these short lengths of pavement, ramps, turn lanes, and other short sections of continuous pavement will be grouped together to form lots approximately 5000 ft (1500 m) in length. Short segments between structures will be measured continuously with the structure segments omitted. Each lot will be subdivided into ten equal sublots. The width of a sublot and lot will be the width from the pavement edge to the adjacent lane line, from one lane line to the next, or between pavement edges for single-lane pavements.

(2) Cores. Cores 2 in. (50 mm) in diameter shall be taken from the pavement by the Contractor, at locations selected by the Engineer. The exact location for each core will be selected at random, but will result in one core per sublot. Core locations will be specified prior to beginning the coring operations.

The Contractor and the Engineer shall witness the coring operations, as well as the measuring and recording of the core lengths. The cores will be measured with a device supplied by the Department immediately upon removal from the core bit and prior to moving to the next core location. Upon concurrence of the length, the core samples shall be disposed of according to Article 202.03.

Upon completion of each core, all water shall be removed from the hole and the hole then filled with a rapid hardening mortar or concrete. The material shall be mixed in a separate container, placed in the hole, consolidated by rodding, and struck-off flush with the adjacent pavement.

(3) Deficient Sublot. When the length of the core in a sublot is deficient by more than ten percent of plan thickness, the Contractor may take three additional cores within that sublot at locations selected at random by the Engineer. If the Contractor chooses not to take additional cores, the pavement in that sublot shall be removed and replaced.

When the three additional cores are taken, the length of those cores will be averaged with the original core length. If the average shows the sublot to be deficient by ten percent or less, no additional action is necessary. If the average shows the sublot to be deficient by more than ten percent, the pavement in that sublot shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such deficient sublots to remain in place. For deficient sublots allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When a deficient sublot is removed and replaced, or additional lifts are placed, the corrected sublot shall be retested for thickness. The length of the new core taken in the sublot will be used in determining the PWL for the lot.

When a deficient sublot is left in place, and no additional lift(s) are placed, no payment will be made for the deficient sublot. The length of the original core taken in the sublot will be used in determining the PWL for the lot.

(4) Deficient Lot. After addressing deficient sublots, the PWL for each lot will be determined. When the PWL of a lot is 60 percent or less, the pavement in that lot shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such deficient lots to remain in place.

For deficient lots allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When a deficient lot is removed and replaced, or additional lifts are placed, the corrected lot shall be retested for thickness. The PWL for the lot will then be recalculated based upon the new cores; however, the pay factor for the lot shall be a maximum of 100 percent.

When a deficient lot is left in place, and no additional lift(s) are placed, the PWL for the lot will not be recalculated.

(5) Right of Discovery. When the Engineer has reason to believe the random core selection process will not accurately represent the true conditions of the work, he/she may order additional cores. The additional cores shall be taken at specific locations determined by the Engineer. The Engineer will provide notice to the Contractor containing an explanation of the reasons for his/her action. The need for, and location of, additional cores will be determined prior to commencement of coring operations.

When the additional cores show the pavement to be deficient by more than ten percent of plan thickness, more additional cores shall be taken to determine the limits of the deficient pavement and that area shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such areas of deficient pavement to remain in place. The area of deficient pavement will be defined using the length between two acceptable cores and the full width of the sublot. An acceptable core is a core with a length of at least 90 percent of plan thickness.

For deficient areas allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When an area of deficient pavement is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness.

When an area of deficient pavement is left in place, and no additional lift(s) are placed, no payment will be made for the deficient pavement.

When the additional cores show the pavement to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04.

(6) Profile Index Adjustment. After any area of pavement is removed and replaced or any additional lifts are placed, the corrected areas shall be retested for pavement smoothness and any necessary profile index adjustments and/or corrections will be made based on these final profile readings prior to retesting for thickness.

(7) Determination of PWL. The PWL for each lot will be determined as follows.

Definitions:

x_i = Individual values (core lengths) under consideration
n = Number of individual values under consideration (10 per lot)
$\bar{x}$ = Average of the values under consideration
LSL = Lower Specification Limit (98% of plan thickness)
Q_L = Lower Quality Index
S = Sample Standard Deviation
PWL = Percent Within Limits

Determine $\bar{x}$ for the lot to the nearest two decimal places.

Determine S for the lot to the nearest three decimal places using:

$$S = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}} \quad \text{where} \quad \sum (x_i - \bar{x})^2 = (x_1 - \bar{x})^2 + (x_2 - \bar{x})^2 + \ldots\ldots\ldots + (x_{10} - \bar{x})^2$$

Determine Q_L for the lot to the nearest two decimal places using:

$$Q_L = \frac{(\bar{x} - LSL)}{S}$$

Determine PWL for the lot using the Q_L and the following table. For Q_L values less than zero the value shown in the table must be subtracted from 100 to obtain PWL.

(8) Pay Factors. The pay factor (PF) for each lot will be determined, to the nearest two decimal places, using:

PF (in percent) = 55 + 0.5 (PWL)

If $\bar{x}$ for a lot is less than the plan thickness, the maximum PF for that lot shall be 100 percent.

(9) Payment. Payment of incentive or disincentive for pay items subject to the PWL method will be calculated using:

Payment = (((TPF/100)-1) x CUP) x (TOTPAVT - DEFPAVT)

TPF = Total Pay Factor

CUP = Contract Unit Price
TOTPAVT = Area of Pavement Subject to Coring
DEFPAVT = Area of Deficient Pavement

The TPF for the pavement shall be the average of the PF for all the lots; however, the TPF shall not exceed 102 percent.

Area of Deficient pavement (DEFPAVT) is defined as an area of pavement represented by a sublot deficient by more than ten percent which is left in place with no additional thickness added.

Area of Pavement Subject to Coring (TOTPAVT) is defined as those pavement areas included in lots for pavement thickness determination.

PERCENT WITHIN LIMITS							
Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)
0.00	50.00	0.40	65.07	0.80	78.43	1.20	88.76
0.01	50.38	0.41	65.43	0.81	78.72	1.21	88.97
0.02	50.77	0.42	65.79	0.82	79.02	1.22	89.17
0.03	51.15	0.43	66.15	0.83	79.31	1.23	89.38
0.04	51.54	0.44	66.51	0.84	79.61	1.24	89.58
0.05	51.92	0.45	66.87	0.85	79.90	1.25	89.79
0.06	52.30	0.46	67.22	0.86	80.19	1.26	89.99
0.07	52.69	0.47	67.57	0.87	80.47	1.27	90.19
0.08	53.07	0.48	67.93	0.88	80.76	1.28	90.38
0.09	53.46	0.49	68.28	0.89	81.04	1.29	90.58
0.10	53.84	0.50	68.63	0.90	81.33	1.30	90.78
0.11	54.22	0.51	68.98	0.91	81.61	1.31	90.96
0.12	54.60	0.52	69.32	0.92	81.88	1.32	91.15
0.13	54.99	0.53	69.67	0.93	82.16	1.33	91.33
0.14	55.37	0.54	70.01	0.94	82.43	1.34	91.52
0.15	55.75	0.55	70.36	0.95	82.71	1.35	91.70
0.16	56.13	0.56	70.70	0.96	82.97	1.36	91.87
0.17	56.51	0.57	71.04	0.97	83.24	1.37	92.04
0.18	56.89	0.58	71.38	0.98	83.50	1.38	92.22
0.19	57.27	0.59	71.72	0.99	83.77	1.39	92.39
0.20	57.65	0.60	72.06	1.00	84.03	1.40	92.56
0.21	58.03	0.61	72.39	1.01	84.28	1.41	92.72
0.22	58.40	0.62	72.72	1.02	84.53	1.42	92.88
0.23	58.78	0.63	73.06	1.03	84.79	1.43	93.05
0.24	59.15	0.64	73.39	1.04	85.04	1.44	93.21
0.25	59.53	0.65	73.72	1.05	85.29	1.45	93.37
0.26	59.90	0.66	74.04	1.06	85.53	1.46	93.52
0.27	60.28	0.67	74.36	1.07	85.77	1.47	93.67
0.28	60.65	0.68	74.69	1.08	86.02	1.48	93.83
0.29	61.03	0.69	75.01	1.09	86.26	1.49	93.98
0.30	61.40	0.70	75.33	1.10	86.50	1.50	94.13
0.31	61.77	0.71	75.64	1.11	86.73	1.51	94.27
0.32	62.14	0.72	75.96	1.12	86.96	1.52	94.41
0.33	62.51	0.73	76.27	1.13	87.20	1.53	94.54
0.34	62.88	0.74	76.59	1.14	87.43	1.54	94.68
0.35	63.25	0.75	76.90	1.15	87.66	1.55	94.82
0.36	63.61	0.76	77.21	1.16	87.88	1.56	94.95
0.37	63.98	0.77	77.51	1.17	88.10	1.57	95.08
0.38	64.34	0.78	77.82	1.18	88.32	1.58	95.20
0.39	64.71	0.79	78.12	1.19	88.54	1.59	95.33

*For Q_L values less than zero, subtract the table value from 100 to obtain PWL

PERCENT WITHIN LIMITS (continued)					
Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)
1.60	95.46	2.00	98.83	2.40	99.89
1.61	95.58	2.01	98.88	2.41	99.90
1.62	95.70	2.02	98.92	2.42	99.91
1.63	95.81	2.03	98.97	2.43	99.91
1.64	95.93	2.04	99.01	2.44	99.92
1.65	96.05	2.05	99.06	2.45	99.93
1.66	96.16	2.06	99.10	2.46	99.94
1.67	96.27	2.07	99.14	2.47	99.94
1.68	96.37	2.08	99.18	2.48	99.95
1.69	96.48	2.09	99.22	2.49	99.95
1.70	96.59	2.10	99.26	2.50	99.96
1.71	96.69	2.11	99.29	2.51	99.96
1.72	96.78	2.12	99.32	2.52	99.97
1.73	96.88	2.13	99.36	2.53	99.97
1.74	96.97	2.14	99.39	2.54	99.98
1.75	97.07	2.15	99.42	2.55	99.98
1.76	97.16	2.16	99.45	2.56	99.98
1.77	97.25	2.17	99.48	2.57	99.98
1.78	97.33	2.18	99.50	2.58	99.99
1.79	97.42	2.19	99.53	2.59	99.99
1.80	97.51	2.20	99.56	2.60	99.99
1.81	97.59	2.21	99.58	2.61	99.99
1.82	97.67	2.22	99.61	2.62	99.99
1.83	97.75	2.23	99.63	2.63	100.00
1.84	97.83	2.22	99.66	2.64	100.00
1.85	97.91	2.25	99.68	≥ 2.65	100.00
1.86	97.98	2.26	99.70		
1.87	98.05	2.27	99.72		
1.88	98.11	2.28	99.73		
1.89	98.18	2.29	99.75		
1.90	98.25	2.30	99.77		
1.91	98.31	2.31	99.78		
1.92	98.37	2.32	99.80		
1.93	98.44	2.33	99.81		
1.94	98.50	2.34	99.83		
1.95	98.56	2.35	99.84		
1.96	98.61	2.36	99.85		
1.97	98.67	2.37	99.86		
1.98	98.72	2.38	99.87		
1.99	98.78	2.39	99.88		

*For Q_L values less than zero, subtract the table value from 100 to obtain PWL

(b) Minimum Thickness. The minimum thickness method shall be as follows.

(1) Length of Units. The length of a unit will be a continuous strip of pavement 500 ft (150 m) in length.

(2) Width of Units. The width of a unit will be the width from the pavement edge to the adjacent lane line, from one lane line to the next, or between pavement edges for single-lane pavements.

(3) Thickness Measurements. Pavement thickness will be based on 2 in. (50 mm) diameter cores.

Cores shall be taken from the pavement by the Contractor at locations selected by the Engineer. When determining the thickness of a unit, one core shall be taken in each unit.

The Contractor and the Engineer shall witness the coring operations, as well as the measuring and recording of the cores. Core measurements will be determined immediately upon removal from the core bit and prior to moving to the next core location. Upon concurrence of the length, the core samples may be disposed of according to Article 202.03.

Upon completion of each core, all water shall be removed from the hole and the hole then filled with a rapid hardening mortar or concrete. The material shall be mixed in a separate container, placed in the hole, consolidated by rodding, and struck-off flush with the adjacent pavement.

(4) Unit Deficient in Thickness. In considering any portion of the pavement that is deficient, the entire limits of the unit will be used in computing the deficiency or determining the remedial action required.

(5) Thickness Equals or Exceeds Specified Thickness. When the thickness of a unit equals or exceeds the specified plan thickness, payment will be made at the contract unit price per square yard (square meter) for the specified thickness.

(6) Thickness Deficient by Ten Percent or Less. When the thickness of a unit is less than the specified plan thickness by ten percent or less, a deficiency deduction will be assessed against payment for the item involved. The deficiency will be a percentage of the contract unit price as given in the following table.

Percent Deficiency (of Plan Thickness)	Percent Deduction (of Contract Unit Price)
0.0 to 2.0	0
2.1 to 3.0	20
3.1 to 4.0	28
4.1 to 5.0	32
5.1 to 7.5	43
7.6 to 10.0	50

(7) Thickness Deficient by More than Ten Percent. When a core shows the pavement to be deficient by more than ten percent of plan thickness, additional cores shall be taken on each side of the deficient core, at stations selected by the Contractor and offsets selected by the Engineer, to determine the limits of the deficient pavement. No core shall be located within 5 ft (1.5 m) of a previous core obtained for thickness determination. The first acceptable core obtained on each side of a deficient core will be used to determine the length of the deficient pavement. An acceptable core is a core with a thickness of at least 90 percent of plan thickness. The area of deficient pavement will be defined using the length between two acceptable cores and the full width of the unit. The area of deficient pavement shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such areas of deficient pavement to remain in place. For deficient areas allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When an area of deficient pavement is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness. The thickness of the new core will be used to determine the pay factor for the corrected area.

When an area of deficient pavement is left in place, and no additional lift(s) are placed, no payment will be made for the deficient pavement. In addition, an amount equal to two times the contract cost of the deficient pavement will be deducted from the compensation due the Contractor.

The thickness of the first acceptable core on each side of the core more than ten percent deficient will be used to determine any needed pay adjustments for the remaining areas on each side of the area deficient by more than ten percent. The pay adjustment will be determined according to Article 407.10(b)(6).

(8) Right of Discovery. When the Engineer has reason to believe any core location does not accurately represent the true conditions of the work, he/she may order additional cores. These additional cores shall be taken at specific locations determined by the

Engineer. The Engineer will provide notice to the Contractor containing an explanation of the reasons for his/her action.

When the additional cores show the pavement to be deficient by more than ten percent of plan thickness, the procedures outlined in Article 407.10(b)(7) shall be followed, except the Engineer will determine the additional core locations.

When the additional cores, ordered by the Engineer, show the pavement to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04.

(9) Profile Index Adjustment. After any area of pavement is removed and replaced or any additional lifts are added, the corrected areas shall be retested for pavement smoothness and any necessary profile index adjustments and/or corrections will be made based on these final profile readings prior to retesting for thickness."

Revise Article 482.06 of the Standard Specifications to read:

"**482.06 Tolerance in Thickness.** The shoulder shall be constructed to the thickness shown on the plans. When the contract includes square yards (square meters) as the unit of measurement for HMA shoulder, thickness determinations shall be made according to Article 407.10(b)(3) and the following.

(a) Length of the Units. The length of a unit shall be a continuous strip of shoulder 2500 ft (750 m) long.

(b) Width of the Units. The width of the unit shall be the full width of the shoulder.

(c) Thickness Deficient by More than Ten Percent. When a core shows the shoulder to be deficient by more than ten percent of plan thickness, additional cores shall be taken on each side of the deficient core, at stations selected by the Contractor and offsets selected by the Engineer, to determine the limits of the deficient shoulder. No core shall be located within 5 ft (1.5 m) of a previous core obtained for thickness determination. The first acceptable core obtained on each side of a deficient core will be used to determine the length of the deficient shoulder. An acceptable core is a core with a thickness of at least 90 percent of plan thickness. The area of deficient shoulder will be defined using the length between two acceptable cores and the full width of the unit. The area of deficient shoulder shall be brought to specified thickness by the addition of the applicable mixture, at no additional cost to the Department and subject to the lift thickness requirements of Article 312.05, or by removal and replacement with a new mixture. However, the surface elevation of the completed shoulder shall not exceed by more than 1/8 in. (3 mm) the surface elevation of the adjacent pavement. When requested in writing by the Contractor, the Engineer may permit in writing such thin shoulder to remain in place. When an area of thin shoulder is left in place, and no additional lift(s) are placed, no payment will be made for the thin shoulder. In addition,

an amount equal to two times the contract unit price of the shoulder will be deducted from the compensation due the Contractor.

When an area of deficient shoulder is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness.

(d) Right of Discovery. When the Engineer has reason to believe any core location does not accurately represent the true conditions of the work, he/she may order additional cores. When the additional cores, ordered by the Engineer, show the shoulder to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04. When the additional core shows the shoulder to be less than 90 percent of plan thickness, the procedure in (c), above shall be followed."

Revise Article 483.07 of the Standard Specifications to read:

"**483.07 Tolerance in Thickness.** The shoulder shall be constructed to the thickness shown on the plans. Thickness determinations shall be made according to Article 482.06 except the option of correcting deficient pavement with additional lift(s) shall not apply."

80227

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000
Revised: November 1, 2008

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 or most recent addendum.

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.

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. This 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 _____% 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 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 forth in this Special Provision:

(a) The bidder documents that firmly committed 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 may 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 web site at www.dot.il.gov.

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

(a) In order to assure the timely award of the contract, the as-read low bidder shall submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven working days after the date of letting. To meet the seven day requirement, the bidder may send the Plan by certified mail or delivery service within the seven working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure that the postmark or receipt date is affixed within the seven working days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Plan is to be submitted 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). It is the responsibility of the bidder to obtain confirmation of telefax delivery. The Department will not accept a Utilization Plan if it does not meet the seven 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 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 or to extend the time for award.

(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 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. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:

(1) The name and address of each DBE to be used;

(2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;

(3) The price to be paid to each DBE for the identified work specifically stating 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) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and

(5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).

(d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five working day period in order to cure the deficiency.

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 contact. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.

(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 or 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 regular dealer or manufacturer.

GOOD FAITH EFFORT PROCEDURES. If the bidder cannot obtain sufficient DBE commitments to meet the contract goal, the bidder must document in the Utilization Plan the good faith efforts made in the attempt 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 could reasonably be expected to obtain sufficient DBE participation. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts are not good faith efforts; rather, the bidder is expected to have taken those 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.

(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 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 a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.

(c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five working days after 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 pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to extend the time for award. 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 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 reconsideration, 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.

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 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.

(a) 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) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to

find another DBE to substitute for the terminated DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau of Small Business Enterprises and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau of Small Business Enterprises will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

(c) 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 therefor 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 Regional 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 Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.

(d) 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.

(e) 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.

DOWEL BARS (BDE)

Effective: April 1, 2007
Revised: January 1, 2008

Revise the fifth and sixth sentences of Article 1006.11(b) of the Standard Specifications to read:

"The bars shall be epoxy coated according to AASHTO M 284, except the thickness of the epoxy shall be 7 to 12 mils (0.18 to 0.30 mm) and patching of the ends will not be required. The epoxy coating applicator shall be certified according to the current Bureau of Materials and Physical Research Policy Memorandum, "Epoxy Coating Plant Certification Procedure". The Department will maintain an approved list."

80178

ENGINEER'S FIELD OFFICE TYPE B (BDE)

Effective: August 1, 2008

Revise Article 670.04 of the Standard Specifications to read:

"**670.04 Engineer's Field Office Type B.** Type B field offices shall have a minimum ceiling height of 7 ft (2 m) and a minimum floor space of 380 sq ft (35 sq m). The office shall be provided with sufficient heat, natural and artificial light, and air conditioning. Doors and windows shall be equipped with locks approved by the Engineer.

Adequate all weather parking shall be available to accommodate a minimum of six vehicles.

In addition, the following equipment and furniture meeting the approval of the Engineer shall be furnished.

(a) Four desks with minimum working surface 42 x 30 in. (1.1 m x 750 mm) each and four non-folding chair with upholstered seat and back.

(b) One free standing four drawer legal size file cabinet with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.

(c) One four-post drafting table with minimum top size of 37 1/2 x 48 in. (950 mm x 1.2 m). The top shall be basswood or equivalent and capable of being tilted through an angle of 50 degrees. An adjustable height drafting stool with upholstered seat and back shall also be provided.

(d) Two folding chairs.

(e) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office to prevent theft of the entire cabinet.

(f) A minimum of two communication paths. The configuration shall include:

(1) Internet Connection. An internet service connection using telephone DSL, cable broadband, or CDMA wireless technology. Additionally, an 802.11g/N wireless router shall be provided, which will allow connection by the Engineer and up to four Department staff.

(2) Telephone Lines. Two separate telephone lines.

(g) One electric desk type printing calculator.

(h) One first-aid cabinet fully equipped.

(i) One plain paper copy machine capable of reproducing prints up to 8 1/2 x 11 in. (215 x 280 mm) with an automatic feed tray capable of storing 30 sheets of paper.

(j) One plain paper fax machine with paper.

(k) One telephone, with touch tone, where available, and a digital telephone answering machine, for exclusive use by the Engineer.

(l) A portable toilet meeting Federal, State, and local health department requirements stocked with lavatory and sanitary supplies at all times.

(m) One electric water cooler dispenser.

(n) One refrigerator with a minimum size of 16 cu ft (0.45 cu m) with a freezer unit."

Revise the first sentence of the first paragraph of Article 670.07 of the Standard Specifications to read:

"The building or buildings fully equipped as specified will be paid for on a monthly basis until the building or buildings are released by the Engineer."

Revise the last sentence of the first paragraph of Article 670.07 of the Standard Specifications to read:

"This price shall include all utility costs and shall reflect the salvage value of the building or buildings, equipment, and furniture which become the property of the Contractor after release by the Engineer, except that the Department will pay that portion of the monthly long distance telephone bills that, when combined, exceed $150."

80205

EQUIPMENT RENTAL RATES (BDE)

Effective: August 2, 2007
Revised: January 2, 2008

Replace the second and third paragraphs of Article 105.07(b)(4)a. of the Standard Specifications with the following:

"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)."

Replace Article 109.04(b)(4) of the Standard Specifications with the following:

"(4) Equipment. Equipment used for extra work shall be authorized by the Engineer. The equipment shall be specifically described, be of suitable size and capacity for the work to be performed, and be in good operating condition. For such equipment, the Contractor will be paid as follows.

a. Contractor Owned Equipment. Contractor owned equipment will be paid for by the hour using the applicable FHWA hourly rate from the "Equipment Watch Rental Rate Blue Book" (Blue Book) in effect when the force account work begins. The FHWA hourly rate is calculated as follows.

FHWA hourly rate = (monthly rate/176) x (model year adj.) x (Illinois adj.) + EOC

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

The time allowed will be the actual time the equipment is operating on the extra work. For the time required to move the equipment to and from the site of the extra work and any authorized idle (standby) time, payment will be made at the following hourly rate: 0.5 x (FHWA hourly rate - EOC).

All time allowed shall fall within the working hours authorized for the extra work.

The rates above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals. The rates do not include labor.

The Contractor shall submit to the Engineer sufficient information for each piece of equipment and its attachments to enable the Engineer to determine the proper equipment category. If a rate is not established in the Blue Book for a particular piece of equipment, the Engineer will establish a rate for that piece of equipment that is consistent with its cost and use in the industry.

b. Rented Equipment. Whenever it is necessary for the Contractor to rent equipment to perform extra work, the rental and transportation costs of the equipment plus five percent for overhead will be paid. In no case shall the rental rates exceed those of established distributors or equipment rental agencies.

All prices shall be agreed to in writing before the equipment is used."

80189

FLAGGER AT SIDE ROADS AND ENTRANCES (BDE)

Effective: April 1, 2009

Revise the second paragraph of Article 701.13(a) of the Standard Specifications to read:

"The Engineer will determine when a side road or entrance shall be closed to traffic. A flagger will be required at each side road or entrance remaining open to traffic within the operation where two-way traffic is maintained on one lane of pavement. The flagger shall be positioned as shown on the plans or as directed by the Engineer."

Revise the first and second paragraph of Article 701.20(i) of the Standard Specifications to read:

"Signs, barricades, or other traffic control devices required by the Engineer over and above those specified will be paid for according to Article 109.04. All flaggers required at side roads and entrances remaining open to traffic including those that are shown on the Highway Standards and/or additional barricades required by the Engineer to close side roads and entrances will be paid for according to Article 109.04."

80228

HMA - HAULING ON PARTIALLY COMPLETED FULL-DEPTH PAVEMENT (BDE)

Effective: January 1, 2008

Revise Article 407.08 of the Standard Specifications to read:

"**407.08 Hauling on the Partially Completed Full-Depth Pavement.** Legally loaded trucks will be permitted on the partially completed full-depth HMA pavement only to deliver HMA mixture to the paver, provided the last lift has cooled a minimum of 12 hours. Hauling shall be limited to the distances shown in the following tables. The pavement surface temperature shall be measured using an infrared gun. The use of water to cool the pavement to permit hauling will not be allowed. The Contractor's traffic pattern shall minimize hauling on the partially completed pavement and shall vary across the width of the pavement such that "tracking" of vehicles, one directly behind the other, does not occur.

MAXIMUM HAULING DISTANCE FOR PAVEMENT SURFACE TEMPERATURE BELOW 105 ºF (40 ºC)				
Total In-Place Thickness Being Hauled On, in. (mm)	Thickness of Lift Being Placed			
	3 in. (75 mm) or less		More than 3 in. (75 mm)	
	Modified Soil Subgrade	Granular Subbase	Modified Soil Subgrade	Granular Subbase
3.0 to 4.0 (75 to 100)	0.75 miles (1200 m)	1.0 mile (1600 m)	0.50 miles (800 m)	0.75 miles (1200 m)
4.1 to 5.0 (101 to 125)	1.0 mile (1600 m)	1.5 miles (2400 m)	0.75 miles (1200 m)	1.0 mile (1600 m)
5.1 to 6.0 (126 to 150)	2.0 miles (3200 m)	2.5 miles (4000 m)	1.5 miles (2400 m)	2.0 miles (3200 m)
6.1 to 8.0 (151 to 200)	2.5 miles (4000 m)	3.0 miles (4800 m)	2.0 miles (3200 m)	2.5 miles (4000 m)
Over 8.0 (200)	No Restrictions			

MAXIMUM HAULING DISTANCE FOR PAVEMENT SURFACE TEMPERATURE OF 105 ºF (40 ºC) AND ABOVE				
Total In-Place Thickness Being Hauled On, in. (mm)	Thickness of Lift Being Placed			
	3 in. (75 mm) or less		More than 3 in. (75 mm)	
	Modified Soil Subgrade	Granular Subbase	Modified Soil Subgrade	Granular Subbase
3.0 to 4.0 (75 to 100)	0.50 miles (800 m)	0.75 miles (1200 m)	0.25 miles (400 m)	0.50 miles (800 m)
4.1 to 5.0 (101 to 125)	0.75 miles (1200 m)	1.0 mile (1600 m)	0.50 miles (800 m)	0.75 miles (1200 m)
5.1 to 6.0 (126 to 150)	1.0 mile (1600 m)	1.5 miles (2400 m)	0.75 miles (1200 m)	1.0 mile (1600 m)
6.1 to 8.0 (151 to 200)	2.0 miles (3200 m)	2.5 miles (4000 m)	1.5 miles (2400 m)	2.0 miles (3200 m)
Over 8.0 (200)	No Restrictions			

Permissive hauling on the partially completed pavement shall not relieve the Contractor of his/her responsibility for damage to the pavement. Any portion of the full-depth HMA pavement that is damaged by hauling shall be removed and replaced, or otherwise repaired to the satisfaction of the Engineer.

Crossovers used to transfer haul trucks from one roadway to the other shall be at least 1000 ft (300 m) apart and shall be constructed of material that will prevent tracking of dust or mud on the completed HMA lifts. The Contractor shall construct, maintain, and remove all crossovers."

80194

HOT-MIX ASPHALT - FIELD VOIDS IN THE MINERAL AGGREGATE (BDE)

Effective: April 1, 2007
Revised: April 1, 2008

Add the following to the table in Article 1030.05(d)(2)a. of the Standard Specifications:

"Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
VMA Note 5.	Day's production ≥ 1200 tons: 1 per half day of production	N/A	Illinois-Modified AASHTO R 35
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		

Note 5. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design."

Add the following to the Control Limits table in Article 1030.05(d)(4) of the Standard Specifications:

"CONTROL LIMITS			
Parameter	High ESAL Low ESAL Individual Test	High ESAL Low ESAL Moving Avg. of 4	All Other Individual Test
VMA	-0.7 % 2/	-0.5 % 2/	N/A

2/ Allowable limit below minimum design VMA requirement"

Add the following to the table in Article 1030.05(d)(5) of the Standard Specifications:

"CONTROL CHART REQUIREMENTS	High ESAL Low ESAL	All Other
	VMA"	

Revise the heading of Article 1030.05(d)(6)a.1. of the Standard Specifications to read:

"1. Voids, VMA, and Asphalt Binder Content."

Revise the first sentence of the first paragraph of Article 1030.05(d)(6)a.1.(a.) of the Standard Specifications to read:

"If the retest for voids, VMA, or asphalt binder content exceeds control limits, HMA production shall cease and immediate corrective action shall be instituted by the Contractor."

Revise the table in Article 1030.05(e) of the Standard Specifications to read:

"Test Parameter	Acceptable Limits of Precision
% Passing: 1/	
1/2 in. (12.5 mm)	5.0 %
No. 4 (4.75 mm)	5.0 %
No. 8 (2.36 mm)	3.0 %
No. 30 (600 μm)	2.0 %
Total Dust Content No. 200 (75 μm) 1/	2.2 %
Asphalt Binder Content	0.3 %
Maximum Specific Gravity of Mixture	0.026
Bulk Specific Gravity	0.030
VMA	1.4 %
Density (% Compaction)	1.0 % (Correlated)

1/ Based on washed ignition."

HOT-MIX ASPHALT – PLANT TEST FREQUENCY (BDE)

Effective: April 1, 2008

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

"Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
Aggregate Gradation Hot bins for batch and continuous plants. Individual cold-feed or combined belt-feed for drier drum plants. % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm) Note 1.	1 dry gradation per day of production (either morning or afternoon sample). and 1 washed ignition oven test on the mix per day of production (conduct in the afternoon if dry gradation is conducted in the morning or vice versa). Note 3. Note 4.	1 gradation per day of production. The first day of production shall be a washed ignition oven test on the mix. Thereafter, the testing shall alternate between dry gradation and washed ignition oven test on the mix. Note 4.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 2.	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
Air Voids Bulk Specific Gravity of Gyratory Sample	Day's production ≥ 1200 tons: 1 per half day of production	1 per day	Illinois-Modified AASHTO T 312
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		

“Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
Maximum Specific Gravity of Mixture	Day’s production ≥ 1200 tons: 1 per half day of production	1 per day	Illinois-Modified AASHTO T 209”
	Day’s production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		

80201

HOT-MIX ASPHALT – TRANSPORTATION (BDE)

Effective: April 1, 2008

Revise Article 1030.08 of the Standard Specifications to read:

"**1030.08 Transportation.** Vehicles used in transporting HMA shall have clean and tight beds. The beds shall be sprayed with asphalt release agents from the Department's approved list. In lieu of a release agent, the Contractor may use a light spray of water with a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle. After spraying, the bed of the vehicle shall be in a completely raised position and it shall remain in this position until all excess asphalt release agent or water has been drained.

When the air temperature is below 60 ºF (15 ºC), the bed, including the end, endgate, sides and bottom shall be insulated with fiberboard, plywood or other approved insulating material and shall have a thickness of not less than 3/4 in (20 mm). When the insulation is placed inside the bed, the insulation shall be covered with sheet steel approved by the Engineer. Each vehicle shall be equipped with a cover of canvas or other suitable material meeting the approval of the Engineer which shall be used if any one of the following conditions is present.

(a) Ambient air temperature is below 60 ºF (15 ºC).

(b) The weather is inclement.

(c) The temperature of the HMA immediately behind the paver screed is below 250 ºF (120 ºC).

The cover shall extend down over the sides and ends of the bed for a distance of approximately 12 in. (300 mm) and shall be fastened securely. The covering shall be rolled back before the load is dumped into the finishing machine."

80202

LIQUIDATED DAMAGES (BDE)

Effective: April 1, 2009

Revise the table in Article 108.09 of the Standard Specifications to read:

"Schedule of Deductions for Each Day of Overrun in Contract Time			
Original Contract Amount		Daily Charges	
From More Than	To and Including	Calendar Day	Work Day
$ 0	$ 100,000	$ 375	$ 500
100,000	500,000	625	875
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,125	1,550
3,000,000	5,000,000	1,425	1,950
5,000,000	10,000,000	1,700	2,350
10,000,000	And over	3,325	4,650"

80230

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM / EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 2007
Revised: November 1, 2008

Revise Article 105.03(a) of the Standard Specifications to read:

"(a) National Pollutant Discharge Elimination System (NPDES) / Erosion and Sediment Control Deficiency Deduction. When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, or the Contractor's activities represents a violation of the Department's NPDES permits, the Engineer will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 1 week based on the urgency of the situation and the nature of the work effort required. The Engineer will be the sole judge.

A deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the Department's NPDES permits. A deficiency may also be applied to situations where corrective action is not an option such as the failure to participate in a jobsite inspection of the project, failure to install required measures prior to initiating earth moving operations, disregard of concrete washout requirements, or other disregard of the NPDES permit.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either $1000.00 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day."

80180

PAVEMENT MARKING REMOVAL (BDE)

Effective: April 1, 2009

Add the following to the end of the first paragraph of Article 783.03(a) of the Standard Specifications:

"The use of grinders will not be allowed on new surface courses."

80231

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000
Revised: January 1, 2006

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts and to set the time for such payments.

State law also addresses the timing of payments to be made to subcontractors and material suppliers. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, requires that when a Contractor receives any payment from the Department, the Contractor shall make corresponding, proportional payments to each subcontractor and material supplier performing work or supplying material within 15 calendar days after receipt of the Department payment. Section 7 of the Act further provides that interest in the amount of two percent per month, in addition to the payment due, shall be paid to any subcontractor or material supplier by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors and material suppliers throughout the contracting chain.

This Special Provision establishes the required federal contract clause, and adopts the 15 calendar day requirement of the State Prompt Payment Act for purposes of compliance with the federal regulation regarding payments to subcontractors. This contract is subject to the following payment obligations.

When progress payments are made to the Contractor according to Article 109.07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section

7(b) of the State Prompt Payment Act. State law creates other and additional remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

80022

PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: March 1, 2009
Revised: July 1, 2009

FEDERAL AID CONTRACTS. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

"STATEMENTS AND PAYROLLS

The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number.). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

STATE CONTRACTS. Revise Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

"IV. COMPLIANCE WITH THE PREVAILING WAGE ACT

1. Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.

2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of three years from the date of completion of this contract, records of the wages paid to his/her workers. The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid. Upon two business days' notice, these records shall be available, at all reasonable hours at a location within the State, for inspection by the Department or the Department of Labor.

3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

   Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor which avers that: (i) such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class B misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor."

PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: November 1, 2008

Revise the first sentence of Article 701.12 of the Standard Specifications to read:

"All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 for Conspicuity Class 2 garments."

80209

PLASTIC BLOCKOUTS FOR GUARDRAIL (BDE)

Effective: November 1, 2004
Revised: January 1, 2007

Add the following to Article 630.02 of the Standard Specifications:

"(g) Plastic Blockouts (Note 1.)

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 approved list."

80134

PRECAST CONCRETE HANDLING HOLES (BDE)

Effective: January 1, 2007

Add the following to Article 540.02 of the Standard Specifications:

"(g) Handling Hole Plugs.....1042.16"

Add the following paragraph after the sixth paragraph of Article 540.06 of the Standard Specifications:

"Handling holes shall be filled with a precast concrete plug and sealed with mastic or mortar, or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar."

Add the following to Article 542.02 of the Standard Specifications:

"(ee) Handling Hole Plugs .....1042.16"

Revise the fifth paragraph of Article 542.04(d) of the Standard Specifications to read:

"Handling holes in concrete pipe shall be filled with a precast concrete plug and sealed with mastic or mortar; or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation."

Add the following to Article 550.02 of the Standard Specifications:

"(o) Handling Hole Plugs.....1042.16"

Replace the fourth sentence of the fifth paragraph of Article 550.06 of the Standard Specifications with the following:

"Handling holes in concrete pipe shall be filled with a precast concrete plug and sealed with mastic or mortar; or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation."

Add the following to Article 602.02 of the Standard Specifications:

"(p) Handling Hole Plugs..... 1042.16(a)"

Replace the fifth sentence of the first paragraph of Article 602.07 of the Standard Specifications with the following:

"Handling holes shall be filled with a precast concrete plug and sealed with mastic or mortar. The plug shall not project beyond the inside surface after installation. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar."

Add the following to Section 1042 of the Standard Specifications:

"**1042.16 Handling Hole Plugs.** Plugs for handling holes in precast concrete products shall be as follows.

(a) Precast Concrete Plug. The precast concrete plug shall have a tapered shape and shall have a minimum compressive strength of 3000 psi (20,700 kPa) at 28 days.

(b) Polyethylene Plug. The polyethylene plug shall have a "mushroom" shape with a flat round top and a stem with three different size ribs. The plug shall fit snuggly and cover the handling hole.

The plug shall be according to the following.

Mechanical Properties	Test Method	Value (min.)
Flexural Modulus	ASTM D 790	3300 psi (22,750 kPa)
Tensile Strength (Break)	ASTM D 638	1600 psi (11,030 kPa)
Tensile Strength (Yield)	ASTM D 638	1200 psi (8270 kPa)

Thermal Properties	Test Method	Value (min.)
Brittle Temperature	ASTM D 746	-49 ºF (-45 ºC)
Vicat Softening Point	ASTM D 1525	194 ºF (90 ºC)"

80171

RECLAIMED ASPHALT PAVEMENT (RAP) (BDE)

Effective: January 1, 2007
Revised: April 1, 2009

In Article 1030.02(g), delete the last sentence of the first paragraph in (Note 2).

Revise Section 1031 of the Standard Specifications to read:

"**SECTION 1031. RECLAIMED ASPHALT PAVEMENT**

1031.01 Description. Reclaimed asphalt pavement (RAP) is reclaimed asphalt pavement resulting from cold milling or crushing of an existing dense graded hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

1031.02 Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. "Homogeneous Surface").

Prior to milling, the Contractor shall request the District to provide verification of the quality of the RAP to clarify appropriate stockpile.

(a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.

(b) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(c) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low ESAL), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder

content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(d) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

1031.03 Testing. When used in HMA, the RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous / Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
1/2 in. (12.5 mm)	± 8 %	± 15 %
No. 4 (4.75 mm)	± 6 %	± 13 %
No. 8 (2.36 mm)	± 5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 μm)	± 5 %	
No. 200 (75 μm)	± 2.0 %	± 4.0 %
Asphalt Binder	± 0.4 % [1/]	± 0.5 %

1/ The tolerance for fractionated reclaimed asphalt pavement (FRAP) shall be $\pm$ 0.3 %.

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt binder content test results fall outside the appropriate tolerances, the RAP shall not be used in HMA unless the RAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

1031.04 Quality Designation of Aggregate in RAP. The quality of the RAP shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(a) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) surface mixtures are designated as containing Class B quality coarse aggregate.

(b) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder and IL-9.5L surface mixtures are designated as Class D quality coarse aggregate.

(c) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

(d) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

1031.05 Use of RAP in HMA. The use of RAP shall be a Contractor's option when constructing HMA in all contracts. The use of RAP in HMA shall be as follows.

(a) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(b) Steel Slag Stockpiles. RAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) surface mixtures only.

(c) Use in HMA Surface Mixtures (High and Low ESAL). RAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be homogeneous in which the coarse aggregate is Class B quality or better.

(d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.

(e) Use in Shoulders and Subbase. RAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be homogeneous, conglomerate, or conglomerate DQ.

(f) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table below for a given N Design.

Max RAP Percentage

HMA Mixtures [1/, 3/]	Maximum % RAP		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15 / 25 [2/]	10 / 15 [2/]	10
90	10	10	10
105	10	10	10

1/ For HMA shoulder and stabilized subbase (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.

2/ Value of Max % RAP if homogeneous RAP stockpile of IL-9.5 RAP is utilized.

3/ When RAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°°F (135 °C) the grades shall be reduced as follows:

Overlays:
When WMA contains between 20 and 30 percent RAP the high temperature shall be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-22). When WMA contains 30 percent or more RAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

Full Depth:
When WMA contains between 20 and 30 percent RAP, the low temperature shall be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG64-28). When the WMA contains 30 percent or more RAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

(g) When the Contractor chooses the FRAP option, the percentage of FRAP shall not exceed the amounts indicated in the table below for a given N Design.

Max FRAP Percentage[1/]

HMA Mixtures [2/, 3/]	Maximum % FRAP		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	35	35	10
50	30	25	10
70	25	20	10
90	20	15	10
105	10	10	10

1/ Minumum of two fractions for surface and binder applications.

2/ For HMA shoulder and stabilized subbase (HMA) N30, the amount of RAP shall not exceed 50 percent of the mixture.

3/ When FRAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°°F (135 °C) the grades shall be reduced as follows:

Overlays:
When WMA contains between 20 and 30 percent FRAP the high temperature shall be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-22). When WMA contains 30 percent or more FRAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

Full Depth:
When WMA contains between 20 and 30 percent FRAP, the low temperature shall be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG64-28). When the WMA contains 30 percent or more FRAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

1031.06 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP material meeting the above detailed requirements.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein,

are outside of the control tolerances set for the original RAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

1031.07 HMA Production. The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design.

HMA plants utilizing RAP shall be capable of automatically recording and printing the following information.

(a) Dryer Drum Plants.

(1) Date, month, year, and time to the nearest minute for each print.

(2) HMA mix number assigned by the Department.

(3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

(4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

(5) Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

(6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

(7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.

(8) Aggregate and RAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP are printed in wet condition.)

(b) Batch Plants.

(1) Date, month, year, and time to the nearest minute for each print.

(2) HMA mix number assigned by the Department.

(3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).

(4) Mineral filler weight to the nearest pound (kilogram).

(5) RAP weight to the nearest pound (kilogram).

(6) Virgin asphalt binder weight to the nearest pound (kilogram).

(7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.08 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP in aggregate surface course and aggregate shoulders shall be as follows.

(a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except “Other”. The testing requirements of Article 1031.03 shall not apply.

(b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted.”

80172

REFLECTIVE SHEETING ON CHANNELIZING DEVICES (BDE)

Effective: April 1, 2007
Revised: November 1, 2008

Revise the seventh paragraph of Article 1106.02 of the Standard Specifications to read:

"At the time of manufacturing, the retroreflective prismatic sheeting used on channelizing devices shall meet or exceed the initial minimum coefficient of retroreflection as specified in the following table. Measurements shall be conducted according to ASTM E 810, without averaging. Sheeting used on cones, drums and flexible delineators shall be reboundable as tested according to ASTM D 4956. Prestriped sheeting for rigid substrates on barricades shall be white and orange. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll. The color shall conform to the latest appropriate standard color tolerance chart issued by the U.S. Department of Transportation, Federal Highway Administration, and to the daytime and nighttime color requirements of ASTM D 4956.

Initial Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material				
Observation Angle (deg.)	Entrance Angle (deg.)	White	Orange	Fluorescent Orange
0.2	-4	365	160	150
0.2	+30	175	80	70
0.5	-4	245	100	95
0.5	+30	100	50	40"

Revise the first sentence of the first paragraph of Article 1106.02(c) of the Standard Specifications to read:

"Barricades and vertical panels shall have alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass."

Revise the third sentence of the first paragraph of Article 1106.02(d) of the Standard Specifications to read:

"The bottom panels shall be 8 x 24 in. (200 x 600 mm) with alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass."

80183

REINFORCEMENT BARS (BDE)

Effective: November 1, 2005
Revised: April 1, 2009

Revise Article 1006.10(a) of the Standard Specifications to read:

"(a) Reinforcement Bars. Reinforcement bars will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reinforcement Bar and/or Dowel Bar Plant Certification Procedure". The Department will maintain an approved list of producers.

(1) Reinforcement Bars (Non-Coated). Reinforcement bars shall be according to ASTM A 706 (A 706M), Grade 60 (420) for deformed bars and the following.

a. For straight bars furnished in cut lengths and with a well-defined yield point, the yield point shall be determined as the elastic peak load, identified by a halt or arrest of the load indicator before plastic flow is sustained by the bar and dividing it by the nominal cross-sectional area of the bar.

b. Tensile strength shall be a minimum of 1.20 times the yield strength.

c. For bars straightened from coils or bars bent from fabrication, there shall be no upper limit on yield strength; and for bar designation Nos. 3 - 6 (10 - 19), the elongation after rupture shall be at least 9%.

d. Heat Numbers. Bundles or bars at the construction site shall be marked or tagged with heat identification numbers of the bar producer.

e. Guided Bend Test. Bars may be subject to a guided bend test across two pins which are free to rotate, where the bending force shall be centrally applied with a fixed or rotating pin of a certain diameter as specified in Table 3 of ASTM A 706 (A 706M). The dimensions and clearances of this guided bend test shall be according to ASTM E 190.

f. Spiral Reinforcement. Spiral reinforcement shall be deformed or plain bars conforming to the above requirements or cold-drawn steel wire conforming to AASHTO M 32.

(2) Epoxy Coated Reinforcement Bars. Epoxy coated reinforcement bars shall be according to Article 1006.10(a)(1) and shall be epoxy coated according to AASHTO M 284 (M 284M) and the following.

a. Certification. The epoxy coating applicator shall be certified according to the current Bureau of Materials and Physical Research Policy Memorandum, "Epoxy

Coating Plant Certification Procedure". The Department will maintain an approved list.

b. Coating Thickness. When spiral reinforcement is coated after fabrication, the thickness of the epoxy coating shall be 7 to 20 mils (0.18 to 0.50 mm).

c. Cutting Reinforcement. Reinforcement bars may be sheared or sawn to length after coating, providing the end damage to the coating does not extend more than 0.5 in. (13 mm) back and the cut is patched before any visible rusting appears. Flame cutting will not be permitted."

80151

REINFORCEMENT BARS - STORAGE AND PROTECTION (BDE)

Effective: August 1, 2008
Revised: April 1, 2009

Revise Article 508.03 of the Standard Specifications to read:

"**508.03 Storage and Protection.** Reinforcement bars shall be stored off the ground using platforms, skids, or other supports; and shall be protected from mechanical injury and from deterioration by exposure. Epoxy coated bars shall be stored on wooden or padded steel cribbing and all systems for handling shall have padded contact areas. The bars or bundles shall not be dragged or dropped.

When epoxy coated bars are stored in a manner where they will be exposed to the weather more than 60 days prior to use, they shall be protected from deterioration such as that caused by sunlight, salt spray, and weather exposure. The protection shall consist of covering with opaque polyethylene sheeting or other suitable opaque material. The covering shall be secured and allow for air circulation around the bars to minimize condensation under the cover.

Covering of the epoxy coated bars will not be required when the bars are installed and tied, or when they are partially incorporated into the concrete."

80206

SEEDING (BDE)

Effective: July 1, 2004
Revised: July 1, 2009

Revise the following seeding mixtures shown in Table 1 of Article 250.07 of the Standard Specifications to read:

"Table 1 - SEEDING MIXTURES			
Class – Type		Seeds	lb/acre (kg/hectare)
1A	Salt Tolerant Lawn Mixture 7/	Bluegrass Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70) 20 (20) 20 (20) 20 (20) 60 (70)
2	Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Creeping Red Fescue Red Top	100 (110) 50 (55) 40 (50) 10 (10)
2A	Salt Tolerant Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70) 20 (20) 30 (20) 30 (20) 60 (70)
3	Northern Illinois Slope Mixture 7/	Elymus Canadensis (Canada Wild Rye) Perennial Ryegrass Alsike Cover 2/ Desmanthus Illinoensis (Illinois Bundleflower) 2/, 5/ Andropogon Scoparius (Little Bluestem) 5/ Bouteloua Curtipendula (Side-Oats Grama) Fults Salt Grass 1/ or Salty Alkaligrass Oats, Spring Slender Wheat Grass 5/ Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5) 20 (20) 5 (5) 2 (2) 12 (12) 10 (10) 30 (35) 50 (55) 15 (15) 5 (5)

"Table 1 - SEEDING MIXTURES			
6A	Salt Tolerant Conservation Mixture	Andropogon Scoparius (Little Bluestem) 5/	5 (5)
		Elymus Canadensis (Canada Wild Rye) 5/	2 (2)
		Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5)
		Vernal Alfalfa 2/	15 (15)
		Oats, Spring	48 (55)
		Fults Salt Grass 1/ or Salty Alkaligrass	20 (20)"

Revise Note 7 of Table 1 – Seeding Mixtures of Article 250.07 of the Standard Specifications to read:

"7/ In Districts 1 through 6, the planting times shall be April 1 to June 15 and August 1 to November 1. In Districts 7 through 9, the planting times shall be March 1 to June 1 and August 1 to November 15. Seeding may be performed outside these dates provided the Contractor guarantees a minimum of 75 percent uniform growth over the entire seeded area(s) after a period of establishment. Inspection dates for the period of establishment will be as follows: Seeding conducted in Districts 1 through 6 between June 16 and July 31 will be inspected after April 15 and seeding conducted between November 2 and March 31 will be inspected after September 15. Seeding conducted in Districts 7 through 9 between June 2 and July 31 will be inspected after April 15 and seeding conducted between November 16 and February 28 will be inspected after September 15. The guarantee shall be submitted to the Engineer in writing prior to performing the work. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department."

Delete the last sentence of the first paragraph of Article 1081.04(c)(2) of the Standard Specifications.

Revise Table II of Article 1081.04(c)(6) of the Standard Specifications to read:

TABLE II						
					Secondary *	
Variety of Seeds	Hard Seed % Max.	Purity % Min.	Pure Live Seed % Min.	Weed % Max.	Noxious Weeds No. per oz (kg) Max. Permitted	Notes
Alfalfa	20	92	89	0.50	6 (211)	1/
Clover, Alsike	15	92	87	0.30	6 (211)	2/
Red Fescue, Audubon	0	97	82	0.10	3 (105)	-
Red Fescue, Creeping	-	97	82	1.00	6 (211)	-
Red Fescue, Epic	-	98	83	0.05	1 (35)	-
Red Fescue, Sea Link	-	98	83	0.10	3 (105)	-
Tall Fescue, Blade Runner	-	98	83	0.10	2 (70)	-
Tall Fescue, Falcon IV	-	98	83	0.05	1 (35)	-
Tall Fescue, Inferno	0	98	83	0.10	2 (70)	-

TABLE II						
Variety of Seeds	Hard Seed % Max.	Purity % Min.	Pure Live Seed % Min.	Weed % Max.	Secondary * Noxious Weeds No. per oz (kg) Max. Permitted	Notes
Tall Fescue, Tarheel II	-	97	82	1.00	6 (211)	-
Tall Fescue, Quest	0	98	83	0.10	2 (70)	
Fults Salt Grass	0	98	85	0.10	2 (70)	-
Salty Alkaligrass	0	98	85	0.10	2 (70)	-
Kentucky Bluegrass	-	97	80	0.30	7 (247)	4/
Oats	-	92	88	0.50	2 (70)	3/
Redtop	-	90	78	1.80	5 (175)	3/
Ryegrass, Perennial, Annual	-	97	85	0.30	5 (175)	3/
Rye, Grain, Winter	-	92	83	0.50	2 (70)	3/
Hard Fescue, Reliant IV	-	98	83	0.05	1 (35)	-
Hard Fescue, Rescue 911	0	97	82	0.10	3 (105)	-
Hard Fescue, Spartan II	-	98	83	0.10	3 (105)	-
Timothy	-	92	84	0.50	5 (175)	3/
Wheat, hard Red Winter	-	92	89	0.50	2 (70)	3/”

Revise the first sentence of the first paragraph of Article 1081.04(c)(7) of the Standard Specifications to read:

“The seed quantities indicated per acre (hectare) for Prairie Grass Seed in Classes 3, 3A, 4, 4A, 6, and 6A in Article 250.07 shall be the amounts of pure, live seed per acre (hectare) for each species listed.”

80131

SELF-CONSOLIDATING CONCRETE FOR CAST-IN-PLACE CONSTRUCTION (BDE)

Effective: November 1, 2005
Revised: January 1, 2009

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for cast-in-place concrete construction items involving Class MS, DS, and SI concrete.

Materials. Materials shall be according to Section 1021 of the Standard Specifications.

Mix Design Criteria. Article 1020.04 of the Standard Specifications shall apply, except as follows:

(a) The cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m). The cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used.

(b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.

(c) The slump requirements shall not apply.

(d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.

(e) The slump flow range shall be ± 2 in. (± 50 mm) of the Contractor target value, and within the overall Department range of 20 in. (510 mm) minimum to 28 in. (710 mm) maximum.

(f) The visual stability index shall be a maximum of 1.

(g) The J-ring value shall be a maximum of 4 in. (100 mm). The Contractor may specify a lower maximum in the mix design.

(h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.

(i) The column segregation index shall be a maximum 15 percent.

(j) The hardened visual stability index shall be a maximum of 1.

Test Methods. Illinois Test Procedures SCC-1, SCC-2, SCC-3, SCC-4, SCC-5, SCC-6, and Illinois Modified AASHTO T 22, 23, 121, 126, 141, 152, 177, 196, and 309 shall be used for testing of self-consolidating concrete mixtures.

Mix Design Submittal. The Contractor's Level III PCC Technician shall submit a mix design according to the "Portland Cement Concrete Level III Technician" course manual, except target slump information is not applicable and will not be required. However, a slump flow target range shall be submitted. In addition, the design mortar factor may exceed 1.10 and durability test data will be waived.

A J-ring value shall be submitted if a lower mix design maximum will apply. An L-box blocking ratio shall be submitted if a higher mix design minimum will apply. The Contractor shall also indicate applicable construction items for the mix design.

Trial mixture information will be required by the Engineer. A trial mixture is a batch of concrete tested by the Contractor to verify the Contractor's mix design will meet specification requirements. Trial mixture information shall include test results as specified in the "Portland Cement Concrete Level III Technician" course manual. Test results shall also include slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index. For the trial mixture, the slump flow shall be near the midpoint of the proposed slump flow target range.

Trial Batch. A minimum 2 cu yd (1.5 cu m) trial batch shall be produced, and the self-consolidating concrete admixture dosage proposed by the Contractor shall be used. The slump flow shall be within 1.0 in. (25 mm) of the maximum slump flow range specified by the Contractor, and the air content shall be within the top half of the allowable specification range.

The trial batch shall be scheduled a minimum of 21 calendar days prior to anticipated use and shall be performed in the presence of the Engineer.

The Contractor shall provide the labor, equipment, and materials to test the concrete. The mixture will be evaluated by the Engineer for strength, air content, slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index.

Upon review of the test data from the trial batch, the Engineer will verify or deny the use of the mix design and notify the Contractor. Verification by the Engineer will include the Contractor's target slump flow range. If applicable, the Engineer will verify the Contractor's maximum J-ring value and minimum L-box blocking ratio.

A new trial batch will be required whenever there is a change in the source of any component material, proportions beyond normal field adjustments, dosage of the self-consolidating concrete admixture, batch sequence, mixing speed, mixing time, or as determined by the Engineer. The testing criteria for the new trial batch will be determined by the Engineer.

When necessary, the trial batches shall be disposed of according to Article 202.03 of the Standard Specifications.

Mixing Portland Cement Concrete. In addition to Article 1020.11 of the Standard Specifications, the mixing time for central-mixed concrete shall not be reduced as a result of a mixer performance test. Truck-mixed or shrink-mixed concrete shall be mixed in a truck mixer for a minimum of 100 revolutions.

Wash water, if used, shall be completely discharged from the drum or container before the succeeding batch is introduced.

The batch sequence, mixing speed, and mixing time shall be appropriate to prevent cement balls and mix foaming for central-mixed, truck-mixed, and shrink-mixed concrete.

Falsework and Forms. In addition to Articles 503.05 and 503.06 of the Standard Specifications, the Contractor shall ensure the design of the falsework and forms is adequate for the additional form pressure caused by the fluid concrete. Forms shall be tight to prevent leakage of fluid concrete.

When the form height for placing the self-consolidating concrete is greater than 10.0 ft (3.0 m), direct monitoring of form pressure shall be performed according to Illinois Test Procedure SCC-10. The monitoring requirement is a minimum, and the Contractor shall remain responsible for adequate design of the falsework and forms. A minimum of one sensor will be required below each point of concrete placement to measure the maximum pressure. The first sensor below the point of concrete placement shall be approximately 12 in. (300 mm) above the base of the formwork. Additional sensors shall be installed above the bottom sensor when the form height is greater than 10.0 ft (3.0 m) above the bottom sensor. The additional sensors shall be installed at a maximum vertical spacing of 10.0 ft (3.0 m). The Contractor shall record the formwork pressure during concrete placement. This information shall be used by the Contractor to prevent the placement rate from exceeding the maximum formwork pressure allowed, to monitor the thixotropic change in the concrete during the pour, and to make appropriate adjustments to the mix design. This information shall be provided to the Engineer during the pour.

Placing and Consolidating. Concrete placement and consolidation shall be according to Article 503.07 of the Standard Specifications, except as follows:

Revise the third paragraph of Article 503.07 of the Standard Specifications to read:

"Open troughs and chutes shall extend as nearly as practicable to the point of deposit. The drop distance of concrete shall not exceed 5 ft (1.5 m). If necessary, a tremie shall be used to meet this requirement. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer. For drilled shafts, free fall placement will not be permitted."

Delete the seventh, eighth, ninth, and tenth paragraphs of Article 503.07 of the Standard Specifications.

Add to the end of the eleventh paragraph of Article 503.07 of the Standard Specifications the following:

"Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer."

Quality Control by Contractor at Plant. The specified test frequencies for aggregate gradation, aggregate moisture, air content, unit weight/yield, and temperature shall be performed as indicated in the contract.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed as needed to control production. The column segregation index test and hardened visual stability index test will not be required to be performed at the plant.

Quality Control by Contractor at Jobsite. The specified test frequencies for air content, strength, and temperature shall be performed as indicated in the contract.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed on the first two truck deliveries of the day, and every 50 cu yd (40 cu m) thereafter. The Contractor shall select either the J-ring or L-box test for jobsite testing.

The column segregation index test will not be required to be performed at the jobsite. The hardened visual stability index test shall be performed on the first truck delivery of the day, and every 300 cu yd (230 cu m) thereafter. Slump flow, visual stability index, J-ring value or L-box blocking ratio, air content, and concrete temperature shall be recorded for each hardened visual stability index test.

The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.

If mix foaming or other potential detrimental material is observed during placement or at the completion of the pour, the material shall be removed while the concrete is still plastic.

Quality Assurance by Engineer at Plant. For air content and aggregate gradation, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract.

For slump flow, visual stability index, and J-ring or L-box tests, quality assurance independent sample testing and split sample testing will be performed as determined by the Engineer.

Quality Assurance by Engineer at Jobsite. For air content and strength, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract.

For slump flow, visual stability index, J-ring or L-box, and hardened visual stability index tests, quality assurance independent sample testing will be performed as determined by the Engineer.

For slump flow and visual stability index quality assurance split sample testing, the Engineer will perform tests at the beginning of the project on the first three tests performed by the Contractor. Thereafter, a minimum of ten percent of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design. The acceptable limit of precision will be 1.5 in. (40 mm) for slump flow and a limit of precision will not apply to the visual stability index.

For the J-ring or the L-box quality assurance split sample testing, a minimum of 80 percent of the total tests required of the Contractor will be witnessed by the Engineer per plant, which will include a minimum of one witnessed test per mix design. The Engineer reserves the right to conduct quality assurance split sample testing. The acceptable limit of precision will be 1.5 in. (40 mm) for the J-ring value and ten percent for the L-box blocking ratio.

For each hardened visual stability index test performed by the Contractor, the cut cylinders shall be presented to the Engineer for determination of the rating. The Engineer reserves the right to conduct quality assurance split sample testing. A limit of precision will not apply to the hardened visual stability index.

SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004
Revised: January 1, 2007

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for precast concrete products.

Materials. Materials shall be according to Section 1021 of the Standard Specifications.

Mix Design Criteria. The mix design criteria shall be as follows:

(a) The minimum cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m).

(b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.

(c) The slump requirements of Article 1020.04 of the Standard Specifications shall not apply.

(d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.

(e) The slump flow range shall be ± 2 in. (± 50 mm) of the Contractor target value, and within the overall Department range of 20 in. (510 mm) minimum to 28 in. (710 mm) maximum.

(f) The visual stability index shall be a maximum of 1.

(g) The J-ring value shall be a maximum of 4 in. (100 mm). The Contractor may specify a lower maximum in the mix design.

(h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.

(i) The column segregation index shall be a maximum 15 percent.

(j) The hardened visual stability index shall be a maximum of 1.

Placing and Consolidating. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer.

Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

Mix Design Approval. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

80132

SIGN PANELS AND SIGN PANEL OVERLAYS (BDE)

Effective: November 1, 2008

Description. This work shall consist of furnishing, fabricating, and installing sign panels and/or sign panel overlays. Work shall be according to Sections 720 and 721 of the Standard Specifications, except as modified herein.

Materials. Type AP and AZ sheeting shall meet the requirements of the special provision, "Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs". Type ZZ sheeting shall meet the requirements of the special provision, "Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs".

The sheeting for the background, legend, border, shields, and symbols shall be provided by the same manufacturer.

CONSTRUCTION REQUIREMENTS

Fabrication. Signs shall be fabricated according to the current Bureau of Operations Policy Memorandum, "Fabrication of Highway Signs", the MUTCD, the FHWA Standard Highway Signs manual, the Illinois standard highway signs, and as shown on the plans.

Signs shall be fabricated such that the material for the background, legend, border, shields, and symbols is applied in the preferred orientation for the maximum retroreflectivity per the manufacturer's recommendation. The nesting of legend, border, shields, or symbols will not be permitted.

SILT FILTER FENCE (BDE)

Effective: January 1, 2008

For silt filter fence fabric only, revise Article 1080.02 of the Standard Specifications to read:

"**1080.02 Geotextile Fabric.** The fabric for silt filter fence shall be a woven fabric meeting the requirements of AASHTO M 288 for unsupported silt fence with less than 50 percent geotextile elongation."

Replace the last sentence of Article 1081.15(b) of the Standard Specifications with the following:

> "Silt filter fence stakes shall be a minimum of 4 ft (1.2 m) long and made of either wood or metal. Wood stakes shall be 2 in. x 2 in. (50 mm x 50 mm). Metal stakes shall be a standard T or U shape having a minimum weight (mass) of 1.32 lb/ft (600 g/300 mm)."

80197

STEEL PLATE BEAM GUARDRAIL (BDE)

Effective: November 1, 2005
Revised: August 1, 2007

Revise the first paragraph of Article 1006.25 of the Standard Specifications to read:

"**1006.25 Steel Plate Beam Guardrail.** Steel plate beam guardrail, including bolts, nuts, and washers, shall be according to AASHTO M 180. The guardrail shall be Class A, with a Type II galvanized coating; except the weight (mass) of the coating for each side of the guardrail shall be at least 2.00 oz/sq ft (610 g/sq m). The coating will be determined for each side of the guardrail using the average of at least three non-destructive test readings taken on that side of the guardrail. The minimum average thickness for each side shall be 3.4 mils (86 µm)."

80153

STONE GRADATION TESTING (BDE)

Effective: November 1, 2007

Revise the first sentence of note 1/ of the Erosion Protection and Sediment Control Gradations table of Article 1005.01(c)(1) of the Standard Specifications to read:

"A maximum of 15 percent of the total test sample by weight may be oversize material."

80191

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

80143

TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002
Revised: January 1, 2008

Revise the third paragraph of Article 280.03 of the Standard Specifications to read:

"Erosion control systems shall be installed prior to beginning any activities which will potentially create erodible conditions. Erosion control systems for areas outside the limits of construction such as storage sites, plant sites, waste sites, haul roads, and Contractor furnished borrow sites shall be installed prior to beginning soil disturbing activities at each area. These offsite systems shall be designed by the Contractor and be subject to the approval of the Engineer."

Add the following paragraph after the third paragraph of Article 280.03 of the Standard Specifications:

"The temporary erosion and sediment control systems shown on the plans represent the minimum systems anticipated for the project. Conditions created by the Contractor's operations, or for the Contractor's convenience, which are not covered by the plans, shall be protected as directed by the Engineer at no additional cost to the Department. Revisions or modifications of the erosion and sediment control systems shall have the Engineer's written approval."

Add the following paragraph after the ninth paragraph of Article 280.07 of the Standard Specifications:

"Temporary or permanent erosion control systems required for areas outside the limits of construction will not be measured for payment."

Delete the tenth (last) paragraph of Article 280.08 of the Standard Specifications.

80087

THERMOPLASTIC PAVEMENT MARKINGS (BDE)

Effective: January 1, 2007

Revise Article 1095.01(a)(2) of the Standard Specifications to read:

"(2) Pigment. The pigment used for the white thermoplastic compound shall be a high-grade pure (minimum 93 percent) titanium dioxide ($Ti0_2$). The white pigment content shall be a minimum of ten percent by weight and shall be uniformly distributed throughout the thermoplastic compound.

The pigments used for the yellow thermoplastic compound shall not contain any hazardous materials listed in the Environmental Protection Agency Code of Federal Regulations (CFR) 40, Section 261.24, Table 1. The combined total of RCRA listed heavy metals shall not exceed 100 ppm when tested by X-ray fluorescence spectroscopy. The pigments shall also be heat resistant, UV stable and color-fast yellows, golds, and oranges, which shall produce a compound which shall match Federal Standard 595 Color No. 33538. The pigment shall be uniformly distributed throughout the thermoplastic compound."

Revise Article 1095.01(b)(1)e. of the Standard Specifications to read:

"e. Daylight Reflectance and Color. The thermoplastic compound after heating for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 ºC) and cooled at 77 °F (25 °C) shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degree circumferential/zero degree geometry, illuminant C, and 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.

White: Daylight Reflectance .....75 percent min.
*Yellow: Daylight Reflectance .....45 percent min.

*Shall meet the coordinates of the following color tolerance chart.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456"

Revise Article 1095.01(b)(1)k. of the Standard Specifications to read:

"k. Accelerated Weathering. After heating the thermoplastic for four hours ± five minutes at 425 ± 3 ºF (218.3 ± 2 ºC) the thermoplastic shall be applied to a steel wool abraded aluminum alloy panel (Federal Test Std. No. 141, Method 2013) at a film thickness of 30 mils (0.70 mm) and allowed to cool for 24 hours at room temperature. The coated panel shall be subjected to accelerated weathering

using the light and water exposure apparatus (fluorescent UV - condensation type) for 75 hours according to ASTM G 53 (equipped with UVB-313 lamps).

The cycle shall consist of four hours UV exposure at 122 °F (50 °C) followed by four hours of condensation at 104 °F (40 °C). UVB 313 bulbs shall be used. At the end of the exposure period, the panel shall not exceed 10 Hunter Lab Delta E units from the original material."

80176

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	FAS 0110	Marked Rte.	FAS 0110 (Keslinger Road)
Section	01-00267-00-BR	Project No.	BRS-0110 (111)
County	Kane	Contract No.	83994

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from Construction Site Activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name	Signature
Title	Date
Kane County Division of Transportation	
Agency	

I. Site Description:

A. The following is a description of the project location:

The project location is at the Keslinger Road Bridge over Welch Creek, approximately one mile west of Illinois Route 47 near Elburn in Kane County. Keslinger Road is a two-lane County Highway. The location is near the edge of the Elburn's development. The land to the south and west of the project is agricultural.

B. The following is a description of the construction activity which is the subject of this plan:

The purpose of this project is to replace the existing bridge over Welch Creek with a box culvert.

This work consists of replacing the existing bridge over Welch Creek with a box culvert and improvements to the roadway including widening the lanes from 11' to 12', installation of 8' (min.) asphalt shoulders, installation of guardrail, reconstruction of driveways, the relocation of a field entrance, and grading. Earth exposed due to the grading will be seeded and trees removed will be replaced.

An oversized ditch will be constructed on the north side of the road east of Welch creek for the purpose of compensatory storage. An existing 42" CMP cross culvert, approximately 225' west of the creek will be replaced with a 42" RCP pipe.

Erosion control measures include ditch checks, sediment control silt fence, erosion control blanket, and temporary seeding and permanent seeding.

C. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation and grading:

The bridge will be replaced with a box culvert requiring in stream work and grading adjacent to the creek. The oversized ditch will be excavated and the material be used to widen the embankment for the approaches. The roadway will be raised and widened.

D. The total area of the construction site is estimated to be 1.83 acres.

The total area of the site that is estimated will be disturbed by excavation, grading or other activities is 1.83 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

Proposed C from edge to edge of pavement: 0.90

F. The following is a description of the soil types found at the project site followed by information regarding their erosivity:

Soil boring indicated the following soil types to be present: clay, silty and sandy loam. These soils are not highly erosive.

G. The following is a description of potentially erosive areas associated with this project:

The area with the most potential for erosion associated with this project includes the area east of the bridge and north of the roadway where the embankment is highest. At the base of the slope, the ditch will be oversized to accommodate compensatory storm water storage

H. The following is a description of soil disturbing activities, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

The soil will be disturbed for the entire length of the project within the existing and proposed right-of-way. The soil will be disturbed during the construction activity associated with the raising and widening of the roadway embankment and improving the driveway entrances to match the new roadway grade. Exposed earth will be subject to temporary seeding and permanent seeding and/or sodding. The side slopes are typically 1:3 (V:H) or flatter. The longest embankment slope is approximately 30 feet at 1:3. Ditch slopes typically range between 1% and 5% and flow toward the creek.

I. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.

J. The following is a list of receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site. The location of the receiving waters can be found on the erosion and sediment control plans:

Welch Creek

K. The following pollutants of concern will be associated with this construction project:

- ☒ Soil Sediment
- ☒ Concrete
- ☒ Concrete Truck Waste
- ☒ Concrete Curing Compounds
- ☐ Solid Waste Debris
- ☒ Paints
- ☒ Solvents
- ☒ Fertilizers / Pesticides
- ☒ Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
- ☐ Antifreeze / Coolants
- ☒ Waste water from cleaning construction equipment
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the contractor will be responsible for its implementation as indicated. The contractor shall provide to the resident engineer a plan for the implementation of the measures indicated. The contractor, and subcontractors, will notify the resident engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the permit. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. Erosion and Sediment Controls

1. Stabilized Practices: Provided below is a description of interim and permanent stabilization practices, including site specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(A)(1)(a) and II(A)(3), stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of 14 or more calendar days.

a. Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following Stabilization Practices will be used for this project:

- ☒ Preservation of Mature Vegetation
- ☐ Vegetated Buffer Strips
- ☐ Protection of Trees
- ☒ Temporary Erosion Control Seeding
- ☒ Temporary Turf (Seeding, Class 7)
- ☐ Temporary Mulching
- ☒ Permanent Seeding
- ☒ Erosion Control Blanket / Mulching
- ☒ Sodding
- ☐ Geotextiles
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)

Describe how the Stabilization Practices listed above will be utilized:

Temporary measures in accordance with applicable Department standards will be used to control erosion and sedimentation during construction. Permanent measures will be implemented after the construction phase is completed.

Stabilization practice will include temporary erosion control seeding, and tree root pruning.

Temporary erosion seeding will be placed at all disturbed areas. Seeding will be placed as soon as possible to prevent wind and water erosion.

2. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

   The following Structural Practices will be used for this project:

☒ Perimeter Erosion Barrier	☐ Rock Outlet Protection
☒ Temporary Ditch Check	☒ Riprap
☒ Storm Drain Inlet Protection	☐ Gabions
☐ Sediment Trap	☐ Slope Mattress
☐ Temporary Pipe Slope Drain	☐ Retaining Walls
☐ Temporary Sediment Basin	☐ Slope Walls
☐ Temporary Stream Crossing	☐ Concrete Revetment Mats
☐ Stabilized Construction Exits	☐ Level Spreaders
☐ Turf Reinforcement Mats	☐ Other (specify)
☐ Permanent Check Dams	☐ Other (specify)
☐ Permanent Sediment Basin	☐ Other (specify)
☐ Aggregate Ditch	☐ Other (specify)
☐ Paved Ditch	☐ Other (specify)

   Describe how the Structural Practices listed above will be utilized:

   Sediment control silt fence will be constructed along the perimeter of the project to prevent sediment from leaving the project.

   Inlet and pipe protection will be placed at upstream ends of culverts to prevent sediment from entering the culverts.

   Temporary ditch checks will be installed to prevent sediment from entering the creek.

   A ditch lined with riprap will be installed northeast of the proposed box culvert to prevent soil erosion.

3. **Storm Water Management:** Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

   a. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

      The practices selected for implementation were determined on the basis of the technical guidance in Section 59-8 (Erosion and Sediment Control) in Chapter 59 (Landscape Design and Erosion Control) of the Illinois Department of Transportation Bureau of Design and Environment Manual. If practices other than those discussed in Section 59-8 are selected for implementation or if practices are applied to situations different from those covered in Section 59-8, the technical basis for such decisions will be explained below.

   b. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

   Description of Storm Water Management Controls.

   Ditches will be regraded with flat slopes to prevent water from eroding the ground. A ditch lined with riprap will be installed northeast of the proposed box culvert to prevent soil erosion.

4. Other Controls:

a. Vehicle Entrances and Exits – Stabilized construction entrances and exits must be constructed to prevent tracking of sediments onto roadways.

The contractor will provide the resident engineer with a written plan identifying the location of stabilized entrances and exits and the procedures (s)he will use to construct and maintain them.

b. Material Delivery, Storage, and Use – The following BMPs shall be implemented to help prevent discharges of construction materials during delivery, storage, and use:
- All products delivered to the project site must be properly labeled.
- Water tight shipping containers and/or semi trailers shall be used to store hand tools, small parts, and most construction materials that can be carried by hand, such as paint cans, solvents, and grease.
- A storage/containment facility should be chosen for larger items such as drums and items shipped or stored on pallets. Such material is to be covered by a tin roof or large sheets of plastic to prevent precipitation from coming in contact with the products being stored.
- Large items such as light stands, framing materials and lumber shall be stored in the open in a general storage area. Such material shall be elevated with wood blocks to minimize contact with storm water runoff.
- Spill clean-up materials, material safety data sheets, an inventory of materials, and emergency contact numbers shall be maintained and stored in one designated area and each Contractor is to inform his/her employees and the resident engineer of this location.

c. Stockpile Management – BMPs shall be implemented to reduce or eliminate pollution of storm water from stockpiles of soil and paving materials such as but not limited to portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, aggregate sub base, and pre-mixed aggregate. The following BMPs may be considered:
- Perimeter Erosion Barrier
- Temporary Seeding
- Temporary Mulch
- Plastic Covers
- Soil Binders
- Storm Drain Inlet Protection

The contractor will provide the resident engineer with a written plan of the procedures (s)he will use on the project and how they will be maintained.

d. Waste Disposal. No materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

e. The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

f. The contractor shall provide a written and graphic plan to the resident engineer identifying where each of the above areas will be located and how they are to be managed.

5. Approved State or Local Laws

The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual, 1995. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

In accordance with the current Kane County Stormwater Ordinance.

III. Maintenance:

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. The resident engineer will provide maintenance guides to the contractor for the practices associated with this project.

Inlet and outlet protection and sediment control silt fence will have the sediment removed and be replaced as directed by the engineer. Temporary erosion control systems will be left in place with proper maintenance until permanent erosion control is in place and working properly. The temporary erosion control systems will be removed after the permanent erosion control systems have been established.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

A. Disturbed areas, use areas (storage of materials, stockpiles, machine maintenance, fueling, etc.), borrow sites, and waste sites shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Discharge locations or points that are accessible, shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.

B. Based on the results of the inspection, the description of potential pollutant sources identified in section I above and pollution prevention measures identified in section II above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within ½ hour to 1 week based on the urgency of the situation. The resident engineer will notify the contractor of the time required to implement such actions through the weekly inspection report.

C. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with section IV(B) shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.

D. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the resident engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within 24 hours of the incident. The resident Engineer shall then complete and submit an “Incidence of Noncompliance” (ION) report for the identified violation within 5 days of the incident. The resident engineer shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. Non-Storm Water Discharges:

Except for flows from fire fighting activities, sources of non-storm water that is combined with storm water discharges associated with the industrial activity addressed in this plan must be described below. Appropriate pollution prevention measures, as described below, will be implemented for the non-storm water component(s) of the discharge.

A. Spill Prevention and Control – BMPs shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. The contractor shall produce a written plan stating how his/her company will prevent, report, and clean up spills and provide a copy to all of his/her employees and the resident engineer. The contractor shall notify all of his/her employees on the proper protocol for reporting spills. The contractor shall notify the resident engineer of any spills immediately.

B. Concrete Residuals and Washout Wastes – The following BMPs shall be implemented to control residual concrete, concrete sediments, and rinse water:
   - Temporary Concrete Washout Facilities shall be constructed for rinsing out concrete trucks. Signs shall be installed directing concrete truck drivers where designated washout facilities are located.
   - The contractor shall have the location of temporary concrete washout facilities approved by the resident engineer.
   - All temporary concrete washout facilities are to be inspected by the contractor after each use and all spills must be reported to the resident engineer and cleaned up immediately.
   - Concrete waste solids/liquids shall be disposed of properly.

C. Litter Management – A proper number of dumpsters shall be provided on site to handle debris and litter associated with the project. The Contractor is responsible for ensuring his/her employees place all litter including marking paint cans, soda cans, food wrappers, wood lathe, marking ribbon, construction string, and all other construction related litter in the proper dumpsters.

D. Vehicle and Equipment Cleaning – Vehicles and equipment are to be cleaned in designated areas only, preferably off site.

E. Vehicle and Equipment Fueling – A variety of BMPs can be implemented during fueling of vehicles and equipment to prevent pollution. The contractor shall inform the resident engineer as to which BMPs will be used on the project. The contractor shall inform the resident engineer how (s)he will be informing his/her employees of these BMPs (i.e. signs, training, etc.). Below are a few examples of these BMPs:
   - Containment
   - Spill Prevention and Control
   - Use of Drip Pans and Absorbents
   - Automatic Shut-Off Nozzles
   - Topping Off Restrictions
   - Leak Inspection and Repair

F. Vehicle and Equipment Maintenance – On site maintenance must be performed in accordance with all environmental laws such as proper storage and no dumping of old engine oil or other fluids on site.

VI. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of an Erosion and Sediment Control Deficiency Deduction against the contractor and/or penalties under the NPDES permit which could be passed onto the contractor.

Illinois Department of Transportation

Contractor Certification Statement

The Resident Engineer is to make copies of this form and every contractor and sub-contractor will be required to complete their own separate form.

Route	FAS 0110	Marked Rt.	FAS 0110 (Keslinger Road)
Section	01-00267-00-BR	Project No.	BRS-0110 (111)
County	Kane	Contract No.	83994

This certification statement is part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in the Storm Water Pollution Prevention Plan for the above mentioned project; I have provided all documentation required to be in compliance with the ILR10 and Storm Water Pollution Prevention Plan and will provide timely updates to these documents as necessary.

☐ Contractor

☐ Sub-Contractor

Print Name	Signature
Title	Date
Name of Firm	Telephone
Street Address	City/State/ZIP

Kane – DuPage Soil & Water Conservation District

August 13, 2007

Timothy Chin, P.E.
Robert H. Anderson & Associates, Inc.
Timbers Professional Center
220 West River Drive
St. Charles, IL 60174

Dear Mr. Chin:

I received your revised soil erosion and sedimentation control plan submittal for the Project located in Elburn, Illinois. Thank you for incorporating our comments into the plan, it will improve the quality of protection for the natural resources, both on and off site. This letter and a set of stamped plans located at the construction office on site, will serve to certify that the erosion and sediment control plans meet Technical Standards.

I will visit the site several times during the course of construction to assess compliance with the specifications and will be glad to address specific issues that may arise during the course of construction.

Sincerely,

Kelsey Musich

Kelsey Musich, CPESC-IT
Resource Conservationist
Kane-DuPage Soil and Water Conservation District

Cc: Dave Morrison--Village of Elburn
Bill Gain--Rempe-Sharpe
Kim Fisher, USACE

All programs and services of the Kane-DuPage SWCD are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, marital status, or handicap.

123135

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
111 NORTH CANAL STREET
CHICAGO, ILLINOIS 60606-7206

REPLY TO
ATTENTION OF:

AUG 14 2007

Technical Services Division
Regulatory Branch
LRC-2005-22984 (200500296)

SUBJECT: Time Extension for Proposed Replacement of the Existing Bridge That Carries Keslinger Road Over Welch Creek in Unincorporated Elburn, Kane County, Illinois (SW ¼ of Section 6, T39N R7E)

Carl Schoedel
Kane County Division of Transportation
41W011 Burlington Road
Saint Charles, IL 60175

Dear Mr. Schoedel:

This is in reference to your letter dated April 20, 2007 in which you requested a time extension to your Regional Permit Program authorization granted on April 18, 2005.

This office has reviewed your proposal for an extension of time and agrees that such an extension would not be contrary to the public interest. Accordingly, the subject permit is hereby specifically modified to extend the expiration date to August 18, 2010. All other permit conditions to which the authorized work was made subject to shall remain in full force and effect. This letter shall be added to all copies of the permit, including those at the work site.

Be informed that if it becomes necessary to request future time extensions to complete the project, this office reserves the right to re-evaluate the project pursuant to new regulations or District policy.

It is your responsibility to obtain any required state or local approvals for your time extension before commencing any work.

If you have any questions, please contact Ms. Kimberly Fisher of my staff by telephone at (312) 846-5541, or email at kimberly.j.fisher@usace.army.mil.

Sincerely,

Keith E. Wozniak
Chief, West Section
Regulatory Branch

Copy Furnished:

Kane County Division of Environmental Management (Anderson)
Kane/DuPage SWCD (Kelsey Musich)
Robert H. Anderson & Associates, Inc. (David Smoot)

Illinois Department of
Natural Resources
One Natural Resources Way • Springfield, Illinois 62702-1271
http://dnr.state.il.us

Rod R. Blagojevich, Governor
Sam Flood, Acting Director

May 09, 2007

Michael Zakosek
Kane County Division of Transportation
41W011 Burlington Road
St. Charles, IL 60175

Re: FAS 0110 (Keslinger Road) Over Welch Creek
Project Number: 0714267
County: Kane

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Steve Hamer
Division of Ecosystems and Environment
217-785-5500

Printed on recycled and recyclable paper

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF INTENT (NOI)

GENERAL PERMIT TO DISCHARGE STORM WATER CONSTRUCTION SITE ACTIVITIES

OWNER INFORMATION

COMPANY/ OWNER NAME:	Kane County Division of Transportation		OWNER TYPE: SELECT ONE County MS4 Community ☐Yes ☑No	
MAILING ADDRESS:	41W011 Burlington Road		PHONE: Area Code (630) Number 584-1170 ext.	
CITY:	St. Charles	STATE: IL / ZIP CODE: 60175	FAX: Area Code (630) Number 584-5265	
CONTACT PERSON: Mike Zakosek			EMAIL: zakosekmike@co.kane.il.us	

CONTRACTOR INFORMATION

CONTRACTOR NAME:			
MAILING ADDRESS:		PHONE: Area Code ( ) Number ext.	
CITY:		STATE:	ZIP CODE:

CONSTRUCTION SITE INFORMATION

SELECT ONE:	☐ NEW SITE ☑ CHANGE OF INFORMATION FOR: ILR10									
PROJECT NAME:	Keslinger Road at Welch Creek							COUNTY: Kane		
STREET ADDRESS/ LOCATION	Keslinger Road at Welch Creek				CITY: Elburn			IL	ZIP CODE: 60119	
LATITUDE:	DEG. 41°	MIN. 52'	SEC. 53"	LONGITUDE:	DEG. 88°	MIN. 29'	SEC. 15"	SECTION: 6.7	TOWNSHIP: 39N	RANGE: 7E
APPROX CONST START DATE 08 / 01 / 2009	APPROX CONST END DATE 11 / 30 / 2009			TOTAL SIZE OF CONSTRUCTION SITE IN ACRES: 1.4 If less than 1 acre, is site part of larger common plan of development? ☐ YES ☑ NO						

STORM WATER POLLUTION PREVENTION PLAN INFORMATION

HAS STORM WATER POLLUTION PREVENTION PLAN BEEN SUBMITTED TO AGENCY? ☑ YES ☐ NO (SUBMIT SWPPP ELECTRONICALLY TO: epa.constilr10swppp@illinois.gov)			
WILL STORM WATER POLLUTION PREVENTION PLAN BE AVAILABLE AT SITE? ☑ YES ☐ NO			
LOCATION OF SWPPP FOR VIEWING: ADDRESS: Construction Trailer, Address TBD			CITY: Elburn
SWPPP CONTACT INFORMATION: NAME: TBD			INSPECTOR QUALIFICATIONS: SELECT ONE P.E.
PHONE: ( )	FAX: ( )	EMAIL:	
PROJECT INSPECTOR, IF DIFFERENT THAN ABOVE: NAME:			INSPECTOR QUALIFICATIONS: SELECT ONE Other
PHONE: ( )	FAX: ( )	EMAIL:	

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF INTENT (NOI)

GENERAL PERMIT TO DISCHARGE STORM WATER CONSTRUCTION SITE ACTIVITIES

TYPE OF CONSTRUCTION (SELECT ALL THAT APPLY)

SELECT ONE Transportation

SIC Code:

TYPE DETAILED DESCRIPTION OF PROJECT:

Replacement of the existing bridge over Welch Creek with a box culvert and improvements to the road. The embankment will be raised and widened. Ditches will be regraded. An oversized ditch will be graded east of the creek and north of the roadway for compensatory stormwater storage.

HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE

HAS THIS PROJECT BEEN SUBMITTED TO THE FOLLOWING STATE AGENCIES TO SATISFY APPLICABLE REQUIREMENTS FOR COMPLIANCE WITH ILLINOIS LAW ON:

HISTORIC PRESERVATION	☑ YES	☐ NO	http://www.illinoishistory.gov/PS/rcdocument.htm
ENDANGERED SPECIES	☑ YES	☐ NO	http://dnrecocat.state.il.us/ecopublic/

RECEIVING WATER INFORMATION

DOES YOUR STORM WATER DISCHARGE DIRECTLY TO: ☑ WATERS OF THE STATE OR ☐ STORM SEWER

OWNER TO STORM SEWER SYSTEMS:

NAME OF CLOSEST RECEIVING WATERBODY TO WHICH YOU DISCHARGE: Welsh Creek

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

OWNER SIGNATURE: _____ **DATE:** _____

SUBMIT ELECTRONICALLY TO:
epa.constilr10swppp@illinois.gov

OR MAIL COMPLETED FROM TO:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
ATTN: PERMIT SECTION
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276
www.epa.state.il.us

FOR OFFICE USE ONLY

LOG:
PERMIT NO. ILR10 ___ ___ ___ ___
DATE:

Information required by this form must be provided to comply with 415 ILCS 5/39 (1996). Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

IL 532 2104
WPC 623 Rev. 8/08

Submit form

INSTRUCTIONS FOR COMPLETION OF CONSTRUCTION ACTIVITY NOTICE OF INTENT (NOI) FORM

Please adhere to the following instructions:

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with an original signature copy as soon as possible. Please write "copy" under the "For Office Use Only" box in the lower right hand corner.

< **Submit completed forms to:**

Illinois Environmental Protection Agency
Division of Water Pollution Control
Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217)782-0610
www.epa.state.il.us

< **Reports must be typed or printed legibly and signed.**

< Any facility that is not presently covered by the General NPDES Permit for Storm Water Discharges From Construction Site Activities is considered a new facility.

< **If this is a change in your facility information, renewal, etc., please fill in your permit number on the appropriate line, changes of information or permit renewal notifications do not require a fee.**

< **NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.**

< **Use the formats given in the following examples for correct form completion.**

	Example	Format
SECTION	**12**	**1 or 2 numerical digits**
TOWNSHIP	**12N**	**1 or 2 numerical digits followed by "N" or "S"**
RANGE	**12W**	**1 or 2 numerical digits followed by "E" or "W"**

< **For the Name of Closest Receiving Waters, do not use terms such as ditch or channel. For unnamed tributaries, use terms which include at least a named main tributary such as "Unnamed Tributary to Sugar Creek to Sangamon River."**

< **Submit a fee of $500 and the Storm Water Pollution Plan (SWPPP) for initial permit prior to the Notice of Intent being considered complete for coverage by the ILR10 General Permits. Please make checks payable to: Illinois EPA.**

< **SWPPP should be submitted electronically to: epa.constilr10swppp@illinois.gov When submitting electronically, use Project Name and City as indicated on NOI form.**