

To:

From:

Rich Dotson

Subject:

Special Provision Changes

Date:

January 25, 2013

The following special provisions have been revised for the April 26, 2013 and June 14, 2013 lettings. Please revise your special provision books as indicated.

Recurring Special Provisions

No changes.

ISP Number	Description
Alphabetic ISP Index (Revised)	Remove existing alphabetic index and insert revised index.
Numerical ISP Index (Revised)	Remove existing numeric index and insert revised index.
	Interim Special Provisions
ISP Number	Description
108.09 (New)	"Liquidated Damages (BDE)" Updated the table from the Standard Specifications.
202.03 (New)	"Removal and Disposal of Surplus Materials (BDE)" Updates special provision with new EPA soil pH requirement.
440.00 (New)	"Pavement Removal (BDE)" Revised thickness adjustment table.
542.00 (Revised)	"Traversable Pipe Grate (BDE)" Updated to include box culverts."
669.01 (Revised)	"Removal and Disposal of Regulated Substances (BDE)" Major revision to include clean construction on demolition debris rules from the EPA.
1004.02 (Revised)	"Coarse Aggregate in Bridge Approach Slabs/Footings (BDE)" Minor revisions.

Interim Special Provisions (Continued)

ISP Number

Description

1031.00 (Revised) "Reclaimed Asphalt Pavement and Reclaimed

Asphalt Shingles (BDE)"

Revised Designer Note to tell designers not to use the BDE version in D4. Use the District

Special Provision version instead.

District Special Provisions			
District Number	Description		
Alphabetic District Index (Revised)	Remove existing alphabetic index and insert revised index.		
Numerical District Index (Revised)	Remove existing numeric index and insert revised index.		
311.00 (Revised)	"Rock Fill" Revised the material used when the depth is ≤18".		
356.00 (New)	"Temporary Base Course Widening" Created a new special to allow use of PCC or HMA widening when a specific material is not required.		
406.02 (Revised)	"Hot-Mix Asphalt-Prime Coat" Minor revisions.		
440.00 (New)	"Partial Depth Patching" Provides instructions on how to partial depth patch and how to pay for it.		
440.02 (New)	"Longitudinal Joint Repair" Developed to provide instructions on centerline and edge joint repair.		
550.02 (Delete)	"Storm Sewer (Special)" Deleted because covered by Standard Specifications.		
631.04 (Revised)	"Traffic Barrier Terminals, Type 1, Special (Flared) or (Tangent)" Revised to add the list of acceptable terminals.		
1004.04 (Revised)	"Aggregate Quality" Revised Designer Note.		
1030.00 (New)	"Hot-Mix Asphalt Quality Control for Performance (D4)" Making a BMPR special a D4 special until the BDE version comes out.		
1030.01 (New)	"Hot-Mix Asphalt Pay for Performance Using Percent Within Limits – Jobsite Sampling (D4)" Making a BMPR special a D4 special until the BDE version comes out.		
1030.04 (Revised)	"Hot-Mix Asphalt Mixture Design Verification and Production"		

Revised to change reference to a BDE

special in paragraph 2.

District Special Provisions (Continued)

District Number Description

1031.00 (New) "Reclaimed Asphalt Pavement and Reclaimed

Asphalt Shingles (D4)"

New special to replace the BDE version until

it gets updated.

1103.00 (New) "PCC QC/QA Electronic Report Submittal"

New special to require submittals to be in an

electronic format.

General Notes

Section 500 Index Remove old Index and replace.

406.05 (Revised) "Polymerized Bituminous Materials (Prime

Coat) Rates"

Revised rate on milled surface.

 $RJD: tdp:\mbox{\color=line} winword\progdev\special\ provisions\notemarks pec\ provs\spec\provc\ngsmemo.doc$

Attachment(s)

cc: * N. Jack	Team 2	Team 6	Team 10	Monmouth Campus
K. Emert	Team 3	Team 7	Team 11	Local Roads (M. Augspurger)
T. Phillips	Team 4	Team 8	Geometrics	Local Roads (T. Sassine/K. Park)
Team 1	Team 5	Team 9	Bridge (T. Inglis)	Materials (H. Shoup)

Index for Supplemental Specifications and Recurring Special Provisions

INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2013

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 1-1-12) (Revised 1-1-13)

SUPPLEMENTAL SPECIFICATIONS

Sta. Sp	ec. Sec. Pa	ige No
105	Control of Work	1
107	Legal Regulations and Responsibility to Public	2
202	Earth and Rock Excavation	4
211	Topsoil and Compost	5
407	Hot-Mix Asphalt Pavement (Full-Depth)	6
420	Portland Cement Concrete Pavement	10
424	Portland Cement Concrete Sidewalk	12
503	Concrete Structures	13
504	Precast Concrete Structures	14
540	Box Culverts	15
603	Adjusting Frames and Grates of Drainage and Utility Structures	16
610	Shoulder Inlets with Curb	18
642	Shoulder Rumble Strips	19
643	Impact Attenuators	20
701	Work Zone Traffic Control and Protection	22
706	Impact Attenuators, Temporary	24
780	Pavement Striping	
860	Master Controller	27
1006	Metals	
1042	Precast Concrete Products	29
1073	Controller	30
1083	Elastomeric Bearings	31
1101	General Equipment	32
1106	Work Zone Traffic Control Devices	34

RECURRING SPECIAL PROVISIONS

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

CHEC	CK SHEET#	E NO
1	Additional State Requirements for Federal-Aid Construction Contracts	
_	(Eff. 2-1-69) (Rev. 1-1-10)	. 35
2	Subletting of Contracts (Federal-Aid Contracts) (Eff. 1-1-88) (Rev. 5-1-93)	. 38
3	EEO (Eff. 7-21-78) (Rev. 11-18-80)	. 39
4	Specific Equal Employment Opportunity Responsibilities Non Federal-Aid Contracts (Eff. 3-20-69) (Rev. 1-1-94)	. 49
5	Required Provisions - State Contracts (Eff. 4-1-65) (Rev. 1-1-13)	54
6	Asbestos Bearing Pad Removal (Eff. 11-1-03)	59
7	Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal (Eff. 6-1-89) (Rev. 1-1-09)	. 60
8	Haul Road Stream Crossings, Other Temporary Stream Crossings, and In-Stream Work Pads (Eff. 1-2-92) (Rev. 1-1-98)	
9	Construction Layout Stakes Except for Bridges (Eff. 1-1-99) (Rev. 1-1-07)	62
10	Construction Layout Stakes (Eff. 5-1-93) (Rev. 1-1-07)	65
11	Use of Geotextile Fabric for Railroad Crossing (Eff. 1-1-95) (Rev. 1-1-07)	68
12	Subsealing of Concrete Pavements (Eff. 11-1-84) (Rev. 1-1-07)	70
13	Hot-Mix Asphalt Surface Correction (Eff. 11-1-87) (Rev. 1-1-09)	. 74
14	Pavement and Shoulder Resurfacing (Eff. 2-1-00) (Rev. 1-1-09)	76
15	PCC Partial Depth Hot-Mix Asphalt Patching (Eff. 1-1-98) (Rev. 1-1-07)	. 77
16	Patching with Hot-Mix Asphalt Overlay Removal (Eff. 10-1-95) (Rev. 1-1-07)	79
17	Polymer Concrete (Eff. 8-1-95) (Rev. 1-1-08)	. 80
18	PVC Pipeliner (Eff. 4-1-04) (Rev. 1-1-07)	. 82
19	Pipe Underdrains (Eff. 9-9-87) (Rev. 1-1-07)	. 83
20	Guardrail and Barrier Wall Delineation (Eff. 12-15-93) (Rev. 1-1-12)	. 84
21	Bicycle Racks (Eff. 4-1-94) (Rev. 1-1-12)	. 88
22	Temporary Modular Glare Screen System (Eff. 1-1-00) (Rev. 1-1-07)	. 90
23	Temporary Portable Bridge Traffic Signals (Eff. 8-1-03) (Rev. 1-1-07)	. 92
24	Work Zone Public Information Signs (Eff. 9-1-02) (Rev. 1-1-07)	. 94
25	Night Time Inspection of Roadway Lighting (Eff. 5-1-96)	. 95
26	English Substitution of Metric Bolts (Eff. 7-1-96)	. 96
27	English Substitution of Metric Reinforcement Bars (Eff. 4-1-96) (Rev. 1-1-03)	. 97
28	Calcium Chloride Accelerator for Portland Cement Concrete (Eff. 1-1-01) (Rev. 1-1-13)	. 98
29	Portland Cement Concrete Inlay or Overlay for Pavements (Eff. 11-1-08) (Rev. 1-1-13)	. 99
30	Quality Control of Concrete Mixtures at the Plant (Eff. 8-1-00) (Rev. 1-1-11)	. 102
31	Quality Control/Quality Assurance of Concrete Mixtures (Eff. 4-1-92) (Rev. 1-1-11)	. 110
32	Digital Terrain Modeling for Earthwork Calculations (Fff. 4-1-07)	122

Special Provisions Generated Checklist Generated – 1/25/13 3:02PM

(District Specials)

SPECIAL PROVISIONS CHECK LIST Generated - 1/25/13 3:02 PM

Designer:	FAP:	
Contract No.:	Section:	
***************************************	County:	

Note: Specials that go in every contract have already been marked with an " $\sqrt{}$ " for you.

1	Dir	File Name	Spec Title	Spec Dates
	BRG\	APSLRP-1.DOC	Approach Slab Repair	E 3/13/97
	DES\	10500.doc	Construction Station Layout	E 7/30/10
	DES\	10506.doc	Prestage Site Construction Meetings	E 6/1/92
	DES\	10507.doc	Removal of Abandoned Underground	E 1/15/96 R
			Utilities	11/21/96
	DES\	<u>10507a.doc</u>	Status of Utilities/Utilities To Be Adjusted	E 1-21-05
	DES\	<u>10700a.doc</u>	Nationwide 404 Permit Requirements	E 1/22/01 R 8/2/02
1	DES\	<u>10731.doc</u>	Location of Underground State Maintained Facilities	E 8/3/07 R 7/31/09
	DES\	<u>10732.doc</u>	Right-of-Way Restrictions	E 7/1/94
	DES\	10803.doc	Delayed Start of Multiple Contracts	E 11/1/01
	DES\	10805a.doc	Date of Completion	E 3/1/90 R 4/28/08
	DES\	10805b.doc	Date of Completion (Plus Working Days)	E 3/1/90 R 7/1/94
	DES\	110300.doc	PCC QC/QA Electronic Report Submittal	E 4/26/13
	DES\	110303.doc	PCC Automatic Batching Equipment	E 4/23/10
1700	DES\	20400.doc	Borrow and Furnished Excavation	E 3/7/00 R 4/27/07
	DES\	20500.doc	Geotechnical Reinforcement	E 6/10/93 R 1/1/07
	DES\	20504.doc	Embankment (Restrictions)	E 1/21/05 R 8/3/07
	DES\	20505.doc	Embankment	E 7/1/90 R 8/3/07
	DES\	20505a.doc	Embankment (Small Embankment)	E 10/1/99 R 1/1/07
	DES\	25000.doc	Seeding, Minor Areas	E 7/1/90 R 1/1/07
	DES\	25006a.doc	Mowing	E 12/11/01 R 1/1/12
	DES\	25006b.doc	Mowing	E 12/11/01 R 1/1/12
	DES\	25300.doc	Tree Whip Mixture	E 8/15/91 R 4/25/08
	DES\	25300b.doc	Seedling Mixture A	E 5/5/00 R 11/1/08
	DES\	28100.doc	Grout for Use With Riprap	E 7/30/10
	DES\	28104.doc	Stone Dumped Riprap*	E 4/15/91 R 1/1/07
	DES\	28106.doc	Stone Riprap	E 11/5/10
	DES\	28303.doc	Aggregate Ditch	E 4/15/91 R 10/15/01
	DES\	30101.doc	Proof Rolling	E 4/23/04 R 1/1/07
	DES\	30103.doc	Subgrade Treatment	E 7/1/90 R 4/28/08
	DES\	30200.doc	Soil Modification	E 7/1/90 R 7/30/10
	DES\	31100.doc	Rock Fill	E 10/15/95 R 4/26/13
	DES\	31101.doc	Subbase Granular Material	E 11/5/04
	DES\	35500d.doc	Temporary Pavement	E 10/1/95 R 4/23/10
	DES\	35600.doc	Temporary Base Course Widening"	E 4/26/13
NE.	DES\	40600.doc	Clean Existing Pavement Edge Joint	E 1/3/00 R 1/1/07
	DES\	40601.doc	Anti-Strip Additive for Hot-Mix Asphalt	E 7/30/10
	DES\	40602.doc	Hot-Mix Asphalt - Prime Coat	E 4/29/11 R 4/26/13
	DES\	40604a.doc	Hot-Mix Asphalt Surface Course Surface Tests	E 11/1/03 R 1/1/07

SPECIAL PROVISIONS CHECK LIST Generated - 1/25/13 3:02 PM

Designer:	FAP:	
Contract No.:	Section:	
	County:	

DES\	40613.doc	Payment for Use of Material Transfer Device	E 4/23/10
DES\	40706.doc	Bituminous Prime Coat for Hot-Mix Asphalt Pavement (Full-Depth)	E 8/3/07 R 4/23/10
DES\	40713.doc	Grooved-in Rumble Strip	E 11/16/07 R 7/30/10
DES\	42020.doc	Railroad Approach Pavement	E 10/1/95 R 1/1/07
DES\	42401.doc	Sidewalk Drains	E 3/1/91 R 1/1/07
DES\	42402.doc	Temporary Sidewalks	E 3/1/91 R 2/1/96
DES\	44000.doc	Partial Depth Patching	E 4/26/13
DES\	44001.doc	Bridge Wearing Surface Removal	E 7/1/90 R 1/1/07
DES\	44002.doc	Longitudinal Joint Repair	E 4/26/13
DES\	44003.doc	Protection of Frames and Lids of Utility Structures	E 3/6/91 R 1/1/07
DES\	44003a.doc	Hot-Mix Asphalt Surface Removal, **" (** mm)	E 3/1/93 R 7/31/09
DES\	44003b.doc	Hot-Mix Asphalt Surface Removal, **" (** mm)	E 2/5/93 R 7/31/09
DES\	44003c.doc	Center Joint Repair System	E 3/1/91 R 1/1/07
DES\	44003d.doc	Pavement Drainage After Cold Milling	E 3/15/96 R 1/1/07
DES\	44003e.doc	Pavement Patching with Hot-Mix Asphalt Surface Removal	E 3/1/97 R 1/1/07
DES\	44003f.doc	Hot-Mix Asphalt Concrete Milling Material	E 11/1/03 R 8/3/07
DES\	44200.doc	Class (*) Patches, Type (**),(***) "	E 1/1/99 R 11/1/07
DES\	44300.doc	Reflective Crack Control Treatment	E 3/1/96 R 1/1/07
DES\	45100.doc	Crack and Joint Sealing	E 6/15/97 R 1/1/07
DES\	48205.doc	Hot-Mix Asphalt Shoulder Resurfacing Required to be Constructed Simultaneously with Mainline Paving	E 4/23/10
DES\	48206.doc	Hot-Mix Asphalt Shoulder Resurfacing Constructed Simultaneously with Mainline Paving	E 1/22/01 R 1/1/07
DES\	50103.doc	Concrete Headwall Removal	E 7/1/90
DES\	50104.doc	Concrete Handrail Removal	E 7/1/90 R 1/1/07
DES\	50300.doc	Bin-Type Retaining Wall	E 7/1/90 R 1/1/07
DES\	50301.doc	Concrete Wearing Surface	E 7/1/90 R 1/1/07
DES\	50302.doc	Surface Filler, Special (Gallon)	E 4/23/10
DES\	50312.doc	Plug Existing Deck Drains	E 1/1/96 R 3/22/01
DES\	50312a.doc	Floor Drain Extension	E 3/22/01
DES\	50317.doc	Bridge Floor Finishing Machine	E 5/1/95 R 1/1/07
DES\	50319.doc	Protective Coat, Special	E 4/23/10
DES\	52100b.doc	Jack and Reposition Bearings	E 11/15/93 R 1/1/09
DES\	52100c.doc	Jacking and Cribbing	E 1/1/94 R 1/1/07
DES\	54200.doc	Seepage Collar	E 12/1/96
DES\	54201.doc	Remove and Relay Pipe Culverts	E 7/1/90 R 1/1/07
DES\	54204.doc	Pipe Culverts	E 7/1/90 R 1/1/07
DES\	54204e.doc	Backfill - Pipe Culverts	E 10/15/95 R 1/1/07

SPECIAL PROVISIONS CHECK LIST Generated - 1/25/13 3:02 PM

Designer:	FAP:	
Contract No.:	Section:	
	County:	

DES\	55000.doc	Storm Sewer, (Water Main Quality Pipe)	E 1/1/11 R 1/1/12
DES\	55007.doc	Backfill, Building Removal	E 8/20/91 R 1/1/07
DES\	55200.doc	Steel Pipe Culvert, Special (Jacked) * inches (* mm)	E 7/1/94 R 1/1/07
DES\	55201.doc	(*Storm Sewer/Pipe Culvert) Jacked in Place, ** inches (** mm)	E 7/1/94 R 1/1/07
DES\	56100.doc	Steel Casings * Inches	E 7/1/90 R 1/1/13
DES\	56101.doc	Steel Casings * Inches	E 7/1/90 R 1/1/13
DES\	60101.doc	Pipe Underdrain	E 8/1/03
DES\	60200a.doc	Inlets, Type G-1	E 10/1/95 R 1/1/07
DES\	60200b.doc	Inlets, Type G-1, Special	E 10/1/95 R 1/1/07
DES\	60200c.doc	Inlets, Type G-1, Double, Special	E 10/1/95 R 1/1/07
DES\	60200d.doc	Inlet Manhole, Type G-1, 4' (1.2 m) Diameter	E 10/1/95 R 1/1/07
DES\	60200e.doc	Inlet-Manhole, Type G-1, 4' (1.2 m) Diameter, Special	E 10/1/95 R 1/1/07
DES\	60200f.doc	Inlet-Manhole, Type G-1, 5' (1.5 m) Diameter	E 10/1/95 R 1/1/07
DES\	60200g.doc	Inlet-Manhole, Type G-1, 5' (1.5 m) Diameter, Special	E 10/1/95 R 1/1/07
DES\	60200h.doc	Inlet-Manhole, Type G-1, 5' (1.5 m) Diameter, Double, Special	E 10/1/95 R 1/1/07
DES\	60200i.doc	Inlet-Manhole, Type G-1, 8' (2.4 m) Diameter, Double, Special	E 10/1/95 R 1/1/07
DES\	60200j.doc	Manhole to be Adjusted with New Type G-1 Frame and Grate	E 10/1/95 R 1/1/07
DES\	60200k.doc	Temporary Inlet Drainage Treatment	E 1/1/97
DES\	60200I.doc	Inlets, Type G-2	E 11/1/03 R 1/1/07
DES\	60200m.doc	Inlets, Type G-1, Double	E 7/31/09
DES\	60504.doc	Filling Existing Inlets	E 7/1/90 R 7/1/94
DES\	<u>60504a.doc</u>	Filling Existing Culverts	E 10/15/95 R 1/1/07
DES\	60504b.doc	Filling Existing Drainage Structures	E 10/15/95 R 1/1/07
DES\	60608.doc	Island Pavement Constructed on Existing Pavement	E 1/1/97 R 1/1/07
DES\	60612.doc	Drainage Holes	E 7/1/90 R 1/1/07
DES\	63000.doc	Erosion Control Curb	E 4/1/91 R 1/1/07
DES\	63001.doc	Guardrail Aggregate Erosion Control	E 2/1/93 R 1/1/07
DES\	63008.doc	Steel Plate Beam Guardrail, Type A, 6.75 Foot Posts	E 7/31/09 R 4/27/12
DES\	63104.doc	Traffic Barrier Terminals, Type 1, Special (Flared) or (Tangent)	E 7/31/09 R 4/26/13
DES\	63107.doc	Traffic Barrier Terminals, Type 6	E 7/31/09
DES\	63111c.doc	Traffic Barrier Terminals	E 2/1/96 R 11/5/04
DES\	63114.doc	Traffic Barrier Terminals, Type 2	E 7/31/09
DES\	63200.doc	Guard Post Removal	E 7/1/90 R 1/1/07
DES\	63500.doc	Flexible Delineator Maintenance	E 5/5/92 R 1/1/94
DES\	63501.doc	Flexible Delineators	E 10/1/95 R 1/1/07

SPECIAL PROVISIONS CHECK LIST Generated - 1/25/13 3:02 PM

Designer:	FAP:	
Contract No.:	Section:	
	County:	

	DES\	66704.doc	Permanent Survey Marker, Type 1, Bridge Placement	E 7/1/90 R 3/11/11
	DES\	66802.doc	Permanent Survey Ties	E 4/1/91 R 4/27/12
	DES\	67005.doc	Equipment Vault for Nuclear Testing Equipment	E 6/24/93 R 7/1/94
	DES\	68000.doc	Railroad Track Removal	E 11/1/94 R 1/1/07
	DES\	68000a.doc	Railroad Ties Removal and Disposal	E 11/1/94 R 10/1/95
	DES\	68300.doc	Mortared Stone Wall	E 3/1/91 R 1/1/07
\checkmark	DES\	70100.doc	Traffic Control Plan	E R
	DES\	70106.doc	Speeding Penalty	E 1/21/05
	DES\	70108b.doc	Traffic Control and Protection Standard 701331 (Special)	E 10/15/95 R 7/31/09
	DES\	70114.doc	Width Restriction Signing	E 11/1/07 R 1/1/12
	DES\	70120.doc	Traffic Control and Protection BLR 21 and BLR 21 (Special)	E 4/25/08
	DES\	70121.doc	Traffic Control and Protection BLR 22 and BLR 22 (Special)	E 4/25/08 R 7/31/09
	DES\	70122.doc	Traffic Control and Protection Standard 701606 (Special)	E 7/31/09
	DES\	70300.doc	Pavement Marking Removal/Work Zone Pavement Marking Removal	E 4/29/05
	DES\	70400.doc	Temporary Concrete Barrier, State Owned and Temporary Concrete Barrier Terminal Sections, State Owned	E 5/1/91 R 1/1/07
	DES\	70400a.doc	Temporary Concrete Barrier Reflectors	E 1/21/05
	DES\	78000.doc	Thermoplastic Pavement Marking Equipment	E 7/1/90 R 1/1/07
	DES\	78007.doc	Preformed Plastic Pavement Markings	E 7/31/09
	DES\	78100.doc	Temporary Raised Reflective Pavement Marker	E 10/1/95 R 1/1/07
	DES\	81000.doc	Conduit, Pushed or Trenched	E 10/1/91 R 1/1/07
	DES\	81500.doc	Trench & Backfill, Special for Conduit Installation Beneath Bituminous Shoulders	E 3/21/94 R 1/1/07
	DES\	86300.doc	Terminal Facility	E 3/21/94 R 1/1/07
	DES\	87300.doc	Electric Cable in Conduit, Lead-In, No. 18	E 3/21/94 R 10/15/01
	DES\	88600.doc	Detector Loop, Special for Traffic Counters	E 3/21/94 R 1/1/07
	DES\	88600a.doc	Detector Loops, Type 1	E 3/1/96 R 8/3/07
	DES\	100400.doc	Aggregate Optimization of Class PV Mix for Slipform Paving	E 8/3/12
	DES\	100401.doc	Coarse Aggregate Fill	E 4/29/11
	DES\	100402.doc	Concrete Superstructure Aggregate Optimization	E 8/4/06 R 8/3/12
	DES\	100403b.doc	Coarse Aggregate for Bituminous Courses, Class A	E 6/29/93 R 1/1/07
	DES\	100404.doc	Aggregate Quality	E 7/1/90 R 4/26/13
	DES\	103000.doc	HOT MIX ASPHALT QUALITY CONTROL - PAY FOR PERFORMANCE USING	E 4/26/13

SPECIAL PROVISIONS CHECK LIST Generated - 1/25/13 3:02 PM

Designer: Contract No.	:	FAP: Section: County:	
		PERCENT WITHIN LIMITS -JOBSITE SAMPLING (D4)	
DES\	103001.doc	Hot-Mix Asphalt - Pay for Performance Using Percent within Limits - Jobsite Sampling (D4)	E 4/26/13
DES\	103004.doc	Hot-Mix Asphalt - Mixture Design Verification and Production	E 8/3/12 R 4/26/13
DES\	<u>103100.doc</u>	Reclaimed Asphalt Pavement and Reclaimed Shingles (D4)	E 4/26/13

BDE Special Provisions Checklist

April 26, 2013 & June 14, 2013 Lettings

Note: Specials that go in every contract have already been marked with an "X" for you.

Designer:	FAP:	
Contract No.:	Section:	
Letting:	County:	

BDE SPECIAL PROVISIONS For the April 26 and June 14, 2013 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	Jan. 1, 2012
80099	2		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2007
80274			Aggregate Subgrade Improvement	April 1, 2012	Jan. 1, 2013
80309			Anchor Bolts	Jan. 1, 2013	0dii. 1, 2010
80192			Automated Flagger Assistance Device	Jan. 1, 2008	
80173			Bituminous Materials Cost Adjustments	Nov. 2, 2006	Jan. 1, 2012
80241	7		Bridge Demolition Debris	July 1, 2009	.,
80276	8		Bridge Relief Joint Sealer	Jan. 1, 2012	Aug. 1, 2012
50261	9		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50481	10		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50491	11		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50531	12		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
* 80292	13	128	Coarse Aggregate in Bridge Approach Slabs/Footings	April 1, 2012	April 1, 2013
80310	14		Coated Galvanized Steel Conduit	Jan. 1, 2013	
80198	15		Completion Date (via calendar days)	April 1, 2008	
80199	16		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80293	17		Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5	April 1, 2012	
			Feet	253 25 25 25 25 25 25 25 25 25 25 25 25 25	
80294	18		Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of	April 1, 2012	
			Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet		
80311	19		Concrete End Sections for Pipe Culverts	Jan. 1, 2013	
			Concrete Mix Design – Department Provided	Jan. 1, 2012	
80261	21		Construction Air Quality – Diesel Retrofit	June 1, 2010	
80029			Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Aug. 2, 2011
80312			Drain Pipe, Tile, Drainage Mat, and Wall Drain	Jan. 1, 2013	
80313			Fabric Bearing Pads	Jan. 1, 2013	
80265	25		Friction Aggregate	Jan. 1, 2011	
80229	26		Fuel Cost Adjustment	April 1, 2009	July 1, 2009
80303	27		Granular Materials	Nov. 1, 2012	
80304	28		Grooving for Recessed Pavement Markings	Nov. 1, 2012	Jan. 1, 2013
80169	29		High Tension Cable Median Barrier	Jan. 1, 2007	Jan. 1, 2013
80246	30		Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2012
80315	31		Insertion Lining of Culverts	Jan. 1, 2013	
* 80320	32	X	Liquidated Damages	April 1, 2013	
80045	33		Material Transfer Device	June 15, 1999	Jan. 1, 2009
80297	34		Modified Urethane Pavement Marking	April 1, 2012	0 22 92
80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
80253	36		Movable Traffic Barrier	Jan. 1, 2010	Jan. 1, 2013
80231	37		Pavement Marking Removal	April 1, 2009	
80298	38		Pavement Marking Tape Type IV	April 1, 2012	
80254	39		Pavement Patching	Jan. 1, 2010	
* 80321	40		Pavement Removal	April 1, 2013	
80022	41	_X_	Payments to Subcontractors	June 1, 2000	Jan. 1, 2006

Note: Specials that go in every contract have already been marked with an "X" for you.

Designer: Contract No.:			FAP:		
			Section:		
Letting:		7 <u></u>	County:		
File Name	<u>#</u>		Special Provision Title	Effective	Revised
80316	42		Placing and Consolidating Concrete	Jan. 1, 2013	
80278	43		Planting Woody Plants	Jan. 1, 2012	Aug. 1, 2012
80305	44		Polyurea Pavement Markings	Nov. 1, 2012	Jan. 1, 2013
80279	45		Portland Cement Concrete	Jan. 1, 2012	Jan. 1, 2013
80300	46		Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	
80218	47		Preventive Maintenance – Bituminous Surface Treatment	Jan. 1, 2009	April 1, 2012
80219	48		Preventive Maintenance - Cape Seal	Jan. 1, 2009	April 1, 2012
80220	49		Preventive Maintenance – Micro-Surfacing	Jan. 1, 2009	April 1, 2012
80221	50		Preventive Maintenance - Slurry Seal	Jan. 1, 2009	April 1, 2012
80281	51		Quality Control/Quality Assurance of Concrete Mixtures	Jan. 1, 2012	Jan. 1, 2013
34261	52		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157	53		Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
80306	54		Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt	Nov. 1, 2012	Jan. 1, 2013
			Shingles (RAS)		20 20 20 20 20 20 20 20 20 20 20 20 20 2
* 80283	55	A COLUMN	Removal and Disposal of Regulated Substances	Jan. 1, 2012	Nov. 2, 2012
* 80319	56		Removal and Disposal of Surplus Materials	Nov. 2, 2012	
80224	57		Restoring Bridge Approach Pavements Using High-Density Foam	Jan. 1, 2009	Jan. 1, 2012
80271	58		Safety Edge	April 1, 2011	
80307	59		Seeding	Nov. 1, 2012	
80127	60		Steel Cost Adjustment	April 2, 2004	April 1, 2009
80255	61		Stone Matrix Asphalt	Jan. 1, 2010	Jan. 1, 2012
80143	62	Х	Subcontractor Mobilization Payments	April 2, 2005	April 1, 2011
80317	63		Surface Testing of Hot-Mix Asphalt Overlays (NOTE: This special	Jan. 1, 2013	00-00-000000 00-00-00-00-00
			provision was previously named "Surface Testing of Pavements".)		
80308	64		Synthetic Fibers in Concrete Gutter, Curb, Median and Paved Ditch	Nov. 1, 2012	
80286	65		Temporary Erosion and Sediment Control	Jan. 1, 2012	
80225	66		Temporary Raised Pavement Marker	Jan. 1, 2009	
80256	67		Temporary Water Filled Barrier	Jan. 1, 2010	Jan. 1, 2013
80301	68	Х	Tracking the Use of Pesticides	Aug. 1, 2012	
80273	69		Traffic Control Deficiency Deduction	Aug. 1, 2011	
20338	70		Training Special Provisions	Oct. 15, 1975	
* 80318	71		Traversable Pipe Grate	Jan. 1, 2013	April 1, 2013
80270	72	Х	Utility Coordination and Conflicts	April 1, 2011	Jan. 1, 2012
80288	73		Warm Mix Asphalt	Jan. 1, 2012	Nov. 1, 2012
80302	74	Х	Weekly DBE Trucking Reports	June 2, 2012	
80289	75		Wet Reflective Thermoplastic Pavement Marking	Jan. 1, 2012	
80071	76		Working Days	Jan. 1, 2002	

The following special provisions are either in the 2013 Standard Specifications, the 2013 Recurring Special Provisions, or the special provisions Portland Cement Concrete, QC/QA of Concrete Mixtures, or Placing and Consolidating Concrete:

File Name	Special Provision Title	New Location	Effective	Revised
80275	Agreement to Plan Quantity	Article 202.07	Jan. 1, 2012	
80291	Calcium Chloride Accelerator for Class PP-2 Concrete	Recurring CS #28	April 1, 2012	
80237	Construction Air Quality – Diesel Vehicle Emissions	Articles 105.03 and 107.41	April 1, 2009	Jan. 2, 2012
	Control			
80239	Construction Air Quality – Idling Restrictions	Articles 105.03 and 107.41	April 1, 2009	
80177	Digital Terrain Modeling for Earthwork Calculations	Recurring CS #32	April 1, 2007	

Note: Specials that go in every contract have already been marked with an "X" for you.

Designer:		FAP:			
Contract N	lo.:	Section: County:			
_etting:					
ile Name	Special Provision Title	New Location	Effective	Revised	
80272	Drainage and Inlet Protection Under Traffic	Articles 603.02 and 603.07	April 1, 2011	Jan. 1, 2012	
80228	Flagger at Side Roads and Entrances	Articles 701.13 and 701.20	April 1, 2009		
80109	Impact Attenuators	Section 643	Nov. 1, 2003	Jan. 1, 2012	
80110	Impact Attenuators, Temporary	Section 706	Nov. 1, 2003	Jan. 1, 2012	
80203	Metal Hardware Cast into Concrete	Articles 503.02, 504.02, and 1006.13	April 1, 2008	Jan. 1, 2012	
80290	Payrolls and Payroll Records	Recurring CS #5	Jan. 2, 2012		
80299	Portland Cement Concrete Inlay or Overlay	Recurring CS #29	April 1, 2012		
80280	Portland Cement Concrete Sidewalk	Article 424.07	Jan. 1, 2012		
80152	Self-Consolidating Concrete for Cast-In-Place Construction	The following special provisions: Portland Cement Concrete, QC/QA of	Nov. 1, 2005	April 1, 2012	
		Concrete Mixtures and			
		Placing and Consolidating			
00400	Calf Canaslidation Consents for December 1 December 1	Concrete			
80132	Self-Consolidating Concrete for Precast and Precast Prestressed Products	The following special	July 1, 2004	April 1, 2012	
	Prestressed Products	provisions: Portland Cement			
		Concrete, QC/QA of Concrete Mixtures and			
		Placing and Consolidating			
		Concrete			
80284	Shoulder Rumble Strips	Article 642.05	Jan. 1, 2012		
80285	Sidewalk, Corner or Crosswalk Closure	Articles 701.03, 701.15, and	Jan. 1, 2012 Jan. 1, 2012		
00200	oldewalk, corner or crosswalk closure	1106.02	Jan. 1, 2012		
80075	Surface Testing of Pavements (Section 406 overlay	Articles 407.09, 407.12,	April 1, 2002	Jan. 1, 2007	
	portion will remain a special provision and will now be called "Surface Testing of HMA Overlays".)	420.10, 420.20, and 1101.10	,	Jan. 1, 2007	
80287	Type G Inlet Box	Article 610.09	Jan. 1, 2012		

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

BDE Special Provisions Numeric Index

NUMERIC DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Get a copy of the current check list from the Program Development Secretary, indicate which ISP's are to be included in your set of special provisions, fill in any blanks as indicated on the check list, and include with your set of special provisions to be sent to Springfield where they will be inserted.

Standard Spec. No.	PC No.	<u>Item</u>
100.00	10000	Errata for the 2012 Standard Specifications
105.04	10504	Traffic Control Deficiency Deduction
105.07	10507	Utility Coordination and Conflicts
107.01	10701	Construction Air Quality – Diesel Retrofit
107.11a	10711a	Railroad Protective Liability Insurance
107.11b	10711b	Railroad Protective Liability Insurance (5 and 10)
107.19a	10719a	Building Removal Case I
107.19b	10719b	Building Removal Case II
107.19c	10719c	Building Removal Case III
107.19d	10719d	Building Removal Case IV
107.23	10723	Tracking the Use of Pesticides
107.38	10738	Bridge Demolition Debris
108.05	10805	Working Days
108.05a	10805a	Completion Date (Via Calendar Days)
108.05b	10805b	Completion Date (Via Calendar Days) Plus Working Days
108.06	10806	Training Special Provision
108.06a	10806a	Disadvantaged Business Enterprise Participation
108.06b	10806b	Weekly DBE Trucking Reports
108.09	10809	Liquidated Damages

NUMERIC DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	<u>Item</u>
109.00a	10900a	Steel Cost Adjustment
109.01	10901	Bituminous Materials Cost Adjustments
109.03	10903	Fuel Cost Adjustment
109.07	10907	Payments to Subcontractors
202.03	20203	Removal and Disposal of Surplus Materials
250.07	25007	Seeding
253.00	25300	Planting Woody Plants
280.02	28002	Above Grade Inlet Protection
280.04	28004	Temporary Erosion and Sediment Control
303.00	30300	Aggregate Subgrade Improvement
312.26	31226	Portland Cement Concrete
400.01	40001	Preventive Maintenance - Cape Seal
400.02	40002	Preventive Maintenance – Micro-Surfacing
400.03	40003	Preventive Maintenance – Slurry Seal
400.04	40004	Preventive Maintenance – Bituminous Surface Treatment
406.00	40600	Warm Mix Asphalt
406.00f	40600f	Material Transfer Device
406.03	40603	Surface Testing of Hot-Mix Asphalt Overlays
406.05	40605	Safety Edge
406.06	40606	Stone Matrix Asphalt
406.07	40607	Hot-Mix Asphalt – Density Testing of Longitudinal Joints
420.16	42016	Restoring Bridge Approach Pavements Using High-Density Foam
440.00	44000	Pavement Removal

NUMERIC DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	<u>ltem</u>
503.06	50306	Placing and Consolidating Concrete
503.19	50319	Bridge Relief Joint Sealer
504.00	50400	Concrete Box Culverts with Skews > 30 Degrees and Design Fills \leq 5 Feet
504.04	50404	Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews >30 Degrees with Design Fills > 5 Feet
542.00	54200	Concrete End Sections for Pipe Culverts
542.01	54201	Traversable Pipe Grate
543.00	54300	Insertion Lining of Culverts
606.02	60602	Synthetic Fibers in Concrete Gutter, Curb, Median, and Paved Ditch
643.00	64300	High Tension Cable Median Barrier
669.01	69901	Removal and Disposal of Regulated Substances
671.00	67100	Subcontractor Mobilization Payments
701.00	70100	Automated Flagger Assistance Devices
701.17	70117	Pavement Patching
703.00	70300	Temporary Raised Pavement Marker
703.02	70302	Pavement Marking Tape Type IV
780.00	780.00	Wet Reflective Thermoplastic Pavement Marking
780.01	78001	Modified Urethane pavement Marking
780.02	78002	Preformed Plastic Pavement Marking Type D - Inlaid
780.03	780.03	Grooving for Recessed Pavement Markings
780.13	78013	Polyurea Pavement Markings
783.03	78303	Pavement Marking Removal
888.00	88800	Accessible Pedestrian Signals (APS)

NUMERIC DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	<u>ltem</u>
1003.04	100304	Granular Materials
1004.01	100401	Friction Aggregate
1004.02	100402	Coarse Aggregate in Bridge Approach Slabs/Footings
1006.09	100609	Anchor Bolts
1008.27	100827	Moisture Cured Urethane Paint System
1020.05a	102005a	Concrete Mix Design – Department Provided
1020.16	102016	Quality Control/Quality Assurance of Concrete Mixtures
1031.00	103100	Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles
1040.03	104003	Drain Pipe, Tile, Drainage Mat, and Wall Drain
1082.01	108201	Fabric Bearing Pads
1088.01	108801	Coated Galvanized Steel Conduit
1106.02i	110602i	Movable Traffic Barrier
1106.02k	110602k	Temporary Water Filled Barrier

s:\mgr1\winword\progdev\special provisions\interim spec provs\isp numeric index.doc

BDE Special Provisions Alphabetic Index

ALPHABETIC LIST OF DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Get a copy of the current check list from the Program Development Secretary, indicate which ISP's are to be included in your set of special provisions, fill in any blanks as indicated on the check list, and include with your set of special provisions to be sent to Springfield where they will be inserted.

Standard Spec. No.	PC No.	<u>Item</u>
280.02	28002	Above Grade Inlet Protection
888.00	88800	Accessible Pedestrian Signals (APS)
303.00	30300	Aggregate Subgrade Improvement
1006.09	100609	Anchor Bolts
701.00	70100	Automated Flagger Assistance Devices
109.01	10901	Bituminous Materials Cost Adjustment
107.38	10738	Bridge Demolition Debris
503.19	50319	Bridge Relief Joint Sealer
107.19a	10719a	Building Removal Case I
107.19b	10719b	Building Removal Case II
107.19c	10719c	Building Removal Case III
107.19d	10719d	Building Removal Case IV
1004.02	100402	Coarse Aggregate in Bridge Approach Slabs/Footings
1088.01	108801	Coated Galvanized Steel Conduit
108.05a	10805a	Completion Date (Via Calendar Days)
108.05b	10805b	Completion Date (Via Calendar Days) Plus working Days
504.00	50400	Concrete Box Culverts with Skews > 30 Degrees and Design Fills \leq 5 Feet
504.04	50404	Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews >30 Degrees with Design Fills > 5 Feet
542.00	54200	Concrete End Sections for Pipe Culverts
503.19	50319	Concrete Joint Sealer

ALPHABETIC LIST OF DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	<u>Item</u>
1020.05a	102005a	Concrete Mix Design – Department Provided
107.01	10701	Construction Air Quality – Diesel Retrofit
108.06a	10806a	Disadvantaged Business Enterprise Participation
1040.03	104003	Drain Pipe, Tile, Drainage Mat, and Wall Drain
100.00	10000	Errata for the 2012 Standard Specifications
1082.01	108201	Fabric Bearing Pads
1004.01	100401	Friction Aggregate
109.03	10903	Fuel Cost Adjustment
1003.04	100304	Granular Materials
780.03	780.03	Grooving for Recessed Pavement Markings
643.00	64300	High Tension Cable Median Barrier
406.07	40607	Hot-Mix Asphalt-Density Testing of Longitudinal Joints
543.00	54300	Insertion Lining of Culverts
108.09	10809	Liquidated Damages
406.00f	40600f	Material Transfer Device
780.01	78001	Modified Urethane Pavement Marking
1008.27	100827	Moisture Cured Urethane Paint System
1106.02i	110602i	Movable Traffic Barrier
783.03	78303	Pavement Marking Removal
703.02	70302	Pavement Marking Tape Type IV
701.17	70117	Pavement Patching
440.00	44000	Pavement Removal
109.07	10907	Payments to Subcontractors

ALPHABETIC LIST OF DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	<u>ltem</u>
503.06	50306	Placing and Consolidating Concrete
253.00	25300	Planting Woody Plants
780.13	78013	Polyruea Pavement Markings
253.00	25300	Planting Woody Plants
312.26	31226	Portland Cement Concrete
780.00	78000	Preformed Plastic Pavement Marking Type D - Inlaid
400.04	40004	Preventive Maintenance - Bituminous Surface Treatment
400.01	40001	Preventive Maintenance - Cape Seal
400.02	40002	Preventive Maintenance – Micro-Surfacing
400.03	40003	Preventive Maintenance – Slurry Seal
1020.16	102016	Quality Control/Quality Assurance of Concrete Mixtures
107.11	10711a	Railroad Protective Liability Insurance
107.11	10711b	Railroad Protective Liability Insurance (5 and 10)
1031.00	103100	Reclaimed Asphalt Pavement and Reclaimed Asphalt Singles
669.01	66901	Removal and Disposal of Regulated Substances
202.03	20203	Removal and Disposal of Surplus Materials
420.16	42016	Restoring Bridge Approach Pavements Using High-Density Foam
406.05	40605	Safety Edge
250.07	25007	Seeding
109.00	10900a	Steel Cost Adjustment
406.06	40606	Stone Matrix Asphalt
671.00	67100	Subcontractor Mobilization Payments
406.03	40603	Surface Testing of Hot-Mix Asphalt Overlays

ALPHABETIC LIST OF DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	<u>Item</u>
606.02	60602	Synthetic Fibers in Concrete Gutters, Curb, Median, and Paved Ditch
280.04	28004	Temporary Erosion and Sediment Control
703.00	70300	Temporary Raised Pavement Marker
1106.02k	110602k	Temporary Water Filled Barrier
107.23	10723	Tracking the Use of Pesticides
280.04	28004	Temporary Erosion and Sediment Control
105.04	10504	Traffic Control Deficiency Deduction
108.06	10806	Training Special Provision
542.01	54201	Traversable Pipe Grate
105.07	10507	Utility Coordination and Conflicts
406.00	40600	Warm Mix Asphalt
108.06b	10806b	Weekly DBE Trucking Reports (BDE)
780.00	78000	Wet Reflective Thermoplastic Pavement Marking
108.05	10805	Working Days

District Special Provisions Numeric Index

Standard Specifications	Item/Description	<u>Doc. #</u>
105.00	CONSTRUCTION STATION LAYOUT	10500
105.06	PRESTAGE SITE CONSTRUCTION MEETINGS	10506
105.07	REMOVAL OF ABANDONED UNDERGROUND UTILITIES	10507
105.07a	STATUS OF UTILITIES/UTILITIES TO BE ADJUSTED	10507a
107.00a	NATIONWIDE 404 PERMIT REQUIREMENTS	10700a
107.31	LOCATION OF UNDERGROUND STATE MAINTAINED FACILITIES	10731
107.32	RIGHT-OF-WAY RESTRICTIONS	10732
108.03	DELAYED START OF MULTIPLE CONTRACTS	10803
108.05a	DATE OF COMPLETION	10805a
108.05b	DATE OF COMPLETION (PLUS WORKING DAYS)	10805b

Standard		
<u>Specifications</u>	Item/Description	<u>Doc. #</u>
204.00	BORROW AND FURNISHED EXCAVATION	20400
205.00	GEOTECHNICAL REINFORCEMENT	20500
205.05	EMBANKMENT	20505
205.04	EMBANKMENT (RESTRICTIONS)	20504
205.05a	EMBANKMENT (SMALL EMBANKMENTS)	20505a
250.00	SEEDING, MINOR AREAS	25000
250.06a	MOWING	25006a
250.06b	MOWING	250.06b
253.00	TREE WHIP MIXTURE	25300
253.00b	SEEDLING MIXTURE A	25300b
281.00	GROUT FOR USE WITH RIPRAP	28100
281.04	STONE DUMPED RIPRAP *	28104
281.06	STONE RIPRAP	28106
283.03	AGGREGATE DITCH	28303

Standard Specifications	Item/Description	<u>Doc. #</u>
301.01	PROOF ROLLING	30101
301.03	SUBGRADE TREATMENT	30103
302.00	SOIL MODIFICATION	30200
311.00	ROCKFILL	31100
311.01	SUBBASE GRANULAR MATERIAL	31101
355.00	TEMPORARY PAVEMENT	35500
356.00	TEMPORARY BASE COURSE WIDENING	35600

Standard Specifications	Item/Description	D #
406.00	CLEAN EXISTING PAVEMENT EDGE JOINT	Doc. #
406.01	CATOR-IS STONE-STONE	40600
	ANTI-STRIP ADDITIVE FOR HOT-MIX ASPHALT	40601
406.04a	HOT-MIX ASPHALT SURFACE COURSE SURFACE TESTS	40604a
406.02	HOT-MIX ASPHALT – PRIME COAT	40602
406.13	PAYMNET FOR USE OF MATERIAL TRANSFER DEVICE	40613
407.06	BITUMINOUS PRIME COAT FOR HOT-MIX ASPHALT PAVEMENT (FULL DEPTH)	40706
407.13	GROOVED-IN RUMBLE STRIP	40713
420.20	RAILROAD APPROACH PAVEMENT	42020
424.01	SIDEWALK DRAINS	42401
424.02	TEMPORARY SIDEWALKS	42402
440.00	PARTIAL DEPTH PATCHING	44000
440.01	BRIDGE WEARING SURFACE REMOVAL	44001
440.02	LONGITUDINAL JOINT REPAIR	44002
440.03	PROTECTION OF FRAMES AND LIDS OF UTILITY STRUCTURES	44003
440.03c	CENTER JOINT REPAIR SYSTEM	44003c
440.03a	HOT-MIX ASPHALT SURFACE REMOVAL, **" (** MM)	44003a
440.03b	HOT-MIX ASPHALT SURFACE REMOVAL, **" (** MM)	44003b
440.03d	PAVEMENT DRAINAGE AFTER COLD MILLING	44003d
440.03e	PAVEMENT PATCHING WITH HOT-MIX ASPHALT SURFACE REMOVAL	44003e
440.03f	HOT-MIX ASPHALT CONCRETE MILLING MATERIAL	44003f
442.00	CLASS (*) PATCHES, TYPE (**), (***")	44200
443.00	REFLECTIVE CRACK CONTROL TREATMENT	44300
451.00	CRACK AND JOINT SEALING	45100
482.05	HOT-MIX ASPHALT SHOULDER RESURFACING REQUIRED TO BE CONSTUCTED SIMULTANEOUSLY WITH MAINLINE PAVING	48205
482.06	HOT-MIX ASPHALT SHOULDER RESURFACING CONSTRUCTED SIMULTANEOUSLY WITH MAINLINE PAVING	48206

Standard Specifications	Item/Description	<u>Doc.</u> #
501.03	CONCRETE HEADWALL REMOVAL	50103
501.04	CONCRETE HANDRAIL REMOVAL	50104
503.00	BIN-TYPE RETAINING WALL	50300
503.01	CONCRETE WEARING SURFACE	50301
503.02	SURFACE FILLER, SPECIAL (GALLON)	50302
503.12a	FLOOR DRAIN EXTENSIONS	50312a
503.12	PLUG EXISTING DRAINS	50312
503.17	BRIDGE FLOOR FINISHING MACHINE	50317
503.19	PROTECTING COAT, SPECIAL	50319
521.00b	JACK AND REPOSITION BEARINGS	52100b
521.00c	JACKING AND CRIBBING	52100c
542.00	SEEPAGE COLLAR	54200
542.01	REMOVE AND RELAY PIPE CULVERTS	54201
542.04	PIPE CULVERTS	54204
542.04e	BACKFILL - PIPE CULVERTS	54204e
550.00	STORM SEWER (WATER MAIN QUALITY PIPE)	55000
550.07	BACKFILL, BUILDING REMOVAL	55007
552.00	STEEL PIPE CULVERT, SPECIAL (JACKED) *" (* MM)	55200
552.01	(*STORM SEWER/PIPE CULVERT) JACKED IN PLACE, *" (* MM)	55201
561.00	STEEL CASINGS (*") INCHES	56100
561.01	STEEL CASINGS (*") INCHES	56101

Standard Specifications	Item/Description	Doc. #
601.01	PIPE UNDERDRAIN	60101
602.00d	INLET-MANHOLE, TYPE G-1, 4' (1.2 M) DIAMETER	60200d
602.00f	INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER	60200f
602.00h	INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER, DOUBLE, SPECIAL	60200h
602.00i	INLET-MANHOLE, TYPE G-1, 8' (2.4 M) DIAMETER, DOUBLE, SPECIAL	60200i
602.00e	INLET-MANHOLE, TYPE G-1, 4' (1.2 M) DIAMETER, SPECIAL	60200e
602.00g	INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER, SPECIAL	60200g
602.00a	INLETS, TYPE G-1	60200a
602.00c	INLETS, TYPE G-1, DOUBLE, SPECIAL	60200c
602.00b	INLETS, TYPE G-1, SPECIAL	60200b
602.00j	MANHOLE TO BE ADJUSTED WITH NEW TYPE G-1 FRAME AND GRATE	60200j
602.00k	TEMPORARY INLET DRAINAGE TREATMENT	60200k
602.001	INLETS, TYPE G-2	602001
602.00m	INLETS, TYPE G-1, DOUBLE	60200m
605.04a	FILLING EXISTING CULVERTS	60504a
605.04b	FILLING EXISTING DRAINAGE STRUCTURES	60504b
605.04	FILLING EXISTING INLETS	60504
606.08	ISLAND PAVEMENT CONSTRUCTED ON EXISTING PAVEMENT	60608
606.12	DRAINAGE HOLES	60612
630.00	EROSION CONTROL CURB	63000
630.01	GUARDRAIL AGGREGATE EROSION CONTROL	63001
630.08	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6.75 FOOT POSTS	63008

Standard Specifications	Item/Description	<u>Doc. #</u>
631.04	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED) OR (TANGENT)	63104
631.07	TRAFFIC BARRIER TERMINALS, TYPE 6	63107
631.11c	TRAFFIC BARRIER TERMINALS	63111c
631.14	TRAFFIC BARRIER TERMINALS, TYPE 2	63114
632.00	GUARD POST REMOVAL	63200
635.00	FLEXIBLE DELINEATOR MAINTENANCE	63500
635.01	FLEXIBLE DELINEATORS	63501
667.04	PERMANENT SURVEY MARKER, TYPE I, BRIDGE PLACEMENT	66704
668.02	PERMANENT SURVEY TIES	66802
670.05	EQUIPMENT VAULT FOR NUCLEAR TESTING EQUIPMENT	67005
680.00a	RAILROAD TIES REMOVAL AND DISPOSAL	68000a
680.00	RAILROAD TRACK RAIL REMOVAL	68000
683.00	MORTARED STONE WALL	68300

Standard Specifications	Item/Description	<u>Doc.</u> #
701.00	TRAFFIC CONTROL PLAN	70100
701.06	SPEEDING PENALTY	70106
701.08b	TRAFFIC CONTROL AND PROTECTION STANDARD 701331 (SPECIAL)	70108b
701.14	WIDTH RESTRICTION SIGNING	70114
701.20	TRAFFIC CONTROL AND PROTECTION STANDARD BLR 21 AND BLR 21 (SPECIAL)	70120
701.21	TRAFFIC CONTROL AND PROTECTION STANDARD BLR 22 AND BLR 22 (SPECIAL)	70121
701.22	TRAFFIC CONTROL AND PROTECTION STANDARD 701606 (SPECIAL)	70122
703.00	PAVEMENT MARKING REMOVAL/WORK ZONE PAVEMENT MARKING REMOVAL	70300
704.00a	TEMPORARY CONCRETE BARRIER REFLECTORS	70400a
704.00	TEMPORARY CONCRETE BARRIER, STATE OWNED AND TEMPORARY CONCRETE BARRIER TERMINAL SECTIONS, STATE OWNED	70400
780.00	THERMOPLASTIC PAVEMENT MARKING EQUIPMENT	78000
780.07	PREFORMED PLASTIC PAVEMENT MARKINGS	78007
781.00	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER	78100

Standard Specifications	Item/Description	<u>Doc. #</u>
810.00	CONDUIT, PUSHED OR TRENCHED	81000
815.00	TRENCH & BACKFILL, SPECIAL FOR CONDUIT INSTALLATION BENEATH BITUMINOUS SHOULDERS	81500
863.00	TERMINAL FACILITY	86300
873.00	ELECTRIC CABLE CONDUIT NO. 18	87300
886.00	DETECTOR LOOP, SPECIAL FOR TRAFFIC COUNTERS	88600
886.00a	DETECTOR LOOPS, TYPE 1	88600a

1/24/2013

SECTION 900

District Special Provisions

Standard Specifications

Item/Description

<u>Doc.</u> #

1/24/2013

Item/Description	Standard Specification	<u>Filename</u>
AGGREGATE DITCH	283.03	28303
AGGREGATE OPTIMIZATION OF CLASS PV MIX FOR SLIPFORM PAVING	1004.00	100400
AGGREGATE QUALITY	1004.04	100404
ANTI-STRIP ADDITIVE FOR HOT-MIX ASPHALT	406.01	40601
BACKFILL - PIPE CULVERTS	542.04e	54204e
BACKFILL, BUILDING REMOVAL	550.07	55007
BIN-TYPE RETAINING WALL	503.00	50300
BITUMINOUS PRIME COATE FOR HOT-MIX ASPHALT PAVEMENT (FULL DEPTH)	407.06	40706
BORROW AND FURNISHED EXCAVATION	204.00	20400
BRIDGE FLOOR FINISHING MACHINE	503.17	50317
BRIDGE WEARING SURFACE REMOVAL	440.01	44001
CENTER JOINT REPAIR SYSTEM	440.03c	44003c
CLASS (*) PATCHES, TYPE (**), (***")	442.00	44200
CLEAN EXISTING PAVEMENT EDGE JOINT	406.00	40600
COARSE AGGREGATE FILL	1004.01	100401
COARSE AGGREGATE FOR BITUMINOUS COURSES, CLASS A	1004.03b	100403b
CONCRETE HANDRAIL REMOVAL	501.04	50104
CONCRETE HEADWALL REMOVAL	501.03	50103
CONCRETE SUPERSTRUCTURE AGGREGATE OPTIMIZATION	1004.02	100402
CONCRETE WEARING SURFACE	503.01	50301
CONDUIT, PUSHED OR TRENCHED	810.00	81000
CONSTRUCTION STATION LAYOUT	105.00	10500
CRACK AND JOINT SEALING`	451.00	45100
DATE OF COMPLETION	108.05a	10805a
DATE OF COMPLETION (PLUS WORKING DAYS)	108.05b	10805b

SECTION 1000

District Special Provisions

Standard Specifications	Item/Description	<u>Doc. #</u>
1004.00	AGGREGATE OPTIMIZATION OF CLASS PV MIX FOR SLIPFORM PAVING	100400
1004.01	COARSE AGGREGATE FILL	100401
1004.02	CONCRETE SUPERSTRUCTURE AGGREGATE OPTIMIZATION	100402
1004.03b	COARSE AGGREGATE FOR BITUMINOUS COURSES, CLASS A	d100403b
1004.04	AGGREGATE QUALITY	d100404
1030.00	HOT-MIX ASPHALT QUALITY CONTROL FOR PERFORMANCE (D4)	103000
1030.01	HOT-MIX ASPHALT – PAY FOR PERFORMANCE USING PERCENT WITHIN LIMITS – JOBSITE SAMPLING (D4)	103001
1030.04	HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION	103004
1031.00	RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D4)	103100
1103.00	PCC QC/QA ELECTRONIC REPORT SUBMITTAL	110300
1103.03	PCC AUTOMATIC BATCHING EQUIPMENT	110303

District Special Provisions Alphabetic Index

1/24/2013

Item/Description	Standard Specification	<u>Filename</u>
DELAYED START OF MULTIPLE CONTRACTS	108.03	10803
DETECTOR LOOP, SPECIAL FOR TRAFFIC COUNTERS	886.00	88600
DETECTOR LOOPS, TYPE 1	886.00a	88600a
DRAINAGE HOLES	606.12	60612
ELECTRIC CABLE CONDUIT, LEAD-IN, NO. 18	873.00	87300
EMBANKMENT	205.05	20505
EMBANKMENT (RESTRICTIONS)	205.04	205.04
EMBANKMENT (SMALL EMBANKMENTS)	205.05a	20505a
EQUIPMENT VAULT FOR NUCLEAR TESTING EQUIPMENT	670.05	67005
EROSION CONTROL CURB	630.00	63000
FILLING EXISTING CULVERTS	605.04a	60504a
FILLING EXISTING DRAINAGE STRUCTURES	605.04b	60504b
FILLING EXISTING INLETS	605.04d	60504d
FLEXIBLE DELINEATOR MAINTENANCE	635.00	63500
FLEXIBLE DELINEATORS	635.01	63501
FLOOR DRAIN EXTENSION	503.12a	50312a
GEOTECHNICAL REINFORCEMENT	205.00	20500
GROOVED-IN RUMBLE STRIP	407.13	40713
GROUT FOR USE WITH RIPRAP	281.00	28100
GUARD POST REMOVAL	632.00	63200
GUARDRAIL AGGREGATE EROSION CONTROL	630.01	63001
HOT-MIX ASPHALT CONCRETE MILLING MATERIAL	440.03f	44003f
HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION	1030.04	103004
HOT-MIX ASPHALT – PAY FOR PERFORMANCE USING PERCENT WITHIN LINMITS – JOBSITE SAMPLING (D4)	1030.01	103001
HOT-MIX ASPHALT – PRIME COAT	406.02	40602

Item/Description	Standard Specification	<u>Filename</u>
HOT-MIX ASPHALT QUALITY CONTROL FOR PERFORMANCE (D4)	1030.00	103000
HOT-MIX ASPHALT SHOULDER RESURFACING CONSTRUCTED SIMULTANEOUSLY WITH MAINLINE PAVING	482.06	48206
HOT-MIX ASPHALT SHOULDER RESURFACING REQUIRED TO BE CONSTRUCTED SIMULTANEOUSLY WITH MAINLINE PAVING	482.05	48205
HOT-MIX ASPHALT SURFACE COURSE SURFACE TESTS	406.04a	40604a
HOT-MIX ASPHALT SURFACE REMOVAL, **" (** MM)	440.03a	44003a
HOT-MIX ASPHALT SURFACE REMOVAL, **" (** MM)	440.03b	44003b
INLET-MANHOLE, TYPE G-1, 4' (1.2 M) DIAMETER	602.00d	60200d
INLET-MANHOLE, TYPE G-1, 4' (1.2 M) DIAMETER, SPECIAL	602.00e	60200e
INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER	602.00f	60200f
INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER, DOUBLE, SPECIAL	602.00h	60200h
INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER, SPECIAL	602.00g	60200g
INLET-MANHOLE, TYPE G-1, 8' (2.4 M) DIAMETER, DOUBLE, SPECIAL	602.00i	60200i
INLETS, TYPE G-1	602.00a	60200a
INLETS, TYPE G-1, DOUBLE	602.00m	60200m
INLETS, TYPE G-1, DOUBLE, SPECIAL	602.00c	60200c
INLETS, TYPE G-1, SPECIAL	602.00b	60200b
INLETS, TYPE G-2	602.001	602001
ISLAND PAVEMENT CONSTRUCTED ON EXISTING PAVEMENT	606.08	60608
JACK AND REPOSITION BEARINGS	521.00b	52100b
JACKING AND CRIBBING	521.00c	52100c
LOCATION OF UNDERGROUND STATE MAINTAINED FACILITIES	107.31	10731
LONGITUDINAL JOINT REPAIR	440.02	44002
MANHOLE TO BE ADJUSTED WITH NEW TYPE G-1 FRAME AND GRATE	602.00j	60200j
MORTARED STONE WALL	683.00	68300

Item/Description	Standard Specification	Filename
MOWING	250.06a	250.06a
MOWING	250.06b	250.06b
NATIONWIDE 404 PERMIT REQUIREMENTS	107.00a	10700a
PARTIAL DEPTH PATCHING	440.00	44000
PAVEMENT DRAINAGE AFTER COLD MILLING	440.03c	44003c
PAVEMENT MARKING REMOVAL/WORK ZONE PAVEMENT MARKING REMOVAL	703.00	70300
PAVEMENT PATCHING WITH HOT-MIX ASPHALT SURFACE REMOVAL	440.03e	44003e
PAYMENT FOR USE OF MATERIAL TRANSFER DEVICE	406.13	40613
PCC AUTOMATIC BATCHING EQUIPMENT	1103.03	110303
PCC QC/QA ELECTRONIC REPORT SUBMITTAL	1103.00	110300
PERMANENT SURVEY MARKER, TYPE I, BRIDGE PLACEMENT	667.04	66704
PERMANENT SURVEY TIES	668.02	66802
PIPE CULVERTS	542.04	54204
PIPE UNDERDRAIN	601.00	60100
PLUG EXISTING DRAINS	503.12	50312
PREFORMED PLASTIC PAVEMENT MARKINGS	780.07	78007
PRESTAGE SITE CONSTRUCTION MEETINGS	105.06	10506
PROOF ROLLING	301.01	30101
PROTECTION OF FRAMES AND LIDS OF UTILITY STRUCTURES	440.03	44003
PROTECTIVE COAT, SPECIAL	503.19	50319
RAILROAD APPROACH PAVEMENT	420.20	42020
RAILROAD TIES REMOVAL AND DISPOSAL	680.00a	68000a
RAILROAD TRACK RAIL REMOVAL	680.00	68000
RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D4)	1031.00	103100

1/24/2013

Item/Description	Standard Specification	<u>Filename</u>
REFLECTIVE CRACK CONTROL TREATMENT	443.00	44300
REMOVAL OF ABANDONED UNDERGROUND UTILITIES	105.07	10507
REMOVE AND RELAY PIPE CULVERTS	542.01	54201
RIGHT-OF-WAY RESTRICTIONS	107.32	10732
ROCKFILL	311.00	31100
RUMBLE STRIP	407.14	40714
SEEDING, MINOR AREAS	250.00	25000
SEEDLING MIXTURE A	253.00b	15300b
SEEPAGE COLLAR	542.00	54200
SIDEWALK DRAINS	424.01	42401
SOIL MODIFICATION	302.00	30200
SPEEDING PENALTY	701.06	70106
STATUS OF UTILITIES/UTILITIES TO BE ADJUSTED	105.07	10507
STEEL CASINGS (*") INCHES	561.00	56100
STEEL CASINGS (*") INCHES	561.01	56101
STEEL PIPE CULVERT, SPECIAL (JACKED) *" (* MM)	552.00	55200
STEEL PLATE BEAM GUARDRAIL, TYPE A, 6.75 FOOT POSTS	630.08	63008
STONE DUMPED RIPRAP*	281.04	28104
STONE RIPRAP	281.06	28106
STORM SEWER/PIPE CULVERT) JACKED IN PLACE **" (** MM)	552.01	55201
STORM SEWER (WATER MAIN QUALITY PIPE)	550.00	55000
SUBBASE GRANULAR MATERIAL	311.01	31101
SUBGRADE TREATMENT	301.03	30103
SURFACE FILLER, SPECIAL (GALLON)	503.02	50302
TEMPORARY BASE COURSE WIDENING	356.00	35600
TEMPORARY CONCRETE BARRIER REFLECTORS	704.00a	70400a

Item/Description	Standard Specification	<u>Filename</u>
TEMPORARY CONCRETE BARRIER, STATE OWNED & TEMPORARY CONCRETE BARRIER TERMINAL SECTIONS, STATE OWNED	704.00d	70400d
TEMPORARY INLET DRAINAGE TREATMENT	602.00k	60200k
TEMPORARY PAVEMENT	355.00	35500
TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER, TYPE II	781.00	78100
TEMPORARY SIDEWALKS	424.02	42402
TERMINAL FACILITY	863.00	86300
THERMOPLASTIC PAVEMENT MARKING EQUIPMENT	780.00	78000
TRAFFIC BARRIER TERMINALS	631.11c	63111c
TRAFFIC BARRIER TERMINALS, TYPE 1, SPECIAL (FLAMED) OR (TANGENT)	631.04	631.04
TRAFFIC BARRIER TERMINALS, TYPE 2	631.14	63114
TRAFFIC BARRIER TERMINALS, TYPE 6	631.07	63107
TRAFFIC CONTROL AND PROTECTION STANDARD 701331 (SPECIAL)	701.08b	70108b
TRAFFIC CONTROL AND PROTECTION STANDARD BLR 21 AND BLR 21 (SPECIAL)	701.20	70120
TRAFFIC CONTROL AND PROTECTION STANDARD BLR 22 AND BLR 22 (SPECIAL)	701.21	701.21
TRAFFIC CONTROL AND PROTECTION STANDARD 701606 (SPECIAL)	701.22	70122
TRAFFIC CONTROL PLAN	701.00	70100
TREE WHIP MIXTURE	253.00	25300
TRENCH & BACKFILL, SPECIAL FOR CONDUIT INSTALLATION BENEATH BITUMINOUS SHOULDERS	815.00	81500
WIDTH RESTRICTION SIGNING	701.14	70114

BDE Special Provisions

108.09

Designer Note: Insert into all contracts.

LIQUIDATED DAMAGES (BDE)

Effective: April 1, 2013

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

	'Schedule of Ded Day of Overrun i	원과하다(뭐라고) 안 하는 일반다면	
Original Cor	ntract Amount	Daily C	harges
From More	To and Including	Calendar	Work
Than		Day	Day
\$ 0	\$ 100,000	\$ 475	\$ 675
100,000	500,000	750	1,050
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,275	1,725
3,000,000	6,000,000	1,425	2,000
6,000,000	12,000,000	2,300	3,450
12,000,000	And over	6,775	9,525"

20203 202.03

Designer Note: Insert into all contracts involving excavation and grading.

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

"202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials. Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor's landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the right-of-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm)."

44000

Designer Note: Insert into all contracts with the pavement removal pay item.

PAVEMENT REMOVAL (BDE)

Effective: April 1, 2013

Revise Article 440.07(c) of the Standard Specifications to read:

"(c) Adjustment of Quantities. The quantity of pavement removal will be adjusted if the thickness of the existing pavement varies more than 15 percent from that shown on the plans. The quantity will be either increased or decreased according to the following table.

% change of thickness	% change of quantity
0 to less than 15	0
15 to less than 20	10
20 to less than 30	15
30 to less than 50	20

If the thickness of the existing pavement varies by 50 percent or more from that shown on the plans, the character of the work will be considered significantly changed and an adjustment to the contract will be made according to Article 104.02.

When an adjustment is made for variations in pavement thickness a resulting adjustment will also be made in the earthwork quantities when applicable.

No adjustment will be made for variations in the amount of reinforcement."

Designer Note: Insert into contracts using Highway Standard 542311. It can be used for pipe culverts or box culverts.

TRAVERSABLE PIPE GRATE (BDE)

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

<u>Description</u>. This work shall consist of constructing a traversable pipe grate on a concrete end section.

<u>Materials</u>. Materials shall be according to the following Articles of Division 1000 – Materials of the Standard Specifications.

Item Article/Section

- (a) Traversable Pipe Grate Components (Note 1)

Note 1. All steel pipe shall be according to ASTM A 53 (Type E or S), Grade B, or ASTM A 500 Grade B, standard weight (SCH. 40). Structural steel shapes and plates shall be according to AASHTO M270 Grade 50 (M 270M Grade 345) and the requirements of Article 1006.04 of the Standard Specifications. All steel components of the grating system shall be galvanized according to AASHTO M 111 or M 232 as applicable.

Anchor rods shall be according to ASTM F 1554, Grade 36 (Grade 250).

Note 2. Threaded rods conforming to the requirements of ASTM F 1554, Grade 105 (Grade 725) may be used for the thru bolts.

CONSTRUCTION REQUIREMENTS

Fabrication of the traversable pipe grate shall be according to the requirements of Section 505 of the Standard Specifications and as shown on the plans.

Anchor rods shall be set according to Article 509.06. Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench. Thru bolts shall be snug tightened and shall be brought to a snug tight condition followed by an additional 2/3 turn on one of the nuts. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut.

<u>Method of Measurement</u>. This work will be measured for payment in place in feet (meters). The length measured shall be along the pipe grate elements from end to end for both longitudinal and intermediate support pipes.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for TRAVERSABLE PIPE GRATE.

669.01

Designer Note: Include in projects with the removal and disposal of regulated substances. This no longer includes the excavation as part of the work.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2012 Revised: November 2, 2012

Revise Article 669.01 of the Standard Specifications to read:

"669.01 Description. This work shall consist of the transportation and proper disposal of contaminated soil and water. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities."

Revise Article 669.08 of the Standard Specifications to read:

"669.08 Contaminated Soil and/or Groundwater Monitoring. The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings that are above background. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon the land use history of the subject property and/or PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, location and elevation, and any other observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846 and "Methods for the Determination of Organic Compounds in Drinking Water", EPA,

EMSL, EPA-600/4-88/039. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective."

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

"669.09 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:
 - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
 - (2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 9.0, inclusive.
 - (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
- (b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC but the pH of the soil is less than 6.25 or greater than 9.0, the excavated soil can be utilized within the

construction limits or managed and disposed of off-site as "uncontaminated soil" according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.

(c) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10 ⁻⁷ cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer."

Revise Article 669.14 of the Standard Specifications to read:

"669.14 Final Environmental Construction Report. At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District's Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

- (a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,
- (b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site investigation (PESA) site number),
- (c) Plan sheets showing the areas containing the regulated substances,
- (d) Field sampling and testing results used to identify the nature and extent of the regulated substances,
- (e) Waste manifests (identified by the preliminary environmental site investigation (PESA) site number) for special or hazardous waste disposal, and

(f) Landfill tickets (identified by the preliminary environmental site investigation (PESA) site number) for non-special waste disposal."

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

"The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, OR HAZARDOUS WASTE DISPOSAL."

1004.02

Designer Note: Insert into contracts with bridge approach slabs and bridge approach footings.

COARSE AGGREGATE IN BRIDGE APPROACH SLABS/FOOTINGS (BDE)

Effective: April 1, 2012 Revised: April 1, 2013

Revise the third paragraph of Article 1004.01(b) of the Standard Specifications to read:

"Aggregates used in Class BS concrete (except when poured on subgrade), Class PS concrete, and Class PC concrete (bridge superstructure products only, excluding the approach slab) shall contain no more than two percent by weight (mass) of deleterious materials. Deleterious materials shall include substances whose disintegration is accompanied by an increase in volume which may cause spalling of the concrete."

Revise the first sentence of the first paragraph of Article 1004.02(f) of the Standard Specifications to read:

"(f) Freeze-Thaw Rating. When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement (including precast), driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch, concrete superstructures on subgrade such as bridge approach slabs (excluding precast), concrete structures on subgrade such as bridge approach footings, or their repair using concrete, the gradation permitted will be determined from the results of the Department's Freeze-Thaw Test (Illinois Modified AASHTO T 161)."

Designer Note: Do <u>not</u> use this version in District Four. Use the District Special Provision of the same name.

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012 Revise: January 1, 2013

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing 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.
- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
 - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
 - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

(a) RAP 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 provide documentation on the quality of the RAP to clarify the appropriate stockpile.

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP shall pass the sieve size specified below for the mix the FRAP will be incorporated.

Mixture FRAP will be used in:	Sieve Size that 100% of FRAP
	Shall Pass
IL-25.0	2 in. (50 mm)
IL-19.0	1 1/2 in. (40 mm)
IL-12.5	1 in. (25 mm)
IL-9.5	3/4 in. (20 mm)
IL-4.75	1/2 in. (13 mm)

- (2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) 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.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) 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.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, HMA (High or Low ESAL), or "All Other" (as defined by Article 1030.04(a)(3)) 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.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP 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.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise approved by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) up to an equal weight of RAS with the processed RAS will be

- (a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
 - (1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
 - (2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
 - (3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
 - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

1031.06 Use of RAP/FRAP and/or RAS in HMA. The use of RAP/FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

- (a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.
 - (1) 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.
 - (2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) Surface and Binder Mixture applications.
 - (3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. RAP/FRAP from Conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus #4 (4.75 mm) homogeneous RAP and FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.

- (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
- (5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, conglomerate, or conglomerate DQ.
- (6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given N Design.
- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.
- (c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.
 - (1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the Max RAP/RAS ABR table listed below for the given Ndesign.

RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures 1/, 2/	RAP/I	RAS Maximum A	ABR %
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15	10	10
90	10	10	10
105	10	10	10

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the RAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR 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 high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- (2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the FRAP/RAS tables listed below for the given N design.

permitted to improve workability. The sand shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

1031.03 Testing. RAP/FRAP and RAS testing shall be according to the following.

- (a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.
 - (1) During 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).
 - (2) After Stockpiling. 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/FRAP 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.

Each sample shall be split to obtain two equal 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.

(b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to Illinois Department of Transportation Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Source".

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS or RAS blended with manufactured sand shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

Before testing, each sample shall be split to obtain two test samples. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall perform a washed extraction and test for unacceptable materials on the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

If the sampling and testing was performed at the shingle processing facility in accordance with the QC Plan, the Contractor shall obtain and make available all of the test results from start of the initial stockpile.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

(a) Evaluation of RAP/FRAP 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	FRAP/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 %
G _{mm}	± 0.03	

^{1/} The tolerance for FRAP shall be \pm 0.3 %.

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP 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)".

(b) Evaluation of RAS and RAS Blended with Manufactured Sand Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	± 4 %
No. 200 (75 µm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, or if the percent unacceptable material exceeds 0.5 percent by weight of material retained on the # 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the District for evaluation.

HMA Mixtures	Level 1 - FRAP/RAS Maximum ABR %		
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/ For HMA "All Other" (shoulder and stabilized subbase) N30, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR 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 high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.
- 4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 20 percent.

Level 2 – FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures	Level 2 – FRAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified 3/,
30	40	40	10
50	40	30	10
70	30	20	10
90	30	20	10
105	30	15	10

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N30, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR 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 high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.

4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the above detailed requirements.

FRAP/RAS mix designs exceeding the Level 1 FRAP/RAS Maximum ABR percentages shall be tested prior to submittal for verification, according to Illinois Modified AASHTO T 324 (Hamburg Wheel) and shall meet the following requirements.

Asphalt Binder Grade	# Repetitions	Max. Rut Depth in. (mm)
PG76-XX	20,000	1/2 (12.5)
PG70-XX	15,000	1/2 (12.5)
PG64-XX	7,500	1/2 (12.5)
PG58-XX	5,000	1/2 (12.5)

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS designs shall be submitted for volumetric verification. If additional RAP/FRAP 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/FRAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP stockpiles may be used in the original mix design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.500 shall be used for mix design purposes.

1031.08 HMA Production. Mixture production where the FRAP/RAS ABR percentage exceeds the Level 1 limits, shall be sampled within the first 500 tons (450 metric tons) on the first day of production with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture conformance is demonstrated prior to start of mix production for a State contract.

(a) RAP/FRAP. The coarse aggregate in all RAP/FRAP 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, gator, 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/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

(b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

When producing HMA containing RAS, a positive dust control system shall be utilized.

- (c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.
 - (1) Dryer Drum Plants.
 - Date, month, year, and time to the nearest minute for each print.
 - b. HMA mix number assigned by the Department.
 - c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
 - f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
 - g. Residual asphalt binder in the RAP/FRAP material as a percent of the total mix to the nearest 0.1 percent.
 - h. Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)

(2) Batch Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- RAP/FRAP/RAS weight to the nearest pound (kilogram).
- Virgin asphalt binder weight to the nearest pound (kilogram).
- h. Residual asphalt binder in the RAP/FRAP/RAS 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.

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders Type B shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (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."

District Special Provisions

311.00d

Designer Note: Check with Materials before using this special provision. Can be used District-wide since this is the lowest quality (B) rock. This special provision is intended to be used when rock fill is recommended for ground stabilization or undercuts. This material may need to be capped with 6" CA 7or CA 11, crushed stone depending upon situation and modify this special provision. Remember when using precast box culverts, a 6" bedding layer is included in the box culvert pay item.

A filter fabric (or bedding material) may be required - discuss with the Geotechnical Engineer. He may want you to provide a pay item/quantity for "Geotechnical Fabric for Ground Stabilization".

ROCK FILL

Effective October 15, 1995 Revised April 26, 2013

This work shall consist of furnishing, transporting and placing rock fill for ground stabilization.

For Rock Fill depths ≤18", the material shall meet Quality Designation "B" as required in Article 1004.01 of the Standard Specifications for Road and Bridge Construction. The material shall be crushed stone and meet the gradation of CA 7 or CA 11 per Article 1004.01 of the Standard Specifications for Road and Bridge Construction.

The aggregate shall be placed in 6 in. (150 mm) lifts, loose measurements, and compacted in a manner approved by the Engineer, except that if the desired results are being obtained, the compacted thickness of any lift may be increased to a maximum of 8 in. (200 mm).

For Rock Fill depths > 18", the top 6" shall meet the requirements listed above for depths ≤18" and the remaining depth shall meet Quality Designation "B" as required in <u>Article 1005.01</u> of the Standard Specifications for Road and Bridge Construction and may be shot rock or primary crusher run. It shall not contain objectionable quantities of dirt, sand, clay or rock fines. The material shall be well graded with a maximum stone dimension of 8 inches (200 mm). No more than 35% shall have a dimension less than 2 inches (50 mm).

Rock fill will be measured for payment in tons (metric tons), in accordance with Article 311.08 except that all references to cubic yard (cubic meter) measurement and payment shall be deleted.

This work will be paid for at the contract unit price per ton (metric ton) for ROCK FILL.

35600

Designer Note: Fill the HMA and PCC depths as the same depth. Use the HMA depth for the pay item name and calculation of the Earth Excavation for Widening quantity. Method of payment is described in the last paragraph of Section 356 of the Standard Specifications.

356.00

Use this item when the Contractor may need to construct widening for staging and the type of payment is not required to be as specific material. Make sure there will be adequate coverage with final overlay.

TEMPORARY BASE COURSE WIDENING _____"

Effective April 26, 2013

This item shall include all materials, labor and equipment necessary to construct base course widening in accordance with Section 356 of the Standard Specifications except as herein specified.

The Contractor shall have the option of constructing temporary pavement made of _____" Hot-Mix Asphalt base course or _____" PCC base course.

Hot-Mix Asphalt base course shall be placed in accordance with applicable portions of Section 356 of the Standard Specifications. Material for Hot-Mix Asphalt base course shall be Hot-Mix Asphalt Binder Course IL-19.0 in accordance with Sections 406 and 407 of the Standard Specifications. PCC base course shall be in accordance with Section 354 of the Standard Specifications.

This work will be pad for at the contract unit price per Square Yard (Square Meter) for BASE COURSE WIDENING _____" which price shall be payment in full for all materials, labor and equipment including bituminous and aggregate prime coat necessary to perform the work as herein specified.

40602 406.02

Designer Note: Include in all contracts with HMA overlays or full depth HMA payements.

HOT-MIX ASPHALT - PRIME COAT

Effective: April 29, 2011 Revised: April 26, 2013

Revise the second paragraph of Article 406.02 of the Standard Specifications to read:

"When emulsified asphalts are used, any dilution with water must be performed by the manufacturer. The emulsified asphalt shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion."

Revise the first paragraph of Article 406.05(b) of the Standard Specifications to read:

"Prime Coat. The base, or base and gutter shall be clean and dry. The bituminous priming material shall be prepared according to Article 403.05 and applied according to Article 403.10."

Revise the first paragraph of Article 406.05(b)(1) of the Standard Specifications to read:

"(1) Brick, Concrete or HMA Bases. The prime shall be applied uniformly at a residual asphalt rate of 0.02 to 0.06 gal/sq yd (0.1 to 0.3 L/sq m). The exact residual asphalt rate will be specified by the Engineer. Prior to priming, the residual asphalt rate shall be verified by passing the applicator truck over a 1 ft x 1 ft pre-weighed cardboard square, drying the cardboard and prime to a constant mass, and determining the final dry weight. The difference between the two weights will be the residual asphalt weight per square foot. The residual asphalt weight per square foot shall be converted to gallons per square yard using a residual asphalt specific gravity of 1.03."

Add the following to the second paragraph of Article 406.05(b)(1):

"When prime coat is applied on two lane roadways, the pavement shall be primed one lane at a time. The primed lane shall remain closed for a minimum of one hour and shall remain closed until the prime does not pickup under traffic. On multi-lane pavements, traffic will not be allowed on the primed surface until it is fully cured, such that it does not pickup under traffic."

Replace the last sentence of the third paragraph of Article 406.05(b)(1) with the following:

"Prime coat shall be fully cured prior to placement of HMA to prevent pickup by haul trucks or paving equipment. If pickup occurs, paving shall cease in order to provide additional cure time, or an approved release agent may be applied to the tires of the haul trucks or paving equipment as needed to prevent pickup of the prime coat."

440.00

Designer Note: Include in contracts with partial depth patching. Discuss depth of patch and replacement lift thicknesses with Construction and Materials. If patches must remain open overnight, remove the paragraph saying they have to be opened the same day.

Fillings:

- * Total depth of patch.
- ** Number of lifts.
- *** Thickness of lifts.

PARTIAL DEPTH PATCHING

Effective April 26, 2013

This work shall consist of partial depth patching of the existing pavement structure and replacement with Hot-Mix Asphalt (HMA) material at the locations shown in the plans or as directed by the Engineer. This work will be performed before completion of the cold milling operation and prior to the placement of the HMA overlay.

This work shall include all labor, equipment, and materials necessary to remove the existing HMA overlay to a depth of (_____")*. The removal shall be performed with a cold milling machine of sufficient size and weight to remove the existing HMA. The milling machine must be operated longitudinally with the flow of traffic and will not be permitted to cut transversely across the lane. Disposal of waste materials for the work described herein shall be in accordance with Article 202.03 of the Standard Specifications. After cold milling the patch, all loose material shall be removed and the area air-blast cleaned to the satisfaction of the Engineer. Replacement HMA material shall be as shown in the Mixture Requirements Table in the plans.

Prior to placement of the HMA material, the bottom and sides of the patch shall be primed in accordance with Article 406.05 of the Standard Specifications using an SS-1h or SS-1hP bituminous material. The prime shall be applied at a residual rate of 0.05 gal/s.y. by means of a mechanical distributor, and shall be placed on all surfaces of the milled trench.

The HMA material shall be placed in $(\underline{})^{**}(\underline{})^{***}$ inch lifts and shall match the elevation of the surrounding pavement after final compaction. Bumps greater than $\frac{1}{4}$ " left after compaction shall be removed.

The HMA mixture and density control limits shall conform to Article 1030 of the Standard Specifications. Compaction shall be accomplished using a vibrating roller that conforms to the applicable sections of Article 1101.01 of the Standard Specifications.

The Contractor shall fill all patches with the HMA material in the same day they are milled. No open patches will be allowed to remain overnight.

The patch will be measured for payment in place, and the area computed in Square Yards. The limits will be the area of the patch that measures at least (_____")* in depth, and shall not include the rounded transition at the beginning and end of the patch.

Basis of Payment: Partial depth removal of the pavement will be paid for at the contract unit price per Square Yard for PARTIAL DEPTH REMOVAL (_____")*. The bituminous concrete

placed in the partial depth patches will be paid for at the contract unit price per Ton for PARTIAL DEPTH PATCHING.			

440.02

Designer Note: To be used for milling deteriorated pavement longitudinal joints 3" inches deep, 2' feet wide and placement of Hot-Mix Asphalt (HMA) surface mix in trench.

When different depths and widths are needed, revise and use as a project specific special.

LONGITUDINAL JOINT REPAIR

Effective April 26, 2013

This work shall include all labor, equipment, and material required to mill out an area along and either side of an existing pavement longitudinal joint and replacement with Hot-Mix Asphalt (HMA). The replacement HMA material shall be specified in the HMA Mixtures Design table in the plans. The removal shall be done with a cold milling machine of sufficient size and weight to remove the pavement to a depth of three inches (3") and a width of two feet (2') feet in a single operation; skid steer mounted mills will not be allowed. After cold milling the existing joint, all loose material shall be removed with a mechanical sweeper or vacuum, then air blast cleaned to the satisfaction of the Engineer.

Prior to placement of the HMA material, the milled trench shall be primed in accordance with Article 406.05 of the Standard Specifications using an SS1-h or SS1-hP bituminous material. The prime shall be applied at a residual rate of 0.05 gal/sy by means of a mechanical distributor and shall be placed on all surfaces of the milled trench.

The HMA mixtures and density control limits shall conform to Article 1030 of the Standard Specifications. Placement shall be in a single lift by machine methods and shall match the profile of the existing pavement after final compaction. Compaction shall be accomplished using a vibratory roller that conforms to the applicable sections of Article 1101.01 of the Standard Specifications.

The Contractor shall fill all trenches with HMA in the same day they are milled. No open trench will be allowed to remain overnight.

This work will be paid for at the contract unit price per Foot for LONGITUDINAL JOINT REPAIR.

631.04

Designer Note: This special is for use on contracts where it is necessary to install the shorter, non-MGS height TBT's to match existing rail heights that are allowed to remain in place. The Designer shall include CADD Standard "Steel Plate Beam Guardrail, Pre-MGS". Also, note in the plans which terminals are MGS and which are not MGS height terminals when both are used on the same contract. The list of suppliers is from December 2004 when the shorter terminals were still in use is provided for the Contractor's information.

TRAFFIC BARRIER TERMINALS, TYPE 1, SPECIAL (FLARED) OR (TANGENT)

Effective July 31, 2009

Revised April 26, 2013

This work shall be completed in accordance with Section 631 of the Standard Specifications, plan details, and as stated herein.

At the locations shown in the plans the traffic barrier terminal shall meet all the requirements of NCHRP 350, but will be installed to match the detail shown in the plans named "Steel Plate Beam Guardrail, Pre-Midwest Guardrail System". These locations are not intended to match the Midwest Guardrail System height and post spacing requirements.

The terminals meeting this specification are listed below:

Traffic Barrier Terminal, Type 1 Special (Tangent)

Road Systems, Inc. 3616 Old Howard County Airport Big Spring, Texas 79720 Phone: (432) 263-2435

"SKT"

Wood blockouts only. Wood post system only. Posts 1 & 2 to use steel soil tubes (6'-6" or 6'-0" with wood posts). Posts 3 through 8 to use 4'-6" soil tubes with wood posts (soil plates not required), OR posts 3 through 8 may be 6' CRT posts.

Trinity Industries, Inc. 2525 North Stemmons Freeway Dallas Texas 75207 Phone: (800) 644-7976 or (800) 527-6050

"ET-2000"

Wood blockouts only.

A wood post system may be used. Posts 1 & 2 to use steel soil tubes (6'-6" or 6'-0" with wood posts). Posts 3 through 8 to use 4'-6" soil tubes with wood posts (soil plates not required), OR posts 3 through 8 may be 6' CRT posts.

OR a system using the Steel Yielding Terminal Post (SYTP) (Posts 2 to 8) and one Hinged Break Away Post (HBA) (Post 1) may be used.

Traffic Barrier Terminal, Type 1 Special (Flared)

Energy Absorption Systems, Inc. One East Wacker Drive Chicago, Illinois 60601-2076 Phone: (312) 467-6750 "REGENT"

Road Systems, Inc. 3616 Old Howard County Airport Big Spring, Texas 79720 Phone: (432) 263-2435 "FLEAT" Wood post system only.

Trinity Industries, Inc. 2525 North Stemmons Freeway Dallas Texas 75207 Phone: (800) 644-7976 or (800) 527-6050 "SRT-350" Wood post system only.

Designer Note:

- In order to facilitate the use of available local crushed stone aggregates, which do not meet the Standard Specifications, the following Special Provision should be considered when you have the following pay items:
 - A. Granular Embankment, Special
 - B. Sub-base Granular Material
 - C. Aggregate Shoulders
 - D. Aggregate Surface Course
 - E. Aggregate Base Course
 - F. Erosion Control Aggregate
- Check with the District Bureau of Materials to see if this Special Provision should be used. <u>Intended for the western area of District</u> - approximate dividing line is Route 97.
- 3. Be sure to include this Special Provision when you have incidental aggregate items, such as the granular sub-base under approach slabs when in the areas as specified in E. above.
- 4. When constructing large quantities of new roadway pavement, consider modifying the first paragraph of the special and removing items, such as, Granular Embankment, Special and Sub-base Granular Material. This will allow the local aggregates to be used where they won't impact the long-term pavement support.

9-23-96 Revised Article.

AGGREGATE QUALITY

Effective July 1, 1990

Revised April 26, 2013

Coarse aggregate for Granular Embankment Special, Sub-base Granular Material, Aggregate Shoulders, Aggregate Surface and Base Courses, and Erosion Control Aggregate shall conform to <u>Article 1004.04</u> of the Standard Specifications for Road and Bridge Construction except that all of the following revisions to <u>Article 1004.04</u>(b) shall apply unless the Contractor chooses to use RAP for aggregate shoulders:

- 1. Revise the maximum allowable percentage of weighted average loss when the material is subjected to 5 cycles of sodium sulfate soundness test from 25%, as shown under the Class D of the Quality Chart in Article 1004.01(b) of the Standard Specifications, to 40%; and
- 2. Revise the maximum allowable percentage of wear as determined by the Los Angeles Abrasion Method from 45%, as shown under Class D of the Quality Chart in <u>Article 1004.01(b)</u> of the Standard Specifications, to 65%; and



103001 1030.01

Designer Note: Include in projects with more than 8,000 Tons after discussing with Steve Worsfold in Materials.

HOT MIX ASPHALT - PAY FOR PERFORMANCE USING PERCENT WITHIN LIMITS -**JOBSITE SAMPLING (D4)**

Effective: April 26, 2013

Description. This special provision describes the procedures used for production, placement and payment for hot-mix asphalt (HMA). This special provision shall apply to all pay items for High ESAL and Low ESAL HMA and SMA mixtures that individually have a minimum quantity of 8000 tons (7260 metric tons) and are placed at a minimum nominal thickness equal to or greater than three times the nominal maximum aggregate size. Mixture quantity may be less than 8,000 tons provided the sublot size is adjusted to achieve a minimum of 10 mixture tests. This special provision shall not apply to shoulders, temporary pavements and patching. This work shall be according to the Standard Specifications except as specified herein.

406.06(b)(1), 2nd paragraph (Temperature requirements) Delete Articles:

406.06 (e), 3rd paragraph (Pavers speed requirements)

406.07 (Compaction)

1030.04, last two sentences of first paragraph (Mix design verification)

1030.05(a)(4, 5, 7, 8, 9, & 10)(QC/QA Documents)

1030.05(d)(2)a. (Plant Tests)

1030.05(d)(2)b. (Dust-to-Asphalt and Moisture Content)

1030.05(d)(2)d. (Small Tonnage) 1030.05(d)(2)f. (HMA Sampling) 1030.05(d)(3) (Required Field Tests) 1030.05(d)(4)

(Control Limits) 1030.05(d)(5) (Control Charts)

1030.05(d)(6) (Corrective Action for Required Plant Tests) 1030.05(d)(7) (Corrective Action for Field Tests (Density))

1030.05(e) (Quality Assurance by the Engineer) 1030.05(f)

(Acceptance by the Engineer) (Before start-up...)

1030.06(a), 3rd paragraph 1030.06(a), 7th paragraph (After an acceptable...)

1030.06(a), 8th paragraph (If a mixture...) 1030.06(a), 9th paragraph (A nuclear/core...)

Definitions:

- (a) Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.
- (b) Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.
- (c) Percent Within Limits (PWL): The percentage of material within the quality limits for a given quality characteristic.
- (d) Quality Characteristic: The characteristics that are evaluated by the Department for payment using PWL. The quality characteristics for this project are field Voids in the

- Mineral Aggregate (VMA), voids, and density. Field VMA will be calculated using the combined Aggregates Bulk Specific Gravity (G_{sb}) from the mix design
- (e) Quality Level Analysis (QLA): QLA is a statistical procedure for estimating the amount of product within specification limits.
- (f) Sublot: A sublot for field VMA, and voids, will be 1000 tons (910 metric tons), or adjusted to achieve a minimum of 10 tests. If a sublot consists of less than 200 tons (180 metric tons), it shall be combined with the previous sublot.
- (g) Density Testing Interval: The interval for density testing will be 0.2 mile (320 m) for lift thickness equal to or less than 3 in. (75 mm) and 0.1 mile (160 m) for lift thickness greater than 3 in. (75 mm). If a density testing interval is less than 200 ft (60 m), it will be combined with the previous test interval.
- (h) Lot: A lot consists of 10 sublots or 30 density intervals. If seven or less sublots or 19 or less density intervals remain at the end of production of a mixture, the test results for these sublots will be combined with the previous lot for evaluation of percent within limits and pay factors. Lots for mixture testing are independent of lots for density testing.
- (i) Density Test: A density test consists of a core taken at a random longitudinal and transverse offset within each density testing interval. The HMA maximum theoretical gravity (G_{mm}) will be based on the running average of four including the current day of production. Initial G_{mm} will be based on the average of the first four test results. The random transverse offset excludes the outer 1.0 ft (300 mm) from an unconfined edge. For confined edges, the random transverse offset excludes a distance from the outer edge equal to the lift thickness or a minimum of 4 in. (100 mm).
- (j) Unconfined Edge Density: The outer 1.0 foot of an unconfined edge will be excluded from the effective pavement width used for calculating random transverse density location. The unconfined edge density will be randomly selected within each ½ mile section for each unconfined edge. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4.0 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5.0 in. (125 mm) from the edge of pavement.)

Pre-production Meeting:

The Engineer will schedule a pre-production meeting a minimum of seven calendar days prior to the start of production. The HMA QC Plan, test frequencies, random test locations, and responsibilities of all parties involved in testing and determining the PWL will be addressed. Personnel attending the meetings will include the following:

- (a) Resident Engineer
- (b) District Mixture Control Representative
- (c) QC Manager
- (d) Contractor Paving Superintendent
- (e) Any consultant involved in any part of the HMA sampling or testing on this project

Quality Control (QC) by the Contractor:

The Contractor's quality control plan shall include the schedule of testing for both quality characteristics and non-quality characteristics required to control the product such as binder content and mixture gradation. The schedule shall include sample location. The minimum test frequency shall not be less than outlined in the Minimum Quality Control Sampling and Testing Requirements table below.

Minimum Quality Control Sampling and Testing Requirements

Quality Characteristic	Minimum Test Frequency	Sampling Location	
Mixture Gradation			
Binder Content	1/day	per QC Plan	
G _{mm}	,		
G _{mb}			
Density	per QC plan	per QC Plan	

The Contractor shall submit QC test results to the Engineer within 24 hours of the time of sampling.

<u>Initial Production Testing</u>: The Contractor shall split and test the first two samples with the Department for comparison purposes regardless of whether a test strip is used. The Contractor shall complete all tests and report all results to the Engineer within two working days of sampling. The Engineer will make Department test results of the initial production testing available to the Contractor within two working days from the receipt of the samples. PFP will begin after an acceptable test strip, if one is used.

Quality Assurance (QA) by the Engineer: The Engineer will test each sublot for field VMA, voids, dust/ac ratio and density interval for density to determine payment for each lot. A sublot shall begin once an acceptable test-strip has been completed and the AJMF has been determined. If the test strip is waived, a sublot shall begin with the start of production. All Department testing will be performed in a qualified laboratory by personnel who have successfully completed the Department HMA Level I training.

Voids, field VMA, and Dust/AC ratio: The mixture sublot size is 1000 tons (910 metric tons). The Engineer will determine the random tonnage and the Contractor shall be responsible for obtaining the sample according to the "PFP and QCP Hot-Mix Asphalt Random Jobsite Sampling" procedure. The Engineer will not disclose the random location of the mixture test until after the truck containing the random tonnage has been loaded and en-route to the project.

Density: The Engineer will identify the random locations for each density testing interval. The Contractor shall be responsible for obtaining the four inch cores within the same day and prior to opening to traffic unless otherwise approved by the Engineer according to the "PFP and QCP Random Density Procedure". The locations will not be disclosed to the Contractor until after final rolling. The cores shall be obtained under the supervision of the Engineer. All core holes shall be filled immediately upon completion of coring. All water shall be removed from the core holes prior to filling. All core holes shall be filled with a rapid hardening mortar or concrete which shall be mixed in a separate container prior to placement in the hole. Any depressions in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the lift thickness and replacement.

Test Results: The Department test results for the first sublot, or density testing interval, of every lot will be available to the Contractor within three working days from the time the secured sample from the sublot or density testing interval has been delivered, by the Contractor, to a Department's Testing Facility or a location designated by the Engineer. Test results for the completed lot will be available to the Contractor within 10 working days from the time the last

sublot or density testing interval has been delivered to a Department testing facility or a location designated by the Engineer.

The Engineer will maintain a complete record of all Department test results. Copies will be furnished upon request. The records will contain, as a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

<u>Dispute Resolution</u>: Dispute resolution testing will only be permitted when; 1) the Contractor submits their split sample test results prior to receiving Department split sample test results and 2) the difference between the Contractor and Department split test results exceed the precision limits listed below or are outside acceptable limits. For density disputes, the Contractor shall use the Department's running average for G_{mm} when determining compliance with the Limits of Precision.

Test Parameter	Limits of Precision	
Voids	1.0 %	
VMA	1.0%	
Ratio - Dust / Asphalt Binder	0.2	
Core Density	1.0 %	

If dispute resolution is necessary, the Contractor shall submit a request in writing within four working days of receipt of the results of the quality index analysis for the lot. The Engineer will document receipt of the request. The Bureau of Materials and Physical Research (BMPR) laboratory will be used for dispute resolution testing.

Density cores for dispute resolution testing shall be taken at the same time as the random density core. The density core for dispute resolution testing shall be taken within 1 ft (300 mm) longitudinally of the random density core and at the same transverse offset.

If three or more consecutive mix sublots are contested, corresponding density results will be recalculated with the new G_{mm} .

All dispute resolution results will replace original quality assurance test results for pay factor recalculation. Test results from the dispute resolution testing will replace voids, VMA and Dust/AC results from the original quality assurance testing. The lot pay factor for the lot under dispute resolution will be recalculated. If the recalculated lot pay factor is less than or equal to the original lot pay factor, laboratory costs listed below will be borne by the Contractor. The effect on the lot pay factor will be determined for each individually disputed sample in the order of increasing sublot/density interval.

Test	Cost	
Mix Testing	\$1000.00 / sublot	
Core Density	\$300.00 / core	

Acceptance by the Engineer: All tests shall be within the acceptable limits listed below:

Acceptable Limits

Parameter	Acceptable Range	
Field VMA	-1.0 - +3.0% ^{1/}	
Voids	2.0 - 6.0% 2/	

Density:	
IL-19.0, IL-25.0,IL-9.5, IL-12.5	90.0 - 98.0%
IL-4.75, SMA	92.0 - 98.0%
Dust / AC Ratio	$0.4 - 1.6^{3/}$

- 1/ Based on minimum required VMA from mix design
- 2/ The acceptable range for SMA mixtures shall be 2.0% 5.0%
- 3/ Does not apply to SMA

In addition, the PWL for any quality characteristic shall be 50 percent or above for any lot. No visible pavement distress shall be present such as, but not limited to, segregation, excessive coarse aggregate fracturing or flushing.

<u>Basis of Payment:</u> Payment will be based on the calculation of the Composite Pay Factor for each mix according to the "PFP Quality Level Analysis" document. Payment for full depth pavement will be based on the calculation of the Full Depth Pay Factor according to the "PFP Quality Level Analysis" document.

<u>Additional Pay Adjustments:</u> In addition to the PWL on VMA, voids, and density, monetary deductions will be made using the pay adjustment tables below for dust/AC ratios and unconfined edge densities.

Dust / AC Pay Adjustment Table 1/

Range	Deduct / sublot	
0.6 ≤ X ≤ 1.2	\$0	
$0.5 \le X < 0.6$ or $1.2 < X \le 1.4$	\$1000	
$0.4 \le X < 0.5$ or $1.4 < X \le 1.6$	\$3000	
X < 0.4 or $X > 1.6$	Shall be removed and replaced	

^{1/} Does not apply to SMA.

Unconfined Edge Density Adjustment Table

Density	Deduct / sublot	
≥ 90%	\$0	
89.0% to 89.9%	\$1000	
88.0% to 88.9%	\$3000	
< 88.0%	Outer 1.0 foot will require remedial action acceptable to the Engineer	

Designer Note: Insert into any projects with HMA pay items. This is a special provision developed by BMPR, but not added to the BDE's yet.

HOT-MIX ASPHALT - MIXTURE DESIGN VERIFICATION AND PRODUCTION

Effective: August 3, 2012 Revised: April 26, 2013

<u>Description</u>. This special provision states the requirements for Hamburg Wheel and Tensile Strength testing for High ESAL, IL-4.75, and SMA hot mix asphalt (HMA) mixes during mix design verification and production. This special provision also states the plant requirements for hydrated lime addition systems used in the production of High ESAL, IL-4.75, and SMA mixes.

When the options of Warm Mix Asphalt, Reclaimed Asphalt Shingles, or Reclaimed Asphalt Pavement are used by the Contractor, the Hamburg Wheel and tensile strength requirements in this special provision will be superseded by the special provisions for Warm Mix Asphalt or Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles as applicable.

In addition to the requirements in the December 1, 2011 HMA Special Provisions for Pay for Performance Using Percent Within Limits, a Hamburg Wheel test and tensile strength test will be conducted during mix design on mixtures used for Pay For Performance projects.

Mix Design Testing. Add the following to Article 1030.04 of the Standard Specifications:

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

All new and renewal mix designs shall meet the following requirements for verification testing.

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

PG Grade	Number of Passes	
PG 64-xx (or lower)	10,000	
PG 70-xx	15,000	
PG 76-xx (or higher)	20,000	

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

Production Testing. Add the following to Article 1030.06 of the Standard Specifications:

"(c) Hamburg Wheel Test. A Hamburg Wheel test will be conducted on each High ESAL, IL-4.75, and SMA mix produced that has been verified by the Hamburg Wheel process.

The Contractor shall obtain a sample during the startup for each mix and compact gyratory specimens to the air void percentage as specified in IL-modified AASHTO T-324 to be provided to the Department for testing. The Department may conduct additional Hamburg Wheel Tests on production material as determined by the Engineer."

<u>System for Hydrated Lime Addition</u>. Revise the last sentence of the third paragraph of Article 1030.04(c) of the Standard Specifications to read:

"The method of application shall be according to Article 1102.01(a)(10)."

Revise the first three sentences of the second paragraph of Article 1102.01(a)(10) of the Standard Specifications to read:

"When hydrated lime is used as the anti-strip additive, a separate bin or tank and feeder system shall be provided to store and accurately proportion the lime onto the aggregate either as a slurry, as dry lime applied to damp aggregates, or as dry lime injected onto the hot aggregates prior to adding the liquid asphalt cement. If the hydrated lime is added either as a slurry or as dry lime on damp aggregates, the lime and aggregates shall be mixed by a power driven pugmill to provide a uniform coating of the lime prior to entering the dryer. If dry hydrated lime is added to the hot dry aggregates in a drum plant, the lime will be added in such a manner that the lime will not become entrained into the air stream of the dryer and that thorough dry mixing will occur prior to the injection point of the liquid asphalt. When a batch plant is used, the hydrated lime shall be added to the mixture in the weigh hopper or as approved by the Engineer."

<u>Basis of Payment</u>. Revise the seventh paragraph of Article 406.14 of the Standard Specifications to read:

"For mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

If an anti-stripping additive is required for any other HMA mix, the cost of the additive will be paid for according to Article 109.04. The cost incurred in introducing the additive into the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

1031.00

Designer Note: Use this version of the RAP/RAS special provision instead of the BDE version of the same name.

RECLAIMED ASPHALT PAVEMENT AND SHINGLES (D-4)

Effective: April 26, 2013

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND SHINGLES

1031.01 Description. RAP is reclaimed asphalt pavement resulting from cold milling and crushing of an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

RAS is reclaimed asphalt shingles resulting from the processing and grinding of either preconsumer or post consumer shingles.

RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable materials, as defined in Bureau of Materials and Physical Research Policy (BMPR) Memorandom Reclaimed Asphalt Shingle (RAS) Sources, by weight of RAS. All RAS used shall come from a BMPR approved processing facility. All RAS shall be processed to 100 percent passing the 3/8" and a minimum of 90 percent passing the # 4 sieve.

RAS shall meet either Type 1 or Type 2 requirements as specified herein.

- (a) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
- (b) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).
- **1031.02 Stockpiles.** The Contractor shall construct individual, sealed RAP or RAS stockpiles meeting one of the following definitions. No additional RAP or RAS shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and Processed FRAP) shall be identified by signs indicating the type as listed below (i.e. "crushed natural aggregate, ACBF and steel slag, crystalline structure or Type 2 RAS", etc...).
- (a) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be processed prior to testing and sized into fractions with the separation occurring on or between the #4 (4.75mm) and ½ in. (12.5mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mix the RAP will be used in.

- (b) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 inch single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.
- (c) 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 (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (d) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. The coarse aggregate in this RAP may be crushed or processed (FRAP DQ) 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.
- (e) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

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

Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present. However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of type 1 RAS with type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval.

The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of 3 years.

- **1031.03 Testing.** When used in HMA, the RAS/RAP/FRAP shall be sampled and tested either during processing or after stockpiling.
- (a) RAS shall be sampled and tested as follows:

During stockpiling, washed extraction, and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons

(900 metric tons) and one sample per 1000 ton (900 metric ton) thereafter. A minimum of five tests are required for stockpiles less than 1000 ton (900 metric ton). Once a ≤ 1000 ton, five-test stockpile has been established it shall be sealed. Additional incoming RAS shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content, and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 μm)	± 4%
No. 200 (75 μm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

(b)RAP/FRAP shall be sampled and tested as follows:

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/FRAP 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.

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

Parameter	RAP or FRAP	Conglomerate "D" Quality RAP
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	\pm 0.4 % $^{1/}$	± 0.5 %
G _{mm}	± 0.03 ^{2/}	

- 1/ The tolerance for FRAP shall be \pm 0.3 %
- 2/ for slag and steel slag

Before extraction, each field sample wether, RAS, RAP or FRAP, 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.

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 RAS, RAP or FRAP shall not be used in HMA unless the RAS, RAP or FRAP 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, when testing for RAP or FRAP, 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/FRAP.

- (a) The aggregate quality of the RAP, Fractionated RAP, Restricted FRAP, Conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the stockpile and are designated as follows:
 - (1) RAP from Class I, Superpave (High ESAL)/HMA (High ESAL), or HMA (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
 - (2) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
 - (3) 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.
 - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) The aggregate quality of FRAP shall be determined as follows.
 - (1) If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer. If the quality is not known, the quality shall be determined according to note (2) herein:
 - (2) Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5000 tons (4500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.05 Use of RAS, RAP or FRAP in HMA. The use of RAS, RAP or FRAP shall be a Contractor's option when constructing HMA in all contracts.

The use of RAS shall be as follows:

Type 1 or Type 2 RAS may be used alone or in conjunction with, Fractionated Reclaimed Asphalt Pavement (FRAP) or Reclaimed Asphalt Pavement (RAP), in all HMA mixtures up to a maximum of 5.0 percent by weight of total mix.

The use of RAP/FRAP shall be as follows:

- (a) Coarse Aggregate Size (after extraction), the coarse aggregate in all RAP or FRAP shall be equal to or less than the maximum size requirement for the HMA mixture to be produced.
- (b) Steel Slag Stockpiles. RAP/FRAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in all HMA (High ESAL and Low ESAL) mixtures regardless of lift or mix type.
- (C) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP and Restricted FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall in which the coarse aggregate is Class B quality or better. RAP/FRAP shall be considered equivalent to Limestone for frictional considerations unless produced/screened to minus 3/8 inch.
- (d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, in which the coarse aggregate is Class C quality or better.
- (e) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized sub base (HMA) shall RAP, Restricted FRAP, Conglomerate, or Conglomerate DQ.

When the Contractor chooses the RAP option, the percentage of virgin asphalt binder replaced by the asphalt binder from the RAP shall not exceed the percentages indicated in the table below for a given N Design:

Max Asphalt Binder Replacement RAP Only
Table 1

HMA Mixtures 11, 3/	Maximum % Asphpalt Binder replacement (ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30L	25	15	10
50	25	15	10
70	15	10	10
90	10	10	10
105	10	10	10
4.75 MM N-50			15
SMA N-80			10

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall be up to 50% of the total asphalt binder in the mixture.
- 2/ When the asphalt binder replacement exceeds 15 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

When the Contractor chooses either the RAS or FRAP option, the percent binder replacement shall not exceed the amounts indicated in the tables below for a given N Design.

Max Asphalt Binder Replacement RAS or FRAP
Table 2

HMA Mixtures 1/, 2/	Level 1 - Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer ^{3/, 4/} Modified
30L	35	30	15
50	30	25	15
70	30	20	15
90	20	15	15
105	20	15	15
4.75 MM N-50			25
SMA N-80			15

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt bider replacement shall not exceed 50% of the total asphalt binder in the mixture.
- 2/ When the asphalt binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement will require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ When the ABR for SMA is 15 percent or less the required virgin asphalt binder shall be SBS PG76-22.
- 4/ When the ABR for IL 4.75 mix is 15% or less the required virgin asphalt binder shall be SBS PG 76-22. When the ABR for the IL 4.75 is more than 15%, the virgin asphalt binder shall be SBS PG 70-28.

When the Contractor chooses the RAS with FRAP combination, the percent asphalt binder replacement shall split equally between the RAS and the FRAP, and the total replacement shall not exceed the amounts indicated in the tables below for a given N Design.

Max Asphalt Binder Replacement RAS and FRAP Combination Table 3

HMA Mixtures 1/, 2/	Level 2 - Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified 3/, 4/
30L	50	40	30

50	40	35	30
70	40	30	30
90	40	30	30
105	40	30	30
4.75 MM N-50			40
SMA N-80			30

1/ For HMA "All Other" (shoulder and stabilized sub base) N-30, the percent asphalt binder replacement shall be up to 50% of total asphalt binder in the mixture.

the

2/ When the binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement will require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

3/ When the ABR for SMA is 15 percent or less the required virgin asphalt binder shall be SBS PG76-22. When the ABR for SMA exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28.

4/ When the ABR for IL 4.75 mix is 15% or less the required virgin asphalt binder shall be SBS PG 76-22. When the ABR for the IL 4.75 is more than 15%, the virgin asphalt binder shall be SBS PG 70-28.

1031.06 HMA Mix Designs. All HMA mixtures will be required to be tested, prior to submittal for Department verification, According to Illinois Modified AASHTO T324 (Hamburg Wheel) and shall meet the following requirements:

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG76-XX	20,000	12.5
PG70-XX	15,000	12.5
PG64-XX	10,000	12.5
PG58-XX	10,000	12.5

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

1031.07 HMA Production. All HMA mixtures shall be sampled within the first 500 tons on the first day of production or during start up, with a split reserved for the Department. The mix sample shall be tested according to Illinois Modified AASHTO T324 and shall meet the requirements specified herein. The production of such mixture shall not exceed 1,500 tons or one day's production, which ever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture is demonstrated prior to start of mix production for the contract.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAS, RAP and FRAP 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 RAS, RAP and FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAs, RAP or FRAP and either switch to the virgin aggregate design or submit a new RAS, RAP or FRAP design.

HMA plants utilizing RAS, RAP and FRAP 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 RAS, RAP and FRAP 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 RAS, RAP and FRAP material as a percent of the total mix to the nearest 0.1 percent.
 - (8) When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.
 - Accumulated mixture tonnage.
 - (10) Dust removed (accumulated to the nearest 0.1ton)
 - (11) Aggregate RAS, RAP and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS, RAP FRAP 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) RAS, RAP and FRAP weight to the nearest pound (kilogram).
 - (6) Virgin asphalt binder weight to the nearest pound (kilogram).

(7) Residual asphalt binder in the RAS, RAP and FRAP 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 or FRAP 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 "Non-Quality" and "FRAP". 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. (37.5mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded, FRAP, or single sized will not be accepted for use as Aggregate Surface Course and Aggregate Shoulders."

1103.00

Designer Note: Incorporate into all contracts with PCC items.

PCC QC/QA ELECTRONIC REPORT SUBMITTAL

Effective April 26, 2013

The Contractor's QC personnel shall be responsible for electronically submitting PRO and IND MI 654 Air, Slump, Quantity and PRO MI 655 PCC Strength Reports to the Department. The format for the electronic submittals will be the PCC QC/QA reporting program, which will be provided by the Department. Microsoft Office 2007 or newer is required for this program which must be provided by the Contractor.

Designer Note: Include this special for HMA quantities less than 8,000 Tons after discussing with Steve Worsfold in Materials. Fill in the Mix Design Table.

HOT MIX ASPHALT QUALITY CONTROL FOR PERFORMANCE (D4)

Effective: April 26, 2013

<u>Description</u>. This special provision describes the procedures for production, placement and payment of hot-mix asphalt (HMA). This work shall be according to the Standard Specifications except as modified herein. This special provision shall apply to HMA mixtures as listed in the following table.

Mixture/Use:	
Location:	
Mixture/Use:	
Location:	
Mixture/Use:	
Location:	

Exceptions may be approved for small tonnage less than 800 (725 metric) tons and miscellaneous mixture applications as defined by the Engineer.

Delete Articles:	406.06(b)(1), 2 nd Paragraph 406.06 (e), 3 rd Paragraph 406.07 1030.05(a)(4, 5, 9,) 1030.05(d)(2)a. 1030.05(d)(2)b. 1030.05(d)(2)d. 1030.05(d)(2)f. 1030.05(d)(3) 1030.05(d)(4) 1030.05(d)(5) 1030.05(d)(7) 1030.05(e) 1030.05(f) 1030.05(f) 1030.06(a), 3rd paragraph 1030.06(a), 7 th paragraph	(Temperature requirements) (Pavers speed requirements) (Compaction) (QC/QA Documents) (Plant Tests) (Dust-to-Asphalt and Moisture Content) (Small Tonnage) (HMA Sampling) (Required Field Tests) (Control Limits) (Control Charts) (Corrective Action for Field Tests (Density)) (Quality Assurance by the Engineer) (Acceptance by the Engineer) (Before start-up) (After an acceptable)
	1030.06(a), 7 th paragraph 1030.06(a), 8 th paragraph 1030.06(a), 9 th paragraph	(After an acceptable) (If a mixture) (A nuclear/core)
		1.134

Definitions:

- (a) Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.
- (b) Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.

- (c) Pay Parameters: Pay Parameters shall be field Voids in the Mineral Aggregate (VMA), voids, and density. Field VMA will be calculated using the combined aggregates bulk specific gravity (G_{sb}) from the mix design.
- (d) Mixture Lot. A lot shall begin once an acceptable test strip has been completed and the AJMF has been determined. If the test strip is waived, a sublot shall begin with the start of production. A mixture lot shall consist of four sublots unless it is the last or only lot, in which case it may consist of as few as one sublot
- (e) Mixture Sublot. A mixture sublot for field VMA, voids, and Dust/AC shall be 1000 tons (910 metric tons).
 - If the remaining quantity is greater than 200 but less than 1000 tons, a sublot will consist of that amount.
 - If the remaining quantity is less than or equal to 200 tons, the quantity shall be combined with the previous sublot.
- (f) Density Interval. Density Intervals shall be every 0.2 mile (320 m) for lift thickness equal to or less than 3 in. (75 mm) and 0.1 mile (160 m) for lift thickness greater than 3 in. (75 mm).
- (g) Density Sublot. A sublot for density shall be the average of five consecutive Density Intervals. If a Density Interval is less than 200 ft (60 m), it will be combined with the previous Density Intervals.
 - If one or two Density Intervals remain outside a sublot, they shall be included in the previous sublot.
 - If three or more Density Intervals remain, they shall be considered a sublot.
- (h) Density Test: A density test consists of a core taken at a random longitudinal and transverse offset within each Density Interval. The HMA maximum theoretical gravity (G_{mm}) will be based on the running average of four Department test results. Initial G_{mm} will be based on the average of the first four test results. If less than four G_{mm} results are available, use an average of all available Department G_{mm} test results.

The random transverse offset excludes a distance from each outer edge equal to the lift thickness or a minimum of 4 in. (100 mm). If within one foot of an unconfined edge, 2.0 percent density will be added to the density of any core.

Quality Control (QC) by the Contractor:

The Contractor's QC plan shall include the schedule of testing for both pay parameters and non-pay parameters required to control the product such as asphalt binder content and mixture gradation. The minimum test frequency shall be according to the following table.

Minimum Quality Control Sampling and Testing Requirements

Quality Ch	aracteristic	Minimum Test Frequency	
Mixture (Gradation		
Asphalt Binder Content Dust/AC Ratio Field VMA			
		1 per sublot	
Voido	G _{mb}		
Voids	G _{mm}		

The Contractor's splits in conjunction with other quality control tests shall be used to control production.

The Contractor shall submit split jobsite mix sample test results to the Engineer within 48 hours of the time of sampling. All QC testing shall be performed in a qualified laboratory by personnel who have successfully completed the Department's HMA Level I training.

Quality Assurance (QA) by the Engineer:

Voids, field VMA and Dust/AC ratio: The Engineer will determine the random tonnage and the Contractor shall be responsible for obtaining the sample according to the "PFP Hot-Mix Asphalt Random Jobsite Sampling" procedure.

Density: The Engineer will identify the random locations for each density testing interval. The Contractor shall be responsible for obtaining the four inch cores within the same day and prior to opening to traffic unless otherwise approved by the Engineer according to the "PFP Random Density Procedure". The locations will be identified after final rolling and cores shall be obtained under the supervision of the Engineer. All core holes shall be filled immediately upon completion of coring. All water shall be removed from the core holes prior to filling. All core holes shall be filled with a rapid hardening mortar or concrete which shall be mixed in a separate container prior to placement in the hole. Any depressions in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the lift thickness and replacement.

The Engineer will witness and secure all mixture and density samples. The Contractor shall transport the secured sample to a location designated by the Engineer.

The Engineer will test one or all of the randomly selected split samples from each lot for voids, field VMA and dust/AC ratio. The Engineer will test a minimum of one sample per project. The Engineer will test all of the pavement cores for density. All QA testing will be performed in a qualified laboratory by personnel who have successfully completed the Department's HMA Level I training. QA test results will be available to the Contractor within 10 working days from receipt of secured cores and split mixture samples.

The Engineer will maintain a complete record of all Department test results and copies will be provided to the Contractor with each set of sublot results. The records will contain, as a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

If the QA results do not meet the 100% sublot pay factor limits or do not compare to QC results within the precision limits listed below, the Engineer will test all split mix samples for the lot.

Test Parameter	Limits of Precision
G _{mb}	0.030
G _{mm}	0.026

Dust/Asphalt AC Ratio	0.20
Field VMA	1.0 %

Acceptance by the Engineer: All tests shall be within the acceptable limits listed below:

Paramete	er	Acceptable Limits
Field VMA	4	-1.0 - +3.0% ^{1/}
Voids		$2.0 - 6.0\%^{2/}$
Density:	IL-9.5, IL-12.5, IL-19.0, IL-25.0, IL-4.75, IL-9.5FG ^{4/}	90.0 – 98.0%
	SMA	92.0 - 98.0%
Dust / AC	Ratio	$0.4 - 1.6^{3/}$

- 1/ Based on minimum required VMA from mix design
- 2/ The acceptable range for SMA mixtures shall be 2.0% 5.0%
- 3/ Does not apply to SMA.
- 4/ Acceptable density limits for IL-9.5FG placed less than 1.25 in. shall be 89.0% 98.0%

In addition, no visible pavement distresses shall be present such as, but not limited to, segregation, excessive coarse aggregate fracturing or flushing.

<u>Basis of Payment:</u> Payment will be based on the calculation of the Composite Pay Factor using QA results for each mix according to the "QCP Payment Calculation" document.

<u>Dust / AC Ratio</u>. A monetary deduction will be made using the pay adjustment table below for dust/AC ratios that deviate from the 0.6 to 1.2 range.

Dust / AC Pay Adjustment Table 1/

Range	Deduct / sublot	
0.6 ≤ X ≤ 1.2	\$0	
$0.5 \le X < 0.6$ or $1.2 < X \le 1.4$	\$1000	
$0.4 \le X < 0.5$ or $1.4 < X \le 1.6$	\$3000	
X < 0.4 or $X > 1.6$	Shall be removed and replaced	

^{1/} Does not apply to SMA.

The QCP Pay Calculation (Manual of Test Procedures for Materials, Appendix E6) is available online at the IDOT website, Materials Section, BMPR Specifications.

District General Notes (changes only)

Section 400

DISTRICT GENERAL NOTES

SECTION 400

Standard Specifications	Item/Description	Doc. No.
406.01	BRIDGE OVERLAY NOTIFICATION	460_01
406.03	PAVEMENT STATION NUMBERS & PLACEMENT	406_03
406.05	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	406_05
406.10	HOT-MIX ASPHALT MIXTURE REQUIREMENTS	406_10
406.15A	MINIMUM VERTICAL CLEARANCE	406_15a
406.18	BUTT JOINT CUTTING TIME RESTRICTION	406_18
406.19	PAVING SURFACE COURSE	406_19
420.11	FINAL FINISH ON P.C. CONCRETE PAVEMENT, TYPE B	420_11
440.00	ASBESTOS BRIDGE WEARING SURFACE REMOVAL	440_00
440.02	SAW CUT - 450 mm (18") SHOULDER REMOVAL - IN-PLACE WHEEL SAW GRINDING PERMITTED	440_02
442.00	ADDITIONAL BITUMINOUS OVERLAY IN LIEU OF PATCHING	442_00
443.04	REFLECTIVE CRACK CONTROL PLACEMENT	443_04

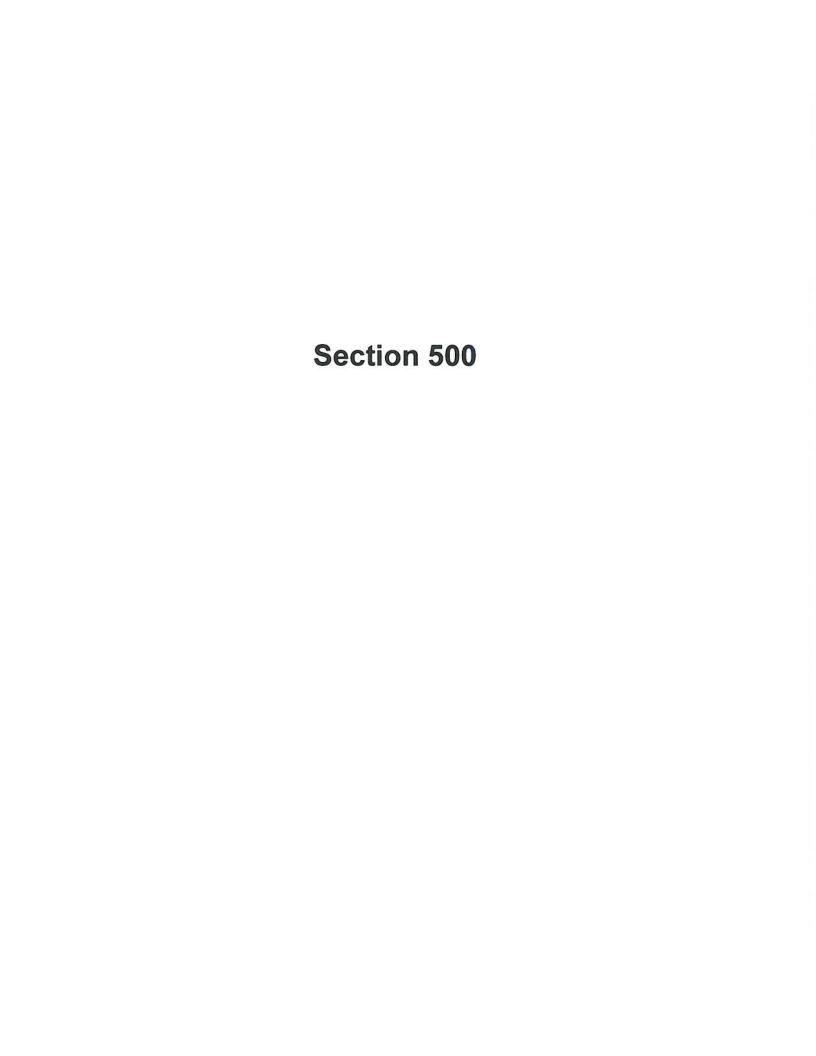
Effective: January 1, 2011 Revised: April 26, 2013

Designer Note: Use on all HMA contracts.

POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) RATES

Surface Type	Estimated Truck Application Rate	Residual Rate
Milled (HMA or PCC)	0.10 gal/sy (0.0004 ton/sy)	0.05 gal/sy
Existing Pavement	0.05 gal/sy (0.00022 ton/sy)	0.025 gal/sy
Fog Coat (between lifts)	0.05 gal/sy (0.00022 ton/sy)	0.025 gal/sy

Note: Estimated truck application rate is used for estimating quantities.



DISTRICT GENERAL NOTES

SECTION 500

Standard Specifications	Item/Description	Doc. No.
503.00	CROSSING EXISTING STRUCTURES WITH EQUIPMENT	503_00
515.00	NAME PLATE RELOCATION ON METAL PLATE BRIDGE RAIL	515_00
542.00	ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS	542_00

Effective: April 23, 2010

Designer Note: Use this when there is a structure with a structure number within your job limits that will have to be crossed with a MTD or milling machine. The designer shall notify the Bridge Office of the structures to be crossed and what will be crossing it and request the Bridge Office to check the structures ability to handle the load.

CROSSING EXISTING STRUCTURES WITH EQUIPMENT

The following structures SN	, SN	may be crossed with	(choose a, b, or c
from below).			

Options:

- a. loaded MTD
- b. unloaded MTD
- c. milling machine

Any structures not listed above shall be verified by the resident prior to beginning work.