Supplemental Specifications and Recurring Special Provisions

Adopted January 1, 2025

Illinois Department of Transportation

INTRODUCTION

This book contains a copy of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

The SUPPLEMENTAL SPECIFICATIONS included herein supplement the “Standard Specifications for Road and Bridge Construction”, adopted January 1, 2022. The SUPPLEMENTAL SPECIFICATIONS are applicable to, and included by reference in, all contracts advertised and awarded by the Department.

The frequently used RECURRING SPECIAL PROVISIONS included herein may be included, by reference, in selected contracts advertised and awarded by the Department.

Bidding proposals issued by the Department may contain a "Check Sheet for Recurring Special Provisions" which specifies the RECURRING SPECIAL PROVISIONS applicable to and included in contracts by reference.

The units of measure used shall correspond to the units used in the contract.

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INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2025

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 1-1-22) (Revised 1-1-25)

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

Table of Contents

State of Illinois
Department of Transportation

ERRATA
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

Adopted: January 1, 2022
Revised: January 1, 2025

Page viii Table of Contents. Change “SECTION 586. SAND BACKFILL FOR VAULTED ABUTMENTS” to “SECTION 586. GRANULAR BACKFILL FOR STRUCTURES”.

Page 2 Article 101.01. In the list of abbreviations, add the following after “OSHA”:

“Product Eval & Audit”	“Product Evaluation and Audit Solutions”

Page 170 Article 352.18(b)(3). Change “unstable and/or unsuitable material” to “unsuitable material”.

Page 170 Article 352.18(b)(4). Change “unstable and/or unsuitable material” to “unsuitable material”.

Page 170 Article 352.19(c). Change “unstable and/or unsuitable material” to “unsuitable material”.

Page 170 Article 352.19(d). Change “unstable and/or unsuitable material” to “unsuitable material”.

Page 267 Article 441.04. In Note 1/, change “unstable” to “unsuitable”.

Page 269 Article 441.05. In the last paragraph, change “Unsuitable or unstable material” to “Unsuitable material”.

Page 270 Article 441.10. In the second paragraph, change “unstable” to “unsuitable”.

Page 273 Article 442.05. In the fourth paragraph, change “unsuitable and unstable materials” to “unsuitable materials”.

Page 282 Article 442.08(b). Change “Articles 1030.05(d)(3), (d)(4), and (d)(7).” to “Articles 1030.09(b), 1030.09(c), and 1030.09(f).”

Page 308 Article 502.12(b). In the last sentence of the first paragraph, change “unstable and/or unsuitable material” to “unsuitable material”.

Page 310 Article 502.13. In the first sentence of the fourth paragraph, change “unstable and/or unsuitable material” to “unsuitable material”.

Page 310 Article 502.13. In the second sentence of the fourth paragraph, change "unstable and/or unsuitable material" to "unsuitable material".

Page 444 Article 522.15(b). In the eighteenth paragraph, change "unstable and/or unsuitable material" to "disposal of unsuitable material".

Page 446 Article 522.16. In the sixteenth paragraph, change "unstable and/or unsuitable material" to "unsuitable material".

Page 450 Article 540.07(b). In the last paragraph, change "unstable and/or unsuitable material" to "unsuitable material".

Page 450 Article 540.08. In the last paragraph, change "unstable and/or unsuitable material" to "unsuitable material".

Page 599 Section 672. In the section title, change "AVANDONED" to "ABANDONED".

Page 654 Article 780.04. In the sixth paragraph, change "Article 780.14" to "Article 780.15".

Page 656 Article 780.08. In the last sentence of the 3rd paragraph, change "Contractor shall not install" to "Contractor shall install."

Page 699 Article 818.02(b). In the Article/Section reference, change "1066.03(a)(3)" to "1066.03(b)".

Page 749 Article 1001.01(d)(1). Change "maximum final set" to "minimum final set".

Page 780 Article 1006.06(b). In the last sentence, change "AASHTO ASTM A 775 (A 775M)" to "ASTM A 775 (A 775M)".

Page 788 Article 1006.25. In the third paragraph, change "NTPEP" to "AASHTO Product Eval & Audit".

Page 805 Article 1008.05. In the first sentence of the second paragraph, change "National Transportation Product Evaluation Program (NTPEP)" to "AASHTO Product Eval & Audit".

Page 805 Article 1008.05. In the second sentence of the second paragraph, change "NTPEP" to "AASHTO Product Eval & Audit".

Page 806 Article 1008.05(b). In the Article title, change "NTPEP" to "AASHTO Product Eval & Audit".

Page 808 Article 1008.05(f)(1). In the first sentence, change "NTPEP" to "AASHTO Product Eval & Audit".

Page 817 Section 1018. In the section title, change "MORTOR" to "MORTAR".

Page 869 Article 1030.01. In the last sentence of the second paragraph, change “specificly” to “specifically”.

Page 891 Article 1030.09(e)(1). In the sixth line of the first paragraph, change “contine” to “continue”.

Page 894 Article 1030.09(i). In the second to last paragraph, change “aggegate” to “aggregate”.

Page 919 Article 1040.04(a). In the first sentence, change “NTPEP” to “AASHTO Product Eval & Audit”.

Page 919 Article 1040.04(b). In the first sentence, change “NTPEP” to “AASHTO Product Eval & Audit”.

Page 951 Article 1062.02. Change the Article title from “1062.02 Lighting Protection” to “1065.02 Lighting Protection”.

Page 1034 Article 1080.01(a)(3). In Note 2/, change “NTPEP” to “AASHTO Product Eval & Audit”.

Page 1035 Article 1080.02. In Note 1/, change “NTPEP” to “AASHTO Product Eval & Audit”.

Page 1035 Article 1080.02. In Note 2/, change all “NTPEP” to “AASHTO Product Eval & Audit”.

Page 1036 Article 1080.03. In Note 1/, change all “NTPEP” to “AASHTO Product Eval & Audit”.

Page 1036 Article 1080.04. In the fourth sentence of the first paragraph, change “NTPEP” to “AASHTO Product Eval & Audit”.

Page 1036 Article 1080.04. In the fifth sentence of the first paragraph, change “NTPEP” to “AASHTO Product Eval & Audit”.

Page 1037 Article 1080.05. In Note 1/, change all “NTPEP” to “AASHTO Product Eval & Audit”.

Page 1039 Article 1080.06(d). In Note 1/, change “NTPEP” to “AASHTO Product Eval & Audit”.

Page 1060 Article 1083.01. In the second sentence of the first paragraph, change “NTPEP” to “AASHTO Product Eval & Audit”.

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 202. EARTH AND ROCK EXCAVATION

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

202.07 Method of Measurement. Revise the first and second paragraphs of Article 202.07(b) to read:

"(b) Measured Quantities. Earth and rock excavation will be measured in cubic yards (cubic meters) in their original positions. The volumes will be computed by the method of average end areas using before and after cross sections; or by the method of digital elevation modeling using before and after digital surveys. The volume of any unsuitable material removed will be measured for payment in cubic yards (cubic meters).

In rock excavation, the Contractor shall strip ledge rock of overburden so that necessary survey shots for measurement may be taken. Vertical measurements shall extend from the surface of the rock to an elevation not more than 6 in. (150 mm) below the subgrade of the proposed pavement, as shown on the plans, or to the bottom of the rock where that point is above the bottom of subgrade of the proposed pavement. Horizontal measurements shall extend not more than 6 in. (150 mm) beyond the slope lines fixed by the Engineer for the work. Boulders and rocks 1/2 cu yd (0.5 cu m) or more in volume will be measured individually and the volume computed from average dimensions taken in three directions."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 204. BORROW AND FURNISHED EXCAVATION

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

204.07 Method of Measurement. Revise the first paragraph of this Article to read:

"**204.07 Method of Measurement.** Borrow excavation will be measured in cubic yards (cubic meters) in its original position. The volume will be computed by the method of average end areas using before and after cross sections; or by the method of digital elevation modeling using before and after digital surveys."

Revise the embankment definition in Article 204.07(b) to read:

"Embankment = the volume of fill in its final position computed by the method of average end areas or digital elevation modeling. Both methods will be based upon the existing ground line as shown on the plans, except as noted in (1) and (2) below;"

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 207. POROUS GRANULAR EMBANKMENT

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

207.04 Method of Measurement. Revise this Article to read:

"**207.04 Method of Measurement.** This work will be measured for payment in tons (metric tons) according to Article 311.08(b), or in cubic yards (cubic meters) compacted in place and the volume computed by the method of average end areas or by digital elevation modeling."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 211. TOPSOIL AND COMPOST

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

211.07 Method of Measurement. Revise the second sentence of the second paragraph of Article 211.07(b) to read:

"The volume will be computed by the method of average end areas or by digital elevation modeling."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 406. HOT-MIX ASPHALT BINDER AND SURFACE COURSE

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

406.03 Equipment. Add the following to this Article.

"(n) Material Transfer Device .....1102.02"

406.06 Placing. Add the following to the end of Article 406.06(f).

"When required, a material transfer device (MTD) shall be used to transfer the HMA from the haul trucks to the spreading and finishing machine. The particular HMA mixtures for which an MTD is required will be specified in the plans. When not required, an MTD may still be used at the Contractor's option, subject to the requirements and restrictions herein. Use of MTDs shall be according to the following.

MTD Category	Usage
Category I	Any resurfacing application Full-Depth HMA where the in-place binder thickness is ≥ 10 in. (250 mm)
Category II	Full-Depth HMA where the in-place binder thickness is < 10 in. (250 mm)

Category I MTD's will only be allowed to travel over structures under the following conditions:

(1) Approval will be given by the Engineer.

(2) The MTD shall be emptied of HMA material prior to crossing the structure and shall travel at crawl speed across the structure.

(3) The tires of the MTD shall travel on or in close proximity and parallel to the beam and/or girder lines of the structure."

406.13 Method of Measurement. Add the following to the end of Article 406.13(b).

"The required use of an MTD will be measured for payment in tons (metric tons) of the HMA mixtures placed with the MTD. The use of an MTD at the Contractor's option will not be measured for payment."

406.14 Basis of Payment. Add the following between the second and third paragraphs of this Article.

"The required use of an MTD will be paid for at the contract unit price per ton (metric ton) for MATERIAL TRANSFER DEVICE. The HMA mixtures placed with the MTD will be paid for separately according to their respective specifications."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 407. HOT-MIX ASPHALT PAVEMENT (FULL DEPTH)

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

407.12 Basis of Payment. Revise the second and third paragraphs of this Article to read:

"Tack coat, full lane sealant (FLS), and longitudinal joint sealant (LJS) will be paid for according to Article 406.14."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 420. PORTLAND CEMENT CONCRETE PAVEMENT

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

420.05 Joints. Revise the table in Article 420.05(c)(2)b.1.(c.) to read:

"Pavement Thickness	Dowel Bar Diameter	Vertical Translation Tolerance Above or Below Midpoint
≤ 8 in. (≤ 200 mm)	1.00 in. (25 mm)	0.25 in. (6 mm)
> 8 to < 10 in. (> 200 to < 250 mm)	1.25 in. (31 mm)	0.50 in. (13 mm)
≥ 10 in. (≥ 250 mm)	1.50 in. (38 mm)	0.50 in. (13 mm)"

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 502. EXCAVATION FOR STRUCTURES

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

502.12 Method of Measurement. Revise Article 502.12(b)(1) to read:

"(1) General. Rock excavation will be measured for payment in its original position and the volume in cubic yards (cubic meters) computed by the method of average end areas or by digital elevation modeling."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 509. METAL RAILINGS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

509.10 Basis of Payment. Revise the first paragraph of this Article to read:

"**509.10 Basis of Payment.** This work will be paid for at the contract unit price per foot (meter) for STEEL RAILING, or ALUMINUM RAILING, of the type specified; STEEL RAILING (TEMPORARY); TUBULAR THRIE BEAM RETROFIT RAIL FOR BRIDGES; PEDESTRIAN RAILING; BICYCLE RAILING; BICYCLE RAILING, CURVED; BICYCLE RAILING, PARAPET; BRIDGE FENCE RAILING; BRIDGE FENCE RAILING, CURVED; PARAPET RAILING; and PIPE HANDRAIL."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 540. BOX CULVERTS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

540.04 General. Revise the first sentence of the second paragraph of this Article to read:

"Unless otherwise noted on the plans, the Contractor shall have the option, when a cast-in-place concrete box culvert is specified, of constructing the box culvert using precast box culvert sections when the design cover is 6 in. (150 mm) minimum."

Add the following to the end of Article 540.04:

"Traversable pipe grate for box culvert end sections shall be according to Article 542.07(a)(4)."

540.06 Precast Concrete Box Culverts. Revise the first sentence of the fifth paragraph of this Article to read:

"The joints between precast box sections shall be sealed with rubber gaskets according to ASTM C 1677, or shall be sealed and all voids filled with a mastic joint sealer."

Add the following after the seventh paragraph of Article 540.06:

"Precast concrete box culverts with skews greater than 30 degrees and having design covers less than or equal to 5 ft (1.52 m) are not covered by the standard design table shown in ASTM C 1577. The design table provided herein is provided to address this design range. The same notes, reinforcement configurations, clearances, and requirements of ASTM C 1577 apply to this special design table.

3 ft x 2 ft x 4 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.17	1.10	0.30	0.10	0.28	0.17	0.92	0.14	
2<3	0.14	0.18	0.19	0.10					31
3-5	0.10	0.12	0.12	0.10					29
3 ft x 3 ft x 4 in.									
0<2*	0.17	1.17	0.33	0.10	0.31	0.17	0.92	0.14	
2<3	0.10	0.22	0.22	0.10					31
3-5	0.10	0.14	0.14	0.10					31
*top slab 7.0 in., bottom slab 6.0 in.									
4 ft x 2 ft x 5 in.									
0<2*	0.21	0.88	0.26	0.12	0.28	0.18	0.89	0.14	
2<3	0.20	0.21	0.20	0.12					33
3-5	0.13	0.13	0.14	0.12					32
4 ft x 3 ft x 5 in.									
0<2*	0.18	1.02	0.31	0.12	0.32	0.18	0.87	0.14	
2<3	0.16	0.25	0.24	0.12					38
3-5	0.12	0.16	0.17	0.12					34
4 ft x 4 ft x 5 in.									
0<2*	0.18	1.08	0.34	0.12	0.34	0.18	0.86	0.14	
2<3	0.13	0.28	0.27	0.12					38
3-5	0.12	0.18	0.19	0.12					38
*top slab 7.5 in., bottom slab 6.0 in.									
5 ft x 2 ft x 6 in.									
0<2*	0.27	0.63	0.23	0.14	0.24	0.19	0.19	0.17	
2<3	0.25	0.22	0.20	0.14					37
3-5	0.17	0.15	0.15	0.14					35
5 ft x 3 ft x 6 in.									
0<2*	0.20	0.72	0.27	0.14	0.29	0.19	0.71	0.17	
2<3	0.21	0.26	0.25	0.14					37
3-5	0.14	0.18	0.18	0.14					35
*top slab 8.0 in., bottom slab 7.0 in.									

5 ft x 4 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2*	0.19	0.78	0.30	0.14	0.31	0.19	0.70	0.17	
2<3	0.18	0.30	0.28	0.14					45
3-5	0.14	0.20	0.21	0.14					40
5 ft x 5 ft x 6 in.									
0<2*	0.19	0.82	0.33	0.14	0.34	0.19	0.69	0.17	
2<3	0.16	0.33	0.32	0.14					45
3-5	0.14	0.22	0.23	0.14					45
*top slab 8.0 in., bottom slab 7.0 in.									
6 ft x 2 ft x 7 in.									
0<2*	0.33	0.51	0.21	0.17	0.23	0.19	0.61	0.17	
2<3	0.31	0.22	0.22	0.17					42
3-5	0.22	0.17	0.17	0.17					41
6 ft x 3 ft x 7 in.									
0<2*	0.27	0.58	0.26	0.17	0.27	0.19	0.58	0.17	
2<3	0.26	0.27	0.27	0.17					41
3-5	0.18	0.19	0.20	0.17					39
6 ft x 4 ft x 7 in.									
0<2*	0.25	0.64	0.30	0.17	0.30	0.19	0.57	0.17	
2<3	0.23	0.31	0.31	0.17					42
3-5	0.17	0.22	0.23	0.17					41
6 ft x 5 ft x 7 in.									
0<2*	0.23	0.68	0.33	0.17	0.32	0.19	0.56	0.17	
2<3	0.20	0.34	0.35	0.17					52
3-5	0.17	0.24	0.25	0.17					48
6 ft x 6 ft x 7 in.									
0<2*	0.21	0.72	0.37	0.17	0.34	0.19	0.55	0.17	
2<3	0.18	0.37	0.38	0.17					52
3-5	0.17	0.26	0.28	0.17					52
*top slab 8.0 in.									

7 ft x 2 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.38	0.60	0.26	0.19	0.22	0.19	0.75	0.19	
2<3	0.38	0.24	0.24	0.19					46
3-5	0.27	0.19	0.19	0.19					44
7 ft x 3 ft x 8 in.									
0<2	0.36	0.57	0.32	0.19	0.25	0.19	0.71	0.19	
2<3	0.33	0.29	0.30	0.19					44
3-5	0.23	0.21	0.21	0.19					42
7 ft x 4 ft x 8 in.									
0<2	0.34	0.61	0.37	0.19	0.27	0.19	0.70	0.19	
2<3	0.29	0.34	0.34	0.19					44
3-5	0.21	0.24	0.25	0.19					42
7 ft x 5 ft x 8 in.									
0<2	0.32	0.65	0.42	0.19	0.30	0.19	0.69	0.19	
2<3	0.26	0.37	0.38	0.19					49
3-5	0.19	0.27	0.28	0.19					46
7 ft x 6 ft x 8 in.									
0<2	0.29	0.69	0.46	0.19	0.32	0.19	0.67	0.19	
2<3	0.23	0.40	0.42	0.19					59
3-5	0.19	0.29	0.30	0.19					55
7 ft x 7 ft x 8 in.									
0<2	0.27	0.73	0.50	0.19	0.34	0.19	0.65	0.19	
2<3	0.21	0.43	0.45	0.19					59
3-5	0.19	0.31	0.33	0.19					59
8 ft x 2 ft x 8 in.									
0<2	0.47	0.50	0.29	0.19	0.23	0.19	0.61	0.19	
2<3	0.51	0.30	0.31	0.19					50
3-5	0.36	0.22	0.22	0.19					48

8 ft x 3 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.43	0.49	0.35	0.19	0.26	0.19	0.58	0.19	
2<3	0.45	0.36	0.37	0.19					48
3-5	0.32	0.26	0.27	0.19					45
8 ft x 4 ft x 8 in.									
0<2	0.40	0.52	0.40	0.19	0.29	0.19	0.57	0.19	
2<3	0.40	0.42	0.43	0.19					45
3-5	0.28	0.30	0.31	0.19					45
8 ft x 5 ft x 8 in.									
0<2	0.37	0.56	0.45	0.19	0.31	0.19	0.56	0.19	
2<3	0.36	0.46	0.47	0.19					48
3-5	0.26	0.33	0.34	0.19					45
8 ft x 6 ft x 8 in.									
0<2	0.34	0.61	0.49	0.19	0.33	0.19	0.56	0.19	
2<3	0.33	0.50	0.52	0.19					56
3-5	0.24	0.36	0.37	0.19					50
8 ft x 7 ft x 8 in.									
0<2	0.32	0.65	0.53	0.19	0.35	0.19	0.56	0.19	
2<3	0.30	0.53	0.56	0.19					65
3-5	0.22	0.38	0.40	0.19					61
8 ft x 8 ft x 8 in.									
0<2	0.30	0.69	0.57	0.19	0.36	0.19	0.55	0.19	
2<3	0.28	0.56	0.59	0.19					65
3-5	0.20	0.40	0.43	0.19					65
9 ft x 2 ft x 9 in.									
0<2	0.46	0.35	0.26	0.22	0.22	0.22	0.47	0.22	
2<3	0.58	0.32	0.32	0.22					55
3-5	0.41	0.23	0.23	0.22					52

9 ft x 3 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.42	0.35	0.32	0.22	0.23	0.22	0.47	0.22	
2<3	0.52	0.38	0.39	0.22					52
3-5	0.37	0.27	0.28	0.22					49
9 ft x 4 ft x 9 in.									
0<2	0.38	0.38	0.36	0.22	0.25	0.22	0.47	0.22	
2<3	0.47	0.44	0.45	0.22					52
3-5	0.33	0.31	0.32	0.22					49
9 ft x 5 ft x 9 in.									
0<2	0.35	0.41	0.41	0.22	0.28	0.22	0.47	0.22	
2<3	0.43	0.49	0.5	0.22					49
3-5	0.30	0.35	0.36	0.22					49
9 ft x 6 ft x 9 in.									
0<2	0.32	0.44	0.44	0.22	0.29	0.22	0.47	0.22	
2<3	0.39	0.53	0.54	0.22					55
3-5	0.28	0.38	0.39	0.22					52
9 ft x 7 ft x 9 in.									
0<2	0.30	0.46	0.48	0.22	0.31	0.22	0.45	0.22	
2<3	0.36	0.56	0.59	0.22					64
3-5	0.26	0.40	0.42	0.22					58
9 ft x 8 ft x 9 in.									
0<2	0.28	0.49	0.52	0.22	0.33	0.22	0.45	0.22	
2<3	0.33	0.60	0.63	0.22					72
3-5	0.24	0.43	0.45	0.22					72
9 ft x 9 ft x 9 in.									
0<2	0.27	0.51	0.55	0.22	0.34	0.22	0.45	0.22	
2<3	0.31	0.63	0.66	0.22					72
3-5	0.23	0.45	0.48	0.22					72

10 ft x 2 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.46	0.29	0.24	0.24	0.24	0.24	0.34	0.24	
2<3	0.66	0.33	0.34	0.24					59
3-5	0.46	0.24	0.24	0.24					59
10 ft x 3 ft x 10 in.									
0<2	0.44	0.33	0.30	0.24	0.24	0.24	0.24	0.24	
2<3	0.59	0.40	0.41	0.24					59
3-5	0.42	0.29	0.29	0.24					56
10 ft x 4 ft x 10 in.									
0<2	0.40	0.36	0.35	0.24	0.24	0.24	0.24	0.24	
2<3	0.54	0.46	0.47	0.24					56
3-5	0.38	0.33	0.34	0.24					52
10 ft x 5 ft x 10 in.									
0<2	0.37	0.39	0.39	0.24	0.26	0.24	0.24	0.24	
2<3	0.49	0.51	0.52	0.24					52
3-5	0.35	0.36	0.38	0.24					52
10 ft x 6 ft x 10 in.									
0<2	0.34	0.42	0.43	0.24	0.28	0.24	0.42	0.24	
2<3	0.45	0.55	0.57	0.24					56
3-5	0.33	0.40	0.41	0.24					52
10 ft x 7 ft x 10 in.									
0<2	0.32	0.44	0.46	0.24	0.30	0.24	0.24	0.24	
2<3	0.42	0.59	0.62	0.24					59
3-5	0.31	0.42	0.45	0.24					56
10 ft x 8 ft x 10 in.									
0<2	0.30	0.47	0.50	0.24	0.31	0.24	0.24	0.24	
2<3	0.39	0.63	0.66	0.24					75
3-5	0.29	0.45	0.48	0.24					66

10 ft x 9 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.28	0.49	0.53	0.24	0.33	0.24	0.24	0.24	
2<3	0.37	0.66	0.70	0.24					79
3-5	0.27	0.47	0.51	0.24					79
10 ft x 10 ft x 10 in.									
0<2	0.27	0.51	0.56	0.24	0.34	0.24	0.24	0.24	
2<3	0.35	0.69	0.74	0.24					79
3-5	0.26	0.5	0.54	0.24					79
11 ft x 2 ft x 11 in.									
0<2	0.50	0.27	0.26	0.26	0.26	0.26	0.26	0.26	
2<3	0.73	0.35	0.35	0.26					67
3-5	0.52	0.26	0.26	0.26					63
11 ft x 3 ft x 11 in.									
0<2	0.45	0.31	0.29	0.26	0.26	0.26	0.26	0.26	
2<3	0.67	0.42	0.43	0.26					63
3-5	0.47	0.30	0.31	0.26					60
11 ft x 4 ft x 11 in.									
0<2	0.41	0.34	0.33	0.26	0.26	0.26	0.26	0.26	
2<3	0.61	0.48	0.49	0.26					60
3-5	0.43	0.35	0.35	0.26					56
11 ft x 5 ft x 11 in.									
0<2	0.38	0.37	0.37	0.26	0.26	0.26	0.26	0.26	
2<3	0.56	0.53	0.54	0.26					56
3-5	0.40	0.38	0.39	0.26					56
11 ft x 6 ft x 11 in.									
0<2	0.35	0.40	0.40	0.26	0.26	0.26	0.26	0.26	
2<3	0.52	0.58	0.60	0.26					56
3-5	0.37	0.42	0.43	0.26					56

11 ft x 7 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.33	0.42	0.43	0.26	0.28	0.26	0.26	0.26	
2<3	0.48	0.62	0.64	0.26					60
3-5	0.35	0.44	0.47	0.26					56
11 ft x 8 ft x 11 in.									
0<2	0.31	0.45	0.47	0.26	0.30	0.26	0.26	0.26	
2<3	0.45	0.66	0.69	0.26					67
3-5	0.33	0.47	0.50	0.26					63
11 ft x 9 ft x 11 in.									
0<2	0.30	0.47	0.50	0.26	0.31	0.26	0.26	0.26	
2<3	0.43	0.69	0.73	0.26					85
3-5	0.31	0.49	0.53	0.26					70
11 ft x 10 ft x 11 in.									
0<2	0.28	0.49	0.53	0.26	0.33	0.26	0.26	0.26	
2<3	0.41	0.73	0.77	0.26					86
3-5	0.30	0.52	0.56	0.26					86
11 ft x 11 ft x 11 in.									
0<2	0.27	0.51	0.56	0.26	0.34	0.26	0.26	0.26	
2<3	0.39	0.76	0.81	0.26					86
3-5	0.29	0.55	0.59	0.26					86
12 ft x 2 ft x 12 in.									
0<2	0.51	0.29	0.29	0.29	0.29	0.29	0.29	0.29	
2<3	0.81	0.37	0.37	0.29					71
3-5	0.57	0.29	0.29	0.29					68
12 ft x 3 ft x 12 in.									
0<2	0.46	0.29	0.29	0.29	0.29	0.29	0.29	0.29	
2<3	0.74	0.44	0.44	0.29					68
3-5	0.53	0.32	0.32	0.29					64

12 ft x 4 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, in.
0<2	0.42	0.33	0.31	0.29	0.29	0.29	0.29	0.29	
2<3	0.68	0.50	0.51	0.29					64
3-5	0.49	0.36	0.37	0.29					60
12 ft x 5 ft x 12 in.									
0<2	0.39	0.35	0.34	0.29	0.29	0.29	0.29	0.29	
2<3	0.63	0.55	0.56	0.29					64
3-5	0.45	0.40	0.41	0.29					60
12 ft x 6 ft x 12 in.									
0<2	0.36	0.38	0.38	0.29	0.29	0.29	0.29	0.29	
2<3	0.59	0.60	0.62	0.29					60
3-5	0.42	0.44	0.45	0.29					56
12 ft x 7 ft x 11 in.									
0<2	0.34	0.41	0.42	0.29	0.29	0.29	0.29	0.29	
2<3	0.55	0.65	0.67	0.29					60
3-5	0.40	0.47	0.49	0.29					60
12 ft x 8 ft x 12 in.									
0<2	0.32	0.43	0.45	0.29	0.29	0.29	0.29	0.29	
2<3	0.52	0.69	0.72	0.29					67
3-5	0.38	0.50	0.52	0.29					64
12 ft x 9 ft x 12 in.									
0<2	0.30	0.45	0.47	0.29	0.29	0.29	0.29	0.29	
2<3	0.49	0.73	0.76	0.29					75
3-5	0.36	0.52	0.56	0.29					68
12 ft x 10 ft x 12 in.									
0<2	0.29	0.48	0.50	0.29	0.30	0.29	0.29	0.29	
2<3	0.46	0.76	0.80	0.29					93
3-5	0.34	0.55	0.59	0.29					79

12 ft x 11 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.29	0.50	0.53	0.29	0.32	0.29	0.29	0.29	
2<3	0.44	0.79	0.85	0.29					91
3-5	0.33	0.57	0.62	0.29					79
12 ft x 12 ft x 12 in.									
0<2	0.29	0.52	0.56	0.29	0.33	0.29	0.29	0.29	
2<3	0.43	0.83	0.89	0.29					93
3-5	0.32	0.60	0.65	0.29					93

0.9 m x 0.6 m x 102 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", mm
0<0.6*	360	2328	635	212	593	360	1947	296	
0.6<0.9	296	381	402	212					787
0.9-1.5	212	254	254	212					737
0.9 m x 0.9 m x 102 mm									
0<0.6*	360	2477	699	212	657	360	1947	296	
0.6<0.9	212	466	466	212					787
0.9-1.5	212	296	296	212					787
*top slab 178 mm, bottom slab 152 mm									
1.2 m x 0.6 m x 127 mm									
0<0.6*	445	1863	550	254	593	381	1884	296	
0.6<0.9	423	445	423	254					838
0.9-1.5	275	275	296	254					813
*top slab 191 mm, bottom slab 152 mm									
1.2 m x 0.9 m x 127 mm									
0<0.6*	381	2159	656	254	677	381	1842	296	
0.6<0.9	339	529	508	254					965
0.9-1.5	254	339	360	254					864
*top slab 191 mm, bottom slab 152 mm									

1.2 m x 1.2 m x 127 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", mm
0<0.6*	381	2286	720	254	720	381	1820	296	
0.6<0.9	275	593	572	254					965
0.9-1.5	254	381	402	254					965
*top slab 191 mm, bottom slab 152 mm									
1.5 m x 0.6 m x 152 mm									
0<0.6*	572	1334	487	296	508	402	402	360	
0.6<0.9	529	466	423	296					940
0.9-1.5	360	318	318	296					889
1.5 m x 0.9 m x 152 mm									
0<0.6*	423	1524	572	296	614	402	1503	360	
0.6<0.9	445	550	529	296					940
0.9-1.5	296	381	381	296					889
1.5 m x 1.2 m x 152 mm									
0<0.6*	402	1651	635	296	656	402	1482	360	
0.6<0.9	381	635	593	296					1143
0.9-1.5	296	423	445	296					1016
1.5 m x 1.5 m x 152 mm									
0<0.6*	402	1736	699	296	720	402	1461	360	
0.6<0.9	339	699	677	296					1143
0.9-1.5	296	466	487	296					1143
*top slab 203 mm, bottom slab 178 mm									
1.8 m x 0.6 m x 178 mm									
0<0.6*	699	1080	445	360	487	402	1291	360	
0.6<0.9	656	466	466	360					1067
0.9-1.5	466	360	360	360					1041
1.8 m x 0.9 m x 178 mm									
0<0.6*	572	1228	550	360	572	402	1228	360	
0.6<0.9	550	572	572	360					1041
0.9-1.5	381	402	423	360					991
*top slab 203 mm									

1.8 m x 1.2 m x 178 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", mm
0<0.6*	529	1355	635	360	635	402	1207	360	
0.6<0.9	487	656	656	360					1067
0.9-1.5	360	466	487	360					1041
1.8 m x 1.5 m x 178 mm									
0<0.6*	487	1439	699	360	677	402	1185	360	
0.6<0.9	423	720	741	360					1321
0.9-1.5	360	508	529	360					1219
1.8 m x 1.8 m x 178 mm									
0<0.6*	445	1524	783	360	720	402	1164	360	
0.6<0.9	381	783	804	360					1321
0.9-1.5	360	550	593	360					1321
*top slab 203 mm									
2.1 m x 0.6 m x 203 mm									
0<0.6	804	1270	550	402	466	402	1588	402	
0.6<0.9	804	508	508	402					1168
0.9-1.5	572	402	402	402					1118
2.1 m x 0.9 m x 203 mm									
0<0.6	762	1207	677	402	529	402	1503	402	
0.6<0.9	699	614	635	402					1118
0.9-1.5	487	445	445	402					1067
2.1 m x 1.2 m x 203 mm									
0<0.6	720	1291	783	402	572	402	1482	402	
0.6<0.9	614	720	720	402					1118
0.9-1.5	445	508	529	402					1067
2.1 m x 1.5 m x 203 mm									
0<0.6	677	1376	889	402	635	402	1461	402	
0.6<0.9	550	783	804	402					1245
0.9-1.5	402	572	593	402					1168

2.1 m x 1.8 m x 203 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, mm
0<0.6	614	1461	974	402	677	402	1418	402	
0.6<0.9	487	847	889	402					1499
0.9-1.5	402	614	635	402					1397
2.1 m x 2.1 m x 203 mm									
0<0.6	572	1545	1058	402	720	402	1376	402	
0.6<0.9	445	910	953	402					1499
0.9-1.5	402	656	699	402					1499
2.4 m x 0.6 m x 203 mm									
0<0.6	995	1058	614	402	487	402	1291	402	
0.6<0.9	1080	635	656	402					1270
0.9-1.5	762	466	466	402					1219
2.4 m x 0.9 m x 203 mm									
0<0.6	910	1037	741	402	550	402	1228	402	
0.6<0.9	953	762	783	402					1219
0.9-1.5	677	550	572	402					1143
2.4 m x 1.2 m x 203 mm									
0<0.6	847	1101	847	402	614	402	1207	402	
0.6<0.9	847	889	910	402					1143
0.9-1.5	593	635	656	402					1143
2.4 m x 1.5 m x 203 mm									
0<0.6	783	1185	953	402	656	402	1185	402	
0.6<0.9	762	974	995	402					1219
0.9-1.5	550	699	720	402					1143
2.4 m x 1.8 m x 203 mm									
0<0.6	720	1291	1037	402	699	402	1185	402	
0.6<0.9	699	1058	1101	402					1422
0.9-1.5	508	762	783	402					1270

2.4 m x 2.1 m x 203 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", mm
0<0.6	677	1376	1122	402	741	402	1185	402	
0.6<0.9	635	1122	1185	402					1651
0.9-1.5	466	804	847	402					1549
2.4 m x 2.4 m x 203 mm									
0<0.6	635	1461	1207	402	762	402	1164	402	
0.6<0.9	593	1185	1249	402					1651
0.9-1.5	423	847	910	402					1651
2.7 m x 0.6 m x 229 mm									
0<0.6	974	741	550	466	466	466	995	466	
0.6<0.9	1228	677	677	466					1397
0.9-1.5	868	487	487	466					1321
2.7 m x 0.9 m x 229 mm									
0<0.6	889	741	677	466	487	466	995	466	
0.6<0.9	1101	804	826	466					1321
0.9-1.5	783	572	593	466					1245
2.7 m x 1.2 m x 229 mm									
0<0.6	804	804	762	466	529	466	998	466	
0.6<0.9	995	931	953	466					1321
0.9-1.5	699	656	677	466					1245
2.7 m x 1.5 m x 229 mm									
0<0.6	741	868	868	466	593	466	995	466	
0.6<0.9	910	1037	1058	466					1245
0.9-1.5	635	741	762	466					1245
2.7 m x 1.8 m x 229 mm									
0<0.6	677	931	931	466	614	466	995	466	
0.6<0.9	826	1122	1143	466					1397
0.9-1.5	593	804	826	466					1321

2.7 m x 2.1 m x 229 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, mm
0<0.6	635	974	1016	466	656	466	953	466	
0.6<0.9	762	1185	1249	466					1626
0.9-1.5	550	847	889	466					1473
2.7 m x 2.4 m x 229 mm									
0<0.6	593	1037	1101	466	699	466	953	466	
0.6<0.9	699	1270	1334	466					1829
0.9-1.5	508	910	953	466					1829
2.7 m x 2.7 m x 229 mm									
0<0.6	572	1080	1164	466	720	466	953	466	
0.6<0.9	656	1334	1397	466					1829
0.9-1.5	487	953	1016	466					1829
3 m x 0.6 m x 254 mm									
0<0.6	974	614	508	508	508	508	720	508	
0.6<0.9	1397	699	720	508					1499
0.9-1.5	974	508	508	508					1499
3 m x 0.9 m x 254 mm									
0<0.6	931	699	635	508	508	508	508	508	
0.6<0.9	1249	847	868	508					1499
0.9-1.5	889	614	618	508					1422
3 m x 1.2 m x 254 mm									
0<0.6	847	762	741	508	508	508	508	508	
0.6<0.9	1143	974	995	508					1422
0.9-1.5	804	699	720	508					1321
3 m x 1.5 m x 254 mm									
0<0.6	783	826	826	508	550	508	508	508	
0.6<0.9	1037	1080	1101	508					1321
0.9-1.5	741	762	804	508					1321

3 m x 1.8 m x 254 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", mm
0<0.6	720	889	910	508	593	508	889	508	
0.6<0.9	952	1164	1207	508					1422
0.9-1.5	699	847	868	508					1321
3 m x 2.1 m x 254 mm									
0<0.6	677	931	974	508	635	508	508	508	
0.6<0.9	889	1249	1312	508					1499
0.9-1.5	656	889	953	508					1422
3 m x 2.4 m x 254 mm									
0<0.6	635	995	1058	508	656	508	508	508	
0.6<0.9	826	1334	1397	508					1905
0.9-1.5	614	953	1016	508					1676
3 m x 2.7 m x 254 mm									
0<0.6	593	1037	1122	508	699	508	508	508	
0.6<0.9	783	1397	1482	508					2007
0.9-1.5	572	995	1080	508					2007
3 m x 3 m x 254 mm									
0<0.6	572	1080	1185	508	720	508	508	508	
0.6<0.9	741	1461	1566	508					2007
0.9-1.5	550	1058	1143	508					2007
3.4 m x 0.6 m x 279 mm									
0<0.6	1058	572	550	550	550	550	550	550	
0.6<0.9	1545	741	741	550					1702
0.9-1.5	1101	550	550	550					1600
3.4 m x 0.9 m x 279 mm									
0<0.6	953	656	614	550	550	550	550	550	
0.6<0.9	1418	889	910	550					1600
0.9-1.5	995	635	656	550					1524

3.4 m x 1.2 m x 279 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	“M”, mm
0<0.6	868	720	699	550	550	550	550	550	
0.6<0.9	1291	1016	1037	550					1524
0.9-1.5	910	741	741	550					1422
3.4 m x 1.5 m x 279 mm									
0<0.6	804	783	783	550	550	550	550	550	
0.6<0.9	1185	1122	1143	550					1422
0.9-1.5	847	804	826	550					1422
3.4 m x 1.8 m x 279 mm									
0<0.6	741	847	847	550	550	550	550	550	
0.6<0.9	1101	1228	1270	550					1422
0.9-1.5	783	889	910	550					1422
3.4 m x 2.1 m x 279 mm									
0<0.6	699	889	910	550	593	550	550	550	
0.6<0.9	1016	1312	1355	550					1524
0.9-1.5	741	931	995	550					1422
3.4 m x 2.4 m x 279 mm									
0<0.6	656	953	995	550	635	550	550	550	
0.6<0.9	953	1397	1461	550					1702
0.9-1.5	699	995	1058	550					1600
3.4 m x 2.7 m x 279 mm									
0<0.6	635	995	1058	550	656	550	550	550	
0.6<0.9	910	1461	1545	550					2159
0.9-1.5	656	1037	1122	550					1778
3.4 m x 3 m x 279 mm									
0<0.6	593	1037	1122	550	699	550	550	550	
0.6<0.9	868	1545	1630	550					2184
0.9-1.5	635	1101	1185	550					2184

3.4 m x 3.4 m x 279 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", mm
0<0.6	572	1080	1185	550	720	550	550	550	
0.6<0.9	826	1609	1715	550					2184
0.9-1.5	614	1164	1249	550					2184
3.7 m x 0.6 m x 305 mm									
0<0.6	1080	614	614	614	614	614	614	614	
0.6<0.9	1715	783	783	614					1803
0.9-1.5	1207	614	614	614					1727
3.7 m x 0.9 m x 305 mm									
0<0.6	974	614	614	614	614	614	614	614	
0.6<0.9	1566	931	931	614					1727
0.9-1.5	1122	677	677	614					1626
3.7 m x 1.2 m x 305 mm									
0<0.6	889	699	656	614	614	614	614	614	
0.6<0.9	1439	1058	1080	614					1626
0.9-1.5	1037	762	783	614					1524
3.7 m x 1.5 m x 305 mm									
0<0.6	826	741	720	614	614	614	614	614	
0.6<0.9	1334	1164	1185	614					1626
0.9-1.5	953	847	868	614					1524
3.7 m x 1.8 m x 305 mm									
0<0.6	762	804	804	614	614	614	614	614	
0.6<0.9	1249	1270	1312	614					1524
0.9-1.5	889	931	953	614					1422
3.7 m x 2.1 m x 305 mm									
0<0.6	720	868	889	614	614	614	614	614	
0.6<0.9	1164	1376	1418	614					1524
0.9-1.5	847	995	1037	614					1524

3.7 m x 2.4 m x 305 mm									
Design Earth Cover, m	Circumferential Reinforcement Areas, sq mm/ m								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", mm
0<0.6	677	910	953	614	614	614	614	614	
0.6<0.9	1101	1461	1524	614					1702
0.9-1.5	804	1058	1101	614					1626
3.7 m x 2.7 m x 305 mm									
0<0.6	635	953	995	614	614	614	614	614	
0.6<0.9	1037	1545	1609	614					1905
0.9-1.5	762	1101	1185	614					1727
3.7 m x 3 m x 305 mm									
0<0.6	614	1016	1058	614	635	614	614	614	
0.6<0.9	974	1609	1693	614					2362
0.9-1.5	720	1164	1249	614					2007
3.7 m x 3.4 m x 305 mm									
0<0.6	614	1058	1122	614	677	614	614	614	
0.6<0.9	931	1672	1799	614					2311
0.9-1.5	699	1207	1312	614					2007
3.7 m x 3.7 m x 305 mm									
0<0.6	614	1101	1185	614	699	614	614	614	
0.6<0.9	910	1757	1884	614					2362
0.9-1.5	677	1270	1376	614					2362"

540.07 Method of Measurement. Revise the last sentence of the third paragraph of Article 540.07(b) to read:

"End sections will be measured for payment as each, with each end of each culvert being one each. For multi-cell box culverts, end sections will be measured for payment as each, with each cell of each end of culvert being one each."

Add the following between the third and fourth paragraphs of Article 540.07(b):

"Traversable pipe grate will be measured for payment according to Article 542.11."

540.08 Basis of Payment. Add the following between the fifth and sixth paragraphs of Article 540.08:

"Traversable pipe grate will be paid for according to Article 542.12."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 542. PIPE CULVERTS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

542.01 Description. Revise the first paragraph of this Article to read:

"This work shall consist of furnishing and installing pipe culverts and appurtenances."

542.02 Materials. Add the following to this Article:

"(ee) Structural Steel 1006.04
(ff) High Strength Steel Bolts, Nuts, Washers 1006.08
(gg) Anchor Bolts and Rods 1006.09
(hh) Chemical Adhesive Resin System ..... 1027"

542.03 Material Permitted. Replace Tables IIIA and IIIB of this Article with the following:

(SEE TABLES ON NEXT 4 PAGES)

"PIPE CULVERTS
TABLE IIIA: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nominal Diameter (in.)	Type 1					Type 2					Type 3				
	Fill Height: ≤ 3' with 1' min					Fill Height: > 3' to 10'					Fill Height: > 10' to 15'				
	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP
10	X	PQSS	X	PQSS	NA	X	PQSS	X	PQSS	NA	X	PQSS	X	PQSS	NA
12	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
15	X	PQSS	NA	PQSS	PQSS	X	PQSS	NA	PQSS	PQSS	X	PQSS	NA	PQSS	PQSS
18	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
21	X	PQSS	NA	PQSS	NA	X	PQSS	NA	PQSS	NA	X	PQSS	NA	PQSS	NA
24	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
27	X	NA	NA	NA	NA	X	NA	NA	NA	NA	X	NA	NA	NA	NA
30	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
36	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
42	X	NA	X	PQSS	PQSS	X	NA	X	PQSS	PQSS	X	NA	X	NA	PQSS
48	X	NA	X	PQSS	PQSS	X	NA	X	PQSS	PQSS	X	NA	X	NA	PQSS
54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
60	NA	NA	NA	PQSS	PQSS	NA	NA	NA	PQSS	PQSS	NA	NA	NA	NA	PQSS

Notes:
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
PE Polyethylene Pipe
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable

PIPE CULVERTS (metric)
TABLE IIIA: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nominal Diameter (mm)	Type 1					Type 2					Type 3				
	Fill Height: ≤ 1 m with 0.3 m min.					Fill Height: > 1 m to 3 m					Fill Height: > 3 m to 4.5 m				
	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP
250	X	PQSS	X	PQSS	NA	X	PQSS	X	PQSS	NA	X	PQSS	X	PQSS	NA
300	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
375	X	PQSS	NA	PQSS	PQSS	X	PQSS	NA	PQSS	PQSS	X	PQSS	NA	PQSS	PQSS
450	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
525	X	PQSS	NA	PQSS	NA	X	PQSS	NA	PQSS	NA	X	PQSS	NA	PQSS	NA
600	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
675	X	NA	NA	NA	NA	X	NA	NA	NA	NA	X	NA	NA	NA	NA
750	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
900	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS
1050	X	NA	X	PQSS	PQSS	X	NA	X	PQSS	PQSS	X	NA	X	NA	PQSS
1200	X	NA	X	PQSS	PQSS	X	NA	X	PQSS	PQSS	X	NA	X	NA	PQSS
1350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1500	NA	NA	NA	PQSS	PQSS	NA	NA	NA	PQSS	PQSS	NA	NA	NA	NA	PQSS

Notes:
- PVC Polyvinyl Chloride Pipe
- CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
- PE Polyethylene Pipe
- CPE Corrugated Polyethylene Pipe with a Smooth Interior
- CPP Corrugated Polypropylene Pipe with a Smooth Interior
- X Permitted
- PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
- NA Not Acceptable

PIPE CULVERTS
TABLE IIIB: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nominal Diameter (in.)	Type 4					Type 5					Type 6			Type 7		
	Fill Height: > 15' to 20'					Fill Height: > 20' to 25'					Fill Height: > 25' to 30'			Fill Height: > 30' to 35'		
	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	PVC	CPVC	PE
10	X	PQSS	X	PQSS	NA	X	PQSS	X	PQSS	NA	X	PQSS	X	X	PQSS	X
12	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	X	PQSS	X
15	X	PQSS	NA	PQSS	PQSS	X	PQSS	NA	NA	PQSS	X	PQSS	NA	X	PQSS	NA
18	X	PQSS	X	PQSS	PQSS	X	PQSS	X	NA	NA	X	PQSS	X	X	PQSS	X
21	X	PQSS	NA	NA	NA	X	PQSS	NA	NA	NA	X	PQSS	NA	X	PQSS	NA
24	X	PQSS	X	NA	PQSS	X	PQSS	X	NA	NA	X	PQSS	X	X	PQSS	X
27	X	NA	NA	NA	NA	X	NA	NA	NA	NA	X	NA	NA	X	NA	NA
30	X	PQSS	X	NA	PQSS	X	PQSS	X	NA	PQSS	X	PQSS	X	X	PQSS	X
36	X	PQSS	X	NA	PQSS	X	PQSS	X	NA	NA	X	PQSS	X	X	PQSS	X
42	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	X	NA	X
48	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	X	NA	X
54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable

PIPE CULVERTS (metric)
TABLE IIIB: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nominal Diameter (mm)	Type 4					Type 5					Type 6			Type 7		
	Fill Height: > 4.5 m to 6 m					Fill Height: > 6 m to 7.5 m					Fill Height: > 7.5 m to 9 m			Fill Height: > 9 m to 10.5 m		
	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	PVC	CPVC	PE
250	X	PQSS	X	PQSS	NA	X	PQSS	X	PQSS	NA	X	PQSS	X	X	PQSS	X
300	X	PQSS	X	PQSS	PQSS	X	PQSS	X	PQSS	PQSS	X	PQSS	X	X	PQSS	X
375	X	PQSS	NA	PQSS	PQSS	X	PQSS	NA	NA	PQSS	X	PQSS	NA	X	PQSS	NA
450	X	PQSS	X	PQSS	PQSS	X	PQSS	X	NA	NA	X	PQSS	X	X	PQSS	X
525	X	PQSS	NA	NA	NA	X	PQSS	NA	NA	NA	X	PQSS	NA	X	PQSS	NA
600	X	PQSS	X	NA	PQSS	X	PQSS	X	NA	NA	X	PQSS	X	X	PQSS	X
675	X	NA	NA	NA	NA	X	NA	NA	NA	NA	X	NA	NA	X	NA	NA
750	X	PQSS	X	NA	PQSS	X	PQSS	X	NA	PQSS	X	PQSS	X	X	PQSS	X
900	X	PQSS	X	NA	PQSS	X	PQSS	X	NA	NA	X	PQSS	X	X	PQSS	X
1000	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	X	NA	X
1200	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	X	NA	X
1350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable"

542.07 End Treatment. Revise Article 542.07 to read:

"**542.07 End Treatment.** When an end treatment is required, it will be shown on the plans. When a particular type of end treatment is specified, only that type shall be used.

When the pipe is at a 15 degree skew or less with the roadway, the diameter is 84 in. (2100 mm) or less, and an end treatment is required but the type of treatment is not specified on the plans, the Contractor shall have the option of using either a cast-in-place reinforced concrete end section or a prefabricated end section of precast reinforced concrete or metal. When a prefabricated end section is used, it shall be of the same material as the pipe culvert, except for polyethylene (PE), polyvinylchloride (PVC), and polypropylene (PP) pipes which shall have metal end sections.

(a) Concrete End Sections. Concrete end sections shall be constructed according to the details shown on the plans in addition to the following. Concrete end sections may be precast or cast-in-place construction. Toe walls shall be either precast or cast-in-place, and shall be in proper position and backfilled according to the applicable paragraphs of Article 502.10 prior to the installation of the concrete end sections. If soil conditions permit, cast-in-place toe walls may be poured directly against the soil. When poured directly against the soil, the clear cover of the sides and bottom of the toe wall shall be increased to 3 in. (75 mm) by increasing the thickness of the toe wall.

(1) Cast-In-Place Reinforced Concrete End Section. Cast-in-place concrete end sections shall be constructed of Class SI concrete according to Section 503, except the 14-day mix design shall have a compressive strength of 5000 psi (34,500 kPa) or a flexural strength of 800 psi (5500 kPa) and a minimum cement factor of 6.65 cwt/cu yd (395 kg/cu m).

(2) Precast Reinforced Concrete End Section. Precast concrete end sections shall be according to Articles 1042.02 and 1042.03, except the concrete shall have a minimum compressive strength of 5000 psi (34,000 kPa) at 28 days.

Joints between precast sections shall be produced with reinforced tongue and groove ends according to the requirements of ASTM C 1577.

The granular bedding placed below the precast end section shall be gradation CA 6, CA 9, CA 10, CA 12, CA 17, CA 18, or CA 19.

All components of the culvert tie detail shall be structural steel and galvanized according to AASHTO M 111 or M 232, as applicable. Anchor rods for the culvert ties shall be according to ASTM F 1554, Grade 105 (Grade 725). Anchor rods connecting precast sections shall be brought to a snug tight condition as per Article 505.04(f)(2)d. followed by an additional 2/3 turn on one of the nuts.

When individual, precast end sections are placed side-by-side for a multi-pipe culvert installation, a 3 in. (75 mm) space shall be left between adjacent end section walls and the space(s) filled with Class SI concrete.

(3) Precast Reinforced Concrete Flared End Section. End blocks shall be either precast or cast in place, and shall be in proper position and backfilled according to the applicable paragraphs of Article 502.10 prior to the installation of the precast reinforced concrete flared end sections.

(4) Traversable Pipe Grate for Concrete End Section. Traversable pipe grate for concrete end section shall be fabricated of structural steel according to Section 505. All steel pipe shall be according to ASTM A 53 (Type E or S), Grade B, or ASTM A 500 Grade B, standard weight Schedule 40. Structural steel shapes and plates shall be according to AASHTO M 270 Grade 50 (M 270M Grade 345). All steel components of the grating system shall be galvanized according to AASHTO M 111 or M 232. Anchor rods shall be according to ASTM F 1554, Grade 36 (Grade 250). Threaded rods conforming to the requirements of ASTM F 1554, Grade 105 (Grade 725) may be used for the thru bolts.

Splicing of pipes shall be made by utilizing full penetration butt welds according to Article 505.04(q). In lieu of welding, bolted or sleeve type splices may be utilized, provided the splices are located over intermediate supports with no more than one splice per pipe run with the exception that no splice may occur in pipe runs under 30 ft (9 m) in length.

(b) Metal End Sections. Metal end sections shall be constructed as shown on the plans in addition to the following. Assembly, hardware, and rods shall be according to the manufacturer's specifications.

(1) Metal Flared End Section. Metal flared end sections shall be fabricated of aluminum or steel, and all component parts shall be of the same material. When steel end sections are used, the base metal, rivets and spelter coating shall be according to AASHTO M 36 (M 36M). When aluminum end sections are used, the material shall be according to AASHTO M 196 (M 196M). Toe plates shall be furnished and the metal thickness shall be the same as that used in the end section.

All 3-piece bodies shall have 0.109 in. (2.77 mm) sides and 0.138 in. (3.51 mm) center panels. Width of center panels shall be greater than 20 percent of the pipe periphery. Multiple panel bodies shall have lap seams which shall be tightly jointed with 3/8 in. (M10) rivets or bolts.

(2) Sloped Metal End Section. Sloped metal end sections shall be fabricated of steel and all component parts shall be of the same material. The base metal, bolts, and spelter coating shall be according to AASHTO M 36 (M 36M). Toe plates shall be furnished and the metal thickness shall be the same as that used in the end section.

(3) Traversable Pipe Grate for Sloped Metal End Section. Traversable pipe grate components for sloped metal end sections shall be according to ASTM A 53, (Type E or S), Grade B, or ASTM A 500 Grade B, standard weight Schedule 40. All steel components of the grating system shall be galvanized according to AASHTO M 111 or M 232, as applicable.

(c) Inlet Boxes, General. Inlet boxes shall be constructed as shown on the plans and shall be either cast-in-place or precast units.

When inlet boxes are cast-in-place, they shall be constructed of Class SI concrete according to the applicable requirements of Section 503.

When precast units are used, they shall be fabricated according to Article 1042.08. A 3 in. (75 mm) deep bedding of aggregate shall be provided under the full width and length of the unit.

For both cast-in-place and precast units, the lap length of reinforcement bars shall be 13 in. (325 mm) and exposed edges of concrete shall be beveled 3/4 in. (19 mm).

Excavation and backfill shall be performed according to the applicable portions of Section 502. All voids around the pipe entrance, both inside and out, shall be sealed with mortar.

(1) Inlet Box, Standards 542501, 542506, 542511, 542516, 542521, 542536, and 542541. Galvanized steel pipe shall meet the requirements of ASTM A 53, Grade B, Schedule 40. Galvanized U-bolts, nuts, and washers shall meet the requirements of Article 1006.27(f). Structural steel plates shall be galvanized according to AASHTO M 111 after fabrication.

(2) Inlet Box, Standards 542526, 542531, and 542546. Grating and frames shall be steel or cast grating fabricated according to the details shown on the plans and shall be approved by the Engineer. Structural steel grating and frames shall be galvanized according to requirements of AASHTO M 111 after fabrication. Cast grating shall be according to Article 1006.15, Grade 60-40-18, or to Article 1006.14. Cast frames shall be according to Article 1006.14. Cast grating and frames shall not be galvanized.

Either steel frames and grating or cast frames and grating may be used at the Contractor's option, but steel frames with cast grating or cast frames with steel grating will not be permitted.

Pressure lock type steel grating and riveted steel grating with reticuline bars will be accepted for galvanizing according to the requirements of AASHTO M 111.

Steel grating shall seat firmly in the frame but shall not be secured to the frame. The grating shall be cut in such manner that all riveted or welded connections are left intact. The edges of the main bearing bars shall be laterally supported by transverse bars. Grating shall be

approved by the Engineer. All welding shall be done according to the applicable requirements of Section 505, and shall be done before galvanizing.

a. Standards 542526 and 542531. The steel grating shall have the main bearing bars running perpendicular to the centerline of the inlet box. The main bearing bars shall have a minimum section modulus of 3.29 cu in./ft (176,900 cu mm/m) width of grating. The cross sectional shape shall be rectangular or a modified "I" but shall not have any flanges which would retain trash. The length and width of the grating shall be such as to leave no more than 5/8 in. (16 mm) clearance on either side when placed in the frame.

b. Standard 542546. The steel grating shall have the main bearing bars running parallel to the centerline of the median. The main bearing bars shall be as specified or shall be 3 1/2 in. (89 mm) in depth and have a minimum section modulus of 3.78 cu in./ft (203,200 cu mm/m) width of grating with a maximum spacing of 2 in. (50 mm) center-to-center."

542.11 Method of Measurement. Add the following to the end of Article 542.11:

"End sections will be measured for payment as each, with each end of each culvert being one each.

Traversable pipe grates 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."

542.12 Basis of Payment. Add the following to the end of Article 542.12:

"When specified on the plans, sloped metal end section with or without grate will be paid for at the contract unit price per each for SLOPED METAL END SECTION, STANDARD 542411, SLOPED METAL END SECTION WITH GRATE, STANDARD 542411, SLOPED METAL END SECTION, STANDARD 542416, or SLOPED METAL END SECTION WITH GRATE, STANDARD 542416, of the pipe diameter and slope specified.

When the Contractor has the option of using either cast-in-place or precast concrete end sections, the work will be paid for at the contract unit price per each for CONCRETE END SECTION, STANDARD 542001 or CONCRETE END SECTION, 542011, of the pipe diameter and slope specified.

Traversable pipe grates will be paid for at the contract unit price per foot (meter) for TRAVERSABLE PIPE GRATE FOR CONCRETE END SECTION."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 550. STORM SEWERS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

550.03 Material Permitted. Replace the storm sewer tables of this Article with the following:

(SEE TABLES ON NEXT 6 PAGES)

"STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter (in.)	Type 1								Type 2							
	Fill Height: ≤ 3' with 1' min.								Fill Height: > 3' to 10'							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
10	NA	3	X	X	PQSS	X	PQSS	NA	NA	1	*X	X	PQSS	X	PQSS	NA
12	IV	NA	X	X	PQSS	X	PQSS	PQSS	II	1	*X	X	PQSS	X	PQSS	PQSS
15	IV	NA	NA	X	PQSS	NA	PQSS	PQSS	II	1	*X	X	PQSS	NA	PQSS	PQSS
18	IV	NA	NA	X	PQSS	X	PQSS	PQSS	II	2	X	X	PQSS	X	PQSS	PQSS
21	III	NA	NA	X	PQSS	NA	PQSS	NA	II	2	X	X	PQSS	NA	PQSS	NA
24	III	NA	NA	X	PQSS	X	PQSS	PQSS	II	2	X	X	PQSS	X	PQSS	PQSS
27	III	NA	NA	X	NA	NA	NA	NA	II	3	X	X	NA	NA	NA	NA
30	IV	NA	NA	X	PQSS	X	PQSS	PQSS	II	3	X	X	PQSS	X	PQSS	PQSS
33	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
36	III	NA	NA	X	PQSS	X	PQSS	PQSS	II	NA	X	X	PQSS	X	PQSS	PQSS
42	II	NA	X	X	NA	X	PQSS	PQSS	II	NA	X	X	NA	X	PQSS	PQSS
48	II	NA	X	X	NA	X	PQSS	PQSS	II	NA	X	X	NA	X	PQSS	PQSS
54	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
60	II	NA	NA	NA	NA	NA	PQSS	PQSS	II	NA	NA	NA	NA	NA	PQSS	PQSS
66	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
72	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
78	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
84	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
90	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
96	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
102	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
108	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP Concrete Sewer, Storm drain, and Culvert Pipe (number in column indicates strength class)
ESCP Extra Strength Clay Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
PE Polyethylene Pipe
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable
* May also use Standard Strength Clay Pipe

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter (mm)	Type 1								Type 2							
	Fill Height: ≤ 1 m with 300 mm min.								Fill Height: > 1 m to 3 m							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
250	NA	3	X	X	PQSS	X	PQSS	NA	NA	1	*X	X	PQSS	X	PQSS	NA
300	IV	NA	X	X	PQSS	X	PQSS	PQSS	II	1	*X	X	PQSS	X	PQSS	PQSS
375	IV	NA	NA	X	PQSS	NA	PQSS	PQSS	II	1	*X	X	PQSS	NA	PQSS	PQSS
450	IV	NA	NA	X	PQSS	X	PQSS	PQSS	II	2	X	X	PQSS	X	PQSS	PQSS
525	III	NA	NA	X	PQSS	NA	PQSS	NA	II	2	X	X	PQSS	NA	PQSS	NA
600	III	NA	NA	X	PQSS	X	PQSS	PQSS	II	2	X	X	PQSS	X	PQSS	PQSS
675	III	NA	NA	X	NA	NA	NA	NA	II	3	X	X	NA	NA	NA	NA
750	IV	NA	NA	X	PQSS	X	PQSS	PQSS	II	3	X	X	PQSS	X	PQSS	PQSS
825	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
900	III	NA	NA	X	PQSS	X	PQSS	PQSS	II	NA	X	X	PQSS	X	PQSS	PQSS
1050	II	NA	X	X	NA	X	PQSS	PQSS	II	NA	X	X	NA	X	PQSS	PQSS
1200	II	NA	X	X	NA	X	PQSS	PQSS	II	NA	X	X	NA	X	PQSS	PQSS
1350	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1500	II	NA	NA	NA	NA	NA	PQSS	PQSS	II	NA	NA	NA	NA	NA	PQSS	PQSS
1650	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1800	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1950	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2100	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2250	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2400	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2550	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2700	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP Concrete Sewer, Storm drain, and Culvert Pipe (number in column indicates strength class)
ESCP Extra Strength Clay Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
PE Polyethylene Pipe
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable
* May also use Standard Strength Clay Pipe

STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter (in.)	Type 3								Type 4							
	Fill Height: > 10' to 15'								Fill Height: > 15' to 20'							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
10	NA	2	X	X	PQSS	X	PQSS	NA	NA	3	X	X	PQSS	X	PQSS	NA
12	III	2	X	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	PQSS	PQSS
15	III	3	X	X	PQSS	NA	PQSS	PQSS	IV	NA	NA	X	PQSS	NA	PQSS	PQSS
18	III	NA	X	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	PQSS	PQSS
21	III	NA	NA	X	PQSS	NA	PQSS	NA	IV	NA	NA	X	PQSS	NA	NA	NA
24	III	NA	NA	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	NA	PQSS
27	III	NA	NA	X	NA	NA	NA	NA	IV	NA	NA	X	NA	NA	NA	NA
30	III	NA	NA	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	NA	PQSS
33	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
36	III	NA	NA	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	NA	PQSS
42	III	NA	NA	X	NA	X	NA	PQSS	IV	NA	NA	X	NA	X	NA	NA
48	III	NA	NA	X	NA	X	NA	PQSS	IV	NA	NA	X	NA	X	NA	NA
54	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
60	III	NA	NA	NA	NA	NA	NA	PQSS	IV	NA	NA	NA	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	1680	NA	NA	NA	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	1690	NA	NA	NA	NA	NA	NA	NA
102	III	NA	NA	NA	NA	NA	NA	NA	1700	NA	NA	NA	NA	NA	NA	NA
108	1360	NA	NA	NA	NA	NA	NA	NA	1710	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.)
CSP Concrete Sewer, Storm drain, and Culvert Pipe (number in column indicates strength class)
ESCP Extra Strength Clay Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
PE Polyethylene Pipe
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter (mm)	Type 3								Type 4							
	Fill Height: > 3 m to 4.5 m								Fill Height: > 4.5 m to 6 m							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
250	NA	2	X	X	PQSS	X	PQSS	NA	NA	3	X	X	PQSS	X	PQSS	NA
300	III	2	X	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	PQSS	PQSS
375	III	3	X	X	PQSS	NA	PQSS	PQSS	IV	NA	NA	X	PQSS	NA	PQSS	PQSS
450	III	NA	X	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	PQSS	PQSS
525	III	NA	NA	X	PQSS	NA	PQSS	NA	IV	NA	NA	X	PQSS	NA	NA	NA
600	III	NA	NA	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	NA	PQSS
675	III	NA	NA	X	NA	NA	NA	NA	IV	NA	NA	X	NA	NA	NA	NA
750	III	NA	NA	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	NA	PQSS
825	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
900	III	NA	NA	X	PQSS	X	PQSS	PQSS	IV	NA	NA	X	PQSS	X	NA	PQSS
1050	III	NA	NA	X	NA	X	NA	PQSS	IV	NA	NA	X	NA	X	NA	NA
1200	III	NA	NA	X	NA	X	NA	PQSS	IV	NA	NA	X	NA	X	NA	NA
1350	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
1500	III	NA	NA	NA	NA	NA	NA	PQSS	IV	NA	NA	NA	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA
2550	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA
2700	70	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 25.4 micro-meter crack.)
CSP Concrete Sewer, Storm drain, and Culvert Pipe (number in column indicates strength class)
ESCP Extra Strength Clay Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
PE Polyethylene Pipe
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter (in.)	Type 5						Type 6				Type 7			
	Fill Height: > 20' to 25'						Fill Height: > 25' to 30'				Fill Height: > 30' to 35'			
	RCCP	PVC	CPVC	PE	CPE	CPP	RCCP	PVC	CPVC	PE	RCCP	PVC	CPVC	PE
10	NA	X	PQSS	X	PQSS	NA	NA	X	PQSS	X	NA	X	PQSS	X
12	IV	X	PQSS	X	PQSS	PQSS	V	X	PQSS	X	V	X	PQSS	X
15	IV	X	PQSS	NA	NA	PQSS	V	X	PQSS	NA	V	X	PQSS	NA
18	IV	X	PQSS	X	NA	NA	V	X	PQSS	X	V	X	PQSS	X
21	IV	X	PQSS	NA	NA	NA	V	X	PQSS	NA	V	X	PQSS	NA
24	IV	X	PQSS	X	NA	NA	V	X	PQSS	X	V	X	PQSS	X
27	IV	X	NA	NA	NA	NA	V	X	NA	NA	V	X	NA	NA
30	IV	X	PQSS	X	NA	PQSS	V	X	PQSS	X	V	X	PQSS	X
33	IV	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
36	IV	X	PQSS	X	NA	NA	V	X	PQSS	X	V	X	PQSS	X
42	IV	X	NA	X	NA	NA	V	X	NA	X	V	X	NA	X
48	IV	X	NA	X	NA	NA	V	X	NA	X	V	X	NA	X
54	IV	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
60	IV	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
66	IV	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
72	V	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
78	2020	NA	NA	NA	NA	NA	2370	NA	NA	NA	2730	NA	NA	NA
84	2020	NA	NA	NA	NA	NA	2380	NA	NA	NA	2740	NA	NA	NA
90	2030	NA	NA	NA	NA	NA	2390	NA	NA	NA	2750	NA	NA	NA
96	2040	NA	NA	NA	NA	NA	2400	NA	NA	NA	2750	NA	NA	NA
102	2050	NA	NA	NA	NA	NA	2410	NA	NA	NA	2760	NA	NA	NA
108	2060	NA	NA	NA	NA	NA	2410	NA	NA	NA	2770	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.)
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
PE Polyethylene Pipe
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter (mm)	Type 5						Type 6				Type 7			
	Fill Height: > 6 m to 7.5 m						Fill Height: > 7.5 m to 9 m				Fill Height: > 9 m to 10.5 m			
	RCCP	PVC	CPVC	PE	CPE	CPP	RCCP	PVC	CPVC	PE	RCCP	PVC	CPVC	PE
250	NA	X	PQSS	X	PQSS	NA	NA	X	PQSS	X	NA	X	PQSS	X
300	IV	X	PQSS	X	PQSS	PQSS	V	X	PQSS	X	V	X	PQSS	X
375	IV	X	PQSS	NA	NA	PQSS	V	X	PQSS	NA	V	X	PQSS	NA
450	IV	X	PQSS	X	NA	NA	V	X	PQSS	X	V	X	PQSS	X
525	IV	X	PQSS	NA	NA	NA	V	X	PQSS	NA	V	X	PQSS	NA
600	IV	X	PQSS	X	NA	NA	V	X	PQSS	X	V	X	PQSS	X
675	IV	X	NA	NA	NA	NA	V	X	NA	NA	V	X	NA	NA
750	IV	X	PQSS	X	NA	PQSS	V	X	PQSS	X	V	X	PQSS	X
825	IV	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
900	IV	X	PQSS	X	NA	NA	V	X	PQSS	X	V	X	PQSS	X
1050	IV	X	NA	X	NA	NA	V	X	NA	X	V	X	NA	X
1200	IV	X	NA	X	NA	NA	V	X	NA	X	V	X	NA	X
1350	IV	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
1500	IV	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
1650	IV	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
1800	V	NA	NA	NA	NA	NA	V	NA	NA	NA	V	NA	NA	NA
1950	100	NA	NA	NA	NA	NA	110	NA	NA	NA	130	NA	NA	NA
2100	100	NA	NA	NA	NA	NA	110	NA	NA	NA	130	NA	NA	NA
2250	100	NA	NA	NA	NA	NA	110	NA	NA	NA	130	NA	NA	NA
2400	100	NA	NA	NA	NA	NA	120	NA	NA	NA	130	NA	NA	NA
2550	100	NA	NA	NA	NA	NA	120	NA	NA	NA	130	NA	NA	NA
2700	100	NA	NA	NA	NA	NA	120	NA	NA	NA	130	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 25.4 micro-meter crack.)
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
PE Polyethylene Pipe
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene Pipe with a Smooth Interior
X Permitted
PQSS Permitted for the producers approved for that diameter in the Department's Prequalified Structural System list
NA Not Acceptable"

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 586. GRANULAR BACKFILL FOR STRUCTURES

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

586.04 Method of Measurement. Revise Article 586.04(b) to read:

"(b) Measured Quantities. This work will be measured for payment in place and the volume computed in cubic yards (cubic meters). The volume will be determined by the method of average end areas behind the abutment or by digital elevation modeling."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 630. STEEL PLATE BEAM GUARDRAIL

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

630.08 Basis of Payment. Revise the first sentence of this Article to read:

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

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 632. GUARDRAIL AND CABLE ROAD GUARD REMOVAL

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

Replace Section 632 of the Standard Specifications with the following:

"**SECTION 632. GUARDRAIL, CABLE ROAD GUARD, AND HIGH TENSION CABLE MEDIAN BARRIER REMOVAL**

632.01 Description. This work shall consist of the removal and disposal of existing guardrail (including traffic barrier terminals), cable road guard, and high tension cable (HTC) median barrier.

CONSTRUCTION REQUIREMENTS

632.02 General. Posts and terminals shall be removed completely or cut off at least 6 in. (150 mm) below the ground surface. Socket foundations shall be removed at least 1 ft (300 mm) below the ground surface. All holes shall be filled and tamped. Pavement or paved mow strip shall be level and free of protrusions or loose pieces greater than 1 in. (25 mm).

HTC median barrier shall be disconnected at the nearest turnbuckle past the removal limits. Mow strip, anchorage system, and other appurtenances within the removal limits shall be removed according to the manufacturer's specifications.

Materials that are to be salvaged under the contract or which the Engineer deems fit for reuse shall be removed and stored at locations and in a manner approved by the Engineer. Materials that are not to be salvaged or materials unfit for reuse through no fault of the Contractor shall be removed and disposed of according to Article 202.03.

632.03 Method of Measurement. This work will be measured for payment in feet (meters), measured from the limits of removal as directed by the Engineer.

632.04 Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for GUARDRAIL REMOVAL, CABLE ROAD GUARD REMOVAL, or HIGH TENSION CABLE MEDIAN BARRIER REMOVAL."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 644. HIGH TENSION CABLE MEDIAN BARRIER

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

644.02 Materials. Revise Note 2 of this Article to read:

"Note 2. The wire rope (cable) shall be according to AASHTO M 30, Type 1 with Class A coating, of the diameter shown in the manufacturer's specifications. Additionally, the wire rope shall be prestretched and shall have a minimum breaking strength of 39,900 lbs (177 kN) for 3/4 in. (19 mm) wire rope (individual wire strength equivalent to 174,000 psi (1200 N/sq mm)) and the prestretched wire rope shall have a minimum modulus of elasticity of 11,805,000 psi (8300 kg/sq mm)."

644.05 Line Post Foundations. Revise the first paragraph of this Article to read:

"**644.05 Line Posts.** Line posts for the HTC median barrier shall consist of driving posts directly into the soil or setting posts in driven sockets or concrete socket foundations. Posts shall be placed at the spacing and depth recommended by the manufacturer."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 665. WOVEN WIRE FENCE

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

655.05 Basis of Payment. Revise the first sentence of this Article to read:

"This work will be paid for at the contract unit price per foot (meter) for WOVEN WIRE FENCE, and at the contract unit price per each for WOVEN WIRE GATES, of the opening size and type specified."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 701. WORK ZONE TRAFFIC CONTROL AND PROTECTION

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

701.12 Personal Protective Equipment. Revise this Article to read:

"**701.12 Personal Protective Equipment.** All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107 Type R Performance Class 2 high-visibility safety apparel. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI/ISEA 107 Type R Performance Class 2 requirement."

701.13 Flaggers. Revise this Article to read:

"**701.13 Flaggers and Spotters.** Flaggers shall be certified by an agency approved by the Department. While on the job site, each flagger shall have in his/her possession a current driver's license and a current flagger certification I.D. card. For non-drivers, the Illinois Identification Card issued by the Secretary of State will meet the requirement for a current driver's license. This certification requirement may be waived by the Engineer for emergency situations that arise due to actions beyond the Contractor's control where flagging is needed to maintain safe traffic control on a temporary basis. Spotters are defined as certified flaggers that provide support to workers by monitoring traffic.

Flaggers and spotters shall be stationed to the satisfaction of the Engineer and be equipped with a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107 for Type R Performance Class 2 high-visibility safety apparel. Flaggers shall be equipped with a stop/slow traffic control sign. Spotters shall be equipped with a loud warning device. The warning sound shall be identifiable by workers so they can take evasive action when necessary. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. The longitudinal placement of the flagger may be increased up to 100 ft (30 m) from that shown on the plans to improve the visibility of the flagger. Flaggers shall not encroach on the open lane of traffic unless traffic has been stopped. Spotters shall not encroach on the open lane of traffic, nor interact with or control the flow of traffic.

For nighttime flagging, flaggers shall be illuminated by an overhead light source providing a minimum vertical illuminance of 10 fc (108 lux) measured 1 ft (300 mm)

out from the flagger's chest. The bottom of any luminaire shall be a minimum of 10 ft (3 m) above the pavement. Luminaire(s) shall be shielded to minimize glare to approaching traffic and trespass light to adjoining properties. Nighttime flaggers shall be equipped with fluorescent orange or fluorescent orange and fluorescent yellow/green apparel meeting the requirements of ANSI/ISEA 107 for Type R Performance Class 3 high-visibility safety apparel.

Flaggers and spotters shall be provided per the traffic control plan and as follows.

(a) Two-Lane Highways. Two flaggers will be required for each separate operation where two-way traffic is maintained over one lane of pavement. Work operations controlled by flaggers shall be no more than 1 mile (1600 m) in length. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies.

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

(b) Multi-Lane Highways. At all times where traffic is restricted to less than the normal number of lanes on a multilane pavement with a posted speed limit greater than 40 mph and the workers are present, but not separated from the traffic by physical barriers, a flagger or spotter shall be furnished as shown on the plans. Flaggers shall warn and direct traffic. Spotters shall monitor traffic conditions and warn workers of errant approaching vehicles or other hazardous conditions as they occur. One flagger will be required for each separate activity of an operation that requires frequent encroachment in a lane open to traffic. One spotter will be required for each separate activity with workers near the edge of the open lane or with their backs facing traffic.

Flaggers will not be required when no work is being performed, unless there is a lane closure on two-lane, two-way pavement."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 781. RAISED REFLECTIVE PAVEMENT MARKERS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

781.05 Basis of Payment. Revise the first sentence of this Article to read:

"This work will be paid for at the contract unit price per each for RAISED REFLECTIVE PAVEMENT MARKER, TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER, or REPLACEMENT REFLECTOR."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 782. REFLECTORS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

782.01 Description. Revise the first paragraph of this Article to read:

"**782.01 Description.** This work shall consist of furnishing and installing reflectors on guardrail, barrier wall, high tension cable (HTC) median barrier, and curbs."

782.04 Guardrail and Barrier Wall Reflectors. Revise the first paragraph of this Article to read:

"**782.04 Guardrail, Barrier Wall, and High Tension Cable Median Barrier Reflectors.** Guardrail, barrier wall, and HTC median barrier reflectors shall be vertical and perpendicular to the surface on which they are installed."

Add the following to the end of Article 782.04:

"(d) High Tension Cable Median Barrier Reflectors. HTC median barrier reflectors shall be monodirectional, and attached to each anchorage post and first line post. Beyond the first line post, the reflectors shall be spaced according to the following table.

Reflector Spacing Table	
Distance from HTC to Outside Edge of Shoulder	Nominal Spacing
≤ 8 ft (2.4 m)	80 ft (24 m)
> 8 ft (2.4 m) but ≤ 30 ft (9.1 m)	400 ft (122 m)
> 30 ft (9.1 m)	Omit Reflectors

HTC median barrier reflectors shall be attached at a minimum height of 24 in. (600 mm) above ground level at the base of the post. The method of attaching HTC median barrier reflectors shall be as specified by the manufacturer."

782.07 Basis of Payment. Revise this Article to read:

"**782.07 Basis of Payment.** This work will be paid for at the contract unit price per each for GUARDRAIL REFLECTORS, of the type specified, BARRIER WALL

REFLECTORS, of the type specified, HIGH TENSION CABLE MEDIAN BARRIER REFLECTORS, or CURB REFLECTORS."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 801. ELECTRICAL REQUIREMENTS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

801.05 Submittals. Revise the first paragraph of Article 801.05(a) to read:

"(a) Non-Traffic Signal Installations. Within 30 calendar days after contract execution, the Contractor shall submit, for approval, one copy each of the manufacturer's product data for standard products and components and detailed shop drawings for fabricated items.

(1) In addition to the requirements listed above, submittals for LED luminaires shall include the following.

(a.) Completed manufacturer's luminaire ordering form with the full catalog number;

(b.) Descriptive literature and catalog cuts for the luminaire, driver, and surge protective device; and

(c.) Lighting calculations generated with AGi32 software demonstrating compliance with the Luminaire Performance Table(s) shown in the contract. These calculations shall be performed to the following criteria: photopic units shall be used; calculations shall be performed to an accuracy matching the number of significant digits given in the Luminaire Performance Table(s); point-by-point illuminance, luminance, and veiling luminance ratios demonstrating the submitted luminaire meets the lighting metrics specified in the Luminaire Performance Table(s) using IES RP-8 methods.

(2) Upon request by the Engineer, submittals for LED Luminaires shall also include any or all the following.

(a.) IES file associated with each submitted luminaire in IES LM-63 format.

(b.) TM-21 calculator spreadsheet (XLSX or PDF format) and if available, TM-28 report for the specified luminaire or luminaire family. Both reports shall be for 50,000 hours at an ambient temperature of 77 °F (25 °C).

(c.) LM-79 report with National Voluntary Laboratory Accreditation Program (NVLAP) current at the time of testing in PDF format inclusive of the following: isofootcandle diagram with half candela contour and maximum candela point; polar plots through maximum plane and maximum cone; coefficient of utilization graph; candela table; and spectral distribution graph and chromaticity diagram.

(d.) LM-80 report for the specified LED package in PDF format and if available, LM-84 report for the specified luminaire or luminaire family in PDF format. Both reports shall be conducted by a laboratory with NVLAP certification current at the time of testing.

(e.) In Situ Temperature Measurement Test (ISTMT) report for the specified luminaire or luminaire family in PDF format.

(f.) Vibration test report in accordance with ANSI C136.31 in PDF format.

(g.) ASTM B117/ASTM D1654 (neutral salt spray) test and sample evaluation report in PDF format.

(h.) ASTM G154 (ASTM D523) gloss test report in PDF format.

(i.) LED drive current, total luminaire input wattage, and current over the operating voltage range at an ambient temperature of 77 °F (25 °C).

(j.) Power factor (pf) and total harmonic distortion (THD) at maximum and minimum supply and at nominal voltage for the dimmed states of 70%, 50%, and 30% full power.

(k.) Ingress protection (IP) test reports, conducted according to ANSI C136.25 requirements, for the driver and optical assembly in PDF format.

(l.) Installation, maintenance, and cleaning instructions in PDF format, including recommendations on periodic cleaning methods.

(m.) Documentation in PDF format that the reporting laboratory is certified to perform the required tests.

Submittals for the materials for each individual pay item shall be complete in every respect. Submittals which include multiple pay items shall have all submittal material for each item or group of items covered by a particular specification, grouped together and the applicable pay item identified. Various submittals shall, when taken together, form a complete coordinated package. A partial submittal will be returned without review unless prior written permission is obtained from the Engineer."

801.14 Contract Guarantee. Revise the second sentence of Article 801.14(a) to read:

"The warranty, including the maintained minimum luminance, for light emitting diode (LED) signal head modules shall be a minimum of 15 years from the date of delivery. Optically programmed LED signal head modules and LED pedestrian signal head modules shall be a minimum of five years from the date of delivery."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 821. ROADWAY LUMINAIRES

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

821.02 Materials. Revise Article 821.02(d) to read:

"(d) Light Source ..... 1067.06"

821.03 General. Revise the third paragraph of this Article to read:

"Each luminaire driver and/or driver arrangement shall be checked to ensure compatibility with the project power supply."

Revise the fifth paragraph of Article 821.03 to read:

"No luminaire shall be installed before it is approved. When independent luminaire testing is required, full approval will not be given until complete test results which demonstrate compliance with the contract documents have been reviewed and accepted by the Engineer. Independent luminaire testing will be required, and shall be conducted, according to Article 1067.01(k)".

Revise the last paragraph of Article 821.03 to read:

"When installing or adjusting the luminaire, care shall be taken to avoid touching the lenses or allowing contaminants to be deposited on any part of the optical assembly. Each lens shall be free of all dirt, smudges, etc. Should the luminaire require cleaning, the luminaire manufacturer's cleaning instructions shall be strictly followed."

821.08 Basis of Payment. Revise this Article to read:

"**821.08 Basis of Payment.** This work will be paid for at the contract unit price per each for LUMINAIRE, LED, ROADWAY, of the output designation specified; LUMINAIRE, LED, HIGHMAST, of the output designation specified; LUMINAIRE, LED, UNDERPASS, WALLMOUNT, of the output designation specified; LUMINAIRE, LED, UNDERPASS, SUSPENDED, of the output designation specified; LUMINAIRE, LED, SIGN LIGHTING, of the output designation specified."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1003. FINE AGGREGATES

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1003.07 Fine Aggregate for Select Fill Used for Retaining Wall Applications Utilizing Soil Reinforcement. Revise Article 1003.07(f)(2) to read:

"(2) The chlorides shall be a maximum of 100 parts per million according to Illinois Modified AASHTO T 291."

Revise Article 1003.07(f)(3) to read:

"(3) The sulfates shall be a maximum of 200 parts per million according to Illinois Modified AASHTO T 290."

Revise Article 1003.07(g) to read:

"(g) Testing Protocol. Prior to the start of and during construction, the internal friction angle and pH shall be determined in order to demonstrate the select fill material meets the specification requirements. Resistivity, chlorides, sulfates, and organic content test results shall also be determined if steel reinforcement is used. Testing shall be according to the current Bureau of Materials Policy Memorandum "Fine and Coarse Aggregates Used as Select Fill in MSE Walls Acceptance Procedures for Approved/Qualified Aggregate Sources"."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1004. COARSE AGGREGATES

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1004.06 Coarse Aggregate for Select Fill Used for Retaining Wall Applications Utilizing Soil Reinforcement. Revise Article 1004.06(f)(2) to read:

"(2) The chlorides shall be a maximum of 100 parts per million according to Illinois Modified AASHTO T 291."

Revise Article 1004.06(f)(3) to read:

"(3) The sulfates shall be a maximum of 200 parts per million according to Illinois Modified AASHTO T 290."

Revise Article 1004.06(g) to read:

"(g) Testing Protocol. Prior to the start of and during construction, the internal friction angle and pH shall be determined in order to demonstrate the select fill material meets the specification requirements. Resistivity, chlorides, sulfates, and organic content test results shall also be determined if steel reinforcement is used. Testing shall be according to the current Bureau of Materials Policy Memorandum "Fine and Coarse Aggregates Used as Select Fill in MSE Walls Acceptance Procedures for Approved/Qualified Aggregate Sources"."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1010. FINELY DIVIDED MINERALS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1010.01 Description. Revise the second paragraph of this Article to read:

"Different sources or types of finely divided minerals shall not be mixed or used alternately in the same item of construction, except as a blended finely divided mineral product according to Article 1010.06."

Add the following Article to this Section:

"**1010.06 Blended Finely Divided Minerals.** Blended finely divided minerals shall be the product resulting from the blending or intergrinding of two or three finely divided minerals. Blended finely divided minerals shall be according to ASTM C 1697, except as follows.

(a) Blending shall be accomplished by mechanically or pneumatically intermixing the constituent finely divided minerals into a uniform mixture that is then discharged into a silo for storage or tanker for transportation.

(b) The blended finely divided mineral product will be classified according to its predominant constituent or the manufacturer's designation and shall meet the chemical requirements of its classification. The other finely divided mineral constituent(s) will not be required to conform to their individual standards."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1020. PORTLAND CEMENT CONCRETE

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1020.09 Strength Tests. Revise this Article to read:

"**1020.09 Strength Tests.** The specimens shall be molded and cured according to Illinois Modified AASHTO R 100. Specimens shall be field cured with the construction item as specified in Illinois Modified AASHTO R 100. The compressive strength shall be determined according to Illinois Modified AASHTO T 22. The flexural strength shall be determined according to Illinois Modified AASHTO T 177.

Except for Class PC and PS concrete, the Contractor shall transport the strength specimens from the site of the work to the field laboratory or other location as instructed by the Engineer. During transportation, the specimens shall be embedded in straw, burlap, or other acceptable material to protect them from damage. For strength specimens, the Contractor shall provide a field curing box, which may be insulated or power operated as appropriate, for initial curing and a water storage tank for final curing. An acceptable insulated box is a 5-day chest cooler.

For standard curing, a field curing box will be required when the National Weather Service forecast for the construction area predicts an air temperature below 60 °F (16 °C) during the initial curing period. The field curing box shall maintain the initial curing temperature range specified in Illinois Modified AASHTO R 100, except a power operated box shall be set at 60 °F (16 °C) to 63 °F (17 °C). Strength specimens shall be transported to the testing facility the next day, but no later than 32 hours after casting for a power operated box and no later than 48 hours after casting for an insulated box.

For field curing when strength specimens remain in the field until testing is required, only an insulated box shall be used when the National Weather Service forecast for the construction area predicts an air temperature below 70 °F (21 °C) during the first 24 hours."

1020.11 Mixing Portland Cement Concrete. Revise Article 1020.11(a)(7) to read:

"(7) Haul Time. Haul time shall begin when the delivery ticket is stamped. The delivery ticket shall be stamped no later than five minutes after the addition of the mixing water to the cement, or after the addition of the cement to the aggregate when the combined aggregates contain free moisture in excess of two percent by weight (mass). If more than one batch is required for charging a truck using a stationary mixer, the time

of haul shall start with mixing of the first batch. Haul time shall end when the truck is emptied for incorporation of the concrete into the work. The maximum haul time shall be as follows.

Concrete Temperature at Point of Discharge, °F (°C)	Maximum Haul Time 1/ (minutes)	
	Truck Mixer or Truck Agitator	Nonagitator Truck
50 – 64 (10 – 17.5)	90	45
>64 (>17.5) - without retarder	60	30
>64 (>17.5) - with retarder	90	45

1/ To encourage start-up testing for mix adjustments at the plant, the first two trucks will be allowed an additional 15 minutes haul time whenever such testing is performed.

For a mixture which is not mixed on the jobsite, a delivery ticket shall be required for each load. The following information shall be recorded on each delivery ticket: (1) ticket number; (2) name of producer and plant location; (3) contract number; (4) name of Contractor; (5) stamped date and time batched; (6) truck number; (7) quantity batched; (8) amount of admixture(s) in the batch; (9) amount of water in the batch; and (10) Department mix design number.

For concrete mixed in jobsite stationary mixers, the above delivery ticket may be waived, but a method of verifying the haul time shall be established to the satisfaction of the Engineer."

1020.13 Curing and Protection. Revise the Curing Period Days of Cast-in-Place Concrete Substructure and Culverts in the Index Table of this Article to read:

"INDEX TABLE OF CURING AND PROTECTION OF CONCRETE CONSTRUCTION			
TYPE OF CONSTRUCTION	CURING METHODS	CURING PERIOD DAYS	LOW AIR TEMPERATURE PROTECTION METHODS
Cast-in-Place Concrete [11/]			
Pavement Shoulder	1020.13(a)(1)(2)(3)(4)(5) [3/ 5/]	3	1020.13(c)
Base Course Base Course Widening	1020.13(a)(1)(2)(3)(4)(5) [2/]	3	1020.13(c)
Driveway Median Barrier Curb Gutter Curb & Gutter Sidewalk Slope Wall Paved Ditch	1020.13(a)(1)(2)(3)(4)(5) [4/ 5/]	3	1020.13(c) [16/]
Catch Basin Manhole Inlet Valve Vault	1020.13(a)(1)(2)(3)(4)(5) [4/]	3	1020.13(c)
Pavement Patching	1020.13(a)(1)(2)(3)(4)(5) [2/]	3 [12/]	1020.13(c)
Bridge Deck Patching	1020.13(a)(3)(5)	3 or 7 [12/]	1020.13(c)
Railroad Crossing	1020.13(a)(3)(5)	1	1020.13(c)
Piles and Drilled Shafts	1020.13(a)(3)(5)	7	1020.13(d)(1)(2)
Foundations & Footings Seal Coat	1020.13(a)(1)(2)(3)(4)(5) [4/ 6/]	7	1020.13(d)(1)(2)
Substructure	1020.13(a)(1)(2)(3)(4)(5) [1/ 7/]	7 [20/]	1020.13(d)(1)(2)
Superstructure (except deck)	1020.13(a)(1)(2)(3)(5)(6) [8/ 19/]	7	1020.13(d)(1)(2)
Superstructure (Approach Slab)	1020.13(a)(5)(6) [19/]	3	1020.13(d)(1)(2) [17/]
Deck	1020.13(a)(5)(6) [19/]	7	1020.13(d)(1)(2) [17/]
Retaining Walls	1020.13(a)(1)(2)(3)(4)(5) [1/ 7/]	7	1020.13(d)(1)(2)
Pump Houses	1020.13(a)(1)(2)(3)(4)(5) [1/]	7	1020.13(d)(1)(2)
Culverts	1020.13(a)(1)(2)(3)(4)(5) [4/ 6/]	7 [20/]	1020.13(d)(1)(2) [18/]
Other Incidental Concrete	1020.13(a)(1)(2)(3)(5)	3	1020.13(c)
Precast Concrete [11/]			
Bridge Slabs Piles and Pile Caps Other Structural Members	1020.13(a)(3)(5) [9/ 10/]	As Required [13/]	9/
All Other Precast Items	1020.13(a)(3)(4)(5) [2/ 9/ 10/]	As Required [14/]	9/
Precast, Prestressed Concrete [11/]			
All Items	1020.13(a)(3)(5) [9/ 10/]	Until Strand Tensioning is Released [15/]	9/ "

Add the following note at the end of the Index Table in Article 1020.13:

"20/ The Contractor has the option to reduce the 7-day curing period provided the concrete had a maximum water/cement ratio of 0.42 at time of placement and the strength specimens are field-cured and obtain 100 percent of the design strength. The minimum curing period shall be 3 days."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1030. HOT-MIX ASPHALT

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1030.09 Quality Control / Quality Assurance (QC/QA). Revise Article 1030.09(g)(1) to read:

"(1) The Contractor shall sample approximately 150 lb (70 kg) of mix as required for the Department's random mixture verification tests according to Article 1030.09(h)(1)."

Revise the second sentence of Article 1030.09(h)(1) to read:

"The Engineer will randomly identify one sample for each 3,000 tons (2,720 metric tons) of mix, with a minimum of one sample per mix. If the remaining mix quantity is 600 tons (544 metric tons) or less, the quantity will be combined with the previous 3,000 tons (2,720 metric tons) in the Engineer's random sample identification. If the required tonnage of a mixture for a single pay item is less than 250 tons (225 metric tons) in total, the Engineer will waive mixture verification tests."

Add the following to the end of the third paragraph of Article 1030.09(h)(2):

"The HMA maximum theoretical specific gravity (G_{mm}) will be based on the Department mixture verification test. If there is more than one Department mixture verification G_{mm} test, the G_{mm} will be based on the average of the Department test results."

1030.10 Start of HMA Production and Job Mix Formula (JMF) Adjustments. Add the following paragraph between the third and fourth paragraphs of this Article:

"When a test strip is not required, each HMA mixture with a quantity of 3,000 tons (2,750 metric tons) or more shall still be sampled on the first day of production: I-FIT and Hamburg wheel testing for High ESAL; I-FIT testing for Low ESAL. Within two working days after sampling the mixture, the Contractor shall deliver gyratory cylinders to the District laboratory for Department verification testing. The High ESAL mixture test results shall meet the requirements of Articles 1030.05(d)(3) and 1030.05(d)(4). The Low ESAL mixture test results shall meet the requirements of Article 1030.05(d)(4)."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1040. DRAIN PIPE, TILE, AND WALL DRAIN

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1040.03 Polyvinyl Chloride (PVC) Pipe. Replace the first paragraph of this Article with the following:

"**1040.03 Polyvinyl Chloride (PVC) Pipe.** Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The pipe shall meet the following additional requirements."

1040.04 Polyethylene (PE) Pipe. Delete the last sentence in the first paragraph of Article 1040.04(a).

Replace Article 1040.04(b) with the following:

"(b) Corrugated PE Pipe with a Smooth Interior. The manufacturer shall be listed as compliant through the AASHTO Product Eval & Audit program and the pipe shall be according to AASHTO M 294 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D."

Replace the first paragraph of Article 1040.04(d) with the following:

"(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350."

1040.08 Polypropylene (PP) Pipe. Replace the first paragraph of this Article with the following:

"**1040.08 Polypropylene (PP) Pipe.** Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The pipe shall meet the following additional requirements."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1061. WATERPROOFING MEMBRANE SYSTEM

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1061.05 Aggregate for Slurry Seal Top Coat. Revise this Article to read:

"**1061.05 Aggregate for Slurry Seal Top Coat.** The aggregate shall meet the requirements of Article 1003.01, be clean, hard, and shall contain a minimum of dust. It shall be graded as follows.

Sieve Size	Passing Percent
No. 8 (2.36 mm) No. 30 (600 µm)	100 0 – 10"

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1067. LUMINAIRE

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

Revise Articles 1067.01 through 1067.06 to read:

"**1067.01 General.** The size, weight, and shape of the luminaire shall be designed so as not to incite detrimental vibrations in its respective pole and it shall be compatible with the pole and arm. All electrical and electronic components of the luminaire shall comply with the requirements of Restriction of Hazardous Materials (RoHS) regulations. The luminaire shall be listed for wet locations by an NRTL and shall meet the requirements of UL 1598 and UL 8750.

(a) Labels. An internal label shall be provided indicating the luminaire is suitable for wet locations and indicating the luminaire is an NRTL listed product to UL1598 and UL8750. The internal label shall also comply with the requirements of ANSI C136.22.

An external label consisting of two black characters on a white background with the dimensions of the label and the characters as specified in ANSI C136.15 for HPS luminaires. The first character shall be the alphabetical character representing the initial lumen output as specified in Table 1 of Article 1067.06(c). The second character shall be the numerical character representing the transverse light distribution type as specified in IES RP-8 (i.e. Types 1, 2, 3, 4, or 5).

(b) Surge Protection. The luminaire shall comply the requirements of ANSI C136.2 for electrical transient immunity at the "Extreme" level (20KV/10KA) and shall be equipped with a surge protective device (SPD) that is UL1449 compliant with indicator light. An SPD failure shall open the circuit to protect the driver.

(c) Optical Assembly. The optical assembly shall have an IP66 or higher rating in accordance with ANSI C136.25. The circuiting of the LED array shall be designed to minimize the effect of individual LED failures on the operation of other LEDs. All optical components shall be made of glass or a UV stabilized, non-yellowing material.

(d) Housing. All external surfaces shall be cleaned in accordance with the manufacturer's recommendations and be constructed in such a way as to discourage the accumulation of water, ice, and debris.

(e) Driver. The driver shall be integral to the luminaire and shall be capable of receiving indefinite open and short circuit output conditions without damage.

The driver shall incorporate the use of thermal foldback circuitry to reduce output current under abnormal driver case temperature conditions and shall be rated for a lifetime of 100,000 hours at an ambient temperature exposure of 77 °F (25 °C) to the luminaire. If the driver has a thermal shut down feature, it shall not turn off the LEDs when operated at 104 °F (40 °C) or less.

The driver shall have an input voltage range of 120 to 277 volts (± 10%) or 347 to 480 volts (± 10%) according to the contract documents. When the driver is operating within the rated input voltage range and in an un-dimmed state, the power factor measurement shall be not less than 0.9 and the THD measurement shall be no greater than 20%.

The driver shall meet the requirements of the FCC Rules and Regulations, Title 47, Part 15 for Class A devices with regard to electromagnetic compatibility. This shall be confirmed through the testing methods in accordance with ANSI C63.4 for electromagnetic interference.

The driver shall be dimmable using the protocol listed in the Luminaire Performance Table shown in the contract.

(f) Photometric Performance. The luminaire shall be IES LM-79 tested by a laboratory holding accreditation from the NVLAP for IES LM-79 testing procedures. At a minimum the LM-79 report shall include a backlight/uplight/glare (BUG) rating and a luminaire classification system (LCS) graph showing lumen values and percent lumens by zone as described in IES RP-8. The uplight of the BUG rating shall be U=0.

The luminaire shall also meet the requirements of the Luminaire Performance Table shown in the contract.

(g) Finish. The luminaire shall have a baked acrylic enamel finish. The color of the finish shall be gray, bronze, or black to match the pole or tower on which the luminaire is mounted.

The finish shall have a rating of six or greater according to ASTM D1654, Section 8.0 Procedure A – Evaluation of Rust Creepage for Scribed Samples after exposure to 1000 hours of testing according to ASTM B117 for painted or finished surfaces under environmental exposure.

The luminaire finish shall have less than or equal to 30% reduction of gloss according to ASTM D523 after exposure of 500 hours to ASTM G154 Cycle 6 QUV® accelerated weathering testing.

(h) Hardware. All hardware shall be stainless steel or of other corrosion resistant material approved by the Engineer.

(i) Vibration Testing. All luminaires, with the exception of underpass and sign lighting luminaires, shall be subjected to and pass vibration testing requirements at "3G" minimum zero to peak acceleration in accordance with ANSI C136.31 requirements using the same luminaire. To be accepted, the luminaire housing, hardware, and each individual component shall pass this test with no noticeable damage and the luminaire must remain fully operational after testing.

(j) Wiring. All wiring in the luminaire shall be rated for operation at 600V, 221 °F (105 °C).

(k) Independent Luminaire Testing. When a contract has 30 or more luminaires of the same manufacturer's catalog number, that luminaire shall be independently tested to verify it will meet the contract requirements. The quantity of luminaires requiring testing shall be one luminaire for the first 30 plus one additional luminaire for each additional 50 luminaires of that catalog number. Testing is not required for temporary lighting luminaires.

Prior to testing the Contractor shall propose a properly accredited laboratory and a qualified independent witness, submitting their qualifications to the Engineer for approval. After approval, the Contractor shall coordinate the testing and pay all associated costs, including travel expenses, for the independent witness.

(1) Independent Witness. The independent witness shall select from the project luminaires at the manufacturer's facility the luminaires for testing. In all cases, the selection of luminaires shall be a random selection from the entire completed lot of luminaires required for the contract. Selections from partial lots will not be allowed. The independent witness shall mark each sample luminaire's shipping carton with the IDOT contract number and a unique sample identifier.

At the time of random selection, the independent witness shall inspect the luminaire(s) for compliance with all physical, mechanical, and labeling requirements for luminaires according to Sections 821 and 1067. If deficiencies are found during the physical inspection, the Contractor shall have all luminaires of that manufacturer's catalog number inspected for the identified deficiencies and shall correct the problem(s) where found. Random luminaire selection and physical inspection must then be repeated. When the physical inspection is successfully completed, the independent witness shall mark the project number and sample identifier on the interior housing and driver of the luminaires and have them shipped to the laboratory.

The independent witness shall be present when testing is approved to be performed by the luminaire manufacturer. If the tests are performed by a laboratory independent of the luminaire manufacturer, distributor, and Contractor, the independent witness need not be present during the testing.

(2) Laboratory Testing. Luminaires shall be tested at an NVLAP accredited laboratory approved for each of the required tests. The testing shall

include photometric, colorimetric, and electrical testing according to IES LM-79. Colorimetric values shall be determined from total spectral radiant flux measurements using a spectroradiometer. Photometric testing shall be according to IES recommendations and as a minimum, shall yield an isofootcandle chart, with max candela point and half candela trace indicated, an isocandela diagram, maximum plane and maximum cone plots of candela, a candlepower table (house and street side), a coefficient of utilization chart, a luminous flux distribution table, BUG rating report, and complete calculations based on specified requirements and test results.

All testing shall cover the full spherical light output at a maximum of 5 degree intervals at the vertical angles. The vertical angles shall run from 0 to 180 degrees. There shall be a minimum of 40 lateral test planes listed in Fig. 1 of IES LM-31 plus the two planes containing the maximum candela on the left and right sides of the luminaire axis. Before testing, the luminaire when mounted on the goniometer shall be scanned for vertical and horizontal angles of maximum candela and these planes included in the test. The luminaire shall be checked for a bi-symmetric light distribution. Individual tests must be conducted for each hemisphere, quadrant, and left/right sides.

The results for each photometric and colorimetric test performed shall be presented in a standard IES LM-79 report that includes the contract number, sample identifier, and the outputs listed above. The calculated results for each sample luminaire shall meet or exceed the contract specified levels in the luminaire performance table(s). The laboratory shall mark its test identification number on the interior of each sample luminaire.

Electrical testing shall be in according to IES LM-79 as well as NEMA and ANSI standards. The report shall list luminaire characteristics including input amperes, watts, power factor, total harmonic distortion, and LED driver current for full and partial power.

(3) Summary Test Report. The summary test report shall consist of a narrative documenting the test process, highlight any deficiencies and corrective actions, and clearly state which luminaires have met or exceeded the test requirements and may be released for delivery to the jobsite. Photographs shall also be used as applicable to document luminaire deficiencies and shall be included in the test report. The summary test report shall include the Luminaire Physical Inspection Checklist (form BDE 5650), photometric and electrical test reports, and point-by-point photometric calculations performed in AGi32 sorted by luminaire manufacturers catalog number. All test reports shall be certified by the independent test laboratory's authorized representative or the independent witness, as applicable, by a dated signature on the first page of each report. The summary test reports shall be delivered to the Engineer and the Contractor as an electronic submittal. Hard copy reports shall be delivered to the Engineer for record retention.

(4) Approval of Independent Testing Results. Should any of the tested luminaires fail to satisfy the specifications and perform according to approved submittal information, all luminaires of that manufacturers catalog number shall be deemed unacceptable and shall be replaced by alternate equipment meeting the specifications. The submittal and testing process shall then be repeated in its entirety. The Contractor may request in writing that unacceptable luminaires be corrected in lieu of replacement. The request shall identify the corrections to be made and upon approval of the request, the Contractor shall apply the corrections to the entire lot of unacceptable luminaires. Once the corrections are completed, the testing process shall be repeated, including selection of a new set of sample luminaires. The number of luminaires to be tested shall be the same quantity as originally tested.

The process of retesting, correcting, or replacing luminaires shall be repeated until luminaires for each manufacturers catalog number are approved for the project. Corrections and re-testing shall not be grounds for additional compensation or extension of time. No luminaires shall be shipped from the manufacturer to the jobsite until all luminaire testing is completed and approved in writing.

Submittal information shall include a statement of intent to provide the testing as well as a request for approval of the chosen independent witness and laboratory. All summary test reports, written reports, and the qualifications of the independent witness and laboratory shall be submitted for approval to the Engineer with a copy to the Bureau of Design and Environment, 2300 S Dirksen Parkway, Room 330 Springfield, IL 62764.

1067.02 Roadway Luminaires. Roadway luminaires shall be according to Article 1067.01 and the following.

The luminaire shall be horizontally mounted and shall be designed to slip-fit on a 2-3/8 in. (60 mm) outside diameter pipe arm with a stop to limit the amount of insertion to 7 in. (180 mm). It shall not be necessary to remove or open more than the access door to mount the luminaire.

The effective projected area (EPA) of the luminaire shall not exceed 1.6 sq ft (0.149 sq m) and the weight, including accessories, shall not exceed 40 lb (18.14 kg). If the weight of the luminaire is less than 20 lb (9.07 kg), weight shall be added to the mounting arm or a supplemental vibration damper installed as approved by the Engineer.

The luminaire shall be equipped with both internal and external leveling indicators. The external leveling indicator shall be clearly visible in daylight to an observer directly under the luminaire at a mounting height of 50 ft (15.2 m).

The luminaire shall be fully prewired to accept a seven-pin, twist-lock receptacle that is compliant with ANSI C136.41. All receptacle pins shall be connected according to TALQ Consortium protocol.

The luminaire shall be provided with an installed shorting cap that is compliant with ANSI C136.10.

1067.03 Highmast Luminaires. Highmast luminaires shall be according to Article 1067.01 and the following.

The luminaire shall be horizontally mounted and shall be designed and manufactured for highmast tower use. The EPA of the luminaire shall not exceed 3.0 sq ft (0.279 sq m) and the weight, including accessories, shall not exceed 85 lb (38.6 kg).

The optical assembly shall be capable of being rotated 360 degrees. A vernier scale shall be furnished on the axis of rotation for aiming the luminaire in relation to its mounting tenon arm. The scale shall be graduated in 5 degree increments or less. The luminaire shall be clearly marked at the vernier as to 'house-side' and 'street-side' to allow proper luminaire orientation.

1067.04 Underpass Luminaires. Underpass luminaries shall be according to Article 1067.01 and the following.

The underpass luminaire shall be complete with all supports, hardware, and appurtenant mounting accessories. The underpass luminaire shall be suitable for lighting a roadway underpass at an approximate mounting height of 15 ft (4.5 m) from a position suspended directly above the roadway edge of pavement or attached to a wall or pier. The underpass luminaire shall meet the requirements of ANSI C136.27.

It shall not be necessary to remove more than the cover, reflector and lens to mount the luminaire. The unit shall be suitable for highway use and shall have no indentations or crevices in which dirt, salt, or other corrosives may collect.

(a) Housing. The housing and lens frame shall be made of die cast aluminum or 16 gauge (1.5 mm) minimum thickness Type 304 stainless steel. All seams in the housing enclosure shall be welded by continuous welds.

The housing shall have an opening for installation of a 3/4 in. (19 mm) diameter conduit.

(b) Lens and Lens Frame. The frame shall not overlap the housing when closed. The luminaire shall have a flat glass lens to protect the LEDs from dirt accumulation or be designed to prevent dirt accumulation. The optic assembly shall be rated IP 66 or higher.

1067.05 Sign Lighting Luminaires. Sign lighting luminaries shall be suitable for lighting overhead freeway and expressway guide signs; and shall be according to Article 1067.01.

1067.06 Light Sources. The light sources in all luminaires shall be LED according to Article 1067.01 and the following.

(a) The light source shall be according to ANSI C136.37 for solid state light sources used in roadway and area lighting.

(b) The light source shall have a minimum color rendering index (CRI) of 70 and a nominal correlated color temperature (CCT) of 4000 K.

(c) The rated initial luminous flux (lumen output) of the light source, as installed in the luminaire, shall be according to the following table for each specified output designation.

Output Designation	Initial Luminous Flux (lm)	Approximate High Pressure Sodium (HPS) Equivalent Wattage *(for information only)*
A	2,200	35 (Low Output)
B	3,150	50 (Low Output)
C	4,400	70 (Low Output)
D	6,300	100 (Low Output)
E	9,450	150 (Low Output)
F	12,500	200 (Med Output)
G	15,500	250 (Med Output)
H	25,200	400 (Med Output)
I	47,250	750 (High Output)
J	63,300	1,000 (High Output)
K	80,000+	1,000+ (High Output)

Luminaires with an initial luminous flux less than or greater than the values listed in the above table may be acceptable if they meet the requirements given in the Luminaire Performance Table shown in the contract and approved by the Engineer."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1097. REFLECTORS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1097.02 Guardrail and Barrier Wall Reflectors. Revise the first paragraph of this Article to read:

"**1097.02 Guardrail, Barrier Wall, and High Tension Cable Median Barrier Reflectors.** Guardrail, barrier wall, and HTC median barrier reflectors shall be according to the following."

Add the following before the last paragraph of Article 1097.02:

"(d) High Tension Cable Median Barrier Reflectors. HTC median barrier reflectors shall be monodirectional, amber colored, and provide a minimum reflective area of 7 sq in. (4520 sq mm). The reflective sheeting shall meet Type AZ according to Article 1091.03, and meet the minimum coefficient of retroreflection for "white" and "yellow" as specified therein. The reflector shall be approved by the HTC system manufacturer as compatible with the system."

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 1102. HOT-MIX ASPHALT EQUIPMENT

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

1102.02 Reserved. Revise Article 1102.02 to read:

"**1102.02 Material Transfer Device (MTD).** The MTD shall be according to the following.

(a) Requirements. The MTD shall have a minimum surge capacity of 15 tons (13.5 metric tons), shall be self-propelled and capable of moving independent of the paver, and shall be equipped with the following.

(1) Front-Dump Hopper and Conveyor. The conveyor shall provide a positive restraint along the sides of the conveyor to prevent material spillage. MTDs having paver style hoppers shall have a horizontal bar restraint placed across the foldable wings which prevents the wings from being folded.

(2) Paver Hopper Insert. The paver hopper insert shall have a minimum capacity of 14 tons (12.7 metric tons).

(3) Mixer/Agitator Mechanism. This re-mixing mechanism shall consist of a segmented, anti-segregation, re-mixing auger.

(b) Qualification and Designation. The MTD shall be on the Department's qualified product list with one of the following designations.

(1) Category I. The MTD has a documented maximum HMA carrying capacity contact pressure greater than 25 psi and has a central surge hopper of sufficient capacity to mix upstream HMA with downstream HMA.

(2) Category II. The MTD has a documented maximum HMA carrying capacity contact pressure less than or equal to 25 psi."

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
ADDITIONAL STATE REQUIREMENTS
FOR FEDERAL-AID CONSTRUCTION CONTRACTS

Effective: February 1, 1969
Revised: January 1, 2024

The following provisions are State of Illinois requirements and are in addition to the Federal requirements contained in FHWA-1273, "Required Contract Provisions Federal-Aid Construction Contracts".

"EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this Contract, the Contractor agrees as follows:

(1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

(2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (in accordance with the Illinois Department of Human Rights Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

(3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, gender identity, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service.

(4) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

(5) That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

(6) That it will permit access to all relevant books, records, accounts, and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

(7) That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations."

“STATEMENTS AND PAYROLLS

The payroll records shall include the worker’s name, the worker’s address, the worker’s telephone number when available, the worker’s social security number, the worker’s classification or classifications, the worker’s gross and net wages paid in each pay period, the worker’s number of hours worked each day, and the worker’s starting and ending times of work each day However, any Contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker’s hourly wage rate, the worker’s hourly overtime wage rate, the worker’s hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except

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

"SUBLETTING OR ASSIGNING THE CONTRACT

The requirements of Section VI of FHWA-1273 are hereby made applicable to Secondary Road Plan Projects."

CHECK SHEET #2

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
SUBLETTING OF CONTRACTS
(FEDERAL-AID CONTRACTS)

Effective: January 1, 1988
Revised: January 1, 2014

This Special Provision supersedes paragraph VI of FHWA-1273, "Required Contract Provisions Federal-Aid Construction Contracts".

"The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or contracts or any portion thereof, or of his/her right, title, or interest therein, without written consent of the Engineer. In case such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with the Contractor's own organization, work amounting to not less than 50 percent of the total contract cost, except any items designated in the contract as "specialty items" may be performed by subcontract and the cost of any such specialty items so performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor with his/her own organization. Materials purchased or produced by the Contractor must be incorporated into the project by the Contractor's own organization if their cost is to be applied to the 50 percent requirement.

No subcontracts, or transfer of contract, shall in any case release the Contractor of his/her liability under the contract and bonds. All transactions of the Engineer will be with the Contractor. The Contractor shall have a representative on the job at all times when either contract or subcontract work is being performed.

All requests to subcontract shall contain a certification the subcontract agreement exists in writing and physically contains the required Federal and State Equal Employment Opportunity provisions and Labor compliance provisions, including the contract minimum wage requirements. The Contractor shall permit Department or Federal representatives to examine the subcontract agreements upon notice."

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
EEO

Effective: July 21, 1978
Revised: November 18, 1980

The requirements of the following provisions written for federally-assisted construction contracts, including all goals and timetables and affirmative action steps, shall also apply to all State-funded construction contracts awarded by the Illinois Department of Transportation.

Notice of Requirement for Affirmative Action to Ensure
Equal Employment Opportunity (Executive Order 11246)

1. The offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

APPENDIX A

The following goal for female utilization in each construction craft and trade shall apply to all Contractors holding federal and federally-assisted construction contracts and subcontracts in excess of $10,000. The goal is applicable to the Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a federal, federally assisted or nonfederally related construction contract or subcontract.

Area Covered (Statewide)

Goals for Women apply nationwide.

GOAL	Goal (percent)
Female Utilization	6.9

APPENDIX B

Until further notice, the following goals for minority utilization in each construction craft and trade shall apply to all Contractors holding federal or federally-assisted construction contracts and subcontracts in excess of $10,000 to be performed in the respective geographical areas. The goals are applicable to the Contractor's total on-site construction workforce,

regardless of whether or not part of that workforce is performing work on a federal, federally-assisted or nonfederally related construction contract or subcontract.

Economic Area	Goal (percent)
056 Paducah, KY:	5.2
Non - SMSA Counties -	
IL - Hardin, Massac, Pope	
KY - Ballard, Caldwell, Calloway, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, McCracken, Marshall	
080 Evansville, IN:	
Non-SMSA Counties	3.5
IL - Edwards, Gallatin, Hamilton, Lawrence, Saline, Wabash, White	
IN - Dubois, Knox, Perry, Pike, Spencer	
KY - Hancock, Hopkins, McLean, Muhlenberg, Ohio, Union, Webster	
081 Terre Haute, IN:	
Non-SMSA Counties -	2.5
IL - Clark, Crawford	
KY - Parke	
083 Chicago, IL	
SMSA Counties:	
1600 Chicago, IL -	19.6
IL - Cook, DuPage, Kane Lake, McHenry, Will	
3740 Kankakee, IL -	9.1
IL - Kankakee	
Non-SMSA Counties -	18.4
IL - Bureau, DeKalb, Grundy, Iroquois, Kendall, LaSalle, Livingston, Putnam	
IN - Jasper, Laporte, Newton, Pulaski, Starke	
084 Champaign - Urbana, IL:	
SMSA Counties:	
1400 Champaign - Urbana - Rantoul, IL -	7.8
IL - Champaign	
Non-SMSA Counties -	4.8
IL - Coles, Cumberland, Douglas Edgar, Ford, Piatt, Vermilion	

085 Springfield - Decatur, IL:
SMSA Counties:
2040 Decatur, IL - 7.6
IL – Macon
7880 Springfield, IL - 4.5
IL - Menard, Sangamon
Non-SMSA Counties
IL -Cass, Christian, DeWitt, Logan, 4.0
Morgan, Moultrie, Scott, Shelby

086 Quincy, IL:
Non-SMSA Counties - 3.1
IL - Adams, Brown, Pike
MO - Lewis, Marion, Pike Rails

087 Peoria, IL:
SMSA Counties:
1040 Bloomington - Normal, IL - 2.5
IL - McLean
6120 Peoria, IL - 4.4
IL - Peoria, Tazewell, Woodford
Non-SMSA Counties - 3.3
IL - Fulton, Knox, McDonough, Marshall,
Mason, Schuyler, Stark, Warren

088 Rockford, IL:
SMSA Counties:
6880 Rockford, IL - 6.3
IL - Boone, Winnebago
Non-SMSA Counties - 4.6
IL - Lee, Ogle, Stephenson

098 Dubuque, IA:
Non-SMSA Counties - 0.5
IL - JoDaviess
IA - Atlamakee, Clayton, Delaware,
Jackson, Winnesheik
WI - Crawford, Grant, Lafayette

099 Davenport, Rock Island, Moline, IA - IL:
SMSA Counties:
1960 Davenport, Rock Island, Moline, IA - IL - 4.6
IL - Henry, Rock Island
IA – Scott
Non-SMSA Counties - 3.4
IL - Carroll, Hancock, Henderson,
Mercer, Whiteside
IA - Clinton, DesMoines, Henry,
Lee, Louisa, Muscatine
MO – Clark

107 SMSA Counties:
7040 St. Louis, MO - IL - 14.7
IL - Clinton, Madison, Monroe, St. Clair
MO - Franklin, Jefferson, St. Charles, St. Louis, St. Louis City
Non-SMSA Counties - 11.4
IL - Alexander, Bond, Calhoun, Clay, Effingham, Fayette, Franklin, Greene, Jackson, Jasper, Jefferson, Jersey, Johnson, Macoupin, Marion, Montgomery, Perry, Pulaski, Randolph, Richland, Union, Washington, Wayne, Williamson

MO - Bollinger, Butler, Cape Girardeau, Carter, Crawford, Dent, Gasconade, Iron, Lincoln, Madison, Maries, Mississippi, Montgomery, Perry, Phelps, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Warren, Washington, Wayne

These goals are applicable to all the Contractor's construction work (whether or not it is federal or federally-assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with Executive Order 11246 and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the provisions and specifications set forth in its federally assisted contracts, and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246 and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Illinois Department of Transportation will provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten working days of award of any construction contract and/or subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. This notification will list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and

completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the entire State of Illinois for the goal set forth in APPENDIX A and the county or counties in which the work is located for the goals set forth in APPENDIX B.

STANDARD FEDERAL EQUAL EMPLOYMENT
OPPORTUNITY CONSTRUCTION CONTRACT
SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:

   (a) "Covered area" means the geographical area described in the solicitation from which this contract resulted:
   (b) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
   (c) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
   (d) "Minority" includes:

      (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
      (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
      (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
      (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individual or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan.

Each Contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing construction work in geographical areas where they do not have a federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal Procurement contracting officers. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

    a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each

construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the Union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff,

termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.

i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship of other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n) Ensure that all facilities and company activities are non-segregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractors and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.

p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specified minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellations of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out

such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade rate of pay and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
SPECIFIC EEO RESPONSIBILITIES NONFEDERAL-AID CONTRACTS

Effective: March 20, 1969
Revised: January 1, 1994

1. General

   a. The requirements set forth herein shall constitute the specific affirmative action requirements under this contract and supplement the non-discrimination requirements contained elsewhere in this proposal.

   b. The Contractor shall work with the Illinois Department of Transportation (IDOT) in carrying out Equal Employment Opportunity (EEO) obligations and in reviews of activities under the contract.

   c. The Contractor, and all subcontractors holding subcontracts (not including material suppliers) of $10,000 or more, shall comply with the following minimum specific requirement activities of EEO. The Contractor shall include these requirements in every subcontract of $10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. Equal Employment Opportunity Policy

   The Contractor shall accept as operating policy the following statement which is designed to further the provision of EEO to all persons, and to promote the full realization of equal employment opportunity through a positive continuing program: "It is the policy of this Company to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age, or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

3. Equal Employment Opportunity Officer

   The Contractor shall designate and make known to IDOT contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active Contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

CHECK SHEET #4

4. Dissemination of Policy

   a. All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

      (1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the Contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

      (2) All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the Contractor's EEO obligations within thirty days following their reporting for duty with the Contractor.

      (3) All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the Contractor's procedures for locating and hiring minority and female employees.

   b. In order to make the Contractor's EEO policy known to all employees, prospective employees, and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor shall take the following actions:

      (1) Notices and posters setting forth the Contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

      (2) The Contractor's EEO policy and the procedures to implement such policy shall be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

5. Recruitment

   a. When advertising for employees, the Contractor shall include in all advertisements for employees the notation: "An Equal Opportunity Employer". All such advertisements shall be published in newspapers, or other publications, having a large circulation among minority groups in the area from which the project work force would normally be derived.

   b. The Contractor shall, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority and female applicants, including, but not limited to, State employment agencies, schools, colleges and minority and female organizations. To meet this requirement, the Contractor shall, identify sources of potential minority and

female employees, and establish with such identified sources procedures whereby minority and female applicants may be referred to the Contractor for employment consideration. In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he/she is expected to observe the provisions of that agreement to the extent that the system permits the Contractor's compliance with EEO contract provisions.

c. The Contractor shall encourage present employees to refer minority and female applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority and female applicants shall be discussed with employees.

6. Personnel Actions

Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, will be taken without regard to race, color, religion, sex, national origin, age, or disability. The following procedures shall be followed:

a. The Contractor shall conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The Contractor shall periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The Contractor shall periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor shall promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The Contractor shall promptly investigate all complaints of alleged discrimination made to the Contractor in connection with the obligations under this contract, shall attempt to resolve such complaints, and shall take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the Contractor shall inform every complainant of all of the avenues of appeal.

7. Training and Promotion

a. The Contractor shall assist in locating, qualifying and increasing the skills of minority and female employees and applicants for employment.

b. Consistent with the Contractor's work force requirements and as permissible under Federal and State regulations, the Contractor shall make full use of

training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance.

c. The Contractor shall advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The Contractor shall periodically review the training and promotion potential of minority and female employees and shall encourage eligible employees to apply for such training and promotion.

8. Unions

If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor shall use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minorities and females within the unions, and to effect referrals by such unions of minority and female employees. Actions by the Contractor, either directly or through a Contractor's association acting as agent, shall include the procedures set forth below:

a. The Contractor shall use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority and female employees for membership in the unions and increasing the skills of minority and female and employees so that they may qualify for higher paying employment.

b. The Contractor shall use best efforts to incorporate an EEO clause into each union agreement to the end that such union shall be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age, or disability.

c. The Contractor is to obtain information as to the referral practices and policies of the labor union, except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the Contractor, the Contractor shall so certify to IDOT and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the Contractor with a reasonable flow of minority and female referrals within the time limit set forth in the collective bargaining agreement, the Contractor shall, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and females. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minorities or female employees). In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to these Special Provisions, such Contractor shall immediately notify IDOT.

9. Selection of Subcontractors, Procurement of Materials, and Leasing of Equipment

   The Contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

   a. The Contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

   b. Disadvantaged business enterprises (DBE), as defined in 49 CFR Part 23, shall have equal opportunity to compete for and perform subcontracts which the Contractor enters into pursuant to this contract. The Contractor shall use best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority and female representation among their employees. Contractors shall obtain lists of DBE construction firms from IDOT personnel.

   c. The Contractor shall use his/her best efforts to ensure subcontractor compliance with their EEO obligations.

10. Records and Reports

    The Contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of IDOT.

    a. The records kept by the Contractor shall document the following:

       (1) the number of minorities, non-minorities and females employed in each work classification on the project;

       (2) the progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and females;

       (3) the progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

       (4) the progress and efforts being made in securing the services of DBE subcontractors, or subcontractors with meaningful minority and female representation among their employees.

    b. The Contractor shall submit to IDOT a monthly report every month for the duration of the project, indicating the number of minority, non-minority and female employees currently engaged in each work classification required by contract work and the number of hours worked. This information is to be reported on Form SBE-956. If on-the-job training is being required by special provision, the Contractor will be required to collect and report training data.

CHECK SHEET #5

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
REQUIRED PROVISIONS - STATE CONTRACTS

Effective: April 1, 1965
Revised: January 1, 2017

I. SELECTION OF LABOR

The Contractor shall comply with all Illinois statutes pertaining to the selection of labor.

EMPLOYMENT OF ILLINOIS WORKERS DURING PERIODS OF EXCESSIVE UNEMPLOYMENT

Whenever there is a period of excessive unemployment in Illinois, which is defined herein as any month immediately following two consecutive calendar months during which the level of unemployment in the State of Illinois has exceeded five percent as measured by the United States Bureau of Labor Statistics in its monthly publication of employment and unemployment figures, the Contractor shall employ at least 90 percent Illinois laborers. "Illinois laborer" means any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident.

Other laborers may be used when Illinois laborers as defined herein are not available, or are incapable of performing the particular type of work involved, if so certified by the Contractor and approved by the Engineer. The Contractor may place no more than three of his/her regularly employed non-resident executive and technical experts, who do not qualify as Illinois laborers, to do work encompassed by this Contract during period of excessive unemployment.

This provision applies to all labor, whether skilled, semi-skilled, or unskilled, whether manual or non-manual.

II. EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this Contract, the Contractor agrees as follows:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship

status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

2. That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (in accordance with the Illinois Department of Human Rights Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service.

4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

5. That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

6. That it will permit access to all relevant books, records, accounts and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

7. That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois

Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

III. SUBLETTING OR ASSIGNING THE CONTRACT

1. The Contractor shall perform with his/her own organization contract work amounting to not less than 50 percent of the original total contract price, except that any items designated by the State as "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the original total contract price before computing the amount of work required to be performed by the Contractor with his/her own organization.

   a. "His/her own organization" shall be construed to include only worker employed and paid directly by the Contractor and equipment owned or rented by him/her, with or without operators.

   b. "Specialty Items" shall be construed to be limited to work that requires specialized knowledge, craftsmanship or equipment not ordinarily available in contracting organizations qualified to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. In addition to the 50 percent requirement set forth in paragraph 1 above, the Contractor shall furnish (a) a competent superintendent or foreman who is employed by him/her, who has full authority to direct performance of the work in accordance with the contract requirements, and who is in charge of all construction operations (regardless of who performs the work), and (b) such other of his/her own organizational capability and responsibility (supervision, management, and engineering services) as the State highway department contracting officer determines is necessary to assure the performance of the contract.

3. The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of the contract or contracts or any portion thereof, or of his/her right, title or interest therein, without written consent of the Engineer. In case such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with the Contractor's own organization, work amounting to not less than 50 percent of the total contract cost, except that any items designated in the contract as "specialty items" may be performed by subcontract and the cost of any such specialty items so performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor with his/her own organization. Materials purchased or produced by the Contractor must be incorporated into the project by the Contractor's own organization if their cost is to be applied to the 50 percent requirement.

   No subcontracts, or transfer of contract, shall in any case release the Contractor of his/her liability under the contract and bonds. All transactions of the Engineer shall be with the Contractor. The Contractor shall have

representative on the job at all times when either contract or subcontract work is being performed.

All requests to subcontract shall contain a certification that the subcontract agreement exists in writing and physically contains the required Federal and State Equal Employment Opportunity provisions and Labor compliance provisions, including the contract minimum wage requirements. The Contractor shall permit Department or Federal representatives to examine the subcontract agreements upon notice.

4. Any items that have been selected as "Specialty Items" for the contract are listed as such in the Special Provisions, bid schedule, or elsewhere in the contract documents.

5. No portion of the contract shall be sublet, assigned or otherwise disposed of, except with the written consent of the State highway department contracting officer, or his/her authorized representative, and such consent when given shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the contract. Request for permission to sublet, assign or otherwise dispose of any portion of the contract shall be in writing and accompanied by (a) a showing that the organization which will perform the work is particularly experienced and equipped for such work, and (b) an assurance by the Contractor that the labor standards provisions set forth in this contract shall apply to labor performed on all work encompassed by the request.

IV. COMPLIANCE WITH THE PREVAILING WAGE ACT

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

2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of five years from the later of the date of final payment under the contract or completion of the contract, records of the wages paid to his/her workers. The payroll records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, and the worker's starting and ending times of work each day. However, any Contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employer and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit,

if applicable. Upon seven business days' notice, these records shall be available at a location within the State, during reasonable hours, for inspection by the Department or the Department of Labor; and Federal, State, or local law enforcement agencies and prosecutors.

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

   Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor, or an officer, employee, or officer thereof, which avers that: (i) he or she has examined the records and such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class A misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor.

V. NONSEGREGATED FACILITIES

(Applicable to State Financed Construction Contracts and related subcontracts exceeding $10,000 which are not exempt from the Equal Opportunity clause).

By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement, as appropriate, the bidder, construction Contractor, subcontractor, or material supplier, as appropriate, certifies that (s)he does not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that (s)he does not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. (S)He certifies further that (s)he will not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that (s)he will not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. (S)He agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or

national origin, because of habit, local custom, or otherwise. (S)He agrees that (except where he/she has obtained identical certifications from proposed subcontractors and material suppliers for specific time periods), he/she will obtain identical certifications from proposed subcontractors or material suppliers prior to the award of subcontracts or the consummation of material supply agreements, exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that (s)he will retain such certifications in his/her files.

CHECK SHEET #6

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
ASBESTOS BEARING PAD REMOVAL

Effective: November 1, 2003

Description. This work shall consist of the removal and disposal of existing asbestos bearing pads.

The Contractor is advised that the existing bearing pads contain asbestos. All necessary precautions shall be taken in removing, handling, transporting and disposing of the bearing pads. Work shall be in conformance with all governing laws, codes, ordinances or other regulations except that, by agreement with IEPA, it shall not be necessary to notify IEPA or to have a person trained in the asbestos requirements on-site for removal and disposal of asbestos bearing pads.

Documentation. The Engineer will keep records of the removal, handling, transportation, and disposal site.

CONSTRUCTION REQUIREMENTS

General. Prior to removal, the asbestos bearing pads shall be thoroughly wetted.

During handling and transportation, the pads shall be covered with an approved wetting material or contained in such a way as to prevent dust or debris from entering the atmosphere.

The asbestos bearing pads shall be hauled to an approved landfill disposal site.

Basis of Payment. This work will be paid for at the contract unit price per each for ASBESTOS BEARING PAD REMOVAL.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
ASBESTOS WATERPROOFING MEMBRANE AND
ASBESTOS HOT-MIX ASPHALT SURFACE REMOVAL

Effective: June 1, 1989
Revised: January 1, 2009

Description. This work shall consist of the removal and disposal of the existing variable thickness hot-mix asphalt (HMA) surface and all of the asbestos waterproofing membrane system from the bridge deck area or the variable thickness HMA surface containing asbestos shown on the plans, according to the requirements of Section 440 of the Standard Specifications, and the following.

CONSTRUCTION REQUIREMENTS

General. Complete surface removal is required for the entire deck including the waterproofing membrane system; the removal shall be done in such a manner that the concrete deck or the concrete beams are not damaged.

The Contractor is advised that the waterproofing membrane system or HMA wearing surface contains asbestos. Therefore, he/she shall take all necessary precautions in removing, handling, transporting, and subsequent disposal of all materials removed containing asbestos. All such work shall be in conformance with all governing laws, codes, ordinances, or other regulations.

The asbestos membrane, if present, shall be wet saw-cut and removed.

Grinding or milling the existing wearing surface or the membrane system will not be allowed.

All removed material containing asbestos shall be stockpiled separately from other removed material.

All stockpiled material containing asbestos, shall be hauled to an approved landfill disposal site. This removed material shall be wetted down in the truck and shall be covered with an approved wetting material to prevent debris or dust from entering into the atmosphere.

The Engineer will keep records of removal, stockpiling, trucking, shipping manifest, and the landfill disposal site used.

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT SURFACE REMOVAL (ASBESTOS).

CHECK SHEET #8

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
TEMPORARY STREAM CROSSINGS AND IN-STREAM WORK PADS

Effective: January 2, 1992
Revised: January 1, 1998

Haul Road and Other Temporary Stream Crossings. A temporary low flow structure such as a pipe culvert shall be installed at haul road and other temporary stream crossings. The haul road shall be constructed with materials (i.e., coarse aggregate) meeting the requirements of Article 1004.04 of the Standard Specifications, except, if pit run gravel is used, prior approval of the source may be required by the Engineer. Upon completion of the work, the haul road or other temporary stream crossing shall be removed and the stream channel returned to its original cross section or the cross section called for in the plans.

The Contractor may propose other methods of constructing the stream crossing to the Department of Natural Resources and, if approved by them, the Contractor may proceed with that method.

In-Stream Work Pads. All in-stream work pads shall be constructed with materials (i.e. e., coarse aggregate) meeting the requirements of Article 1004.04 of the Standard Specifications, except, if pit run gravel is used, prior approval of the source may be required by the Engineer. In cases where the work pad will span the stream, a temporary low flow structure such as a pipe culvert shall be installed. Upon completion of the work, the in-stream work pads shall be removed and the stream channel returned to its original cross section or the cross section called for in the plans.

The Contractor may propose other methods of constructing the work pads to the Department of Natural Resources, and if approved by them, the Contractor may proceed with that method.

Method of Measurement and Basis of Payment. Haul Roads and Other Temporary Stream Crossings or In-Stream Work Pads will not be measured or paid for separately but shall be considered as included in the unit cost of the various pay items in the contract.

The salvaged aggregates and pipe culverts used in the Haul Roads and Other Temporary Stream Crossings or In-Stream Work Pads shall remain the property of the Contractor but may be used in construction if approved by the Engineer.

State of Illinois
Department of Transportation

SPECIAL PROVISION FOR CONSTRUCTION LAYOUT STAKES

Effective: May 1, 1993
Revised: January 1, 2022

Description. The Contractor shall furnish and place construction layout stakes and perform layout work necessary to construct the work to the lines and grades shown on the plans. The Department will provide adequate reference points to the centerline of survey or other control points as applicable and bench marks as shown in the plans and listed herein. Any additional control points set by the Department will be identified in the field to the Contractor and all field notes will be kept in the office of the Resident Engineer.

The Contractor shall provide field forces, equipment, and material to perform the entire layout for the work, set additional stakes, which are needed to establish offset stakes, reference points, and any other horizontal or vertical controls, including supplementary bench marks, necessary to secure a correct layout of the work. Stakes for line and grade of pavement and/or curb shall be set at sufficient station intervals to ensure conformance to plan line and grade. The Contractor will not be required to set additional stakes to locate a utility line which is not included as a pay item in the contract nor to determine property lines between private properties.

The Contractor shall be responsible for having the finished work conform to the lines, grades, elevations, and dimensions called for in the plans. Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of all or any part of it shall not relieve the Contractor of his/her responsibility to secure the proper dimensions, grades and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of stakes and bench marks and shall have them reset when any are damaged, lost, displaced, removed, or otherwise obliterated.

Responsibility of the Department.

(a) The Department will locate and reference the control points established for the layout of the work. This may include the centerline of roads and streets, except interchange ramps. The centerline of private entrances and short street intersection returns may not be located or referenced by the Department.

    Locating and referencing the centerline of survey will consist of establishing and referencing the control points of the centerline of surveys such as PC's, PT's and as many POT's as are necessary to provide a line of sight.

(b) For construction of roadways on new alignments, reconstruction of roadways, and construction or reconstruction of structures, bench marks will

be established along the project outside of construction lines not exceeding 1000 ft (300 m) intervals horizontally and 20 ft (6 m) vertically.

(c) Stakes set for (a) and (b) above will be identified in the field to the Contractor.

(d) The Department will make random checks of the Contractor's staking to determine if the work is in conformance with the plans. Where the Contractor's work will tie into work that is being or will be done by others, checks will be made to determine if the work is in conformance with the proposed overall grade and horizontal alignment.

(e) The Department will set stakes for utility adjustments.

(f) The Department will make measurements and take cross sections from which the various pay items will be measured.

(g) Where the Contractor, in setting construction stakes, discovers discrepancies, the Department will check to determine their nature and make whatever revisions are necessary in the plans, including the recross sectioning of the area involved. Any additional restaking required by the Engineer will be the responsibility of the Contractor. The additional restaking done by the Contractor will be paid for according to Article 109.04 of the Standard Specifications.

(h) The Department will accept responsibility for the accuracy of the initial control points as provided herein.

(i) It is not the responsibility of the Department, except as provided herein, to check the correctness of the Contractor's stakes; any errors apparent will be immediately called to the Contractor's attention and he/she shall make the necessary correction before the stakes are used for construction purposes.

Responsibility of the Contractor.

(a) The Contractor shall establish from the given survey points and bench marks the control points necessary to construct the individual project elements. S(he) shall provide the Engineer adequate control in close proximity to each individual element to allow adequate checking of construction operations. This includes, but is not limited to, line and grade stakes, line and grade nails in form work, and/or filed or etched marks in substantially completed construction work or other locations. It is the Contractor's responsibility to tie in centerline control points in order to preserve them during construction operations.

(b) At the completion of the grading operations, the Contractor shall set stakes at 100 ft (25 m) station intervals along each profile grade line. These stakes will be used for final cross sectioning by the Department.

(c) The Contractor shall locate the existing right-of-way points for the installation of right-of-way markers.

(d) Work shall be according to normally accepted self-checking surveying practices. Field notes shall be kept in standard survey field notebooks and those books shall become the property of the Department at the completion of the project. Notes shall be neat, orderly, and in accepted form.

(e) The Contractor shall use diligent care and appropriate accuracy for placement of construction stakes in order to construct to the lines and grades shown in the plans. Points shall be positioned to allow reuse throughout the construction process.

(f) Prior to beginning any bridge construction, structure centerlines and pier lines shall be established by the Contractor and checked by the Engineer. The Contractor shall provide a detailed structure layout drawing showing span dimensions, staking lines, and offset distances.

Measurement and Payment. This work will be paid for at the contract lump sum price for CONSTRUCTION LAYOUT.

CHECK SHEET #10

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
USE OF GEOTEXTILE FABRIC FOR
RAILROAD CROSSING

Effective: January 1, 1995
Revised: January 1, 2025

Description. This work shall consist of furnishing and installing geotextile fabric for railroad crossings.

Materials. The geotextile fabric shall consist of woven yarns or nonwoven filaments of polyolefins or polyesters. Woven fabrics shall be Class 2 and nonwoven fabrics shall be Class 1 according to AASHTO M 288. The fabric shall be inert to commonly encountered chemicals, rot proof, dimensionally stable (i.e., fibers must maintain their relative position with respect to each other), resistant to delamination and conform to the following physical properties.

PHYSICAL PROPERTIES [1/]		
	Woven	Nonwoven
Grab Strength, lb (N) ASTM D 4632 [2/]	247 (1100) min.	202 (900) min.
Elongation/Grab Strain, % ASTM D 4632 [2/]	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 [2/]	90 (400) min.	79 (350) min.
Puncture Strength, lb (N) ASTM D 6241 [2/]	494 (2200) min.	433 (1925) min.
Apparent Opening Size, Sieve No. (mm) ASTM D 4751 [3/]	40 (0.43) max.	
Permittivity, sec^{-1} ASTM D 4491	0.05 min.	
Ultraviolet Stability % retained strength after 500 hours of exposure - ASTM D 4355	70 min.	

1/ AASHTO Product Eval & Audit results (manufacturer's QC test values) or manufacturer's certification to meet test requirements.

2/ Values represent the minimum average roll value (MARV) in the weaker principle direction [machine direction (MD) or cross-machine direction (XD)].

3/ Values represent the maximum average roll value.

CONSTRUCTION REQUIREMENTS

Handling and Storage. Fabric shall be delivered to the job site in such a manner as to facilitate handling and incorporation into the work without damage. The fabric shall be stored out of direct sunlight.

Installation. Geotextile fabric shall be placed on existing subgrade cleared of debris and sharp objects to prevent damage to the fabric. All laps shall be a minimum 12 in. (300 mm). The fabric shall not be punctured during compaction of the ballast.

Method of Measurement. This work will be measured for payment in place and the area computed in square yards (square meters). The overlap at joints will be measured as a single layer of material.

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for GEOTEXTILE FABRIC FOR RAILROAD CROSSING.

CHECK SHEET #11

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
SUBSEALING OF CONCRETE PAVEMENTS

Effective: November 1, 1984
Revised: January 1, 2007

Description. This work shall consist of filling voids beneath rigid and composite pavements with portland cement grout.

Materials. Materials shall be according to the following Articles of Division 1000 - Materials of the Standard Specifications:

Item	Article/Section
(a) Portland Cement	1001
(b) Water	1002
(c) Fly ash	1010.03
(d) Admixtures	1021
(e) Packaged Rapid Hardening Mortar or Concrete	1018

Equipment. Equipment shall be according to the following.

(a) Grout Plant. The grout plant shall be capable of accurately measuring and proportioning ingredients by volume, weight (mass), or a combination thereof. The mixer shall be capable of producing a consistent and homogeneous mixture free of lumps. Provisions for calibrating the batching or metering equipment and a positive means of monitoring total production including continuity of material delivery shall be provided.

(b) Grout Pump. The grout pump shall be a positive displacement pump capable of producing 10 to 100 psi (69 to 690 kPa) at the grout packer. If the volume of the grout storage area is 4 cu ft (0.1 cu m) or more it shall be equipped with mixing paddles. The discharge line shall be equipped with a positive cut-off valve at the nozzle end, and a bypass return line for re-circulating the grout into the holding tank or mixer; otherwise, the packer shall be inserted into the grout holding tank and the pump operated to prevent setting or degradation of the grout.

(c) Drill. The drilling devices shall be capable of drilling the grout injection holes through the pavement, and through the subbase. The equipment shall be in good condition and operated in such a manner that the holes are vertical and sufficiently round to permit sealing by the packer head. Means to monitor the down feed force shall be provided.

(d) Movement Detectors. The Contractor shall supply equipment to measure slab lift. When used on jointed pavements, the equipment shall be capable of detecting simultaneously the lift of the corners of two adjacent slabs. The

equipment shall have graduations of 0.001 in. (0.025 mm). Two measuring devices shall be provided.

(e) Pressure Gauge. The pressure gauge, protected from direct contact with grout slurry, shall be mounted in the grout line at the packer head.

CONSTRUCTION REQUIREMENTS

General. Grout pumping shall not be performed when ambient temperature is below 40 °F (5 °C), or when the subgrade and/or base material is frozen.

Grout pumping shall not be performed after October 31 or prior to April 15 unless approval is given by the Engineer.

Drilling Holes. Grout injection holes shall be drilled in the pattern shown in the plans or as determined by the Engineer. They shall not be larger than 2 in. (50 mm) in diameter, drilled vertically and round, to penetrate 2 to 6 in. (50 to 150 mm) below the subbase material. The downfeed force shall not exceed 200 lb (890 N). Depth of spalling of the pavement underside due to drilling of the concrete pavement shall not exceed 20 percent of the pavement thickness. Three times the bid price for holes drilled will be deducted from the money due the Contractor for each hole determined to be excessively spalled. Inspection holes shall be drilled, as required by the Engineer, to determine if the voids under the pavement have been filled. If the voids have not been filled, grout shall be pumped into the inspection hole as described herein.

Washing Holes. Prior to subsealing, holes shall be washed with water to provide an opening into the void system.

Proportioning Grout. Grout for filling voids beneath pavement shall be composed of portland cement, fly ash, water, and if necessary, admixtures. Grout shall meet the following minimum requirements:

(a) Minimum cement content of 20 percent of the Absolute Volume of the grout solids.

(b) Flow cone efflux time shall be 10 to 17 seconds according to ASTM C 939. The field test shall be performed by the Contractor at ambient air temperature at time of placement, and will be witnessed by the Engineer. The test shall be performed a minimum of once a day or when requested by the Engineer.

(c) Minimum design strength at minimum efflux time shall be 600 psi (4150 kPa) at seven days according to ASTM C 109. The test will be performed by the Engineer and three specimens will be molded a minimum of once a day. Disposable molds with a cover shall be provided.

(d) An initial set time less than two hours according to ASTM C 266. The field test shall be performed by the Contractor at ambient air temperature at time of placement, and will be witnessed by the Engineer. The test shall be performed as needed to open a lane to traffic.

CHECK SHEET #11

At least three weeks prior to the beginning of this work, the Contractor shall submit to the Engineer the proposed mixture proportions based on absolute volumes. The submittal shall include independent laboratory testing of the grout showing one day, three day, and seven day strengths, efflux time, time of initial set, and specific gravity of fly ash. Accompanying this submittal shall be sufficient quantities of all mixture components to permit laboratory verification of the grout properties listed herein.

Mixing Grout. Mixed material shall not be held for more than 60 minutes. With permission of the Engineer, grout that has lost fluidity may be re-tempered with mix water one time.

Pumping Grout. An expanding rubber packer or hose connected to the discharge from the plant shall be lowered into the hole. The discharge end of the packer or hose shall not extend below the lower surface of the concrete pavement. Each hole shall be pumped until lift is observed, or material is observed flowing from hole to hole. Movement detectors shall be transported and positioned by the Contractor at each joint and crack to monitor lift. The upward movement of the pavement shall not exceed 0.05 in. (1.2 mm).

Transient pressures (2-3 seconds duration) of no greater than 100 psi (690 kPa) will be permitted to facilitate grout flow. Pumping pressures for void filling shall be no greater than 40 psi (276 kPa).

Water displaced from the void structure by the grout shall be allowed to flow out freely.

The Contractor shall correct subsealing procedures if there is excessive loss of grout through cracks, joints, holes or in the shoulder area. Pay quantities will be reduced by the Engineer accordingly.

Immediately after the grout packer has been removed from the hole, the hole shall be filled with a wooden plug or other approved methods when necessary to prevent grout loss from the hole. These plugs shall remain in place until the grout has set sufficiently to prevent grout escaping from the hole. Plugs driven flush may remain in place until the hole is patched.

Patching Holes. Upon completion of pumping, all drill holes shall be filled with rapid hardening mortar or concrete according to Article 407.10(b)(3) of the Standard Specifications.

Cleaning Pavement. All drill tailings, spilled grout, and other debris shall be cleaned up at the end of each working day or before the lane is opened to traffic. When adjacent lanes are open to traffic, provisions shall be made to prevent grout from encroaching onto the open lane or squirting onto passing vehicles.

Opening to Traffic. The lane in which pumping operations are completed may be opened to traffic 1/2 hour after the initial set of the grout.

Method of Measurement. This work will be measured for payment as follows.

(a) Holes. Holes drilled through the pavement structure, including inspection holes, will be measured for payment as each.

(b) Grout Material. Grout incorporated into the pavement structure will be measured for payment in cubic feet (cubic meters) (absolute volume) of dry solid material only. Weights (masses) will be converted to dry solid volume using the following formula:

$$V = \frac{Wc}{Gc \times 9.8} + \frac{Wf}{Gf \times 9.8} \left(\frac{Wc}{Gc \times 62.4} + \frac{Wf}{Gf \times 62.4} \right)$$

Where:

V	=	Total absolute volume of the dry solids in cu ft (cu m).
Wc	=	Weight (mass) of portland cement in lb (kg).
Gc	=	Specific gravity of portland cement.
Wf	=	Weight (mass) of fly ash in lb (kg).
Gf	=	Specific gravity of fly ash.

Water and admixtures will not be measured for payment.

Basis of Payment. This work will be paid for at the contract unit price per cubic foot (cubic meter) for DRY GROUT SOLIDS and at the contract unit price per each for HOLES DRILLED.

CHECK SHEET #12

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
HOT-MIX ASPHALT SURFACE CORRECTION

Effective: November 1, 1987
Revised: January 1, 2009

Description. This work shall consist of milling and planing the existing hot-mix asphalt (HMA) pavement to remove wheel lane ruts and leave a pavement surface texture suitable for traffic.

Equipment. The milling machine shall be according to Article 1101.16(a) of the Standard Specifications, except the machine shall be capable of milling an entire lane width in a single pass and it shall load the cuttings into a truck.

The cutting drum and teeth shall be designed to produce the required surface texture. When the teeth become worn so they will not produce the required surface texture, they shall be changed at the same time (as a unit). Occasionally, individual teeth may be changed if they lock up or break, but this method shall not be used to avoid changing the set of teeth as a unit.

The moldboard shall be straight, true, and free of excessive nicks or wear, and it shall be replaced as necessary to uniformly produce the required surface texture.

CONSTRUCTION REQUIREMENTS

General. The temperature at which the work is performed, the nature and condition of the equipment, and the manner of performing the work shall be such that the milled and planed surface is not torn, gouged, shoved, or otherwise injured by the grinding operation. Surface tests will be made according to Article 407.09 of the Standard Specifications.

The Contractor shall remove any castings in the pavement and cover the holes prior to milling. The Contractor shall mill the amount as shown on the plans at the centerline, except when the milling at the outer edge of the surface exceeds 1 1/2 in. (40 mm); then the Contractor shall reduce the cut at the centerline to provide a maximum cut at the outer edge of the pavement of 1 1/2 in. (40 mm). It may also become necessary to reduce the slope of the crown from 3/16 in./ft (15 mm/m) to 1/8 in./ft (10 mm/m) to maintain a maximum cut at the outer edge of 1 1/2 in. (40 mm).

The cuttings resulting from this operation shall become the property of the Contractor and shall be disposed of according to Article 202.03 of the Standard Specifications.

Surface Texture. Each tooth on the cutting drum shall produce a series of discontinuous longitudinal striations. There shall be 16 to 20 striations (tooth marks)

for each tooth for each 6 ft (1.8 m) in the longitudinal dimension, and each striation shall be 1.7 ± 0.2 in. (43 ± 5 mm) in length after the area is planed by the moldboard. Thus the planed length between each pair of striations shall be 2.3 ± 0.2 in. (58 ± 5 mm). There shall be 80 to 96 rows of discontinuous longitudinal striations for each 5 ft (1.5 m) in the transverse dimension. The pattern of striations shall be such that a line connecting striations in adjacent rows shall form approximately a 70 degree skew angle with the roadway centerline. The areas between the striations in both the longitudinal and transverse directions shall be flat-topped and coplanar. The moldboard shall be used to cut this plane, and any time the operation fails to produce this flat plane interspersed with a uniform pattern of discontinuous longitudinal striations, the operation shall be stopped and the cause determined and corrected before recommencing.

Clean-up. After milling and planing a traffic lane, the pavement shall be swept clean with a mechanical broom prior to opening the lane to traffic.

Method of Measurement. This work will be measured for payment as follows.

(a) Contract Quantities. The requirements for the use of contract quantities shall be according to Article 202.07(a) of the Standard Specifications.

(b) Measured Quantities. This work will be measured for payment in place and the area computed in square yards (square meters). Measurement will include variations in depth of cut due to rutting, superelevations, and pavement crown.

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT SURFACE CORRECTION.

CHECK SHEET #13

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
PAVEMENT AND SHOULDER RESURFACING

Effective: February 1, 2000
Revised: January 1, 2023

Revise Article 406.10 of the Standard Specifications to read:

"**406.10 Resurfacing Sequence.** The resurfacing operations shall satisfy the following requirements:

(a) Before paving in a lane, the adjacent lane and its paved shoulder shall be at the same elevation.

(b) Each lift of resurfacing shall be completed, including paved shoulders, before the next lift is begun.

(c) Elevation differences between lanes shall be eliminated within twelve calendar days."

Revise the first sentence of the eleventh paragraph of Article 406.13 of the Standard Specifications to read:

"When a HMA binder and surface course mixture is used on shoulders and is placed simultaneously with the traffic lane as specified in Section 482, the quantity of HMA placed on the traffic lane that will be paid for will be limited to a calculated tonnage based upon actual mat width and length, plan thickness or a revised thickness authorized by the Engineer, and design mix weight per inch (millimeter) of thickness."

Delete the twelfth paragraph of Article 406.13 of the Standard Specifications.

Revise the fourth paragraph of Article 482.05 of the Standard Specifications to read:

"On pavement and shoulder resurfacing projects, the resurfacing sequence shall be according to Article 406.10. When the HMA binder and surface course option is used, the shoulders may be placed, at the Contractor's option, simultaneously with the adjacent traffic lane for both courses, provided the specified density, thickness and cross slope of both the pavement and shoulder can be satisfactorily obtained."

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL

Effective: October 1, 1995
Revised: January 1, 2018

Description. This work shall consist of removing the hot-mix asphalt (HMA) over areas to be patched, patching, and HMA replacement.

General. The HMA shall be removed as shown on the plans according to Section 440 of the Standard Specifications. After the HMA has been removed, the Engineer will determine if patching is necessary. Areas requiring patching shall be patched according to Section 442 of the Standard Specifications. HMA binder replacement shall be according to Section 406 of the Standard Specifications.

Method of Measurement. In the event the thickness of the existing pavement in an area to be patched after the surface has been removed or the thickness of the existing overlay differs from the thickness shown on the plans, the Engineer will adjust the patching quantity, for the specific patch type, or HMA overlay removal for the individual patches meeting this requirement as indicated by the following chart. The quantities will be increased when the thickness is greater and decreased when the thickness is less.

% 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 of the Standard Specifications.

Patching will be measured for payment according to Article 442.10 of the Standard Specifications.

HMA removal over the patches will be measured for payment in square yards (square meters), of the thickness specified.

The HMA binder replacement will be measured for payment in tons (metric tons) according to Article 406.13 of the Standard Specifications.

Basis of Payment. The HMA removal will be paid for at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT REMOVAL OVER PATCHES, of the thickness specified.

CHECK SHEET #14

HMA binder replacement will be paid for at the contract unit price per ton (metric ton) for HOT-MIX ASPHALT REPLACEMENT OVER PATCHES.

Patching will be paid for according to Article 442.11 of the Standard Specifications.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
POLYMER CONCRETE

Effective: August 1, 1995
Revised: April 1, 2016

Description. This work shall consist of furnishing all labor, equipment, technical assistance, and materials necessary to install the polymer concrete as shown on the plans and as specified herein.

Materials. The polymer concrete material shall be a fast setting composite material that may contain aggregate and fibers. It shall be resilient, self-adhering, and water tight. It shall withstand and remain bonded to the surrounding material under repeated impact and thermal cycling. It shall not flow nor become tacky in temperatures up to 130 °F (54 °C). It shall be resistant to ultraviolet radiation, petroleum products and abrasion. It shall be capable of curing at all temperatures above 50 °F (10 °C). Mixing shall be according to the manufacturer's instructions. Based on information provided in the material safety data sheet, the Engineer reserves the right to reject the material due to health or safety concerns.

The polymer concrete shall comply with the following requirements:

Property (Test Method)	Material Specification
Compressive Strength (IL Mod. ASTM C 579)	Refer to Illinois Test Method
Direct Shear (IL Test Procedure, “Shear Strength of Bonded Polymer Concrete”)	Refer to Illinois Test Method
Freeze-Thaw (ITP 161)	Refer to Illinois Test Method
Salt Scale (IL Mod. ASTM C 672)	Refer to Illinois Test Method
Traffic Bearing Time	4 hours max. @ 70 ± 5 °F (21 ± 3 °C)
Pot Life	5 minutes min. @ 70 ± 5 °F (21 ± 3 °C)
Impact Resistance (IL Mod. ASTM D 2444)	Refer to Illinois Test Method

The Department will maintain a qualified product list.

Equipment. All equipment necessary for proper construction of this work shall be as recommended by the manufacturer and approved by the Engineer prior to beginning the work. Air equipment shall pass the requirements of ASTM D 4285. This test shall be repeated as determined by the Engineer.

CONSTRUCTION REQUIREMENTS

General. The Contractor shall furnish the Engineer with the manufacturer’s product information and installation procedures at least two weeks prior to installation.

CHECK SHEET #15

When placing the polymer concrete nosing against concrete, the concrete surface shall be dry. For newly placed concrete, the concrete shall be fully cured and allowed to dry out a minimum of seven additional days prior to placement of the nosing. Cold, wet, inclement weather will require an extended drying time.

a) Surface Preparation. All loose foreign material shall be removed. The substrate shall be structurally sound and sandblasted to be free of all foreign matter, grease, dirt, and laitance along the bottom and the sidewalls for all areas that will be in contact with the polymer concrete. Steel surfaces shall be cleaned to SSPC-SP10 surface preparation. After blast cleaning, the surfaces shall be blown clean of debris using oil-free compressed air at a minimum pressure of 90 psi (620 kPa). The bottom and sides of these areas shall then be primed as recommended by the manufacturer.

b) Placement. The polymer concrete shall be mixed, placed and cured according to the manufacturer's instructions. The materials shall be screeded level when appropriate. The material shall be tack free and firm to the touch before proceeding or opening to traffic as determined by the Engineer.

Method of Measurement. This work will be measured for payment in place and the volume computed in cubic feet (cubic meters).

Basis of Payment. This work will be paid for at the contract unit price per cubic foot (cubic meter) for POLYMER CONCRETE.

RESERVED

State of Illinois
Department of Transportation

SPECIAL PROVISION FOR BICYCLE RACKS

Effective: April 1, 1994
Revised: January 1, 2025

Description. This work shall consist of furnishing and installing bicycle racks.

Materials. Materials shall be according to the following.

(a) Steel Pipe. The bicycle rack shall be fabricated from steel pipe, NPS 2, Schedule 40, according to ASTM A 53. The steel pipe shall be a continuous piece as shown on the plans. The steel pipe shall not be welded in sections. Only the base plate shall be welded to the steel pipe.

(b) Fasteners. A minimum of four fasteners shall be used for each concrete anchor location. Fasteners shall be a Type 316 stainless steel concrete security anchor with a mushroom or button head. A tamper proof fastener design may also be used. The anchor shall be 3/8 in. (10 mm) diameter x minimum 4 in. (100 mm) long.

(c) Base Plates. Base plates shall be 3/8 in. (10 mm) thick steel and according to ASTM A 36 (A 36M). Base plates shall be galvanized according to ASTM A 153.

(d) Concrete Pad. The pad shall be Class SI concrete according to Section 1020 and curing materials shall be according to Section 1021 of the Standard Specifications.

Submittals. The Contractor shall submit to the Department the following items before construction begins:

(a) Bicycle Rack -- shop drawings or product data.

(b) Fastener -- product data.

(c) Certifications -- submit manufacturer's certification the pipe and coatings meet the project specifications.

CONSTRUCTION REQUIREMENTS

Coating of Bicycle Racks. The steel pipe and the base plate shall be coated as specified below. Color of the coating shall be black. The coating shall be applied only after the steel pipe and base plate have been fabricated. The final product shall not contain cracks in the coating, ripples in the curved areas, nor any damage due to fabrication and or shipping.

(a) Steel shall be shot blast to near white steel and then an iron phosphate pre-treatment shall be applied.

(b) Primer shall be a thermosetting epoxy powder coating electrostatically applied and cured six minutes at 250 °F (121 °C). The primer thickness shall be 1.8-10 mils (45-250 µm).

(c) Topcoat shall be triglycidyl isocyanurate (TGIC) polyester powder coating, electrostatically applied and cured in an oven for 20 minutes at 250 °F (121 °C). The total of all the coatings shall be 8-10 mils (200-250 µm).

Concrete Pad. Prior to construction of a concrete pad, the Engineer will designate the final location, elevation, and dimensions of the pad. Excavation required for the construction of the pad may require removal of existing concrete or asphalt. The excavated area shall be compacted to the satisfaction of the Engineer. A minimum of 6 in. (150 mm) of CA 6 according to Article 1004.04 of the Standard Specifications shall be placed and compacted. The concrete pad shall be 5 1/2 in. (140 mm) thick. Forming and concrete placement shall be according to Section 420 of the Standard Specifications. The site shall be left in a broom clean condition.

Fastening. The bicycle rack shall be surface mounted on concrete with expansion anchors only after concrete has been cured.

Basis of Payment. This work will be paid for at the contract unit price per each for BICYCLE RACKS.

CHECK SHEET #18

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS

Effective: August 1, 2003
Revised: January 1, 2007

Description. At the Contractor's option, temporary portable bridge traffic signals may be used in place of temporary bridge traffic signals. Work shall be according to Article 701.18(b) of the Standard Specifications, except as follows:

Materials. Materials shall be according to the following Articles/Sections of the Standard Specifications.

Item	Article/Section
(a) Traffic Signal Head	1078
(b) Electric Cable	1076.04
(c) Controller	1073
(d) Controller Cabinet	1074.03
(e) Detector Loop	1079

CONSTRUCTION REQUIREMENTS

General. The temporary portable bridge traffic signals shall be trailer-mounted units. The trailer-mounted units shall be set up securely and level. Each unit shall be self-contained and consist of two signal heads. The left signal head shall be mounted on a mast arm capable of extending over the travel lane. Each unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120 V power supply from a generator or electrical service.

All signal heads located over the travel lane shall be mounted at a minimum height of 17 ft (5 m) from the bottom of the signal back plate to the top of the road surface. All far right signal heads located outside the travel lane shall be mounted at a minimum height of 8 ft (2.4 m) from the bottom of the signal back plate to the top of the adjacent travel lane surface.

The long all red intervals for the traffic signal controller shall be adjustable up to 250 seconds in one-second increments.

As an alternative to detector loops, temporary portable bridge traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation. All portable traffic signal units shall be interconnected using hardwire communication cable or radio communication equipment. If radio communication is used, a site analysis shall be completed to ensure that there is no interference present that would affect the traffic signal operation. The radio equipment shall meet all applicable FCC requirements.

The temporary portable bridge traffic signal system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV of the Manual on Uniform Traffic Control Devices (MUTCD). The signal system shall be designed to continuously operate over an ambient temperature range between -30 °F (-34 °C) and 120 °F (48 °C).

When not being utilized to inform and direct traffic, portable signals shall be treated as non-operating equipment according to Article 701.11 of the Standard Specifications.

Basis of Payment. This work will be paid for according to Article 701.20(c) of the Standard Specifications.

CHECK SHEET #19

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
NIGHTTIME INSPECTION OF ROADWAY LIGHTING

Effective: May 1, 1996

The Contractor shall provide traffic control and protection for the nighttime inspection of the roadway lighting as shown in the contract. Any fixtures found not to be aimed to provide optimum lighting on the roadway during the nighttime inspection shall be re-aimed to optimum during the inspection. Any work necessary for re-aiming will not be paid for separately but, shall be included in the cost of the highway lighting bid items.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
ENGLISH SUBSTITUTION OF METRIC BOLTS

Effective: July 1, 1996
Revised: January 1, 2014

This special provision consists of giving the Contractor the option of replacing metric size bolts with English size bolts.

For ASTM A 325M, the following substitutions will be allowed:

Metric Bolt Diameter, mm	English Substitution Diameter, in.
M16	5/8
M22	7/8
M27	1-1/8
M30	1-1/4

A 3/4 in. diameter bolt may be substituted for a M20 bolt only on connections for straight multi-girder systems, detailed with over-sized holes.

For ASTM A 307, the following substitutions will be allowed:

Metric Bolt Diameter, mm	English Substitution Diameter, in.
M24	1
M30	1-1/4
M36	1-1/2
M48	2
M64	2-1/2

CHECK SHEET #21

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
CALCIUM CHLORIDE ACCELERATOR FOR PORTLAND CEMENT CONCRETE

Effective: January 1, 2001
Revised: January 1, 2013

When using Class PP-2 concrete in Class A, B, or C patches, the Contractor may substitute a calcium chloride accelerator for the non-chloride accelerator.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
QUALITY CONTROL OF CONCRETE MIXTURES AT THE PLANT

Effective: August 1, 2000
Revised: January 1, 2022

Description. This Special Provision specifies the quality control responsibilities of the Contractor at the plant, for portland cement concrete mixtures, cement aggregate mixture II, and controlled low-strength material incorporated in the project, and defines the quality assurance and acceptance responsibilities of the Engineer.

A list of quality control/quality assurance (QC/QA) documents is provided in Schedule C.

Equipment/Laboratory. The Contractor shall provide a laboratory and test equipment to perform their quality control testing, as required in Schedule A.

The laboratory shall be of sufficient size and be furnished with the necessary equipment, supplies, and current published test methods for adequately and safely performing all required tests. The laboratory will be approved by the Engineer at the beginning of each construction season or each 12 month period. Production of a mixture shall not begin until the Engineer provides written approval of the laboratory. The Contractor shall refer to the Department's "Required Sampling and Testing Equipment for Concrete" for equipment requirements.

Test equipment shall be maintained and calibrated as required by the appropriate test method, and when required by the Engineer. This information shall be documented on the Department's "Calibration of Concrete Testing Equipment" forms BMPR PCCQ01 through BMPR PCCQ09.

The Engineer shall have unrestricted access to the plant and laboratory at any time to inspect measuring and testing equipment, and will notify the Contractor of any deficiencies. Defective equipment shall be immediately repaired or replaced by the Contractor.

Plant/Delivery Trucks. The concrete plant and delivery trucks shall be approved according to the Department’s Policy Memorandum “Approval of Concrete Plants and Delivery Trucks”.

Quality Control Plan. The Contractor shall submit, in writing, a proposed Quality Control (QC) Plan, Part 2, to the Engineer. The QC Plan shall be submitted a minimum of 45 calendar days prior to the production of a mixture. The QC Plan shall address the quality control of the concrete, cement aggregate mixture II, and controlled low-strength material at the plant. The Contractor shall refer to the Department's "Model Quality Control Plan for Concrete Production" to prepare a QC Plan. The Engineer will respond in writing to the Contractor’s proposed QC Plan within 15 calendar days of receipt.

CHECK SHEET #22

Production of a mixture shall not begin until the Engineer provides written approval of the QC Plan. The approved QC Plan shall become a part of the contract between the Department and the Contractor, but shall not be construed as acceptance of any mixture produced.

The QC Plan may be amended during the progress of the work, by either party, subject to mutual agreement. The Engineer will respond in writing to a Contractor's proposed QC Plan amendment within 15 calendar days of receipt. The response will indicate the approval or denial of the Contractor's proposed QC Plan amendment.

Plant Quality Control by Contractor. At the plant, the Contractor shall perform quality control inspection, sampling, testing, and documentation to meet contract requirements. Quality control includes the recognition of obvious defects and their immediate correction. Quality control also includes appropriate action when passing test results are near specification limits. Quality control may require increased testing, communication of test results to the plant or the jobsite, modification of operations, suspension of mixture production, rejection of material, or other actions as appropriate. The Engineer shall be immediately notified of any failing tests and subsequent remedial action. Passing tests shall be reported no later than the start of the next work day.

When a mixture does not comply with specifications, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03 of the Standard Specifications.

(a) Personnel Requirements. The Contractor shall provide personnel to perform the required inspections, sampling, testing, and documentation in a timely manner. A Quality Control (QC) Manager will not be required. The Contractor shall refer to the Department's "Qualifications and Duties of Concrete Quality Control Personnel" document.

A Level II PCC Technician shall be provided at the plant, or shall be available, during mixture production and placement. A Level II PCC Technician may supervise a maximum of three plants. Whenever the Level II PCC Technician is not at the plant during mixture production and placement, a Concrete Tester or Level I PCC Technician shall be present at the plant to perform any necessary concrete tests. The Concrete Tester, Level I PCC Technician, or other individual shall also be trained to perform any necessary aggregate moisture tests, if the Level II PCC Technician is not at the plant during mixture production and placement. The Concrete Tester, Level I PCC Technician, plant personnel, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

A Concrete Tester may provide assistance with sampling and testing, and shall be supervised by a Level I or Level II PCC Technician.

(b) Required Plant Tests. Sampling and testing shall be performed at the plant, or at a location approved by the Engineer, to control the production of a mixture. The required minimum Contractor plant sampling and testing is indicated in Schedule A.

Plant Quality Assurance by Engineer. The Engineer will perform quality assurance tests on independent samples and split samples at the plant. An independent sample is a field sample obtained and tested by only one party. A split sample is one of two equal portions of a field sample, where two parties each receive one portion for testing. The Engineer may request the Contractor to obtain a split sample. Aggregate split samples and any failing strength specimen shall be retained until permission is given by the Engineer for disposal. The results of all quality assurance tests by the Engineer will be made available to the Contractor. However, Contractor split sample test results shall be provided to the Engineer before Department test results are revealed. The Engineer's quality assurance independent sample and split sample testing is indicated in Schedule B.

(a) Comparing Test Results. Differences between the Engineer's and the Contractor's split sample test results will not be considered extreme if within the following limits:

Test Parameter	Acceptable Limits of Precision
Slump	0.75 in. (20 mm)
Air Content	0.9%
Aggregate Gradation	See "Guideline for Sample Comparison" in Appendix "A" of the Manual of Test Procedures for Materials.

When acceptable limits of precision have been met, but only one party is within specification limits, the failing test shall be resolved before the material may be considered for acceptance.

(b) Test Results and Specification Limits. Split sample and independent sample testing shall be as follows.

(1) Split Sample Testing. If either the Engineer's or the Contractor's split sample test result is not within specification limits, and the other party is within specifications limits; immediate retests on a split sample shall be performed for slump, air content, or aggregate gradation. A passing retest result by each party will require no further action. If either the Engineer's or Contractor's slump, air content, or aggregate gradation split sample retest result is a failure; or if either the Engineer's or Contractor's strength test result is a failure, and the other party is within specification limits; the following actions shall be initiated to investigate the test failure:

a. The Engineer and the Contractor shall investigate the sampling method, test procedure, equipment condition, equipment calibration, and other factors.

b. The Engineer or the Contractor shall replace test equipment, as determined by the Engineer.

c. The Engineer and the Contractor shall perform additional testing on split samples, as determined by the Engineer.

For aggregate gradation, plant slump, and plant air content: if the failing split sample test result is not resolved according to a., b., or c., and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work according to Article 105.03 of the Standard Specifications. If the mixture has already been placed, the material will be considered unacceptable.

If a continued trend of difference exists between the Engineer's and the Contractor's split sample test results, or if split sample test results exceed the acceptable limits of precision, the Engineer and the Contractor shall investigate according to a., b., or c.

(2) Independent Sample Testing. For aggregate gradation, plant slump, and plant air content, if the result of a quality assurance test on a sample independently obtained by the Engineer is not within specification limits and the mixture has not been placed, the Contractor shall reject the material, unless the Engineer accepts the material for incorporation in the work according to Article 105.03 of the Standard Specifications. If the mixture has already been placed, the material will be considered unacceptable.

Jobsite Acceptance Testing by the Engineer. The Engineer will perform acceptance testing at the jobsite for slump, air content, and strength.

Acceptance by the Engineer. Final acceptance will be based on the Standard Specifications and the following:

(a) The Contractor's compliance with all contract documents for quality control.

(b) Comparison of the Engineer's jobsite acceptance test results with specification limits, using samples independently obtained by the Engineer.

(c) Validation of Contractor plant quality control test results by comparison with the Engineer's quality assurance test results using split samples. Any quality control or quality assurance test determined to be flawed may be declared invalid only when reviewed and approved by the Engineer. The Engineer will declare a test result invalid only if it is proven that improper sampling or testing occurred. The test result is to be recorded and the reason for declaring the test invalid will be provided by the Engineer.

(d) Comparison of the Engineer's plant quality assurance test results with specification limits using samples independently obtained by the Engineer.

The Engineer may suspend mixture production, reject materials, or take other appropriate action if the Contractor does not control the quality of concrete, cement aggregate mixture II, or controlled low-strength material for acceptance. The decision will be determined according to (a), (b), (c), and (d).

Documentation. The Contractor shall be responsible for documenting all observations, inspections, adjustments to the mix design, test results, retest results, and corrective actions in a bound hardback field book, bound hardback diary, or

appropriate Department form, which shall become the property of the Department. The documentation shall include a method to compare the Engineer's test results with the Contractor's results. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the consultants, subcontractors, or the producer of the mixture. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

The Department's form BMPR MI504 shall be completed by the Contractor, and shall be submitted to the Engineer weekly or as required by the Engineer. A correctly completed Form BMPR MI504 is required to authorize payment by the Engineer, for applicable pay items.

The Engineer will be responsible for completing form BMPR MI654 and form BMPR MI655.

Basis of Payment. Quality Control of Concrete Mixtures at the Plant will not be paid for separately, but shall be considered as included in the cost of the various types of concrete mixtures required to construct the work items included in the contract.

CHECK SHEET #22

SCHEDULE A

CONTRACTOR PLANT SAMPLING AND TESTING - DOUBLE A			
Item	Test	Frequency	Illinois Modified AASHTO, Illinois Modified ASTM, or Illinois Test Procedure [1/]
Aggregates (Arriving at Plant)	Gradation [2/]	As needed to check source for each gradation number	Illinois Modified AASHTO R 90, Illinois Modified AASHTO T 11, Illinois Modified AASHTO T 27, and Illinois Modified AASHTO R 76
Aggregates (Stored at Plant in Stockpiles or Bins)	Gradation [2/]	2500 cu yd (1900 cu m) for each gradation number [3/]	Illinois Modified AASHTO R 90, Illinois Modified AASHTO T 11, Illinois Modified AASHTO T 27, and Illinois Modified AASHTO R 76
Aggregates (Stored at Plant in Stockpiles or Bins)	Moisture [4/] : Fine Aggregate	Once per week for moisture sensor, otherwise daily for each gradation number	Flask, Dunagan, Pychnometer Jar, or Illinois Modified AASHTO T 255
	Moisture [4/] : Coarse Aggregate	As needed to control production for each gradation number	Dunagan, Pychnometer Jar, or Illinois Modified AASHTO T 255
Mixture [5/]	Slump Air Content Unit Weight / Yield Slump Flow (SCC) Visual Stability Index (SCC) J-Ring (SCC) [6/] L-Box (SCC) [6/] Temperature	As needed to control production	R60 and T 119 R60 and T 152 or T 196 R60 and T 121 ITP SCC-1 and ITP SCC-2 ITP SCC-1 and ITP SCC-2 ITP SCC-1 and ITP SCC-3 ITP SCC-1 and ITP SCC-4 R60 and ASTM C 1064
Mixture (CLSM) [7/]	Flow Air Content Temperature	As needed to control production	ITP 307

1/ Refer to the Department's "Manual of Test Procedures for Materials".

2/ All gradation tests shall be washed. Testing shall be completed no later than 24 hours after the aggregate has been sampled.

3/ One per week (Sunday through Saturday) minimum, unless the stockpile has not received additional aggregate material since the previous test.

One per day minimum for a bridge deck pour, unless the stockpile has not received additional aggregate material since the previous test. The sample shall be taken and testing completed prior to the pour. The bridge deck aggregate sample may be taken the day before the pour or as approved by the Engineer.

4/ If the moisture test and moisture sensor disagree by more than 0.5 percent, retest. If the difference remains, adjust the moisture sensor to an average of two or more moisture tests. The Department's "Water/Cement Ratio Worksheet" form (BMPR PCCW01) shall be completed, when applicable.

5/ The Contractor may also perform strength testing according to Illinois Modified AASHTO R 60, T 23, and T 22 or T 177; or water content testing according to Illinois Modified AASHTO T 318.

The Contractor may also perform other available self-consolidating concrete (SCC) tests at the plant to control mixture production.

6/ The Contractor shall select the J-Ring or L-Box test for plant sampling and testing.

7/ The Contractor may also perform strength testing according to ITP 307.

SCHEDULE B

ENGINEER QUALITY ASSURANCE INDEPENDENT SAMPLE TESTING		
Location	Measured Property	Testing Frequency [1/]
Plant	Gradation of aggregates stored in stockpiles or bins, Slump, and Air Content	As determined by the Engineer.

ENGINEER QUALITY ASSURANCE SPLIT SAMPLE TESTING [2/]		
Location	Measured Property	Testing Frequency [1/]
Plant	Gradation of aggregates stored in stockpiles or bins	At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per aggregate gradation number and per plant.
	Slump, Air Content, Slump Flow (SCC), Visual Stability Index (SCC), J-Ring (SCC), and L-Box (SCC)	As determined by the Engineer.

1/ The Engineer will perform the testing throughout the period of quality control testing by the Contractor.

2/ The Engineer will witness and take immediate possession of or otherwise secure the Department’s split sample obtained by the Contractor.

CHECK SHEET #22

SCHEDULE C

IDOT CONCRETE QUALITY CONTROL AND QUALITY ASSURANCE DOCUMENTS

(a) Model Quality Control Plan for Concrete Production (*)

(b) Qualifications and Duties of Concrete Quality Control Personnel (*)

(c) Development of Gradation Bands on Incoming Aggregate at Mix Plants (*)

(d) Required Sampling and Testing Equipment for Concrete (*)

(e) Calibration of Concrete Testing Equipment (BMPR PCCQ01 through BMPR PCCQ09)(*)

(f) Water/Cement Ratio Worksheet (BMPR PCCW01) (*)

(g) Field/Lab Gradations (BMPR MI504) (*)

(h) Aggregate Technician Course or Mixture Aggregate Technician Course (*)

(i) Portland Cement Concrete Tester Course (*)

(j) Portland Cement Concrete Level I Technician Course – Manual of Instructions for Concrete Testing (*)

(k) Portland Cement Concrete Level II Technician Course – Manual of Instructions for Concrete Proportioning (*)

(l) Portland Cement Concrete Level III Technician Course – Manual of Instructions for Design of Concrete Mixtures (*)

(m) Manual of Test Procedures for Materials

* Refer to the Department's "Manual of Test Procedures for Materials" for more information.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES

Effective: April 1, 1992
Revised: January 1, 2025

Add the following to Section 1020 of the Standard Specifications:

"**1020.16 Quality Control/Quality Assurance of Concrete Mixtures**. This Article specifies the quality control responsibilities of the Contractor for concrete mixtures (except Class PC and PS concrete), cement aggregate mixture II, and controlled low-strength material incorporated in the project, and defines the quality assurance and acceptance responsibilities of the Engineer.

A list of quality control/quality assurance (QC/QA) documents is provided in Article 1020.16(g), Schedule D.

(a) Equipment/Laboratory. The Contractor shall provide a laboratory and test equipment to perform their quality control testing.

The laboratory shall be of sufficient size and be furnished with the necessary equipment, supplies, and current published test methods for adequately and safely performing all required tests. The laboratory will be approved by the Engineer according to the Bureau of Materials Policy Memorandum "Minimum Private Laboratory Requirements for Construction Materials Testing or Mix Design". Production of a mixture shall not begin until the Engineer provides written approval of the laboratory. The Contractor shall refer to the Department's "Required Sampling and Testing Equipment for Concrete" for equipment requirements.

Test equipment shall be maintained and calibrated as required by the appropriate test method, and when required by the Engineer. This information shall be documented on the Department's "Calibration of Concrete Testing Equipment" forms BMPR PCCQ01 through BMPR PCCQ09.

Test equipment used to determine compressive or flexural strength shall be calibrated each 12 month period by an independent agency, using calibration equipment traceable to the National Institute of Standards and Technology (NIST). The Contractor shall have the calibration documentation available at the test equipment location.

The Engineer will have unrestricted access to the plant and laboratory at any time to inspect measuring and testing equipment, and will notify the Contractor of any deficiencies. Defective equipment shall be immediately repaired or replaced by the Contractor.

(b) Quality Control Plan. The Contractor shall submit, in writing, a proposed Quality Control (QC) Plan to the Engineer. The QC Plan shall be submitted a minimum of 45 calendar days prior to the production of a mixture. The QC Plan shall address the quality control of the concrete, cement aggregate mixture II, and controlled low-strength material incorporated in the project. The Contractor shall refer to the Department's "Model Quality Control Plan for Concrete Production" to prepare a QC Plan. The Engineer will respond in writing to the Contractor's proposed QC Plan within 15 calendar days of receipt.

Production of a mixture shall not begin until the Engineer provides written approval of the QC Plan. The approved QC Plan shall become a part of the contract between the Department and the Contractor, but shall not be construed as acceptance of any mixture produced.

The QC Plan may be amended during the progress of the work, by either party, subject to mutual agreement. The Engineer will respond in writing to a Contractor's proposed QC Plan amendment within 15 calendar days of receipt. The response will indicate the approval or denial of the Contractor's proposed QC Plan amendment.

(c) Quality Control by Contractor. The Contractor shall perform quality control inspection, sampling, testing, and documentation to meet contract requirements. Quality control includes the recognition of obvious defects and their immediate correction. Quality control also includes appropriate action when passing test results are near specification limits, or to resolve test result differences with the Engineer. Quality control may require increased testing, communication of test results to the plant or the jobsite, modification of operations, suspension of mixture production, rejection of material, or other actions as appropriate. The Engineer shall be immediately notified of any failing tests and subsequent remedial action. Passing tests shall be reported no later than the start of the next work day.

When a mixture does not comply with specifications, the Contractor shall reject the material, unless the Engineer accepts the material for incorporation in the work, according to Article 105.03.

(1) Personnel Requirements. The Contractor shall provide a Quality Control (QC) Manager who will have overall responsibility and authority for quality control. The jobsite and plant personnel shall be able to contact the QC Manager by cellular phone, two-way radio, or other methods approved by the Engineer.

The QC Manager shall visit the jobsite a minimum of once a week. A visit shall be performed the day of a bridge deck pour, the day a non-routine mixture is placed as determined by the Engineer, or the day a plant is anticipated to produce more than 1000 cu yd (765 cu m). Any of the three required visits may be used to meet the once per week minimum requirement.

The Contractor shall provide personnel to perform the required inspections, sampling, testing, and documentation in a timely manner.

The Contractor shall refer to the Department's "Qualifications and Duties of Concrete Quality Control Personnel" document.

A Level I PCC Technician shall be provided at the jobsite during mixture production and placement, and may supervise concurrent pours on the project. For concurrent pours, a minimum of one Concrete Tester shall be required at each pour location. If the Level I PCC Technician is at one of the pour locations, a Concrete Tester is still required at the same location. Each Concrete Tester shall be able to contact the Level I PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer. A single Level I PCC Technician shall not supervise concurrent pours for multiple contracts.

A Level II PCC Technician shall be provided at the plant, or shall be available, during mixture production and placement. A Level II PCC Technician may supervise a maximum of three plants. Whenever the Level II PCC Technician is not at the plant during mixture production and placement, a Concrete Tester or Level I PCC Technician shall be present at the plant to perform any necessary concrete tests. The Concrete Tester, Level I PCC Technician, or other individual shall also be trained to perform any necessary aggregate moisture tests, if the Level II PCC Technician is not at the plant during mixture production and placement. The Concrete Tester, Level I PCC Technician, plant personnel, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

For a mixture which is produced and placed with a mobile portland cement concrete plant as defined in Article 1103.04, a Level II PCC Technician shall be provided. The Level II PCC Technician shall be present at all times during mixture production and placement. However, the Level II PCC Technician may request to be available if operations are satisfactory. Approval shall be obtained from the Engineer, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

A Concrete Tester, Mixture Aggregate Technician, and Aggregate Technician may provide assistance with sampling and testing. A Gradation Technician may provide assistance with testing. A Concrete Tester shall be supervised by a Level I or Level II PCC Technician. A Gradation Technician shall be supervised by a Level II PCC Technician, Mixture Aggregate Technician, or Aggregate Technician.

(2) Required Plant Tests. Sampling and testing shall be performed at the plant, or at a location approved by the Engineer, to control the production of a mixture. The required minimum Contractor plant sampling and testing is indicated in Article 1020.16(g) Schedule A.

(3) Required Field Tests. Sampling and testing shall be performed at the jobsite to control the production of a mixture, and to comply with specifications for placement. For standard curing, after initial curing,

and for strength testing, the location shall be approved by the Engineer. The required minimum Contractor jobsite sampling and testing is indicated in Article 1020.16(g), Schedule B.

(d) Quality Assurance by Engineer. The Engineer will perform quality assurance tests on independent samples and split samples. An independent sample is a field sample obtained and tested by only one party. A split sample is one of two equal portions of a field sample, where two parties each receive one portion for testing. The Engineer may request the Contractor to obtain a split sample. Aggregate split samples and any failing strength specimen shall be retained until permission is given by the Engineer for disposal. The results of all quality assurance tests by the Engineer will be made available to the Contractor. However, Contractor split sample test results shall be provided to the Engineer before Department test results are revealed. The Engineer's quality assurance independent sample and split sample testing are indicated in Article 1020.16(g), Schedule C.

(1) Strength Testing. For strength testing, Article 1020.09 shall apply, except the Contractor and Engineer strength specimens may be placed in the same field curing box for initial curing and may be cured in the same water storage tank for final curing.

(2) Comparing Test Results. Differences between the Engineer's and the Contractor's split sample test results will be considered reasonable if within the following limits:

Test Parameter	Acceptable Limits of Precision
Slump	0.75 in. (20 mm)
Air Content	0.9%
Compressive Strength	900 psi (6200 kPa)
Flexural Strength	90 psi (620 kPa)
Slump Flow (Self-Consolidating Concrete (SCC))	1.5 in. (40 mm)
Visual Stability Index (SCC)	Not Applicable
J-Ring (SCC)	1.5 in. (40 mm)
L-Box (SCC)	10 %
Hardened Visual Stability Index (SCC)	Not Applicable
Dynamic Segregation Index (SCC)	1.0 %
Flow (Controlled Low-Strength Material (CLSM))	1.5 in. (40 mm)
Strength (CLSM)	40 psi (275 kPa)
Aggregate Gradation	See "Guideline for Sample Comparison" in Appendix "A" of the Manual of Test Procedures for Materials.

When acceptable limits of precision have been met, but only one party is within specification limits, the failing test shall be resolved before the material may be considered for acceptance.

(3) Test Results and Specification Limits.

a. Split Sample Testing. If either the Engineer's or the Contractor's split sample test result is not within specification limits and the other party is within specification limits, immediate retests on a split sample shall be performed for slump, air content, slump flow, visual stability index, J-Ring, L-Box, dynamic segregation index, flow (CLSM), or aggregate gradation. A passing retest result by each party will require no further action. If either the Engineer's or Contractor's slump, air content, slump flow, visual stability index, J-Ring, L-Box, dynamic segregation index, flow (CLSM), or aggregate gradation split sample retest result is a failure; or if either the Engineer's or Contractor's strength or hardened visual stability index test result is a failure and the other party is within specification limits; the following actions shall be initiated to investigate the test failure:

1. The Engineer and the Contractor shall investigate the sampling method, test procedure, equipment condition, equipment calibration, and other factors.

2. The Engineer or the Contractor shall replace test equipment, as determined by the Engineer.

3. The Engineer and the Contractor shall perform additional testing on split samples, as determined by the Engineer.

For aggregate gradation, jobsite slump, jobsite air content, jobsite slump flow, jobsite visual stability index, jobsite J-Ring, jobsite L-Box, jobsite dynamic segregation index, and jobsite flow (CLSM), if the failing split sample test result is not resolved according to 1., 2., or 3., and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03. If the mixture has already been placed, or if a failing strength or hardened visual stability index test result is not resolved according to 1., 2., or 3., the material will be considered unacceptable.

If a continued trend of difference exists between the Engineer's and the Contractor's split sample test results, or if split sample test results exceed the acceptable limits of precision, the Engineer and the Contractor shall investigate according to items 1., 2., and 3.

b. Independent Sample Testing. For aggregate gradation, jobsite slump, jobsite air content, jobsite slump flow, jobsite visual stability index, jobsite J-Ring, jobsite L-Box, jobsite dynamic segregation index, jobsite flow (CLSM), if the result of a quality assurance test on a sample independently obtained by the Engineer is not within

specification limits, and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03. If the mixture has already been placed or the Engineer obtains a failing strength or hardened visual stability index test result, the material will be considered unacceptable.

(e) Acceptance by the Engineer. Final acceptance will be based on the Standard Specifications and the following:

(1) The Contractor's compliance with all contract documents for quality control.

(2) Validation of Contractor quality control test results by comparison with the Engineer's quality assurance test results using split samples. Any quality control or quality assurance test determined to be flawed may be declared invalid only when reviewed and approved by the Engineer. The Engineer will declare a test result invalid only if it is proven that improper sampling or testing occurred. The test result is to be recorded and the reason for declaring the test invalid will be provided by the Engineer.

(3) Comparison of the Engineer's quality assurance test results with specification limits using samples independently obtained by the Engineer.

The Engineer may suspend mixture production, reject materials, or take other appropriate action if the Contractor does not control the quality of concrete, cement aggregate mixture II, or controlled low-strength material for acceptance. The decision will be determined according to (1), (2), or (3).

(f) Documentation.

(1) Records. The Contractor shall be responsible for documenting all observations, inspections, adjustments to the mix design, test results, retest results, and corrective actions in a bound hardback field book, bound hardback diary, or appropriate Department form, which shall become the property of the Department. The documentation shall include a method to compare the Engineer's test results with the Contractor's results. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the consultants, the subcontractors, or the producer of the mixture. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

The Department's form BMPR MI504, form BMPR MI654, and form BMPR MI655 shall be completed by the Contractor, and shall be submitted to the Engineer weekly or as required by the Engineer. A correctly completed form BMPR MI504, form BMPR MI654, and form BMPR MI655 are required to authorize payment by the Engineer for applicable pay items.

(2) Delivery Truck Ticket. The following information shall be recorded on each delivery ticket or in a bound hardback field book: initial revolution counter reading (final reading optional) at the jobsite, if the mixture is truck-mixed; time discharged at the jobsite; total amount of each admixture added at the jobsite; and total amount of water added at the jobsite.

(g) Basis of Payment and Schedules. Quality Control/Quality Assurance of portland cement concrete mixtures will not be paid for separately, but shall be considered as included in the cost of the various concrete contract items.

CHECK SHEET #23

SCHEDULE A

CONTRACTOR PLANT SAMPLING AND TESTING			
Item	Test	Frequency	Illinois Modified AASHTO, Illinois Modified ASTM, or Illinois Test Procedure [1/]
Aggregates (Arriving at Plant)	Gradation [2/]	As needed to check source for each gradation number	Illinois Modified AASHTO R 90, Illinois Modified AASHTO T 11, Illinois Modified AASHTO T 27, and Illinois Modified AASHTO R 76
Aggregates (Stored at Plant in Stockpiles or Bins)	Gradation [2/]	2500 cu yd (1900 cu m) for each gradation number [3/]	Illinois Modified AASHTO R 90, Illinois Modified AASHTO T 11, Illinois Modified AASHTO T 27, and Illinois Modified AASHTO R 76
Aggregates (Stored at Plant in Stockpiles or Bins)	Moisture [4/]: Fine Aggregate	Once per week for moisture sensor, otherwise daily for each gradation number	Flask, Dunagan, Pychnometer Jar, or Illinois Modified AASHTO T 255
	Moisture [4/]: Coarse Aggregate	As needed to control production for each gradation number	Dunagan, Pychnometer Jar, or Illinois Modified AASHTO T 255
Mixture [5/]	Slump Air Content Unit Weight / Yield Slump Flow (SCC) Visual Stability Index (SCC) J-Ring (SCC) [6/] L-Box (SCC) [6/] Temperature	As needed to control production	R 60 and T 119 R 60 and T 152 or T 196 R 60 and T 121 ITP SCC-1 and ITP SCC-2 ITP SCC-1 and ITP SCC-2 ITP SCC-1 and ITP SCC-3 ITP SCC-1 and ITP SCC-4 R 60 and ASTM C 1064
Mixture (CLSM) [7/]	Flow Air Content Temperature	As needed to control production	ITP 307

1/ Refer to the Department's "Manual of Test Procedures for Materials".

2/ All gradation tests shall be washed. Testing shall be completed no later than 24 hours after the aggregate has been sampled.

3/ One per week (Sunday through Saturday) minimum, unless the stockpile has not received additional aggregate material since the previous test.

One per day minimum for a bridge deck pour, unless the stockpile has not received additional aggregate material since the previous test. The sample shall be taken and testing completed prior to the pour. The bridge deck aggregate sample may be taken the day before the pour or as approved by the Engineer.

4/ If the moisture test and moisture sensor disagree by more than 0.5 percent, retest. If the difference remains, adjust the moisture sensor to an average of two

or more moisture tests. The Department's "Water/Cement Ratio Worksheet" form (BMPR PCCW01) shall be completed, when applicable.

5/ The Contractor may also perform strength testing according to Illinois Modified AASHTO R 60, T 23, and T 22 or T 177; or water content testing according to Illinois Modified AASHTO T 318.

The Contractor may also perform other available self-consolidating concrete (SCC) tests at the plant to control mixture production.

6/ The Contractor shall select the J-Ring or L-Box test for plant sampling and testing.

7/ The Contractor may also perform strength testing according to ITP 307.

CHECK SHEET #23

SCHEDULE B

CONTRACTOR JOBSITE SAMPLING & TESTING [1/]			
Item	Measured Property	Random Sample Testing Frequency per Mix Design and per Plant [2/]	Illinois Modified AASHTO, Illinois Modified ASTM, or Illinois Test Procedure
Pavement, Shoulder, Base Course, Base Course Widening, Driveway Pavement, Railroad Crossing, Cement Aggregate Mixture II	Slump [3/ 4/]	1 per 500 cu yd (400 cu m) or minimum 1/day	R 60 and T 119
	Air Content [3/ 5/ 6/]	1 per 100 cu yd (80 cu m) or minimum 1/day	R 60 and T 152 or T 196
	Compressive Strength [7/ 8/] or Flexural Strength [7/ 8/]	1 per 1250 cu yd (1000 cu m) or minimum 1/day	R 60, T 22 and T 23 or R 60, T 177 and T 23
Bridge Approach Slab [9/], Bridge Deck [9/], Bridge Deck Overlay [9/], Superstructure [9/], Substructure, Culvert, Miscellaneous Drainage Structures, Retaining Wall, Building Wall, Drilled Shaft Pile & Encasement Footing, Foundation, Pavement Patching, Structural Repairs	Slump [3/ 4/]	1 per 50 cu yd (40 cu m) or minimum 1/day	R 60 and T 119
	Air Content [3/ 5/ 6/]	1 per 50 cu yd (40 cu m) or minimum 1/day	R 60 and T 152 or T 196
	Compressive Strength [7/ 8/] or Flexural Strength [7/ 8/]	1 per 250 cu yd (200 cu m) or minimum 1/day	R 60, T 22 and T 23 or R 60, T 177 and T 23
Seal Coat	Slump [3/]	1 per 250 cu yd (200 cu m) or minimum 1/day	R 60 and T 119
	Air Content [3/ 5/ 6/]	1 per 250 cu yd (200 cu m) or minimum 1/day when air is entrained	R 60 and T 152 or T 196
	Compressive Strength [7/ 8/] or Flexural Strength [7/ 8/]	1 per 250 cu yd (200 cu m) or minimum 1/day	R 60, T 22 and T 23 or R 60, T 177 and T 23

CONTRACTOR JOBSITE SAMPLING & TESTING [1/]			
Curb, Gutter, Median, Barrier, Sidewalk, Slope Wall, Paved Ditch, Fabric Formed Concrete Revetment Mat [10/], Miscellaneous Items, Incidental Items	Slump [3/ 4/]	1 per 100 cu yd (80 cu m) or minimum 1/day	R 60 and T 119
	Air Content [3/ 5/ 6/]	1 per 50 cu yd (40 cu m) or minimum 1/day	R 60 and T 152 or T 196
	Compressive Strength [7/ 8/] or Flexural Strength [7/ 8/]	1 per 400 cu yd (300 cu m) or minimum 1/day	R 60, T 22 and T 23 or R 60, T 177 and T 23
Items Using Self-Consolidating Concrete	Slump Flow [3/] VSI [3/] J-Ring [3/ 11/] L-Box [3/ 11/]	Perform at same frequency that is specified for the Item's slump	ITP SCC-1 & ITP SCC-2 ITP SCC-1 & ITP SCC-2 ITP SCC-1 & ITP SCC-3 ITP SCC-1 & ITP SCC-4
	HVSI [12/]	Minimum 1/day at start of production for that day	ITP SCC-1 and ITP SCC-6
	Dynamic Segregation Index (DSI)	Minimum 1/week at start of production for that week	ITP SCC-1 and ITP SCC-8 (Option C)
	Air Content [3/ 5/ 6/]	Perform at same frequency that is specified for the Item's air content	ITP SCC-1 and T 152 or T 196
	Compressive Strength [7/ 8/] or Flexural Strength [7/ 8/]	Perform at same frequency that is specified for the Item's strength	ITP SCC-1, T 22 and T 23 or ITP SCC-1, T 177 and T 23
All	Temperature [3/]	As needed to control production	R 60 and ASTM C 1064
Controlled Low-Strength Material (CLSM)	Flow, Air Content, Compressive Strength (28-day) [13/], and Temperature	First truck load delivered and as needed to control production thereafter	ITP 307

1/ Sampling and testing of small quantities of curb, gutter, median, barrier, sidewalk, slope wall, paved ditch, miscellaneous items, and incidental items may be waived by the Engineer, if requested by the Contractor. However, quality control personnel are still required according to Article 1020.16(c)(1). The Contractor shall also provide recent evidence that similar material has been found to be satisfactory under normal sampling and testing

procedures. The total quantity that may be waived for testing shall not exceed 100 cu yd (76 cu m) per contract.

If the Contractor's or Engineer's test result for any jobsite mixture test is not within the specification limits, all subsequent truck loads delivered shall be tested by the Contractor until the problem is corrected.

2/ If one mix design is being used for several construction items during a day's production, one testing frequency may be selected to include all items. The construction items shall have the same slump, air content, and water/cement ratio specifications. For self-consolidating concrete, the construction items shall have the same slump flow, visual stability index, J-Ring, L-Box, air content, and water/cement ratio specifications. The frequency selected shall equal or exceed the testing required for the construction item.

One sufficiently sized sample shall be taken to perform the required test(s). Random numbers shall be determined according to the Department's "Method for Obtaining Random Samples for Concrete". The Engineer will provide random sample locations.

3/ The temperature, slump, and air content tests shall be performed on the first truck load delivered, for each pour. For self-consolidating concrete, the temperature, slump flow, visual stability index, J-Ring or L-Box, and air content tests shall be performed on the first truck load delivered, for each pour. Unless a random sample is required for the first truck load, testing the first truck load does not satisfy random sampling requirements.

4/ The slump random sample testing frequency shall be a minimum 1/day for a construction item which is slipformed.

5/ If a pump or conveyor is used for placement, a correction factor shall be established to allow for a loss of air content during transport. The first three truck loads delivered shall be tested, before and after transport by the pump or conveyor, to establish the correction factor. Once the correction is determined, it shall be re-checked after an additional 50 cu yd (38 cu m) is pumped, or an additional 100 cu yd (76 cu m) is transported by conveyor. This shall continue throughout the pour. If the re-check indicates the correction factor has changed, a minimum of two truckloads is required to re-establish the correction factor. The correction factor shall also be re-established when significant changes in temperature, distance, pump or conveyor arrangement, and other factors have occurred. If the correction factor is greater than 3.0 percent, the Contractor shall take corrective action to reduce the loss of air content during transport by the pump or conveyor. The Contractor shall record all air content test results, correction factors, and corrected air contents. The corrected air content shall be reported on form BMPR MI654.

6/ If the Contractor's or Engineer's air content test result is within the specification limits, and 0.2 percent or closer to either limit, the next truck load delivered shall be tested by the Contractor. For example, if the specified air content range is 5.0 to 8.0 percent and the test result is 5.0, 5.1, 5.2, 7.8, 7.9, or 8.0 percent, the next truck shall be tested by the Contractor.

7/ The test of record for strength shall be the day indicated in Article 1020.04. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of two 6 x 12 in. (150 x 300 mm) cylinder breaks, three 4 x 8 in. (100 x 200 mm) cylinder breaks, or two beam breaks for field tests. Per Illinois Modified AASHTO T 23, cylinders shall be 6 x 12 in. (150 x 300 mm) when the nominal maximum size of the coarse aggregate exceeds 1 in. (25 mm). Nominal maximum size is defined as the largest sieve which retains any of the aggregate sample particles.

8/ In addition to the strength test, a slump test, air content test, and temperature test shall be performed on the same sample. For self-consolidating concrete, a slump flow test, visual stability index test, J-Ring or L-Box test, air content test, and temperature test shall be performed on the same sample as the strength test. For mixtures pumped or conveyored, the Contractor shall sample according to Illinois Modified AASHTO R 60.

9/ The air content test will be required for each delivered truck load.

10/ For fabric formed concrete revetment mat, the slump test is not required and the flexural strength test is not applicable.

11/ The Contractor shall select the J-Ring or L-Box test for jobsite sampling and testing.

12/ In addition to the hardened visual stability index (HVSI) test, a slump flow test, visual stability index (VSI) test, J-Ring or L-Box test, air content test, and temperature test shall be performed on the same sample. The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.

13/ The test of record for strength shall be the day indicated in Article 1019.04. In addition to the strength test, a flow test, air content test, and temperature test shall be performed on the same sample. The strength test may be waived by the Engineer if future removal of the material is not a concern.

CHECK SHEET #23

SCHEDULE C

ENGINEER QUALITY ASSURANCE INDEPENDENT SAMPLE TESTING		
Location	Measured Property	Testing Frequency [1/]
Plant	Gradation of aggregates stored in stockpiles or bins, Slump and Air Content	As determined by the Engineer.
Jobsite	Slump, Air Content, Slump Flow, Visual Stability Index, J-Ring, L-Box, Hardened Visual Stability Index, Dynamic Segregation Index, and Strength	As determined by the Engineer.
	Flow, Air Content, Strength (28-day), and Dynamic Cone Penetration for Controlled Low-Strength Material (CLSM)	As determined by the Engineer

ENGINEER QUALITY ASSURANCE SPLIT SAMPLE TESTING [2/]		
Location	Measured Property	Testing Frequency [1/]
Plant	Gradation of aggregates stored in stockpiles or bins	At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per aggregate gradation number and per plant.
	Slump, Air Content, Slump Flow (SCC), Visual Stability Index (SCC), J-Ring (SCC), and L-Box (SCC)	As determined by the Engineer.
Jobsite	Slump, Air Content [3/], Slump Flow, Visual Stability Index, J-Ring, and L-Box	At the beginning of the project, the first three tests performed by the Contractor. Thereafter, a minimum of 20% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design.
	Hardened Visual Stability Index	As determined by the Engineer.
	Dynamic Segregation Index	As determined by the Engineer.
	Strength	At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 20% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design.
	Flow, Air Content, and Strength (28-day) for Controlled Low-Strength Material (CLSM)	As determined by the Engineer.

1/ The Engineer will perform the testing throughout the period of quality control testing by the Contractor.

2/ The Engineer will witness and take immediate possession of or otherwise secure the Department's split sample obtained by the Contractor.

3/ Before transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant. After transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant.

CHECK SHEET #23

SCHEDULE D

CONCRETE QUALITY CONTROL AND QUALITY ASSURANCE DOCUMENTS

(a) Model Quality Control Plan for Concrete Production (*)

(b) Qualifications and Duties of Concrete Quality Control Personnel (*)

(c) Development of Gradation Bands on Incoming Aggregate at Mix Plants (*)

(d) Required Sampling and Testing Equipment for Concrete (*)

(e) Method for Obtaining Random Samples for Concrete (*)

(f) Calibration of Concrete Testing Equipment (BMPR PCCQ01 through BMPR PCCQ09) (*)

(g) Water/Cement Ratio Worksheet (BMPR PCCW01) (*)

(h) Field/Lab Gradations (BMPR MI504) (*)

(i) Concrete Air, Slump and Quantity (BMPR MI654) (*)

(j) P.C. Concrete Strengths (BMPR MI655) (*)

(k) Aggregate Technician Course or Mixture Aggregate Technician Course (*)

(l) Portland Cement Concrete Tester Course (*)

(m) Portland Cement Concrete Level I Technician Course - Manual of Instructions for Concrete Testing (*)

(n) Portland Cement Concrete Level II Technician Course - Manual of Instructions for Concrete Proportioning (*)

(o) Portland Cement Concrete Level III Technician Course - Manual of Instructions for Design of Concrete Mixtures (*)

(p) Manual of Test Procedures for Materials

* Refer to Appendix C of the Department's "Manual of Test Procedures for Materials" for more information.

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RESERVED

State of Illinois
Department of Transportation

SPECIAL PROVISION FOR TEMPORARY RAISED PAVEMENT MARKERS

Effective: January 1, 2009
Revised: January 1, 2014

Description. This work shall consist of furnishing and installing temporary raised pavement markers on preventive maintenance projects requiring cape seals or bituminous surface treatments.

Materials. The marker body shall be approximately 0.06 in. (1.5 mm) thick polyurethane formed in an "L" shape. The base of the marker shall be approximately 4 in. (100 mm) wide by 1.125 in. (28 mm) long with a solid 0.125 in. (3.2 mm) thick butyl rubber adhesive pad protected with a release paper. The vertical portion of the marker shall be approximately 4 in. (100 mm) wide by 2 in. (50 mm) high.

A cube-corner micro-prism reflective tape material shall be placed horizontally along both sides at the top of the vertical section of the marker. The reflective material shall be recessed in an "I-Beam" design to protect the reflective material from aggregate. A clear flexible polyvinyl chloride plastic cover is to be attached to the vertical section of the marker with a heavy duty staple to cover the reflective material during surfacing operations. The flexible raised pavement marker shall be readily visible at night when viewed with high beam automobile headlamps from a distance of at least 300 ft (90 m).

Construction Requirements

Application. The temporary markers shall be installed at the centerline or lane line(s) prior to application of any surface treatment which would cover the existing pavement markings. Temporary markers shall also be applied at edge lines when specified on the plans.

For temporary replacement of skip dash markings, an abbreviated pattern of two markers spaced 4 ft (1.2 m) apart with a maximum spacing of 40 ft (12 m) between sets of markers shall be used. For temporary replacement of solid lines, one marker shall be placed every 5 ft (1.5 m). The marker color and location shall match the existing line color and location.

Basis of Payment. This work will be paid for at the contract unit price per each for TEMPORARY RAISED PAVEMENT MARKER.

CHECK SHEET #27

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
RESTORING BRIDGE APPROACH PAVEMENTS USING HIGH-DENSITY FOAM

Effective: January 1, 2009
Revised: January 1, 2012

Description. This work shall consist of restoring elevation and cross-slope of bridge approach transition pavements and/or bridge approach pavements. Locations to be restored shall be as shown on the plans or as designated by the Engineer.

Materials. Materials shall be according to the following.

Item	Article/Section
(a) High-Density Foam (Note 1)	
(b) Nonshrink Grout (Note 2)	1024.02

Note 1. The high-density foam used for restoring the concrete slabs shall be high-density expanding polyurethane foam having a water insoluble diluent and shall be according to the following.

Physical Property	Test Standard	Value
Density, lb/cu ft (kg/cu m)	ASTM D 1622	6.0 (96.0) min.
Tensile Strength, psi (kPa)	ASTM D 1623-03 Type C	100 (690) min.
Compressive Strength at yield point, psi (kPa)	ASTM D 1621	100 (690)

The manufacturer shall provide documentation that the lot(s) of foam meet the specified properties. Manufacturer's certification shall list lot number(s) and documentation of compliance with the specification.

Note 2. The nonshrink grout shall only be used for filling the injection holes after the elevation and cross-slope of the slab have been restored.

Equipment. A list of equipment shall be submitted to the Engineer for review. The minimum required equipment is shown below. However, additional equipment necessary for the work may be allowed with approval of the Engineer.

(a) Pneumatic Drill. The pneumatic drill shall be capable of drilling 1/2-inch (13-mm) diameter holes.

(b) Pumping Unit. The pumping unit shall be truck mounted, capable of mixing and injecting the foam between the concrete and subbase, and

capable of controlling the rate of rise of the pavement. The pumping unit shall have a certified flow meter that measures the amount of foam injected and a digital display in pounds (kilograms). Calibration of the Contractor's equipment will be required daily before any work begins. The Contractor shall eject a minimum of 10 lb (4.5 kg) of foam to be weighed by the Engineer. The Engineer will calculate the factor for the specific pump and its display to determine the weight (mass) in pounds (kilograms) of foam used.

(c) Leveling Unit. The leveling unit shall be capable of measuring elevation to ensure that the slabs are raised to an even plane and to the required elevation, or the approval of the Engineer. The unit shall have an accuracy of 1/32 in. (1 mm).

Construction Requirements

General. The construction methods outlined below may, for sufficient justifications, be modified by the Engineer as field conditions dictate. The Contractor shall maintain all pavement surfaces adjacent to the actual operation in progress. The pavement, including adjacent shoulders, shall be cleaned prior to the placement of traffic on the work area.

Field Surveying and Profile Grade Determination. The Contractor shall perform adequate surveys of the areas proposed for regrading to determine the existing profile grade line elevations. The Contractor shall use this data to develop and present to the Engineer a proposed profile grade line. The profile grade line shall be approved prior to beginning any work on an area designated for regrading. The approved profile grade line shall then be used to guide the leveling of each area proposed for regrading.

Drilling Holes. A series of 5/8-in. (16-mm) diameter or other approved diameter holes shall be drilled in the concrete slab throughout the area to be repaired at evenly spaced intervals, 4 ft (1.2 m) maximum. Holes drilled nearest the edge of the slab, the joints, or a major crack, shall be a minimum of 6 in. (150 mm) from the feature. Any other holes shall have a tolerance of 6 in. (150 mm) from the proposed location. Holes shall be drilled to a depth sufficient to penetrate the concrete pavement, sleeper slab/stabilized subbase, and subgrade. Holes drilled in the sleeper slab zone (4 ft (1.20 m) either side of the bridge approach pavement joint) shall be a maximum of 37 in. (925 mm) from the pavement surface. Holes drilled in the bridge approach transition pavement shall be a maximum of 26 in. (650 mm) from the pavement surface.

The pneumatic drill shall be rotated to avoid cracking the pavement and to provide satisfactory holes of the proper diameter for effective operations. When drilling holes, the drill shall be held as nearly perpendicular as possible to the pavement surface. Irregular or unsatisfactory holes, which cannot be satisfactorily used, shall be filled and sealed with nonshrink grout and new holes shall be drilled. The Contractor shall exercise sufficient precautions during all operations to insure that slabs are not broken or cracked. Any slab that develops a crack that extends through the drill hole will be considered to have been damaged during the process of the work and it shall be repaired or replaced. Repair or replacement shall be in accordance with

techniques approved by the Engineer. No more holes shall be drilled during a day's operations than can be filled during the same day.

Injecting High-Density Foam. The foam shall not be placed when the pavement surface temperature is below 35 °F (2 °C) or if the subgrade and/or base course material is frozen. When injecting the foam, the pavement shall be raised to the profile elevations with the proper cross-slope. The Contractor shall be responsible for any excessive or uneven pavement moving, and shall replace or repair any damaged areas. When the injection nozzle is removed from the hole, excess foam at joints and cracks and a minimum depth of 6 in. (150 mm) in the injection holes shall be removed from the area. The injection holes shall be sealed with nonshrink grout.

Continuous laser level or dial indicator micrometer readings shall be in place and monitored by the Contractor during initial injection to determine if sufficient material has been injected to cause pavement movement a minimum of 1/32 in. (1 mm). After the initial movement has been recorded, the Contractor may proceed to raise the pavement to the desired grade and cross slope.

Bridge approach slabs that have sleeper support slabs shall have all drill holes fully sleeved by tubes into the subgrade soils to prevent any injection of material between the slabs. The tubes shall extend a maximum of 37 in. (925 mm) below the pavement surface. The zone requiring tubes shall be a maximum of 4 ft (1.2 m) beyond the bridge approach pavement joint.

Opening to Traffic. The road may be opened to traffic after a minimum 30 minute cure period from the time of completing the last injection hole.

Surface Tests. Once the work is complete, the pavement surface will be tested for smoothness and any necessary corrections shall be made according to Article 407.09(a) of the Standard Specifications.

Method of Measurement. This work will be measured for payment in pounds (kilograms) of high-density foam used as determined by the adjusted amount from the flow meter. Foam lost through cracks, edges of pavement, and injection holes will not be deducted; however, the Contractor shall keep this loss to a minimum.

Basis of Payment. This work will be paid for at the contract unit price per pound (kilogram) for FOAM, EXPANDING POLYURETHANE, HIGH-DENSITY.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
PORTLAND CEMENT CONCRETE INLAY OR OVERLAY

Effective: November 1, 2008
Revised: January 1, 2022

Description. This work shall consist of constructing a portland cement concrete inlay or overlay on an existing hot-mix asphalt (HMA) surfaced pavement.

Materials. Materials shall be according to the following Articles/Sections of the Standard Specifications.

	Item	Article/Section
(a)	Portland Cement Concrete (Note 1)	1020
(b)	Synthetic Fibers (Note 2)	
(c)	Protective Coat	1023.01

Note 1. Class PV concrete shall be used, except the cement factor for central mixed concrete shall be 6.05 cwt/cu yd (360 kg/cu m). A cement factor reduction according to Article 1020.05(b)(8) of the Standard Specifications will be permitted. CA 5 shall not be used and CA 7 may only be used for overlays that are a minimum of 4.5 in. (113 mm) thick. The Class PV concrete shall have a minimum flexural strength of 550 psi (3800 kPa) or a minimum compressive strength of 3000 psi (20,700 kPa) at 14 days.

Note 2. Synthetic fibers shall be Type III according to ASTM C 1116. The synthetic fiber shall be a monofilament or bundled monofilament with a minimum length of 1.0 in. (25 mm) and a maximum length of 2 1/2 in. (63 mm), and shall have a maximum aspect ratio (length divided by the equivalent diameter of the fiber) of 150. The quantity of synthetic fiber(s) added to the concrete mixture shall be sufficient to have a residual strength ratio ($R_{150,3}$) of 20.0 percent according to Illinois Modified ASTM C 1609. The maximum dosage rate shall not exceed 5.0 lb/cu yd (3.0 kg/cu m), unless the manufacturer can demonstrate through a field demonstration that the concrete mixture will be workable and fiber clumping is not a problem.

The synthetic fibers shall be added to the concrete and mixed per the manufacturer's recommendation.

The Department will maintain a qualified product list of synthetic fibers, which will include the minimum required dosage rate. For the minimum required fiber dosage rate based on the Illinois Modified ASTM C 1609 test, a report prepared by an independent laboratory accredited by the AASHTO Materials Reference Laboratory (AMRL) for Portland Cement Concrete shall be provided. The report shall show results of tests conducted no more than five years prior to the time of submittal. When the test result is more than

seven years old, the manufacturer shall submit retest results prepared by an independent laboratory accredited by AASHTO.

Equipment. Equipment shall be according to Article 420.03, 1101.10, and 1101.19 of the Standard Specifications, except as noted herein. The mechanical saw used for cutting joints shall be equipped with an upcutting blade and a restricting skid plate to prevent spalling of the finished saw cut. For surface variation corrections, the grinding device shall be a self-propelled machine with diamond blades. The machine shall be designed for grinding concrete surfaces, and shall have a minimum effective head width of 3 ft (0.9 m). Wood forms of a height equal to the proposed inlay or overlay thickness may be used.

CONSTRUCTION REQUIREMENTS

Preparation of Existing Pavement. The area to be overlaid shall be milled as shown on the plans according to Section 440 of the Standard Specifications. Areas requiring patching shall be patched according to Section 442 of the Standard Specifications. The patches shall be milled or their surface given a rough texture.

When detector loops are required, the loops shall be Type I or Type II according to Section 886 of the Standard Specifications. The detector loops shall be installed into the milled surface prior to cleaning.

Following milling, the surface shall be cleaned. Cleaning shall be accomplished by sweeping to remove all large particles and air blasting to remove dust. As an alternative to air blasting, a vacuum sweeper may be used to accomplish the dust removal. The surface shall be free of standing water. The prepared surface shall meet the approval of the Engineer prior to proceeding with the work.

Forms and Form Setting. This work shall be according to Article 420.06 of the Standard Specifications. Shims or wedges may be used to raise the forms to the specified plan elevation. Form removal shall be according to Article 420.11 of the Standard Specifications.

Treatment of Structures in the Pavement. Pavement round-outs shall be used at structures in the pavement. This work shall be as shown on the plans.

Placing. This work shall be according to Article 420.07 of the Standard Specifications, except standing water on the existing pavement surface shall be removed prior to concrete placement. Slip form paving shall be according to Article 420.14 of the Standard Specifications. However in Article 420.14(c)(2) of the Standard Specifications, the amount of pavement removed for edge slump will be at the direction of the Engineer and reinforcement will not be required.

Strike Off, Consolidation, Finishing, Longitudinal Floating, Straightedging, Edging, and Final Finish. This work shall be according to Article 420.09 of the Standard Specifications, except when a Type B final finish is specified the artificial turf drag shall be replaced with a rough broom finish struck perpendicular to the direction of traffic flow. The rough broom finish shall be performed over the entire surface.

Surface Tests. The finished surface of the pavement shall be tested for smoothness

according to Article 407.09 of the Standard Specifications, except as follows:

The finished surface of the pavement shall be tested for smoothness once the pavement has attained a flexural strength of 550 psi (3800 kPa) or a compressive strength of 3000 psi (20,700 kPa).

One wheel track shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to the edge of the lane away from traffic.

Membrane curing damaged during testing shall be repaired as directed by the Engineer.

No further texturing for skid resistance will be required for areas corrected by grinding. Protective coat shall be reapplied to ground areas according to Article 420.18 of the Standard Specifications.

For pavement that is corrected by removal and replacement, the minimum area shall be replaced in even panel sizes.

SMOOTHNESS ASSESSMENT SCHEDULE (PCC)		
High-Speed Mainline Pavt. Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavt. Average Profile Index in./mile (mm/km)	Assessment per sublot
6.0 (95) or less		+$800.00
>6.0 (95) to 11.0 (175)	15.0 (240) or less	+$650.00
>11.0 (175) to 17.0 (270)	>15.0 (240) to 25.0 (400)	+$400.00
>17.0 (270) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+$0.00
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+$0.00
Greater than 40.0 (635)	Greater than 65.0 (1025)	-$500.00”

Joints. Joints shall be constructed at the locations and spacing shown on the plans. Field adjustments to the transverse joint locations will be permitted provided no transverse joint exceeds the planned spacing by more than ten percent.

The joints shall be mechanically sawed to 1/4 the depth of the inlay or overlay, and shall be a minimum 1/8 in. (3 mm) and a maximum 1/4 in. (6 mm) wide. Sawed joints shall be constructed as soon as the concrete will support the weight of the saw and operator without disturbing the final finish.

Opening to Traffic. The road shall be opened to traffic according to Article 420.13 of the Standard Specifications, except curing may be discontinued and the pavement opened to traffic when a minimum flexural strength of 550 psi (3800 kPa) or a minimum compressive strength of 3000 psi (20,700 kPa) is attained.

Protective Coat Application. The use of protective coat shall be according to Articles 420.10 and 420.18 of the Standard Specifications.

CHECK SHEET #28

Method of Measurement. This work will be measured for payment according to Article 420.19 of the Standard Specifications.

Milling, when required, will be measured for payment according to Article 440.07 of the Standard Specifications.

Patching, when required, will be measured for payment according to Article 442.10 of the Standard Specifications.

Detector loops, when required, will be measured for payment according to Article 886.05 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for PORTLAND CEMENT CONCRETE INLAY or PORTLAND CEMENT CONCRETE OVERLAY, of the thickness specified.

Protective coat will be paid for according to Article 420.20 of the Standard Specifications.

Milling, when required, will be paid for according to Article 440.08 of the Standard Specifications.

Patching, when required, will be paid for according to Article 442.11 of the Standard Specifications.

Detector loops, when required, will be paid for according to according to Article 886.06 of the Standard Specifications.

Add the following to Article 1101 of the Standard Specifications.

"**1101.19 Vacuum Sweeper.** The vacuum sweeper shall have a minimum sweeping path of 52 in. (1.3 m) and a minimum blower rating of 20,000 cu ft per minute (566 cu m per minute)."

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
PORTLAND CEMENT CONCRETE PARTIAL DEPTH
HOT-MIX ASPHALT PATCHING

Effective: April 1, 2014
Revised: January 1, 2023

Description. This work shall consist of partial depth removal of the existing portland cement concrete pavement structure and replacement with hot-mix asphalt (HMA).

The partial depth removal on a lane width or less shall be classified by type/size as follows.

Type I	Less than 8 sq yd (7 sq m)
Type II	8 sq yd (7 sq m) or more, but less than 50 sq yd (42 sq m)
Type III	50 sq yd (42 sq m) or more, but less than 100 sq yd (84 sq m)
Type IV	100 sq yd (84 sq m) or more

Materials. Materials shall be according to the following Articles/Sections of the Standard Specifications.

	Item	Article/Section
(a)	Bituminous Materials	406.02(c)
(b)	Hot-Mix Asphalt (Note 1)	1030

Note 1. If the patch is going to be resurfaced, the HMA for partial depth patches shall be a surface mixture of the same type as the proposed resurfacing or as approved by the Engineer. If the patch is not going to be resurfaced, the mix shall be as shown on the plans.

Equipment. Equipment shall be according to the following Articles/Sections of the Standard Specifications.

	Item	Article/Section
(a)	Self-Propelled Milling Machine	1101.16
(b)	Concrete Saw	442.03(d)
(c)	Wheel Saw	442.03(e)
(d)	Rollers	442.03
(e)	Mechanical Sweeper	1101.03
(f)	Air Equipment (Note 1)	

Note 1. The air equipment shall be capable of supplying compressed air at a minimum pressure of 100 psi (690 kPa) and shall have sufficient flow rate to remove all disturbed pavement debris. The equipment shall also be according to ASTM D 4285.

CHECK SHEET #29

CONSTRUCTION REQUIREMENTS

General. The minimum patch dimension shall be 24 x 24 in. (600 x 600 mm).

Partial Depth Removal. Partial depth removal of the pavement shall be accomplished by the use of a milling machine and/or the wheel saw. The patch area shall be cleaned by air equipment or mechanical sweeper and all disturbed pavement debris and any loose or unsound concrete shall be removed. Materials resulting from the removal shall be disposed of according to Article 202.03 of the Standard Specifications.

Exposed reinforcement shall be removed back to the point where the steel is in contact with sound concrete. Where high steel is encountered, the depth of the patch may be reduced as directed by the Engineer.

Replacement with HMA. When the Engineer determines the exposed pavement will be suitable for a partial depth patch, a bituminous tack coat shall be applied according to Article 406.05 of the Standard Specifications.

The prepared patch shall be filled with HMA with a maximum lift thickness of 3 in. (75 mm). Where more than one lift is needed, the top lift shall be a minimum of 2 in. (50 mm) thick. At the option of the Contractor, the 2 in. (50 mm) top layer may be constructed using HMA surface course. The HMA shall be compacted to the satisfaction of the Engineer.

Patch Maintenance. Patches opened to traffic which are high or become rough by rutting, shoving, or heaving shall be corrected by trimming off high areas and/or filling depressions. Filled areas shall be rolled again.

Areas Unsuitable for a Partial Depth Patch. When the Engineer determines the exposed pavement will not be suitable for a partial depth patch, or removal is one half or more of the pavement thickness, the remaining portion of the pavement shall be removed and a full depth patch shall be constructed according to Section 442 of the Standard Specifications for the Class of full depth patches included in the contract. The exposed area may be filled with HMA and the full depth patch constructed at a later date. HMA shall be placed as specified for the partial depth repair.

Method of Measurement. Partial depth removal of the portland cement concrete pavement will be measured for payment in place and the area computed in square yards (square meters).

HMA for partial depth patching of the portland cement concrete pavement and for the backfilling of partial depth removal when it is determined the area is not suitable for a partial depth patch will be measured for payment in tons (metric tons) according to Article 406.13 of the Standard Specifications.

Basis of Payment. Partial depth removal of the portland cement concrete pavement will be paid for at the contract unit price per square yard (square meter) for PARTIAL DEPTH REMOVAL, of the type and thickness specified.

HMA for partial depth patching and for backfilling areas unsuitable for a partial depth patch will be paid for at the contract unit price per ton (metric ton) for PARTIAL DEPTH PATCHING.

When the Engineer determines to convert any partial depth patch to a full depth patch after the partial depth removal of the portland cement concrete pavement has begun, the partial depth removal will still be paid for at the contract unit price for PARTIAL DEPTH REMOVAL. The remaining removal for the full depth patch will be considered as included in the appropriate full depth patching pay item.

CHECK SHEET #30

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
LONGITUDINAL JOINT AND CRACK PATCHING

Effective: April 1, 2014
Revised: January 1, 2023

Description. This work shall consist of partial depth removal of the existing portland cement concrete pavement or hot-mix asphalt (HMA) pavement and replacement with HMA.

Materials. Materials shall be according to the following Articles/Sections of the Standard Specifications.

	Item	Article/Section
(a)	Bituminous Materials	406.02(c)
(b)	Hot-Mix Asphalt (Note 1)	1030

Note 1. If the patch is going to be resurfaced, the HMA for partial depth patches shall be a surface mixture of the same type as the proposed resurfacing or as approved by the Engineer. If the patch is not going to be resurfaced, the mix shall be as shown on the plans.

Equipment. Equipment shall be according to the following Articles/Sections of the Standard Specifications.

	Item	Article/Section
(a)	Self-Propelled Milling Machine	1101.16
(b)	Concrete Saw	442.03(d)
(c)	Wheel Saw	442.03(e)
(d)	Rollers	442.03
(e)	Mechanical Sweeper	1101.03
(f)	Air Equipment (Note 1)	

Note 1. The air equipment shall be capable of supplying compressed air at a minimum pressure of 100 psi (690 kPa) and shall have sufficient flow rate to remove all disturbed pavement debris. The equipment shall also be according to ASTM D 4285.

CONSTRUCTION REQUIREMENTS

General. The patch width shall be 2 ft (600 mm), the length shall be a minimum of 10 ft (3 m), and the depth shall be as shown on the plans.

Partial Depth Removal. Partial depth removal of the pavement shall be accomplished by the use of a milling machine and/or the wheel saw. The patch area shall be cleaned by air equipment or mechanical sweeper and all disturbed pavement debris and any loose or unsound material shall be removed. Materials resulting from the

removal shall be disposed of according to Article 202.03 of the Standard Specifications.

Exposed reinforcement shall be removed back to the point where the steel is in contact with sound concrete. Where high steel is encountered, the depth of the patch may be reduced as directed by the Engineer.

Replacement with HMA. Bituminous tack coat shall be applied to the exposed pavement according to Article 406.05 of the Standard Specifications.

The prepared patch shall be filled with HMA surface course with a maximum lift thickness of 3 in. (75 mm). Where more than one lift is needed, the top lift shall be a minimum of 2 in. (50 mm) thick.

Patch Maintenance. Patches opened to traffic which are high or become rough by rutting, shoving, or heaving shall be corrected by trimming off high areas and/or filling depressions. Filled areas shall be rolled again.

Method of Measurement. Partial depth removal of the pavement will be measured for payment in feet (meters) along the center of the removed pavement.

HMA for longitudinal partial depth patching will be measured for payment in tons (metric tons) according to Article 406.13 of the Standard Specifications.

Basis of Payment. Partial depth removal of the pavement will be paid for at the contract unit price per foot (meter) for LONGITUDINAL PARTIAL DEPTH REMOVAL, of the thickness specified.

HMA for longitudinal partial depth patching will be paid for at the contract unit price per ton (metric ton) for LONGITUDINAL PARTIAL DEPTH PATCHING.

CHECK SHEET #31

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
CONCRETE MIX DESIGN – DEPARTMENT PROVIDED

Effective: January 1, 2012
Revised: April 1, 2016

For the concrete mix design requirements in Article 1020.05(a) of the Standard Specifications, the Contractor has the option to request the Engineer determine mix design material proportions for Class PV, PP, RR, BS, DS, SC, and SI concrete. A single mix design for each class of concrete will be provided. Acceptance by the Contractor to use the mix design developed by the Engineer shall not relieve the Contractor from meeting specification requirements.

State of Illinois
Department of Transportation

SPECIAL PROVISION FOR STATION NUMBERS IN PAVEMENTS OR OVERLAYS

Effective: January 1, 2022

Description. The Contractor shall provide labor and materials required to imprint pavement station numbers in the finished surface of portland cement concrete or hot-mix asphalt pavements and overlays.

Materials. The metal numbers shall be approximately 3/4 in. (20 mm) wide, 5 1/2 in. (125 mm) high, and 5/8 in. (15 mm) deep.

CONSTRUCTION REQUIREMENTS

General. The pavement station numbers shall be constructed as follows.

(a) Format. English (metric) pavement stations shall use the format "X+00 (X+000)" where X represents the pavement station. In English, a pavement station of 1 is 1+00 or 100 feet. In metric, a pavement station of 1 is 1+000 or 1000 meters.

(b) Interval. 200 ft (English stationing) or 100 m (metric stationing).

(c) Location.

(1) 2 to 5 Lane Pavements - Right edge of pavement in direction of increasing stations.

(2) Multi-Lane Divided Roadways - Outside edge of pavement in both directions.

(3) Ramps - Along the baseline edge of pavement.

(d) Position. Stations shall be placed so they can be read from the adjacent shoulder. The bottom of the numbers shall be placed approximately 2 in. (5 mm) away from the location of the pavement marking.

Hot-mix asphalt station numbers shall be filled with sand prior to additional rolling.

Basis of Payment. This work will not be paid for separately but shall be included in the cost of the pavement or overlay pay item.

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

The following special provisions should only be used when the local agency is the lead on a project.

RESERVED

CHECK SHEET #LRS2

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

SPECIAL PROVISION
FOR
FURNISHED EXCAVATION

Effective: January 1, 1999
Revised: January 1, 2007

Add the following subparagraph to Article 204.07 of the Standard Specifications:

"(c) Truck Loads. When contract quantities do not exceed 2000 cu yd (cu m), furnished excavation may be measured by truck loads. Prior to the start of work, the Contractor and the Engineer shall agree to a standard volume for the trucks utilized by the Contractor. A shrinkage factor of 25 percent will be used in the computations."

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

SPECIAL PROVISION
FOR
WORK ZONE TRAFFIC CONTROL SURVEILLANCE

Effective: January 1, 1999
Revised: January 1, 2018

Revise Article 701.10 of the Standard Specifications to read:

"The Contractor shall conduct inspections of the worksite at a frequency that will allow for the timely replacement of any traffic control device that has become displaced, worn, or damaged. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement."

Delete Article 701.20(g) of the Standard Specifications.

CHECK SHEET #LRS4

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

SPECIAL PROVISION
FOR
FLAGGERS IN WORK ZONES

Effective: January 1, 1999
Revised: January 1, 2007

Revise the last paragraph of Article 701.13 of the Standard Specifications to read:

"Flaggers are required only when workers are present."

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

SPECIAL PROVISION FOR CONTRACT CLAIMS

Effective: January 1, 2002
Revised: January 1, 2007

Revise the second sentence of subparagraph (a) of Article 109.09 of the Standard Specifications to read:

"All claims shall be submitted to the Engineer."

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

"(e) Procedure. All Claims shall be submitted to the Engineer. The Engineer will consider all information submitted with the claim. Claims not conforming to this Article will be returned without consideration. The Engineer may schedule a claim presentation meeting if, in the Engineer's judgment, such a meeting would aid in resolution of the claim, otherwise a decision will be based on the claim documentation submitted. A final decision will be rendered within 90 days of receipt of the claim.

Full compliance by the Contractor with the provisions specified in this Article is a contractual condition precedent to the Contractor's right to seek relief in the Court of Claims. The Engineer's written decision shall be the final administrative action of the Department. Unless the Contractor files a claim for adjudication by the Court of Claims within 60 days after the date of the written decision, the failure to file shall constitute a release and waiver of the claim."

CHECK SHEET #LRS6

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

SPECIAL PROVISION
FOR
BIDDING REQUIREMENTS AND CONDITIONS FOR CONTRACT PROPOSALS

Effective: January 1, 2002
Revised: January 1, 2015

Replace Article 102.01 of the Standard Specifications with the following:

"Prequalification of Bidders. When prequalification is required and the Awarding Authority for contract construction work is the County Board of a County, the Council, the City Council, or the President and Board of Trustees of a city, village, or town, each prospective bidder, in evidence of competence, shall furnish the Awarding Authority as a prerequisite to the release of proposal forms by the Awarding Authority, a certified or photostatic copy of a "Certificate of Eligibility" issued by the Department of Transportation, according to the Department's "Prequalification Manual".

The two low bidders must file, within 24 hours after the letting, a sworn affidavit in triplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work, using the blank form made available for this affidavit. One copy shall be filed with the Awarding Authority and two copies with IDOT's District office.

Issuance of Proposal Forms. The Awarding Authority reserves the right to refuse to issue a proposal form for bidding purposes for any of the following reasons:

(a) Lack of competency and adequate machinery, plant, and other equipment, as revealed by the financial statement and experience questionnaires required in the prequalification procedures.

(b) Uncompleted work which, in the judgment of the Awarding Authority, might hinder or prevent the prompt completion of additional work awarded.

(c) False information provided on a bidder's "Affidavit of Availability".

(d) Failure to pay, or satisfactorily settle, all bills due for labor and material on former contracts in force at the time of issuance of proposal forms.

(e) Failure to comply with any prequalification regulations of the Department.

(f) Default under previous contracts.

(g) Unsatisfactory performance record as shown by past work for the Awarding Authority, judged from the standpoint of workmanship and progress.

(h) When the Contractor is suspended from eligibility to bid at a public letting where the contract is awarded by, or requires approval of, the Department.

(i) When any agent, servant, or employee of the prospective bidder currently serves as a member, employee, or agent of a governmental body that is financially involved in the proposal work.

(j) When any agent, servant, or employee of the perspective bidder has participated in the preparation of plans or specifications for the proposed work.

Interpretation of Quantities in the Bid Schedule. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased, or omitted as hereinafter provided.

Examination of Plans, Specifications, Special Provisions, and Site of Work. The bidder shall, before submitting a bid, carefully examine the provisions of the contract. The bidder shall inspect in detail the site of the proposed work, investigate and become familiar with all the local conditions affecting the contract and fully acquaint themselves with the detailed requirements of construction. Submission of a bid shall be a conclusive assurance and warranty the bidder has made these examinations and the bidder understands all requirements for the performance of the work. If his/her bid is accepted, the bidder shall be responsible for all errors in the proposal resulting from his/her failure or neglect to comply with these instructions. The Awarding Authority will, in no case, be responsible for any costs, expenses, losses, or change in anticipated profits resulting from such failure or neglect of the bidder to make these examinations.

The bidder shall take no advantage of any error or omission in the proposal and advertised contract. Any prospective bidder who desires an explanation or interpretation of the plans, specification, or any of the contract documents, shall request such in writing from the Awarding Authority, in sufficient time to allow a written reply by the Awarding Authority that can reach all prospective bidders before the submission of their bids. Any reply given a prospective bidder concerning any of the contract documents, plans, and specifications will be furnished to all prospective bidders in the form determined by the Awarding Authority including, but not limited to, an addendum, if the information is deemed by the Awarding Authority to be necessary in submitting bids or if the Awarding Authority concludes the information would aid competition. Oral explanations, interpretations, or instructions given before the submission of bids unless at a prebid conference will not be binding on the Awarding Authority.

Preparation of the Proposal. Bidders shall submit their proposals on the form furnished by the Awarding Authority. The proposal shall be executed properly, and bids shall be made for all items indicated in the proposal form, except when alternate bids are asked, a bid on more than one alternate for each item is not required, unless otherwise provided. The bidder shall indicate in figures, a unit price for each of the separate items called for in the proposal form; the bidder shall show the products of the respective quantities and unit prices in the column provided for that purpose, and the gross sum shown in the place indicated in the proposal form shall be the

summation of said products. All writing shall be with ink or typewriter, except the signature of the bidder which shall be written in ink.

If the proposal is made by an individual, that individual's name and business address shall be shown. If made by a firm or partnership, the name and business address of each member of the firm or partnership shall be shown. If made by a corporation, the proposal shall show the names, titles, and business addresses of the president, corporate secretary and treasurer. The proposal shall be signed by president or someone with authority to execute contracts and attested by the corporate secretary or someone with authority to execute or attest to the execution of contracts.

When prequalification is required, the proposal form shall be submitted by an authorized bidder in the same name and style as shown on the "Contractor's Statement of Experience and Financial Condition" used for prequalification.

Rejection of Proposals. The Awarding Authority reserves the right to reject any proposal for any of the conditions in "Issuance of Proposal Forms" or for any of the following reasons:

(a) More than one proposal for the same work from an individual, firm, partnership, or corporation under the same name or different names.

(b) Evidence of collusion among bidders.

(c) Unbalanced proposals in which the bid prices for some items are, in the judgment of the Awarding Authority, out of proportion to the bid prices for other items.

(d) If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum pay items.

(e) If the proposal form is other than that furnished by the Awarding Authority; or if the form is altered or any part thereof is detached.

(f) If there are omissions, erasures, alterations, unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.

(g) If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

(h) If the proposal is not accompanied by the proper proposal guaranty.

(i) If the proposal is prepared with other than ink or typewriter, or otherwise fails to meet the requirements of the above "Preparation of Proposal" section.

Proposal Guaranty. Each proposal shall be accompanied by a bid bond on the Department form contained in the proposal, executed by a corporate surety company satisfactory to the Awarding Authority, by a bank cashier's check or a properly certified check for not less than five percent of the amount bid, or for the amount specified in the following schedule:

Amount Bid		Proposal Guaranty
Up to	$5,000	$150
>$5,000	$10,000	$300
>$10,000	$50,000	$1,000
>$50,000	$100,000	$3,000
>$100,000	$150,000	$5,000
>$150,000	$250,000	$7,500
>$250,000	$500,000	$12,500
>$500,000	$1,000,000	$25,000
>$1,000,000	$1,500,000	$50,000
>$1,500,000	$2,000,000	$75,000
>$2,000,000	$3,000,000	$100,000
>$3,000,000	$5,000,000	$150,000
>$5,000,000	$7,500,000	$250,000
>$7,500,000	$10,000,000	$400,000
>$10,000,000	$15,000,000	$500,000
>$15,000,000	$20,000,000	$600,000
>$20,000,000	$25,000,000	$700,000
>$25,000,000	$30,000,000	$800,000
>$30,000,000	$35,000,000	$900,000
Over	$35,000,000	$1,000,000

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must equal to the sum of the proposal guaranties which would be required for each individual proposal.

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the County Treasurer, when a County is the Awarding Authority; or the City, Village, or Town Treasurer, when a city, village, or town is the Awarding Authority.

The proposal guaranty checks of all, except the two lowest responsible, will be returned promptly after the proposals have been checked, tabulated, and the relation of the proposals established. Proposal guaranty checks of the two lowest bidders will be returned as soon as the contract and contract bond of the successful bidder have been properly executed and approved. Bid bonds will not be returned.

After a period of three working days has elapsed after the date of opening proposals, the Awarding Authority may permit the two lowest bidders to substitute for the bank cashier's checks or certified checks submitted with their proposals as proposal guaranties, bid bonds on the Department forms executed by corporate surety companies satisfactory to the Awarding Authority.

Delivery of Proposals. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Authority and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to

Bidders. Proposals received after the time specified will be returned to the bidder unopened.

Withdrawal of Proposals. Permission will be given a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

Public Opening of Proposals. Proposals will be opened and read publicly at the time and place specified in the Notice to Bidders. Bidders, their authorized agents, and other interested parties are invited to be present.

Consideration of Proposals. After the proposals are opened and read, they will be compared on the basis of the summation of the products of the quantities shown in the bid schedule by the unit bid prices. In awarding contracts, the Awarding Authority will, in addition to considering the amounts stated in the proposals, take into consideration the responsibility of the various bidders as determined from a study of the data required under "Prequalification of Bidders", and from other investigations which it may elect to make.

The right is reserved to reject any or all proposals, to waive technicalities, or to advertise for new proposals, if in the judgment of the Awarding Authority, the best interests of the Awarding Authority will be promoted thereby.

Award of Contract. The award of contract will be made within 45 calendar days after the opening of proposals to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by letter of intent that his/her bid has been accepted, and subject to the following conditions, the bidder will be the Contractor.

An approved contract executed by the Awarding Authority is required before the Awarding Authority is bound. An award may be cancelled any time by the Awarding Authority prior to execution in order to protect the public interest and integrity of the bidding process or for any other reason if, in the judgment of the Awarding Authority, the best interests of the Awarding Authority will be promoted thereby.

If a contract is not awarded within 45 days after the opening of proposals, bidders may file a written request with the Awarding Authority for the withdrawal of their bid, and the Awarding Authority will permit such withdrawal.

Requirement of Contract Bond. If the Awarding Authority requires a Contract Bond, the Contractor or Supplier shall furnish the Awarding Authority a performance and payment bond with good and sufficient sureties in the full amount of the contract as the penal sum. The surety shall be acceptable to the Awarding Authority, shall waive notice of any changes and extensions of time, and shall submit its bond on the form furnished by the Awarding Authority.

Execution of Contract. The contract shall be executed by the successful bidder and returned, together with the Contract Bond, within 15 days after the contract has been mailed to the bidder.

If the bidder to whom the award is made is a corporation organized under the laws of a State other than Illinois, the bidder shall furnish the Awarding Authority a

copy of the corporation's Certificate of Authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish such evidence of a Certificate of Authority within the time required will be considered as just cause for the annulment of the award and the forfeiture of the proposal guaranty to the Awarding Authority, not as a penalty, but in payment of liquidated damages sustained as a result of such failure.

Failure to Execute Contract. If the contract is not executed by the Awarding Authority within 15 days following receipt from the bidder of the properly executed contracts and bonds, the bidder shall have the right to withdraw his/her bid without penalty.

Failure of the successful bidder to execute the contract and file acceptable bonds within 15 days after the contract has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the Awarding Authority, not as penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the work may be readvertised and constructed under contract, or otherwise, as the Awarding Authority may decide."

CHECK SHEET #LRS7

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

SPECIAL PROVISION
FOR
BIDDING REQUIREMENTS AND CONDITIONS FOR MATERIAL PROPOSALS

Effective: January 1, 2002
Revised: January 1, 2013

Replace Article 102.01 of the Standard Specifications with the following:

"Prequalification of Bidders. When prequalification is required and the awarding authority for contract construction work is the County Board of a County, the Council, the City Council, or the President and Board of Trustees of a city, village, or town, each prospective bidder, in evidence of competence, shall furnish the awarding authority as a prerequisite to the release of proposal forms by the awarding authority, a certified or photostatic copy of a "Certificate of Eligibility" issued by the Department of Transportation, in accordance with the Department's "Prequalification Manual".

The two low bidders must file, within 24 hours after the letting, a sworn affidavit in triplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work, using the blank form made available for this affidavit. One copy shall be filed with the awarding authority and two copies with the District office.

Issuance of Proposal Forms. The Awarding Authority reserves the right to refuse to issue a proposal form for bidding purposes for any of the following reasons:

(a) Lack of competency and adequate machinery, plant, and other equipment, as revealed by the financial statement and experience questionnaires required in prequalification procedures.

(b) Uncompleted work which, in the judgment of the Awarding Authority, might hinder or prevent the prompt completion of additional work awarded.

(c) False information provided on a bidder's "Affidavit of Availability".

(d) Failure to pay, or satisfactorily settle, all bills due for labor and material on former contracts in force at the time of issuance of proposal forms.

(e) Failure to comply with any prequalification regulations of the Department.

(f) Default under previous contracts.

(g) Unsatisfactory performance record as shown by past work for the Awarding Authority, judged from the standpoint of workmanship and progress.

(h) When the Contractor is suspended from eligibility to bid at a public letting where the contract is awarded by, or requires approval of, the Department.

(i) When any agent, servant, or employee of the prospective bidder currently serves as a member, employee, or agent of a governmental body that is financially involved in the proposal work.

(j) When any agent, servant, or employee of the perspective bidder has participated in the preparation of plans or specifications for the proposed work.

Interpretation of Quantities in the Bid Schedule. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided.

Examination of Material Proposal, Specifications, Special Provisions, and Site of Work. The bidder shall, before submitting a bid, carefully examine the provisions of the proposal. The bidder shall inspect in detail the site of the proposed work, investigate and become familiar with all the local conditions affecting the work and fully acquaint themselves with the detailed requirements of the work. Submission of a bid shall be a conclusive assurance and warranty the bidder has made these examinations and the bidder understands all requirements for the performance of the work. If his/her bid is accepted, the bidder will be responsible for all errors in the proposal resulting from his/her failure or neglect to comply with these instructions. The Awarding Authority will, in no case, be responsible for any costs, expenses, losses, or change in anticipated profits resulting from such failure or neglect of the bidder to make these examinations.

The bidder shall take no advantage of any error or omission in the proposal. Any prospective bidder who desires an explanation or interpretation of the specification, or any of the documents, shall request such in writing from the Awarding Authority, in sufficient time to allow a written reply by the Awarding Authority that can reach all prospective bidders before the submission of their bids. Any reply given a prospective bidder concerning any of the documents and specifications will be furnished to all prospective bidders in the form determined by the Awarding Authority including, but not limited to, an addendum, if the information is deemed by the Awarding Authority to be necessary in submitting bids or if the Awarding Authority concludes the information would aid competition. Oral explanations, interpretations or instructions given before the submission of bids unless at a prebid conference will not be binding on the Awarding Authority.

Preparation of the Proposal. Bidders shall submit their proposals on the form furnished by the Awarding Authority. The proposal shall be executed properly, and bids shall be made for all items indicated in the proposal form, except when alternate bids are asked, a bid on more than one alternate for each item is not required, unless otherwise provided. The bidder shall indicate in figures, a unit price for each of the separate items called for in the proposal form; the bidder shall show the products of the respective quantities and unit prices in the column provided for that purpose, and the gross sum shown in the place indicated in the proposal form shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the bidder which shall be written in ink.

When prequalification is required, the proposal form shall be submitted by an authorized bidder in the same name and style as shown on the "Contractor's Statement of Experience and Financial Condition" used for prequalification and shall be submitted in like manner.

Rejection of Proposals. The Awarding Authority reserves the right to reject any proposal for any of the conditions in "Issuance of Proposal Forms" or for any of the following reasons:

(a) More than one proposal for the same work from an individual, firm, partnership, or corporation under the same name or different names.

(b) Evidence of collusion among bidders.

(c) Unbalanced proposals in which the bid prices for some items are, in the judgment of the Awarding Authority, out of proportion to the bid prices for other items.

(d) If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum pay items.

(e) If the proposal form is other than that furnished by the Awarding Authority; or if the form is altered or any part thereof is detached.

(f) If there are omissions, erasures, alterations, unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.

(g) If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

(i) If the proposal is not accompanied by the proper proposal guaranty.

(i) If the proposal is prepared with other than ink or typewriter, or otherwise fails to meet the requirements of the above "Preparation of Proposal" section.

Proposal Guaranty. Each proposal shall be accompanied by a bid bond on the Department form contained in the proposal, executed by a corporate surety company satisfactory to the Awarding Authority, by a bank cashier's check or a properly certified check for not less than five percent of the amount bid, or for the amount specified in the following schedule:

Amount Bid		Proposal Guaranty
Up to	$5,000	$150
>$5,000	$10,000	$300
>$10,000	$50,000	$1,000
>$50,000	$100,000	$3,000
>$100,000	$150,000	$5,000
>$150,000	$250,000	$7,500
>$250,000	$500,000	$12,500
>$500,000	$1,000,000	$25,000
>$1,000,000	$1,500,000	$50,000
>$1,500,000	$2,000,000	$75,000
>$2,000,000	$3,000,000	$100,000
>$3,000,000	$5,000,000	$150,000
>$5,000,000	$7,500,000	$250,000
>$7,500,000	$10,000,000	$400,000
>$10,000,000	$15,000,000	$500,000
>$15,000,000	$20,000,000	$600,000
>$20,000,000	$25,000,000	$700,000
>$25,000,000	$30,000,000	$800,000
>$30,000,000	$35,000,000	$900,000
Over	$35,000,000	$1,000,000

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must equal to the sum of the proposal guaranties which would be required for each individual proposal.

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the County Treasurer, when a County is the awarding authority; or the City, Village, or Town Treasurer, when a city, village, or town is the awarding authority.

If this proposal contains various groups and the bidder has the option of bidding on one or several groups, the bidder may provide a separate proposal guaranty for each group or combination of groups in lieu of a single proposal guaranty to cover the amount bid for the entire proposal. Each proposal guaranty shall identify the groups covered by the individual proposal guaranty. In the event that one proposal guaranty check is intended to cover two or more groups, the amount must be equal to the sum of the proposal guaranties which would be required for each individual group.

The proposal guaranty checks of all, except the two lowest responsible, will be returned promptly after the proposals have been checked, tabulated, and the relation of the proposals established. Proposal guaranty checks of the two lowest bidders will be returned as soon as the contract and contract bond of the successful bidder have been properly executed and approved. If a contract bond is not required, the proposal guaranty check will be held in lieu thereof. Bid bonds will not be returned.

The awarding authority may deny the use of a bid bond as a proposal guaranty but may not further restrict the proposal guaranty. The Notice of Material Letting will state whether a bid bond is allowed.

Delivery of Proposals. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Authority and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.

Withdrawal of Proposals. Permission will be given a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

Public Opening of Proposals. Proposals will be opened and read publicly at the time and place specified in the Notice to Bidders. Bidders, their authorized agents and other interested parties are invited to be present.

Consideration of Proposals. After the proposals are opened and read, they will be compared on the basis of the summation of the products of the quantities shown in the bid schedule by the unit bid prices. In the event of a discrepancy between unit bid prices and extensions, the unit bid price shall govern. In awarding the supply of materials, the Awarding Authority will, in addition to considering the amounts stated in the proposals, take into consideration the responsibility of the various bidders as determined from a study of the data required under “Prequalification of Bidders”, and from other investigations which it may elect to make.

The right is reserved to reject any or all proposals, to waive technicalities or to advertise for new proposals, if in the judgment of the Awarding Authority, the best interests of the Awarding Authority will be promoted thereby.

Acceptance of Proposal to Furnish Material. The award will be made within 45 calendar days after the opening of proposals to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by letter of intent that his/her bid has been accepted, and subject to the following conditions, the bidder will be the Contractor or Supplier.

An acceptance of proposal to furnish materials executed by the Awarding Authority is required before the Awarding Authority is bound. An award may be cancelled any time by the Awarding Authority prior to execution in order to protect the public interest and integrity of the bidding process or for any other reason if, in the judgment of the Awarding Authority, the best interests of the Awarding Authority will be promoted thereby.

If a material proposal is not awarded within 45 days after the opening of proposals, bidders may file a written request with the Awarding Authority for the withdrawal of their bid, and the Awarding Authority will permit such withdrawal.

Requirement of Contract Bond. If the Awarding Authority requires a Contract Bond, the Contractor or Supplier shall furnish the Awarding Authority a performance and payment bond with good and sufficient sureties in the full amount of the award as

the penal sum. The surety shall be acceptable to the Awarding Authority, shall waive notice of any changes and extensions of time, and shall submit its bond on the form furnished by the Awarding Authority.

The contract bond shall be returned within 15 days after the notice of award. Failure of the successful bidder to execute and file acceptable bonds within 15 days after the notice of award has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the Awarding Authority, not as penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the work may be readvertised, or otherwise, as the Awarding Authority may decide.

If the bidder to whom the award is made is a corporation organized under the laws of a State other than Illinois, the bidder shall furnish the Awarding Authority a copy of the corporation's Certificate of Authority to do business in the State of Illinois with the return of the contract bond. Failure to furnish such evidence of a Certificate of Authority within the time required will be considered as just cause for the annulment of the award and the forfeiture of the proposal guaranty to the Awarding Authority, not as a penalty, but in payment of liquidated damages sustained as a result of such failure.

Failure to Execute the Acceptance of Proposal to Furnish Material. If the acceptance of proposal to furnish material is not executed by the Awarding Authority within 15 days following receipt from the bidder of the properly executed bonds, the bidder shall have the right to withdraw his/her bid without penalty."

RESERVED

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

SPECIAL PROVISIONS FOR BITUMINOUS SURFACE TREATMENTS

Effective: January 1, 1999
Revised: January 1, 2022

Description. This work shall consist of constructing a single or multiple course bituminous surface treatment as indicated below.

(a) A-1. A-1 shall consist of a bituminous seal coat material and a seal coat aggregate.

(b) A-2. A-2 shall consist of a prime coat, a bituminous cover coat material and a cover coat aggregate, and a bituminous seal coat material and seal coat aggregate. When placed on a hot-mix asphalt surface pavement, the prime coat shall be eliminated.

(c) A-3. A-3 shall consist of a prime coat, two separate applications of a bituminous cover coat material and cover coat aggregate, and a bituminous seal coat material and seal coat aggregate. When placed on a hot-mix asphalt surface pavement, the prime coat shall be eliminated.

Materials. Materials shall be according to the following.

	Item	Article/Section
(a)	Cover Coat Aggregate	1004.03
(b)	Seal Coat Aggregate (Note 1)	1004.03
(c)	Bituminous Materials (Note 2)	1032

Note 1. For A-1 surface treatment, the contract will specify which of the two aggregate gradations itemized in Article 1004.03 shall be used.

Note 2. For A-1 surface treatment, the bituminous material shall be as shown on the plans. For A-2 and A-3 surface treatments, the Contractor shall use one of the bituminous materials according to the following table.

Type of Construction	Bituminous Materials Recommended for Weather Conditions Indicated	
	Warm [60 to 85 °F]* [(15 to 30 °C)]*	Hot [85 °F Plus]* [(30 °C Plus)]*
Prime	MC-30, PEP	MC-30, PEP
Cover Coat and Seal Coat	RS-2, CRS-2, MC-800, MC-3000, SC-3000, HFE-90, HFE-150, HFE-300, CRS-2P, HFRS-2P	RS-2, CRS-2, MC-800, MC-3000, SC-3000, PG 46-28, PG 52-28, HFE-90, HFE-150, HFE-300, CRS-2P, HFRS-2P

*Temperature of the air in the shade at the time of application.

Equipment. Equipment shall be according to the following.

Item	Article/Section
(a) Pneumatic-Tired Rollers	1101.01
(b) Mechanical Sweeper	1101.03
(c) Aggregate Spreaders	1102.04
(d) Heating Equipment	1102.07
(e) General Use Pressure Distributor	1102.05(a)

CONSTRUCTION REQUIREMENTS

Weather Limitations. This work shall be done between May 1 and October 1. Bituminous materials shall be applied only when the temperature of the air in the shade is above 60 °F (15 °C). No work shall be started if local conditions indicate that rain is imminent.

This work may be done between October 1 and October 30 providing the temperature of the air for three consecutive days immediately preceding the day of application has been: (1) above 60 °F (15 °C) in the shade each day, (2) a minimum of 40 °F (5 °C), and (3) the temperature of the air in the shade at time of application is above 60 °F (15 °C).

Preparation of Bituminous Material. The temperature of the bituminous material at the time of application shall be such that it will spray uniformly without clogging the spraying nozzles and shall be applied within the temperature ranges according to Article 1032.04. Bituminous material shall be stored according to Article 1102.01(a)(6).

Preparation of Aggregate. The aggregates used in the cover coat(s) and the seal coat shall contain no free moisture.

Sequence of Work. The sequence of construction operations shall be undertaken as follows.

(a) Repair and preparation of base or existing surface.

(b) Application of bituminous material for prime coat (A-2 and A-3 on aggregate roadways only).

(c) Alternate applications of bituminous material and aggregate.

Repair and Preparation of Base or Existing Surface. The base or existing surface shall be prepared according to Section 358.

Prime Coat. The bituminous material shall be applied uniformly with a general use pressure distributor on the prepared surface at the rate of 0.25 to 0.5 gal/sq yd (1 to 2 L/sq m), the exact rate to be specified by the Engineer. The bituminous priming

material shall be applied to a width 1 ft (300 mm) greater on each side of the roadway than the specified width of the finished surface.

The prime coat shall be permitted to cure until the penetration has been approved by the Engineer, but not less than 24 hours for MC-30 or 4 hours for PEP. Pools of prime occurring in the depressions shall be removed by brooming or squeegeeing the excess material over the surrounding surface the same day the prime coat is applied. Traffic shall not be allowed upon the primed surface during the curing period. At locations where the prime coat has failed or is damaged, it shall be repaired in a manner satisfactory to the Engineer. The prime coat shall be maintained at all times until the cover coat is constructed. When required by the Engineer, the primed surface shall be swept prior to constructing the cover coat.

Application of Bituminous Material. The bituminous material shall be applied with a general use pressure distributor. A hand spray wand shall be used at places not covered by the distributor. The entire length of the spray bar shall be set at the height above the surface recommended by the manufacturer for even distribution of the bituminous material.

To prevent missing or overlapping at transverse joints, heavy paper shall be spread over the previously applied bituminous material and aggregate. In order to obtain a uniform application of the bituminous material, the distributor shall be traveling at the speed required for the specified rate of application when the spray bar crosses the paper. Adjacent construction, such as concrete pavement, curb and gutter, and raised reflective pavement markers shall be protected by shields, covers, or other means.

Application of Aggregates. The cover coat and seal coat aggregates shall be spread evenly with an aggregate spreader over the entire surface being treated. In all cases, the aggregate shall be applied ahead of the truck or spreader wheels. Hand spreading will be permitted only when approved by the Engineer and, when so permitted, the aggregate shall be spread uniformly and at the approximate rate specified. Any ridges of aggregate left by the aggregate spreader shall be smoothed out with hand brooms immediately behind the aggregate spreader.

Cover Coat. Bituminous material for the cover coat shall not be applied until the previous application is acceptable to the Engineer.

At the beginning of each day's work, no bituminous material shall be applied until there is sufficient cover coat aggregate in trucks at the work site to completely cover the first application of bituminous material. The amount of surface area covered by each successive application of bituminous material shall be determined by the Engineer. In no case shall this area be greater than can be covered with cover coat aggregate and given the initial rolling while the bituminous material is still in condition to hold the aggregate.

The bituminous material, as specified for cover coat, shall be applied uniformly over the surface at the rate of 0.20 to 0.50 gal/sq yd (1 to 2 L/sq m), the exact rate to be specified by the Engineer. Immediately following the application of the bituminous material, the cover coat aggregate shall be spread over the treated surface at the rate of 15 to 25 lb/sq yd (8 to 14 kg/sq m), the rate to be as specified by the Engineer.

The entire surface shall be rolled immediately with a pneumatic-tired roller. Rolling shall proceed in a longitudinal direction beginning at the edges and progressing toward the center, overlapping on successive trips by at least 1/2 the width of the roller. The roller shall be operated at a speed which will not cause the aggregate to be displaced. The aggregate shall then be rolled with a separate pneumatic-tired roller until the aggregate is properly seated in the bituminous material.

Seal Coat. When constructing A-2 or A-3, the seal coat shall not be started until the cover coat immediately preceding the seal coat is completed.

Application of the bituminous material and aggregate and rolling of the seal coat aggregate shall be the same as specified above for the cover coat.

During the construction period, the Contractor shall maintain the completed work. If necessary, the Contractor shall apply additional seal coat aggregate to absorb excess bitumen appearing on the surface and shall repair any areas where pickup has occurred.

Upon completion of the work and after the final set of the asphalt, excess loose aggregate shall be removed.

Opening to Traffic. The road shall be opened to traffic according to Article 701.17(c)(4).

Method of Measurement. Bituminous materials will be measured for payment as specified in Section 1032.

Cover coat aggregate and seal coat aggregate will be measured in tons (metric tons) according to the requirements of Article 311.08(b), except that measurement for payment will not be made for aggregate in excess of 110 percent of the amount specified by the Engineer.

Basis of Payment. This work will be paid for at the contract unit price per ton (metric ton) for BITUMINOUS MATERIALS (PRIME COAT), BITUMINOUS MATERIALS (COVER AND SEAL COATS), POLYMERIZED BITUMINOUS MATERIALS (COVER AND SEAL COATS), COVER COAT AGGREGATE, and SEAL COAT AGGREGATE.

When provided as a payment item, the preparation of the base or existing surface will be measured and paid for as specified in Section 358. If not provided as a payment item, preparation of base or existing surface shall be considered as included in the contract unit price(s) for the bituminous surface treatment.

RESERVED

CHECK SHEET #LRS11

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

SPECIAL PROVISION
FOR
EMPLOYMENT PRACTICES

Effective: January 1, 1999

In addition to all other labor requirements set forth in this proposal and in the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation, during the performance of this contract, the Contractor for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

Selection of Labor. The Contractor shall comply with all Illinois statutes pertaining to the selection of labor.

Equal Employment Opportunity. During the performance of this contract, the Contractor agrees as follows:

(a) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service, and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

(b) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

(c) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service.

That it will send to each labor organization or representative of workers with which it has or is bound by collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with so such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

(e) That it will submit reports as required by the Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.

(f) That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.

(g) That it will include verbatim or by reference the provisions of this clause in every subcontract so that such provisions will be binding upon every such subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by all its subcontractors; and further it will promptly notify the contracting agency and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply therewith. In addition, the Contractor will not utilize any subcontractor declared by the subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

CHECK SHEET #LRS12

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

SPECIAL PROVISION
FOR
WAGES OF EMPLOYEES ON PUBLIC WORKS

Effective: January 1, 1999
Revised: January 1, 2015

1. Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Illinois Department of Labor publishes the prevailing wage rates on its website. If the Illinois Department of Labor revises the prevailing wage rates, the revised prevailing wage rates on the Illinois Department of Labor's website shall apply to this contract and the Contractor will not be allowed additional compensation on account of said revisions. The Contractor shall review the wage rates applicable to the work of the contract at regular intervals in order to ensure the timely payment of current wage rates. The Contractor agrees that no additional notice is required. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto.

2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of not less than five years from the date of the last payment on a contract or subcontract, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include information required by 820 ILCS 130/5 for each worker. Upon seven business days' notice, the Contractor and each subcontractor shall make available for inspection and copying at a location within this State during reasonable hours, the payroll records to the public body in charge of the project, its officers and agents, the Director of Labor and his deputies and agents, and to federal, State, or local law enforcement agencies and prosecutors.

3. Submission of Payroll Records. The Contractor and each subcontractor shall, no later than the 15th day of each calendar month, file a certified payroll for the immediately preceding month with the public body in charge of the project, except that the full social security number and home address shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). The certified payroll shall consist of a complete copy of the payroll records, except starting and ending times of work each day may be omitted.

   The certified payroll shall be accompanied by a statement signed by the Contractor or subcontractor or an officer, employee, or agent of the Contractor or subcontractor which avers that: (i) he or she has examined the certified payroll records required to be submitted by the Act and such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general

prevailing rate of hourly wages required; and (iii) the Contractor or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class A misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor.

CHECK SHEET #LRS13

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

SPECIAL PROVISION
FOR
SELECTION OF LABOR

Effective: January 1, 1999
Revised: January 1, 2012

The Contractor shall comply with all Illinois statutes pertaining to the selection of labor.

Employment of Illinois Workers During Periods of Excessive Unemployment. Whenever there is a period of excessive unemployment in Illinois, which is defined herein as any month immediately following two consecutive calendar months during which the level of unemployment in the State of Illinois has exceeded five percent as measured by the United States Bureau of Labor Statistics in its monthly publication of employment and unemployment figures, the Contractor shall employ at least 90 percent Illinois laborers. "Illinois laborer" means any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident.

Other laborers may be used when Illinois laborers as defined herein are not available, or are incapable of performing the particular type of work involved, if so certified by the Contractor and approved by the Engineer. The Contractor may place no more than three of his regularly employed non-resident executive and technical experts, who do not qualify as Illinois laborers, to do work encompassed by this Contract during a period of excessive unemployment.

This provision applies to all labor, whether skilled, semi-skilled or unskilled, whether manual or non-manual.

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

SPECIAL PROVISION FOR PAVING BRICK AND CONCRETE PAVER PAVEMENTS AND SIDEWALKS

Effective: January 1, 2004
Revised: January 1, 2009

Description. This work shall consist of constructing pavement or sidewalk, composed of paving bricks or concrete pavers, on a prepared subgrade, subbase, or base.

Materials. Materials shall be according to the following Articles of Division 1000 - Materials of the Standard Specifications.

Item	Article/Section
(a) Fine Aggregate (Note 1)	1003.01, 1003.02(d)
(b) Edge Restraints (Note 2)	
(c) Paving Brick (Note 3)	1041.03
(d) Concrete Pavers (Note 3)	1042

Note 1. The fine aggregate used for the bedding course and joint filling shall be sand, silica sand, or slag sand. It shall also be Class A quality and dry. For the bedding course, the gradation shall be FA 1 or FA 2. For joint filling, the gradation shall be FA 9.

Note 2. For sidewalk, the edge restraints shall conform to the manufacturer's recommendations. For pavement, the edge restraints shall be combination concrete curb and gutter according to Section 606 of the Standard Specifications.

Note 3. The dimensions of the bricks and/or pavers shall be as shown on the plans.

Equipment. Equipment shall conform to the following Articles of Division 1100 - Equipment of the Standard Specifications.

Item	Article/Section
(a) Pneumatic-Tired Rollers	1101.01(a)
(b) Masonry Saw (Note 1)	
(c) Vibrator/Compactor (Note 2)	

Note 1. The masonry saw shall be a wet or dry saw capable of clean and accurate cuts.

Note 2. The vibrator/compactor shall be either a plate compactor with a high frequency, low amplitude plate or a rubber-roller mechanical vibrator.

Aesthetic Mockup, Review, and Approval. A 1 sq yd (sq m) full-scale mock-up using actual job specific edge restraint (if other than combination concrete curb and gutter), materials, brick dimension, colors, methods, and workmanship shall be provided by the Contractor. The actual vibrating equipment and vibrating rate to be used on the job shall be used on the mockup. The accepted mock-up will be the standard by which remaining work will be evaluated for technical and aesthetic merit. The mock up may be in a location of proposed installation where it may remain if approved by the Engineer.

CONSTRUCTION REQUIREMENTS

Preparation of Subgrade. The subgrade shall be prepared according to Section 301of the Standard Specifications, except Articles 301.05 and 301.06 will not apply.

Edge Restraints. Edge restraints shall be placed to a depth of at least the bottom of the bedding course.

For pavement, a transverse full-depth cast-in-place concrete header shall be placed at the limits of the pavement.

Bedding Course. The fine aggregate for bedding shall be placed and screeded, without compaction, to a uniform thickness of 1 to 1.5 in. (25 to 38 mm). Prepared areas shall not be left overnight, unless they are protected from disturbance and moisture. Stockpiled material shall be kept covered. Any saturated bedding aggregate shall be removed and replaced.

Installation. The bricks or pavers shall be laid in the pattern shown on the plans with a joint width from 1/8 to 1/4 in. (3 to 6 mm) on all sides. Whole bricks or pavers shall be laid first, starting from an exact edge or from the centerline of the pavement, followed by cut bricks or pavers. Cut bricks or pavers shall be at least 33 percent of the whole unit size.

After the entire pavement or sidewalk has been laid, it shall be set into the bedding course by one pass of the vibrator/compactor. Vibration/compaction shall stop within 3 ft (1 m) of any unrestrained edge.

For pavement, construction equipment shall not be driven on the new surface until the joints have been filled.

Joint Filling. The fine aggregate for joint filling shall be spread over the pavement or sidewalk and hand broomed into the joints. The aggregate shall then be worked down into the joints with multiple passes of the vibrator/compactor. Each pass shall be alternated 90 degrees from the previous pass. This process shall be repeated until the joints are completely filled.

Excess fine aggregate shall be removed by hand brooming.

All bricks and pavers within 6 ft (1.8 m) of the laying face shall be compacted and the joints completely filled with sand at the end of each workday.

For pavement, final rolling shall be completed with a 5 – 10 ton (4.5 – 9 metric ton) static pneumatic-tired roller.

Smoothness. For pavement, the completed surface will be tested for smoothness with a 16 ft (5 m) straightedge. Surface variations of the mainline pavement shall not exceed 3/16 in. (5 mm).

Method of Measurement. This work will be measured for payment as follows:

(a) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a) of the Standard Specifications.

(b) Measured Quantities. This work will be measured for payment in place and the area computed in square yards (square meters). Measurements will not include the edge restraints.

Edge restraints constructed of combination concrete curb and gutter will be measured according to Article 606.14 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per square meter (square yard) for PAVING BRICK PAVEMENT FOR LIGHT TRAFFIC, PAVING BRICK PAVEMENT FOR HEAVY TRAFFIC, CONCRETE PAVER PAVEMENT, PAVING BRICK SIDEWALK, or CONCRETE PAVER SIDEWALK.

Edge restraints constructed of combination concrete curb and gutter will be paid for according to Article 606.15 of the Standard Specifications.

CHECK SHEET #LRS15

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
PARTIAL PAYMENTS

Effective: January 1, 2007
Revised: January 1, 2025

Add the following after the first paragraph of Article 109.07(a) of the Standard Specifications:

"Prior to completion of 50 percent of the contract, the State will not withhold retainage from any payment in excess of ten percent of any payment made prior to the date of completion of 50 percent of the contract. When the contract is at least 50 percent complete, the State will reduce the retainage so that no more than five percent is held.

Prior to the completion of 50 percent of the contract, the Contractor and their respective subcontractors shall not withhold from their subcontractors retainage in excess of ten percent of any payment made prior to the date of completion of 50 percent of the contract. When the contract is at least 50 percent complete, the Contractor and its subcontractors shall reduce the retainage so that no more than 5 percent is withheld from their respective subcontractors.

When the principal items of the work have been satisfactorily completed, a semi-final estimate may be made with the consent of the surety. Payment to the Contractor under such an estimate shall not exceed 90 percent of the amount retained after making partial payments, but in no event shall the amount retained after making the semi-final payment be less than one percent of the adjusted contract price, nor less than $500.00.

When any payment is made directly to the State, payments for completed work shall have deducted the proportionate share of the cost to be borne by the State. The deduction will be the estimated cost to the State divided by the awarded contract value with this percentage applied to the value of work in place. Any adjustment to be made because of changed quantities will be made when the final payment is being processed. No retainage will be held from the value of such payments."

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

SPECIAL PROVISION FOR PROTESTS ON LOCAL LETTINGS

Effective: January 1, 2007
Revised: January 1, 2013

Except for apprenticeship and training certification issues, all protests shall be handled according to Sections 6.390 through 6.440 of Title 44 Subtitle A Chapter III Part 6 of the Illinois Administrative Code. For the purpose of a protest under this special provision, a representative of the awarding local authority executing the contract will perform the functions of the Chief Procurement Officer (CPO) and the State Purchasing Officer (SPO).

CHECK SHEET #LRS17

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

SPECIAL PROVISION
FOR
SUBSTANCE ABUSE PREVENTION PROGRAM

Effective: January 1, 2008
Revised: January 1, 2014

In addition to all other labor requirements set forth in this proposal and in the Standard Specification for Road and Bridge Construction, adopted by the Department, during the performance of this contract, the Contractor for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

Substance Abuse Prevention Program. Before the Contractor and any subcontractor commences work, the Contractor and any subcontractor shall have in place a written Substance Abuse Prevention Program for the prevention of substance abuse among its employees which meets or exceeds the requirements in 820 ILCS 265 or shall have a collective bargaining agreement in effect dealing with the subject matter of 820 ILCS 265.

The Contractor and any subcontractor shall file with the public body engaged in the construction of the public works: a copy of the Substance Abuse Prevention Program along with a cover letter certifying that their program meets the requirements of the Act, or a letter certifying that the Contractor or a subcontractor has a collective bargaining agreement in effect dealing with the subject matter of this Act.

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

SPECIAL PROVISIONS
FOR
MULTIGRADE COLD MIX ASPHALT

Effective: January 1, 2007
Revised: January 1, 2022

Add the following Article to Section 1032 of the Standard Specifications:

"**1032.14 Multigrade Cold Mix Asphalt.** Multigrade cold mix asphalt will be accepted according to the Bureau of Materials Policy Memorandum, "Cutback Asphalt and Road Oil Qualification Procedure". The Department will maintain a qualified producer list. These materials shall conform to the requirements listed in the following table:

Test	Grades		
	CM-90	CM-150	CM-300
Viscosity (Modified Koppers), (ASTM D 4957), @ 77 °F (25 °C), 1 sec^{-1}, Pa·s	150 - 2000	80 - 1000	30 - 500
Flash Point, (Cleveland Open Cup), (AASHTO T 48), °F (°C)	150 min. (65 min.)	150 min. (65 min.)	150 min. (65 min.)
Distillation Test (AASHTO T 78):			
Distillate, percent by volume of total distillate to 680 °F (360 °C)			
Distillate to 437 °F (225 °C)	0 - 4	0 - 5	0 - 5
Distillate to 500 °F (260 °C)	0 - 5	0 - 5	0 - 5
Distillate to 600 °F (315 °C)	10 - 65	30 - 75	40 - 85
Residue from distillation to 680 °F (360 °C), percent volume by difference	80 min.	75 min.	70 min.
Water, (AASHTO T 59), %	1.0 max.	1.0 max.	1.0 max.
Tests on residue from distillation:			
Penetration @ 77 °F (25 °C), 100 g, 5 sec, (AASHTO T 49), 0.1 mm	90 - 225	100 - 275	200 min.
Float Test @ 140 °F (60 °C), (AASHTO T 50), sec	1200 min.	1200 min.	1200 min.
Solubility in trichloroethylene, (AASHTO T 44), %	99.0 min.	99.0 min.	99.0 min."

CHECK SHEET #LRS19

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

SPECIAL PROVISIONS
FOR
REFLECTIVE CRACK CONTROL TREATMENT

Effective: January 1, 2022

Description. This work shall consist of constructing reflective crack control treatments. Area reflective crack control treatment shall be either System A or C at the option of the Contractor. Strip reflective crack control treatment shall be either System A, B, or C at the option of the Contractor.

Materials. Materials shall be according to the following.

	Item	Article/Section
(a)	Reflective Crack Control System	1062
(b)	Preparation of Mixture for Cracks, Joints, and Flangeways	1030.11
(c)	Hot-Poured Joint Sealer	1050.02
(d)	Bituminous Materials (Note 1) (Note 2) (Note 3)	1032

Note 1. The asphalt binder used for System A shall be PG 58-22 or PG 64-22.

Note 2. The primer to be used with System B shall be supplied by the manufacturer of the membrane and shall be compatible with the membrane.

Note 3. The tack coat to be used with System C shall be SS-1, SS-1h, SS-1hP, NTEA, RS-1, RS-2, CSS-1, CSS-1h, CSS-1hP, CRS-1, CRS-2, or HFE-90.

Equipment. Equipment shall be according to the following.

	Item	Article/Section
(a)	Rollers	1101.01
(b)	Mechanical Sweeper	1101.03
(c)	Asphalt-Rubber Processor/Distributor	1101.17
(d)	Mechanical Laydown Equipment	1101.18
(e)	Aggregate Spreaders	1102.04
(f)	General Use Pressure Distributor	1102.05(a)

CONSTRUCTION REQUIREMENTS

Surface Preparation. The surface on which reflective crack control system is to be constructed shall be clean and dry. Base failures shall be repaired. Cracks, spalls, potholes, or other depressions shall be sealed with an approved crack sealer or filled with mixture for cracks, joints, and flangeways according to Article 406.05.

When, in the opinion of the Engineer, the existing pavement surface cannot be rendered sufficiently smooth by crack sealing and patching, a binder shall be placed prior to construction of the reflective crack control system. The binder shall be constructed according to Section 406.

Placing Hot-Mix Asphalt (HMA). When HMA binder or surface course is placed on top of any reflective crack control system, the mixture shall be placed at a maximum temperature of 325 °F (160 °C).

Reflective Crack Control System A. The area to be covered with fabric shall be sprayed uniformly with asphalt binder at a rate of 0.25 to 0.30 gal/sq yd (1 to 1.3 L/sq m) as directed by the Engineer. Asphalt binder application shall be accomplished with a general use pressure distributor for all surfaces, except where the distributor does not have room to operate, hand spraying will be allowed. The width of the spray application shall be 2 to 6 in. (50 to 150 mm) wider than the fabric width. The asphalt binder shall be applied at a maximum temperature of 325 °F (160 °C) to avoid damage to the fabric.

After the asphalt binder has been sprayed, the fabric shall be placed onto the asphalt binder without delay. Every effort must be made to lay the fabric as smoothly as possible to avoid wrinkles. Wrinkles large enough to cause laps of the fabric shall be cut and laid out flat. The fabric shall be broomed or squeegeed to remove air bubbles and make complete contact with the road surface.

The fabric shall overlap the adjacent fabric panel a minimum of 2 in. (50 mm) and asphalt binder shall be applied by hand to make the joint. The transverse joints shall be made in such a manner to avoid pickup by the paver. The direction of paving shall be in the direction of fabric placement.

When placed as a strip treatment, the strip shall be 24 in. (600 mm) wide.

Reflective Crack Control System B. The waterproofing membrane interlayer shall be placed as shown on the plans. Placement of the membrane shall be done only when the temperature is above 40 °F (5 °C) and the pavement surfaces are dry and free of dirt and debris.

The surface shall be primed according to the manufacturer's recommendations prior to placement of the membrane. The primer shall be placed at a minimum rate of 300 sq ft/gal (7 sq m/L), shall extend 1 in. (25 mm) wider than the membrane, and shall be allowed to dry until tack free before applying the membrane. Primer shall be placed on both portland cement concrete and HMA pavement surfaces.

Any spall greater than 3 in. (75 mm) in diameter which will cause a failure of the material to bond to the pavement or will leave a cavity under the material shall be corrected with a material approved by the Engineer prior to the placement of the waterproofing membrane interlayer.

The membrane shall be installed in nominal 12 in. (300 mm) widths [11 3/8 in. (290 mm) minimum] and shall be centered over the joint or crack within a 1 in. (25 mm) tolerance. Laps will be permitted in the membrane with a minimum overlap of 2.5 in. (63 mm). The membrane shall be installed straight and wrinkle-free with no

curled or uplifted edges. Wrinkles over 3/8 in. (10 mm) width shall be slit and folded down.

Membrane shall be surface dry before placement of the hot-mix asphalt (HMA) overlay. Paving may begin immediately after membrane placement.

Reflective Crack Control System C. Immediately prior to application of a tack coat, the surface shall be thoroughly cleaned by sweeping.

When placed as a strip treatment, the strip shall be 24 in. (600 mm) wide. Equipment which meets the approval of the Engineer and applies a uniform application of tack coat, asphalt rubber, and cover aggregate may be used.

(a) Tack Coat. A tack coat shall be applied according to Article 406.05 at a residual rate of 0.05 lb/sq ft (0.244 kg/sq m).

(b) Asphalt-Rubber Mixture. For the asphalt-rubber mixture, the Contractor has the choice of using either a vulcanized rubber in asphalt with a diluent (Mixture 1) or a crumb rubber blend in asphalt which has been treated with an extender oil (Mixture 2).

(1) Mixture 1. The percentage of vulcanized rubber shall be 33 ± 4 percent by weight (mass) of the asphalt cement in Mixture 1.

The temperature of the asphalt shall be between 350 and 400 °F (175 and 200 °C) before addition of the vulcanized rubber. The material shall be carefully combined and mixed and reacted for a period of time as required by the Engineer which shall be based on laboratory testing by the asphalt-rubber supplier or contracting agency.

The temperature of the asphalt-rubber mixture shall be above 325 °F (160 °C) during the reaction period.

After the reaction between asphalt binder and rubber has occurred, the viscosity of the hot asphalt-rubber mixture may be adjusted for spraying and/or better "wetting" of the cover material by the addition of a diluent. The diluent shall not exceed 7.5 percent by volume of the hot asphalt-rubber mixture.

If a job delay results after the full reaction has occurred, the material may be allowed to cool and be slowly reheated to an acceptable spraying temperature just prior to application. However, because of the polymer reversion that can occur when crumb rubber is held for prolonged high temperatures, the material shall not be reheated to temperatures above 325 °F (160 °C). Additional diluent up to a maximum of 3 percent by volume of the hot asphalt-rubber mixture may be used after reheating of the material.

(2) Mixture 2. The percentage of crumb rubber blend shall be 25 ± 4 percent by weight of the asphalt binder. Prior to adding the crumb rubber blend, the asphalt and extender oil shall be mixed in such quantities to produce an absolute viscosity of 600 poises (60 Pa·s) at

140 °F (60 °C) when tested according to the requirements of AASHTO T 202. The asphalt oil blend shall first be heated to 400 °F (200 °C) minimum and be thoroughly mixed before beginning incorporation of the crumb rubber blend. The crumb rubber blend shall be added as quickly as possible and the mix shall be given adequate circulation and agitation during the addition-mixing process to provide for proper dispersion. As soon as the mixing of the rubber is complete, Mixture 2 may be applied to the roadway. However, if the material is not to be used within one hour of mixing, the temperature shall be reduced to below 325 °F (160 °C) and reheated on the project site.

(c) Application of Asphalt-Rubber Material. Asphalt-rubber shall be placed only under the following conditions.

(1) The pavement surface temperature is not less than 60 °F (15 °C) and rain is not imminent;

(2) The pavement surface is clean and dry;

(3) The wind conditions are such that excessive blowing of the spray bar fans is not occurring, and

(4) All construction equipment such as asphalt-rubber distributor, aggregate spreader, haul trucks with cover aggregate, and rollers are in position and ready to commence placement operations.

The asphalt-rubber mixture shall be applied at a temperature of 290 to 325 °F (140 to 160 °C) at a rate of 0.6 ± 0.05 gal/sq yd (2.7 ± 0.2 L/sq m) [based on 7.5 lb/hot gal (0.9 kg/hot L)]. Transverse joints shall be constructed by placing building paper across and over the end of the previous asphalt-rubber application. Once the spraying has progressed beyond the paper, the paper shall be removed immediately and disposed of as directed by the Engineer. Longitudinal joints shall be lapped a minimum of 4 in. (100 mm).

(d) Application of Cover Material. Cover material shall be applied immediately to the asphalt-rubber after spreading at a rate of 30 to 40 lb/sq yd (16 to 22 kg/sq m). If steel slag is used for cover material, the spread quantity shall be increased in proportion to its higher specific gravity.

At the time of application to the asphalt-rubber, cover aggregate shall not contain any free moisture.

(e) Rolling. At least three pneumatic-tired rollers shall be provided to accomplish the required embedment of the cover material. At some project locations or where production rates indicate, fewer rollers may be utilized as directed by the Engineer.

Sufficient rollers shall be used for the initial rolling to cover the width of the aggregate spread with one pass. The first pass shall be made immediately behind the aggregate spreader, and if the spreading is stopped for any reason, the spreader shall be moved ahead or off to the side so that all

cover material may be immediately rolled. Four complete coverages with rollers shall be made with all rolling completed within two hours after the application of the cover material.

(f) Opening the Completed Asphalt-Rubber Membrane Interlayer to Traffic. Except when it is necessary that hauling equipment must be on the newly applied membrane, traffic of all types shall be kept off the membrane until it has had time to set properly. The speed of all hauling equipment shall not exceed 15 mph (25 km/hr) when traveling over a membrane which is not adequately set. The minimum traffic free period shall be at least two hours.

(g) Removing Loose Cover Aggregate. Following placement of the system, the loose cover aggregate shall be removed with a mechanical sweeper without dislodging any embedded aggregate.

(h) Placement of HMA. The placement of the HMA overlay shall be delayed as directed by the Engineer for sufficient time to allow for adequate evaporation of the diluent or extender oil. A minimum of two hours shall elapse.

Method of Measurement. Area reflective crack control treatment will be measured for payment in place and the area computed in square yards (square meters). Strip reflective crack control treatment will be measured for payment in feet (meters) along the joint or crack.

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for AREA REFLECTIVE CRACK CONTROL TREATMENT or per foot (meter) for STRIP REFLECTIVE CRACK CONTROL TREATMENT.