



COVER SHEET

Proposal Submitted By:

Contractor's Name

Contractor's Address

City

State

Zip Code

STATE OF ILLINOIS

Local Public Agency

County

Section Number

Route(s) (Street/Road Name)

Type of Funds

☐ Proposal Only ☐ Proposal and Plans ☒ Proposal only, plans are separate

Submitted/Approved

For Local Public Agency:

For a County and Road District Project

Submitted/Approved

Highway Commissioner Signature & Date

Submitted/Approved

County Engineer/Superintendent of Highways Signature & Date

For a Municipal Project

Submitted/Approved/Passed

Signature & Date

Official Title

Department of Transportation

Released for bid based on limited review

Regional Engineer Signature & Date

Note: All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed.



John A. Harris

PROJECT MANAGER

"LICENSE EXPIRES

11-30-2025"

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
City of Aurora	Kane	22-00353-00-TL	Montgomery Road and Kautz R

NOTICE TO BIDDERS

Sealed proposals for the project described below will be received at the office of electronically at

aurora.il.us/Property-and-Business/City-Purchasing/Bids-and-Solicitations until 11:00 AM on 09/24/25.
Address Time Date

Sealed proposals will be opened and read publicly at the office of electronically at

aurora.il.us/Property-and-Business/City-Purchasing/Bids-and-Solicitations at 11:00 AM on 09/24/25.
Address Time Date

DESCRIPTION OF WORK

Location	Project Length
The intersection of Montgomery Road and Kautz Road	500 FT (0.094 MI)

Proposed Improvement

New traffic signal installation, pavement widening, curb and gutter, pavement markings, and signage

1. Plans and proposal forms will be available in the office of

ELECTRONIC ONLY (aurora.il.us/Property-and-Business/City-Purchasing/Bids-and-Solicitations)

2. ☒ Prequalification

If checked, the 2 apparent as read low bidders must file within 24 hours after the letting an "Affidavit of Availability" (Form BC 57) in triplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work. One original shall be filed with the Awarding Authority and two originals with the IDOT District Office.

3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals.

4. The following BLR Forms shall be returned by the bidder to the Awarding Authority:

- Local Public Agency Formal Contract Proposal (BLR 12200)
- Schedule of Prices (BLR 12201)
- Proposal Bid Bond (BLR 12230) (if applicable)
- Apprenticeship or Training Program Certification (BLR 12325) (do not use for project with Federal funds.)
- Affidavit of Illinois Business Office (BLR 12326) (do not use for project with Federal funds)

5. 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.

6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the plans and understands all requirements for the performance of work. The bidder will be responsible for all errors in the proposal resulting from failure or neglect to conduct an in depth examination. The Awarding Authority will, in no case, be responsible for any costs, expenses, losses or changes in anticipated profits resulting from such failure or neglect of the bidder.

7. The bidder shall take no advantage of any error or omission in the proposal and advertised contract.

8. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Agency 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.

9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
City of Aurora	Kane	22-00353-00-TL	Montgomery Road and Kautz R

PROPOSAL

1. Proposal of _____

Contractor's Name

Contractor's Address
2. The plans for the proposed work are those prepared by Baxter & Woodman
and approved by the Department of Transportation on _____.
3. The specifications referred to herein are those prepared by the Department of Transportation and designated as "Standard Specifications for Road and Bridge Construction" and the " Supplemental Specifications and Recurring Special Provisions" thereto, adopted and in effect on the date of invitation for bids.
4. The undersigned agrees to accept, as part of the contract, the applicable Special Provisions indicated on the "Check Sheet for Recurring Special Provisions" contained in this proposal.
5. The undersigned agrees to complete the work within 35 working days or by _____ unless additional time is granted in accordance with the specifications.
6. The successful bidder at the time of execution of the contract will be required to deposit a contract bond for the full amount of the award. When a contract bond is not required, the proposal guaranty check will be held in lieu thereof. If this proposal is accepted and the undersigned fails to execute a contract and contract bond as required, it is hereby agreed that the Bid Bond of check shall be forfeited to the Awarding Authority.
7. Each pay item should have a unit price and a total price. If no total price is shown or if there is a discrepancy between the products of the unit price multiplied by the quantity, the unit price shall govern. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price. A bid may be declared unacceptable if neither a unit price nor a total price is shown.
8. The undersigned submits herewith the schedule of prices on BLR 12201 covering the work to be performed under this contract.
9. The undersigned further agrees that if awarded the contract for the sections contained in the combinations on BLR 12201, the work shall be in accordance with the requirements of each individual proposal for the multiple bid specified in the Schedule for Multiple Bids below.
10. A proposal guaranty in the proper amount, as specified in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals, will be required. Bid Bonds will be allowed as a proposal guaranty. Accompanying this proposal is either a bid bond, if allowed, on Department form BLR 12230 or a proposal guaranty check, complying with the specifications, made payable to: City Treasurer of Aurora.
The amount of the check is Five Percent of Bid Amount (5%).

Attach Cashier's Check or Certified Check Here

In the event that one proposal guaranty check is intended to cover two or more bid proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual bid proposal. If the proposal guaranty check is placed in another bid proposal, state below where it may be found.

The proposal guaranty check will be found in the bid proposal for: Section Number 22-00353-00-TL.

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
City of Aurora	Kane	22-00353-00-TL	Montgomery Road and Kautz R

CONTRACTOR CERTIFICATIONS

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

1. **Debt Delinquency.** The bidder or contractor or subcontractor, respectively, certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue unless the individual or other entity is contesting, in accordance with the procedure established by the appropriate Revenue Act, its liability for the tax or the amount of the tax. Making a false statement voids the contract and allows the Department to recover all amounts paid to the individual or entity under the contract in a civil action.
2. **Bid-Rigging or Bid Rotating.** The bidder or contractor or subcontractor, respectively, certifies that it is not barred from contracting with the Department by reason of a violation of either 720 ILCS 5/33E-3 or 720 ILCS 5/33E-4.

A violation of section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense, or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent on behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State of Local government. No corporation shall be barred from contracting with any unit of State or Local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent on behalf of the corporation.

3. **Bribery.** The bidder or contractor or subcontractor, respectively, certifies that, it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois or any unit of local government, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm.
4. **Interim Suspension or Suspension.** The bidder or contractor or subcontractor, respectively, certifies that it is not currently under a suspension as defined in Subpart I of Title 44 Subtitle A Chapter III Part 6 of the Illinois Administrative code. Furthermore, if suspended prior to completion of this work, the contract or contracts executed for the completion of this work may be canceled.

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
City of Aurora	Kane	22-00353-00-TL	Montgomery Road and Kautz R

SIGNATURES

(If an individual)

Bidder Signature & Date

Business Address

City

State

Zip Code

(If a partnership)

Firm Name

Signature & Date

Title

Business Address

City

State

Zip Code

Insert the Names and Addresses of all Partners

(If a corporation)

Corporate Name

Signature & Date

Title

Business Address

City

State

Zip Code

Insert Names of Officers

President

Attest:

Secretary

Secretary

Treasurer



Contractor's Name

Contractor's Address

City

State Zip Code

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Local Public Agency

County

Section Number

City of Aurora

Kane

22-00353-00-TL

Route(s) (Street/Road Name)

Montgomery Road and Kautz Road Traffic Signal Installation

Schedule for Multiple Bids

Combination Letter	Total

Schedule for Single Bid

(For complete information covering these items, see plans and specifications.)

Item Number	Items	Unit	Quantity	Unit Price	Total
1	EARTH EXCAVATION	CU YD	256		
2	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	5		
3	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	324		
4	GRADING AND SHAPING DITCHES	FOOT	65		
5	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	190		
6	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	105		
7	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	350		
8	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	96		
9	HOT-MIX ASPHALT SURFACE COURSE, MIX "D" IL-9.5, N50	TON	124		
10	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	457		
11	DETECTABLE WARNINGS	SQ FT	70		
12	PAVEMENT REMOVAL	SQ YD	190		
13	COMBINATION CURB AND GUTTER REMOVAL	FOOT	451		
14	SIDEWALK REMOVAL	SQ FT	531		
15	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	1		
16	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	451		
17	NON-SPECIAL WASTE DISPOSAL	CU YD	20		
18	SOIL DISPOSAL ANALYSIS	EACH	2		
19	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1		
20	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1		
21	REGULATED SUBSTANCES MONITORING	CAL DAY	5		
22	MOBILIZATION	L SUM	1		
23	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1		
24	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1		
25	CHANGEABLE MESSAGE SIGN	CAL DAY	90		
26	SIGN PANEL - TYPE 1	SQ FT	21		
27	SIGN PANEL - TYPE 2	SQ FT	10		
28	REMOVE SIGN PANEL - TYPE 1	SQ FT	9		
29	RELOCATE SIGN PANEL - TYPE 1	SQ FT	15		
30	TELESCOPING STEEL SIGN SUPPORT	FOOT	45		
31	THERMOPLASTIC PAVEMENT MARKINGS, 6"	FOOT	410		
32	THERMOPLASTIC PAVEMENT MARKINGS, 12"	FOOT	240		
33	THERMOPLASTIC PAVEMENT MARKINGS, 24"	FOOT	48		
34	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	73		
35	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	75		
36	SERVICE INSTALLATION - POLE MOUNTED	EACH	1		

37	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	108		
38	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	142		
39	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	61		
40	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	90		
41	HANDHOLE	EACH	3		
42	DOUBLE HANDHOLE	EACH	1		
43	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	395		
44	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	842		
45	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	685		
46	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	734		
47	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	132		
48	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	570		
49	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1		
50	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2		
51	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1		
52	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2		
53	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1		
54	CONCRETE FOUNDATION, TYPE A	FOOT	20		
55	CONCRETE FOUNDATION, TYPE D	FOOT	4		
56	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30		
57	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3		
58	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3		
59	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3		
60	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3		
61	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4		
62	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	6		
63	LIGHT DETECTOR (INCLUDE CONFIRMATION BEACON)	EACH	3		
64	LIGHT DETECTOR AMPLIFIER	EACH	1		
65	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	210		
66	VIDEO DETECTION SYSTEM	EACH	1		
67	BIKE PATH REMOVAL	SQ YD	305		
68	INLETS TO BE REMOVED (SPECIAL)	EACH	1		
69	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET	EACH	1		
70	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1		
71	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	4		
72	CONSTRUCTION LAYOUT	L SUM	1		
73	DRAINAGE STRUCTURES TO BE ADJUSTED	EACH	3		
74	ETHERNET SWITCH	EACH	1		
75	CAT. 6 ETHERNET CABLE	FOOT	147		
76	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1		
77	CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1		
78	SEEDING - AURORA MIX	SQ FT	2,520		
	Bidder's Total Proposal				

1. Each pay item should have a unit price and a total price.
2. If no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity, the unit price shall govern.
3. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.
4. A bid may be declared unacceptable if neither a unit price or total price is shown.

**Local Public Agency
Proposal Bid Bond**

Local Public Agency

County

Section Number

City of Aurora

Kane

22-00535-00-TL

WE, _____ as PRINCIPAL, and
_____ as SURETY, are held jointly,

severally and firmly bound unto the above Local Public Agency (hereafter referred to as "LPA") in the penal sum of 5% of the total bid price, or for the amount specified in the proposal documents in effect on the date of invitation for bids, whichever is the lesser sum. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly pay to the LPA this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the LPA acting through its awarding authority for the construction of the work designated as the above section.

THEREFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the LPA for the above designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the "Standard Specifications for Road and Bridge Construction" and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the LPA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LPA acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this _____ of _____
Day Month and Year

Principal

Company Name

Signature & Date

By:

Title

Company Name

Signature & Date

By:

Title

(If Principal is a joint venture of two or more contractors, the company names, and authorized signatures of each contractor must be affixed.)

Surety

Name of Surety

Signature of Attorney-in-Fact Signature & Date

By:

STATE OF IL

COUNTY OF

I _____, a Notary Public in and for said county do hereby certify that

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instruments as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____
Day Month and Year

(SEAL, if required by the LPA)

Notary Public Signature & Date

Date commission expires _____

Local Public Agency

County

Section Number

City of Aurora

Kane

22-00535-00-TL

ELECTRONIC BID BOND

☐ **Electronic bid bond is allowed (box must be checked by LPA if electronic bid bond is allowed)**

The Principal may submit an electronic bid bond, in lieu of completing the above section of the Proposal Bid Bond Form. By providing an electronic bid bond ID code and signing below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the LPA under the conditions of the bid bond as shown above. (If PRINCIPAL is a joint venture of two or more contractors, an electronic bid bond ID code, company/Bidder name title and date must be affixed for each contractor in the venture.)

Electronic Bid Bond ID Code

--	--	--	--	--	--	--	--	--	--	--	--	--

Company/Bidder Name

--

Signature & Date

--

Title

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Local Public Agency	County	Street Name/Road Name	Section Number
City of Aurora	Kane	Montgomery Rd/Kautz	22-00353-00-TL

All contractors are required to complete the following certification

- ☒ For this contract proposal or for all bidding groups in this deliver and install proposal.
- ☐ For the following deliver and install bidding groups in this material proposal.

--

Illinois Department of Transportation policy, adopted in accordance with the provisions of the Illinois Highway Code, requires this contract to be awarded to the lowest responsive and responsible bidder. The award decision is subject to approval by the Department. In addition to all other responsibility factors, this contract or deliver and install proposal requires all bidders and all bidder's subcontractors to disclose participation in apprenticeship or training programs that are (1) approved by and registered with the United States Department of Labor's Bureau of Apprenticeship and Training, and (2) applicable to the work of the above indicated proposals or groups. Therefore, all bidders are required to complete the following certification:

1. Except as provided in paragraph 4 below, the undersigned bidder certifies that it is a participant, either as an individual or as part of a group program, in an approved apprenticeship or training program applicable to each type of work or craft that the bidder will perform with its own employees.

2. The undersigned bidder further certifies, for work to be performed by subcontract, that each of its subcontractors either (A) is, at the time of such bid, participating in an approved, applicable apprenticeship or training program; or (B) will, prior to commencement of performance of work pursuant to this contract, establish participation in an approved apprenticeship or training program applicable to the work of the subcontract.

3. The undersigned bidder, by inclusion in the list in the space below, certifies the official name of each program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's employees. Types of work or craft that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category for which there is no applicable apprenticeship or training program available.

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4. Except for any work identified above, if any bidder or subcontractor shall perform all or part of the work of the contract or deliver and install proposal solely by individual owners, partners or members and not by employees to whom the payment of prevailing rates of wages would be required, check the following box, and identify the owner/operator workforces and positions of ownership. ☐

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The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. The Department at any time before or afterward may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. In order to fulfill the participation requirement, it shall not be necessary that any applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract or deliver and install proposal.

Bidder	Signature & Date						
<table border="1"><tr><td></td></tr></table>		<table border="1"><tr><td></td></tr></table>					
Title							
<table border="1"><tr><td></td></tr></table>							
Address	City	State	Zip Code				
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Affidavit of Illinois Business Office

Local Public Agency	County	Street Name/Road Name	Section Number
City of Aurora	Kane	Montgomery Rd/Kautz Rd	22-00353-00-TL

I, _____ of _____, _____,
Name of Affiant City of Affiant State of Affiant
being first duly sworn upon oath, state as follows:

1. That I am the _____ of _____.
Officer or Position Bidder
2. That I have personal knowledge of the facts herein stated.
3. That, if selected under the proposal described above, _____, will maintain a business office in the
Bidder
State of Illinois, which will be located in _____ County, Illinois.
County
4. That this business office will serve as the primary place of employment for any persons employed in the construction contemplated by this proposal.
5. That this Affidavit is given as a requirement of state law as provided in Section 30-22(8) of the Illinois Procurement Code.

Signature & Date

--

Print Name of Affiant

--

Notary Public

State of IL

County _____

Signed (or subscribed or attested) before me on _____ by
(date)

_____, authorized agent(s) of
(name/s of person/s)

Bidder

Notary Public Signature & Date

--

(SEAL)

My commission expires _____



Bureau of Construction
2300 South Dirksen Parkway/Room 322
Springfield, IL 62764

Instructions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued unless both sides of this form are completed in detail. Use additional forms as needed to list all work.

Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

	1	2	3	4	Awards Pending	Accumulated Totals
Contract Number						
Contract With						
Estimated Completion Date						
Total Contract Price						
Uncompleted Dollar Value if Firm is the Prime Contractor						
Uncompleted Dollar Value if Firm is the Subcontractor						
Total Value of All Work						

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your company. If no work is contracted, show NONE.

Earthwork						
Portland Cement Concrete Paving						
HMA Plant Mix						
HMA Paving						
Clean & Seal Cracks/Joints						
Aggregate Bases, Surfaces						
Highway, R.R., Waterway Struc.						
Drainage						
Electrical						
Cover and Seal Coats						
Concrete Construction						
Landscaping						
Fencing						
Guardrail						
Painting						
Signing						
Cold Milling, Planning, Rotomilling						
Demolition						
Pavement Markings (Paint)						
Other Construction (List)						
Totals						

Disclosure of this information is REQUIRED to accomplish the statutory purpose as outlined in the "Illinois Procurement Code." Failure to comply will result in non-issuance of an "Authorization To Bid." This form has been approved by the State Forms Management Center.

Part III. Work Subcontracted to Others.

For each contract described in Part I, list all the work you have subcontracted to others.

	1	2	3	4	Awards Pending
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					

Total Uncompleted					
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Notary

I, being duly sworn, do hereby declare this affidavit is a true and correct statement relating to ALL uncompleted contracts of the undersigned for Federal, State, County, City and private work, including ALL subcontract work, ALL pending low bids not yet awarded or rejected and ALL estimated completion dates.

Officer or Director

Title

Signature

Date

Company

Address

City

State

Zip Code

Subscribed and sworn to before me

this _____ day of _____, _____

(Signature of Notary Public)

My commission expires _____

(Notary Seal)

☐ Add pages for additional contracts



E. - Bidder's Employee Utilization Form Construction

Contract Number	District	Letting Date
	1	08/28/25
Route		County
Montgomery Rd/Kautz Rd		Kane
Project Number	Job Number	
Section Number		
22-000353-00-TL		

PART I. IDENTIFICATION

Human Rights

Bid Number

Duration of Project

--	--

Name of Bidder

--

PART II. WORKFORCE PROJECTION

- A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract:

TABLE A TOTAL Workforce Projection for Contract												TABLE B Current Employees to be Assigned to Contract			
Job Categories	Total Employees		MINORITY EMPLOYEES				TRAINEES				Total Employees		Minority Employees		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Officials (Manager)															
Supervisors															
Foremen															
Clerical															
Equipment Operators															
Mechanics															
Truck Drivers															
Iron Workers															
Carpenters															
Cement Masons															
Electricians															
Pipe-fitters, Plumbers															
Painters															
Laborers, semi-skilled															
Laborers, unskilled															
TOTAL															

TABLE C Total Training Projection for Contract								
Job Categories	Total Employees		Black		Hispanic		*Other Minorities	
	M	F	M	F	M	F	M	F
Apprentices								
On-The-Job Trainees								

For Department Use Only

* Other minorities are defined as Asians (A) or Native Americans (N). Please specify race of each employees shown in Other Minorities column.

- B. Included in "Total Employees" under Table A is the total number of new hires that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: _____ new hires would be recruited from the area in which the contract project is located;
(number)

and/or _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.
(number)

- C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that _____ persons will be directly employed by the prime contractor and that _____
(number) (number)

persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

- A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.
- B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company		Phone	
Address	City	State	Zip Code

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed if revisions are required.

Signature	Date
Title	

Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.

Table A — Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.

Table B — Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.

Table C — Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.



Check Sheet for Recurring Special Provisions

Local Public Agency

County

Section Number

City of Aurora

Kane

22-00353-00-TL

☐ **Check this box for lettings prior to 01/01/2025**

The Following Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

Recurring Special Provisions

<u>Check Sheet #</u>		<u>Page No.</u>
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2	☐ Subletting of Contracts (Federal-Aid Contracts)	82
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Local Public Agency	County	Section Number
City of Aurora	Kane	22-00353-00-TL

The Following Local Roads And Streets Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

Local Roads And Streets Recurring Special Provisions

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Local Public Agency

County

Section Number

City of Aurora

Kane

22-00353-00-TL

The following Special Provision supplement the "Standard Specifications for Road and Bridge Construction", adopted

January 1, 2022

, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the Supplemental Specification and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of the above named section, and in case of conflict with any parts, or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

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PAGE NO.

LR 107-4

LR 1030-2

KANE COUNTY PREVAILING WAGES

STATE OF ILLINOIS
SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2022, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of Montgomery/Kautz Traffic Signal Installment, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

The project is located on Montgomery Road and Kautz Road intersection, in the City of Aurora, Kane County, Illinois. A location map is shown on the cover of the Plans.

DESCRIPTION OF WORK

The work consists of furnishing all labor, materials and equipment necessary for the completion of new traffic signal installation; curb and gutter and sidewalk repair; hot-mix asphalt resurfacing; adjustment of drainage structures; parkway restoration; and miscellaneous items of work in accordance with the Plans, Standard Specifications, and these Special Provisions.

MAINTENANCE OF ROADWAYS

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

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

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

STATUS OF UTILITIES (D-1)

Effective: June 1, 2016
Revised: April 1, 2025

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

UTILITIES TO BE ADJUSTED

Conflicts noted below have been identified by following the suggested staging plan included in the contract. The company has been notified of all conflicts and will be required to obtain the necessary permits to complete their work; in some instances, resolution will be a function of the construction staging. The responsible agency must relocate, or complete new installations as noted below; this work has been deemed necessary to be complete for the Department's contractor to then work in the stage under which the item has been listed.

No conflicts to be resolved.

The following contact information is what was used during the preparation of the plans as provided by the Agency/Company responsible for resolution of the conflict.

Agency/Company Responsible to Resolve Conflict	Name of contact	Phone	E-mail address
AT&T Distribution	Kari Martin	630-573-5789	Km126@att.net
Comed	Quinanda Candler	630-396-8221	quinandacandler@usicllc.com
Comcast	Martha Gieras	224-229-5862	Martha_gieras@verizon.com
Fox Metro Weber Reclamation	Greg Weber	630-301-6838	gweber@foxmetro.org
Nicor Gas	Sakibul Forah	630-388-2903	sforah@southernco.com

UTILITIES TO BE WATCHED AND PROTECTED

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

the contractor will be responsible to notify the owner in advance of the work to take place so necessary staffing on the owner's part can be secured.

No facilities requiring extra consideration.

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

Agency/Company Responsible to Resolve Conflict	Name of contact	Phone	E-mail address
AT&T Distribution	Kari Martin	630-573-5789	Km126@att.net
Comed	Quinanda Candler	630-396-8221	quinandacandler@usicllc.com
Comcast	Martha Gieras	224-229-5862	Martha_gieras@verizon.com
Fox Metro Weber Reclamation	Greg Weber	630-301-6838	gweber@foxmetro.org
Nicor Gas	Sakibul Forah	630-388-2903	sforah@southernco.com

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

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

The estimated relocation duration must be part of the progress schedule submitted by the contractor. A utility kickoff meeting will be scheduled between the Department, the Department's contractor, and the utility companies when necessary.

The contractor is responsible for contacting JULIE (or DIGGER within the City of Chicago) prior to any excavation work. Please note that IDOT electrical facilities are not part of the one-call locating services, such as JULIE or DIGGER.

If the contract requires the services of an electrical contractor, it is the contractor's responsibility, at their own expense, to locate existing IDOT electrical facilities before commencing work. For contracts that do not require an electrical contractor, the contractor may request one free locate of IDOT electrical facilities by contacting the Department's Electrical Maintenance Contractor. Additional locate requests will be at the contractor's expense.

The Department's Electrical Maintenance Contractor must be notified at least 72 hours in advance of the work by calling 773-287-7600 or emailing dispatch@meade100.com to arrange for the locating of underground electrical facilities.

Please note, the marking of underground facilities does not absolve the contractor of their responsibility to repair or replace any facilities damaged during construction at their expense.

MAINTENANCE GUARANTEE

The Contractor shall execute and deliver to the City of Aurora, before final payment will be issued, a written warranty, in a form satisfactory to the City, which guarantees that the work is in accordance with the Contract Documents and will not be defective. This warranty shall guarantee this work for a period of 2-years from the date of acceptance of the work and final payment by the City of Aurora.

If within this guarantee period, any work is found to be defective, as determined by the City, the Contractor shall promptly, without cost to the City of Aurora, correct or repair such defective work, or remove and replace the defective work in accordance with the Special Provisions for the items in question.

The Contractor shall furnish a warranty bond in an amount equal to five percent (5%) of the contract amount, or \$25,000, whichever is greater, by a surety satisfactory to the City to guarantee Contractor's warranty to repair defective work.

INSURANCE

The Contractor's comprehensive general liability insurance required by Article 107.27 of the Standard Specifications shall include as additional insureds the Municipality, the Engineer, and Engineer's Consultants, and all of whom shall be listed by name as additional insureds, and include coverage for the respective officers and employees of all such additional insureds, and shall cover the Contractor's indemnity obligations under Article 107.26 of the Standard Specifications.

In addition to the insurance coverages required by Article 107.27 of the Standard Specifications, the Contractor shall also purchase and maintain umbrella liability coverage in an amount not less than \$3,000,000. Such coverage shall include but not limited to, excess coverage for the Worker's Compensation, Comprehensive General and Automobile Liability policies.

In addition to delivering certificates of insurance in accordance with Article 107.27 of the Standard Specifications, the Contractor shall also deliver to the Municipality, with copies to each additional insured, certificates of insurance which the Contractor is required to purchase and maintain in accordance with Article 107.27 prior to the execution of the contract. The Contractor shall also deliver to the Municipality, with copies to each additional insured, copies of all endorsements to the insurance policies within 30 calendar days after the execution of the contract or prior to final

payment, whichever comes first. The Municipality will withhold the third, and subsequent progress payments or final pay request due the Contractor pending the receipt of all required insurance policy endorsements.

SUBCONTRACTORS

Add the following to the end of Section 108.01 of the Standard Specifications.

“The apparent low Bidder shall submit to the office of Engineer within ten (10) days after the receipt of bids, a list of the names of Bidder’s proposed subcontractors along with a description of the work to be performed by each.”

LIMITATIONS ON ENGINEER'S AUTHORITY AND RESPONSIBILITIES

The authority and duties of Resident Engineer in Article 105.10 of the Standard Specifications are hereby deleted. The authority of Engineer is amended as follows.

“The Engineer will be the Municipality's representative during the construction period. The Engineer will furnish a Resident Engineer (RE) to assist the Engineer in providing job-site observation of the Contractor's Work. The RE will provide base lines, benchmarks and reference points, assist the Contractor with interpretation of the Plans and Specifications, observe in general if the Contractor's Work is in conformity with the Contract Documents, and monitor the Contractor's progress as related to the date of completion. The Engineer will not supervise, direct, control or have authority over or be responsible for the Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the Contractor to comply with Laws and Regulations applicable to the furnishing or performance of the Work. The Engineer will not be responsible for the Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

The Engineer will not be responsible for the acts or omissions of the Contractor or any subcontractor, any supplier, or of any other person or organization performing or furnishing any of the Work.

These limitations on authority and responsibility set forth herein shall also apply to the Engineer's Consultants, Resident Engineer and assistants.”

WARRANTIES AND SHOP DRAWINGS

The following warranties, in a form satisfactory to the Engineer, shall be submitted for the following items before final payment will be issued:

Item(s)	Value	Duration	Form
Project Performance Guarantee	Greater of 5% contract value or \$50,000	2 years	Written Guarantee and a Bond
Underground Utilities	Full replacement	3 years	Written Guarantee
Electrical	Full Replacement	6 months	Written Guarantee
Signal UPS	Full Replacement	2 years 5 yrs - batteries	Written Warranty or Manufacturer
Traffic Signal/Lighting Equipment	Full Replacement	Varies (1 yr min.)	Manufacturer
Sign Panel Reflectivity	Full Replacement	3 years	Manufacturer
Painting Traffic Signal Equipment	Full replacement	Varies (1 yr min.)	Manufacturer
Detectable Warnings	Full replacement	5 yrs	Manufacturer

Shop drawings and/or samples shall be submitted for the following items in accordance with Article 105.04 of the Standard Specifications as required by the Plans, Details, and these Special Provisions. Shop drawings shall be approved in writing by the Engineer before ordering materials. No extension of contract time will be allowed for delays in obtaining shop drawing approval or procurement lead time.

Pay item(s)	Requirements
Traffic Signal Items	See Special Provisions
Sign Panels	See Specifications
Iron & Steel Products	Certification of Domestic Source

ALTERATIONS TO PROJECT BY ENGINEER

The Engineer reserves the right to alter the plans and details, extend or shorten the improvement, add such work as may be necessary, increase or decrease the quantities of work to be performed, and/or eliminate entire pay items all in accordance with Section 104 of the Standard Specifications, except that the Contractor shall not be entitled to additional compensation or lost profits in the event that quantities are reduced below the original contract quantities, or in the event pay items are deleted entirely.

AVAILABLE REPORTS

☒ No project specific reports were prepared.

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

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

Those seeking these reports should request access from:

Baxter & Woodman, Inc.
Attn: Joshua S. Harris, P.E., PTOE
Phone: (815)444-3271
Email: jharris@baxterwoodman.com

RESPONSIBILITY OF WORK

During the progress of the work the Contractor shall assume total risk and liability, and will be responsible for any and all damages to the work, or to persons, or to public or private property caused by, or in any way resulting from doing the work, including actions of Subcontractors or Material Suppliers.

PUBLIC SAFETY AND CONVENIENCE

The Contractor shall maintain drives, entrances, and side roads along the proposed improvement to allow emergency and local vehicle access to all adjacent properties. This access should not allow the passage of non-local vehicular traffic, which should abide by the approved traffic control plan. Interference with traffic movements and inconvenience to abutting property owners and the public shall be kept to a minimum. The Contractor shall maintain at least one lane open to traffic at all times for emergency vehicles on all streets affected by the construction of these improvements. Adequate use of flaggers and other traffic control devices shall be used to permit such arrangements during working hours. The contractor shall remove and reinstall all street signs in conflict with the proposed improvements. All signage required for the proper control of traffic (i.e.: stop signs, yield signs, etc.) must be maintained on a temporary basis until the permanent sign can be reinstalled.

This work shall not be paid for separately but shall be considered incidental to TRAFFIC CONTROL PLAN.

SCHEDULE

The Contractor agrees to execute a contract, a contract bond satisfactory to and in the form prescribed by the City in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract within **fifteen (15)** days after notice of award of the contract.

The Contractor further agrees to begin work no later than **ten (10)** calendar days after the execution and approval of the contract and contract bond, unless otherwise provided, and to prosecute the work in such a manner and with sufficient materials, equipment, and labor as will ensure its completion within the time limit specified herein, it being understood and agreed that the completion within the time limit is an essential part of the contract.

The Contractor shall schedule their construction operations in such a manner so as to meet the following completion deadlines:

- **Obtain Final completion of the entire project within 35 working days.**

Substantially complete shall mean the completion of all work except for the installation of the final HMA surface and minor punch list items.

Final completion shall be obtained when all the work in all respects has been completed; including the final HMA surface course, punch list work, and landscaping.

Special attention is called to Article 108.10 of the "Standard Specifications for Road and Bridge

Construction" and shall be strictly adhered to, in the event the Contractor fails to complete the project by the above-mentioned guidelines. Liquidated damages shall be assessed per Working Day for failure to meet the above deadlines.

The contractor shall not discontinue progress towards the completion of the work until "Final Completion" has been obtained. This provision will be strictly enforced whether or not the above-mentioned completion deadlines are being met. The contractor shall be assessed for liquidated damages for every working day that work is not being performed on the project.

PERFORMANCE GUARANTEE OF WORK

If after the approval of final payment for each class of work and prior to the expiration of 1 year after the date of approval of said final payment, or such longer period of time as may be prescribed by law or by terms of any applicable special guarantee required by the Contract Documents, any work is found to be defective, the Contractor shall promptly, without cost to the Owner and in accordance with written directions of the Owner, remove it from the site and replace it with non-defective work to the satisfaction of the Engineer.

Failure of the Contractor to complete or to remedy defective work within a reasonable time (not to exceed 30 days of notice to Contractor in any event) shall be deemed a default and the Owner may take steps as it deems necessary to complete or remedy said work and charge the cost thereof to the Contractor.

RECORD DRAWINGS

The Contractor shall keep one (1) record copy of all Specifications, Drawings, Addenda, Modifications and Shop Drawings at the site in good order and annotated to show all changes made during the construction process. These documents shall be kept current at all times and will be subject to the Engineer's review prior to approval of partial payments. These shall be available to the Engineer and shall be delivered to him for the Owner upon completion of the Project. The Contractor's request for final payment will not be approved until said "record drawings" have been delivered to the Engineer.

Contractor shall provide level, rod, etc. and laborer in assisting Engineer to verify changes. This work shall not be paid for separately, but shall be considered incidental to the Contract.

WORK DAYS AND HOURS

The allowed hours of work are between 7:00 AM and 7:00 PM, Monday through Friday, and between 8:00 AM and 5:00 PM on Saturdays. No work shall be done on Sundays or Holidays.

Equipment shall not be started before 6:45 AM.

PRE-CONSTRUCTION MEETING

A pre-construction meeting shall be held prior to start of construction after execution of the contract documents. The Resident Engineer shall establish the time and place of the pre-construction meeting. At this time, the Contractor shall be required to furnish and/or discuss the following:

- Written progress schedule/Completion Deadline.
- Names of Subcontractors and Material Suppliers.
- Names of Project Manager and/or Field Supervisor, including the name and phone number of a responsible individual who can be reached twenty-four (24) hours per day, seven (7) days per week.
- Notifications
 - o Notify City Engineer 72 hours prior to the commencement of any work.
 - o Notify Water and Sewer Maintenance Division 48 hours prior to any water main shutdown.
- General cleanup of the work site at the end of each day. The Contractor must have a water meter and hoses, or water truck on site prior to the start of excavation.
- Granular trench backfill, method and equipment used for compaction.
- CCDD requirements/tickets
- Protection of existing pavement and placement of cold patch. The contractor must be prepared to place temporary pavement within the same day of removing the existing pavement.
- Driveway access
- Landscape restoration
- A J.U.L.I.E meet at the project site, scheduled by the Contractor, prior to commencement of any work.

Upon receipt of the notice of the award, the Contractor shall prepare a project schedule setting forth the hours and days of operation for each task required by the Contract. The project schedule shall be reviewed, and revised as required, and submitted with each payment request and/or request for extension of time.

NOTIFICATION

The Contractor shall notify the Resident Engineer a minimum of three (3) working days (72 hours) prior to starting any work on this contract, and a minimum of two (2) working days (48 hours) prior to starting each different type of work.

Parking

The Contractor shall supply and post "No Parking" signs on thirty-six inch (36") high lath every fifty feet (50'), two feet (2') from the back of curb or edge of pavement, at least two (2) working days (48 hours) prior to work in the affected area. The Contractor shall contact the City of Aurora

Police Department prior to placing "No Parking" signs. "No Parking" signs only need to be installed in areas of existing parking.

The supply and posting of "No Parking" signs and all other notifications to various local agencies, residents, or businesses shall not be paid for separately, but shall be considered incidental to the project.

Roadway

The Contractor shall notify the Aurora Police and Fire Departments, the appropriate School District, and the Pace Bus Service twenty-four (24) hours prior to the closure of any road.

Water

Should it be necessary, the Contractor shall notify the City of Aurora's Water and Sewer Maintenance Department, at (630) 256-3710, to request a shut-down of existing water supply a minimum of forty-eight (48) hours in advance.

The Contractor shall hand deliver written notice to all residences and/or businesses a minimum of twenty-four (24) hours prior to shutting down water mains or affecting continuous water supply.

Sanitary

The Contractor shall make every effort to maintain sewer service usage throughout the duration of the project. In the event that a connection will be out of service, the longest period of no service shall be 8 hours. A public notification program shall be implemented, and shall as a minimum, require the Contractor to be responsible for contacting each home or business connected to the sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line. The Contractor shall also provide the following:

1. Written notice to be delivered to each home or business at least 48 hours prior to the beginning of work being conducted on the section, and a local telephone number of the Contractor they can call to discuss the project or any potential problems.
2. Personal contact with any home or business, which cannot be reconnected within the time stated in the written notice.

CONTROL OF MATERIALS

All material used shall meet the requirements of the Illinois Department of Transportation, the "Standard Specifications for Water and Sewer Main Construction in Illinois," the "City of Aurora Standard Specifications for Improvements," and as outlined in these specifications.

All materials will be inspected, tested, and approved by the Engineer before incorporation into the work. The Contractor shall provide the City with letters of certification from each supplier.

Any work in which untested and unacceptable materials are used without approval or written permission from the City Engineer shall be performed at the Contractor's risk and may be considered as unacceptable and unauthorized and will not be paid for.

SHOP DRAWINGS

When required in an individual Special Provisions or the Specifications, the Contractor shall submit "shop drawings" for the Engineer's review and approval as follows:

- A. Submit three (3) sets of drawings or other descriptive data to the Engineer for approval. Each submittal shall contain only those items specified in one specification section.
- B. Drawings or descriptive data will be stamped "No Exceptions Taken", "Make Corrections as Noted", "Revise and Resubmit", or "Rejected", and the drawings and transmittal letter marked accordingly. One copy of the drawings or descriptive data will be returned to the Contractor, one copy shall go to the Engineer's field representative and one copy will stay at the Engineer's office.

Additional marked up copies of the drawings or descriptive data required by the Contractor will be made by the Contractor.

- C. If a drawing or other data is stamped "No Exceptions Taken", the Contractor shall transmit six complete sets of data to the Engineer together with a new copy of a letter of transmittal containing substantially the same information as described in Instruction A above.

The Engineer will then mark-up all six sets and send one to the Engineer's field representative, keep one in the home office, send one to the Owner, and return three to the Contractor. Subsequently, all copies of these documents used in the work shall bear this stamp.

- D. If a drawing or other data is stamped "Make Corrections Noted", the Contractor shall make the corrections indicated and proceed as in **Instruction C** above.
- E. If a drawing or data is stamped "Revise and Resubmit", the Contractor shall make the necessary corrections and resubmit the documents as set forth in **Instruction A** above.
- F. If a drawing or data is stamped "Rejected", the Contractor shall proceed as in **Instruction A** above, with new submittals.
- G. The Contractor shall revise and resubmit the working drawings as required by the Engineer, until they are stamped "No Exceptions Taken".

- H. The Contractor shall have no claim for damages or extension of time on account of any delay in the work resulting from the rejection of material or from revision or resubmittal of drawings and other data for review.
- I. The Engineer shall only review a shop drawing a maximum of two times at no cost to the Contractor. The second submittal should be sufficiently complete to be marked "No Exceptions Taken". If more than two submittals are required to reach the "No Exception Taken" stage, the cost of review of the submittals will be paid by the Contractor at a rate of \$125.00 per hour.

RESPONSIBILITY FOR CONSTRUCTION SAFETY, SHORING AND CONSTRUCTION METHODS

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions for the safety of; and shall provide the necessary protection to prevent damage, injury or loss to:

- (a) All employees on the work and other persons who may be affected thereby.
- (b) All work and materials or equipment to be incorporated therein, whether in storage on or off the site.
- (c) Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

The Contractor shall be responsible for complying with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. The Contractor shall be responsible for erecting and maintaining, as required by the conditions and progress of the work, all necessary safeguards for its safety and protection, including tight sheeting or shoring of the trench. He shall notify owners of adjacent utilities when prosecution of the work may affect them. All damage, injury, or loss to any property referred to in paragraph (a) or (b) caused, directly or indirectly, in whole or in part, by any Contractor or Subcontractor or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for the safety and protection of all work shall continue until such time as all the work is completed and acceptable. Any damages shall be repaired in a timely manner. Any and all interruptions of essential utilities such as water, electricity, or gas shall be corrected that same day and before the foreman leaves the site. (See Guarantee & Maintenance of Work for time of acceptance.)

The Contractor shall be responsible for coordinating with utility companies regarding the bracing or relocating of utility poles, and the relocation of any underground facilities.

DUST CONTROL & DIRT ON PAVEMENT

The Contractor shall at all times be responsible for maintaining dust-free conditions. The Contractor shall clean the pavement of all dirt and debris at the end of each day's operations, and at other times as directed by the Engineer by means of high pressure washing or by mechanical sweeping. The Contractor shall provide for the control of dust as specified in Section 20-2.21C of the "Standard Specifications for Water and Sewer Construction in Illinois," or by the uniform application of a dust control agent approved by the Engineer.

If City water is used for dust control, the Contractor must have a water meter and hoses on site prior to the start of any excavation.

If the Contractor does not meet the requirement of controlling dust and/or cleaning the pavement, within three (3) hours of notification by the Owner, the Owner shall make the necessary arrangements to control the dust and clean the pavement(s). The cost of such action will be deducted from any monies due or to become due to the Contractor. **Additionally, the City will deduct \$500.00 per day from monies due, or to become due, for each day that the Contractor fails to comply with this special provision. In addition, the Contractor will pay any penalties resulting from any Illinois Environmental Protection Agency, NPDES for Construction violations issued to the Owner.** Such sum to be charged not as a penalty but as liquidated damages. The parties agreeing that actual damages to the City of Aurora would be uncertain and difficult to calculate and the amount of such liquidated damages is a reasonable estimate of the supervision costs likely to be incurred by the City of Aurora as a result of the Contractor's failure to control dust and clean the pavement(s) as required.

Dust control and pavement cleaning shall be considered incidental to the cost of the contract and will not be paid for separately.

TRAFFIC CONTROL PLAN (D1)

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

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

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

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

STANDARDS: 701301, 701501, 701502, 701801, 701901

DETAILS:

Traffic Control and Protection for Side Roads, Intersections, and Driveways (TC-10)

SPECIAL PROVISIONS:

Maintenance of Roadways
Work Zone Traffic Control Surveillance (LRS 3)
Flaggers in Work Zones (LRS 4)

The Contractor shall contact the Village at least 72 hours in advance of beginning work. Construction operations shall be conducted in a manner such that streets will be open to emergency traffic and accessible as required to local traffic. Advanced notice shall be provided to residents, police, fire, school districts and trash haulers when access to any street will be temporarily closed or limited. Removal and replacement of curb and gutter and driveways shall be planned so as to cause a minimum of inconvenience to the abutting property owners. The work shall be accomplished such that the streets will be left open to local traffic at the end of each working day.

PUBLIC CONVENIENCE AND SAFETY (D1)

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

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

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

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

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

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

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

HOT-MIX ASPHALT BINDER AND SURFACE COURSE (D1)

Effective: November 1, 2019
Revised: January 1, 2025

Revise Article 1004.03(c) to read:

“(c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

Use	Size/Application	Gradation No.
Class A-1, A-2, & A-3	3/8 in. (10 mm) Seal	CA 16 or CA 20
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & A-3	Cover Coat	CA 14
HMA High ESAL	IL-19.0; Stabilized Subbase IL-19.0	CA 11 ^{1/}
	SMA 12.5 ^{2/}	CA 13 ^{4/} , CA 14, or CA 16
	SMA 9.5 ^{2/}	CA 13 ^{3/4/} or CA 16 ^{3/}
	IL-9.5	CA 16, CM 13 ^{4/}
	IL-9.5FG	CA 16
HMA Low ESAL	IL-19.0L	CA 11 ^{1/}
	IL-9.5L	CA 16

1/ CA 16 or CA 13 may be blended with the CA 11.

2/ The coarse aggregates used shall be capable of being combined with the fine aggregates and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ The specified coarse aggregate gradations may be blended.

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

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

“(e) Absorption. For SMA the coarse aggregate shall also have water absorption
≤ 2.0 percent.”

Revise the “High ESAL” portion of the table in Article 1030.01 to read:

“High ESAL	Binder Courses	IL-19.0, IL-9.5, IL-9.5FG, IL-4.75, SMA 12.5, Stabilized Subbase IL-19.0
	Surface Courses	IL-9.5, IL-9.5FG, SMA 12.5, SMA 9.5”

Revise Note 2. and add Note 6 to Article 1030.02 of the Standard Specifications to read:

“Item	Article/Section
(g)Performance Graded Asphalt Binder (Note 6)	1032
(h)Fibers (Note 2)	

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

Note 6. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be a SBS PG 76-22 for IL-4.75, except where modified herein..”

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

"MIXTURE COMPOSITION (% PASSING)" ^{1/}												
Sieve Size	IL-19.0 mm		SMA 12.5		SMA 9.5		IL-9.5mm		IL-9.5FG		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max	min	max
1 1/2 in. (37.5 mm)												
1 in. (25 mm)		100										
3/4 in. (19 mm)	90	100		100								
1/2 in. (12.5 mm)	75	89	80	100		100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	60	75 ^{6/}	90	100
#8 (2.36 mm)	20	42	16	24 ^{4/}	16	32 ^{4/}	34 ^{5/}	52 ^{2/}	45	60 ^{6/}	70	90
#16 (1.18 mm)	15	30					10	32	25	40	50	65
#30 (600 µm)			12	16	12	18			15	30		
#50 (300 µm)	6	15					4	15	8	15	15	30
#100 (150 µm)	4	9					3	10	6	10	10	18
#200 (75 µm)	3.0	6.0	7.0	9.0 ^{3/}	7.5	9.5 ^{3/}	4.0	6.0	4.0	6.5	7.0	9.0 ^{3/}
#635 (20 µm)			≤ 3.0		≤ 3.0							
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0		1.0

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

- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.
- 6/ When the mixture is used as a binder, the maximum shall be increased by 0.5 percent passing.”

Revise Article 1030.05(b) of the Standard Specifications to read:

- (b) Volumetric Requirements. The target value for the air voids of the HMA shall be 4.0 percent, for IL-4.75 and SMA mixtures it shall be 3.5 percent and for Stabilized Subbase it shall be 3.0 percent at the design number of gyrations. The voids in the mineral aggregate (VMA) and voids filled with asphalt binder (VFA) of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the following requirements.

	Voids in the Mineral Aggregate (VMA), % Minimum for Ndesign				
Mix Design	30	50	70	80	90
IL-19.0		13.5	13.5		13.5
IL-9.5		15.0	15.0		
IL-9.5FG		15.0	15.0		
IL-4.75 ^{1/}		18.5			
SMA-12.5 ^{1/2/5/}				17.0 ^{3/} /16.0 ^{4/}	
SMA-9.5 ^{1/2/5/}				17.0 ^{3/} /16.0 ^{4/}	
IL-19.0L	13.5				
IL-9.5L	15.0				

- 1/ Maximum draindown shall be 0.3 percent according to Illinois Modified AASHTO T 305.
- 2/ The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30°F.
- 3/ Applies when specific gravity of coarse aggregate is ≥ 2.760 .
- 4/ Applies when specific gravity of coarse aggregate is < 2.760 .
- 5/ For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone”

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

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

Revise the first and second paragraphs of Articles 1030.06(c)(2) of the Standard Specifications to read:

“(2) Personnel. The Contractor shall provide a QC Manager who shall have overall responsibility and authority for quality control. This individual shall maintain active certification as a Hot-Mix Asphalt Level II technician.

In addition to the QC Manager, the Contractor shall provide sufficient personnel to perform the required visual inspections, sampling, testing, and documentation in a timely manner. Mix designs shall be developed by personnel with an active certification as a Hot-Mix Asphalt Level III technician. Technicians performing mix design testing and plant sampling/testing shall maintain active certification as a Hot-Mix Asphalt Level I technician. The Contractor may provide a technician trainee who has successfully completed the Department's “Hot-Mix Asphalt Trainee Course” to assist in the activities completed by a Hot-Mix Asphalt Level I technician for a period of one year after the course completion date. The Contractor may also provide a Gradation Technician who has successfully completed the Department's "Gradation Technician Course" to run gradation tests only under the supervision of a Hot-Mix Asphalt Level II Technician. The Contractor shall provide a Hot-Mix Asphalt Density Tester who has successfully completed the Department's "Nuclear Density Testing" course to run all nuclear density tests on the job site.”

Add Article 1030.06(d)(3) to the Standard Specifications to read:

“(3) The Contractor shall take possession of any Department unused backup or dispute resolution HMA mixture samples or density specimens upon notification by the Engineer. The Contractor shall collect the HMA mixture samples or density specimens from the location designated by the Engineer. The HMA mixture samples or density specimens may be added to RAP stockpiles according to Section 1031.”

Revise the second paragraph of Articles 1030.07(a)(11) and 1030.08(a)(9) of the Standard Specifications to read:

“When establishing the target density, the HMA maximum theoretical specific gravity (Gmm) will be based on the running average of four available Department test results for that project. If less than four Gmm test results are available, an average of all

available Department test results for that project will be used. The initial Gmm will be the last available Department test result from a QMP project. If there is no available Department test result from a QMP project, the Department mix design verification test result will be used as the initial Gmm.”

Revise the following table and notes in Article 1030.09 (c) of the Standard Specifications to read:

CONTROL LIMITS						
Parameter	IL-19.0, IL-9.5, IL-9.5FG, IL-19.0L, IL-9.5L		SMA-12.5, SMA-9.5		IL-4.75	
	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4
% Passing: ^{1/}						
1/2 in. (12.5 mm)	± 6 %	± 4 %	± 6 %	± 4 %		
3/8 in. (9.5mm)			± 4 %	± 3 %		
# 4 (4.75 mm)	± 5 %	± 4 %	± 5 %	± 4 %		
# 8 (2.36 mm)	± 5 %	± 3 %	± 4 %	± 2 %		
# 16 (1.18 mm)			± 4 %	± 2 %	± 4 %	± 3 %
# 30 (600 µm)	± 4 %	± 2.5 %	± 4 %	± 2.5 %		
Total Dust Content # 200 (75 µm)	± 1.5 %	± 1.0 %			± 1.5 %	± 1.0 %
Asphalt Binder Content	± 0.3 %	± 0.2 %	± 0.2 %	± 0.1 %	± 0.3 %	± 0.2 %
Air Voids ^{2/}	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %
Field VMA ^{3/}	-0.7 %	-0.5 %	-0.7 %	-0.5 %	-0.7 %	-0.5 %

1/ Based on washed ignition oven or solvent extraction gradation.

2/ The air voids target shall be a value equal to or between 3.2 % and 4.8 %.

3/ Allowable limit below minimum design VMA requirement.

Revise Article 1030.09(g)(2) of the Standard Specifications to read:

“(2)The Contractor shall complete split verification sample tests listed in the Limits of Precision table in Article 1030.09(h)(1).”

In the Supplemental Specifications, replace the revision for the end of the third paragraph of Article 1030.09(h)(2) with the following:

“When establishing the target density, the HMA maximum theoretical specific gravity (G_{mm}) will be the Department mix design verification test result.”

Add after third sentence of Article 1030.09(b) to read:

“If the Contractor and Engineer agree the nuclear density test method is not appropriate for the mixture, cores shall be taken at random locations determined according to the QC/QA document "Determination of Random Density Test Site Locations". Core densities shall be determined using the Illinois Modified AASHTO T 166 or T 275 procedure.”

Revise Table 1 and Note 4/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

	Breakdown/Intermediate Roller (one of the following)	Final Roller (one or more of the following)	Density Requirement
IL-9.5, IL-9.5FG, IL-19.0 ^{1/}	V _D , P, T _B , 3W, O _T , O _B	V _S , T _B , T _F , O _T	As specified in Section 1030
IL-4.75 and SMA ^{3/ 4/}	T _B , 3W, O _T	T _F , 3W	As specified in Section 1030
Mixtures on Bridge Decks ^{2/}	T _B	T _F	As specified in Articles 582.05 and 582.06.

“4/ The Contractor shall provide a minimum of two steel-wheeled tandem rollers (T_B), and/or three-wheel (3W) rollers for breakdown, except one of the (T_B) or (3W) rollers shall be 84 inches (2.14 m) wide and a weight of 315 pound per linear inch (PLI) (5.63 kg/mm) and one of the (T_B) or (3W) rollers can be substituted for an oscillatory roller (O_T). T_F rollers shall be a minimum of 280 lb/in. (50 N/mm). The 3W and T_B rollers shall be operated at a uniform speed not to exceed 3 mph (5 km/h), with the drive roll for T_B rollers nearest the paver and maintain an effective rolling distance of not more than 150 ft (45 m) behind the paver.”

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

“The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design’s G_{mb}.”

Revise first paragraph of Article 1030.10 of the Standard Specifications to read:

“A test strip of 300 ton (275 metric tons), except for SMA mixtures it will be 400 ton (363 metric ton), will be required for each mixture on each contract at the beginning of HMA production for each construction year according to the Manual of Test Procedures for Materials “Hot Mix

Asphalt Test Strip Procedures". At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results."

Revise fourth paragraph of Article 1030.10 of the Standard Specifications to read:

"When a test strip is constructed, the Contractor shall collect and split the mixture according to the document "Hot-Mix Asphalt Test Strip Procedures". The Engineer, or a representative, shall deliver split sample to the District Laboratory for verification testing. The Contractor shall complete mixture tests stated in Article 1030.09(a). Mixture sampled shall include enough material for the Department to conduct mixture tests detailed in Article 1030.09(a) and in the document "Hot-Mix Asphalt Mixture Design Verification Procedure" Section 3.3. The mixture test results shall meet the requirements of Articles 1030.05(b) and 1030.05(d), except Hamburg wheel tests will only be conducted on High ESAL mixtures during production."

FRICTION AGGREGATE (D1)

Effective: January 1, 2011
Revised: December 1, 2021

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

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

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

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

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

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

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

HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (D1)

Effective: January 1, 2019
Revised: December 1, 2021

Add to Article 1030.05 (d)(3) of the Standard Specifications to read:

“ During mixture design, prepared samples shall be submitted to the District laboratory by the Contractor for verification testing. The required testing, and number and size of prepared samples submitted, shall be according to the following tables.

High ESAL – Required Samples for Verification Testing	
Mixture	Hamburg Wheel and I-FIT Testing ^{1/ 2/}
Binder	total of 3 - 160 mm tall bricks
Surface	total of 4 - 160 mm tall bricks

Low ESAL – Required Samples for Verification Testing	
Mixture	I-FIT Testing ^{1/ 2/}
Binder	1 - 160 mm tall brick
Surface	2 - 160 mm tall bricks

1/ The compacted gyratory bricks for Hamburg wheel and I-FIT testing shall be 7.5 ± 0.5 percent air voids.

2/ If the Contractor does not possess the equipment to prepare the 160 mm tall brick(s), twice as many 115 mm tall compacted gyratory bricks will be acceptable.

Revise the fourth paragraph of Article 1030.10 of the Standard Specifications to read:

“When a test strip is not required, each HMA mixture 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). The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the “High ESAL - Required Samples for Verification Testing” table in Article 1030.05(d)(3) above.”

Add the following to the end of Article 1030.10 of the Standard Specifications to read:

“Mixture sampled during first day of production shall include approximately 60 lb (27 kg) of additional material for the Department to conduct Hamburg wheel testing and approximately 80 lb (36 kg) of additional material for the Department to conduct I-FIT testing. Within two working days after sampling, the Contractor shall deliver prepared samples to the District laboratory for verification testing. The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the “High ESAL - Required Samples for Verification Testing” table in Article 1030.05(d)(3) above.”

HOT-MIX ASPHALT PAVEMENT SURFACE COURSE

This work shall consist of the placement of a three-inch (3") layer of bituminous concrete surface course mix N50 after preparing and cleaning the base in accordance with the applicable portions of Section 406 of the Standard Specifications and as stated herein.

The Contractor shall begin the placing of bituminous surface so as to complete the work on the same day. Prime coat RC-70 is incidental.

Recycled or partially recycled mixes will not be permitted for this work.

This work shall be measured and paid for at the contract unit price per TON in place for HOT-MIX ASPHALT SURFACE COURSE, MIX "D" IL-9.5, N50, which price shall be payment in full for preparing and cleaning the base, application of prime coat, placement of bituminous mixture, and disposal of any unsuitable material, as specified herein and as directed by the Engineer.

DISPOSAL OF DEBRIS AND EXCAVATED MATERIAL

The Contractor shall be responsible for removal and disposal of all waste material, asphalt, grindings, concrete, stone, dirt or debris generated in the course of the work to a facility permitted to accept such waste. The Contractor shall load the removed pieces of curb and gutter, sidewalk, street pavement, trench excavation, etc. directly onto trucks, haul it away and dispose of it.

The temporary storing of excavated materials on the parkway and/or street and re-handling them later for disposal will not be allowed.

Clean Construction and Demolition Debris

In addition to the requirements of Articles 107.01 and 669 of the Standard Specifications, the Contractor shall be responsible for the proper removal and disposal of excavated materials from the project site. The Contractor shall meet all the requirements set forth by the IEPA in regards to Clean Construction and Demolition Debris. The City of Aurora will provide all investigative work and testing required to meet the current CCDD requirements. The City of Aurora will provide the contractor with signed IEPA forms for disposal.

This project is eligible for free CCDD disposal at the Heartland Recycling Facility at 213 Mettel Road, Aurora, IL (Heartland). As such, the Contractor shall be required to meet Heartland's requirements.

In general, the guidelines are as follows:

- PCC and HMA shall be in segments no larger than two foot in any one dimension
- PCC and HMA shall be transported separately from one another and from any other material to facilitate recycling operations at the facility
- Topsoil shall be separated from other materials to facilitate recycling
- Grass or other organic matter shall not compose a percentage of the load that exceeds current CCDD limits
- Excessively wet loads shall be mixed onsite prior to transport to the facility, or shall be stockpiled at an area designated by the City to sufficiently dry
- Any spoils containing a bentonite slurry are not CCDD approved; if such loads are required for the operations in this contract, the disposal of that material shall be considered included in the cost of that specific operation

In addition to these requirements, the bidder is encouraged to complete their own investigation during the bidding process to determine if any additional requirements have recently been added by the facility; the awarded Contractor will be fully responsible for meeting all of Heartland's requirements. Failure to comply with the material acceptance procedures at Heartland will result in the assessment of "hard to handle" fees; the Contractor will not be compensated for any such fees should they be assessed. At any time, the Contractor may elect to use a different facility, provided it is an approved IEPA CCDD facility. The City will provide the Contractor with the necessary IEPA documents to facilitate this, however, no additional compensation will be provided should another facility be used during the course of this project for the disposal of CCDD eligible materials.

Prior to commencement of construction, any exclusion zones that were identified during the PESA process shall be discussed, along with a procedure for addressing any potentially impacted materials. At no time is material within an exclusion zone, to be transported to Heartland. Further, the Contractor should immediately alert the City if potentially impacted material is encountered outside of any identified exclusion zones. All potentially impacted material, or material rejected by Heartland shall be stockpiled in an area designated by the City; that area will be within 5 miles from the project site.

THE INITIAL TRANSPORT OF MATERIAL, EITHER TO THE CCDD FACILITY OR TEMPORARY STAGING SITE SHALL BE CONSIDERED INCLUDED IN THE COST OF THE OPERATION GENERATING THE SPOILS.

Material taken to the temporary staging facility will be further tested by the City to determine the appropriate disposal process. After such testing is completed, the Contractor will be compensated as follows:

- **Temporary Staging** – The Contractor will be paid by the cubic yard to transport the material to Heartland. This material is generally classified as material that has been stockpiled temporarily, but based on additional testing meets the requirements for disposal at Heartland. Should the Contractor elect to work on a day when the Heartland Facility is closed, any temporary staging shall not be paid for, but shall be considered included in the cost of the item generating the spoil material.
- **Non-Special Waste Disposal** – Based on the results of additional testing, the Contractor will be paid per ton (based on tickets as provided by the receiving facility) to transport the material and pay any fees assessed by the receiving facility; this dollar amount shall be as contained within the Contract, or as otherwise established utilizing an AUP or on a Time and Material Force Account basis.
- **Special Waste Disposal** – Based on the results of additional testing, the Contractor will be paid per ton (based on tickets as provided by the receiving facility) to transport the material and pay any fees assessed by the receiving facility; this dollar amount shall be as contained within the Contract, or as otherwise established utilizing an AUP or on a Time and Material Force Account basis.

The bidders shall take note of exclusion zones that may be limited to certain depths. If exclusion zones only compose a certain range of depth within an excavation, the awarded Contractor will be required to excavate the material such that only the excluded material is taken to the temporary staging area and only the approved material is taken to Heartland.

To expedite the process for utilizing Heartland and avoid any tipping fees, the City has developed a process with Heartland, as follows:

City Voucher Program at Heartland Recycling

After award, the City will provide information regarding the awarded Contractor to the Heartland. It will be the sole responsibility of the Contractor to contact Heartland to provide a certificate of insurance and to complete any additional registration.

The City will provide vouchers for use at Heartland that expire at the end of that day; the vouchers will be stamped and sealed by the Resident Engineer. Only vouchers that are signed and have the current date will be accepted by Heartland; trucks without a voucher or trucks with outdated vouchers will be turned away and will not be permitted to dump until they return with a valid voucher.

Heartland continually monitors all incoming loads to ensure the origin of the material and will work with the City to identify any potential misuse of the vouchers. Contractors that are found to misuse the vouchers will be subject to penalties as assessed by Heartland, up to and including being banned from using the facility. Should a potential bidder not have the right to utilize Heartland due to an existing ban and they wish to obtain additional work within the City, no additional compensation will be provided for dump fees at another CCDD facility. Additionally, should any voucher misuse occur during a project resulting in a

ban of that Contractor, no compensation will be provided if a different CCDD facility is utilized for the disposal of the remaining material for the project.

SAW CUTTING

The Contractor shall saw cut full depth to provide a neat vertical face between the proposed and existing pavement surfaces. All saw cutting for curb removal, sidewalk removal, and pavement removal shall be included in the cost for removal pay items.

DETECTABLE WARNINGS

This work shall consist of the installation of pre-fabricated panel of truncated domes twenty-four inches (24") wide on concrete sidewalk accessibility ramps at locations as directed by the Engineer.

Truncated domes shall be in accordance with Article 424.09 of the Standard Specifications. The domes shall parallel the pavement crosswalk in accordance with the latest Highway Standard. The panel shall be Red. The panel shall meet the requirements of ASTM C1028 – Slip Resistance and ASTM G155 – Accelerated Weathering.

The Detectable Warning Panel shall be of the following products:

ADA Solutions, Inc. Cast-in-Place available from
Stetsons Building Products, Inc.
2425 20th Street
Rockford, IL 61104
Phone: (800) 383-2181

The product and method used for installing detectable warnings shall come with the following documents which shall be given to the Engineer prior to installation:

- (a) Manufacturer's certification stating the product is fully compliant with ADAAG.
- (b) Manufacturer's specifications stating the required materials, equipment, installation procedures and conformance to ASTM C1028

Basis of Payment. This work will be paid for at the contract unit price per SQUARE FOOT for DETECTABLE WARNINGS.

TRAFFIC SIGNAL GENERAL REQUIREMENTS

Effective: May 22, 2002
Revised: March 1, 2024
800.01TS

These Traffic Signal Special Provisions and the "District One Standard Traffic Signal Design Details" supplement the requirements of the State of Illinois "Standard Specifications for Road and Bridge Construction." The intent of these Special Provisions is to prescribe the materials and construction methods commonly used for traffic signal installations.

All material furnished shall be new unless otherwise noted herein. Traffic signal construction and maintenance work shall be performed by personnel holding current International Municipal Signal Association (IMSA)/Illinois Public Service Institute (IPSI) Traffic Signal Technician Level II certification. A copy of the certification shall be immediately available upon request of the Engineer. The work to be done under the Contract consists of furnishing, installing, and maintaining all traffic signal work and items as specified in the plans and as specified herein in a manner acceptable and approved by the Engineer.

Definitions of Terms.

Add the following to Section 101 of the Standard Specifications:

101.56 Manufacturer. Company that sells a particular type of product directly to the Contractor or the Vendor.

101.57 Vendor. Company that supplies, represents, and provides technical support for IDOT District One approved traffic signal controllers and other related equipment. The Vendor shall be located within IDOT District One and shall:

- (1) Be full service with on-site facilities to assemble, test and troubleshoot traffic signal controllers and cabinet assemblies.
- (2) Maintain an inventory of IDOT District One approved controllers and cabinets.
- (3) Be staffed with permanent sales and technical personnel able to provide traffic signal controller and cabinet expertise and support.
- (4) Have technical staff that hold current IMSA/IPSI Traffic Signal Technician Level III certification and shall attend traffic signal turn-ons as well as cabinet and/or controller modifications.

Submittals.

Revise Article 801.05 of the Standard Specifications to read:

“All material approval requests shall be submitted electronically following District guidelines unless directed otherwise by the Engineer. Submittal requirements shall include, but not limited to the following:

- (1) All material approval requests shall be made prior to or no later than the date of the preconstruction meeting. A list of major traffic signal items can be found in Article 801.05. Material or equipment which is similar or identical shall be the product of the same manufacturer, unless necessary for system continuity. Traffic signal materials and equipment shall bear the U.L. label whenever such labeling is available.
- (2) Product data and shop drawings shall be assembled by pay item. Only the top sheet of each pay item submittal will be stamped by the Department with the review status, except shop drawings for mast arm pole assemblies and the like will be stamped with the review status on each sheet.
- (3) Original manufacturer published product data and shop drawing sheets with legible dimensions and details shall be submitted for review.
- (4) When hard copy submittals are necessary, four (4) complete copies of the manufacturer's descriptive literatures and technical data for the traffic signal materials shall be submitted. For hard copy or electronic submittals, the descriptive literature and technical data shall be adequate for determining whether the materials meet the requirements of the plans and specifications. If the literature contains more than one item, the Contractor shall indicate which item or items will be furnished.
- (5) When hard copy submittals are necessary for structural elements, four (4) complete copies of the shop drawings for the mast arm assemblies and poles, and the combination mast arm assemblies and poles showing, in detail, the fabrication thereof and the certified mill analyses of the materials used in the fabrication, anchor rods, and reinforcing materials shall be submitted.
- (6) Partial or incomplete submittals will be returned without review.
- (7) Certain non-standard mast arm poles and special structural elements will require additional review from IDOT's Central Office. Examples include ornamental/decorative, non-standard length mast arm pole assemblies and monotube structures.
- (8) The Contract number or Permit number, project location/limits, and corresponding pay code number must be on each sheet of correspondence, material approval, and mast arm poles and assemblies drawings.

- (9) Where certifications and/or warranties are specified, the information submitted for approval shall include certifications and warranties. Certifications involving inspections and/or tests of material shall be complete with all test data, dates, and times.
- (10) After the Engineer reviews the submittals for conformance with the design concept of the project, the Engineer will stamp the drawings indicating their status as 'Approved', 'Approved-As-Noted', 'Disapproved', or 'Incomplete'. Since the Engineer's review is for conformance with the design concept only, it is the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, layout drawings, or other documents by the Department's approval thereof. The Contractor must still be in full compliance with Contract and specification requirements.
- (11) The Contractor shall secure approved materials in a timely manner to assure construction schedules are not delayed.
- (12) All submitted items reviewed and marked 'APPROVED AS NOTED', 'DISAPPROVED', or 'INCOMPLETE' are to be resubmitted in their entirety, unless otherwise indicated within the submittal comments, with a disposition of previous comments to verify Contract compliance at no additional cost to the Contract.
- (13) Exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the Contractor's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the Engineer. In general, substitutions will not be acceptable. Requests for substitutions must demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the Engineer.
- (14) The Contractor shall not order major equipment such as mast arm assemblies prior to Engineer approval of the Contractor marked proposed traffic signal equipment locations to assure proper placement of Contract required traffic signal displays, push buttons and other facilities. Field adjustments may require changes in proposed mast arm length and other coordination.
- (15) Revised cabinet wiring diagrams shall be submitted whenever any wiring modifications are made to the traffic signal cabinet."

Marking Proposed Locations.

Revise "Marking Proposed Locations for Highway Lighting System" of Article 801.09 to read "Marking Proposed Locations for Highway Lighting System and Traffic Signals."

Add the following to Article 801.09 of the Standard Specifications:

"It shall be the Contractor's responsibility to verify all dimensions and conditions existing in the field prior to ordering materials and beginning construction. This shall include locating the mast arm foundations and verifying the mast arms lengths."

Inspection of Electrical Systems.

Add the following to Article 801.10 of the Standard Specifications:

- (c) All cabinets, including temporary traffic signal cabinets, shall be assembled by an approved Vendor in District One. The Department reserves the right to request any controller and cabinet to be tested at the Vendor's facility prior to field installation at no extra cost to the Contract.

Maintenance and Responsibility of Traffic Signal and Flashing Beacon Installations.

Replace Article 801.11(b) of the Standard Specifications to read:

(b) Traffic Signals and Flashing Beacons. The Contractor shall be responsible for maintaining the traffic signal/flashing beacon installation in proper operating condition.

(1) General.

- a. The Contractor must notify the Area Traffic Signal Maintenance and Operations Engineer of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. The Department will attempt to fulfill the Contractor's inspection date request(s); however, workload and other conditions may prevent the Department from accommodating specific dates or times. The Contractor shall not be entitled to any other compensation if the requested inspection date(s) cannot be scheduled by the Department.
- b. Full maintenance responsibility shall start upon the successful completion of a maintenance transfer inspection, or as directed by the Engineer. If the Contractor begins any physical work on the Contract or any portion thereof prior to a traffic signal inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at the time of transfer at no cost to the owner of the traffic signal equipment. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection, otherwise the traffic signal installation will not be accepted.
- c. All traffic signals within the limits of the Contract or those which have the item "MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION," "TEMPORARY TRAFFIC SIGNAL INSTALLATION", "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION", "TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION", and/or "MAINTENANCE OF EXISTING FLASHING BEACON INSTALLATION" shall become the full responsibility of the Contractor. Maintenance responsibility shall end upon issuance of final acceptance by the Engineer.
- d. The Contractor shall have electricians with IMSA/IPSI Traffic Signal Technician Level II certification on staff to provide signal maintenance. A

copy of the certification shall be immediately available upon request by the Engineer.

- e. This item shall include maintenance of all traffic signal equipment and other connected and related equipment such as flashing beacons, emergency vehicle preemption (EVP) equipment, master controllers, network switches, uninterruptable power supply (UPS) and batteries, pan-tilt-zoom (PTZ) cameras, vehicle detection, handholes, lighted signs, telephone service installations, cellular modems, radios, communication cables, and other traffic signal equipment. All conduit and related equipment to adjacent intersections shall be maintained to the far back handhole, or as directed by the Engineer. If adjacent intersections are part of Contract work, then maintenance of all conduit and related equipment shall be included in this item.
- f. Regional transit, County, and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as network switches and transit signal priority (TSP, SCP, and BRT) servers, radios, and other devices, where maintenance shall be coordinated with the owner.
- g. Maintenance shall not include automatic traffic enforcement equipment such as red light enforcement cameras, detectors, or peripheral equipment. This equipment is operated and maintained by others and shall be deactivated while on Contractor maintenance.
- h. The energy charges for the operation of the traffic signal installation shall be paid for by the Contractor.

(2) Maintenance.

- a. The Contractor shall inspect all traffic signal equipment and appurtenances every two (2) weeks to ensure they are functioning properly. Signal heads shall be properly adjusted, including plumb, and tightly mounted. All controller cabinets, signal posts, and controller pedestals shall be tight on their foundations and in alignment. Deficient equipment shall be repaired or replaced as necessary. The Contractor shall check signal system communications and phone lines to assure proper operation. This item includes, as routine maintenance, all portions of EVP equipment. The Contractor shall always maintain enough materials and equipment in stock to provide effective temporary and permanent repairs. The Contractor shall supply a detailed maintenance log monthly that includes dates, locations, names of electricians performing the required checks and inspections, and any other information requested by the Engineer. The Contractor shall attend any additional inspections as requested by the Engineer. The

Contractor shall check the controllers, relays, and detectors after receiving complaints or calls to ascertain that they are functioning properly and make all necessary repairs and replacement.

- b. The Contractor is advised that the existing and/or temporary traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation which exceeds fifteen (15) minutes must have prior approval from the Engineer. Approval to shut down the traffic signal installation will only be granted during the period extending from 9:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.
- c. The Contractor shall provide immediate corrective action when any part(s) of the signal fail to function properly. Two far side heads facing each approach shall be considered the minimum acceptable signal operation pending permanent repairs. When repairs at a signalized intersection require that the controller be disconnected or otherwise removed from normal operation, and power is available, the Contractor shall place the traffic signal installation in flashing operation. The signals shall flash RED for all directions unless a different indication has been specified by the Engineer. The Contractor shall install cones on all lane lines at the stop bar on each approach, R1-1 (36 in. minimum) "STOP" signs at the stop bar on each approach on the right side and on raised medians (where applicable), and black on fluorescent orange "SIGNALS OUT AHEAD" warning signs followed by fluorescent orange W3-1 symbolic stop ahead warning signs on all approaches to the intersection.
- d. Temporary replacement of a damaged or knocked down mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the Engineer to assure signal heads are located overhead and over traveled pavement. Temporary replacement of mast arm mount signals with post mount signals is not permitted.
- e. The Contractor shall provide the Engineer with two (2) 24-hour telephone numbers for the maintenance of the traffic signal installation and for emergency calls by the Engineer.
- f. Traffic signal equipment which is lost, damaged, or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of the Standard Specifications and these special provisions.

- g. The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals and other equipment noted herein. The Contractor shall respond to all emergency calls from the Department or others within one (1) hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the Contractor shall replace it with new equipment meeting current District One traffic signal specifications. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional cost to the Contract. The Contractor may institute action to recover damages from a responsible third party. If at any time the Contractor fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition, or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the Department's Electrical Maintenance Contractor perform the maintenance work. The Contractor shall be responsible for all of the Department's Electrical Maintenance Contractor's costs and liquidated damages of \$1,000 per day per occurrence. The Department's Electrical Maintenance Contractor shall bill the Contractor for the total cost of the work. The Contractor shall pay this bill within thirty (30) days of the date of receipt of the invoice or the cost of such work will be deducted from the amount due the Contractor. The Contractor shall allow the Electrical Maintenance Contractor to inspect the traffic signal installation that has been transferred to the Contractor for maintenance. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection, otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed. The Department may inspect any signaling device on the Department's highway system at any time without notification. The Contractor shall not install padlocks on traffic signal cabinets or otherwise restrict the Department's access to the cabinet or controller.
- h. Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

- i. The Contractor shall be responsible to clear snow, ice, dirt, debris, vegetation, temporary fence, or other condition that obstructs visibility of any traffic signal display or access to traffic signal equipment.
 - j. The Contractor shall maintain the traffic signal in normal operation during any loss of utility or battery backup power. Temporary power to the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries. Temporary power shall not be paid for separately but shall be included in the Contract.
- (3) Basis of Payment. This work will be paid for at the Contract unit price per each for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION, TEMPORARY TRAFFIC SIGNAL INSTALLATION, TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION, or TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION. Each location will be paid for separately. Maintenance of a flashing beacon shall be paid for at the Contract unit price for MAINTENANCE OF EXISTING FLASHING BEACON INSTALLATION. Each flashing beacon will be paid for separately.

Damage to Traffic Signal System.

Add the following to Article 801.12(b) of the Standard Specifications:

“Any traffic signal control equipment that is damaged and non-repairable or not operating properly from any cause shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection. Repair or replace any equipment damaged within the time shown in the table below:

ITEM	RESPONSE TIME	SERVICE RESTORATION	PERMANENT REPAIR (calendar days)
Cabinet	1 hour	24 hours	21 days
Controllers and Peripheral Equipment	1 hour	4 hours	21 days
System Detector Loop	1 hour	N/A	7 days
All Other Detectors	1 hour	N/A	21 days
Signal Head and Lenses	1 hour	4 hours	7 days
Aviation Red Beacon	1 hour	4 hours	7 days
Mast Arm Assembly and Pole	1 hour	4 hours	7 days
Traffic Signal Post	1 hour	4 hours	7 days
Cable and Conduit	1 hour	4 hours	7 days
Interconnect and Telemetry	1 hour	4 hours	7 days
Graffiti Removal	N/A	N/A	7 days
Misalignment of Signal Heads	1 hour	4 hours	4 hours
Closed Loop Monitoring System	1 hour	24 hours	14 days
Post and Poles Plumb Vertically	N/A	N/A	21 days
Controller, Post & Pole Foundations	N/A	N/A	21 days
Complaints, Calls, Controller or System Alarms, Timing, Phasing, Programming	1 hour	4 hours	N/A
Patrol Truck Deficiencies	N/A	24 hours	24 hours
Signal Heads Visibility	1 day	2 days	14 days

Temporary replacement of a damaged or knocked down mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the Engineer to assure signal heads are located overhead and over traveled pavement. Temporary replacement of mast arm mount signals with post mount signals will not be permitted.

Replacement of any equipment for any reason shall be reported to the Area Traffic Signal Maintenance and Operations Engineer in writing within 24 hours. Permanent and temporary replacement of the controller and/or cabinet shall require inspection and testing by the Vendor.

Automatic Traffic Enforcement equipment, such as red light enforcement cameras, detectors, and peripheral equipment, that is damaged or not operating properly from any cause, shall be the responsibility of the municipality or the automatic traffic enforcement company per Permit agreement.”

Traffic Signal Inspection (TURN-ON).

Revise Article 801.15(b) of the Standard Specifications to read:

“Turn-on. It is the intent to have all electric work completed and equipment field tested by the Contractor and/or Vendor prior to the Department’s “turn-on” field inspection. If in the event the Engineer determines work is not complete and the inspection will require more than two (2) hours to complete, the inspection shall be canceled, and the Contractor will be required to reschedule at another date. The maintenance of the traffic signals will not be accepted until all punch list work is corrected and re-inspected.

When the Contractor requests a turn-on and inspection of the completed traffic signal installation(s), the request must be made to the Area Traffic Signal Maintenance and Operations Engineer a minimum of seven (7) working days prior to the time of the requested inspection. The Department will attempt to fulfill the Contractor’s turn-on and inspection date request(s); however, workload and other conditions may prevent the Department from accommodating specific dates or times. The Contractor shall not be entitled to any other compensation if the requested turn-on and inspection date(s) cannot be scheduled by the Department. The Department will not grant a field inspection until written or electronic notification is provided from the Contractor that the equipment has been field tested and the intersection is operating according to Contract requirements. The Contractor must invite local fire department personnel to the turn-on when emergency vehicle preemption (EVP) is included in the project. When the Contract includes the item RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, OPTIMIZE TRAFFIC SIGNAL SYSTEM, and/or TEMPORARY TRAFFIC SIGNAL TIMING, the Contractor must notify the SCAT Consultant of the turn-on/detour implementation schedule, as well as stage changes and phase changes during construction.

The Contractor must have all traffic signal work completed and the electrical service installation connected by the utility company prior to requesting an inspection and turn-on of the traffic signal installation. The Contractor shall be responsible to provide a police officer to assist with traffic control at the time of testing.

The Contractor shall provide a representative from the Vendor who is knowledgeable of the cabinet design and controller functions to attend the traffic signal inspection for both permanent and temporary traffic signal turn-ons.

Upon demonstration that the signals are operating and all work is completed in accordance with the Contract and to the satisfaction of the Engineer, the Engineer will then allow the signals to be

placed in continuous operation. The signals shall continue to be maintained by the Contractor until final acceptance.

The Department requires the following Final Project Documentation from the Contractor at traffic signal turn-ons in electronic format in addition to hard copies where noted. An electronic media device shall be submitted with separate folders corresponding to each numbered title below. The electronic media device shall be labeled with date, project location, company, and Contract or Permit number. Electronic record drawings and material approvals shall be submitted prior to traffic signal turn-on for review by the Department as described in the Record Drawings section herein.

Final Project Documentation:

- (1) Record Drawings. Electronically produced signal plans of record with field revisions marked in red. Two (2) hard copies of 11 in. x 17 in. record drawings shall also be provided.
- (2) Field Testing. Written notification from the Contractor and the Vendor of satisfactory field testing with corresponding material performance measurements, such as for detector loops and fiber optic systems (see Article 801.13).
- (3) Material Approvals. Material approval documentation.
- (4) Manuals. Operation and service manuals of the signal controller and associated control equipment.
- (5) Cabinet Wiring Diagram and Cable Logs. Five (5) hard copies of 11 in. x 17 in. cabinet wiring diagrams shall be provided along with electronic PDF and DGN files of the cabinet wiring diagram. Five (5) hard copies of the cable logs and electronic Excel files shall be provided with cable #, number of conductors and spares, connected device/signal head and intersection location.
- (6) Warrantees and Guarantees. All manufacturer and Contractor warrantees and guarantees required by Article 801.14.
- (7) GPS Coordinates. GPS coordinates of traffic signal equipment as described in the Record Drawings section herein.

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn-on", completeness of the required documentation, and successful operation during a minimum 72 hour "burn-in" period following activation of traffic signal equipment. If approved, traffic signal acceptance shall be verbal at the final inspection followed

by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until Departmental acceptance is granted.

All equipment and/or parts to keep the traffic signal installation operating shall be furnished by the Contractor. No spare traffic signal equipment is available from the Department.

All punch list work shall be completed within two (2) weeks after the turn-on. The Contractor shall notify the Area Traffic Signal Maintenance and Operations Engineer to schedule an inspection of all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of \$500 per month per incident.

All cost of work and materials required to comply with the requirements herein shall be included in the pay item bid prices, under which the subject materials and signal equipment are paid, and no additional compensation will be allowed. Materials and signal equipment not complying with the requirements herein shall be subject to removal and disposal at the Contractor's expense."

Record Drawings.

The requirements listed for Electrical Installation shall apply for Traffic Signal Installations in Article 801.16. Revise the second and third paragraphs of Article 801.16 of the Standard Specifications to read:

"When the work is complete, and seven (7) days before the request for a final inspection, electronic Contract drawings, stamped "RECORD DRAWINGS", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or electrician. The record drawings shall be submitted in PDF format. If the Contract consists of multiple intersections, each intersection shall be saved as an individual PDF file with TS# and location name in its file name.

In addition to the record drawings, copies of the final material approvals which have been Approved or Approved as Noted shall be submitted in PDF format. The PDF files shall clearly indicate the pay item either by filename or PDF Table of Contents referencing the respective pay item number for multi-item PDF files. Specific part or model numbers of items which have been selected shall be clearly visible.

The Contractor shall provide two (2) 11 in. x 17 in. hard copies of electronically produced final record drawings to be kept inside each traffic signal cabinet within project limits."

Add the following to Article 801.16 of the Standard Specifications:

“In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following traffic signal components being installed, modified or being affected in other ways by the Contract:

- All Mast Arm Poles and Posts
- Traffic Signal Wood Poles
- Railroad Bungalow
- UPS
- Handholes
- Controller Cabinets
- Communication Cabinets
- Electric Service Disconnect locations
- CCTV/PTZ Camera installations

Datum to be used shall be North American 1983.

Data shall be provided in electronic format and shall be in .csv format. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

- File shall be named: TSXXX_YY-MM-DD.csv (i.e. TS22157_24-01-01.csv)
- Each intersection shall have its own file
- Row 1 should have the location name (i.e. IL 31 @ Klausen)
- Row 2 is blank
- Row 3 is the headers for the columns
- Row 4 starts the data
- Column A (Date) – should be in the following format: MM/DD/YYYY
- Column B (Item) – as shown in the table below
- Column C (Description) – as shown in the table below
- Column D and E (GPS Data) – should be in decimal form

Examples:

Date	Item	Description	Latitude	Longitude
01/01/2024	MP (Mast Arm Pole)	NEQ, NB, Dual, Combination Pole	41.580493	-87.793378
01/01/2024	HH (Handhole)	Heavy Duty, Fiber, Intersection, Double	41.558532	-87.792571
01/01/2024	ES (Electrical Service)	Ground mount, Pole mount	41.765532	-87.543571
01/01/2024	CC (Controller Cabinet)		41.602248	-87.794053
01/01/2024	PTZ (PTZ)	NEQ extension pole	41.593434	-87.769876
01/01/2024	POST (Post)		41.651848	-87.762053
01/01/2024	MCC (Master Controller Cabinet)		41.584593	-87.793378
01/01/2024	COMC (Communication Cabinet)		41.584600	-87.793432
01/01/2024	BBS (Battery Backup System)		41.558532	-87.792571

Data collection can be made as construction progresses or can be collected after all items are installed. If the data is unacceptable, the Contractor shall make corrections to the data collection equipment and/or process and resubmit the data for review and approval as specified.

Data shall have a minimum 1 ft accuracy after post processing.”

Restoration of Work Area.

Add the following article to Section 801 of the Standard Specifications:

“801.17 Restoration of Work Area. Restoration of the traffic signal work area shall be included in the related pay items such as foundation, conduit, handhole, underground raceways, detector loop installation or replacement, etc. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded. All brick pavers disturbed in the work area shall be restored to their original configuration as directed by the Engineer. All damaged brick pavers shall be replaced with a comparable material approved by the Engineer.

Exposed holes created from removal or relocation of traffic signal equipment shall be sealed using a zinc-plated fender washer with toggle bolt.

Restoration of the work area shall be included in the Contract without any extra compensation allowed to the Contractor.

Removal, Disposal, and Salvage of Existing Traffic Signal Equipment.

The removal, disposal, and/or salvage of existing traffic signal equipment shall become the property of the Contractor and disposed of by the Contractor outside the State's right-of-way, unless otherwise noted. No additional compensation shall be provided to the Contractor for removal, disposal or salvage expense for the work in the Contract."

Bagging Signal Heads.

Light tan colored traffic and pedestrian signal reusable covers shall be used to cover dark/un-energized signal sections, visors, and retroreflective backplates. Covers shall be made of outdoor fabric with urethane coating for repelling water, have elastic fully sewn around the cover ends for a tight fit over the visor, and have a minimum of two (2) straps with buckles to secure the cover to the backplate. A center mesh strip allows viewing without removal for signal status testing purposes. Covers shall include a message indicating the signal is not in service. Pedestrian pushbuttons that are not in service shall be covered with a durable material such as described above or burlap that is secured in a weather-resistant manner. The entire housing, including the pedestrian sign, shall also be covered on the front side.

Turn-on of New Traffic Signal Installations.

The following only applies to new traffic signals at previously unsignalized locations.

The signal responsibility shall begin at the start of signal construction and shall end upon issuance of final acceptance by the Engineer. New traffic signal heads and indications may not be installed more than two (2) weeks (14 calendar days) prior to the scheduled turn-on of the traffic signal to avoid motorist confusion caused by the presence of new signal heads, even if properly covered. Unenergized signal indications shall be bagged until one (1) hour prior to the scheduled turn-on per the Bagging Signal Heads section above.

New stop bars and crosswalks on approaches that did not previously have stop control shall NOT be installed until the day of the traffic signal turn-on.

A Portable Changeable Message Sign (PCMS) must be placed two (2) weeks prior to the scheduled new traffic signal turn-on for all approaches to the intersection with the following messages:

NEW
TRAFFIC
SIGNAL

STARTING
MMM ##

where “MMM” and “##” are the 3-character month abbreviation and day of the scheduled turn-on, respectively.

On the day of the turn-on, change messages to read:

NEW
SIGNAL
AHEAD

BE
PREPARED
TO STOP

The PCMS must remain in place for two (2) weeks following the day of the turn-on.

Conflicting Stop signs shall be removed immediately at the time of the traffic signal turn-on.

Locating Underground Facilities.

Revise Section 803 to the Standard Specifications to read:

“IDOT traffic signal facilities are not part of any of the one-call locating service such as J.U.L.I.E or Digger. If the Contract requires the maintenance services of an Electrical Contractor, the Contractor shall be responsible at their own expense for locating all existing IDOT electrical facilities, including but not limited to interconnect conduit and handholes, prior to performing any work. A maintenance transfer is required prior to any locating work. If this Contract does not require the maintenance services of an Electrical Contractor, the Contractor may request one free locate for existing IDOT electrical facilities from the District One Electrical Maintenance Contractor prior to the start of any work. Additional requests will be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any facilities damaged during construction at their expense.

The exact location of all utilities shall be field verified by the Contractor before the installation of any components of the traffic signal system. For locations of utilities, locally owned equipment, and leased enforcement camera system facilities, the local Counties or Municipalities may need to be contacted: in the City of Chicago contact Digger at (312) 744-7000, and for all other locations contact J.U.L.I.E. at 1-800-892-0123 or 811.

The Contractor shall take whatever precautions to protect the electric cable or electric conductors in conduit from damage during location and construction operations. If the wiring is damaged, the Contractor shall replace the entire length of cable or conductors in conduit, in a manner satisfactory to the Engineer. Splicing below grade will not be permitted.

In the event the repairs are not made by the Contractor, the Contractor shall reimburse the Department for such repairs within sixty (60) days of receiving written notification of said damage. Otherwise, the cost of such repairs will be deducted from monies due or which will become due the Contractor under the terms of the Contract.”

Grounding of Traffic Signal Systems

Revise Section 806 of the Standard Specifications to read:

“All traffic signal systems, equipment and appurtenances shall be properly grounded in strict conformance with the NEC. This work shall be in accordance with IDOT’s District One Traffic Signal Design Details.

The grounding electrode system shall include a ground rod installed with each traffic signal controller concrete foundation and all mast arm and post concrete foundations. An additional ground rod will be required at locations where measured resistance exceeds 25 ohms. Ground rods are included in the applicable concrete foundation or service installation pay item and will not be paid for separately.

Testing shall be according to Article 801.13 (a) (4) and (5).

- (a) The grounded conductor (neutral conductor) shall be white color coded. This conductor shall be bonded to the equipment grounding conductor only at the Electric Service Installation. All power cables shall include one neutral conductor of the same size.
- (b) The equipment grounding conductor shall be green color coded. The following is in addition to Article 801.04 of the Standard Specifications:
 - (1) Equipment grounding conductors shall be bonded to the grounded conductor (neutral conductor) only at the Electric Service Installation. The equipment grounding conductor is paid for separately and shall be continuous. The Earth shall not be used as the equipment grounding conductor.
 - (2) Equipment grounding conductors shall be bonded, using a UL Listed grounding connector, to all traffic signal mast arm poles, traffic signal posts, pedestrian posts, pull boxes, handhole frames and covers, conduits, and other metallic enclosures throughout the traffic signal wiring system, except where noted herein. Bonding shall be made with a splice and pigtail connection, using a sized compression type copper sleeve, sealant tape, and heat-shrinkable cap. A UL listed electrical joint

compound shall be applied to all conductors' terminations, connector threads and contact points. Conduit grounding bushings shall be installed at all conduit terminations, including spare or empty conduits and conduit protruding from handhole walls.

- (3) All metallic and non-metallic raceways, including spare or empty raceways, shall have a continuous equipment grounding conductor, except raceways containing only detector loop lead-in circuits, circuits under 50 V and/or fiber optic cable will not be required to include an equipment grounding conductor.
- (4) Individual conductor splices in handholes shall be soldered and sealed with heat shrink. When necessary to maintain effective equipment grounding, a full cable heat shrink shall be provided over individual conductor heat shrinks.
- (c) The grounding electrode conductor shall be similar to the equipment grounding conductor in color coding (green) and size. The grounding electrode conductor is used to connect the ground rod to the equipment grounding conductor and is bonded to ground rods via exothermic welding, UL listed pressure connectors, and UL listed clamps."

COILABLE NON-METALLIC CONDUIT

Effective: May 22, 2002
Revised: July 1, 2015
810.01TS

Description.

This work shall consist of furnishing and installing empty coilable non-metallic conduit (CNC).

General.

The CNC installation shall be in accordance with Sections 810 and 811 of the Standard Specifications except for the following:

Add the following to Article 810.03 of the Standard Specifications:

CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways to the handholes.

Add the following to Article 811.03 of the Standard Specifications:

On temporary traffic signal installations with detector loops, CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways from the saw-cut to 10 feet (3m) up the wood pole, unless otherwise shown on the plans

Basis of Payment.

All installations of CNC for loop detection shall be included in the contract and not paid for separately.

CENTRALIZED SYSTEM FIELD INTEGRATION/SETUP

Description.

This work shall consist of the ensuring communication, integration and setup for field devices with the City's Centralized Transportation Management System (CTMS)/IT network to the satisfaction of the Engineer. This work shall include, but shall not be limited to, the following:

- All necessary fiber optic cable connections, terminations, splicing (at new and existing signal cabinets, handholes (Aurora IT and Traffic) and Aurora offices) to communicate with all devices (including but not limited to switches, cameras, controllers, UPS, servers, digi, media converters, EVP equipment/processor, other detection devices)
- Provide necessary fiber optic jumpers, transceivers and transceiver related equipment, modems, digi(s), boards (FOI or others), power supplies, panel enclosures, bulkheads and/or splice enclosures in traffic signal cabinets and handholes as specified by the Engineer
- Set address/IP address for devices according to City of Aurora IP scheme
- Establish communications between the Terminal Server/Ethernet Switch and the CTMS;
- Integrate the operation of the proposed interconnect system into the CTMS;
- Integrate the operation of the EVP equipment at each intersection into the Centralized EVP Management System within the CTMS;
- Ensure transmission of all video data (PTZ Camera, Video Detection Cameras) as well as all traffic related Ethernet capable devices (UPS, MMU, Controller, Radio Devices, Detection Systems-Radar, Pods, etc.) to the Centralized Transportation Management System and integration of that video into the City's Smart Traffic Monitoring System; and
- Upgrade the City of Aurora's existing fiber optic ring using SFP Modules, to provide communication protection via redundancy
- Provide and install cellular modem for video and data transmission to the City's Centralized Transportation Management System, Contractor will be financially responsible for providing 5 years of service/warranty with the cellular and supplier provider as well as providing all necessary hardware, cabling and software.

Basis of Payment.

This work will be paid for at the lump sum price for CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP. This price shall be payment in full for all labor, materials, and equipment necessary to provide fully operational equipment in the field and within the CTMS to the satisfaction of the Engineer.

UNDERGROUND RACEWAYS

Effective: May 22, 2002
Revised: July 1, 2015
810.02TS

Revise Article 810.04 of the Standard Specifications to read:

“Installation. All underground conduits shall have a minimum depth of 30-inches (700 mm) below the finished grade.”

Add the following to Article 810.04 of the Standard Specifications:

“All metal conduit installed underground shall be Rigid Steel Conduit unless otherwise indicated on the plans.”

Add the following to Article 810.04 of the Standard Specifications:

“All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum of 300 mm (12”) or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped.

The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap.

The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125”) thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring.”

HANDHOLES

Effective: January 01, 2002
Revised: November 1, 2023
814.01TS

Description.

Add the following to Section 814 of the Standard Specifications:

All conduits shall enter the handhole at a depth of 30 in. (762 mm) except for the conduits for detector loops when the handhole is less than 5 ft (1.52 m) from the detector loop. All conduit ends should be sealed with a waterproof sealant to prevent the entrance of contaminants into the handhole.

Steel cable hooks shall be epoxy coated and must meet the specifications set forth in 1006.10. Hooks shall be a minimum of 5/8 in. (16 mm) diameter with 90-degree bend and extend into the handhole at least 6 in. (152 mm). Hooks shall be placed a minimum of 12 in. (305 mm) below the lid or lower if additional space is required.

Precast round handholes shall not be used unless called out on the plans.

The cover of the handhole frame shall be labeled "Traffic Signals" with legible raised letters. Only handholes serving IDOT traffic signal equipment shall have this label. Handhole covers for Red Light Running Cameras shall be labeled "RLRC".

Revise the third paragraph of Article 814.03 of the Standard Specifications to read:

"Handholes shall be constructed as shown on the plans and shall be cast-in-place or precast concrete units. Heavy duty handholes shall be either cast-in-place or precast concrete units."

Revise Article 814.03(c) of the Standard Specifications to read:

"Precast Concrete. Precast concrete handholes shall be fabricated according to Article 1042.17. Where a handhole is contiguous to a sidewalk, preformed joint filler of 1/2 in. (13 mm) thickness shall be placed between the handhole and the sidewalk."

Add the following to Section 814 of the Standard Specifications:

Cast-In-Place Handholes.

All cast-in-place handholes shall be concrete with minimum inside dimensions of 21-1/2 in. (546 mm). Frames and lid openings shall match this dimension.

For grounding purposes, the handhole frame shall have provisions for a 7/16 in. (11 mm) diameter stainless steel bolt cast into the frame. The covers shall have a stainless steel threaded stint

extended from the eye hook assembly for the purpose of attaching the grounding conductor to the handhole cover.

The minimum wall thickness for heavy duty hand holes shall be 1 ft (305mm).

Precast Round Handholes.

All precast handholes shall be concrete with an inside diameter of 30 in. (762mm). Frames and covers shall have a minimum opening of 26 in. (660mm) and no larger than the inside diameter of the handhole.

For grounding purposes, the handhole frame shall have provisions for a 7/16 in. (11 mm) diameter stainless steel bolt cast into the frame. For the purpose of attaching the grounding conductor to the handhole cover, the covers shall either have a 7/16 in. (11 mm) diameter stainless steel bolt cast into the cover or a stainless steel threaded stint extended from an eye hook assembly. A hole may be drilled for the bolt if one cannot be cast into the frame or cover. The head of the bolt shall be flush or lower than the top surface of the cover.

The minimum wall thickness for precast heavy duty hand holes shall be 6 in. (152 mm).

Precast round handholes shall be only produced by an approved precast vendor.

TRAFFIC SIGNAL POST

Effective: May 22, 2002
Revised: March 1, 2025
875.01TS

Revise Article 1077.01 (c) of the Standard Specifications to read:

- (c) Anchor Rods. The anchor rods shall be a minimum of 5/8 in. in diameter and 16 in. long and shall be according to Article 1006.09. The anchor rods shall be threaded approximately 6 in. at one end and have a bend at the other end. The first 12 in. at the threaded end shall be galvanized. One each galvanized nut and trapezoidal washer shall be furnished with each anchor rod. The washer shall be properly sized to fully engage and sit flush on all sides of the slot of the base plate.

Revise the first sentence of Article 1077.01 (d) of the Standard Specifications to read:

All steel posts and bases shall be hot dipped galvanized steel according to AASHTO M 111. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with 851.01TS TRAFFIC SIGNAL PAINTING Special Provisions.

MAST ARM ASSEMBLY AND POLE

Effective: May 22, 2002
Revised: July 01, 2015
877.01TS

Revise the second sentence of Article 1077.03 (a)(3) of the Standard Specifications to read:

Traffic signal mast arms shall be one piece construction, unless otherwise approved by the Engineer.

Add the following to Article 1077.03 (a)(3) of the Standard Specifications:

If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with 851.01TS TRAFFIC SIGNAL PAINTING Special Provisions.

LIGHT EMITTING DIODE (LED) SIGNAL HEAD AND OPTICALLY PROGRAMMED LED SIGNAL HEAD

Effective: May 22, 2002
Revised: March 1, 2025
880.01TS

Materials.

Add the following to Section 1078 of the Standard Specifications:

“LED modules proposed for use and not previously approved by IDOT District One will require independent testing for compliance to current VTCSH-ITE standards for the product and be Intertek ETL Verified. This would include modules from new Vendors and new models from IDOT District One approved Vendors.

The proposed independent testing facility shall be approved by IDOT District One. Independent testing must include a minimum of two (2) randomly selected modules of each type of module (i.e. ball, arrow, pedestrian, etc.) used in the District and include as a minimum Luminous Intensity and Chromaticity tests. However, complete module performance verification testing may be required by the Engineer to assure the accuracy of the Vendor’s published data and previous test results. An IDOT representative will select sample modules from the local warehouse and mark the modules for testing. Independent test results shall meet current ITE standards and vendor’s published data. Any module failures shall require retesting of the module type. All costs associated with the selection of sample modules, testing, reporting, and retesting, if applicable, shall be the responsibility of the LED module Vendor and not be a cost to this Contract.

All signal heads shall provide 12 in. (300 mm) displays with glossy yellow or black polycarbonate housings. All head housings shall be the same color (yellow or black) at the intersection. For

new signalized intersections and existing signalized intersections where all signals heads are being replaced, the proposed head housings shall be black. Where only selected heads are being replaced, the proposed head housing color (yellow or black) shall match existing head housings. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints and shall be visible to the inspector at the signal turn-on. Post top mounting collars are required on all posts and shall be constructed of the same material as the brackets.

The LED signal modules shall be replaced or repaired if an LED signal module fails to function as intended due to workmanship or material defects. LED signal modules which exhibit luminous intensities less than the minimum values specified in Table 1 of the ITE Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Circular Signal Supplement (June 27, 2005) [VTC SH], or applicable successor ITE specifications, or show signs of entrance of moisture or contaminants, shall be replaced or repaired. The Vendor's written warranty for the LED signal modules shall be dated, signed by a Vendor's representative, and included in the product submittal to the State. See Article 801.14 of the Standard Specifications for warranty information.

(a) Physical and Mechanical Requirements

(1) Modules can be manufactured under this specification for the following faces:

- a. 12 in. (300 mm) circular, multi-section
- b. 12 in. (300 mm) arrow, multi-section

(2) The maximum weight of a module shall be 4 lb (1.8 kg).

(3) Each module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.) and shall be weatherproof after installation and connection.

(4) The lens of the module shall be tinted with a wavelength-matched color to reduce sun phantom effect and enhance on/off contrast. The tinting shall be uniform across the lens face. Polymeric lens shall provide a surface coating or chemical surface treatment applied to provide abrasion resistance. The lens of the module shall be integral to the unit, convex with a smooth outer surface and made of plastic. The lens shall have a textured surface to reduce glare.

(5) The use of tinting or other materials to enhance ON/OFF contrasts shall not affect chromaticity and shall be uniform across the face of the lens.

(6) Each module shall have a symbol of the type of module (i.e. circle, arrow, etc.) in the color of the module. The symbol shall be 1 in. (25.4 mm) in diameter. Additionally, the color shall be written out in 1/2 in. (12.7mm) letters next to the symbol.

(b) Photometric Requirements

- (1) The LEDs utilized in the modules shall be AlInGaP technology for red and InGaN for green and amber indications and shall be the ultra bright type rated for 100,000 hours of continuous operation from -40 °C to 74 °C.

(c) Electrical

- (1) Maximum power consumption for LED modules as per the tables in Article 1078.01.
- (2) Operating voltage of the modules shall be 120 VAC. All parameters shall be measured at this voltage.
- (3) The modules shall be operationally compatible with currently used controller assemblies (solid state load switches, flashers, and conflict monitors).
- (4) When a current of 20 mA AC or less is applied to the unit, the voltage read across the two leads shall be 15 VAC or less.
- (5) The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.
- (6) LED arrows shall be wired such that a loss or the failure of one or more LEDs will not result in the loss of the entire module.

(d) Retrofit Traffic Signal Module

The following specification requirements apply to the Retrofit module only. All general specifications apply unless specifically superseded in this section.

- (1) Retrofit modules can be manufactured under this specification for the following faces:
 - a. 12 in. (300 mm) circular, multi-section
 - b. 12 in. (300 mm) arrow, multi-section
 - (2) Each Retrofit module shall be designed to be installed in the doorframe of a standard traffic signal housing. The Retrofit module shall be sealed in the doorframe with a one-piece EPDM (ethylene propylene rubber) gasket.
 - (3) The maximum weight of a Retrofit module shall be 4 lb (1.8 kg).
 - (4) Each Retrofit module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.) and shall be weatherproof after installation and connection.
 - (5) Electrical conductors for modules, including Retrofit modules, shall be 39-2/5 in. (1 m) in length, with quick disconnect terminals attached.
 - (6) The lens of the Retrofit module shall be integral to the unit, shall be convex with a smooth outer surface and made of plastic or of glass.
- (e) The following specification requirements apply to the 12 in. (300 mm) arrow module only. All general specifications apply unless specifically superseded in this section.
- (1) The arrow module shall meet specifications stated in Section 9.01 of the Equipment and Material Standards of the Institute of Transportation Engineers (November 1998) [ITE Standards], Chapter 2 (Vehicle Traffic Control Signal Heads) or applicable successor ITE specifications for arrow indications.
 - (2) The LEDs arrow indication shall be a solid display with a minimum of three (3) outlining rows of LEDs and at least one (1) fill row of LEDs.
- (f) The following specification requirement applies to the 12 in. (300 mm) programmed visibility (PV) module only. All general specifications apply unless specifically superseded in this section.
- (1) The LED module shall be a module designed and constructed to be installed in a programmed visibility (PV) signal housing without modification to the housing.

Delete the fourth paragraph of Article 880.03 of the Standard Specifications. Refer to the “Bagging Signal Heads” section of the District 1 Traffic Signal Special Provision 800.01TS TRAFFIC SIGNAL GENERAL REQUIREMENTS.”

Basis of Payment.

Add the following to the first paragraph of Article 880.04 of the Standard Specifications:

“The price shall include furnishing the equipment described above, all mounting hardware and installing them in satisfactory operating condition.”

Revise the second paragraph of Article 880.04 of the Standard Specifications to read:

If the work consists of retrofitting an existing polycarbonate traffic signal head with light emitting diodes (LEDs), it will be paid for as a SIGNAL HEAD, LED, RETROFIT, of the type specified, and of the particular kind of material, when specified. Price shall be payment in full for removal of the existing module, furnishing the equipment described above including LED modules, all mounting hardware, and installing them in satisfactory operating condition. The type specified will indicate the number of signal faces, the number of signal sections in each signal face and the method of mounting.

LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEAD

Effective: May 22, 2002

Revised: March 1, 2024

881.01TS

Add the following to the third paragraph of Article 881.03 of the Standard Specifications:

“No mixing of different types of pedestrian traffic signals or displays shall be permitted.”

Delete the fourth paragraph of Article 881.03 of the Standard Specifications. Refer to the “Bagging Signal Heads” section of the District 1 Traffic Signal Special Provision 800.01TS TRAFFIC SIGNAL GENERAL REQUIREMENTS.

Add the following to Article 881.03 of the Standard Specifications:

“Pedestrian Countdown Signal Heads shall be 16 in. (406mm) x 18 in. (457mm) single units with glossy yellow or black polycarbonate housings. All pedestrian head housings shall be the same color (yellow or black) at the intersection. For new signalized intersections and existing signalized intersections where all pedestrian heads are being replaced, the proposed head housings shall be black. Where only selected heads are being replaced, the proposed head housing color (yellow or black) shall match existing head housings. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on.

Each pedestrian signal LED module shall be fully MUTCD compliant and shall consist of double overlay message combining full LED symbols of an Upraised Hand and a Walking Person. "Egg Crate" type sun shields are not permitted. Numerals shall measure 9 in. (229mm) in height and easily identified from a distance of 120 ft (36.6m)."

Materials.

Add the following to Article 1078.02 of the Standard Specifications:

"The module shall operate in one mode: Clearance Cycle Countdown Mode Only. The countdown module shall display actual controller programmed clearance cycle and shall start counting when the flashing clearance signal turns on and shall countdown to "0" and turn off when the steady Upraised Hand (symbolizing Don't Walk) signal turns on. The module shall not have user accessible switches or controls for modification of cycle.

At power on, the module shall enter a single automatic learning cycle. During the automatic learning cycle, the countdown display shall remain dark.

The module shall re-program itself if it detects any increase or decrease of Pedestrian Timing. The counting unit will go blank once a change is detected and then take one complete pedestrian cycle (with no counter during this cycle) to adjust its buffer timer.

If the controller preempts during the Walking Person (symbolizing Walk), the countdown will follow the controller's directions and will adjust from Walking Person to flashing Upraised Hand. It will start to count down during the flashing Upraised Hand.

If the controller preempts during the flashing Upraised Hand, the countdown will continue to count down without interruption.

The next cycle following the preemption event shall use the correct, initially programmed values.

If the controller output displays Upraised Hand steady condition and the unit has not arrived to zero or if both the Upraised Hand and Walking Person are dark for some reason, the unit suspends any timing and the digits will go dark.

The digits will go dark for one pedestrian cycle after loss of power of more than 1.5 seconds.

The countdown numerals shall be two (2) "7 segment" digits forming the time display utilizing two rows of LEDs.

The LED module shall meet the requirements of the Institute of Transportation Engineers (ITE) LED purchase specification, "Pedestrian Traffic Control Signal Indications - Part 2: LED Pedestrian Traffic Signal Modules," or applicable successor ITE specifications, except as modified herein.

The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.

In the event of a power outage, light output from the LED modules shall cease instantaneously.

The LEDs utilized in the modules shall be AlInGaP technology for Portland Orange (Countdown Numerals and Upraised Hand) and GaN technology for Lunar White (Walking Person) indications.

The individual LEDs shall be wired such that a loss or the failure of one or more LED will not result in the loss of the entire module.

See Article 801.14 of the Standard Specifications for warranty information.”

Basis of Payment.

Add the following to the first paragraph of Article 881.04 of the Standard Specifications:

“The price shall include furnishing the equipment described above, all mounting hardware, and installing them in satisfactory operating condition.”

Add the following to Article 881.04 of the Standard Specifications:

“If the work consists of retrofitting an existing polycarbonate pedestrian signal head and pedestrian countdown signal head with light emitting diodes (LEDs), it will be paid for as a PEDESTRIAN SIGNAL HEAD, LED, RETROFIT, of the type specified, and of the particular kind of material, when specified. Price shall be payment in full for furnishing the equipment described above including LED modules, all mounting hardware, and installing them in satisfactory operating condition.”

ACCESSIBLE PEDESTRIAN SIGNALS

Effective: April 1, 2003

Revised: March 1, 2025

888.02TS

Description. This work consists of furnishing and installing accessible pedestrian signals (APS). Each APS consists of an interactive vibrotactile pedestrian push-button with a speaker, informational sign, light emitting diode (LED) indicator light, solid-state electronic control board, power supply, wiring, and mounting hardware. The APS must meet the requirements of the MUTCD and Sections 801 and 888 of the Standard Specifications, except as modified herein.

Add the following to Article 888.03 of the Standard Specifications:

“A mounting bracket and/or extension must be used to assure proper orientation and accessibility where needed. The bracket and/or extension is included in the cost of the pedestrian push-button. The Contractor is not allowed to install a push-button assembly with the sign below the push-button to meet mounting requirements.”

Add the following to Article 1074.02 of the Standard Specifications:

“Stations must be designed to be mounted to a post, mast arm pole or wood pole. The station must be aluminum and must accept a 3 in. round push-button assembly and a regulatory pedestrian instruction sign according to MUTCD sign series R10-3e 9 in. x 15 in. sign with arrow(s) for a countdown pedestrian signal. Stations must be powder coated yellow with a black push-button and a stainless steel tactile arrow on the push-button.”

Electrical Requirements. The APS must operate with systems providing 95 to 130 VAC, 60 Hz and throughout an ambient air temperature range of -29 to +160 °F (-34 to +70 °C).

The APS must contain a power protection circuit consisting of both fuse and transient protection.

Audible Indications. A push-button locator tone must sound at each push-button and must be deactivated during the associated walk indication and when associated traffic signals are in flashing mode. Push-button locator tones must have a duration of 0.15 seconds or less and must repeat at 1 second intervals. Each actuation of the push-button must be accompanied by the speech message “Wait”. Locator tones must be audible 6 to 12 ft from the push-buttons.

If two accessible pedestrian push-buttons are placed less than 10 ft apart or placed on the same pole, the audible walk and don’t walk indication must be a speech message. This speech message must sound throughout the Walk interval only. The common street name must be used and not the route number of the street unless there is no common street name. Locations without a street name (ex: private benefit driveways, shopping plaza entrances, etc.) must use the general term “Commercial Driveway” as a street name for that leg. The speech message must be modeled after: “[Street Name]. Walk Sign is on to cross [Street Name].” For signalized intersections utilizing exclusive pedestrian phasing, the verbal message must be “Walk sign is on for all crossings”. Speech walk messages should not contain any additional information, except they should include designations such as “Street” or “Avenue” where this information is necessary to avoid ambiguity at a particular location.

In addition, a speech push-button information message must be provided by actuating the APS push-button during the Don’t Walk interval. This verbal message must be modeled after: “Wait”. The extended press option verbal message must be: “Wait to cross [Street Name] at [Street Name]”.

Where two accessible pedestrian push-buttons are separated by 10 ft or more, the Walk indication must be an audible percussive tone. The percussive tone must repeat at 8 to 10 ticks per second with a dominant frequency of 880 Hz. Percussive tones must be uniform at all stations at the intersection and must not change for different directions.

Automatic volume adjustments in response to ambient traffic sound level must be provided up to a maximum volume of 100 dB. Locator tones and speech messages must be no more than 5 dB louder than ambient sound. Locator tones and speech messages must be programmed at the same volume; one must not be significantly louder than the other and must be adjusted as directed by the Engineer.

Railroad Preemption.

At locations interconnected to a railroad crossing, APS push-buttons must be capable of receiving a railroad preemption similar to a traffic signal controller and must be hard wired to the railroad preemption relay inside the traffic signal cabinet. A shelf mount control unit must be provided and installed inside the cabinet capable of receiving and transmitting the railroad preemption to all the push-buttons.

At railroad intersections, all APS push-buttons must use speech messages only and must follow the below speech models.

During Don't Walk: "Wait to cross [Street Name] at [Street Name]. Caution, Walk time shortened when train approaches." – this does not repeat, plays only once with every push-button press.

During Walk: "[Street Name.] Walk sign is on to cross [Street Name]" – this repeats as many times as possible during Walk interval only.

During Railroad preemption: All push-buttons simultaneously state "Train Approaching" – this message must be stated two (2) times.

At locations with emergency vehicle preemption (EVP), no additional speech message will be provided during preemption.

At locations with an equestrian push-button style installation, the APS push-buttons must use speech messages only and must emit the audible message from the bottom mounted push-button only.

Locations with Corner Islands or Center Medians

At locations with corner islands, push-buttons must follow the requirements as specified herein regarding the use of a percussive tone vs. a speech message. When push-buttons are closer than 10 ft apart, the speech message must follow the format specified herein for the main street crossing. The speech message must follow the below speech models for the unusual configurations.

Crossing of the right turn lane to or from corner island: "Wait to cross right turn lane for [Street Name] at [Street Name]" and "Walk sign is on to cross right turn lane for [Street Name] at [Street Name]".

Crossing to refuge island where second push-button actuation is required: "Wait to cross [Street Name] at [Street Name] to median with second push-button" and "Walk sign is on to cross [Street Name] to median with second push-button".

Center medians on divided highways with a single push-button must have a dual tactile arrow on the push-button.

Pedestrian Push-button. Pedestrian push-buttons must be at least 2 in. (50 mm) in diameter or width. The force required to activate the push-button must be no greater than 3.5 lb (15.5 N).

A red LED must be located on or near the push-button which, when activated, acknowledges the pedestrian's request to cross the street.

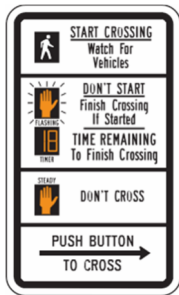
APS push-button systems that utilize any wireless technology to place calls or communicate with the traffic signal controller, including Bluetooth technology, will not be allowed. A central control unit must be provided and installed in the traffic signal cabinet with the latest available firmware. Push-buttons must be connected directly to the central control unit in the traffic signal cabinet using only 2 wires. All push-buttons must be capable of placing a pedestrian call request into the controller and must be hard wired. APS push-buttons must be a direct replacement of existing standard push-buttons and must be weather resistant with a minimum warranty of five (5) years.

APS push-buttons must be compatible with one another and easily replaceable on future replacements or maintenance repairs. Multiple model variations will not be allowed.

All APS push-buttons must come with speech messages pre-programmed for each particular intersection regardless of their location or distance of separation. Final field adjustments, including the use of percussive tones or speech messages, must be completed once push-buttons are installed in the final location. All push-buttons must be programmed with the appropriate parameters and settings as directed by the Engineer. These settings must be standard for all push-buttons and will vary based on the manufacturer. Access to push-button settings must be provided via an application either through wired, wireless or Bluetooth connection. Push-button information, settings and access instructions must all be provided in a weatherproof pouch and safely stored inside each traffic signal cabinet.

The Contractor must remove any existing pedestrian isolation boards, field wire terminals and any wires to the board when easily accessible. If the pedestrian isolation board has been installed from the factory on the back panel of the cabinet, the Contractor is to disconnect the power to the isolation board and any wires while leaving the board mounted. This work is included in the cost of APS and will not be paid for separately.

Signage. A sign must be located immediately above the pedestrian push-button and parallel to the crosswalk controlled by the push-button. The sign must conform to the following standard MUTCD design: R10-3e.



R10-3e

Tactile Arrow. A tactile arrow, pointing in the direction of travel controlled by a push-button, must be provided on the push-button.

Vibrotactile Feature. The push-button must pulse when depressed and must vibrate continuously throughout the Walk interval.

Basis of Payment. This work will be paid for at the contract unit price per each for ACCESSIBLE PEDESTRIAN SIGNALS and includes furnishing, installation, mounting hardware, extension brackets, and programming of the push-button.

MAST ARM SIGN PANELS

Effective: May 22, 2002
Revised: July 1, 2015
720.01TS

Add the following to Article 720.02 of the Standard Specifications:

Sign stiffening channel systems shall be aluminum and meet the requirements of ASTM 6261-T5. Sign mounting banding, buckles and buckle straps shall be manufactured from AISI 201 stainless steel.

SERVICE INSTALLATION (TRAFFIC SIGNALS)

Effective: May 22, 2002
Revised: March 1, 2024
805.01TS

Revise Section 805 of the Standard Specifications to read:

Description.

This work shall consist of all materials and labor required to install, modify, or extend the electric service installation. All installations shall meet the requirements of the "District One Standard Traffic Signal Design Details".

General.

The electric service installation shall be the electric service disconnecting means and it shall be identified as suitable for use as service equipment.

The electric utility contact information is noted on the plans and represents the current information at the time of Contract preparation. The Contractor must request in writing for service and/or service modification within ten (10) days of Contract award and must follow-up with the electric utility to assure all necessary documents and payment are received by the utility. The Contractor shall forward copies of all correspondence between the Contractor and utility company to the Engineer and Area Traffic Signal Maintenance and Operations Engineer. The service agreement and sketch shall be submitted for signature to the IDOT's Traffic Operations Programs Engineer.

Materials.

- a. General. The completed control panel shall be constructed in accordance with UL Std. 508A, Industrial Control Panel, and carry the UL label. Wire terminations shall be UL listed.
- b. Enclosures.

- (1) Pole Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 4X, unfinished single door design, fabricated from minimum 0.080 in. (2.03 mm) thick Type 5052 H-32 aluminum. Seams shall be continuous welded and ground smooth. Stainless steel screws and clamps shall secure the cover and assure a watertight seal. The cover shall be removable by pulling the continuous stainless steel hinge pin. The cabinet shall have an oil-resistant gasket and a lock kit shall be provided with an internal O-ring in the locking mechanism assuring a watertight and dust-tight seal. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 14 in. (350 mm) high, 9 in. (225 mm) wide and 8 in. (200 mm) in depth is required. The cabinet shall be channel mounted to a wooden utility pole using assemblies recommended by the Vendor.

- (2) Ground Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 3R unfinished single door design with back panel. The cabinet shall be fabricated from Type 5052 H-32 aluminum with the frame and door 0.125 in. (3.175 mm) thick, the top 0.250 in. (6.350 mm) thick and the bottom 0.500-inch (12.70 mm) thick. Seams shall be continuous welded and ground smooth. The door and door opening shall be double flanged. The door shall be approximately 80% of the front surface, with a full length tamperproof stainless steel .075 in. (1.91 mm) thick hinge bolted to the cabinet with stainless steel carriage bolts and nylock nuts. The locking mechanism shall be slam-latch type with a keyhole cover. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 40 in. (1000 mm) high, 16 in. (400 mm) wide and 15 in. (375 mm) in depth is required. The cabinet shall be mounted upon a Type A concrete foundation as indicated on the plans. The foundation is paid for separately.
- (3) All enclosures shall include a green external power indicator LED light with circuitry as shown in the Electrical Service-Panel Diagram detail sheet. For pole mounted service enclosures, the power indicator light shall be mounted as shown in the detail. For ground mounted enclosures, the power indicator light shall be mounted on the side of the enclosure most visible from the major roadway.
- (c) Electric Utility Meter Housing and Riser. The electric meter housing and meter socket shall be supplied and installed by the Contractor. The Contractor is to coordinate the work to be performed and the materials required with the utility company to make the final connection at the power source. Electric utility required risers, weather/service head, and any other materials necessary for connection shall also be included in the pay item. Materials shall be in accordance with the electric utility's requirements. For ground-mounted service, the electric utility meter housing shall be mounted to the enclosure. The meter shall be supplied by the utility company.
- (d) Surge Protector. Overvoltage protection, with LED indicator, shall be provided for the 120 V load circuit by the means MOV and thermal fusing technology. The response time shall be < 5 ns and operate within a range of -40°C to +85°C. The surge protector shall be UL 1449 Listed.
- (e) Circuit Breakers. Circuit breakers shall be standard UL listed molded case, thermal-magnetic bolt-on type circuit breakers with trip free indicating handles. 120 V circuit breakers shall have an interrupting rating of not less than 65,000 rms symmetrical amperes. Unless otherwise indicated, the main disconnect circuit breaker for the traffic signal controller shall be rated 60 A, 120 V and the auxiliary circuit breakers shall be rated 10 A, 120 V.

- (f) Fuses and Fuseholders. Fuses shall be small-dimensional cylindrical fuses of the dual element time-delay type. The fuses shall be rated for 600 VAC and shall have a UL listed interrupting rating of not less than 10,000 rms symmetrical amperes at rated voltage.
- (g) Ground and Neutral Bus Bars. A single copper ground and neutral bus bar, mounted on the equipment panel shall be provided. Ground and neutral conductors shall be separated on the bus bar. Compression lugs, plus 2 spare lugs, shall be sized to accommodate the cables with the heads of the connector screws painted green for ground connections and white for neutral connections.
- (h) Utility Services Connection. The Contractor shall notify the utility company marketing representative a minimum of thirty (30) working days prior to the anticipated date of hook-up. This 30-day advance notification will begin only after the utility company marketing representative has received service charge payments from the Contractor. Prior to contacting the utility company marketing representative for service connection, the service installation controller cabinet and cable must be installed for inspection by the utility company.
- (i) Ground Rod. Ground rods shall be copper-clad steel, a minimum of 10 ft (3.0m) in length, and 3/4 in. (20mm) in diameter. Ground rod resistance measurements to ground shall be 25 ohms or less. If necessary additional rods shall be installed to meet resistance requirements at no additional cost to the Contract.

Installation.

- a. General. The Contractor shall confirm the orientation of the traffic service installation and its door side with the Engineer prior to installation. All conduit entrances into the service installation shall be sealed with a pliable waterproof material.
- b. Pole Mounted. Brackets designed for pole mounting shall be used. All mounting hardware shall be stainless steel. Mounting height shall be as noted on the plans or as directed by the Engineer.
- c. Ground Mounted. The service installation shall be mounted plumb and level on the foundation and fastened to the anchor bolts with hot-dipped galvanized or stainless steel nuts and washers. The space between the bottom of the enclosure and the top of the foundation shall be caulked at the base with silicone.

Basis of Payment.

The service installation shall be paid for at the Contract unit price each for SERVICE INSTALLATION of the type specified which shall be payment in full for furnishing and installing the service installation complete. The CONCRETE FOUNDATION, TYPE A, which includes the ground rod, shall be paid for separately. SERVICE INSTALLATION, POLE MOUNTED shall include the 3/4 in. (20mm) grounding conduit, ground rod, and pole mount assembly. Any charges

by the utility companies shall be approved by the Engineer and paid for as an addition to the Contract according to Article 109.05 of the Standard Specifications.

OPTIMIZE TRAFFIC SIGNAL SYSTEM

Effective: May 22, 2002
Revised: November 1, 2023
800.02TS

Description.

This work shall consist of optimizing a traffic signal system.

OPTIMIZE TRAFFIC SIGNAL SYSTEM applies when a new or existing traffic signal system is to be optimized and a formal Signal Coordination and Timing (SCAT) Report is to be prepared. The purpose of this work is to improve system performance by optimizing traffic signal timings and developing both a Time Of Day (TOD) program and a Traffic Responsive Program (TRP).

After the signal improvements are completed, the signal system shall be optimized as specified by an approved Consultant who has previous experience in optimizing traffic signal systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4734 for a listing of approved Consultants. Traffic signal system optimization work, including fine-tuning adjustments of the optimized system, shall follow the requirements stated in the most recent IDOT District 1 SCAT Guidelines, except as noted herein. A listing of existing signal equipment, interconnect information, phasing data, timing patterns, and SCAT Report may be obtained from the Department, if available and as appropriate. The Consultant shall confer with the Area Traffic Signal Maintenance and Operations Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system, in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

(a) The following tasks are associated with OPTIMIZE TRAFFIC SIGNAL SYSTEM:

1. Appropriate signal timings and offsets shall be developed for each intersection and appropriate cycle lengths shall be developed for the signal system. Consultant shall be present at the turn-on(s), if applicable, to implement initial timing plans.
2. Traffic counts shall be taken at all intersections after the permanent traffic signals are approved for operation by the Area Traffic Signal Maintenance and Operations Engineer. Manual turning movement counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday and on a Saturday or Sunday, as directed by the Engineer, to account for special traffic generators such as shopping centers, educational institutes and special event facilities. The turning movement counts shall identify cars, and single-unit and multi-unit heavy vehicles.

3. The intersections shall be re-addressed and all system detectors reassigned as necessary according to the current standard practice of District One. System detector quantities and locations shall be assessed for optimal performance. The Department shall be notified of any proposed changes during Data Collection.
4. A Traffic Responsive Program shall be developed, which considers both volume and occupancy. A Time Of Day program shall be developed for use as a back-up system.
5. Proposed signal timing plan for the new or modified intersection shall be forwarded to IDOT for review prior to implementation.
6. Consultant shall conduct on-site implementation of the timings and make fine-tuning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations. The consultant shall respond to IDOT comments and public complaints for a minimum period of six (6) months from date of timing plan implementation.
7. Speed and delay studies shall be conducted during each of the count periods along the system corridor in the field before and after implementation of the proposed timing plans for comparative evaluations.

(b) The following deliverables shall be provided for OPTIMIZE TRAFFIC SIGNAL SYSTEM:

Consultant shall provide to IDOT one (1) USB flash drive for the optimized system containing the following:

1. Electronic copy of the SCAT Report in PDF format
2. Copies of the Synchro (or other appropriate, approved optimization software) files for the optimized system
3. Traffic counts for the optimized system

The flash drive shall be labeled with the IDOT system number and master location (if applicable), as well as the submittal date and the consultant logo.

The SCAT Report shall include the following elements:

Cover Page in color showing a System Map
Figures 1. System overview map showing system number, system schematic map with numbered system detectors, oversaturated movements, master location (if applicable), system phone number (if applicable), cycle lengths, and date of completion. 2. General location map in color showing signal system location in the metropolitan area. 3. Detail system location map in color showing cross street names and local controller addresses. 4. Controller sequence showing controller phase sequence diagrams.
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Basis of Payment.

The work shall be paid for at the contract unit each for OPTIMIZE TRAFFIC SIGNAL SYSTEM, which price shall be payment in full for performing all work described herein for the entire traffic signal system. Following the completion of traffic counts, 25 percent of the bid price will be paid. Following the completion of the Synchro analysis, 25 percent of the bid price will be paid. Following the setup and fine tuning of the timings, the speed-delay study, and the TRP programming, 25 percent of the bid price will be paid. The remaining 25 percent will be paid when the USB flash drive containing the SCAT report has been submitted and the system is operating to the satisfaction of the Engineer.

EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

Effective: January 1, 2013
Revised: July 1, 2015
873.03TS

This work shall consist of furnishing and installing lead-in cable for light detectors installed at existing and/or proposed traffic signal installations as part of an emergency vehicle priority system. The work includes installation of the lead-in cables in existing and/or new conduit. The electric cable shall be shielded and have (3) stranded conductors, colored blue, orange, and yellow with a stranded tinned copper drain wire. The cable shall meet the requirements of the vendor of the Emergency Vehicle Priority System Equipment.

Basis of Payment.

This work will be paid for at the contract unit price per foot for EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C, which price shall be payment in full for furnishing, installing, and making all electrical connections necessary for proper operations.

VIDEO DETECTION SYSTEM

The VIDEO DETECTION SYSTEM shall be an Grid Smart or Miovision or an approved equivalent hemispherical camera detection system (approved by the City Traffic Engineer) furnished with the specified number of cameras necessary to detect all intersection vehicles, pedestrians and bicyclist.

The VIDEO DETECTION SYSTEM shall include all necessary electric cable, electrical junction boxes, electrical and communications surge suppression, hardware, software, programming, and any camera brackets and risers that are required for installation and configuration. These items should be taken into consideration and shall be included in the bid price for the VIDEO DETECTION SYSTEM.

One 12" – 15" color LCD video monitor and camera video selector (if required to switch camera videos) shall be included for each installation to allow for the setup and monitoring of the VIDEO DETECTION SYSTEM.

VIDEO DETECTION SYSTEM shall be equipped with the latest software or firmware revisions. The video vehicle system shall be configured and installed to NEMA TS2 Standards (use of the SDLC port and BIU). Installation conforming to NEMA TS1 standards will not be allowed. The minimum requirements for a video vehicle detection system are listed below:

1.0 General

This Specification sets forth the minimum requirements for a system that monitors vehicles on a roadway via processing of video images and provides detector outputs to a traffic controller or similar device.

1.1 System Hardware

The system shall consist of four video cameras and an automatic control unit (ACU). The ACU shall process all detected calls and shall be equipped with the latest firmware revisions.

1.2 System Software

The system shall be able to detect either approaching or receding vehicles in multiple traffic lanes.

A minimum of 24 detection zones shall be user-definable per camera. The user shall be able to modify and delete previously defined detection zones. The software shall provide remote access operation and shall be the latest revision.

2.0 Functional Capabilities

2.1 Real-Time Detection

2.2 The ACU shall be capable of simultaneously processing information from all digital video sources. The video shall be digitized and analyzed at a rate of 30 times per second.

2.3 The system shall be able to detect the presence of vehicles, pedestrians, and bicyclist for the intersection and any approach to the intersection, including multi-use pedestrian/bicycle paths.

3.0 Vehicle Detection

3.1 Detection Zone Placement

The VIDEO DETECTION SYSTEM shall provide flexible detection zone placement anywhere and at any orientation within the combined field of view of the image sensors. In addition, detection zones shall have the capability of implementing logical functions including AND and OR.

3.2 Optimal Detection

The VIDEO DETECTION SYSTEM shall reliably detect vehicle presence when the image sensor is mounted (20 ft.) or higher above the roadway, with use of when the image sensor is adjacent

to the desired coverage area, and when the length of the detection area or field of view (FOV) is not greater than ten (10) times the mounting height of the image sensor. The image sensor shall be mounted as recommended by the vendor/supplier/manufacturer and Engineer, in accordance with the camera mounting detail included in plans. A single image sensor, placed at the proper mounting height with the proper lens, shall be able to monitor six (6) to eight (8) traffic lanes simultaneously.

3.3 Detection Performance

Overall performance of the VIDEO DETECTION SYSTEM shall be comparable to inductive loops. Using standard image sensor optics and in the absence of occlusion, the system shall be able to detect vehicle presence with 98% accuracy under normal conditions, (days & night) and 96% accuracy under adverse conditions (fog, rain, snow). The ACU shall output a constant call for each enabled detector output channel if a loss of video signal occurs in any camera. The ACU shall be capable of processing a minimum of twenty detector zones placed anywhere in the field of view of the camera.

4.0 ACU Hardware

4.1 ACU Mounting

The ACU shall be shelf or rack mountable. Nominal outside dimensions excluding connectors shall not exceed 180mm (7.25") x 475mm (19") x 260mm (10.5") (H x W x D).

4.2 ACU Environmental

The ACU shall be designed to operate reliably in the adverse environment found in the typical roadside traffic cabinet. It shall meet the environmental requirements set forth by the NEMA (National Electrical Manufacturers Association) TS1 and TS2 standards as well as the environmental requirements for Type 170 and Type 179 controllers. The minimum operating temperature range shall be from -35 to +74 degrees C at 0% to 95% relative humidity, non-condensing.

5.0 ACU Electrical

5.1 The ACU shall be modular in design and provide processing capability equivalent to the Intel Pentium microprocessor. The bus connections used to interconnect the modules of the ACU shall be gold-plated DIN connectors.

5.2 The ACU shall be powered by 89 - 135 VAC, 60 Hz, single phase, and draw 0.25 amps, or by 190 - 270 VAC, 50 Hz, single phase and draw 0.12 amps. If a rack mountable ACU is supplied, it shall be capable of operating from 10 to 28 VDC. The power supply shall automatically adapt to the input power level. Surge ratings shall be as set forth in the NEMA TS1 and TS2 specifications.

5.3 Serial communications to a remote computer equipped with remote monitoring software shall be through a RJ-45 Ethernet port.

- 5.4 The ACU shall be equipped with a NEMA TS2 RS-485 SDLC interface for communicating input and output information. Front panel LEDs shall provide status information when communications are open.
- 5.5 The ACU and/or camera hookup panel shall be equipped with four RJ-45 connector based/terminal block connections for cameras so that signals from four image sensors can be processed in real-time.
- 5.6 The ACU shall be equipped with USB ports, WiFi, and Ethernet ports to provide Communications to a computer running the configuration and remote access software.
- 5.7 The ACU and/or camera hookup panels used for a rack mountable ACU shall be equipped with a video output port.
- 5.8 The ACU shall be equipped with viewable front panel detection LED indications.

6.0 Camera

- 6.1 The video detection system shall use high resolution, WDR/HD, color, cameras as the video source for real-time vehicle detection. As a minimum, each image sensor shall provide the following capabilities:
 - a. MPEG-4 and H.264 video compression and transport
 - b. Support video streaming that is viewable through a standard web browser with an adjustable frame rates of 5/15/30 fps
 - c. Images shall be produced with a CCD sensing element with horizontal resolution of at least 720 lines and vertical resolution of at least 480 lines.
 - d. Useable video and resolvable features in the video image shall be produced when those features have luminance levels as low as 0.1 lux at night.
 - e. Useable video and resolvable features in the video image shall be produced when those features have luminance levels as high as 10,000 lux during the day.
 - f. Automatic gain, automatic iris, and absolute black reference controls shall be furnished.
 - g. An optical filter and appropriate electronic circuitry shall be included in the image sensor to suppress "blooming" effects at night.
- 6.2 The image sensor shall be equipped with an integrated zoom lens with zoom and focus capabilities that can be changed using either configuration computer software or handheld controller. The machine vision processor (MVP) may be enclosed within the camera.
- 6.3 The image sensor and lens assembly shall be housed in an environmental enclosure that provides the following capabilities:
 - a. The enclosure shall be waterproof and dust-tight to NEMA-4 specifications. The camera shall be IP-67 rated.
 - b. The enclosure shall allow the image sensor to operate satisfactorily over an ambient

temperature range from -34C to +74C while exposed to precipitation as well as direct sunlight.

c. The enclosure shall allow the image sensor horizon to be rotated in the field during Installation.

d. A heater shall be at the front of the enclosure to prevent the formation of ice and condensation in cold weather, as well as to assure proper operation of the lens' iris mechanism. The heater shall not interfere with the operation of the image sensor electronics, and it shall not cause interference with the video signal.

e. The enclosure shall be light-colored and shall include a sun shield to minimize solar heating. The front edge of the sunshield shall protrude beyond the front edge of the environmental enclosure and shall include provision to divert water flow to the sides of the sunshield. The amount of overhang of the sun shield shall be adjustable to prevent direct sunlight from entering the lens or hitting the faceplate.

f. The total weight of the image sensor in the environmental enclosure with sunshield shall be less than 2.7 kg (6 pounds)

g. When operating in the environmental enclosure with power and video signal cables connected, the image sensor shall meet FCC class B requirements for electromagnetic interference emissions.

6.4 The video output of the image sensor shall be isolated from earth ground. All video connections

from the image sensor to the video interface panel shall also be isolated from earth ground.

6.5 The video output, communication, and power to the image sensor shall include transient protection to prevent damage to the sensor due to transient voltages occurring on the cable leading from the image sensor to other field locations.

6.6 A stainless steel junction box shall be available as an option with each image sensor for installation on the structure used for image sensor mounting. The junction box shall contain a terminal block for terminating power to the image sensor and connection points for cables from the image sensor and from the ACU.

7.0 Software

7.1 The system shall include the remote access software that is used to setup and configure the video detection system and must be proven operational from the City's Traffic Center in the Engineering Department. The software shall be of the latest revision.

7.2 All necessary cable, adapters, and other equipment shall be included with the system.

8.0 Installation and Training

8.1 The supplier of the video detection system shall supervise the installation and testing of the video and video vehicle detection equipment. A factory certified representative from the supplier

shall be on-site during installation.

9.0 Warranty, Maintenance, and Support

9.1 The VIDEO DETECTION SYSTEM shall be warranted by its supplier for a minimum of three (3) years from date of turn-on. This warranty shall cover all material defects and shall also provide all parts and labor as well as unlimited technical support.

9.2 Ongoing software support by the supplier shall include updates of the ACU and supervisor software. These updates shall be provided free of charge during the warranty period.

9.3 The supplier shall maintain a program for technical support and software updates following expiration of the warranty period. This program shall be made available to the contracting agency in the form of a separate agreement for continuing support. Method of Measurement: This work will be measured for payment as each per video vehicle detection system included in the plans.

Basis of Payment: This work will not be paid for separately, but shall be included in the contract unit price each for VIDEO DETECTION SYSTEM. Which price shall be payment in full for all labor, equipment, riser, mounting hardware, and materials required to furnish, install, and test the video vehicle detection system described above, complete.

VIDEO DETECTION ZONE SETUP

This work shall consist of setting up new video detection zones for new cameras or modifying video detection zones for existing cameras. The new and modified video detection zones shall be configured as shown on the plans or as directed by the Engineer. This work will not be paid for separately but shall be considered as included in the unit bid prices of the contract, and no additional compensation will be allowed.

BIKE PATH REMOVAL

This work shall include the necessary items to remove the existing bike path and shall be done in accordance with Section 440 of the Standard Specifications except as modified herein.

440.01 Description. Revise this Article to read:

“440.01 Description. This work shall consist of removal and disposal of the entire existing bike path pavement structure, including surface, base, and subbase.”

440.03 General. Add the following to the first paragraph of this Article:

“Removal of subgrade materials in order to establish the proposed subgrade elevation shall be included in bike path pavement removal.”

440.08 Basis of Payment. Revise this Article to read:

"440.08 Basis of Payment. This work will be paid for at the contract unit price per square yard for BIKE PATH REMOVAL."

INLETS TO BE REMOVED (SPECIAL)

This work shall be done in accordance with Section 605 of the Standard Specifications except as modified herein.

605.01 Description. Revise this Article to read:

"605.01 Description. This work shall include the necessary work to remove the existing inlet cover and prepare the existing structure for the new lid style as called out in the plans.

605.06 Basis of Payment. Revise this Article to read:

"605.06 Basis of Payment. This work will be paid for at the contract unit price per square yard for INLETS TO BE REMOVED (SPECIAL)."

DRAINAGE STRUCTURES TO BE ADJUSTED

This work shall be done in accordance with Section 602 of the Standard Specifications except as modified herein.

602.01 Description. Revise this Article to read:

"602.01 Description. This work shall consist of adjusting existing catch basins, manholes, inlets, or valve vaults."

602.02 Materials. Revise Note 2 to read:

Note 2. Riser rings fabricated from recycled rubber may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 50 mm (2 in.). They shall be installed and sealed underneath the frames according to the manufacturer's specifications.

Recycled rubber products shall consist of no less than 80 percent by weight recycled rubber. The riser shall meet or exceed the following when maintained at $23 \pm 2^{\circ}\text{C}$ ($73 \pm 3^{\circ}\text{F}$) for at least 24 hours prior to and during testing.

Physical Property	Test Standard	Value
Density	ASTM C 642-90	1.10 ± 0.034 g/cu cm (68.63 ± 2.11 lb/cu ft)
Durometer Hardness	ASTM D 2240-97 Shore A	72 ± 6 ¹
Compression Deformation under 1000 kPa (145 psi)	ASTM D 575 – Test Method B Test of Specified Force	9 ± 4 %
Compression Set	ASTM D 395 – Illinois Modified Test Method B Compression Set under Constant Deflection in Air	5 ± 3 % ²
Weathering (70 hrs at 70 °C (158 °F)) Hardness retained	ASTM D 573	98 %, minimum
Freeze/thaw when exposed to deicing chemicals	ASTM C 672-91	3 % loss, maximum

¹ Average of three tests over a 28 mm (1.12") diameter sample.

² Samples compressed to 75 percent of initial height.

Recycled rubber adjusting rings shall have no void areas, cracks, or tears, and have no effects due to exposure to ultraviolet light. The actual diameter or length shall not vary more than 3 mm (0.125") from the specified diameter or length. Variations in height are limited to ± 1.6 mm (0.063") for parts up to 50 mm (2")."

602.11 Furnishing and Placing Castings. Revise the last three sentences of the second paragraph of part (c) of this Article to read:

"Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class SI concrete to the elevation of the surface of the base course or binder course. The Class SI concrete shall be cured for a period of 72 hours. HMA materials will not be allowed to backfill around an adjusted casting."

602.16 Basis of Payment. Revise the second paragraph of this Article to read:

"This work shall be paid for at the contract unit price each for DRAINAGE STRUCTURES TO BE ADJUSTED, which price shall include the adjustment of existing catch basins, manholes, inlets or valve vaults, resetting the frame and grate or lid, removing and resetting the existing external chimney seal, and excavation and backfilling."

FULL-ACTUATED CONTROLLER AND CABINET

Effective: January 1, 2002
Revised: March 1, 2024
857.02TS

Description.

This work shall consist of furnishing and installing a traffic actuated solid state digital controller in the controller cabinet of the type specified, meeting the requirements of Section 857 of the Standard Specifications, as modified herein, including malfunction management unit, load switches and flasher relays, and all necessary connections for proper operation.

If the intersection is part of an existing system and/or when specified in the plans, this work shall consist of furnishing and installing a new NEMA Econolite Cobalt G or Simens M60 ATC traffic signal controller.

Materials.

Add the following to Article 857.02 of the Standard Specifications:

“Controllers shall be Econolite Cobalt or Eagle/Yunex M60 unless specified otherwise on the plans or elsewhere on these specifications. Only controllers supplied by one of the District One approved Vendors will be allowed. The controller shall be of the most recent approved model and software version supplied by the Vendor at the time of the traffic signal TURN-ON unless specified otherwise on the plans or these specifications. A removable controller data key shall also be provided. Individual load switches shall be provided for each vehicle, pedestrian, and overlap phase. The controller shall prevent phases from being omitted during program changes and after all preemption events and shall inhibit simultaneous display of circular yellow and yellow arrow indications.

For integration into an Advanced Traffic Management System (ATMS) such as Centrac, Tactics, or TransSuite, the controller shall have the latest version of approved NTCIP software installed. For operation prior to integration into an ATMS, the controller shall maintain existing communications.”

Revise Article 1074.03 (a) (5) paragraph “b.” to read:

“Thermostatically Controlled Exhaust Fans. The cabinet shall be equipped with two (2) thermostatically controlled exhaust fans. Each fan shall have a minimum air delivery capacity of 100 cfm (2.8 cu m/min) and shall be mounted on self-lubricating ball bearings. The thermostat control shall be adjustable between 91 and 113 °F (33 and 45 °C) and shall be set to turn the fan on at 95 °F (35 °C).”

Add the following to Article 1074.03 of the Standard Specifications:

(a) (6) Cabinets shall be designed for NEMA TS2 Type 1 operation. All cabinets shall be pre-wired for a minimum of eight (8) phases of vehicular, four (4) phases of pedestrian and four (4) phases of overlap operation.

Revise the second sentence in Article 1074.03 (b) (1) paragraph "a" to read:

"The malfunction management unit shall have a minimum of 16 fully programmable channels."

Add the following to Article 1074.03 of the Standard Specifications:

- (b) (5) Cabinets – Provide 1/8 in. (3.2 mm) thick unpainted aluminum alloy 5052-H32. The surface shall be smooth, free of marks and scratches. All external hardware shall be stainless steel.
- (b) (6) Controller Harness – Provide a TS2 Type 2 "A" wired harness in addition to the TS2 Type 1 harness.
- (b) (7) Surge Protection – Shall be a 120 VAC Single phase Modular filter Plug-in type, supplied from an approved Vendor.
- (b) (8) BIU – shall be secured by mechanical means.
- (b) (9) Transfer Relays – Solid state or mechanical flash relays are acceptable.
- (b) (10) Switch Guards – All switches shall be guarded.
- (b) (11) Heating – One (1) 200 W, thermostatically-controlled, electric heater.
- (b) (12) Lighting – One (1) LED Panel shall be placed inside the cabinet top panel and one (1) LED Panel shall be placed on each side of the pull-out drawer/shelf assembly located beneath the controller support shelf. The LED Panels shall be controlled by a door switch. The LED Panels shall be provided from an approved Vendor.
- (b) (13) The cabinet shall be equipped with a pull-out drawer/shelf assembly. A 1-1/2 in. (38mm) deep drawer shall be provided in the cabinet, mounted directly beneath the controller support shelf. The drawer shall have a hinged top cover and shall be capable of accommodating one (1) complete set of cabinet prints and manuals. This drawer shall support 50 lb (23 kg) in weight when fully extended. The drawer shall open and close smoothly. Drawer dimensions shall make maximum use of available depth offered by the controller shelf and be a minimum of 18 in. (610mm) wide.
- (b) (14) Plan & Wiring Diagrams – 12 in. x 15 in. (305mm x 406mm) moisture sealed container attached to door.
- (b) (15) Detector Racks – Fully wired and labeled for four (4) channels of emergency vehicle preemption and sixteen channels (16) of vehicular operation.
- (b) (16) Field Wiring Labels – All field wiring shall be labeled.
- (b) (17) Field Wiring Termination – Approved channel lugs required.

- (b) (18) Power Panel – Provide a nonconductive shield.
- (b) (19) Circuit Breaker – The circuit breaker shall be sized for the proposed load but shall not be rated less than 30 A.
- (b) (20) Police Door – Provide wiring and termination for plug in manual phase advance switch.

Basis of Payment.

This work will be paid for at the contract unit price each for FULL-ACTUATED CONTROLLER AND TYPE IV CABINET; FULL-ACTUATED CONTROLLER AND TYPE IV STRETCHED CABINET; FULL-ACTUATED CONTROLLER AND TYPE V CABINET; FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET; FULL-ACTUATED CONTROLLER AND TYPE SUPER P STRETCHED CABINET; FULL-ACTUATED CONTROLLER AND TYPE SUPER R CABINET; FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL; FULL-ACTUATED CONTROLLER AND TYPE IV STRETCHED CABINET, SPECIAL; FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL; FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL); FULL-ACTUATED CONTROLLER AND TYPE SUPER P STRETCHED CABINET (SPECIAL); FULL-ACTUATED CONTROLLER AND TYPE SUPER R CABINET (SPECIAL).

UNINTERRUPTABLE POWER SUPPLY, SPECIAL

Effective: January 1, 2013

Revised: March 1, 2024

862.01TS

This work shall be in accordance with section 862 of the Standard Specification except as modified herein.

Add the following to Article 862.01 of the Standard Specifications:

“The UPS shall have the power capacity to provide normal operation of a signalized intersection that utilizes all LED type signal head optics for a minimum of six (6) hours.”

Add the following to Article 862.02 of the Standard Specifications:

“Materials shall be according to Article 1074.04 as modified in UNINTERRUPTABLE POWER SUPPLY, SPECIAL.”

Add the following to Article 862.03 of the Standard Specifications:

“The UPS shall additionally include, but not be limited to, a battery cabinet, where applicable. For Super P and Super R cabinets, the battery cabinet is integrated to the traffic signal cabinet and shall be included in the cost for the traffic signal cabinet of the size and type indicated on the plans.”

Revise Article 862.04 of the Standard Specifications to read:

Installation.

When a UPS is installed at an existing traffic signal cabinet, the UPS cabinet shall partially rest on the lip of the existing controller cabinet foundation and be secured to the existing controller cabinet by means of at least four (4) stainless steel bolts. The UPS cabinet shall be completely enclosed with the bottom and back constructed of the same material as the cabinet.

When a UPS is installed at a new signal cabinet and foundation, it shall be mounted as shown on the plans.

At locations where UPS is installed and an emergency vehicle priority system is in use, any existing incandescent confirmation beacons shall be replaced with LED lamps in accordance with the District One Emergency Vehicle Priority System specification at no additional cost to the Contract. A concrete apron shall be provided and be in accordance with Articles 424 and 202 of the Standard Specifications. The concrete apron shall also follow the District 1 Standard Traffic Signal Design Detail, Type D for Ground Mounted Controller Cabinet and UPS Battery Cabinet.

For a ground mounted UPS, the UPS shall be mounted on its own Type A concrete foundation which will be paid for separately. A concrete apron shall be provided with a dimension of 36 in. in front of the UPS cabinet, 5 in. deep, and a width sized appropriately to the width of the concrete foundation. The concrete apron shall follow Articles 424 and 202 of the Standard Specifications.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the UPS including the addition of alarms.

Materials.

Revise Article 1074.04(a)(1) of the Standard Specifications to read:

“The UPS shall be line interactive or double conversion and provide voltage regulation and power conditioning when utilizing utility power. The UPS shall be sized appropriately for the intersection(s) normal traffic signal operating load. The UPS must be able to maintain the intersection’s normal operating load plus 20 percent of the intersection’s normal operating load. When installed at a railroad-interconnected intersection, the UPS must maintain the railroad preemption load, plus 20 percent of the railroad preemption-operating load. The total connected traffic signal load shall not exceed the published ratings for the UPS. The UPS shall provide a minimum of six (6) hours of normal operation run-time for signalized intersections with LED type signal head optics at 77 °F (25 °C) (minimum 1000 W active output capacity, with 86 percent minimum inverter efficiency).”

Revise the first paragraph of Article 1074.04(a)(3) of the Standard Specifications to read:

"The UPS shall have a minimum of four (4) sets of normally open (NO) and normally closed (NC) single-pole double-throw (SPDT) relay contact closures, available on a panel mounted terminal block or locking circular connectors, rated at a minimum 120 V/1 A, and labeled so as to identify each contact according to the plans."

Revise Article 1074.04(a)(17) of the Standard Specifications to read:

"When the intersection is in battery backup mode, the UPS shall bypass all internal cabinet lights, ventilation fans, cabinet heaters, service receptacles, luminaires, any lighted street name signs, any automated enforcement equipment and any other devices directed by the Engineer."

Revise Article 1074.04(b)(2) paragraph "b." of the Standard Specifications to read:

"Batteries, inverter/charger and power transfer relay shall be housed in a separate NEMA Type 3R cabinet. The cabinet shall be Aluminum alloy, 5052-H32, 0.125 in. thick and have a natural mill finish."

Revise Article 1074.04(b)(2) paragraph "c." of the Standard Specifications to read:

"No more than three (3) batteries shall be mounted on individual shelves for a cabinet housing six batteries and no more than four (4) batteries per shelf for a cabinet housing eight batteries."

Revise Article 1074.04(b)(2) paragraph "e." of the Standard Specifications to read:

"The battery cabinet housing shall have the following nominal outside dimensions: a width of 25 in. (785 mm), a depth of 16 in. (440 mm), and a height of 41 to 48 in. (1.1 to 1.3 m). Clearance between shelves shall be a minimum of 10 in. (250 mm)."

Revise Article 1074.04(b)(2) paragraph "g." of the Standard Specifications to read:

"The door shall open to the entire cabinet, have a neoprene gasket, an Aluminum continuous piano hinge with stainless steel pin, and a three point locking system. The door shall be equipped with a two position doorstop, one a 90° and one at 120°. The cabinet shall be provided with a main door lock which shall operate with a traffic industry conventional No. 2 key. Provisions for padlocking the door shall be provided."

Add the following to Article 1074.04(b)(2) of the Standard Specifications:

- j. The battery cabinet shall have provisions for an external generator connection.

Add the following to Article 1074.04(c) of the Standard Specifications:

- (8) The UPS shall include a tip or kill switch installed in the battery cabinet, which shall completely disconnect power from the UPS when the switch is manually activated.
- (9) The UPS shall include standard RS-232 and internal Ethernet interface.
- (10) The UPS shall incorporate a flanged electric generator inlet for charging the batteries and operating the UPS. The generator connector shall be male type, twist-lock, rated as 15A, 125VAC with a NEMA L5-15P configuration and weatherproof lift cover plate. Access to the generator inlet shall be from a secured weatherproof lift cover plate or behind a locked battery cabinet police panel.
- (11) The bypass switch shall include an internal power transfer relay that allows removal of the battery back-up unit, while the traffic signal is connected to utility power, without impacting normal traffic signal operation.

Revise Article 1074.04(d)(3) of the Standard Specifications to read:

"All batteries supplied in the UPS shall be either gel cell or AGM type, deep cycle, completely sealed, prismatic lead calcium based, silver alloy, valve regulated lead acid (VRLA) requiring no maintenance. All batteries in a UPS installation shall be the same type; mixing of gel cell and AGM types within a UPS installation is not permitted."

Revise Article 1074.04(d)(4) of the Standard Specifications to read:

"Batteries shall be certified by the manufacturer to operate over a temperature range of -13°F to 160 °F (-25°C to 71 °C) for gel cell batteries and -40°F to 140°F (-40°C to 60 °C) for AGM type batteries."

Add the following to Article 1074.04(d) of the Standard Specifications:

- (9) The UPS shall consist of an even number of batteries that are capable of maintaining normal operation of the signalized intersection for a minimum of six (6) hours. Calculations shall be provided showing the number of batteries of the type supplied that are needed to satisfy this requirement. A minimum of four (4) batteries shall be provided.
- (10) Battery heater mats shall be provided when gel cell type batteries are supplied.

Add the following to Article 1074.04 of the Standard Specifications:

- (e) Warranty. The warranty for an uninterruptable power supply (UPS) and batteries (full replacement) shall cover a minimum of five (5) years from date the equipment is placed in operation.
- (f) Installation. Bypass switch shall completely disconnect the traffic signal cabinet from the utility provider.
- (g) The UPS shall be set-up to run the traffic signal continuously without going to a red flashing condition when switched to battery power unless otherwise directed by the Engineer. The Contractor shall confirm set-up with the Engineer. The continuous operation mode when switched to battery may require modification to unit connections and these modifications are included in the unit price for this item.

Revise Article 862.04 of the Standard Specifications to read:

Basis of Payment.

This work will be paid for at the Contract unit price per each for UNINTERRUPTABLE POWER SUPPLY, SPECIAL, UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED, or UNINTERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL. Replacement of emergency vehicle priority system confirmation beacons and any required modifications to the traffic signal controller shall be included in the cost of the UNINTERRUPTABLE POWER SUPPLY, SPECIAL, UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED, or UNINTERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL item. The concrete apron and earth excavation required shall be included in the cost of the UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED or UNINTERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL item.

ETHERNET SWITCH

This work shall consist of furnishing and installing an Ethernet Switch in order to provide communication between traffic signal interconnect equipment in the field and the Centralized Transportation Management System within Aurora City Hall. The Ethernet Switch shall be installed within the traffic signal controller cabinet location(s) designated in the plans.

The Ethernet Switch shall include SFP module as specified by the Engineer and shall be a RuggedSwitch RS900, as manufactured by RuggedCom.

Basis of Payment.

This work will be paid for at the contract unit price per each for ETHERNET SWITCH.

Any work associated with modifying the interior of the controller cabinet for the installation of the Ethernet Switch will not be paid for separately, but shall be considered as included in the cost of the associated pay items.

INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA

This work shall consist of furnishing and installing a fully operational video traffic monitoring system utilizing a pan/tilt/zoom (PTZ) camera at the locations indicated in the plans. The PTZ cameras shall be Axis Q6055-E Dome Network System as manufactured by Axis.

The PTZ cameras shall be mounted via bracket assembly to the combination mast arm pole unless otherwise noted in the plans or directed by the Engineer. If the camera is to be mounted to a mast arm that does not have a combination pole, the camera shall be mounted to a bracket that extends higher than the mast arm.

The video and PTZ control cable shall consist of an RJ45 with CAT6 cabling. The power cable shall be a No. 14 3C.

Basis of Payment

This work will be paid for at the contract unit price per each for INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA, which price shall include all labor, materials, and equipment necessary to furnish and install a fully operational video traffic monitoring system, including the mounting of the PTZ cameras. The labor, materials, and equipment necessary to mount the PTZ cameras will not be paid for separately, but shall be considered as included in the cost of the intersection video traffic monitoring system.

The video and PTZ control cable will be paid for at the contract unit price per foot for CAT. 6 ETHERNET CABLE.

The power cable will be paid for at the contract unit price per foot for ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C.

TRAFFIC SIGNAL BACKPLATE

Effective: May 22, 2002
Revised: March 1, 2024
882.01TS

Revise the first sentence of Article 1078.03 of the Standard Specifications to read:

“All backplates shall be louvered and made of formed ABS plastic or composite aluminum.”

Revise the first sentence of the second paragraph of Article 1078.03 of the Standard Specifications to read:

“The backplate shall be composed of one or two pieces.”

Delete the second sentence of the fourth paragraph of Article 1078.03 of the Standard Specifications.

Add the following to the fourth paragraph of Article 1078.03 of the Standard Specifications:

"When retro reflective sheeting is specified, it shall be Type ZZ sheeting according to Article 1091.03 and applied in preferred orientation for the maximum angularity according to the vendor's recommendations. The retroreflective sheeting shall be installed under a controlled environment by the Manufacturer/Vendor before shipment to the Contractor. The formed plastic backplate shall be prepared and cleaned, following recommendations of the retroreflective sheeting Manufacturer."

EMERGENCY VEHICLE PRIORITY SYSTEM

Effective: May 22, 2002
Revised: July 1, 2015
887.01TS

Revise Section 887 of the Standard Specifications to read:

It shall be the Contractor's responsibility to contact the municipality or fire district to verify the brand of emergency vehicle pre-emption equipment to be installed prior to the contract bidding. The equipment must be completely compatible with all components of the equipment currently in use by the Agency.

All new installations shall be equipped with Confirmation Beacons as shown on the "District One Standard Traffic Signal Design Details." The Confirmation Beacon shall consist of a 6 watt Par 38 LED flood lamp with a 30 degree light spread, or a 7 watt Par 30 LED flood lamp with a 15 degree or greater spread, maximum 7 watt energy consumption at 120V, and a 2,000 hour warranty for each direction of pre-emption. The lamp shall have an adjustable mount with a weatherproof enclosure for cable splicing. All hardware shall be cast aluminum or stainless steel. Holes drilled into signal poles, mast arms, or posts shall require rubber grommets. In order to maintain uniformity between communities, the confirmation beacons shall indicate when the control equipment receives the pre-emption signal. The pre-emption movement shall be signalized by a flashing indication at the rate specified by Section 4L.01 of the "Manual on Uniform Traffic Control Devices," and other applicable sections of future editions. The stopped pre-empted movements shall be signalized by a continuous indication.

All light operated systems shall include security and transit preemption software and operate at a uniform rate of 14.035 Hz ± 0.002 , or as otherwise required by the Engineer, and provide compatible operation with other light systems currently being operated in the District.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the EMERGENCY VEHICLE PRIORITY SYSTEM.

Basis of Payment.

The work shall be paid for at the contract unit price each for furnishing and installing LIGHT DETECTOR and LIGHT DETECTOR AMPLIFIER. Furnishing and installing the confirmation beacon shall be included in the cost of the Light Detector. Any required modifications to the traffic signal controller shall be included in the cost of the LIGHT DETECTOR AMPLIFIER. The preemption detector amplifier shall be paid for on a basis of (1) one each per intersection controller and shall provide operation for all movements required in the pre-emption phase sequence.

SEEDING – AURORA MIX

This work shall consist of re-establishing swales and ditch lines, furnishing and placing 6" of pulverized top soil, fine grading, fertilizer, sowing of "Aurora Mix" grass seed by hand raking, and installing loose straw mulch stabilized with hydraulic mulch at the locations designated by the Engineer in accordance with the applicable portions of Section 250 and 251 of the "Standard Specifications for Road and Bridge Construction."

Fertilizer nutrients shall be applied to the prepared areas at a 9:18:9 ratio at a rate of 200 pounds per acre.

Aurora Mix:

The City of Aurora grass seed mixture consists of:

24.93% ASAP Perennial Ryegrass
24.46% Caddieshack Perennial Ryegrass
24.33% Goalkeeper Perennial Ryegrass
12.37% Geronimo Kentucky Bluegrass
12.29% Kentucky Bluegrass (variety not stated)
1.34% Inert Matter, 0.28% Crop, 0.00% weed

This mixture shall be sown in such a manner as to produce a growth of grass similar in quality and appearance to the grass of adjoining areas. Grass seed mix shall be proportioned by weight and planted at a minimum rate of eight (8) pounds per thousand (1,000) square feet. Seeds furnished shall be first grade in quality, high in germination, and free from weeds. Seed shall not be sown in high wind, foul weather conditions, or when ground conditions are not proper in the opinion of the Engineer.

Within twenty-four (24) hours from the time seeding has been performed, the seeded area shall be covered with loose straw mulch and immediately stabilized in accordance with Method 2, Procedure 2 of Article 251.03 of the Standard Specifications.

The contractor shall notify the Engineer a minimum of 48 hours prior to performing any landscape restoration. The contractor shall demonstrate to the Engineer seeding and fertilizer applications rates prior to performing this work. Documentation regarding seed mixtures and fertilizer concentrations shall be provided to the Engineer prior to performing this work. In the event that the contractor fails to adhere to these requirements, the work shall not be eligible for payment.

This work shall not be considered complete until a mowable weed-free stand of grass is obtained. Method of Measurement. SEEDING – AURORA MIX will be measured in square feet of surface area seeded.

Basis of Payment. This work shall be paid for at the contract unit price per square foot for SEEDING – AURORA MIX.

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

SPECIAL PROVISION
FOR
INSURANCE

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

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

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

City of Aurora

Baxter & Woodman, Inc.

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

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets
SPECIAL PROVISION
FOR
LOCAL QUALITY ASSURANCE/ QUALITY MANAGEMENT QC/QA
Effective: January 1, 2022

Replace the first five paragraphs of Article 1030.06 of the Standard Specifications with the following:

“1030.06 Quality Management Program. The Quality Management Program (QMP) will be Quality Control / Quality Assurance (QC/QA) according to the following.”

Delete Article 1030.06(d)(1) of the Standard Specifications.

Revise Article 1030.09(g)(3) of the Standard Specifications to read:

“(3) If core testing is the density verification method, the Contractor shall provide personnel and equipment to collect density verification cores for the Engineer. Core locations will be determined by the Engineer following the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations” at density verification intervals defined in Article 1030.09(b). After the Engineer identifies a density verification location and prior to opening to traffic, the Contractor shall cut a 4 in. (100 mm) diameter core. With the approval of the Engineer, the cores may be cut at a later time.”

Revise Article 1030.09(h)(2) of the Standard Specifications to read:

“(2) After final rolling and prior to paving subsequent lifts, the Engineer will identify the random density verification test locations. Cores or nuclear density gauge testing will be used for density verification. The method used for density verification will be as selected below.

Density Verification Method	
☐	Cores
☒	Nuclear Density Gauge (Correlated when paving ≥ 3,000 tons per mixture)

Density verification test locations will be determined according to the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations”. The density testing interval for paving wider than or equal to 3 ft (1 m) will be 0.5 miles (800 m) for lift thicknesses of 3 in. (75 mm) or less and 0.2 miles (320 m) for lift thicknesses greater than 3 in. (75 mm). The density testing interval for paving less than 3 ft (1 m) wide will be 1 mile (1,600 m). If a day’s paving will be less than the prescribed density testing interval, the length of the day’s paving will be the interval for that day. The density testing interval for mixtures used for patching will be 50 patches with a minimum of one test per mixture per project.

If core testing is the density verification method, the Engineer will witness the Contractor coring, and secure and take possession of all density samples at the

density verification locations. The Engineer will test the cores collected by the Contractor for density according to Illinois Modified AASHTO T 166 or AASHTO T 275.

If nuclear density gauge testing is the density verification method, the Engineer will conduct nuclear density gauge tests. The Engineer will follow the density testing procedure detailed in the document "Illinois Modified ASTM D 2950, Standard Test Method for Density of Bituminous Concrete In-Place by Nuclear Method".

A density verification test will be the result of a single core or the average of the nuclear density tests at one location. The results of each density test must be within acceptable limits. The Engineer will promptly notify the Contractor of observed deficiencies."

Revise the seventh paragraph and all subsequent paragraphs in Section D. of the document "Hot-Mix Asphalt QC/QA Initial Daily Plant and Random Samples" to read:

"Mixtures shall be sampled from the truck at the plant by the Contractor following the same procedure used to collect QC mixture samples (Section A). This process will be witnessed by the Engineer who will take custody of the verification sample. Each sample bag with a verification mixture sample will be secured by the Engineer using a locking ID tag. Sample boxes containing the verification mixture sample will be sealed/taped by the Engineer using a security ID label."

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						Overtime										
Trade Title	Rg	Type	C	Base	Foreman	M-F	Sa	Su	Hol	H/W	Pension	Vac	Trng	Other Ins	Add OT 1.5x owed	Add OT 2.0x owed
ASBESTOS ABT-GEN	All	ALL		51.40	52.40	1.5	1.5	2.0	2.0	16.23	19.80	0.00	0.91	0.00	0.00	0.00
ASBESTOS ABT-MEC	All	BLD		42.02	45.38	1.5	1.5	2.0	2.0	16.44	16.64	0.00	0.92		3.37	6.73
BOILERMAKER	All	BLD		58.91	64.21	2.0	2.0	2.0	2.0	7.07	27.02	0.00	3.69	2.31	0.00	39.30
BRICK MASON	All	BLD		53.06	58.37	1.5	1.5	2.0	2.0	12.95	26.26	0.00	1.57	0.00	4.23	8.45
CARPENTER	All	ALL		56.71	58.71	1.5	1.5	2.0	2.0	13.64	27.87	2.01	1.04		0.00	0.00
CEMENT MASON	All	ALL		52.15	54.15	2.0	1.5	2.0	2.0	12.86	30.96	0.00	0.80	0.00	0.00	0.00
CERAMIC TILE FINISHER	All	BLD		49.09	49.09	1.5	1.5	2.0	2.0	13.25	17.61	0.00	1.37	0.00	5.57	11.14
CERAMIC TILE LAYER	All	BLD		57.04	62.04	1.5	1.5	2.0	2.0	13.25	21.60	0.00	1.50	0.00	7.63	15.26
COMMUNICATION TECHNICIAN	N	BLD		46.63	49.03	1.5	1.5	2.0	2.0	14.67	19.15	0.00	0.93	0.00	10.04	20.08
COMMUNICATION TECHNICIAN	S	BLD		47.11	50.36	1.5	1.5	2.0	2.0	17.30	17.69	0.00	1.65	0.00	0.00	0.00
ELECTRIC PWR EQMT OP	All	ALL		52.47	71.60	1.5	1.5	2.0	2.0	7.50	14.69	0.00	1.84	1.57	9.05	18.10
ELECTRIC PWR GRNDMAN	All	ALL		40.31	71.60	1.5	1.5	2.0	2.0	7.50	11.29	0.00	1.41	1.21	6.96	13.91
ELECTRIC PWR LINEMAN	All	ALL		63.08	71.60	1.5	1.5	2.0	2.0	7.50	17.66	0.00	2.21	1.89	10.88	21.76
ELECTRIC PWR TRK DRV	All	ALL		41.77	71.60	1.5	1.5	2.0	2.0	7.50	11.70	0.00	1.47	1.25	7.20	14.40
ELECTRICIAN	N	ALL		59.11	64.11	1.5	1.5	2.0	2.0	16.83	24.13	0.00	1.77	0.00	12.71	25.41
ELECTRICIAN	S	BLD		60.17	66.19	1.5	1.5	2.0	2.0	17.55	23.84	0.00	2.11	0.00	0.00	0.00
ELEVATOR CONSTRUCTOR	All	BLD		70.68	79.52	2.0	2.0	2.0	2.0	16.28	21.36	5.65	0.80		0.00	0.00
FENCE ERECTOR	All	ALL		50.68	56.76	1.5	1.5	2.0	2.0	13.56	27.20	0.00	1.80	0.00	0.00	0.00
GLAZIER	All	BLD		53.55	55.05	1.5	2.0	2.0	2.0	16.04	26.64	0.00	2.30	0.00	0.00	0.00
HEAT/FROST INSULATOR	All	BLD		56.02	59.38	1.5	1.5	2.0	2.0	16.44	19.88	0.00	0.92		4.99	9.97
IRON WORKER	All	ALL		55.55	62.22	2.0	2.0	2.0	2.0	13.56	31.29	0.00	1.80	0.00	0.00	0.00
LABORER	All	ALL		51.40	52.15	1.5	1.5	2.0	2.0	16.23	19.80	0.00	0.91	0.00	0.00	0.00
LATHER	All	ALL		56.71	58.71	1.5	1.5	2.0	2.0	13.64	27.87	2.01	1.04		0.00	0.00
MACHINIST	All	BLD		60.39	64.39	1.5	1.5	2.0	2.0	11.43	9.95	1.85	1.47	0.00	0.00	0.00
MARBLE FINISHER	All	ALL		40.21	54.60	1.5	1.5	2.0	2.0	12.95	23.81	0.00	0.98	0.00	3.00	6.00
MARBLE SETTER	All	BLD		52.00	57.20	1.5	1.5	2.0	2.0	12.95	25.57	0.00	1.25	0.00	3.88	7.76

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MATERIAL TESTER I	All	ALL		41.40		1.5	1.5	2.0	2.0	16.23	19.80	0.00	0.91	0.00	0.00	0.00
MATERIALS TESTER II	All	ALL		46.40		1.5	1.5	2.0	2.0	16.23	19.80	0.00	0.91	0.00	0.00	0.00
MILLWRIGHT	All	ALL		56.71	58.71	1.5	1.5	2.0	2.0	13.64	27.87	2.01	1.04		0.00	0.00
OPERATING ENGINEER	All	BLD	1	64.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	2	63.50	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	3	60.95	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	4	59.20	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	5	68.55	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	6	65.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	7	67.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT		53.25	53.25	1.5	1.5	2.0	2.0	25.20	22.75	2.00	3.00		0.00	0.00
OPERATING ENGINEER	All	HWY	1	63.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	2	62.45	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	3	60.40	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	4	59.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	5	57.80	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	6	66.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	7	64.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
ORNAMENTAL IRON WORKER	E	ALL		59.26	62.76	2.0	2.0	2.0	2.0	14.86	27.70	0.00	2.25	0.00	0.00	0.00
PAINTER	All	ALL		54.30	56.30	1.5	1.5	1.5	2.0	16.20	11.43	0.00	1.75	0.00	0.00	0.00
PAINTER - SIGNS	All	BLD		46.76	52.53	1.5	1.5	2.0	2.0	8.20	16.81	0.00	0.00	0.00	0.00	0.00
PILEDRIIVER	All	ALL		56.71	58.71	1.5	1.5	2.0	2.0	13.64	27.87	2.01	1.04		0.00	0.00
PIPEFITTER	All	BLD		58.50	61.50	1.5	1.5	2.0	2.0	15.15	22.85	0.00	3.12	0.00	0.00	0.00
PLASTERER	All	BLD		51.10	54.17	1.5	1.5	2.0	2.0	18.43	22.10	0.00	1.25	0.00	0.00	0.00
PLUMBER	All	BLD		60.50	64.15	1.5	1.5	2.0	2.0	19.10	17.94	0.00	1.98		0.00	0.00
ROOFER	All	BLD		52.00	57.00	1.5	1.5	2.0	2.0	12.20	17.59	0.00	1.14	0.00	0.00	0.00
SHEETMETAL WORKER	All	BLD		58.83	63.54	1.5	1.5	2.0	2.0	17.16	19.90	0.00	1.79	2.62	0.00	0.00
SPRINKLER FITTER	All	BLD		63.25	66.00	1.5	1.5	2.0	2.0	15.45	19.90	0.00	1.15	0.00	0.00	0.00
STONE MASON	All	BLD		53.06	58.37	1.5	1.5	2.0	2.0	12.95	26.26	0.00	1.57	0.00	4.23	8.45

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SURVEY WORKER	All	BLD		51.40	52.15	1.5	1.5	2.0	2.0	16.23	19.80	0.00	0.91	0.00	0.00	0.00
SURVEY WORKER	All	HWY		51.40	52.15	1.5	1.5	2.0	2.0	16.23	19.80	0.00	0.91	0.00	0.00	0.00
TERRAZZO FINISHER	All	BLD		51.44	51.44	1.5	1.5	2.0	2.0	13.25	18.87	0.00	1.41	0.00	4.45	8.89
TERRAZZO MECHANIC	All	BLD		55.35	58.85	1.5	1.5	2.0	2.0	13.25	20.26	0.00	1.46	0.00	4.70	9.39
TRAFFIC SAFETY WORKER I	All	HWY		43.40	45.40	1.5	1.5	2.0	2.0	10.08	10.08	0.00	1.05	0.00	0.00	0.00
TRAFFIC SAFETY WORKER II	ALL	HWY		44.40	46.40	1.5	1.5	2.0	2.0	10.08	10.08	0.00	1.05	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	1	45.31	45.80	1.5	1.5	2.0	2.0	12.15	16.00	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	2	45.46	45.80	1.5	1.5	2.0	2.0	12.15	16.00	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	3	45.66	45.80	1.5	1.5	2.0	2.0	12.15	16.00	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	4	45.80	45.80	1.5	1.5	2.0	2.0	12.15	16.00	0.00	0.30	0.00	0.00	0.00
TUCK POINTER	All	BLD		52.53	53.53	1.5	1.5	2.0	2.0	11.05	23.16	0.00	1.46	0.00	0.00	0.00

Legend

Rg Region

Type Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers

C Class

Base Base Wage Rate

OT M-F Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

OT Sa Overtime pay required for every hour worked on Saturdays

OT Su Overtime pay required for every hour worked on Sundays

OT Hol Overtime pay required for every hour worked on Holidays

H/W Health/Welfare benefit

Vac Vacation

Trng Training

Other Ins Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

Explanations KANE COUNTY

ELECTRICIANS AND COMMUNICATIONS TECHNICIAN (NORTH) - Townships of Burlington, Campton, Dundee, Elgin, Hampshire, Plato, Rutland, St. Charles (except the West half of Sec. 26, all of Secs. 27, 33, and 34, South half of Sec. 28, West half of Sec. 35), Virgil and Valley View CCC and Elgin Mental Health Center.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain

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days of celebration. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video), telephone, security systems, fire alarm systems that are a component of a multiplex system and share a common cable, and data inside wire, interconnect, terminal equipment, central offices, PABX and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble,

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holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

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Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

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Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEERS - FLOATING

Diver. Diver Wet Tender, Diver Tender, ROV Pilot, ROV Tender

SURVEY WORKER

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking.

SURVEY FOREMAN

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking; oversees survey crew operations; and/or coordinates work of survey crews.

TRAFFIC SAFETY Worker I

Traffic Safety Worker I - work associated with the delivery, installation, pick-up and servicing of safety devices during periods of roadway construction, including such work as set-up and maintenance of barricades, barrier wall reflectors, drums, cones, delineators, signs, crash attenuators, glare screen and other such items, and the layout and application or removal of conflicting and/or temporary roadway markings utilized to control traffic in construction zones, as well as flagging for these operations.

TRAFFIC SAFETY WORKER II

Work associated with the installation and removal of permanent pavement markings and/or pavement markers including both installations performed by hand and installations performed by truck.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

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Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

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BDE SPECIAL PROVISIONS
For the August 1 and September 19, 2025 Lettings

The following special provisions indicated by a “check mark” are applicable to this contract and will be included by the Project Coordination and Implementation Section of the Bureau of Design & Environment (BDE).

File Name	#		Special Provision Title	Effective	Revised
	80099	1	☒ Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2022
	80274	2	☒ Aggregate Subgrade Improvement	April 1, 2012	April 1, 2022
	80192	3	☐ Automated Flagger Assistance Devices	Jan. 1, 2008	April 1, 2023
	80173	4	☐ Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	80426	5	☐ Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	Jan. 1, 2022
*	80241	6	☐ Bridge Demolition Debris	July 1, 2009	
*	50531	7	☐ Building Removal	Sept. 1, 1990	Aug. 1, 2022
*	50261	8	☐ Building Removal with Asbestos Abatement	Sept. 1, 1990	Aug. 1, 2022
	80460	9	☒ Cement, Finely Divided Minerals, Admixtures, Concrete, and Mortar	Jan. 1, 2025	
	80384	10	☒ Compensable Delay Costs	June 2, 2017	April 1, 2019
*	80198	11	☒ Completion Date (via calendar days)	April 1, 2008	
*	80199	12	☐ Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80461	13	☐ Concrete Barrier	Jan. 1, 2025	
	80453	14	☐ Concrete Sealer	Nov. 1, 2023	
	80261	15	☒ Construction Air Quality – Diesel Retrofit	June 1, 2010	Jan. 1, 2025
*	80029	16	☒ Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 2, 2025
	80467	17	☐ Erosion Control Blanket	Aug. 1, 2025	
	80229	18	☐ Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80452	19	☐ Full Lane Sealant Waterproofing System	Nov. 1, 2023	
	80447	20	☐ Grading and Shaping Ditches	Jan. 1, 2023	
	80433	21	☐ Green Preformed Thermoplastic Pavement Markings	Jan. 1, 2021	Jan. 1, 2022
	80456	22	☐ Hot-Mix Asphalt	Jan. 1, 2024	Jan. 1, 2025
	80446	23	☐ Hot-Mix Asphalt - Longitudinal Joint Sealant	Nov. 1, 2022	Aug. 1, 2023
	80438	24	☒ Illinois Works Apprenticeship Initiative – State Funded Contracts	June 2, 2021	April 2, 2024
	80450	25	☐ Mechanically Stabilized Earth Retaining Walls	Aug. 1, 2023	Aug. 1, 2025
	80464	26	☐ Pavement Marking Inspection	April. 1, 2025	
	80468	27	☐ Pavement Patching	Aug. 1, 2025	
	80441	28	☒ Performance Graded Asphalt Binder	Jan. 1, 2023	
	80459	29	☐ Preformed Plastic Pavement Marking	June 2, 2024	
*	34261	30	☐ Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2022
	80455	31	☒ Removal and Disposal of Regulated Substances	Jan. 1, 2024	April 1, 2024
	80445	32	☒ Seeding	Nov. 1, 2022	
	80457	33	☐ Short Term and Temporary Pavement Markings	April 1, 2024	April 2, 2024
	80462	34	☒ Sign Panels and Appurtenances	Jan. 1, 2025	April 1, 2025
	80469	35	☐ Slope Wall	Aug. 1, 2025	
	80448	36	☐ Source of Supply and Quality Requirements	Jan. 2, 2023	
	80340	37	☐ Speed Display Trailer	April 2, 2014	Jan. 1, 2022
	80127	38	☐ Steel Cost Adjustment	April 2, 2004	Jan. 1, 2022
	80397	39	☐ Subcontractor and DBE Payment Reporting	April 2, 2018	
	80391	40	☐ Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
	80463	41	☐ Submission of Bidders List Information	Jan. 2, 2025	Mar. 2, 2025
	80437	42	☐ Submission of Payroll Records	April 1, 2021	Nov. 2, 2023
	80435	43	☐ Surface Testing of Pavements – IRI	Jan. 1, 2021	Jan. 1, 2023
	80465	44	☐ Surveying Services	April 1, 2025	
	80466	45	☐ Temporary Rumble Strips	April 1, 2025	
	80470	46	☐ Traffic Signal Backplate	Aug. 1, 2025	
*	20338	47	☐ Training Special Provisions	Oct. 15, 1975	Sept. 2, 2021
	80429	48	☐ Ultra-Thin Bonded Wearing Course	April 1, 2020	Jan. 1, 2022
	80439	49	☒ Vehicle and Equipment Warning Lights	Nov. 1, 2021	Nov. 1, 2022
	80458	50	☐ Waterproofing Membrane System	Aug. 1, 2024	
	80302	51	☐ Weekly DBE Trucking Reports	June 2, 2012	Jan. 2, 2025

	80454	52	☐	Wood Sign Support	Nov. 1, 2023	
	80427	53	☒	Work Zone Traffic Control Devices	Mar. 2, 2020	Jan. 1, 2025
*	80071	54	☐	Working Days	Jan. 1, 2002	

Highlighted items indicate a new or revised special provision for the letting.

An * indicates the special provision requires additional information from the designer, which needs to be submitted separately. The Project Coordination and Implementation Section will then include the information in the applicable special provision.

The following special provisions are in the 2025 Supplemental Specifications and Recurring Special Provisions.

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location(s)</u>	<u>Effective</u>	<u>Revised</u>
80434	Corrugated Plastic Pipe (Culvert and Storm Sewer)	Articles 542.03, 550.03, 1040.03, 1040.04(b), 1040.04(d) & 1040.08	Jan. 1, 2021	
80443	High Tension Cable Median Barrier Removal	Section 632	April 1, 2022	
80045	Material Transfer Device	Articles 406.03, 406.06(f), 406.13(b), 406.14 & 1102.02	Nov 15, 1999	Jan. 1, 2022
80410	Traffic Spotters	Article 701.13	Jan. 1, 2019	

ACCESSIBLE PEDESTRIAN SIGNALS (APS) (BDE)

Effective: April 1, 2003

Revised: January 1, 2022

Description. This work shall consist of furnishing and installing accessible pedestrian signals (APS). Each APS shall consist of an interactive vibrotactile pedestrian pushbutton with speaker, an informational sign, a light emitting diode (LED) indicator light, a solid-state electronic control board, a power supply, wiring, and mounting hardware. The APS shall meet the requirements of the MUTCD and Sections 801 and 888 of the Standard Specifications, except as modified herein.

Electrical Requirements. The APS shall operate with systems providing 95 to 130 VAC, 60 Hz and throughout an ambient air temperature range of -29 to +160 °F (-34 to +70 °C).

The APS shall contain a power protection circuit consisting of both fuse and transient protection.

Audible Indications. A pushbutton locator tone shall sound at each pushbutton and shall be deactivated during the associated walk indication and when associated traffic signals are in flashing mode. Pushbutton locator tones shall have a duration of 0.15 seconds or less and shall repeat at 1-second intervals. Each actuation of the pushbutton shall be accompanied by the speech message "Wait".

If two accessible pedestrian pushbuttons are placed less than 10 ft (3 m) apart or placed on the same pole, the audible walk indication shall be a speech walk message. This message shall sound throughout the WALK interval only. The verbal message shall be modeled after: "Street Name, Walk Sign is on to cross Street Name." For signalized intersections utilizing exclusive pedestrian phasing, the verbal message shall be "Walk sign is on for all crossings". In addition, a speech pushbutton information message shall be provided by actuating the APS pushbutton when the WALK interval is not timing. This verbal message shall be modeled after: "Wait. Wait to cross 'Street Name' at 'Street Name'".

Where two accessible pedestrian pushbuttons are separated by at least 10 ft (3 m), the walk indication shall be an audible percussive tone. It shall repeat at 8 to 10 ticks per second with a dominant frequency of 880 Hz.

Automatic volume adjustments in response to ambient traffic sound level shall be provided up to a maximum volume of 100 dBA. Locator tone and verbal messages shall be no more than 5 dB louder than ambient sound.

At locations with railroad interconnection, an additional speech message stating "Walk time shortened when train approaches" shall be used after the speech walk message. At locations with emergency vehicle preemption, an additional speech message "Walk time shortened when emergency vehicle approaches" shall be used after the speech walk message.

Pedestrian Pushbutton. Pedestrian pushbuttons shall be at least 2 in. (50 mm) in diameter or width. The force required to activate the pushbutton shall be no greater than 3.5 lb (15.5 N).

A red LED shall be located on or near the pushbutton which, when activated, acknowledges the pedestrians request to cross the street.

Signage. A sign shall be located immediately above the pedestrian pushbutton and parallel to the crosswalk controlled by the pushbutton. The sign shall conform to one of the following standard MUTCD designs: R10-3, R10-3a, R10-3e, R10-3i, R10-4, and R10-4a.

Tactile Arrow. A tactile arrow, pointing in the direction of travel controlled by a pushbutton, shall be provided on the pushbutton.

Vibrotactile Feature. The pushbutton shall pulse when depressed and shall vibrate continuously throughout the WALK interval.

Method of Measurement. This work will be measured for payment as each, per pushbutton.

Basis of Payment. This work will be paid for at the contract unit price per each for ACCESSIBLE PEDESTRIAN SIGNALS.

80099

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

Effective: April 1, 2012

Revised: April 1, 2022

Add the following Section to the Standard Specifications:

“SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement (ASI).

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.07
(b) Reclaimed Asphalt Pavement (RAP)	1031.09

303.03 Equipment. The vibratory roller shall be according to Article 1101.01, or as approved by the Engineer. Vibratory machines, such as tampers, shall be used in areas where rollers do not fit.

303.04 Soil Preparation. The minimum immediate bearing value (IBV) of the soil below the improved subgrade shall be according to the Department's "Subgrade Stability Manual" for the aggregate thickness specified.

303.05 Placing and Compacting. The maximum nominal lift thickness of aggregate gradations CA 2, CA 6, and CA 10 when compacted shall be 9 in. (225 mm). The maximum nominal lift thickness of aggregate gradations CS 1, CS 2, and RR 1 when compacted shall be 24 in. (600 mm).

The top surface of the aggregate subgrade improvement shall consist of a layer of capping aggregate gradations CA 6 or CA 10 that is 3 in. (75 mm) thick after compaction. Capping aggregate will not be required when aggregate subgrade improvement is used as a cubic yard pay item for undercut applications.

Each lift of aggregate shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

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

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

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

Add the following to Section 1004 of the Standard Specifications:

“1004.07 Coarse Aggregate for Aggregate Subgrade Improvement (ASI). The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. In applications where greater than 24 in. (600 mm) of ASI material is required, gravel may be used below the top 12 in (300 mm) of ASI.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

(1) The coarse aggregate gradation for total ASI thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 1.

The coarse aggregate gradation for total ASI thickness greater than 12 in. (300 mm) shall be CS 1 or CS 2 as shown below or RR 1 according to Article 1005.01(c).

	COARSE AGGREGATE SUBGRADE GRADATIONS				
Grad No.	Sieve Size and Percent Passing				
	8”	6”	4”	2”	#4
CS 1	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 2		100	80 ± 10	25 ± 15	

	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)				
Grad No.	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 1	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 2		100	80 ± 10	25 ± 15	

(2) Capping aggregate shall be gradation CA 6 or CA 10.”

Add the following to Article 1031.09 of the Standard Specifications:

“(b) RAP in Aggregate Subgrade Improvement (ASI). RAP in ASI shall be according to Articles 1031.01(a), 1031.02(a), 1031.06(a)(1), and 1031.06(a)(2), and the following.

- (1) The testing requirements of Article 1031.03 shall not apply.
- (2) Crushed RAP used for the lower lift may be mechanically blended with aggregate gradations CS 1, CS 2, and RR 1 but it shall be no greater than 40 percent of the total product volume. RAP agglomerations shall be no greater than 4 in. (100 mm).
- (3) For capping aggregate, well graded RAP having 100 percent passing the 1 1/2 in. (38 mm) sieve may be used when aggregate gradations CS 1, CS 2, CA 2, or RR 1 are used in the lower lift. FRAP will not be permitted as capping material.

Blending shall be through calibrated interlocked feeders or a calibrated blending plant such that the prescribed blending percentage is maintained throughout the blending process. The calibration shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered.”

CEMENT, FINELY DIVIDED MINERALS, ADMIXTURES; CONCRETE, AND MORTAR (BDE)

Effective: January 1, 2025

Revise the first paragraph of Article 285.05 of the Standard Specifications to read:

“285.05 Fabric Formed Concrete Revetment Mat. The grout shall consist of a mixture of cement, fine aggregate, and water so proportioned and mixed as to provide a pumpable slurry. Fly ash or ground granulated blast furnace (GGBF) slag, and concrete admixtures may be used at the option of the Contractor. The grout shall have an air content of not less than 6.0 percent nor more than 9.0 percent of the volume of the grout. The mix shall obtain a compressive strength of 2500 psi (17,000 kPa) at 28 days according to Article 1020.09.”

Revise Article 302.02 of the Standard Specifications to read:

“302.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Hydrated Lime	1012.01
(d) By-Product, Hydrated Lime	1012.02
(e) By-Product, Non-Hydrated Lime	1012.03
(f) Lime Slurry	1012.04
(g) Fly Ash	1010
(h) Soil for Soil Modification (Note 1)	1009.01
(i) Bituminous Materials (Note 2)	1032

Note 1. This soil requirement only applies when modifying with lime (slurry or dry).

Note 2. The bituminous materials used for curing shall be emulsified asphalt RS-2, CRS-2, HFE 90, or HFE 150; rapid curing liquid asphalt RC-70; or medium curing liquid asphalt MC-70 or MC-250.”

Revise Article 312.07(c) of the Standard Specifications to read:

“(c) Cement1001”

Add Article 312.07(i) of the Standard Specifications to read:

“(i) Ground Granulated Blast Furnace (GGBF) Slag1010”

Revise the first paragraph of Article 312.09 of the Standard Specifications to read:

“312.09 Proportioning and Mix Design. At least 60 days prior to start of placing CAM II, the Contractor shall submit samples of materials to be used in the work for proportioning and testing.

The mixture shall contain a minimum of 200 lb (120 kg) of cement per cubic yard (cubic meter). Cement may be replaced with fly ash or ground granulated blast furnace (GGBF) slag according to Article 1020.05(c)(1) or 1020.05(c)(2), respectively, however the minimum cement content in the mixture shall be 170 lbs/cu yd (101 kg/cu m). Blends of coarse and fine aggregates will be permitted, provided the volume of fine aggregate does not exceed the volume of coarse aggregate. The Engineer will determine the proportions of materials for the mixture according to the "Portland Cement Concrete Level III Technician Course" manual. However, the Contractor may substitute their own mix design. Article 1020.05(a) shall apply, and a Level III PCC Technician shall develop the mix design."

Revise Article 352.02 of the Standard Specifications to read:

"352.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement (Note 1)	1001
(b) Soil for Soil-Cement Base Course	1009.03
(c) Water	1002
(d) Bituminous Materials (Note 2)	1032

Note 1. Bulk cement may be used for the traveling mixing plant method if the equipment for handling, weighing, and spreading the cement is approved by the Engineer.

Note 2. The bituminous materials used for curing shall be emulsified asphalt RS-2, CRS-2, HFE 90, or HFE 150; rapid curing liquid asphalt RC-70; or medium curing liquid asphalt MC-70 or MC-250."

Revise Article 404.02 of the Standard Specifications to read:

"404.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	1003.08
(d) Bituminous Material (Tack Coat)	1032.06
(e) Emulsified Asphalts (Note 1) (Note 2)	1032.06
(f) Fiber Modified Joint Sealer	1050.05
(g) Additives (Note 3)	

Note 1. When used for slurry seal, the emulsified asphalt shall be CQS-1h according to Article 1032.06(b).

Note 2. When used for micro-surfacing, the emulsified asphalt shall be CQS-1hP according to Article 1032.06(e).

Note 3. Additives may be added to the emulsion mix or any of the component materials to provide the control of the quick-traffic properties. They shall be included as part of the mix design and be compatible with the other components of the mix.

Revise the last sentence of the fourth paragraph of Article 404.08 of the Standard Specifications to read:

“When approved by the Engineer, the sealant may be dusted with fine sand, cement, or mineral filler to prevent tracking.”

Revise Note 2 of Article 516.02 of the Standard Specifications to read:

“Note 2. The sand-cement grout mix shall be according to Section 1020 and shall be a 1:1 blend of sand and cement comprised of a Type I, IL, or II cement at 185 lb/cu yd (110 kg/cu m). The maximum water cement ratio shall be sufficient to provide a flowable mixture with a typical slump of 10 in. (250 mm).”

Revise Note 2 of Article 543.02 of the Standard Specifications to read:

“Note 2. The grout mixture shall be 6.50 hundredweight/cu yd (385 kg/cu m) of cement plus fine aggregate and water. Fly ash or ground granulated blast furnace (GGBF) slag may replace a maximum of 5.25 hundredweight/cu yd (310 kg/cu m) of the cement. The water/cement ratio, according to Article 1020.06, shall not exceed 0.60. An air-entraining admixture shall be used to produce an air content, according to Article 1020.08, of not less than 6.0 percent nor more than 9.0 percent of the volume of the grout. The Contractor shall have the option to use a water-reducing or high range water-reducing admixture.”

Revise Article 583.01 of the Standard Specifications to read:

“**583.01 Description.** This work shall consist of placing cement mortar along precast, prestressed concrete bridge deck beams as required for fairing out any unevenness between adjacent deck beams prior to placing of waterproofing membrane and surfacing.”

Revise Article 583.02(a) of the Standard Specifications to read:

“(a) Cement1001”

Revise the first paragraph of Article 583.03 of the Standard Specifications to read:

“**583.03 General.** This work shall only be performed when the air temperature is 45 °F (7 °C) and rising. The mixture for cement mortar shall consist of three parts sand to one part cement by volume. The amount of water shall be no more than that necessary to produce a workable, plastic mortar.”

Revise Note 2/ in Article 1003.01(b) of the Standard Specifications to read:

“2/ Applies only to sand. Sand exceeding the colorimetric test standard of 11 (Illinois Modified AASHTO T 21) will be checked for mortar making properties according to Illinois Modified ASTM C 87 and shall develop a compressive strength at the age of 14 days when using Type I, IL, or II cement of not less than 95 percent of the comparable standard.

Revise the second sentence of Article 1003.02(e)(1) of the Standard Specifications to read:

“The test will be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.90 percent or greater.”

Revise the first sentence of the second paragraph of Article 1003.02(e)(3) of the Standard Specifications to read:

“The ASTM C 1293 test shall be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.80 percent or greater.”

Revise the second sentence of Article 1004.02(g)(1) of the Standard Specifications to read:

“The test will be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.90 percent or greater.”

Revise Article 1017.01 of the Standard Specifications to read:

“1017.01 Requirements. The mortar shall be high-strength according to ASTM C 387 and shall have a minimum 80.0 percent relative dynamic modulus of elasticity when tested by the Department according to Illinois Modified AASHTO T 161 or AASHTO T 161 when tested by an independent lab. The high-strength mortar shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the high-strength mortar shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the high-strength mortar shall be according to the manufacturer’s specifications. The Department will maintain a qualified product list.”

Revise the fourth sentence of Article 1018.01 of the Standard Specifications to read:

“The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department.”

Revise Article 1019.02 of the Standard Specifications to read:

“1019.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002

- (c) Fine Aggregate for Controlled Low-Strength Material (CLSM) 1003.06
- (d) Fly Ash 1010
- (e) Ground Granulated Blast Furnace (GGBF) Slag..... 1010
- (f) Admixtures (Note 1)

Note 1. The air-entraining admixture may be in powder or liquid form. Prior to approval, a CLSM air-entraining admixture will be evaluated by the Department. The admixture shall be able to meet the air content requirements of Mix 2. The Department will maintain a qualified product list.”

Revise Article 1019.05 of the Standard Specifications to read:

“**1019.05 Department Mix Design.** The Department mix design shall be Mix 1, 2, or 3 and shall be proportioned to yield approximately one cubic yard (cubic meter).

Mix 1	
Cement	50 lb (30 kg)
Fly Ash – Class C or F, and/or GGBF Slag	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2900 lb (1720 kg)
Water	50-65 gal (248-322 L)
Air Content	No air is entrained

Mix 2	
Cement	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2500 lb (1483 kg)
Water	35-50 gal (173-248 L)
Air Content	15-25 %

Mix 3	
Cement	40 lb (24 kg)
Fly Ash – Class C or F, and/or GGBF Slag	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2500 lb (1483 kg)
Water	35-50 gal (179-248 L)
Air Content	15-25 %”

Revise Article 1020.04, Table 1, Note (8) of the Standard Specifications to read:

“(8) In addition to the Type III portland cement, 100 lb/cu yd of ground granulated blast-furnace slag and 50 lb/cu yd of microsilica (silica fume) shall be used. For an air temperature greater than 85 °F, the Type III portland cement may be replaced with Type I, IL, or II portland cement.”

Revise Article 1020.04, Table 1 (Metric), Note (8) of the Standard Specifications to read:

“(8) In addition to the Type III portland cement, 60 kg/cu m of ground granulated blast-furnace slag and 30 kg/cu m of microsilica (silica fume) shall be used. For an air temperature greater than 30 °C, the Type III portland cement may be replaced with Type I, IL, or II portland cement.”

Revise the second paragraph of Article 1020.05(a) of the Standard Specifications to read:

“For a mix design using a portland-pozzolan cement, portland blast-furnace slag cement, portland-limestone cement, or replacing portland cement with finely divided minerals per Articles 1020.05(c) and 1020.05(d), the Contractor may submit a mix design with a minimum portland cement content less than 400 lbs/cu yd (237 kg/cu m), but not less than 375 lbs/cu yd (222 kg/cu m), if the mix design is shown to have a minimum relative dynamic modulus of elasticity of 80 percent determined according to AASHTO T 161. Testing shall be performed by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete.”

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

“Corrosion inhibitors and concrete admixtures shall be according to the qualified product lists.”

Delete the fourth and fifth sentences of the second paragraph of Article 1020.05(b) of the Standard Specifications.

Revise the third sentence of the second paragraph of Article 1020.05(b)(5) of the Standard Specifications to read:

“The qualified product lists of concrete admixtures shall not apply.”

Revise second paragraph of Article 1020.05(b)(10) of the Standard Specifications to read:

“When calcium nitrite is used, it shall be added at the rate of 4 gal/cu yd (20 L/cu m) and shall be added to the mix immediately after all compatible admixtures have been introduced to the batch. Other corrosion inhibitors shall be added per the manufacturer's specifications.”

Delete the third paragraph of Article 1020.05(b)(10) of the Standard Specifications.

Revise Article 1020.15(b)(1)c. of the Standard Specifications to read:

“c. The minimum portland cement content in the mixture shall be 375 lbs/cu yd (222 kg/cu m). When the total of organic processing additions, inorganic processing additions, and limestone addition exceed 5.0 percent in the cement, the minimum portland cement content in the mixture shall be 400 lbs/cu yd (237 kg/cu m). For a drilled shaft, foundation, footing, or substructure, the

minimum portland cement may be reduced to as low as 330 lbs/cu yd (196 kg/cu m) if the concrete has adequate freeze/thaw durability. The Contractor shall provide freeze/thaw test results according to AASHTO T 161, and the relative dynamic modulus of elasticity of the mix design shall be a minimum of 80 percent. Testing shall be performed by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete. Freeze/thaw testing will not be required for concrete that will not be exposed to freezing and thawing conditions as determined by the Engineer.”

Revise Article 1021.01 of the Standard Specifications to read:

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

Concrete admixtures shall be on one of the Department's qualified product lists. Unless otherwise noted, admixtures shall have successfully completed and remain current with the AASHTO Product Eval and Audit Concrete Admixture (CADD) testing program. For admixture submittals to the Department; the product brand name, manufacturer name, admixture type or types, an electronic link to the product's technical data sheet, and the NTPEP testing number which contains an electronic link to all test data shall be provided. In addition, a letter shall be submitted certifying that no changes have been made in the formulation of the material since the most current round of tests conducted by AASHTO Product Eval and Audit. After 28 days of testing by AASHTO Product Eval and Audit, air-entraining admixtures may be provisionally approved and used on Departmental projects. For all other admixtures, unless otherwise noted, the time period after which provisionally approved status may be earned is 6 months.

The manufacturer shall include the following in the submittal to the AASHTO Product Eval and Audit CADD testing program: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and manufacturing range of pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range established by the manufacturer shall be according to AASHTO M 194. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to AASHTO M 194.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, 1021.07, and 1021.08, the pH allowable manufacturing range established by the manufacturer shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to AASHTO M 194.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass) as determined by an appropriate test method. To verify the test result, the Department will use Illinois Modified AASHTO T 260, Procedure A, Method 1.

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

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

Revise Article 1021.03 of the Standard Specifications to read:

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

- (a) Retarding admixtures shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) Water-reducing admixtures shall be according to AASHTO M 194, Type A.
- (c) High range water-reducing admixtures shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).”

Revise Article 1021.05 of the Standard Specifications to read:

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

High range water-reducing admixtures shall be according to AASHTO M 194, Type F.

Viscosity modifying admixtures shall be according to AASHTO M 194, Type S (specific performance).”

Revise Article 1021.06 of the Standard Specifications to read:

“1021.06 Rheology-Controlling Admixture. Rheology-controlling admixtures shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. Rheology-controlling admixtures shall be according to AASHTO M 194, Type S (specific performance).”

Revise Article 1021.07 of the Standard Specifications to read:

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

(a) Calcium Nitrite. Corrosion inhibitors shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution and shall comply with either the requirements of AASHTO M 194, Type C (accelerating) or the requirements of ASTM C 1582. The corrosion inhibiting performance requirements of ASTM C 1582 shall not apply.

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

For submittals requiring testing according to ASTM M 194, Type C (accelerating), the admixture shall meet the requirements of the AASHTO Product Eval and Audit CADD testing program according to Article 1021.01.

For submittals requiring testing according to ASTM C 1582, a report prepared by an independent laboratory accredited by AASHTO re:source for portland cement concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, ASTM G 109 test information specified in ASTM C 1582 is not required to be from an independent accredited lab. All other information in ASTM C 1582 shall be from an independent accredited lab. Test data and other information required to be submitted to AASHTO Product Eval and Audit according to Article 1021.01, shall instead be submitted directly to the Department.”

Add Article 1021.08 of the Standard Specifications as follows:

“1021.08 Other Specific Performance Admixtures. Other specific performance admixtures shall, at a minimum, be according to AASHTO M 194, Type S (specific performance). The Department also reserves the right to require other testing, as determined by the Engineer, to show evidence of specific performance characteristics.

Initial testing according to AASHTO M 194 may be conducted under the AASHTO Product Eval and Audit CADD testing program according to Article 1021.01, or by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete. In either case, test data and other information required to be submitted to AASHTO Product Eval and Audit according to Article 1021.01, shall also be submitted directly to the Department. The independent accredited lab report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications.”

Revise Article 1024.01 of the Standard Specifications to read:

“1024.01 Requirements for Grout. The grout shall be proportioned by dry volume, thoroughly mixed, and shall have a minimum temperature of 50 °F (10 °C). Water shall not exceed the minimum needed for placement and finishing.

Materials for the grout shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	1003.02
(d) Fly Ash	1010
(e) Ground Granulated Blast Furnace (GGBF) Slag.....	1010
(f) Concrete Admixtures	1021”

Revise Note 1 of Article 1024.02 of the Standard Specifications to read:

“Note 1. Nonshrink grout shall be according to Illinois Modified ASTM C 1107.

The nonshrink grout shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the grout shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the nonshrink grout shall be according to the manufacturer’s specifications. The Department will maintain a qualified product list.”

Revise Article 1029.02 of the Standard Specifications to read:

“1029.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Cement.....	1001
(b) Fly Ash	1010
(c) Ground Granulated Blast Furnace (GGBF) Slag	1010
(d) Water.....	1002
(e) Fine Aggregate.....	1003
(f) Concrete Admixtures	1021
(g) Foaming Agent (Note 1)	

Note 1. The manufacturer shall submit infrared spectrophotometer trace and test results indicating the foaming agent meets the requirements of ASTM C 869 in order to be on the Department’s qualified product list. Submitted data/results shall not be more than five years old.”

Revise the second paragraph of Article 1103.03(a)(4) the Standard Specifications to read:

“The dispenser system shall provide a visual indication that the liquid admixture is actually entering the batch, such as via a transparent or translucent section of tubing or by independent check with an integrated secondary metering device. If approved by the Engineer, an alternate indicator may be used for admixtures dosed at rates of 25 oz/cwt (1630 mL/100 kg) or greater, such as accelerating admixtures, corrosion inhibitors, and viscosity modifying admixtures.”

Revise the first two sections of Check Sheet #11 of the Supplemental Specifications and Recurring Special Provisions to read:

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

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

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fly Ash	1010
(d) Ground Granulated Blast Furnace (GGBF) Slag.....	1010
(e) Admixtures	1021
(f) Packaged Rapid Hardening Mortar or Concrete	1018”

Revise the third paragraph of Materials Note 2 of Check Sheet #28 of the Supplemental Specifications and Recurring Special Provisions to read:

“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 AASHTO re:source 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.”

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

Revised: April 1, 2019

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

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

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

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

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

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

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

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

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the

Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

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

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

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

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

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

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

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

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

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

Add the following to Section 109 of the Standard Specifications.

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

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

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

- (a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.
- (b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.
 - (1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

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

	One Clerk
Over \$50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk

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

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

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

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

COMPLETION DATE (VIA CALENDAR DAYS) (BDE)

Effective: April 1, 2008

The Contractor shall complete all work on or before the completion date of this contract which will be based upon 35 calendar days.

The completion date will be determined by adding the specified number of calendar days to the date the Contractor begins work, or to the date ten days after execution of the contract, whichever is the earlier, unless a delayed start is granted by the Engineer.

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CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

Revised: January 1, 2025

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

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted according to the table below.

Horsepower Range	Model Year and Older
50-99	2003
100-299	2002
300-599	2000
600-749	2001
750 and up	2005

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

- a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (<https://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel>), or verified by the California Air Resources Board (CARB) (<http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

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

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

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

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

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

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

Diesel Retrofit Deficiency Deduction

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

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

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: January 2, 2025

1. OVERVIEW AND GENERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory. Award of the contract is conditioned on meeting the requirements of 49 CFR Part 26, and failure by the Contractor to carry out the requirements of Part 26 is a material breach of the contract and may result in the termination of the contract or such other remedies as the Department deems appropriate.
2. CONTRACTOR ASSURANCE. All assurances set forth in FHWA 1273 are hereby incorporated by reference and will be physically attached to the final contract and all subcontracts.
3. CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. The Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies and that, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform _____% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work in accordance with the requirements of 49 CFR 26.53 and SBE Memorandum No. 24-02.
4. IDENTIFICATION OF CERTIFIED DBE. Information about certified DBE Contractors can be found in the Illinois UCP Directory. Bidders can obtain additional information and assistance with identifying DBE-certified companies at the Department's website or by contacting the Department's Bureau of Small Business Enterprises at (217) 785-4611.
5. BIDDING PROCEDURES. Compliance with this Special Provision and SBE Policy Memorandum 24-02 is a material bidding requirement. The following shall be included with the bid.
 - (a) DBE Utilization Plan (form SBE 2026) documenting enough DBE participation has been obtained to meet the goal, or a good faith effort has been made to meet the goal even though the efforts did not succeed in obtaining enough DBE participation to meet the goal.

(b) Applicable DBE Participation Statement (form SBE 2023, 2024, and/or 2025) for each DBE firm the bidder has committed to perform the work to achieve the contract goal.

The required forms and documentation shall be submitted as a single .pdf file using the "Integrated Contractor Exchange (iCX)" application within the Department's "EBids System".

The Department will not accept a bid if it does not meet the bidding procedures set forth herein and the bid will be declared non-responsive. A bidder declared non-responsive for failure to meet the bidding procedures will not give rise to an administrative reconsideration. In the event the bid is declared non-responsive, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty and may deny authorization to bid the project if re-advertised for bids.

6. UTILIZATION PLAN EVALUATION. The contract will not be awarded until the Utilization Plan is approved. All information submitted by the bidder must be complete, accurate, and adequately document the bidder has committed to DBE participation sufficient to meet the goal, or that the bidder has made good faith efforts to do so, in the event the bidder cannot meet the goal, in order for the Department to commit to the performance of the contract by the bidder.

The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the Department determines, based upon the documentation submitted, that the bidder has made a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A and the requirements of SBE 2026.

If the Department determines that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan of that determination in accordance with SBE Policy Memorandum 24-02.

7. CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work the bidder commits to have performed by the specified DBEs and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE firms. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific guidelines for counting goal credit are provided in 49 CFR Part 26.55. In evaluating Utilization Plans for award the Department will count goal credit as set forth in Part 26 and in accordance with SBE Policy Memorandum 24-02.
8. CONTRACT COMPLIANCE. The Contractor must utilize the specific DBEs listed to perform the work and supply the materials for which each DBE is listed in the Contractor's approved Utilization Plan, unless the Contractor obtains the Department's written consent to

terminate the DBE or any portion of its work. The DBE Utilization Plan approved by SBE is a condition-of-award, and any deviation to that Utilization Plan, the work set forth therein to be performed by DBE firms, or the DBE firms specified to perform that work, must be approved, in writing, by the Department in accordance with federal regulatory requirements. Deviation from the DBE Utilization Plan condition-of-award without such written approval is a violation of the contract and may result in termination of the contract or such other remedy the Department deems appropriate. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan.

- (a) **NOTICE OF DBE PERFORMANCE.** The Contractor shall provide the Engineer with at least three days advance notice of when all DBE firms are expected to perform the work committed under the Contractor's Utilization Plan.
- (b) **SUBCONTRACT.** If awarded the contract, the Contractor is required to enter into written subcontracts with all DBE firms indicated in the approved Utilization Plan and must provide copies of fully executed DBE subcontracts to the Department upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (c) **PAYMENT TO DBE FIRMS.** The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goal has been paid to the DBE. The Contractor shall document and report all payments for work performed by DBE certified firms in accordance with Article 109.11 of the Standard Specifications. All records of payment for work performed by DBE certified firms shall be made available to the Department upon request.
- (d) **FINAL PAYMENT.** After the performance of the final item of work or trucking, or delivery of material by a DBE and final payment to the DBE by the Contractor, but not later than 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement (form SBE 2115) to the Engineer. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.
- (g) **ENFORCEMENT.** The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

ILLINOIS WORKS APPRENTICESHIP INITIATIVE – STATE FUNDED CONTRACTS (BDE)

Effective: June 2, 2021

Revised: April 2, 2024

Illinois Works Jobs Program Act (30 ILCS 559/20-1 et seq.). For contracts having an awarded contract value of \$500,000 or more, the Contractor shall comply with the Illinois Works Apprenticeship Initiative (30 ILCS 559/20-20 to 20-25) and all applicable administrative rules. The goal of the Illinois Apprenticeship Works Initiative is that apprentices will perform either 10% of the total labor hours actually worked in each prevailing wage classification or 10% of the estimated labor hours in each prevailing wage classification, whichever is less. Of this goal, at least 50% of the labor hours of each prevailing wage classification performed by apprentices shall be performed by graduates of the Illinois Works Pre-Apprenticeship Program, the Illinois Climate Works Pre-Apprenticeship Program, or the Highway Construction Careers Training Program.

The Contractor may seek from the Department of Commerce and Economic Opportunity (DCEO) a waiver or reduction of this goal in certain circumstances pursuant to 30 ILCS 559/20-20(b). The Contractor shall ensure compliance during the term of the contract and will be required to report on and certify its compliance. An apprentice use plan, apprentice hours, and a compliance certification shall be submitted to the Engineer on forms provided by the Department and/or DCEO.

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PERFORMANCE GRADED ASPHALT BINDER (BDE)

Effective: January 1, 2023

Revise Article 1032.05 of the Standard Specifications to read:

“1032.05 Performance Graded Asphalt Binder. These materials will be accepted according to the Bureau of Materials Policy Memorandum, “Performance Graded Asphalt Binder Qualification Procedure.” The Department will maintain a qualified producer list. These materials shall be free from water and shall not foam when heated to any temperature below the actual flash point. Air blown asphalt, recycle engine oil bottoms (ReOB), and polyphosphoric acid (PPA) modification shall not be used.

When requested, producers shall provide the Engineer with viscosity/temperature relationships for the performance graded asphalt binders delivered and incorporated in the work.

- (a) Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans and the following.

Test	Parameter
Small Strain Parameter (AASHTO PP 113) BBR, ΔT_c , 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	-5 °C min.

- (b) Modified Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans.

Asphalt binder modification shall be performed at the source, as defined in the Bureau of Materials Policy Memorandum, “Performance Graded Asphalt Binder Qualification Procedure.”

Modified asphalt binder shall be safe to handle at asphalt binder production and storage temperatures or HMA construction temperatures. Safety Data Sheets (SDS) shall be provided for all asphalt modifiers.

- (1) Polymer Modification (SB/SBS or SBR). Elastomers shall be added to the base asphalt binder to achieve the specified performance grade and shall be either a styrene-butadiene diblock, triblock copolymer without oil extension, or a styrene-butadiene rubber. The polymer modified asphalt binder shall be smooth, homogeneous, and be according to the requirements shown in Table 1 or 2 for the grade shown on the plans.

Table 1 - Requirements for Styrene-Butadiene Copolymer (SB/SBS) Modified Asphalt Binders		
Test	Asphalt Grade SB/SBS PG 64-28 SB/SBS PG 70-22	Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SB/SBS PG 76-22 SB/SBS PG 76-28
Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions	4 (2) max.	4 (2) max.
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

Table 2 - Requirements for Styrene-Butadiene Rubber (SBR) Modified Asphalt Binders		
Test	Asphalt Grade SBR PG 64-28 SBR PG 70-22	Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SBR PG 76-22 SBR PG 76-28
Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions	4 (2) max.	4 (2) max.
Toughness ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m)	110 (12.5) min.	110 (12.5) min.
Tenacity ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m)	75 (8.5) min.	75 (8.5) min.
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	40 min.	50 min.

- (2) Ground Tire Rubber (GTR) Modification. GTR modification is the addition of recycled ground tire rubber to liquid asphalt binder to achieve the specified performance grade. GTR shall be produced from processing automobile and/or truck tires by the ambient

grinding method or micronizing through a cryogenic process. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall not contain free metal particles, moisture that would cause foaming of the asphalt, or other foreign materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois Modified AASHTO T 27 "Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates" or AASHTO PP 74 "Standard Practice for Determination of Size and Shape of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method", a 50 g sample of the GTR shall conform to the following gradation requirements.

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 μ m)	95 $\pm$ 5
No. 50 (300 μ m)	> 20

GTR modified asphalt binder shall be tested for rotational viscosity according to AASHTO T 316 using spindle S27. GTR modified asphalt binder shall be tested for original dynamic shear and RTFO dynamic shear according to AASHTO T 315 using a gap of 2 mm.

The GTR modified asphalt binder shall meet the requirements of Table 3.

Table 3 - Requirements for Ground Tire Rubber (GTR) Modified Asphalt Binders		
Test	Asphalt Grade GTR PG 64-28 GTR PG 70-22	Asphalt Grade GTR PG 76-22 GTR PG 76-28 GTR PG 70-28
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

- (3) Softener Modification (SM). Softener modification is the addition of organic compounds, such as engineered flux, bio-oil blends, modified vegetable oils, glycol amines, and fatty acid derivatives, to the base asphalt binder to achieve the specified performance grade. Softeners shall be dissolved, dispersed, or reacted in the asphalt binder to enhance its performance and shall remain compatible with the asphalt binder with no separation. Softeners shall not be added to modified PG asphalt binder as defined in Articles 1032.05(b)(1) or 1032.05(b)(2).

An Attenuated Total Reflectance-Fourier Transform Infrared spectrum (ATR-FTIR) shall be collected for both the softening compound as well as the softener modified

asphalt binder at the dose intended for qualification. The ATR-FTIR spectra shall be collected on unaged softener modified binder, 20-hour Pressurized Aging Vessel (PAV) aged softener modified binder, and 40-hour PAV aged softener modified binder. The ATR-FTIR shall be collected in accordance with Illinois Test Procedure 601. The electronic files spectral files (in one of the following extensions or equivalent: *.SPA, *.SPG, *.IRD, *.IFG, *.CSV, *.SP, *.IRS, *.GAML, *. [0-9], *.IGM, *.ABS, *.DRT, *.SBM, *.RAS) shall be submitted to the Central Bureau of Materials.

Softener modified asphalt binders shall meet the requirements in Table 4.

Table 4 - Requirements for Softener Modified Asphalt Binders	
Test	Asphalt Grade
	SM PG 46-28 SM PG 46-34 SM PG 52-28 SM PG 52-34 SM PG 58-22 SM PG 58-28 SM PG 64-22
Small Strain Parameter (AASHTO PP 113) BBR, ΔT_c , 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	-5°C min.
Large Strain Parameter (Illinois Modified AASHTO T 391) DSR/LAS Fatigue Property, $\Delta G^* _{peak}$, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	≥ 54 %

The following grades may be specified as tack coats.

Asphalt Grade	Use
PG 58-22, PG 58-28, PG 64-22	Tack Coat"

Revise Article 1031.06(c)(1) and 1031.06(c)(2) of the Standard Specifications to read:

“(1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin ABR shall not exceed the amounts listed in the following table.

HMA Mixtures - RAP/RAS Maximum ABR % ^{1/ 2/}			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface ^{3/}
30	30	30	10
50	25	15	10
70	15	10	10
90	10	10	10

1/ For Low ESAL HMA shoulder and stabilized subbase, the RAP/RAS ABR shall not exceed 50 percent of the mixture.

- 2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
- 3/ The maximum ABR percentages for ground tire rubber (GTR) modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.
- (2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the following table.

HMA Mixtures - FRAP/RAS Maximum ABR % ^{1/ 2/}			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface ^{3/}
30	55	45	15
50	45	40	15
70	45	35	15
90	45	35	15
SMA	- -	- -	25
IL-4.75	- -	- -	35

- 1/ For Low ESAL HMA shoulder and stabilized subbase, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
- 3/ The maximum ABR percentages for GTR modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.”

Add the following to the end of Note 2 of Article 1030.03 of the Standard Specifications.

“A dedicated storage tank for the ground tire rubber (GTR) modified asphalt binder shall be provided. This tank shall be capable of providing continuous mechanical mixing throughout and/or recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent.”

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2024

Revised: April 1, 2024

Revise the first paragraph of Article 669.04 of the Standard Specifications to read:

“669.04 Regulated Substances Monitoring. Regulated substances monitoring includes environmental observation and field screening during regulated substances management activities. The excavated soil and groundwater within the work areas shall be managed as either uncontaminated soil, hazardous waste, special waste, or non-special waste.

As part of the regulated substances monitoring, the monitoring personnel shall perform and document the applicable duties listed on form BDE 2732 “Regulated Substances Monitoring Daily Record (RSMDR).”

Revise the first two sentences of the nineteenth paragraph of Article 669.05 of the Standard Specifications to read:

“The Contractor shall coordinate waste disposal approvals with the disposal facility and provide the specific analytical testing requirements of that facility. The Contractor shall make all arrangements for collection, transportation, and analysis of landfill acceptance testing.”

Revise the last paragraph of Article 669.05 of the Standard Specifications to read:

“The Contractor shall select a permitted landfill facility or CCDD/USFO facility meeting the requirements of 35 Ill. Admin. Code Parts 810-814 or Part 1100, respectively. The Department will review and approve or reject the facility proposed by the Contractor based upon information provided in BDE 2730. The Contractor shall verify whether the selected facility is compliant with those applicable standards as mandated by their permit and whether the facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The use of a Contractor selected facility shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth.”

Revise the first paragraph of Article 669.07 of the Standard Specifications to read:

“669.07 Temporary Staging. Soil classified according to Articles 669.05(a)(2), (b)(1), or (c) may be temporarily staged at the Contractor's option. All other soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) shall be managed and disposed of without temporary staging to the greatest extent practicable. If circumstances beyond the Contractor's control require temporary staging of these latter materials, the Contractor shall request approval from the Engineer in writing.

Topsoil for re-use as final cover which has been field screened and found not to exhibit PID readings over daily background readings as documented on the BDE 2732, visual staining or

odors, and is classified according to Articles 669.05(a)(2), (a)(3), (a)(4), (b)(1), or (c) may be temporarily staged at the Contractor's option."

Add the following paragraph after the sixth paragraph of Article 669.11 of the Standard Specifications.

"The sampling and testing of effluent water derived from dewatering discharges for priority pollutants volatile organic compounds (VOCs), priority pollutants semi-volatile organic compounds (SVOCs), or priority pollutants metals, will be paid for at the contract unit price per each for VOCS GROUNDWATER ANALYSIS using EPA Method 8260B, SVOCS GROUNDWATER ANALYSIS using EPA Method 8270C, or RCRA METALS GROUNDWATER ANALYSIS using EPA Methods 6010B and 7471A. This price shall include transporting the sample from the job site to the laboratory."

Revise the first sentence of the eight paragraph of Article 669.11 of the Standard Specifications to read:

"Payment for temporary staging of soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) to be managed and disposed of, if required and approved by the Engineer, will be paid according to Article 109.04."

SEEDING (BDE)

Effective: November 1, 2022

Revise Article 250.07 of the Standard Specifications to read:

“250.07 Seeding Mixtures. The classes of seeding mixtures and combinations of mixtures will be designated in the plans.

When an area is to be seeded with two or more seeding classes, those mixtures shall be applied separately on the designated area within a seven day period. Seeding shall occur prior to placement of mulch cover. A Class 7 mixture can be applied at any time prior to applying any seeding class or added to them and applied at the same time.

TABLE 1 - SEEDING MIXTURES		
Class - Type	Seeds	lb/acre (kg/hectare)
1 Lawn Mixture 1/	Kentucky Bluegrass Perennial Ryegrass <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue)	100 (110) 60 (70) 40 (50)
1A Salt Tolerant Lawn Mixture 1/	Kentucky Bluegrass Perennial Ryegrass <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) <i>Festuca brevipilla</i> (Hard Fescue) <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass)	60 (70) 20 (20) 20 (20) 20 (20) 60 (70)
1B Low Maintenance Lawn Mixture 1/	Turf-Type Fine Fescue 3/ Perennial Ryegrass Red Top <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue)	150 (170) 20 (20) 10 (10) 20 (20)
2 Roadside Mixture 1/	<i>Lolium arundinaceum</i> (Tall Fescue) Perennial Ryegrass <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) Red Top	100 (110) 50 (55) 40 (50) 10 (10)
2A Salt Tolerant Roadside Mixture 1/	<i>Lolium arundinaceum</i> (Tall Fescue) Perennial Ryegrass <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) <i>Festuca brevipila</i> (Hard Fescue) <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass)	60 (70) 20 (20) 30 (20) 30 (20) 60 (70)
3 Northern Illinois Slope Mixture 1/	<i>Elymus canadensis</i> (Canada Wild Rye) 5/ Perennial Ryegrass Alsike Clover 4/ <i>Desmanthus illinoensis</i> (Illinois Bundleflower) 4/ 5/ <i>Schizachyrium scoparium</i> (Little Bluestem) 5/ <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass) Oats, Spring Slender Wheat Grass 5/ Buffalo Grass 5/ 7/	5 (5) 20 (20) 5 (5) 2 (2) 12 (12) 10 (10) 30 (35) 50 (55) 15 (15) 5 (5)
3A Southern Illinois Slope Mixture 1/	Perennial Ryegrass <i>Elymus canadensis</i> (Canada Wild Rye) 5/ <i>Panicum virgatum</i> (Switchgrass) 5/ <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ <i>Dalea candida</i> (White Prairie Clover) 4/ 5/ <i>Rudbeckia hirta</i> (Black-Eyed Susan) 5/ Oats, Spring	20 (20) 20 (20) 10 (10) 12 (12) 10 (10) 5 (5) 5 (5) 50 (55)

Class – Type		Seeds	lb/acre (kg/hectare)
4	Native Grass 2/ 6/	<i>Andropogon gerardi</i>	4 (4)
		(Big Blue Stem) 5/	
		<i>Schizachyrium scoparium</i>	5 (5)
		(Little Blue Stem) 5/	
		<i>Bouteloua curtipendula</i>	5 (5)
		(Side-Oats Grama) 5/	
		<i>Elymus canadensis</i>	1 (1)
		(Canada Wild Rye) 5/	
		<i>Panicum virgatum</i> (Switch Grass) 5/	1 (1)
		<i>Sorghastrum nutans</i> (Indian Grass) 5/	2 (2)
4A	Low Profile Native Grass 2/ 6/	Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Perennial Ryegrass	15 (15)
		<i>Schizachyrium scoparium</i>	5 (5)
		(Little Blue Stem) 5/	
		<i>Bouteloua curtipendula</i>	5 (5)
		(Side-Oats Grama) 5/	
		<i>Elymus canadensis</i>	1 (1)
		(Canada Wild Rye) 5/	
		<i>Sporobolus heterolepis</i>	0.5 (0.5)
4B	Wetland Grass and Sedge Mixture 2/ 6/	Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Wetland Grasses (species below) 5/	6 (6)
		<u>Species:</u>	<u>% By Weight</u>
		<i>Calamagrostis canadensis</i> (Blue Joint Grass)	12
		<i>Carex lacustris</i> (Lake-Bank Sedge)	6
		<i>Carex slipata</i> (Awl-Fruited Sedge)	6
		<i>Carex stricta</i> (Tussock Sedge)	6
		<i>Carex vulpinoidea</i> (Fox Sedge)	6
		<i>Eleocharis acicularis</i> (Needle Spike Rush)	3
		<i>Eleocharis obtusa</i> (Blunt Spike Rush)	3
		<i>Glyceria striata</i> (Fowl Manna Grass)	14
		<i>Juncus effusus</i> (Common Rush)	6
		<i>Juncus tenuis</i> (Slender Rush)	6
		<i>Juncus torreyi</i> (Torrey's Rush)	6
		<i>Leersia oryzoides</i> (Rice Cut Grass)	10
		<i>Scirpus acutus</i> (Hard-Stemmed Bulrush)	3
		<i>Scirpus atrovirens</i> (Dark Green Rush)	3
		<i>Bolboschoenus fluviatilis</i> (River Bulrush)	3
		<i>Schoenoplectus tabernaemontani</i> (Softstem Bulrush)	3
		<i>Spartina pectinata</i> (Cord Grass)	4

Class – Type	Seeds	lb/acre (kg/hectare)
5	Forb with Annuals Mixture 2/ 5/ 6/ Annuals Mixture (Below) Forb Mixture (Below)	1 (1) 10 (10)
Annuals Mixture - Mixture not exceeding 25 % by weight of any one species, of the following: <i>Coreopsis lanceolata</i> (Sand Coreopsis) <i>Leucanthemum maximum</i> (Shasta Daisy) <i>Gaillardia pulchella</i> (Blanket Flower) <i>Ratibida columnifera</i> (Prairie Coneflower) <i>Rudbeckia hirta</i> (Black-Eyed Susan) Forb Mixture - Mixture not exceeding 5 % by weight PLS of any one species, of the following: <i>Amorpha canescens</i> (Lead Plant) 4/ <i>Anemone cylindrica</i> (Thimble Weed) <i>Asclepias tuberosa</i> (Butterfly Weed) <i>Aster azureus</i> (Sky Blue Aster) <i>Symphyotrichum leave</i> (Smooth Aster) <i>Aster novae-angliae</i> (New England Aster) <i>Baptisia leucantha</i> (White Wild Indigo) 4/ <i>Coreopsis palmata</i> (Prairie Coreopsis) <i>Echinacea pallida</i> (Pale Purple Coneflower) <i>Eryngium yuccifolium</i> (Rattlesnake Master) <i>Helianthus mollis</i> (Downy Sunflower) <i>Heliopsis helianthoides</i> (Ox-Eye) <i>Liatris aspera</i> (Rough Blazing Star) <i>Liatris pycnostachya</i> (Prairie Blazing Star) <i>Monarda fistulosa</i> (Prairie Bergamot) <i>Parthenium integrifolium</i> (Wild Quinine) <i>Dalea candida</i> (White Prairie Clover) 4/ <i>Dalea purpurea</i> (Purple Prairie Clover) 4/ <i>Physostegia virginiana</i> (False Dragonhead) <i>Potentilla arguta</i> (Prairie Cinquefoil) <i>Ratibida pinnata</i> (Yellow Coneflower) <i>Rudbeckia subtomentosa</i> (Fragrant Coneflower) <i>Silphium laciniatum</i> (Compass Plant) <i>Silphium terebinthinaceum</i> (Prairie Dock) <i>Oligoneuron rigidum</i> (Rigid Goldenrod) <i>Tradescantia ohiensis</i> (Spiderwort) <i>Veronicastrum virginicum</i> (Culver's Root)		

Class – Type		Seeds	lb/acre (kg/hectare)
5A	Large Flower Native Forb Mixture 2/ 5/ 6/	Forb Mixture (see below)	5 (5)
	<u>Species:</u>	<u>% By Weight</u>	
	<i>Aster novae-angliae</i> (New England Aster)	5	
	<i>Echinacea pallida</i> (Pale Purple Coneflower)	10	
	<i>Helianthus mollis</i> (Downy Sunflower)	10	
	<i>Heliopsis helianthoides</i> (Ox-Eye)	10	
	<i>Liatris pycnostachya</i> (Prairie Blazing Star)	10	
	<i>Ratibida pinnata</i> (Yellow Coneflower)	5	
	<i>Rudbeckia hirta</i> (Black-Eyed Susan)	10	
	<i>Silphium laciniatum</i> (Compass Plant)	10	
	<i>Silphium terebinthinaceum</i> (Prairie Dock)	20	
	<i>Oligoneuron rigidum</i> (Rigid Goldenrod)	10	
5B	Wetland Forb 2/ 5/ 6/	Forb Mixture (see below)	2 (2)
	<u>Species:</u>	<u>% By Weight</u>	
	<i>Acorus calamus</i> (Sweet Flag)	3	
	<i>Angelica atropurpurea</i> (Angelica)	6	
	<i>Asclepias incarnata</i> (Swamp Milkweed)	2	
	<i>Aster puniceus</i> (Purple Stemmed Aster)	10	
	<i>Bidens cernua</i> (Beggarticks)	7	
	<i>Eutrochium maculatum</i> (Spotted Joe Pye Weed)	7	
	<i>Eupatorium perfoliatum</i> (Boneset)	7	
	<i>Helenium autumnale</i> (Autumn Sneezeweed)	2	
	<i>Iris virginica shrevei</i> (Blue Flag Iris)	2	
	<i>Lobelia cardinalis</i> (Cardinal Flower)	5	
	<i>Lobelia siphilitica</i> (Great Blue Lobelia)	5	
	<i>Lythrum alatum</i> (Winged Loosestrife)	2	
	<i>Physostegia virginiana</i> (False Dragonhead)	5	
	<i>Persicaria pensylvanica</i> (Pennsylvania Smartweed)	10	
	<i>Persicaria lapathifolia</i> (Curlytop Knotweed)	10	
	<i>Pycnanthemum virginianum</i> (Mountain Mint)	5	
	<i>Rudbeckia laciniata</i> (Cut-leaf Coneflower)	5	
	<i>Oligoneuron riddellii</i> (Riddell Goldenrod)	2	
	<i>Sparganium eurycarpum</i> (Giant Burreed)	5	
6	Conservation Mixture 2/ 6/	<i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Elymus canadensis</i> (Canada Wild Rye) 5/ Buffalo Grass 5/ 7/ Vernal Alfalfa 4/ Oats, Spring	5 (5) 2 (2) 5 (5) 15 (15) 48 (55)
6A	Salt Tolerant Conservation Mixture 2/ 6/	<i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Elymus canadensis</i> (Canada Wild Rye) 5/ Buffalo Grass 5/ 7/ Vernal Alfalfa 4/ Oats, Spring <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass)	5 (5) 2 (2) 5 (5) 15 (15) 48 (55) 20 (20)
7	Temporary Turf Cover Mixture	Perennial Ryegrass Oats, Spring	50 (55) 64 (70)

Notes:

- 1/ Seeding shall be performed when the ambient temperature has been between 45 °F (7 °C) and 80 °F (27 °C) for a minimum of seven (7) consecutive days and is forecasted to be the same for the next five (5) days according to the National Weather Service.
- 2/ Seeding shall be performed in late fall through spring beginning when the ambient temperature has been below 45 °F (7 °C) for a minimum of seven (7) consecutive days and ending when the ambient temperature exceeds 80 °F (27 °C) according to the National Weather Service.
- 3/ Specific variety as shown in the plans or approved by the Engineer.
- 4/ Inoculation required.
- 5/ Pure Live Seed (PLS) shall be used.
- 6/ Fertilizer shall not be used.
- 7/ Seed shall be primed with KNO_3 to break dormancy and dyed to indicate such.

Seeding will be inspected after a period of establishment. The period of establishment shall be six (6) months minimum, but not to exceed nine (9) months. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department.”

SIGN PANELS AND APPURTENANCES (BDE)

Effective: January 1, 2025

Revised: April 1, 2025

Add Article 720.02(c) of the Standard Specifications to read:

“(c) Aluminum Epoxy Mastic1008.03”

Revise the second and third paragraphs of Article 720.02 of the Standard Specifications to read:

“The sign mounting support channel shall be manufactured from steel or aluminum and shall be according to Standard 720001.

Steel support channels shall be according to ASTM A 1011 (A 1011M), ASTM A 635 (A 635M), ASTM A 568 (A 568M), or ASTM A 684 (A 684M), and shall be galvanized. Galvanizing shall be according to ASTM A 653 (A 653M) when galvanized before fabrication, and AASHTO M 111 (M 111M) when galvanized after fabrication. Field or post fabricated drilled holes shall be spot painted with one coat of aluminum epoxy mastic paint prior to installation.”

Revise the fifth paragraph of Article 720.02 of the Standard Specifications to read:

“The stainless steel banding for mounting signs or sign support channels to light or signal standards shall be according to ASTM A 240 (A 240M) Type 302 stainless steel.”

80462

VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)

Effective: November 1, 2021

Revised: November 1, 2022

Add the following paragraph after the first paragraph of Article 701.08 of the Standard Specifications:

“The Contractor shall equip all vehicles and equipment with high-intensity oscillating, rotating, or flashing, amber or amber-and-white, warning lights which are visible from all directions. In accordance with 625 ILCS 5/12-215, the lights may only be in operation while the vehicle or equipment is engaged in construction operations.”

80439

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Revised: January 1, 2025

Add the following to Article 701.03 of the Standard Specifications:

“(q) Temporary Sign Supports 1106.02”

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

“For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer’s specifications.”

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

“**701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer’s self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device.”

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

“**1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices shall be MASH compliant.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices shall be MASH compliant.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant

with NCHRP 350, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as sign supports, speed feedback displays, arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH compliant is available, an NCHRP 350 compliant device may be used, even if manufactured after December 31, 2019.”

Revise Articles 1106.02(g), 1106.02(k), and 1106.02(l) to read:

“(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

(k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

(l) Movable Traffic Barrier. The movable traffic barrier shall be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis.”