Illinois Department of Transportation

Local Public Agency
Formal Contract Proposal

COVER SHEET

Proposal Submitted By:

Contractor's Name

Contractor's Address | City | State | Zip Code

STATE OF ILLINOIS

Local Public Agency	County	Section Number
City of Aurora	Kane	21-00345-00-TL

Route(s) (Street/Road Name)	Type of Funds
Illinois Avenue at Randall Road & Elmwood Drive Traffic Signal Modernization	MFT

☐ 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 | Date

For a Municipal Project

Submitted/Approved/Passed

Signature | Date: 5-26-22

Official Title: City Traffic Engineer

Department of Transportation

Released for bid based on limited review

Regional Engineer Signature: Jose Rios / MK | Date: 5/31/2022

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

ROBERT B. GREENE
062-050799
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
City of Aurora	Kane	21-00345-00-TL	Illinois Avenue at Randall Road

NOTICE TO BIDDERS

Sealed proposals for the project described below will be received at the office of the City Clerk (Name of Office)

44 E. Downer Place, Aurora, IL 60507 (Address) until 2:00 PM (Time) on 06/22/22 (Date).

Sealed proposals will be opened and read publicly at the office of the City Clerk (Name of Office)

44 E. Downer Place, Aurora, IL 60507 (Address) at 2:00 PM (Time) on 06/22/22 (Date).

DESCRIPTION OF WORK

Location	Project Length
Intersections of Illinois Avenue at Randall Road and Illinois Avenue at Elmwood Drive	1,150 ft. (0.21 mi.)

Proposed Improvement

Replacing existing traffic signal equipment with new equipment, modernizing the intersections, Curb & Gutter removal and replacement, updating ADA ramps, Pavement Markings, Signage & Restoration.

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

Available electronically at https://www.aurora-il.org/bids.aspx.
Contact Person: Robert Greene (630) 256-3200.

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:
   a. Local Public Agency Formal Contract Proposal (BLR 12200)
   b. Schedule of Prices (BLR 12201)
   c. Proposal Bid Bond (BLR 12230) (if applicable)
   d. Apprenticeship or Training Program Certification (BLR 12325) (do not use for project with Federal funds.)
   e. 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	21-00345-00-TL	Illinois Avenue at Randall Road

PROPOSAL

1. Proposal of _____
Contractor's Name

_____.
Contractor's Address

2. The plans for the proposed work are those prepared by _____
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 of Aurora Treasurer of _____.
The amount of the check is 5% of the bid amount (_____).

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 21-00345-00-TL .

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
City of Aurora	Kane	21-00345-00-TL	Illinois Avenue at Randall Road

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 or 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	21-00345-00-TL	Illinois Avenue at Randall Road

SIGNATURES

(If an individual)

Signature of Bidder | 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

Secretary

Attest:

Secretary

Treasurer

RETURN WITH BID

Illinois Department of Transportation

SCHEDULE OF PRICES

Contractor's Name			
Contractor's Address	**City**	**State**	**Zip Code**

Local Public Agency	County	Section Number
City of Aurora	Kane	21-00345-00-TL

Route (s) (Street/Road Name)

Illinois Avenue at Randall Road and Elmwood Drive

Schedule for Multiple Bids

Combination Letter	Sections Included in Combinations	Total

Schedule for Single Bid

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

Item No.	Items	Unit	Quantity	Unit Price	Total
1	EARTH EXCAVATION	CU YD	5		
2	TOPSOIL FURNISH AND PLACE	SQYD	30		
3	SEEDING, CLASS 2A	ACRE	0.10		
4	NITROGEN FERTILIZER NUTRIENT	POUND	3		
5	POTASSIUM FERTILIZER NUTRIENT	POUND	3		
6	EROSION CONTROL BLANKET	SQ YD	30		
7	AGGREGATE BASE COURSE, TYBE B 6"	SQ YD	30		
8	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	250		
9	DETECTABLE WARNINGS	SQ FT	86		
10	PAVEMENT REMOVAL	SQ YD	40		
11	COMBINATION CONCRETE CURB AND GUTTER REMOVAL	FOOT	90		
12	SIDEWALK REMOVAL	SQ FT	600		
13	CLASS D PATCHES, TYPE 1, 3 INCH	SQ YD	40		
14	INLETS, TYPE A, TYPE 2 FRAME AND GRATE	EACH	4		
15	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	100		
16	NON-SPECIAL WASTE DISPOSAL	CU YD	30		
17	SPECIAL WASTE PLANS AND REPROTS	L SUM	1		
18	SOIL DISPOSAL ANALYSIS	EACH	1		
19	MOBILIZATION	LSUM	1		
20	SIGN PANEL - TYPE 1	SQ FT	136		
21	INSTALL EXISTING SIGN PANEL	SQ FT	40		
22	REMOVE SIGN PANEL - TYPE 1	SQ FT	136		
23	TELESCOPING STEEL SIGN SUPPORT	FOOT	143		
24	BASE FOR TELESCOPING STEEL SIGN SUPPORT	EACH	11		
25	THERMOPLASTIC PAVEMENT MARKINGS - LETTERS AND SYMBOLS	SQ FT	291		
26	THERMOPLASTIC PAVEMENT MARKINGS, 4" (YELLOW)	FOOT	3820		
27	THERMOPLASTIC PAVEMENT MARKINGS, 4" (WHITE)	FOOT	600		
28	THERMOPLASTIC PAVEMENT MARKINGS, 6" (WHITE)	FOOT	1562		
29	THERMOPLASTIC PAVEMENT MARKINGS, 12" (WHITE)	FOOT	330		
30	THERMOPLASTIC PAVEMENT MARKINGS, 24" (WHITE)	FOOT	250		
31	SERVICE INSTALLATION - POLE MOUNTED	EACH	2		
32	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	80		
33	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	180		
34	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	100		
35	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	430		
36	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	3		
37	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2		
38	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	2		
39	GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	16		

40	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1200		
41	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2000		
42	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2400		
43	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2800		
44	ELECTRIC CABLE IN CONDUIT, LEAD 14 1PR	FOOT	200		
45	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	100		
46	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTER, NO. 6 1C	FOOT	500		
47	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT	EACH	5		
48	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT	EACH	5		
49	STEEL COMBINATON MAST ARM ASSEMBLY AND POLE, 30 FT (15 FT. LUMINAIRE ARM)	EACH	1		
50	STEEL COMBINATON MAST ARM ASSEMBLY AND POLE, 32 FT (15 FT. LUMINAIRE ARM)	EACH	1		
51	STEEL COMBINATON MAST ARM ASSEMBLY AND POLE, 38 FT (15 FT. LUMINAIRE ARM)	EACH	1		
52	CONCRETE FOUNDATION, TYPE A	FOOT	20		
53	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	60		
54	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	45		
55	DRILL EXISTING HANDHOLE	EACH	4		
56	SIGNAL HEAD, LED, 1-FACE, 3 SECTION, MAST-ARM MOUNTED	EACH	8		
57	SIGNAL HEAD, LED, 1-FACE, 5 SECTION, BRACKET MOUNTED	EACH	8		
58	SIGNAL HEAD, LED, 1-FACE, 5 SECTION, MAST-ARM MOUNTED	EACH	8		
59	PEDESTRAIN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	16		
60	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	16		
61	INDUCTIVE LOOP DETECTOR	EACH	20		
62	DETECTOR LOOP - TYPE 1	FOOT	200		
63	LIGHT DETECTOR (INCLUDE CONFIRMATION BEACON)	EACH	8		
64	LIGHT DETECTOR AMPLIFIER	EACH	2		
65	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2000		
66	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2		
67	REMOVE EXISTING CONCRETE FOUNDATION	EACH	115		
68	HANDHOLE TO BE ADJUSTED WITH NEW FRAME AND COVER	EACH	1		
69	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1500		
70	ETHERNET SWITCH	EACH	2		
71	CAT. 6 ETHERNET CABLE	FOOT	400		
72	UNINTERUPTABLE POWER SUPPLY, SPECIAL	EACH	2		
73	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	16		
74	PEDESTRIAN PUSH-BUTTON POST	EACH	1		
75	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	2		
76	CENTRALIIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1		
77	CONSTRUCTION LAYOUT	LSUM	1		
78	ITEMS ORDERED BY ENGINEER	ALLOWANCE	1	$30,000.00	$ 30,000.00
79	TRAFFIC CONTROL AND PROTECTION, STANDARD 701006	LSUM	1		
80	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1		
81	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	LSUM	1		
82	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1		
83	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1		
				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.

Illinois Department of Transportation

Local Public Agency
Proposal Bid Bond

Local Public Agency	County	Section Number
City of Aurora	Kane	21-00345-00-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 _____ (Day) of _____ (Month and Year)

Principal

Company Name		Company Name	
Signature	Date	Signature	Date
By:		By:	
Title		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	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) day of _____ (Month and Year) .

Notary Public Signature

(SEAL)

Date commission expires _____

Local Public Agency	County	Section Number
City of Aurora	Kane	21-00345-00-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

TO: THE HONORABLE MAYOR AND CITY COUNCIL
CITY OF AURORA
44 EAST DOWNER PLACE
AURORA, ILLINOIS 60507

1. Proposal of _____
for the improvement known as the ***Illinois Avenue at Randall Road and Elmwood Drive Traffic Signal Modernization***

2. The plans and specifications for the proposed improvements are those prepared by the City of Aurora Engineering Division and approved by the City Council of Aurora, Illinois.

3. In submitting this proposal, the undersigned declares that the only persons or parties interested in the proposal as principals are those named herein, and that the proposal is made without collusion with any person, firm, or corporation.

4. The undersigned further declares that they have carefully examined the proposals, plans, specifications, form of contract and contract bond, and special provisions, if any, and that they have inspected in detail the site of the proposed work and that they have familiarized themselve with all of the local conditions affecting the contract and detailed requirements of construction, and understands that in making this proposal he waives all right to plead any misunderstanding regarding the same.

5. The undersigned further understands and agrees that if the proposal is accepted, they are to furnish and provide all necessary machinery, tools, apparatus and other means of construction and to do all of the work and to furnish all of the materials and labor required.

6. The undersigned declares that they understand that the quantities mentioned are approximate only, and that they are subject to increase or decrease; that he will take in full payment therefore the amount of the summation of the actual quantities, as finally determined, and multiplied by the unit prices shown in the schedule of prices contained herein.

7. The undersigned agrees that the unit prices submitted herewith are for the purpose of obtaining a gross sum and for use in computing the value of extras and deductions; that if there is a discrepancy between the gross sum bid and that resulting from the summation of the quantities multiplied by their respective unit prices, the latter shall apply.

8. The undersigned agrees that if the City decides to extend or shorten the improvement, or otherwise alter it by extras or deductions, including the elimination of any one or more of the items, as provided in the specifications, that they will perform the work as altered, increased or decreased, at the contract unit prices without claim for profits lost as a result of any work or items eliminated by the City of Aurora.

9. The undersigned agrees that the Engineer may, at any time during the progress of the work covered by this contract, order other work or materials incidental thereto, and that all such work and materials as do not appear in the proposal or contract as a specific item accompanied by a unit price, and which are not included under the bid price for other items in this contract, shall be performed as extra work, and that they will accept as full compensation therefore the actual cost plus ten percent (10%), the actual cost to be determined as provided for in the specifications.

10. The undersigned further 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 receiving the notice of award of the contract.

11. The undersigned further agrees to begin work not later than **ten (10)** calendar days after the execution or by the date stated within the contract documents 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.

12. The undersigned agrees to complete the work within the time stipulated in the Special Provisions.

13. All work shall be completed to the satisfaction of the Engineer by the above dates unless the Engineer in accordance with the specifications grants additional time. In case of failure to complete the work within the time named herein, or within such extra time as may have been allowed by extensions, the undersigned agrees that the City shall withhold from such sums as may be due him under the terms of the contract the liquidated damages as set forth in the Standard Specifications, which costs shall be considered and treated not as a penalty, but as damages due the Municipality from the undersigned by reason of inconvenience to the public, added cost of engineering and supervision, and other items which have caused an expenditure of public funds resulting from the failure of the undersigned to complete the work within the time specified in the contract.

14. If this proposal is accepted and the undersigned shall fail to execute a contract and contract bond as required herein, it is hereby agreed that the amount of the check or draft or bidder's bond substituted in lieu thereof shall become the property of the City and shall be considered not as a penalty but as payment of liquidated damages due to delay and other causes suffered by the City because of the failure to execute said contract and contract bond, otherwise said check or draft or bidder's bond substituted in lieu thereof shall be returned to the undersigned.

15. Accompanying this proposal is either a **5% Bid Bond** or a proposal guaranty check, complying with the specifications, made payable to the City Treasurer of the City of Aurora. The amount of the check is $ _____

16. The undersigned submits herewith their schedule of prices covering the work to be performed under this contract, they understand that they must show in the schedule the unit prices for which they propose to perform each item of work, that the extensions must be made by them, and that if not so done, their proposal may be rejected as irregular or non-responsive.

17. The undersigned agrees to conform to Section 100 of the Standard Specifications and to Article 107.27 of that section indemnifying and saving harmless the City of Aurora and its officers, agents, and employees. The Contractor shall provide insurance with limits as stated in the Article 6.7 of the *City of Aurora - General Specifications.*

18. The City of Aurora reserves the right to reject any or all of the bids and to waive any and all irregularities and technicalities. The City of Aurora shall either award the project or reject the bids within Sixty (60) calendar days after the bid opening. This time frame may be extended upon mutual agreement of the City and the Bidder.

19. The undersigned of this proposal agrees that they have examined all sections of this Proposal, Specifications, and Bidding Documents and hereby understands and accepts the provisions for access, or the lack of access, to the construction site and shall claim no compensation other than the prices as bid for this condition of accessibility.

20. The undersigned further agrees that the unit prices submitted herewith are for the complete item constructed, including all labor, equipment, material and other necessary incidental work.

21. The undersigned agrees to indemnifying and saving harmless the City of Aurora, its officers, agents, employees, and servants by filing with the City, prior to the execution of the contract, copies of completed Certificates of Insurance satisfactory to the City, with the City of Aurora named as co-insured; automobile liability insurance covering owned, non-owned, and hired vehicles with limits of liability as stated in the City of Aurora - General Specifications Article 6.7.

22. No bid shall be considered unless the party offering it shall furnish evidence satisfactory to the City of Aurora that they have been previously engaged in the quality construction of improvements of the same character as the one herein specified, and that they have the necessary facilities, equipment, experience, and ability and pecuniary resources to fulfill the conditions of the contract

23. No contract will be awarded to any bidder where that bidder or any principal or supervisory personnel of the bidder has been personally involved with another business that has been delinquent or unfaithful in any former contract with the City or where that bidder or any supervisory personnel of the bidder has been personally involved with another business that is a defaulter as surety or otherwise upon obligation to the City.

24. The Illinois Freedom of Information Act (FOIA) has been amended and effective January 1, 2010, adds a new provision to Section 7 of the Act which applies to public records in the possession of a party with whom the City of Aurora has contracted. The City of Aurora will have only a very short period of time from receipt of a FOIA request to comply with the request, and there is a significant amount of work required to process a request including collating and reviewing the information. The undersigned acknowledges the requirements of FOIA and agrees to comply with all requests made by the City of Aurora for public records (as that term is defined by Section 2(c) of FOIA) in the undersigned's possession and to provide the requested public records to the City of Aurora within two (2) business days of the request being made by the City of Aurora. The undersigned agrees to indemnify and hold harmless the City of Aurora from all claims, costs, penalty, losses and injuries (including but not limited to, attorney's fees, other professional fees, court costs and/or arbitration or other dispute resolution costs) arising out of or relating to its failure to provide the public records to the City of Aurora under this agreement.

25. The undersigned submits herewith the **Schedule of Prices** covering the work to be performed under this contract:

Signatures

(If an individual)

Signature of Bidder _____

Business Address _____

_____

(If a partnership)

Firm Name _____

Signed by _____

Business Address _____

_____

Insert Names and Addresses of All Partners

_____

_____

_____

_____

(If a corporation)

Corporate Name _____

Signed By _____
President

Business Address _____

_____

President _____

Secretary _____

Treasurer _____

Attest: _____
Secretary

Illinois Department of Transportation

Affidavit of Availability

For the Letting of

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					

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

Illinois Department of Transportation

Affidavit of Availability

For the Letting of

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.

	2	3	4	Awards Pending	1
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					

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

Illinois Department of Transportation

Affidavit of Availability

For the Letting of

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					

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

Illinois Department of Transportation

Affidavit of Availability

For the Letting of

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					

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

Illinois Department of Transportation

Affidavit of Availability

For the Letting of

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					

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)

Illinois Department of Transportation

E. - Bidder's Employee Utilization Form Construction

Contract Number	District	Letting Date
	1	

Route	County
IL Ave @Randall&Elmwood	kane

Project Number	Job Number

Section Number: 21-00345-00-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

Job Categories	Total Employees		MINORITY EMPLOYEES						TRAINEES				TABLE B **Current Employees to be Assigned to Contract**			
			Black		Hispanic		*Other Minorities		Apprentices		On the Job Trainees		Total Employees		Minority Employees	
	M	F	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																

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

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

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 _____ (number) persons will be directly employed by the prime contractor and that _____ (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.

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2022

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

No ERRATA this year.

SUPPLEMENTAL SPECIFICATIONS

Illinois Department of Transportation

Check Sheet for Recurring Special Provisions

Local Public Agency	County	Section Number
City of Aurora	Kane	21-00345-00-TL

☐ **Check this box for lettings prior to 01/01/2022.**

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

Recurring Special Provisions

Check Sheet #		Reference Page No.
1	☐ Additional State Requirements for Federal-Aid Construction Contracts	1
2	☐ Subletting of Contracts (Federal-Aid Contracts)	4
3	☐ EEO	5
4	☐ Specific EEO Responsibilities Non Federal-Aid Contracts	15
5	☐ Required Provisions - State Contracts	20
6	☐ Asbestos Bearing Pad Removal	26
7	☐ Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal	27
8	☐ Temporary Stream Crossings and In-Stream Work Pads	28
9	☒ Construction Layout Stakes	29
10	☐ Use of Geotextile Fabric for Railroad Crossing	32
11	☐ Subsealing of Concrete Pavements	34
12	☐ Hot-Mix Asphalt Surface Correction	38
13	☐ Pavement and Shoulder Resurfacing	40
14	☐ Patching with Hot-Mix Asphalt Overlay Removal	41
15	☐ Polymer Concrete	43
16	☐ PVC Pipeliner	45
17	☐ Bicycle Racks	46
18	☐ Temporary Portable Bridge Traffic Signals	48
19	☐ Nighttime Inspection of Roadway Lighting	50
20	☐ English Substitution of Metric Bolts	51
21	☐ Calcium Chloride Accelerator for Portland Cement Concrete	52
22	☐ Quality Control of Concrete Mixtures at the Plant	53
23	☒ Quality Control/Quality Assurance of Concrete Mixtures	61
24	☐ Digital Terrain Modeling for Earthwork Calculations	77
25	☐ Preventive Maintenance - Bituminous Surface Treatment (A-1)	79
26	☐ Temporary Raised Pavement Markers	85
27	☐ Restoring Bridge Approach Pavements Using High-Density Foam	86
28	☐ Portland Cement Concrete Inlay or Overlay	89
29	☐ Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	93
30	☐ Longitudinal Joint and Crack Patching	96
31	☐ Concrete Mix Design - Department Provided	98
32	☐ Station Numbers in Pavements or Overlays	99

Local Public Agency	County	Section Number
City of Aurora	Kane	21-00345-00-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

Check Sheet #			Page No.
LRS 1		**Reserved**	101
LRS 2	☐	Furnished Excavation	102
LRS 3	☒	Work Zone Traffic Control Surveillance	103
LRS 4	☒	Flaggers in Work Zones	104
LRS 5	☒	Contract Claims	105
LRS 6	☒	Bidding Requirements and Conditions for Contract Proposals	106
LRS 7	☐	Bidding Requirements and Conditions for Material Proposals	112
LRS 8		**Reserved**	118
LRS 9	☐	Bituminous Surface Treatments	119
LRS 10		**Reserved**	123
LRS 11	☒	Employment Practices	124
LRS 12	☒	Wages of Employees on Public Works	126
LRS 13	☒	Selection of Labor	128
LRS 14	☒	Paving Brick and Concrete Paver Pavements and Sidewalks	129
LRS 15	☒	Partial Payments	132
LRS 16	☐	Protests on Local Lettings	133
LRS 17	☒	Substance Abuse Prevention Program	134
LRS 18	☐	Multigrade Cold Mix Asphalt	135
LRS 19	☐	Reflective Crack Control Treatment	136

BDE SPECIAL PROVISIONS
For the April 29, 2022 and June 17, 2022 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 BD&E. An * indicates a new or revised special provision for the letting.

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 Device	Jan. 1, 2008	
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
80436	6	☐	Blended Finely Divided Minerals	April 1, 2021	
80241	7	☐	Bridge Demolition Debris	July 1, 2009	
5026I	8	☐	Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5048I	9	☐	Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5049I	10	☐	Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5053I	11	☐	Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80384	12	☐	Compensable Delay Costs	June 2, 2017	April 1, 2019
80198	13	☑	Completion Date (via calendar days)	April 1, 2008	
80199	14	☐	Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80293	15	☐	Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
80311	16	☐	Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
80261	17	☑	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
80434	18	☐	Corrugated Plastic Pipe (Culvert and Storm Sewer)	Jan. 1, 2021	
80029	19	☐	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	March 2, 2019
80229	20	☐	Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
80433	21	☐	Green Preformed Thermoplastic Pavement Markings	Jan. 1, 2021	Jan. 1, 2022
80422	22	☐	High Tension Cable Median Barrier	Jan. 1, 2020	Jan. 1, 2022
* 80443	23	☐	High Tension Cable Median Barrier Removal	April 1, 2022	
* 80444	24	☑	Hot-Mix Asphalt – Patching	April 1, 2022	
80442	25	☐	Hot-Mix Asphalt – Start of Production	Jan. 1, 2022	
80438	26	☐	Illinois Works Apprenticeship Initiative – State Funded Contracts	June 2, 2021	Sept. 2, 2021
80411	27	☑	Luminaires, LED	April 1, 2019	Jan. 1, 2022
80045	28	☐	Material Transfer Device	June 15, 1999	Jan. 1, 2022
80418	29	☐	Mechanically Stabilized Earth Retaining Walls	Nov. 1, 2019	Nov. 1, 2020
80430	30	☑	Portland Cement Concrete – Haul Time	July 1, 2020	
3426I	31	☐	Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2022
80395	32	☐	Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
80340	33	☐	Speed Display Trailer	April 2, 2014	Jan. 1, 2022
80127	34	☐	Steel Cost Adjustment	April 2, 2004	Jan. 1, 2022
80397	35	☐	Subcontractor and DBE Payment Reporting	April 2, 2018	
80391	36	☐	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
80437	37	☐	Submission of Payroll Records	April 1, 2021	
80435	38	☐	Surface Testing of Pavements – IRI	Jan. 1, 2021	Jan. 1, 2022
80410	39	☐	Traffic Spotters	Jan. 1, 2019	
20338	40	☐	Training Special Provisions	Oct. 15, 1975	Sept. 2, 2021
80318	41	☐	Traversable Pipe Grate for Concrete End Sections	Jan. 1, 2013	Jan. 1, 2018
80429	42	☐	Ultra-Thin Bonded Wearing Course	April 1, 2020	Jan. 1, 2022
80439	43	☑	Vehicle and Equipment Warning Lights	Nov. 1, 2021	
80440	44	☐	Waterproofing Membrane System	Nov. 1, 2021	
80302	45	☐	Weekly DBE Trucking Reports	June 2, 2012	Nov. 1, 2021
80427	46	☑	Work Zone Traffic Control Devices	Mar. 2, 2020	
80071	47	☑	Working Days	Jan. 1, 2002	

The following special provisions are in the 2022 Standard Specifications and Recurring Special Provisions.

File Name	Special Provision Title	New Location(s)	Effective	Revised
80425	Cape Seal	Sections 405, 1003	Jan. 1, 2020	Jan. 1, 2021
80387	Contrast Preformed Plastic Pavement Marking	Articles 780.08, 1095.03	Nov. 1, 2017	
80402	Disposal Fees	Article 109.04(b)	Nov. 1, 2018	
80378	Dowel Bar Inserter	Articles 420.03, 420.05, 1103.20	Jan. 1, 2017	Jan. 1, 2018
80421	Electric Service Installation	Articles 804.04, 804.05	Jan. 1, 2020	
80415	Emulsified Asphalts	Article 1032.06	Aug. 1, 2019	
80423	Engineer's Field Office and Laboratory	Section 670	Jan. 1, 2020	
80417	Geotechnical Fabric for Pipe Underdrains and French Drains	Articles 1080.01(a), 1080.05	Nov. 1, 2019	
80420	Geotextile Retaining Walls	Article 1080.06(d)	Nov. 1, 2019	
80304	Grooving for Recessed Pavement Markings	Articles 780.05, 780.14, 780.15	Nov. 1, 2012	Nov. 1, 2020
80416	Hot-Mix Asphalt – Binder and Surface Course	Sections 406, 1003, 1004, 1030, 1101	July 2, 2019	Nov. 1, 2019
80398	Hot-Mix Asphalt – Longitudinal Joint Sealant	Sections 406, 1032	Aug. 1, 2018	Nov. 1, 2019
80406	Hot-Mix Asphalt – Mixture Design Verification and Production (Modified for I-FIT)	Sections 406, 1030	Jan. 1, 2019	Jan. 2, 2021
80347	Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Sections 406, 1030	Nov. 1, 2014	July 2, 2019
80383	Hot-Mix Asphalt – Quality Control for Performance	Sections 406, 1030	April 1, 2017	July 2, 2019
80393	Manholes, Valve Vaults, and Flat Slab Tops	Articles 602.02, 1042.10	Jan. 1, 2018	Mar. 1, 2019
80424	Micro-Surfacing and Slurry Sealing	Sections 404, 1003	Jan. 1, 2020	Jan. 1, 2021
80428	Mobilization	Article 671.02	April 1, 2020	
80412	Obstruction Warning Luminaires, LED	Sections 801, 822, 1067	Aug. 1, 2019	
80359	Portland Cement Concrete Bridge Deck Curing	Articles 1020.13, 1022.03	April 1, 2015	Nov. 1, 2019
80431	Portland Cement Concrete Pavement Patching	Articles 701.17(e)(3)b, 1001.01(d), 1020.05(b)(5)	July 1, 2020	
80432	Portland Cement Concrete Pavement Placement	Article 420.07	July 1, 2020	
80300	Preformed Plastic Pavement Marking Type D - Inlaid	Articles 780.08, 1095.03	April 1, 2012	April 1, 2016
80157	Railroad Protective Liability Insurance (5 and 10)	Article 107.11	Jan. 1, 2006	
80306	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Section 1031	Nov. 1, 2012	Jan. 2, 2021
80407	Removal and Disposal of Regulated Substances	Section 669	Jan. 1 2019	Jan. 1, 2020
80419	Silt Fence, Inlet Filters, Ground Stabilization and Riprap Filter Fabric	Articles 280.02, 280.04, 1080.02, 1080.03, 1081.15	Nov. 1, 2019	July 1, 2021
80408	Steel Plate Beam Guardrail Manufacturing	Article 1006.25	Jan. 1, 2019	
80413	Structural Timber	Article 1007.03	Aug. 1, 2019	
80298	Temporary Pavement Marking	Section 703, Article 1095.06	April 1, 2012	April 1, 2017
80409	Traffic Control Devices – Cones	Article 701.15(a), 1106.02(b)	Jan. 1, 2019	
80288	Warm Mix Asphalt	Sections 406, 1030, 1102	Jan. 1, 2012	April 1, 2016
80414	Wood Fence Sight Screen	Article 641.02	Aug. 1, 2019	April 1, 2020

The following special provisions require additional information from the designer. The additional information needs to be submitted as a separate document. The Project Coordination and Implementation section will then include the information in the applicable special provision.

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

Illinois Department of Transportation

Special Provisions

Local Public Agency	County	Section Number
City of Aurora	Kane	21-00345-00-TL

The following Special Provision supplement the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016, 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.

Removal and replacement of existing traffic signal at the intersections of 1. Illinois Avenue and Randall Road, and 2. Illinois Avenue and Elmwood Drive along with other miscellaneous appurtenances all in accordance with the plans and specifications.

PROPOSAL SUBMITTED BY:

_____

Contractor's Name

_____

Street *P.O. Box*

_____

City *State* *Zip Code*

CITY OF AURORA

KANE COUNTY

STATE OF ILLINOIS

PROPOSAL AND SPECIFICATIONS FOR

Illinois Avenue at Randall Road and Elmwood Drive Traffic Signal Modernization

AURORA, ILLINOIS

April, 2022

22-15 (bid number)

PREPARED BY
CITY OF AURORA
Engineering Division
44 EAST DOWNER PLACE
AURORA, ILLINOIS 60507

TABLE OF CONTENTS

City of Aurora
Bid 22-15
NOTICE TO BIDDERS

Time and Place of Opening of Bids

Sealed proposals for the improvement described below will be received at the office of the City Clerk, 44 E. Downer Place, Aurora, IL 60507 until 2:00 P.M., June 22, 2022. Proposals will be opened and read publicly at 2:00 P.M., June 22, 2022 at the office of the City Clerk, 44 E. Downer Place, Aurora, IL 60507.

Description of Work

Name: Illinois Avenue at Randall Road and Elmwood Drive Traffic Signal Modernization.

Location: Intersection of Illinois Avenue at Randall Road and Elmwood Drive for traffic signal modernization.

Proposed Improvement: Modernizing traffic signals, at the intersections of Illinois Avenue at Randall Road and Elmwood Drive, removal and replacement of ADA ramps, curb & gutter and other miscellaneous appurtenances all in accordance with the plans and specifications.

Bidder Instructions

1. Plans, specifications, and proposal forms will be available on Monday, June 6, 2022 and may be obtained online at: https://www.aurora-il.org/bids.aspx. Contact Person: Robert Greene (630) 256-3200.
2. Prequalification of Bidders as contained in Check Sheet LRS6 in the "Supplemental Specifications and Recurring Special Provisions" is required on this project. All proposals must be accompanied by a proposal guaranty as outlined in the Proposal form.
3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in Standard Provisions for Bidding Requirements and Conditions for Contract Proposals contained in the "Supplemental Specifications and Recurring Special Provisions".
4. **Any bidder who owes the City money may be disqualified at the City's discretion.**
5. The City encourages minority business firms to submit proposals and encourages the successful contract bidder to utilize minority businesses as subcontractors for supplies, equipment, services, and construction.
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.

By Order of
City Clerk
City of Aurora

INDEX TO SPECIAL PROVISIONS

SP R.1 – SAW CUTTING
SP R.2 – TEMPORARY DRIVEWAY SURFACE, AND TEMPORARY PAVEMENT SURFACE
SP R.3 – HOT MIX ASPHALT PAVEMENT REMOVAL AND REPLACEMENT
SP R.4 – HOT-MIX ASPHALT PAVEMENT SURFACE COURSE
SP R.5 – PCC DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT
SP R.6 – HOT MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT
SP R.7 – COMBINATION P.C.C. CURB AND GUTTER
SP R.8 – PCC SIDEWALK REMOVAL AND REPLACEMENT, 5" / DETECTABLE WARNINGS
SP R.9 – AGGREGATE SHOULDER
SP R.10 – SEEDING – AURORA MIX

CITY OF AURORA
SPECIAL PROVISIONS

DESCRIPTION OF PROJECT:

Traffic signal modernization at the intersections of Illinois Avenue at Randall Road and Elmwood Drive, and other miscellaneous appurtenances, all in accordance with the plans and specifications.

SP A.1 – 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.

SP A.2 – ITEMS ORDERED BY ENGINEER

When additional work not included in the contract, is requested in writing by the Engineer, this additional work shall be measured and paid for in accordance with Sections 104 and 109 of the IDOT Standard Specifications, as modified by these special provisions.

Payment for all additional work ordered by the Engineer in writing, which is deemed by the Engineer to be eligible for payment and is not covered by the contract, shall be made from the allowance included in the bid proposal under ITEMS ORDERED BY ENGINEER. The contractor shall not be entitled to any additional compensation in the event that utilization of this allowance, either in whole or in part, is not required to complete the work.

SP A.3 – 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.

SP A.4 – 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 AND PROTECTION.

SP A.5 – COMPLETION DATE

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 abovementioned 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.

SP A.6 – 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.

SP A.7 - 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.

SP A.8 – 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.

SP A.9 – INCIDENTAL WORK

All work required to install the improvements shown or called for on the plans and in the specifications, shall be incidental to the various bid items in the proposal even though a specific item is not shown, and no additional compensation shall be made to the Contractor, unless it is indicated that additional payment will be allowed or a unit price is provided for said work in the Bid Proposal.

SP A.10 – 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
    - Notify City Engineer 72 hours prior to the commencement of any work.
    - 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.

SP A.11 - 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.

SP A.12 – 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.

SP A.13 **– 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.

SP S.1 – TRAFFIC CONTROL AND PROTECTION

TRAFFIC CONTROL PLAN
Effective: September 30, 1985
Revised: January 1, 2007

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

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

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

STANDARDS: 701501, 701606; 701611; 701701; 701801; 701901; B.L.R. 18-6

DETAILS:
District One Typical Pavement Markings (TC-13)
City of Chicago Typical Pavement Markings (TC-24)

SPECIAL PROVISIONS:
Maintenance of Roadways
Public Convenience and Safety (DIST 1)
Adjust Traffic Signal Heads
Temporary Information Signing
Pavement & Shoulder Resurfacing (Recurring #14)
Temporary Pavement Marking (BDE)
Traffic Control Devices – Cones (BDE)
Work Zone Traffic Control Devices (BDE)

SP S.2 - 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.

SP S.3 **- LOCATION OF UTILITIES**

STATUS OF UTILITIES (D-1)
Effective: June 1, 2016
Revised: January 1, 2020

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
None

UTILITIES TO BE WATCHED AND PROTECTED

Location	Type	Description	Owner
Sta 1+60 NW corner (IL at Randall)	Water Main	Water Main 12"	City of Aurora - Michael Houston HoustonM@aurora.il.us
Sta 1+75 NW corner (IL at Randall)	Combined Sewer Lines	Sewer Line 8"	Michael Houston
Sta 1+80 NW corner (IL at Randall)	Combined Strom Sewer Lines	Strom Sewer 10"	Michael Houston
Sta 2+45 NE corner (IL at Randall)	Strom Sewer Lines	Strom Sewer Lines 12"	Michael Houston
Sta 10+115 SE corner (IL at Randall)	Strom Sewer Lines	Strom Sewer 42"	Michael Houston
Sta 10+180 NW corner (IL at Elmwood)	Strom Sewer Lines	Strom Sewer Lines 12"	Michael Houston
Sta 10+170 NW corner (IL at Elmwood)	Water Main	Water Main 12"	Michael Houston

Sta 10+175 NE corner (IL at Elmwood)	Strom Sewer Lines	Strom Sewer Lines	Michael Houston
Sta 10+100 SE corner (IL at Elmwood)	Strom Sewer Lines	Strom Sewer Lines	Michael Houston

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

Agency/Company Responsible to Resolve Conflict	Name of contact	Address	Phone	E-mail address
City of Aurora	Michael Houston	649 S. River Street, Aurora, Illinois 60505	630-256-3712 630-688-8411	MHouston@aurora-il.org
AT&T	Janet C. Ahern	1000 Commerce Drive, Floor1, Oak Brook, IL 60523	630-573-6414	ja1763@att.com
Comcast	Robert L. Schulter Jr.	688 Industrial Drive, Elmhurst IL 60126	630-600-6213	robert_stoll@cable.comcast.com
ComEd	Carla Dennis	1 Lincoln Center, Oakbrook Terrace, IL	630-415-8933/630-723-2311	carla.dennis@comed.com
Nicor	Bruce Koppang & Jeff Leifheit	DOT Liaison & Superintendent – Field Operations Construction	630-388-3046 & 815-754-3140	bkoppan@aglresources.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 Department's contractor is responsible for contacting J.U.L.I.E. prior to all excavation work.

SP H.1 – STORMWATER POLLUTION PREVENTION PLAN

The Contractor and their subcontractors shall sign the necessary certification forms in and follow the requirements of the Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall coordinate with the Engineer on correcting any deficiencies identified during inspections or Incidents of Non-compliance, and shall notify the Engineer of any changes to the SWPPP's erosion control plans.

SP H.2 – SOIL EROSION CONTROL

This work shall consist of the supply and installation of soil erosion and sedimentation control devices in accordance with Article 280 of the "Standard Specification for Road and Bridge Construction" the City of Aurora's Standard Specifications for Improvements, the Kane-DuPage Soil and Water Conservation District, the Illinois Environmental Protection Agency – Division of Water Pollution Control's NPDES Permit No. ILR10, and with the details within the construction drawings.

Prior to starting any excavation the contractor shall be required to place inlet protection in all curb structures, or equal, all in accordance with the Soil Erosion and Sediment Control Plan.

Silt fence shall be installed as shown on the plans in accordance with the details provided.

In the event that ground water is encountered during excavation, the contractor shall provide dewatering filtration bags for each pump discharge line. The filtration bags shall be as manufactured by Dandy Products or approved equal.

Erosion and Sedimentation Control shall not be paid for separately, but shall be considered incidental to the contract. The supply and installation of inlet protection shall be paid for at the contract unit price for EACH for INLET PROTECTION. The supply and installation of a filtration bag shall be paid for at the contract unit price per EACH for DEWATERING BAG. The supply, installation, and maintenance of silt fence according to the details included in the improvement plans shall be paid for at the contract unit price per LINEAL FOOT (LF) for SILT FENCE. All material used for erosion and sedimentation control shall be disposed of off-site along with all debris collected within the control devices. Disposal shall not be paid for separately and shall be considered incidental to the unit prices above.

SP H.3 – 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.

In addition to washing and/or sweeping the site daily, the contractor shall also apply liquid calcium chloride if directed by the Engineer. The calcium chloride shall be Type L and shall be applied in accordance with section 24 of the Standard Specifications for Water and Sewer Construction in Illinois. The supply and application of calcium chloride shall be paid for at the contract unit price per Square Yard (SY) for CALCIUM CHLORIDE APPLIED.

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 Contractors 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.

SP H.4 **- CLEANING ALL STRUCTURES**

Before final acceptance, all structures and staging areas that were occupied by the Contractor in connection with this work shall be cleaned of all rubbish, excess materials, and other foreign materials deposited or accumulated on or in the structures and areas. Cleaning all structures shall be considered incidental to the cost of the contract and will not be paid for separately.

SP H.5 - HEAVY CLEANING OF SEWERS

Heavy cleaning consists of using heavy cleaning equipment to remove large deposits of debris, root growth, mineral deposits, bricks, grease and others. Bucket machines, scrapers, augers and 120 gpm and higher jetting equipment can be utilized in this heavy duty cleaning. Where bucket machines and buckets are to be used, caution should be taken that a proper sized flexible cable be used so that breakage will not occur hanging the cleaning equipment up within the sewer lines.

Contractor shall be responsible for disposing all septic material removed from the heavy cleaning procedure to a permitted disposal facility. In no circumstance shall passing material from manhole to manhole be left unattended in the invert of the sewer. Such material must be removed immediately.

Contractor shall take all necessary precautions of not reducing the flow capacity of the sewers during the bucketing procedures. This can be accomplished by by-passing flows to downstream manholes.

The Contractor shall advise the Engineer 48 hours prior to starting the heavy cleaning. If this work is subcontracted to others, the City will require approval of said subcontractor.

The cost of heavy cleaning , which includes debris removal and disposal, bucketing, root removal and disposal, and all necessary and appurtenant work shall be included in the unit price bid per LINEAL FOOT (LF) for HEAVY CLEANING OF SEWERS, and measured from centerline manhole to centerline manhole. The size of the sewers may vary from 8-inch to 24-inch diameter.

SP H.6 **- 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.

SP G.1 - MOBILIZATION

This item consists of transportation and set up of various equipment necessary to complete the project, as well as the break down and removal of the same equipment.

This item shall be considered incidental to the contract and will not be paid for separately.

SP G.2 - WATER FOR CONSTRUCTION PURPOSES

City water for construction purposes will be available to the Contractor at his cost according to the prevailing rates in effect at the time. The Contractor shall secure a city water meter by presenting a deposit for $1,600.00 in the form of a certified check made out to The City of Aurora to the Water Billing Department on the First Floor of 44 E. Downer Place, Aurora, Illinois. The name of the Contractor and their Tax ID number will be required. The Contractor will take the resulting forms to the Water & Sewer Maintenance Division located at 649 S. River Street where the city water meter shall be provided. The Contractor will be fined, according to ordinance, which will be deduced from moneys due, for each unauthorized use of City water regardless of the amount of water used or the reason for unauthorized use.

SP G.3 – SURFACE RESTORATION

The Contractor shall be responsible for performing any surface restoration required due to damages caused by storing material and/or equipment outside the areas to be excavated. The surface restoration shall be performed in accordance with the plans and specifications or as directed by the Engineer and shall be at the Contractor's expense.

SP G.4 – REMOVAL / ABANDONING OF SEWERS AND/OR WATER MAINS

This work shall consist of abandoning existing sewers and water mains at the locations shown on the Plans or as directed by the Engineer in the field. Existing sewers and structures shall be removed at the location of conflict with new construction and removed at the point of connection with the existing sewer or manhole that is to remain. The Contractor shall not be required to excavate and remove sewers and water mains that are to be abandoned that fall outside the limits of excavation for the new improvements.

Ends of the abandoned pipes and openings in the existing sewers and manholes to remain shall be plugged with brick and mortar. At locations where the sewers are to be disconnected from manholes that are to remain in place, the contractor shall plug the sewer from the inside of the manhole with brick and non-shrink mortar a minimum of 12" thick.

For pipes that are to be disconnected from existing sewers that are to remain, the Contractor shall abandon the existing connection by one of the methods below:

- The Contractor shall excavate and disconnect the sewer to be abandoned from the sewer to remain. The Contractor excavate and remove the pipe and/or tee at the location of the pipe to be disconnected and replace in accordance with the "Sanitary Sewer Removal and Replacement" special provisions.
- The Contractor shall install a cured in place internal pipe liner to cover the existing opening to be abandoned. The internal pipe liner shall be installed in accordance with these specifications.

For services and tees being disconnected from existing brick sewers, the Contractor shall abandon the existing connection by removing the pipe and/or tee at the location of the connection and shall patch the opening in the existing sewer to remain with brick and non-shrink grout. When the limits of the disconnection fall outside the limits of the excavation for new improvements the Contractor shall be paid at the contract unit price as specified below.

For water mains that are to be disconnected from existing water mains that are to remain, the contractor shall excavate and disconnect the pipe to be abandoned. If the pipe to be abandoned is connected to the water main to remain via a tee, the tee shall be removed along with a minimum of 2 feet of pipe and replaced with class 52, cement lined DIP along with ductile iron sleeves of the same diameter as the existing piping. If the water main to be removed is connected to the water main to remain via a cross, the pipe shall be removed from the cross and replaced with a DIP plug.

The Contractor shall keep records of the pipes removed, pipes left in place and the plugs. This information shall be transferred to the record drawings submitted to the Engineer by the Contractor.

The plugging and/or removal of existing sewers and water mains and connections within manholes or within areas identified in the plans for excavation shall not be paid for separately but shall be considered incidental to the Contract. The removal and disposal of existing sewers and water mains in order to facilitate the installation of new improvements, shall not be paid for separately, but shall be considered incidental to the contract.

The plugging and/or removal of existing sewer and water mains and connections not within the vicinity of manholes or planned excavated areas as identified on the plans shall be paid for at the contract unit price per EACH as ABANDON EXISTING SEWER PIPE CONNECTION or ABANDON WATER MAIN CONNECTION as appropriate, and shall include all equipment, labor, material, and select granular trench backfill necessary to complete the work. The removal and disposal of existing sewers and water mains in order to facilitate this pay item shall not be paid for separately but shall be considered incidental to the contract. Surface restoration shall be paid for separately.

If any sewer or water main is called out on the plans or directed by the Engineer in the field to be filled with Controlled Low Strength Material (CLSM), the work shall be paid for at the contract unit price per CUBIC YARD (CY) for FILLING EXISTING SEWER OR WATER MAIN WITH CLSM.

SP G.5 – STORM, SANITARY, AND WATER STRUCTURES TO BE ABANDONED

This work shall consist of all work necessary to remove and/or abandon existing manholes, valve vaults, valve boxes and structures as shown on the Plans or as directed by the Engineer in the field.

All valve boxes on water mains to be abandoned shall be removed by the contractor.

The casting and at least the top 4 feet of the manhole shall be removed and disposed of offsite. In the case where the existing structure is to be removed and replaced, the existing structure shall be completely removed.

All pipe connections shall be securely sealed water tight with concrete bricks and mortar 12" thick and the structure shall be filled with selected granular trench backfill and mechanically compacted.

This work shall be paid for at the contract unit price per EACH for STORM, SANITARY, AND WATER STRUCTURES TO BE ABANDONED, which shall include payment in full for removal and disposal of the structure, and supplying and installing selected granular trench backfill.

SP G.6 - TRENCH BACKFILL, PIPE BEDDING, AND COVER

All select granular material shall meet IDOT gradation specifications and shall be either crushed limestone, crushed concrete or crushed gravel. Material excavated as part of this project may be processed on site for re-use with approval from the engineer at an agreed upon unit price.

Pipe Bedding

Pipe bedding shall consist of over-excavation of the trench bottom and refilling to proper grade in accordance with the trench backfill details included in the plans.

The cost of supplying and installing the aggregate bedding shall not be paid for separately, but shall be considered incidental to the project.

Haunching

Pipe Haunching shall consist of compacted aggregate for the full width of the trench to the spring line for the reinforced concrete pipe or ductile iron pipe and to one foot (1') above the top of the pipe for PVC pipe in accordance with the details included in these plans.

The cost of supplying and installing the aggregate haunching shall not be paid for separately, but shall be considered incidental to the cost of the pipe.

Trench Backfill

Trench backfill shall be placed in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois" and the Trench Backfill Detail as shown on the plans.

Place Trench Backfill material to required elevations, for each area classification listed below:

Under grassed areas:
Satisfactory excavated or borrow material, approved by the Engineer.

Under pavements:
Select Trench Backfill of compacted CA-6 crushed limestone or CA-6 crushed gravel.

Place backfill materials evenly adjacent to structures or piping to required elevations. Take care to prevent wedging action of backfill against structures or displacement of piping by carrying material uniformly around structure of piping to approximately same elevation in each lift.

Compaction Jetting and Water Soaking

The holes through which the water is injected in the backfill shall be placed in a grid pattern at intervals of not more than four feet (4'). Additional holes shall be provided if deemed necessary by the Engineer to ensure adequate settlement. All holes shall be jetted and shall be carried to a point one foot (1') above the top of the pipe. Drilling the holes by means of augers of other mechanical means will not be permitted. Care shall be taken in jetting to prevent contact with or other disturbance to the pipe.

The water shall be injected at a pressure and rate sufficient to sink the holes at a moderate rate. After a hole has been jetted to the required depth, the water shall be injected until it begins to overflow the surface.

Mechanical compaction shall be performed in accordance with the Standard Specifications for Water and Sewer Construction in Illinois. If the contractor requests and receives approval to perform mechanical compaction in place of jetting all trenches, they shall be responsible for hiring and compensating a third party testing agency to verify that the minimum compaction requirements listed in the Standard Specifications for Water and Sewer Construction in Illinois and special provision SP G.7 have been met.

Surface depressions resulting from backfill subsidence caused by compaction shall be filled and re-compacted by tamping or rolling to the satisfaction of the Engineer.

Measurement and Payment
The cost of supplying and installing the aggregate bedding and haunching shall not be paid for separately, but shall be considered incidental to the contract.

The cost of supplying and installing the initial and final Select Granular Trench Backfill shall be paid for at the contract unit price per CUBIC YARD (CY) for SELECT GRANULAR TRENCH BACKFILL. Section 20 of "Standard Specifications for Water and Sewer Main Construction in Illinois" shall be used to determine the quantity of Select Trench Backfill that will be eligible for payment. The depth used for the purposes of calculating the quantity of trench backfill that is eligible for payment shall be from the top of the haunching to the bottom of the bituminous pavement patch.

SP G.7 – COMPACTION REQUIREMENTS

The Contractor shall control soil compaction during construction in order to provide the minimum percentage of maximum or relative density as specified for each area of classification indicated below:

Percentage of Maximum Density Requirements
Compact soil to not less than the following percentages of maximum density for soils which exhibit a well-defined moisture density relationship (cohesive soils) determined in accordance with ASTM D 1557; and not less than the following percentages of relative density, determined in accordance with ASTM D 2049, for soils which will not exhibit a well-defined moisture-density relationship (cohesionless soils).

Pavement, Drives, and Sidewalks
Compact the top twelve inches (12") of sub-grade and each layer of backfill material at 95% of the materials maximum density at optimum moisture content as determined by the modified proctor test.

Lawn or Unpaved Areas
Compact the top six inches (6") of sub-grade and each layer of backfill material at 85% maximum density for cohesive soils and 90% relative density for cohesionless soils.

Moisture Control
Where sub-grade and each layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of sub-grade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations.

SP G.8 – TRENCHLESS PIPE INSTALLATION

This work shall consist of installing pipe via trenchless techniques. The contractor shall be responsible for determining the most efficient and effective method for the trenchless installation of the proposed improvements. The work shall include all labor, material, equipment, excavation, hauling and disposal of spoils, sheeting, shoring, dewatering, concrete barrier wall around jacking pit, casing pipe if called out on the plans or if required by the installation method chosen by the contractor, carrier pipe, and casing spacers required to perform the trenchless installation of the pipe in accordance with the plans and specifications.

The Contractor shall submit a detailed description of the method(s) to be used to perform the trenchless installation of the improvements. The method(s) to be proposed by the contractor must take into account the presence of existing utilities, soil conditions, ground water, space constraints, existing manmade improvements both below and above ground, such as vaults, building foundations, transformers, utility poles, traffic control devices, underground utilities, the proposed line and grade of the pipe, and other unique characteristics of the proposed work and work site.

The Contractor shall be responsible for placing concrete barrier walls around the jacking pit.

The steel carrier pipe shall have a minimum 0.312 inch wall thickness and have a coal tar epoxy coating applied to the exterior.

This work shall be paid for at the contract unit price per FOOT (FT) for TRENCHLESS PIPE INSTALLATION of the type and size specified.

SP G.9 - PIPE AND PRE-CAST CONCRETE STRUCTURES MATERIAL TESTS

All pipe and pre-cast concrete structures shall be tested and inspected for compliance with the appropriate A.S.A., A.S.T.M., and Manufacturer's Specifications by a reputable Testing Company approved by the Engineer. Prior to delivering pipe and pre-cast concrete structures to the job site, all approved pipe and pre-cast concrete structures shall be marked by the testing company and two (2) copies of the satisfactory test reports shall be provided to the Engineer. Any pipe or pre-cast concrete structure delivered to the site without proper markings or without test reports in the possession of the Engineer will be rejected for use.

SP G.10 – STRUCTURE TAPS

This work shall consists of connecting proposed sewers to existing manholes, catch basins and inlets in accordance with the plans, details, and these specifications, and shall include all excavation, sheeting, shoring, dewatering, supporting adjacent utilities and structures, core drilling and all other appurtenant work. **The Contractor shall be responsible for any and all damages to existing utilities.** If the Engineer determines an existing structure is to be re-used in lieu of replacement, the cost for connecting the proposed sewer to the existing structure shall be included in the cost for the structure tap.

In the event that the structure tap is to be performed on a sanitary manhole, the work shall include the installation of a rubber boot in accordance with the details and FMWRD requirements. A rubber boot will not be required for connections to storm sewer structures.
This work shall be paid for at the contract unit price per EACH for STORM STRUCTURE TAP or SANITARY STRUCTURE TAP for the size specified in the bid proposal.

SP G.11 – MAILBOX REMOVAL AND REINSTALLATION

This work shall consist of removing mailboxes which will conflict with water main or service installation activities, reinstalling them temporarily on the same day that they are removed in a location that will not conflict with the construction activities, and reinstalling the mailboxes in their original locations once the construction activities have ended.

The Contractor shall take due care to avoid damaging mailboxes when removing the mailboxes and reinstalling them in the temporary and permanent location. The contractor shall supply and install new mail box posts when reinstalling the mail box back in its original location. The Contractor shall replace damaged mailboxes at his expense.

This work shall be paid for at the contract unit price per EACH for MAILBOX REMOVAL AND REINSTALLATION, which shall include the material and labor necessary to reinstall the existing mail box on a new mailbox post.

SP G.13 – EXPLORATORY EXCAVATION

This work shall consist of excavating exploratory trenches in pavement for the purpose of ascertaining the horizontal and vertical alignment of existing underground utilities within the construction limits of the proposed improvements. A symbol may be shown on the Plans to identify the approximate location of the

exploration trench. The Engineer may require the Contractor to perform exploration trenches not shown on the Plans.

The work shall be done a minimum of one (1) week prior to the start of the construction of the proposed improvement. The trench shall be of sufficient length and depth to obtain the horizontal and vertical location and size of the underground utility. After the hole has been inspected by the Engineer, the Contractor shall backfill the hole with selected granular trench backfill and shall place temporary pavement.

This work shall be paid for at the contract unit price per FOOT (FT) for EXPLORATORY EXCAVATION of the depth specified. This unit price shall include all necessary saw cutting, pavement removal, excavation, removal of spoil off-site, backfilling, and placement of temporary pavement if necessary.

SP G.14 – REMOVE AND PLUG ABANDONED WATER SERVICES

This work shall consist of removing abandoned water services encountered during the work or as directed by the Engineer in the field. Abandoned water services shall be removed at the location of conflict with new construction and removed to the point of connection with the existing water main that is to remain. The service shall be removed to the corporation stop at the water main. The corporation stop shall not be removed, but shall be turned off and have a brass plug securely installed to prevent leaks.

The Contractor shall keep records of the services removed and the plugs installed. This information shall be transferred to the record drawings submitted to the Engineer by the Contractor.

The plugging and/or removal of abandoned water services within areas identified in the plans for excavation shall not be paid for separately, but shall be considered incidental to the Contract. The removal and disposal of abandoned water mains and services in order to facilitate the installation of new improvements, shall not be paid for separately, but shall be considered incidental to the contract.

The plugging and/or removal of abandoned water services not within the vicinity of the planned excavated areas as identified on the plans shall be paid for at the contract unit price per EACH as REMOVE AND PLUG ABANDONED WATER SERVICE. The excavation of the abandoned service, removal of the service, plugging of the corporation stop at the existing water main, and select granular trench backfill shall be considered incidental to this pay item.

SP G.15 – TREE ROOT PRUNING

All work, materials and equipment shall conform to Section 201.06 (a) of the "Standard Specifications for Road and Bridge Construction" except as modified herein.

Fertilizer nutrients and supplemental watering after root pruning is performed shall not be required. Root pruning shall be paid for at the contract unit price per FOOT for "Tree Root Pruning" and shall conform to Section 201 of the "Standard Specifications for Road and Bridge Construction".

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.

PUBLIC CONVENIENCE AND SAFETY (DIST 1)

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

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

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

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

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

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

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

ADJUST TRAFFIC SIGNAL HEADS

This work shall consist of adjusting existing traffic signal heads as directed by the Engineer. The adjustments indicated in the plans are based on the proposed lane configurations and mast arm locations. Final adjustments will be determined by the Engineer and will be based on visibility in the field as a result of final mast arm position (horizontal and vertical). 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.

TEMPORARY INFORMATION SIGNING

Effective: November 13, 1996
Revised: January 2, 2007

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

Materials.

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

	Item	Article/Section
a.)	Sign Base (Notes 1 & 2)	1090
b.)	Sign Face (Note 3)	1091
c.)	Sign Legends	1092
d.)	Sign Supports	1093
e.)	Overlay Panels (Note 4)	1090.02

Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.
Note 2. Type A sheeting can be used on the plywood base.
Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1106.01.
Note 4. The overlay panels shall be 0.08 inch (2 mm) thick.

GENERAL CONSTRUCTION REQUIREMENTS

Installation.

The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

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

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

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

Method of Measurement.

This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

Basis Of Payment.

This work shall be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

KEEPING ARTERIAL ROADWAYS OPEN TO TRAFFIC (LANE CLOSURES ONLY)

Effective: January 22, 2003
Revised: August 10, 2017

The Contractor shall provide the necessary traffic control devices to warn the public and to delineate the work zone as required in these Special Provisions, the Standard Specifications, the State Standards, and the District Details.

Arterial lane closures shall be in accordance with the Standard Specifications, Highway Standards, District Details, and the direction of the Engineer. The Contractor shall request and gain approval from the Engineer seventy–two (72) hours in advance of all long-term (24 hrs. or longer) lane closures.

Arterial lane closures not shown in the staging plans will not be permitted during **peak traffic volume hours**.

Private vehicles shall not be parked in the work zone. Contractor's equipment and/or vehicles shall not be parked on the shoulders or in the median during non-working hours. The parking of equipment and/or vehicles on City right-of-way will only be permitted at locations approved by the Engineer in accordance with Articles 701.08 and 701.11 of the Standard Specifications.

Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified above, the Contractor shall be liable to the Department for the amount of:

One lane or ramp blocked = $1,000.00

Two lanes blocked = $2,500.00

Not as a penalty but as liquidated and ascertained damages for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. Such damages may be deducted by the Department from any monies due the Contractor. These damages shall apply during the contract time and during any extensions of the contract time.

LIGHT DETECTOR AMPLIFIER

This work shall consist of furnishing and installing a new light detector amplifier, consisting of a multimode phase selector, for the emergency vehicle priority (EVP) system.

The multimode phase selectors for this project shall be **GTT Opticom** 700 series or approved equivalent by the City Traffic Engineer and shall be compatible with the City's Centralized EVP Management System in accordance with the requirements set forth below. The EVP system at each intersection shall be fully operational to the satisfaction of the Engineer.

Multimode Priority Control System

A multimode priority control system shall operate in a manner that allows infrared, and GPS/Radio priority control technologies to interoperate and activate one another in a consistent manner. The priority control system shall consist of a matched system of vehicle equipment and intersection equipment capable of employing both data-encoded radio communications to identify the presence of designated priority vehicles, as well as data-encoded infrared signaling communications. In preemption mode, the data-encoded communication shall request the traffic signal controller to advance to and/or hold a desired traffic signal display selected from phases normally available. A record of system usage by agency identification number, vehicle classification and vehicle identification number shall be created. The system software shall support call history analysis and reporting across any subset of intersections and/or vehicles independent of activation method. System software shall also support both onsite and remote programming and monitoring of the priority control system.

The vehicle equipment may include a GPS radio unit and vehicle control unit or a data encoded infrared emitter employing either a strobe or LED based light source. The GPS receiver on the vehicle shall obtain vehicle location, heading and speed from the U.S. Department of Defense (DoD) operated satellites. The GPS radio vehicle equipment shall also monitor the vehicle's turn signal status. A 2.4 GHz spread spectrum/frequency hopping radio in the vehicle equipment shall transmit this data to nearby intersections, only when it is within radio communication range of an intersection, which is received by a similar radio located at the intersection. The vehicle radio shall communicate to intersection radios at distances up to at least 2,500 feet (762 m) with no obstructions. If an infrared data-encoded emitter is employed on the

vehicle, it shall send an encoded infrared signal to the detector, with a range capability of 2,000 feet minimum.

Intersection detection equipment will consist of either a GPS receiver and radio transceiver or an infrared detector or both connected to a multimode phase selector located in the intersection controller cabinet. The GPS radio unit receives the data-encoded radio signal from the GPS radio equipped vehicle and transmits the decoded information through detector cable to the multimode phase selector for processing. The intersection radios also communicates to vehicles and other intersection radios at distances of up to at least 2,500 feet (762m) with no obstructions. The infrared detector receives the data-encoded infrared signal from the infrared equipped vehicle and transmits information through detector cable designed to convert infrared light energy at the proper wavelength into analog voltage signals that can be evaluated and decoded by the multimode phase selector.

The multimode phase selector shall be capable of receiving data encoded signals from either or both infrared and GPS radio detection equipment and combine the detection signals into a single set of tracked vehicles requesting priority activation. The multimode phase selector will process the vehicle information to ensure that the vehicle is (1) in a predefined approach corridor, (2) heading toward the intersection, (3) requesting priority, and (4) within user-settable range. The multimode phase selector shall treat the combined, single set of tracked calls with first come first served priority methodology within a given priority level. Arbitration between infrared signal intensity and GPS radio distance/ETA shall be first come first served methodology based on time of detection as each equipped vehicle reaches its programmed threshold.

When these conditions are met, the phase selector shall generate a priority control request to the traffic controller for the approaching priority vehicle. If the approaching GPS radio preemption equipped vehicle has an active turn signal, the approach intersection shall relay the priority request to the next nearest in-range intersection in the direction of the approaching vehicle's turn signal. The output of the phase selector may also be varied depending on the state of the approaching vehicle's turn signal.

To ensure priority control system integrity, operation and compatibility, all components shall be from the same manufacturer. The system shall offer compatibility with the most signal controllers, e.g. the latest NEMA (National Electrical Manufacturers Association) controllers. The system can be interfaced with most globally available controllers using the controller's preemption inputs. The necessary interfaces shall be provided to allow management by on-site interface software and central software.

The central software shall manage the region's priority control system as a single, integrated system, independent of the particular activation method or methods (infrared or GPS/radio) used within the region. The central software shall allow each intersection within the region to be configured with one or more phase selectors with varying methods of activation; e.g., one infrared phase selector and one GPS/radio phase selector or a multimode phase selector. The central software shall allow each vehicle within the region to be configured with priority control equipment with varying methods of activation; e.g., an infrared emitter and a GPS/radio vehicle control unit.

The central software shall support analysis of priority control activity at an intersection and/or for a vehicle as it is migrated between activation methods (e.g., migrated from infrared to GPS/radio). This analysis shall allow the user to readily determine whether the priority control system has retained its effectiveness across the migration. When a phase selector is removed or replaced at an intersection (e.g., replacing an infrared phase selector with a GPS/radio phase selector or multimode phase selector), call history and configuration history from that phase selector shall still be available for use in analysis and reporting in the central software.

The central software shall provide a means to filter the display such that only the information relevant to the activation method in use is shown to the user.

Matched System Components
As stated above, the signal preemption/priority system is comprised of matched system components. These components are further described as follows:

1. GPS Radio System Components

    a. *Vehicle/Intersection radio/GPS module, Radio/GPS Antenna with factory terminated SMA connectors, and vehicle control unit.* The radio/GPS module shall obtain the vehicle position, speed and heading information and transmit this information only when within range of a GPS radio preemption equipped intersection. The vehicle control unit shall communicate with the radio/GPS module and provide the interface to the vehicle in order to monitor the vehicle's turn signal status, provide activation and disable inputs as well as regulate the vehicle power provided to the radio/GPS module.
    b. *Intersection Radio/GPS Module.* The intersection radio/GPS module shall transmit a beacon every second and receive the data transmitted by the vehicle equipment and relay this information to the phase selector as well as other system-equipped intersections. It shall also obtain position information from the GPS satellites.
    c. *Radio/GPS Cable*. The radio/GPS cable shall carry the data received from the intersection radio/GPS unit to the phase selector. It shall also carry the power for the radio and GPS components provided by the phase selector. The same cable shall be used to carry the data between the vehicle radio/GPS unit and the vehicle control unit. The cable used to connect the radio/GPS unit to the phase selector shall be a shielded 10 conductor data cable; the use of coax cable is not permitted.
2. Infrared System Components

    a. *Data-Encoded LED Infrared Emitter*. The data-encoded emitter shall trigger the system. It shall send the encoded infrared signal to the detector. It shall be located on the priority or probe vehicle.
    b. *Remote Coding Unit.* The remote coding unit shall be capable of remotely programming the data-encoded LED infrared emitter without the use of a computer. The remote coding unit will not be available for use with the OEM version of the data-encoded LED emitter.
    c. *Infrared Detector.* The detector shall change the infrared signal to an electrical signal. It shall be located at or near the intersection. It shall send the electrical signal via the detector cable to the phase selector.
    d. *Detector Cable.* The detector cable shall carry the electrical signal from the detector to the phase selector.

3. Multimode System Components

    a. *Multimode Phase Selector*. The multimode phase selector shall recognize inputs from both infrared and GPS/radio activation methods at the intersection and supply coordinated inputs to the controller. The multimode phase selector shall process the data in order to validate that all parameters required for granting a priority request are met. It shall be located within the controller cabinet at the intersection. It shall request the controller to provide priority to a valid priority vehicle by connecting its outputs to the traffic controller's preemption inputs.
    b. *Card Rack*. The card rack shall provide simplified installation of a phase selector into controller cabinets that do not already have a suitable card rack.
    c. *Auxiliary Interface Panel*. The auxiliary panel shall provide additional preemption outputs if needed. It shall also provide a connection point for the phase selector to monitor the status of the intersection's green lights (green sense). Additional RS-232 communication ports may also be accessed via this panel. If additional outputs are not required, an auxiliary harness shall be used to monitor the status of the intersection's green lights.
    d. *Base Station.* The base station module is used at fire stations that are located very close to intersections. When the base station is activated, all nearby equipped intersection/s or

only those intersections in the planned direction of travel shall immediately begin requesting preemption from the traffic controller. The base station shall wirelessly communicate to intersections near the station that can be activated from the base station controller and/or passing vehicles that are equipped with GPS radio vehicle equipment.

Multimode Phase Selector

1. The multimode phase selector recognizes inputs from both infrared and GPS/radio activation methods at the intersection and supplies coordinated inputs to the controller.
2. The multimode phase selector is designed to be installed in the traffic controller cabinet and is intended for use directly with numerous controllers. These include controllers with compatible software, NEMA controllers, or other controllers along with the system card rack and suitable interface equipment and controller software.
3. The multimode phase selector will be a plug-in, four channel, multiple-priority, multi-modal device intended to be installed directly into a card rack located within the controller cabinet. The multi-mode phase selector shall be capable of using existing infrared or GPS/radio system card racks.
4. The multimode phase selector may be powered from either +24 VDC or 120VAC.
5. The multimode phase selector shall support front-panel RS-232, USB and Ethernet interfaces to allow management by on-site interface software and central software. An RS-232 port shall be provided on the rear card edge of the unit. Additional RS-232 communication ports shall be available using the Auxiliary Interface Panel.
6. The multimode phase selector shall include the ability to directly sense the green traffic controller signal indications through the use of dedicated sensing circuits and wires connected directly to field wire termination points in the traffic controller cabinet. This connection shall be made using the auxiliary interface panel.
7. The multimode phase selector shall have the capability of storing a minimum of 10,000 priority control calls. When the log is full, the phase selector shall drop the oldest entry to accommodate the new entry. The phase selector shall store each call record in non-volatile memory and shall retain the record if power terminates. Each preemption record entry shall include the following points of information about the priority call:

    a. Agency: Indicates the operating agency of the vehicle.
    b. Classification: Indicates the class type of vehicle.
    c. Identification number: Indicates the unique ID number of the vehicle.
    d. Priority level: Indicates the vehicle's priority level (High, Low or Probe).
    e. Direction: Channel A, B, C, or D; indicates the vehicle's direction of travel.
    f. Call duration: Indicates the total time in seconds the priority status is active.
    g. Final greens at end of call: Indicates which phases are green at the end of the call.
    h. Duration of the final greens: Indicates the total time final greens were active at the end of call.
    i. Time and date call started and ended: Indicates the time a priority call started and ended, provided in seconds, minutes, hours, day, month, and year.
    j. Turn signal status: Indicates the status of the turn signal during the call.
    k. Priority output active: Indicates if the phase selector requested priority from the controller for the call.
    l. Historical no preempt cause: Indicates a history of conditions, which may have prevented a call or caused a call to terminate.
    m. Speed of vehicle: entry speed, exit speed, average speed through call.
    n. Relative priority: relative priority of vehicle class logged at time of call.
    o. Directional priority: directional priority logged at time of call.
    p. Preempt output used.
    q. Signal intensity: maximum and minimum infrared signal intensity during call.

8. The multimode phase selector shall support a minimum of 5000 code pairs (agency ID, vehicle ID) providing unique vehicle identification and system security implementation at the vehicle level.
9. The multimode phase selector shall include several programmable control timers that will limit or modify the duration of a priority control condition, by channel. The control timers will be as follows:

    a. MAX CALL TIME: Sets the maximum time that a channel is allowed to be held active by a specific vehicle. It shall be settable from 60 to 65,535 seconds in one-second increments. The factory default shall be 360 seconds.
    b. OFF APPROACH CALL HOLD TIME: Sets the amount of time a call is held on a channel after the vehicle has left the approach. It shall be settable from 4 to 255 seconds in one-second increments. The factory default shall be 6 seconds.
    c. LOST SIGNAL CALL HOLD TIME: Sets the amount of time that a call is held on a channel after the intersection has lost contact with the vehicle. It shall be settable from one to 255 seconds in one-second increments. The factory default shall be six seconds.

10. The multimode phase selector shall have the ability to enable or disable all calls of both priority levels. This shall be independently settable by channel.
11. A unique intersection name, which shall be broadcasted, shall be settable for each multimode phase selector.
12. Up to 25 different radio channels shall be available to be assigned to the multimode phase selector.
13. The multimode phase selector shall operate in a mode that shall vary the output based on the status of the approaching vehicles turn signal. Additional outputs available on an Auxiliary Interface Panel may be needed. Settings shall be available for this mode as follows:

    a. Output mappings for each channel.
    b. Separate setting for each of the four channels.
    c. Separate settings for each left turn, right turn or straight signal status for each of the above four channels.

14. The multimode phase selector's default values shall be programmable by the operator on-site or at a remote location.
15. The multimode phase selector shall be capable of three levels of signal discrimination, as follows:

    a. Verification of the presence of the signal of either High priority or Low priority.
    b. Verification that the vehicle is approaching the intersection within a prescribed Estimate Time of Arrival (ETA).
    c. Determination of when the vehicle is within the prescribed range, either by intensity level or distance from the intersection.

16. The multimode phase selector shall include one opto-isolated NPN output per channel that provides the following electrical signal to the appropriate pin on the card edge connector:

    a. .25Hz ± 0.1Hz 50% on/duty square wave in response to a Low priority call.
    b. A steady ON in response to a High priority call.
    c. The phase selector will also have the option of providing separate outputs for High and Low priority calls for controllers that do not recognize a 6.25 Hz pulsed Low priority request.
    d. Additional outputs or output modes shall also be available on the auxiliary interface panel.

17. The multimode phase selector shall accommodate three methods for setting range thresholds for High and Low priority signals:

    a. Based on the approaching vehicle's Estimated Time of Arrival (ETA). This shall be settable between 0 and 255 seconds in one second increments. The factory default shall be 30 seconds. The ETA threshold shall be independently settable by each of the following parameters: vehicle class, approach channel and priority level.
    b. Based on the approaching vehicle's distance from the intersection. This shall be settable between 0 and 5,000 feet in one foot increments. The factory default shall be 1000 feet. The Distance threshold shall be independently settable by each of the following parameters: vehicle class, channel and priority level.
    c. Based on infrared emitter intensity the system shall accommodate setting a separate range from 200 feet (61m) to 2,500 feet (762m) with 1,200 range set points for both High and Low priority signals.

18. The multimode phase selector shall support three types of green sense logging.
    a. Preemption impact logging which measures and records the impact of an individual signal preemption upon a measured green cycle time.
    b. TSP impact logging which measures and records whether a TSP advantage was gained during a request and the amount of early or extended green applied.
    c. Green cycle logging records changes in the average green cycle time. When the average time is measured to have changed, a new log entry is made.

19. The multimode phase selector will have the following indicators:

    a. A STATUS indicator that illuminates steadily to indicate proper operation.
    b. A link indicator on the multimode phase selector illuminates green if other radios are within range.
    c. A radio indicator that indicates the status of the communication between the vehicle control unit and the radio/GPS unit. The indicator illuminates amber to indicate that there is communication between the vehicle control unit and the radio/GPS unit. The indicator illuminates green to indicate that a GPS signal has been acquired and the 2.4 GHz radio is on the air.
    d. LED indicators (one for High priority, one for Low priority) for each channel display active calls as steady ON and pulse to indicate pending preemption requests.

20. The phase selector shall have a test switch for each channel to test proper operation of High or Low priority.
21. The multimode phase selector shall utilize the time obtained from the GPS satellites to time stamp the activity logs. The user will set the local time zone (offset from GPS time) via the interface software
22. The interface software shall have the capability to set the multimode phase selector to automatically adjust the GPS time offset for changes in daylight savings time.
23. An auxiliary interface panel shall be available to facilitate interconnections between the multimode phase selector and traffic cabinet wiring as well as provide additional outputs.
24. A multimode phase selector port may be configured to output GPS data at a user selectable baud rate in the NMEA 0183format. It will output the following messages (depending on the baud rate):

    a. GGA - Global Positioning System Fix Data (2400 baud and higher);
    b. GSA- GPS DOP and active satellites (2400 baud and higher);
    c. GSV - Satellites in view (4800 baud and higher); and
    d. RMC - Recommended Minimum Navigation Information (1200 baud and higher).

For traffic controllers that are capable of interpreting GPS data in the NMEA 0183 serial format, this GPS data may be used to synchronize the controller's clock using the GPS date and time.

Additionally, a discrete output from the phase selector may be used to reset the traffic controller using the clock reset function/input of the controller. This output shall be available on the Auxilliary Interface Panel. This output shall be referenced to the GPS date and time.

This output may be configured as follows:

a. Enabled or Disabled;
b. Time of day reset is activated (12:00 A.M. to 6:00 A.M. in 30 minute increments);
c. Duration of reset pulse (100-2,000 milliseconds); or
d. Repeat every 1 to 30 days.

25. The multimode phase selector shall provide the user with call play-back logs for the last 100 priority activation requests. Each log shall contain up to the last 250 seconds of a call. The call play-back logs shall include:

    a. GPS/radio based calls shall record vehicle speed, heading, signal quality, GPS location, coded ID, green sense state, call status (active, pending, disabled), approach channel and turn signal status and priority information.
    b. Infrared based calls shall record intensity, coded ID, green sense state, call status (active, pending, disabled), approach channel and priority information.
    c. Data shall be recorded once per second. Recording terminates at call end.

26. The following diagnostic tests are incorporated in the multimode phase selector:

    a. Power up built in test;
    b. Communications port tests;
    c. Preemption output test call; and
    d. Detector response test.

27. The multimode phase selector shall be capable of call bridging. Call bridging enables the treatment of two vehicles requesting priority activation to have their calls linked together to hold a call to the controller so that they may traverse the approach together.
28. The multimode phase selector shall be capable of directional priority. Priority for calls may be assigned to individual approach channels such that calls in a particular direction will be given priority over calls in competing directions within the same priority level.
29. When used with a GPS Radio Unit, the multimode phase selector shall relay a priority request to the next adjacent intersection based on the direction indicated by the vehicle's turn signals.
30. The multimode phase selector shall be capable of utilizing time plans to allow users to vary priority activation by time of day, or for a specific time period such as special events. Time plans shall be configured via system software.
31. The multimode phase selector shall support evacuation mode for low priority calls. Upon activation of this mode from the central management software, low priority vehicle calls shall be recognized by the multimode phase selector as if they were high priority vehicle calls for a temporary period of time as defined by the user. This mode shall be supported for both infrared and GPS radio emitters. Vehicles transmitting high priority signals shall continue to maintain priority over the evacuation mode priority vehicles.
32. The multimode phase selector shall allow relative priority. Relative priority allows emitter classes to be used as an additional level of prioritization within priority levels (i.e. high and low priority levels have different sets of relative priorities). Relative priority shall support up to 15 unique classes in each priority level (High and Low). Relative priority class level 15 will have the highest weight and 1 the lowest weight in each. If relative priority is enabled, a priority call will be granted to the caller with the higher class level within high and low priority levels. A

vehicle with a call granted, shall be able to have its call taken away by a higher level class vehicle. The system shall provide a lockout threshold that once met, shall disallow higher relative priority calls from taking away a call. Separate thresholds for infrared and GPS/radio calls shall be provided. Infrared call thresholds shall be specified as an intensity with a default value of 1,000. GPS/radio call thresholds shall be specified as an ETA in seconds. The default is ETA shall be 12 seconds. Threshold values for both types of calls shall be settable via system software. High priority calls will always be served over low priority calls regardless of either's relative class. Preemption for vehicles with the same base priority (high, low) and the same relative priority is done using the default first come, first served mechanism. Relative priority is capable of being enabled or disabled using system software. Relative priority for high and low can be separately enabled or disabled using system software. The default settings for all relative priority (high and low) values will be 15. Relative priority shall be disabled by default for both high and low priority.

Basis of Payment
This work will be paid for at the contract unit price per each for LIGHT DETECTOR AMPLIFIER.

If the work consists of retrofitting an existing EVP confirmation beacon with light emitting diodes (LEDs), it will be paid for at the contract unit price per each for EVP CONFIRMATION BEACON, 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.

ETHERNET SWITCH

This work shall consist of furnishing and installing an Ethernet Switch in order to provide communications between traffic signal interconnect equipment in the field and the Centralized Transportation Management System within Aurora building. 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(s) as specified by the City Traffic Engineer and shall be a RuggedSwitch RS900, or approved equivalent.

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 or approved equivalent.

The PTZ cameras shall be mounted via bracket assembly to the combination mast arm pole or according to camera mounting detail (riser pole) in the plans or as directed by the Engineer.

The video and PTZ control cable shall consist of an RJ45 with CAT6 cabling. Either handheld monitor/control or in- cabinet LED 12-15 inch monitor and joystick will be included/supplied to remain in the traffic signal cabinet and operation field demonstrated.

PTZ video software will be supplied and remote access must be proven operational from the City's Traffic Center in the Engineering Department. The software shall be of the latest revision.

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 riser pole and 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 outdoor rated CAT. 6 ETHERNET CABLE.

CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP

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.

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.

TRAFFIC SIGNAL GENERAL REQUIREMENTS

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 IMSA 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 this 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 Vendor. Company that sells a particular type of product directly to the contractor or the Equipment Supplier.

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

- Be full service with on-site facilities to assemble, test and trouble-shoot traffic signal controllers and cabinet assemblies.
- Maintain an inventory of IDOT District One approved controllers and cabinets.
- Be staffed with permanent sales and technical personnel able to provide traffic signal controller and cabinet expertise and support.
- Technical staff shall hold current IMSA Traffic Signal Technician Level III certification and shall attend traffic signal turn-ons and inspections with a minimum 14 calendar day notice.

Submittals.
Revise Article 801.05 of the Standard Specifications to read:

All material approval requests shall be submitted electronically through the District's SharePoint System unless directed otherwise by the Engineer. Electronic material submittals shall follow the District's Traffic Operations Construction Submittals guidelines. General requirements include:

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 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 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. The Contractor shall account for the additional review time in his schedule.
8. The contract number or permit number, project location/limits and corresponding pay code number must be on each sheet of correspondence, catalog cuts 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. 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.

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 equipment supplier in District One. The Department reserves the right to request any controller and cabinet to be tested at the equipment supplier's facility prior to field installation, at no extra cost to this contract.

Maintenance and Responsibility.
Revise Article 801.11 of the Standard Specifications to read:

a. Existing traffic signal installations and/or any electrical facilities at all or various locations may be altered or reconstructed totally or partially as part of the work on this Contract. The Contractor is hereby advised that all traffic control equipment, presently installed at these locations, may be the property of the State of Illinois, Department of Transportation, Division of Highways, County, Private Developer, Municipality or Transit Agency in which they are located. Once the Contractor has begun any work on any portion of the project, all traffic signals within the limits of this contract or those which have the item "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," shall become the full responsibility of the Contractor. The Contractor shall supply the City Traffic Engineer, City's Electrical Maintenance Contractor with two 24-hour emergency contact names and telephone numbers.

b. Automatic Traffic Enforcement equipment such as red lighting running and railroad crossing camera systems are owned and operated by others and the Contractor shall not be responsible for maintaining this equipment.

c. Regional transit, County and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as PTZ cameras, switches, transit signal priority (TSP and BRT) servers and other devices that shall be included with traffic signal maintenance at no additional cost to the contract.

d. When the project has a pay item for "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," the Contractor must notify both the City Traffic Engineer at (630) 256-3241 and the City's Electrical Maintenance Contractor, 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 City will attempt to full-fill the Contractor's inspection date request(s), however workload and other conditions may prevent the City 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 City. If work is started prior to an 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 no cost to the owner of the traffic signal. 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.

e. 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 of 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.

f. The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals and other equipment noted herein. Any inquiry, complaint or request by the City, the City's Electrical Maintenance Contractor or the public, shall be investigated and repairs begun within one hour. Failure to provide this service will result in liquidated damages of $1000 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of $1000 per month per occurrence. Unpaid bills will be deducted from the cost of the Contract. The City may inspect any signalizing device on the City's highway system at any time without notification.

g. 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.

h. The Contractor shall be responsible to clear snow, ice, dirt, debris or other condition that obstructs visibility of any traffic signal display or access to traffic signal equipment.

i. The Contractor shall maintain the traffic signal in normal operation during short or long term loss of utility or battery back-up power at critical locations designated by the Engineer. Critical locations may include traffic signals interconnected to railroad warning devices, expressway ramps, intersection with an SRA route, critical corridors or other locations identified by the Engineer. Temporary power to the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries. Temporary power to critical locations shall not be for separately but shall be included in the contract.

Damage to Traffic Signal System.
Add the following to Article 801.12(b) of the Standard Specifications to read:

Any traffic signal control equipment damaged 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 otherwise the traffic signal installation will not be accepted. Cable splices are only allowed at the bases pf post and mast arms.

Temporary replacement of damaged or knockdown of a 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.

Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, and peripheral equipment, 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:

It is the intent to have all electric work completed and equipment field tested by the Equipment Supplier prior to the City'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 road is open to traffic, except as otherwise provided in Section 850 of the Standard Specifications, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the City Traffic Engineer at (630) 256-3241 a minimum of seven (7) working days prior to the time of the requested inspection. The City will attempt to full-fill the Contractor's turn-on and inspection date request(s), however workload and other conditions may prevent the City 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 City. The City 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, or TEMPORARY TRAFFIC SIGNAL TIMINGS, 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 control equipment vendor's office 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 Agency that is responsible for the maintenance of each traffic signal installation will assume the maintenance upon successful completion of this inspection.

The City requires the following Final Project Documentation from the Contractor at traffic signal turn-ons in electronic format in addition to hard copies where noted. A USB shall be submitted with separate folders corresponding to each numbered title below. The USB envelop shall be labelled with date, project location, company and contract or permit number. Record Drawings, Inventory and Material Approvals shall be submitted prior to traffic signal turn-on for review by the City as described here-in.

Final Project Documentation:

1. Record Drawings. Signal plans of record with field revisions marked in red ink. One hard copy set of 11"x17" record drawings shall also be provided.
2. Inventory. Inventory of new and existing traffic signal equipment including cabinet types and devices within cabinets in an Excel spread sheet format. One hard copy shall also be provided.

3. Pictures. Digital pictures of a minimum 12M pixels of each intersection approach showing all traffic signal displays and equipment. Pictures shall include controller cabinet equipment in enough detail to clearly identify manufacture and model of major equipment.
4. Field Testing. Written notification from the Contractor and the equipment vendor of satisfactory field testing with corresponding material performance measurements, such as for detector loops and fiber optic systems (see Article 801.13). One hard copy of all contract required performance measurement testing shall also be provided.
5. Materials Approval. The material approval letter. A hard copy shall also be provided.
6. Manuals. Operation and service manuals of the signal controller and associated control equipment. One hard copy shall also be provided.
7. Cabinet Wiring Diagram and Cable Logs. Five (5) hard copies 11" x 17" of the cabinet wiring diagrams shall be provided along with electronic pdf and dgn files of the cabinet wiring diagram. Five 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.
8. Controller Programming Settings. The traffic signal controller's timings; backup timings; coordination splits, offsets, and cycles; TBC Time of Day, Week and Year Programs; Traffic Responsive Program, Detector Phase Assignment, Type and Detector Switching; and any other functions programmable from the keyboard. The controller manufacturer shall also supply a printed form, not to exceed 11" x 17" for recording that data noted above. The form shall include a location, date, manufacturer's name, controller model and software version. The form shall be approved by the Engineer and a minimum of three (3) copies must be furnished at each turn-on. The manufacturer must provide all programming information used within the controller at the time of turn-on.
9. Warrantees and Guarantees. All manufacturer and contractor warrantees and guarantees required by Article 801.14.
10. GPS coordinate of traffic signal equipment as describe in the Record Drawings section herein.

Acceptance of the traffic signal equipment by the City 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 the traffic signal. If approved, traffic signal acceptance shall be verbal at the "turn on" inspection followed by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until City 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 City.

All punch list work shall be completed within two (2) weeks after the final inspection. The Contractor shall notify the Electrical Maintenance Contractor to inspect 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 above requirements 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 above requirements 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 2nd paragraph of Article 801.16 of the Standard Specifications to read:

"When the work is complete, and seven days before the request for a final inspection, the reduced-size set of 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 on USB as well as hardcopy for review and approval. 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 catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. 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."

As part of the record drawings, the Contractor shall inventory all traffic signal equipment, new or existing, on the project and record information in an Excel spreadsheet. The inventory shall include equipment type, model numbers, software manufacturer and version and quantities.

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 this contract:

- All Mast Arm Poles and Posts
- Traffic Signal Wood Poles
- Rail Road Bungalow
- UPS
- Handholes
- Conduit roadway crossings
- Controller Cabinets
- Communication Cabinets
- Electric Service Disconnect locations
- CCTV Camera installations
- Fiber Optic Splice Locations
- Conduit Crossings

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. 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 (i.e. TS22157_15-01-01)
- 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, per the IDOT special provisions

Examples:

Date	Item	Description	Latitude	Longitude

01/01/2015	MP (Mast Arm Pole)	NEQ, NB, Dual, Combination Pole	41.580493	-87.793378
01/01/2015	HH (Handhole)	Heavy Duty, Fiber, Intersection, Double	41.558532	-87.792571
01/01/2015	ES (Electrical Service)	Ground mount, Pole mount	41.765532	-87.543571
01/01/2015	CC (Controller Cabinet)		41.602248	-87.794053
01/01/2015	RSC (Rigid Steel Crossing)	IL 31 east side crossing south leg to center HH at Klausen	41.611111	-87.790222
01/01/2015	PTZ (PTZ)	NEQ extension pole	41.593434	-87.769876
01/01/2015	POST (Post)		41.651848	-87.762053
01/01/2015	MCC (Master Controller Cabinet)		41.584593	-87.793378
01/01/2015	COMC (Communication Cabinet)		41.584600	-87.793432
01/01/2015	BBS (Battery Backup System)		41.558532	-87.792571
01/01/2015	CNCR (Conduit Crossing)	4-inch IL 31 n/o of Klausen	41.588888	-87.794440

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 1 foot. Upon verification, data collection can begin. 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 submit the data for review and approval as specified.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have a minimum 1 foot accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years."

Delete the last sentence of the 3rd paragraph of Article 801.16.

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 this Contract requires the services of an Electrical Contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT electrical facilities prior to performing any work. If this Contract does not require the 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 may 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.

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

The excavation within this project shall be minimized as much as possible, and the spoils from the excavation shall be reworked into the existing ground. The disturbed areas be restored in accordance with the specifications of this project and to the satisfaction of 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.

Bagging Signal Heads.

Light tan colored traffic and pedestrian signal reusable covers shall be used to cover dark/un-energized signal sections and visors. 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 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.

OPTIMIZE TRAFFIC SIGNAL SYSTEM

Effective: May 22, 2002
Revised: July 1, 2015
800.02TS

Description.
This work shall consist of optimizing a closed loop traffic signal system.

OPTIMIZE TRAFFIC SIGNAL SYSTEM applies when a new or existing closed loop 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, developing a time of day program and a traffic responsive program.

After the signal improvements are completed, the signal system shall be optimized as specified by an approved Consultant who has previous experience in optimizing Closed Loop Traffic Signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 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, and timing patterns may be obtained from the Department, if available and as appropriate. The existing SCAT Report is available for review at the District One office and if the Consultant provides blank a CD, copies of computer simulation files for the existing optimized system and a timing database that includes intersection displays will be made for the Consultant. The Consultant shall confer with the Traffic Signal 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 closed loop signal system.

2. Traffic counts shall be taken at all intersections after the permanent traffic signals are approved for operation by the Area Traffic Signal 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. As necessary, the intersections shall be re-addressed and all system detectors reassigned in the master controller according to the current standard of District One.

4. A traffic responsive program shall be developed, which considers both volume and occupancy. A time-of-day program shall be developed for used 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 90 days 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. These studies should utilize specialized electronic timing and measuring devices.

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

1. Consultant shall furnish to IDOT one (1) copy of a SCAT Report for the optimized system. 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, system phone number, 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.

Table of Contents

Tab 1: Final Report

1. Project Overview
2. System and Location Description (Project specific)
3. Methodology
4. Data Collection
5. Data Analysis and Timing Plan Development
6. Implementation
   a. Traffic Responsive Programming (Table of TRP vs. TOD Operation) with am, md, and pm cycle lengths
7. Evaluation
   a. Speed and Delay runs

Tab 2. Turning Movement Counts

1. Turning Movement Counts (Showing turning movement counts in the intersection diagram for each period, including truck percentage)

Tab 3. Synchro Analysis

1. AM: Time-Space diagram in color, followed by intersection Synchro report (Timing report) summarizing the implemented timings.
2. Midday: same as AM
3. PM: same as AM
4. Special weekend or off-peak traffic generators (shopping centers, educational facilities, arenas, etc.): same as AM

Tab 4: Speed, Delay Studies

1. Summary of before and after runs results in two (2) tables showing travel time and delay time.
2. Plot of the before and after runs diagram for each direction and time period.

Tab 5: Environmental Report

1. Environmental impact report including gas consumption, NO2, HCCO, improvements.

Tab 6: Electronic Files

1. Two (2) CDs for the optimized system. The CDs shall include the following elements:
   a. Electronic copy of the SCAT Report in PDF format
   b. Copies of the Synchro files for the optimized system
   c. Traffic counts for the optimized system
   d. New or updated intersection graphic display files for each of the system intersections and the system graphic display file including system detector locations and addresses.

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 system is working to the satisfaction of the engineer and an approved report and USB have been submitted.

SERVICE INSTALLATION (traffic signals)

Effective: May 22, 2002
Revised: June 15, 2016
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 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 City Traffic Engineer. The service agreement and sketch shall be submitted for signature to the City Traffic 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-inch (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-inches (350 mm) high, 9-inches (225 mm) wide and 8-inches (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-inch (3.175 mm) thick, the top 0.250-inch (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-inch (1.91 mm) thick hinge bolted to the cabinet with stainless steel carriage bolts and nylocks 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-inches (1000 mm) high, 16-inches (400 mm) wide and 15-inches (375 mm) in depth is required.

The cabinet shall be mounted upon a square 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. Metered service shall not be used unless specified in the plans.

d. Surge Protector. Overvoltage protection, with LED indicator, shall be provided for the 120 volt load circuit by the means MOV and thermal fusing technology. The response time shall be <5n seconds and operate within a range of –40C to +85C. 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 volt 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 amperes, 120 V and the auxiliary circuit breakers shall be rated 10 amperes, 120 V.

f. Fuses, Fuseholders and Power Indicating Light. Fuses shall be small-dimensional cylindrical fuses of the dual element time-delay type. The fuses shall be rated for 600 V AC and shall have a UL listed interrupting rating of not less than 10,000 rms symmetrical amperes at rated voltage. The power indicating light shall be LED type with a green colored lens and shall be energized when electric utility power is present.

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 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 feet (3.0m) in length, and 3/4 inch (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 inch (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.

GROUNDING OF TRAFFIC SIGNAL SYSTEMS

Effective: May 22, 2002
Revised: July 1, 2015
806.01TS

Revise Section 806 of the Standard Specifications to read:

General.

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 were 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 conductor*s* 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.

3. All metallic and non-metallic raceways shall have a continuous equipment grounding conductor, except raceways containing only detector loop lead-in circuits, circuits under 50 volts 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.

GROUNDING CABLE

Effective: May 22, 2002
Revised: July 1, 2015
817.01TS

The cable shall meet the requirements of Section 817 of the "Standard Specifications," except for the following:

Add the following to Article 817.02 (b) of the Standard Specifications:

Unless otherwise noted on the Plans, traffic signal grounding conductor shall be one conductor, #6 gauge copper, with a green color coded XLP jacket.

The traffic signal grounding conductor shall be bonded, using a UL Listed grounding connector to all proposed and existing traffic signal mast arm poles and traffic/pedestrian signal posts, including push button posts. The grounding conductor shall be bonded to all proposed and existing pull boxes, handhole frames and covers and other metallic enclosures throughout the traffic signal wiring system and noted herein and detailed on the plans. The grounding conductor shall be bonded to conduit terminations using rated grounding bushings. Bonding to existing handhole frames and covers shall be paid for separately.

Add the following to Article 817.05 of the Standard Specifications:

Basis of Payment.
Grounding cable shall be measured in place for payment in foot (meter). Payment shall be at the contract unit price for ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C, which price includes all associated labor and material including grounding clamps, splicing, exothermic welds, grounding connectors, conduit grounding bushings, and other hardware.

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.

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 or 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: July 1, 2015
814.01TS

Description.
Add the following to Section 814 of the Standard Specifications:

All conduits shall enter the handhole at a depth of 30 inches (762 mm) except for the conduits for detector loops when the handhole is less than 5 feet (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 coated with hot-dipped galvanization in accordance with AASHTO Specification M111. Hooks shall be a minimum of 1/2 inch (13 mm) diameter with two 90 degree bends and extend into the handhole at least 6 inches (152 mm). Hooks shall be placed a minimum of 12 inches (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 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.”

Add the following to Article 814.03 of the Standard Specifications:

> “(c) 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 inch (13 mm) thickness shall be placed between the handhole and the sidewalk.”

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

For grounding purposes the handhole frame shall have provisions for a 7/16 inch (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 12 inches (305mm).

Precast Round Handholes.
All precast handholes shall be concrete, with inside dimensions of 30 inches (762mm) diameter. Frames and covers shall have a minimum opening of 26 inches (660mm) and no larger than the inside diameter of the handhole.

For grounding purposes the handhole frame shall have provisions for a 7/16 inch (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 inch (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 inches (152 mm).

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

Materials.
Add the following to Section 1042 of the Standard Specifications:

"1042.17 Precast Concrete Handholes. Precast concrete handholes shall be according to Articles 1042.03(a)(c)(d)(e)."

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

This work shall be according to Article 669 of the Standard Specifications and the following:

Qualifications. The term environmental firm shall mean an environmental firm with at least five (5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

General. This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

All contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. **Phase I Preliminary Engineering information is available through the District's Environmental Studies Unit.** Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

MAINTENANCE OF EXISTING TRAFFIC SIGNAL and flashing beacon INSTALLATION

Effective: May 22, 2002
Revised: July 1, 2015
850.01TS

General.

1. Full maintenance responsibility shall start as soon as the Contractor begins any physical work on the Contract or any portion thereof. If Contract work is started prior to a traffic signal inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection.

2. The Contractor shall have electricians with IMSA Level II certification on staff to provide signal maintenance. A copy of the certification shall be immediately available upon request of the Engineer.

3. This item shall include maintenance of all traffic signal equipment and other connected and related equipment such as flashing beacons, emergency vehicle pre-emption equipment, master controllers, uninterruptable power supply (UPS and batteries), PTZ cameras, vehicle detection, handholes, lighted signs, telephone service installations, communication cables, conduits to adjacent intersections, and other traffic signal equipment.

4. Regional transit, County and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as PTZ cameras, switches, transit signal priority (TSP and BRT) servers, radios and other devices that shall be included with traffic signal maintenance at no additional cost to the contract.

5. 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 the local municipality and should be de-activated while on contractor maintenance.

6. The energy charges for the operation of the traffic signal installation shall be paid for by the Contractor.

Maintenance.

1. The Contractor shall check all controllers every two (2) weeks, which will include visually inspecting all timing intervals, relays, detectors, and pre-emption equipment to ensure that they are functioning properly. The Contractor shall check signal system communications and phone lines to assure proper operation. This item includes, as routine maintenance, all portions of emergency vehicle pre-emption equipment. The Contractor shall maintain in stock at all times a sufficient amount of materials and equipment to provide effective temporary and permanent repairs. Prior to the traffic signal maintenance transfer, the contractor shall supply a detailed maintenance schedule that includes dates, locations, names of electricians providing the required checks and inspections along with any other information requested by the Engineer.

2. The Contractor is advised that the existing and/or span wire 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 of the Engineer. Approval to shut down the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.

3. The Contractor shall provide immediate corrective action when any part or parts of the system 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 on flashing operation. The signals shall flash RED for all directions unless a different indication has been specified by the Engineer. The Contractor shall be required to place stop signs (R1-1-36) at each approach of the intersection as a temporary means of regulating traffic. When the signals operate in flash, the Contractor shall furnish and equip all their vehicles assigned to the maintenance of traffic signal installations with a sufficient number of stop signs as specified herein. The Contractor shall maintain a sufficient number of spare stop signs in stock at all times to replace stop signs which may be damaged or stolen.

4. The Contractor shall provide the Engineer with 2 (two) 24 hour telephone numbers for the maintenance of the traffic signal installation and for emergency calls by the Engineer.

5. Traffic signal equipment which is lost 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.

6. 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 and identical equipment. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional charge 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 State's Electrical Maintenance Contractor perform the maintenance work. The Contractor shall be responsible for all of the State's Electrical Maintenance Contractor's costs and liquidated damages of $1000 per day per occurrence. The State'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 make reviews of the Existing Traffic Signal Installation that has been transferred to the Contractor for Maintenance.

7. 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.

8. Equipment included in this item that is damaged 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 otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed.

9. Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause, shall be the responsibility of the municipality or the Automatic Traffic Enforcement Company per Permit agreement.

10. The Contractor shall be responsible to clear snow, ice, dirt, debris or other condition that obstructs visibility of any traffic signal display or access to traffic signal equipment.

11. The Contractor shall maintain the traffic signal in normal operation during short or long term loss of utility or battery back-up power at critical locations designated by the Engineer. Critical locations may include traffic signals interconnected to railroad warning devices, expressway ramps, intersection with an SRA route, critical corridors or other locations identified by the Engineer. Temporary power to the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries. Temporary power to critical locations shall not be paid for separately but shall be included in the contract.

12. Temporary replacement of damaged or knockdown of a 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.

Basis of Payment.

This work will be paid for at the contract unit price per each for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION. Each intersection will be paid for separately. Maintenance of a standalone and

or not connected flashing beacon shall be paid for at the contract unit price for MAINTENANCE OF EXISITNG FLASHING BEACON INSTALLATION. Each flashing beacon will be paid for separately.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

Add the following to Article 895.05(a) of the Standard Specifications:

The traffic signal equipment which is to be removed and is to become the property of the Contractor shall be disposed of outside the right-of-way at the Contractor's expense.

All equipment to be returned to the City of Aurora (COA) shall be delivered by the Contractor to COA. The Contractor shall contact the Traffic Engineer at 630- 256- 3241 to schedule an appointment to deliver the equipment. No equipment will be accepted without a prior appointment. All equipment shall be delivered within 30 days of removing it from the traffic signal installation. The Contractor shall provide one hard copy and one electronic file of a list of equipment that is to remain the property of COA, including model and serial numbers, where applicable. The Contractor shall also provide a copy of the plan sheet or Contract documents showing the quantities and type of equipment. Controllers and peripheral equipment from the same location shall be boxed together (equipment from different locations may not be mixed) and all boxes and controller cabinets shall be clearly marked or labeled with the location from which they were removed. COA reserves the right to reject equipment that is not returned according to these requirements. The Contractor shall be responsible for the condition of the traffic signal equipment from the time Contractor takes maintenance of the signal installation until the acceptance of a receipt drawn by the Traffic Engineer indicating the items have been returned in good condition.

The Contractor shall safely store and arrange for pick up or delivery of all equipment to be returned to agencies other than COA. The Contractor shall package the equipment and provide all necessary documentation as stated above.

Traffic signal equipment which is lost or not returned to COA for any reason shall be replaced by the Contractor with new equipment meeting the requirements of these Specifications at no cost to the contract.

For all traffic signal posts or mast arms to remain, all vacated holes remaining in existing posts or mast arms shall be plugged with a kneadable, two-part epoxy putty. The putty shall cure in two hours or less and, when dried, the putty shall be sandable and paintable. It shall be capable of withstanding up to 500 degree Fahrenheit temperatures, with minimum tensile strength of 6000 psi and compressive strength of 18 psi. Products that include asbestos are prohibited.

The epoxy putty shall be applied to each vacated hole according to manufacturer's recommendations. The putty shall be shaped and smoothed, and excess putty shall be removed before it hardens. After the putty is fully hardened, it shall be sanded, cleaned, and painted to match the traffic signal post or mast arm.

FULL-ACTUATED CONTROLLER AND CABINET

Effective: January 1, 2002
Revised: July 1, 2018
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, with 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 Siemens M60 ATC traffic signal controller.

Materials.
Add the following to Article 857.02 of the Standard Specifications:

For installation as a stand-alone traffic signal, connected to a closed loop system or integrated into an advance traffic management system (ATMS), controllers shall be Econolite Cobalt G or Siemens M60 unless specified otherwise on the plans or elsewhere on these specifications. Only controllers supplied by one of the District One approved closed loop equipment suppliers will be allowed. Unless specified otherwise on the plans or these specifications, the controller shall be of the most recent model and software version supplied by the equipment supplier at the time of the traffic signal TURN-ON. A removable controller data key shall also be provided. Individual load switches shall be provided for each vehicle, pedestrian, and right turn over lap phase. The controller shall prevent phases from being skipped during program changes and after all preemption events and shall inhibit simultaneous display of circular yellow and yellow arrow indications.

For integration into an ATMS such as Centracs, Tactics, or TransSuite, the controller shall have the latest version of NTCIP software installed. For operation prior to integration into an ATMS, the controller shall maintain existing close loop management communications.

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.

(b) (1) Revise “conflict monitor” to read “Malfunction Management Unit”

(b) (5) Cabinets – Provide 1/8" (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 120VAC 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 watt, 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 ½ inch (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 lbs. (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 inches (610mm) wide.

(b) (14) Plan & Wiring Diagrams – 12” x 15” (305mm x 406mm) moisture sealed container attached to door.

(b) (15) Detector Racks – Fully wired and labeled for four (4) channels of emergency vehicle pre-emption 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 amps.
(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 V CABINET; FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET; FULL-ACTUATED CONTROLLER AND TYPE SUPER R CABINET; FULL-ACTUATED CONTROLLER AND TYPE IV 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 R CABINET (SPECIAL).

UNINTERRUPTABLE POWER SUPPLY, SPECIAL

Effective: January 1, 2013
Revised: May 19, 2016
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 6 (six) 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 (Type IV) and Super-R (Type V) 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.

The UPS shall provide reliable emergency power to the traffic signals in the event of a power failure or interruption.

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.

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 (20%) of the intersection's normal operating load. When installed at a railroad-interconnected intersection the UPS must maintain the railroad pre-emption load, plus 20 percent (20%) 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 6 (six) 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)(10) of the Standard Specifications to read:

The UPS shall be compatible with the District's approved traffic controller assemblies utilizing NEMA TS 1 or NEMA TS 2 controllers and cabinet components for full time operation.

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)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-inch thick and have a natural mill finish.

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

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

Revise Article 1074.04(b)(2)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).

End of paragraph 1074.04(b)(2)e

The door shall be equipped with a two position doorstop, one a 90° and one at 120°.

Revise Article 1074.04(b)(2)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 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 to 160 °F (-25 to + 71 °C) for gel cell batteries and -40 to 140 °F (-40 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 6 (six) 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 batteries shall be provided.

(10) Battery Heater mats shall be provided, when gel cell type batteries are supplied.

Add the following to the 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 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 862.05 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 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 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 AND CABINET, SPECIAL item.

ELECTRIC CABLE

Effective: May 22, 2002
Revised: July 1, 2015
873.01TS

Delete “or stranded, and No. 12 or” from the last sentence of Article 1076.04 (a) of the Standard Specifications.

Add the following to the Article 1076.04(d) of the Standard Specifications:

Service cable may be single or multiple conductor cable.

GROUNDING EXISTING HANDHOLE FRAME AND COVER

Effective: May 22, 2002
Revised: July 1, 2015
873.02TS

Description.
This work shall consist of all materials and labor required to bond the equipment grounding conductor to the existing handhole frame and handhole cover. All installations shall meet the requirements of the details in the “District One Standard Traffic Signal Design Details,” and applicable portions of the Standard Specifications and District One Traffic Signal Special Provisions 806.01TS GROUNDING OF TRAFFIC SIGNAL SYSTEMS and 817.01TS GROUNDING CABLE.

The equipment grounding conductor shall be bonded to the handhole frame and to the handhole cover. Two (2) ½-inch diameter x 1 ¼-inch long hex-head stainless steel bolts, spaced 1.75-inches apart center-to-center shall be fully welded to the frame and to the cover to accommodate a heavy duty UL listed grounding compression terminal. The grounding compression terminal shall be secured to the bolts with stainless steel split-lock washers and nylon-insert locknuts.

Welding preparation for the stainless steel bolt hex-head to the frame and to the cover shall include thoroughly cleaning the contact and weldment area of all rust, dirt and contaminates. The Contractor shall assure a solid

strong weld. The welds shall be smooth and thoroughly cleaned of flux and spatter. The grounding installation shall not affect the proper seating of the cover when closed.

The grounding cable shall be paid for separately.

Method of Measurement.
Units measured for payment will be counted on a per handhole basis, regardless of the type of handhole and its location.

Basis of Payment.
This work shall be paid for at the contract unit price each for GROUNDING EXISTING HANDHOLE FRAME AND COVER which shall be payment in full for grounding the handhole complete.

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.

TRAFFIC SIGNAL POST

Effective: May 22, 2002
Revised: July 01, 2015
875.01TS

Add the following to Article 1077.01 (c) of the Standard Specifications:

Washers for post bases shall be the same size or larger than the nut.

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

All posts and bases shall be steel and hot dipped galvanized 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.

LUMINAIRES, LED (BDE)

Effective: April 1, 2019
Revised: January 1, 2022

Description. This work shall consist of furnishing and installing light emitting diode (LED) luminaires. Work shall be according to Sections 801, 821, and 1067 of the Standard Specifications, except as modified herein.

Submittals. In addition to the requirements listed in Article 801.05(a), submittals for LED luminaires shall include the following.

- Completed manufacturer's luminaire ordering form with the full catalog number provided.
- Descriptive literature and catalog cuts for the luminaire, driver, and surge protective device.
- Lighting calculations generated with AGi32 software demonstrating compliance with the Luminaire Performance Table(s) shown in the contract. These calculations shall be performed to the following criteria: photopic units shall be used; calculations shall be performed to an accuracy matching the number of significant digits given in the Luminaire Performance Table(s); point-by-point illuminance, luminance, and veiling luminance ratios demonstrating the submitted luminaire meets the lighting metrics specified in the Luminaire Performance Table(s) using IES RP-8 methods.

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

- IES file associated with each submitted luminaire in IES LM-63 format.
- TM-21 calculator spreadsheet (XLSX or PDF format) and if available, TM-28 report for the specified luminaire or luminaire family. Both reports shall be for 50,000 hours at an ambient temperature of 77 °F (25 °C).
- LM-79 report with National Voluntary Laboratory Accreditation Program (NVLAP) current at the time of testing in PDF format inclusive of the following: isofootcandle diagram with half candela contour and maximum candela point; polar plots through maximum plane and maximum cone; coefficient of utilization graph; candela table; and spectral distribution graph and chromaticity diagram.
- LM-80 report for the specified LED package in PDF format and if available, LM-84 report for the specified luminaire or luminaire family in PDF format. Both reports shall be conducted by a laboratory with NVLAP certification current at the time of testing.
- In Situ Temperature Measurement Test (ISTMT) report for the specified luminaire or

luminaire family in PDF format.

- Vibration test report in accordance with ANSI C136.31 in PDF format.
- ASTM B117/ASTM D1654 (neutral salt spray) test and sample evaluation report in PDF format.
- ASTM G154 (ASTM D523) gloss test report in PDF format.
- LED drive current, total luminaire input wattage, and current over the operating voltage range at an ambient temperature of 77 °F (25 °C).
- Power factor (pf) and total harmonic distortion (THD) at maximum and minimum supply and at nominal voltage for the dimmed states of 70%, 50%, and 30% full power.
- Ingress protection (IP) test reports, conducted according to ANSI C136.25 requirements, for the driver and optical assembly in PDF format.
- Installation, maintenance, and cleaning instructions in PDF format, including recommendations on periodic cleaning methods.
- Documentation in PDF format that the reporting laboratory is certified to perform the required tests.

Roadway Luminaires. Revise Article 821.02(d) to read.

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

Revise the third paragraph of Article 821.03 to read.

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

Replace the fifth paragraph of Article 821.03 with the following.

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

Revise the last paragraph of Article 821.03 to read.

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

Revise Article 821.08 to read.

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

Luminaires. Revise Articles 1067.01 through 1067.06 to read.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Independent Witness. The independent witness shall select from the project luminaires at the manufacturer’s facility the luminaires for testing. In all cases, the selection of luminaires shall be a random selection from the entire completed lot of luminaires

required for the contract. Selections from partial lots will not be allowed. The independent witness shall mark each sample luminaire's shipping carton with the IDOT contract number and a unique sample identifier.

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

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

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

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

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

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

(3) Summary Test Report. The summary test report shall consist of a narrative documenting the test process, highlight any deficiencies and corrective actions, and clearly state which luminaires have met or exceeded the test requirements and may be released for delivery to the jobsite. Photographs shall also be used as applicable to document luminaire deficiencies and shall be included in the test report. The summary test report shall include the Luminaire Physical Inspection Checklist (form BDE 5650), photometric and

electrical test reports, and point-by-point photometric calculations performed in AGi32 sorted by luminaire manufacturers catalog number. All test reports shall be certified by the independent test laboratory's authorized representative or the independent witness, as applicable, by a dated signature on the first page of each report. The summary test reports shall be delivered to the Engineer and the Contractor as an electronic submittal. Hard copy reports shall be delivered to the Engineer for record retention.

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

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

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

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

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

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

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

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

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

1067.03 Highmast Luminaires. Highmast luminaires shall be according to Article 1067.01 and the following. The luminaire shall be horizontally mounted and shall be designed and manufactured for highmast tower use. The EPA of the luminaire shall not exceed 3.0 sq ft (0.279 sq m) and the weight, including accessories, shall not exceed 85 lb (38.6 kg).

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

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

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

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

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

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

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

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

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

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

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

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

Output Designations and Initial Luminous Flux			(for information only)
Output Designation	Initial Luminous Flux (lm)		Approximate High Pressure Sodium (HPS) Equivalent Wattage
A	2,200		35 (Low Output)
B	3,150		50 (Low Output)
C	4,400		70 (Low Output)
D	6,300		100 (Low Output)
E	9,450		150 (Low Output)
F	12,500		200 (Med Output)
G	15,500		250 (Med Output)
H	25,200		400 (Med Output)
I	47,250		750 (High Output)
J	63,300		1000 (High Output)
K	80,000+		1000+ (High Output)

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

80411

87702920 STEEL COMBINATION MAST ARM ASSEMBLY AND POLE

Revised:
DC877.01

Description: This work shall consist of furnishing and installing a steel mast arm assembly and pole or steel combination mast arm assembly and pole at locations shown on the plans and/or as directed by the Traffic Engineer.

Materials: All mast arms, mast arm poles, luminaire arms, cast iron bases, and any exposed steel hardware shall be hot-dipped galvanized.
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 Traffic Engineer.

General: This work shall be performed according to Section 877 of the "Standard Specifications" and the following:

All holes drilled into signal poles, mast arms, or posts shall require rubber grommets to prevent the chafing of wires.

Luminaire arms shall be steel, 20 feet in length, unless stated otherwise on the plans, tapered, monotube style, with AASHTO 2001 wrap-around, gusset style connection.

Luminaires shall be "cobra head" style, with a minimum mounting height of 45 feet, unless stated

otherwise on the plans, and shall be paid for separately.

Stainless steel mesh screening shall be stainless steel banded to the anchor bolts, with a minimum 2-inch lap, to enclose the void between the top of the foundation and the base plate. The mesh screening shall have .-inch maximum opening and a minimum wire diameter of AWG NO. 16. The screening shall not be installed until the Traffic Engineer has inspected the leveling nuts at the Traffic Signal “Turn-On”.

The base of the mast arm pole shall be protected by a bolt-on galvanized metal shroud. The shroud shall be of sufficient strength to deter pedestrian and vehicular damage. The shroud shall be constructed and designed to allow air to circulate throughout the mast arm but not allow infestation of insects or other animals, and such that it is not hazardous to probing fingers and feet. All mounting hardware shall be stainless steel.

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

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

Basis of Payment: This work will be paid for at the contract unit price per each for STEEL MAST ARM ASSEMBLY AND POLE (SPECIAL) or STEEL COMBINATION MAST ARM ASSEMBLY AND POLE (SPECIAL), of the signal arm length specified.

CONCRETE FOUNDATIONS

Effective: May 22, 2002
Revised: July 01, 2015
878.01TS

Add the following to Article 878.03 of the Standard Specifications:

All anchor bolts shall be according to Article 1006.09, with all anchor bolts hot dipped galvanized a minimum of 12 in. (300 mm) at the threaded end.

Foundations used for Combination Mast Arm Poles shall provide an extra 2-1/2 inch (65 mm) raceway.

No foundation is to be poured until the Resident Engineer gives his/her approval as to the depth of the foundation.

Add the following to the first paragraph of Article 878.05 of the Standard Specifications:

The price shall include a concrete apron in front of the cabinet and UPS as shown in the plans or as directed by the engineer.

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

Effective: May 22, 2002
Revised: July 1, 2015
880.01TS

Materials.
Add the following to Section 1078 of the Standard Specifications:

1. 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.

2. 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.

3. All signal heads shall provide 12" (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.

4. 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 within the first 7 years from the date of traffic signal TURN-ON. 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) [VTSCH], or applicable successor ITE specifications, or show signs of entrance of moisture or contaminants within the first 7 years of the date of traffic signal TURN-ON 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.

(a) Physical and Mechanical Requirements

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

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

2. The maximum weight of a module shall be 4 lbs. (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 weather proof after installation and connection.

5. 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.

6. 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.

7. 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 inch (25.4 mm) in diameter. Additionally, the color shall be written out in 1/2 inch (12.7mm) letters next to the symbol.

(b) Photometric Requirements

4. 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 is per Table 2.

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 catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

(d) Retrofit Traffic Signal Module

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

2. Retrofit modules can be manufactured under this specification for the following faces:

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

3. 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.

4. The maximum weight of a Retrofit module shall be 4 lbs. (1.8 kg).

5. 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 weather proof after installation and connection.

6. Electrical conductors for modules, including Retrofit modules, shall be 39.4 inches (1m) in length, with quick disconnect terminals attached.

7. 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 inch (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 inch (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.

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: July 1, 2015
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 will be permitted.

Add the following to Article 881.03 of the Standard Specifications:

(a) Pedestrian Countdown Signal Heads.

(1) Pedestrian Countdown Signal Heads shall not be installed at signalized intersections where traffic signals and railroad warning devices are interconnected.

(2) Pedestrian Countdown Signal Heads shall be 16 inch (406mm) x 18 inch (457mm), for 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.

(3) 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 inches (229mm) in height and easily identified from a distance of 120 feet (36.6m).

Materials.
Add the following to Article 1078.02 of the Standard Specifications:

General.

1. 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. Module shall not have user accessible switches or controls for modification of cycle.

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

3. 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.

4. 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.

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

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

7. 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.

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

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

10. 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.

11. 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.

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

13. 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.

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

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.

TRAFFIC SIGNAL BACKPLATE

Effective: May 22, 2002
Revised: July 1, 2015
882.01TS

Delete 1st sentence of Article 1078.03 of the Standard Specifications and add “All backplates shall be louvered, formed ABS plastic”.

Add the following to the third paragraph of Article 1078.03 of the Standard Specifications. The retroreflective backplate shall not contain louvers.

Delete second sentence of the fourth paragraph of Article 1078.03 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 at

the vendor/equipment supplier before shipment to the contractor. The formed plastic backplate shall be prepared and cleaned, following recommendations of the retroreflective sheeting manufacturer.

TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE

This work shall be in accordance with Sections 882 and 1078.03 of the Standard Specifications except as modified herein.

The traffic signal backplate shall be fabricated from black ABS UV stabilized plastic sheeting and shall have a smooth finish on the front side.

The Contractor shall be responsible for removal and disposal of existing backplates an any associated hardware.

The Contractor shall furnish all new hardware and other miscellaneous items required for backplate installation.

Basis of Payment: This work will be paid for at the contract unit price per each for TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE.

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.

PEDESTRIAN PUSH-BUTTON

Effective: May 22, 2002
Revised: July 1, 2015
888.01TS

Description.
Revise Article 888.01 of the Standard Specifications to read:

This work shall consist of furnishing and installing a latching (single call) or non-latching (dual call) pedestrian push-button and a regulatory pedestrian instruction sign according to MUTCD, sign series R10-3e 9" x 15" sign with arrow(s) for a count-down pedestrian signal. The pedestrian station sign size without count-down pedestrian signals shall accommodate a MUTCD sign series R10-3b or R10-3d 9" x 12" sign with arrow(s).

Installation.
Add the following to Article 888.03 of the Standard Specifications:

A mounting bracket and/or extension shall be used to assure proper orientation when two pedestrian push buttons are required for one post. The price of the bracket and/or extension shall be 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 in order to meet mounting requirements.

Materials.
Revise Article 1074.02(a) of the Standard Specifications to read:

The pedestrian push-button housing shall be constructed of aluminum alloy according to ASTM B 308 6061-T6 and powder coated yellow, unless otherwise noted on the plans. The housing shall be furnished with suitable mounting hardware.

Revise Article 1074.02(e) of the Standard Specifications to read:

Stations shall be designed to be mounted to a post, mast arm pole or wood pole. The station shall be aluminum and shall accept a 3 inch (75mm) round push-button assembly and a regulatory pedestrian instruction sign according to MUTCD, sign series R10-3e 9" x 15" sign with arrow(s) for a count-down pedestrian signal. The pedestrian station size without count-down pedestrian signals shall accommodate a MUTCD sign series R10-3b or R10-3d 9" x 12" sign with arrow(s).

Add the following to Article 1074.02 of the Standard Specifications:

(f) Location. Pedestrian push-buttons and stations shall be mounted to a post, mast arm pole or wood pole as shown on the plans and shall be fully ADA accessible from a paved or concrete surface. See the District's Detail sheets for orientation and mounting details.

Basis of Payment.
Revise Article 888.04 of the Standard Specifications to read:

This work will be paid for at the contract unit price per each for PEDESTRIAN PUSH-BUTTON or PEDESTRIAN PUSH-BUTTON, NON-LATCHING.

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.

MODIFY EXISTING TYPE "D" FOUNDATION

Effective: January 1, 2002
Modified: July 1, 2015
895.03TS

This item shall consist of the partial removal of an existing Type "D" Foundation at the location shown on the plans, or as directed by the Engineer. The existing foundation shall be removed to a depth of at least twelve (12) inches below finished grade. All concrete debris shall be disposed of outside the right-of-way. The existing conduit shall remain in place and shall be carefully protected. The new conduits from the double handhole shall be installed, if required, as shown on the plans.

The removal of the existing traffic signal controller and cabinet shall be included in this pay item, as well as the removing and reinstalling of the existing cable(s) from conduit.

Upon completion of the above work, holes for steel dowels of the size indicated shall be drilled in the remaining concrete where indicated on the drawings.

The adjacent area shall be excavated and forming with anchor bolts and new conduit stubs provided to provide a concrete foundation for a Type IV or Type V cabinet. The Contractor shall follow the recommendations of the vendor, subject to approval of the Engineer, in forming and constructing the foundation.

Provide a three (3) foot by four (4) foot wide Portland cement concrete apron sidewalk, five (5) inches thick, on the side of the access door to the controller to facilitate servicing the controller and cabinet.

Anchor bolts shall be new and shall meet all the requirements of Section 1006.09 of the Standard Specifications.

Basis of Payment.
This work shall be paid for at the contract unit price each for MODIFY EXISTING TYPE "D" FOUNDATION.

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."

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	Allowed Alone or in Combination [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	Allowed Alone or in Combination [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	Allowed Alone or in Combination [5/ 6/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete[3/]

<table>
<tr><th>Use</th><th>Mixture</th><th>Aggregates Allowed</th></tr>
<tr><td>HMA
High ESAL
Low ESAL</td><td>C Surface and Binder
IL-9.5
IL-9.5FG
or IL-9.5L</td><td><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/]</td></tr>
<tr><td rowspan="5">HMA
High ESAL</td><td rowspan="5">D Surface and Binder
IL-9.5
or IL-9.5FG</td><td><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/]</td></tr>
<tr><td><u>Other Combinations Allowed:</u>

Up to... | With...</td></tr>
<tr><td>25% Limestone | Dolomite</td></tr>
<tr><td>50% Limestone | Any Mixture D aggregate other than Dolomite</td></tr>
<tr><td>75% Limestone | Crushed Slag (ACBF) or Crushed Sandstone</td></tr>
<tr><td rowspan="2">HMA
High ESAL</td><td rowspan="2">E Surface
IL-9.5

SMA
Ndesign 80
Surface</td><td><u>Allowed Alone or in Combination</u> [5/ 6/]:

Crushed Gravel
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag

No Limestone.</td></tr>
<tr><td><u>Other Combinations Allowed:</u>

Up to... | With...</td></tr>
</table>

<table>
<tr><td>Use</td><td>Mixture</td><td colspan="2">Aggregates Allowed</td></tr>
<tr><td rowspan="3"></td><td rowspan="3"></td><td>50% Dolomite[2/]</td><td>Any Mixture E aggregate</td></tr>
<tr><td>75% Dolomite[2/]</td><td>Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td></tr>
<tr><td>75% Crushed Gravel[2/]</td><td>Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag</td></tr>
<tr><td rowspan="4">HMA
High ESAL</td><td rowspan="4">F Surface
IL-9.5

SMA
Ndesign 80
Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/ 6/]:

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag
No Limestone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed</u>:</td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>50% Crushed Gravel[2/] or Dolomite[2/]</td><td>Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td></tr>
</table>

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.”

GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D1)
Effective: June 26, 2006
Revised: December 1, 2021

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

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

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

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

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

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

"A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of

the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent."

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."

SP R.1 – SAW CUTTING

When called for on the plans or where directed by the Engineer, the Contractor shall saw-cut existing bituminous concrete and/or Portland cement concrete pavement full depth to penetrate the base and sub-base, so as to completely separate the existing pavement to be removed from that to remain. It is the Contractor's responsibility to determine the thickness of the existing pavement and whether or not it contains reinforcement.

The work shall be performed in such a manner that a straight, vertical joint will be obtained. The saw cutting shall be done prior to the commencement of removal operations. Care shall also be taken by the Contractor so as not to damage the remaining pavement or surface directly adjacent to the pavement or surface to be removed. Any damage to the existing pavement or surface resulting from removal operations shall be repaired at the Contractor's expense, as directed by the Engineer.

The saw cutting shall be performed on both sides of the trenches for the proposed underground utilities. This work shall be performed prior to the commencement of the installation of the improvements as specified. It shall be the Contractor's responsibility to lay out the locations for the proposed saw cuts.

This work shall not be paid for separately, but shall be considered incidental to the contract unit prices. Saw cutting required for items not listed above or designated elsewhere in the special provisions shall be considered incidental to the project.

SP R.2 - TEMPORARY DRIVEWAY SURFACE, AND TEMPORARY PAVEMENT SURFACE

Restoration of all improvements on public property is to be done in an expeditious manner. Failure to conform to these requirements will result in the City causing such work to be done. All costs of such work, including administrative costs, will be charged to the Contractor along with a $500.00 penalty for each occurrence on Driveways, Local Roads and Minor Arterials, and $500.00 for each hour per occurrence on Major Collectors and Arterials during the peak traffic hours Monday through Friday between 7 AM to 9 AM and 3 PM to 7 PM, during non-peak hours the penalty shall be $500 per occurrence whereby the City must invoke this provision. 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 Contractors failure to temporarily or permanently restore public property as required.

PRIOR TO THE REMOVAL OF ANY PAVEMENT OR DRIVEWAYS, THE CONTRACTOR SHALL HAVE TEMPORARY PAVEMENT ON SITE, IN ORDER TO ENSURE THAT THE TEMPORARY PAVEMENT IS IN PLACE THE SAME DAY THAT THE EXISTING PAVEMENT IS REMOVED.

Parkways

Parkways must be graded to meet existing grade and cleaned of any construction debris immediately following excavation.

Driveways

A cold mix **temporary surface** is required the same day of excavating the drive approach or the curb adjacent to the drive approach. The Contractor shall provide a temporary approach for all driveways across the width of the approach until the final surface is placed. Temporary driveways shall be inspected at the end of all workdays or in a timely manner to ensure the driveway surface remains usable to the satisfaction of the Engineer. Special attention shall be taken for handicapped residents or residents who may need imminent emergency care (expectant mothers, etc.). The Contractor and Engineer will work to identify special-needs residents to assure they have access to traffic or special vehicles at all times.

Local Streets and Minor Collectors

The contractor shall place cold mix at street intersections, and/or at other locations as directed by the Engineer the same day of excavating the pavement. Cold Mix shall have a minimum of two inches (2") thickness. The temporary surface shall be removed prior to placing the permanent pavement the cost of which is included in this temporary pavement surface pay item. The temporary surface shall be maintained so that it will provide a smooth, usable surface with a minimum of distraction to traffic to the satisfaction of the Engineer. The contractor shall be responsible for coring through the cold patch in order to jet trenches. After the trenches are thoroughly jetted and consolidated, additional cold patch shall be applied. At all locations where cold mix is not installed, the contractor shall place and maintain a CA-6 crushed limestone surface. Holes shall be backfilled or steel-plated over weekends and holidays. The permanent patch to City specifications must be in place as soon as possible.

Special attention shall be taken for handicapped residents or residents who may need emergency trips to a hospital. The Contractor, as directed by the Engineer, shall work with special-needs residents to assure they have special access to traffic and/or special vehicles at all times.

Arterials and Major Collectors

The contractor shall place Hot Mix Asphalt (HMA) at all excavated locations within active travel lanes and intersections, and at other locations as directed by the Engineer. The HMA depth shall have a minimum of two inches (2") thickness. The temporary surface shall be maintained so that it will provide a smooth, usable surface with a minimum of distraction to traffic to the satisfaction of the Engineer. The contractor shall be responsible for coring through the temporary pavement in order to jet trenches. After the trenches are thoroughly jetted and consolidated, additional temporary pavement shall be applied. As an alternative, the contractor may use cold mix asphalt. If cold mix is used, the contractor shall inspect, repair and/or replace cold mix at all actively travelled locations, and at other locations as directed by the Engineer, on a daily basis when the temporary patch exceeds 1-inch of deviation (above or below) from the adjacent pavement or when excessive tracking of material occurs. Cold mix must be compacted with vibratory or heavy equipment – hand tamping shall not be allowed. Tracking of cold mix onto the travelled lanes shall be cleaned on a daily basis during off-peak traffic hours. The contractor may use steel-plates, secured in place, to cover open excavations during weekends and holidays with appropriate warning signage. The use of CA-6 crushed limestone as a temporary patch is prohibited. The temporary surface shall be removed prior to placing the permanent pavement the cost of which is included in this temporary pavement surface pay item. HMA in good condition may be allowed to remain in place at the Engineer's discretion. Cold mix shall be removed and replaced with permanent pavement.

Special attention shall be taken for handicapped residents, residents who may need emergency trips to a hospital, and businesses and emergency services needing 24-hour access for public safety. The Contractor, as directed by the Engineer, shall work with special-needs residents, businesses, and services to assure they have special access to traffic and/or special vehicles at all times.

Measurement and Payment

The installation and maintenance of the temporary surface shall be paid for at the contract unit price per SQUARE YARD (SY) for TEMPORARY PAVEMENT, 2".

SP R.3 **– HOT MIX ASPHALT PAVEMENT REMOVAL AND REPLACEMENT**

This work shall consist of saw cutting, removing, and disposing of the existing roadway pavement and replacement with Hot Mix Asphalt pavement and aggregate base course in accordance with the IDOT Specifications, and as shown on the plan details. This work shall be performed after the successful completion of a proof roll.

The cut faces of the existing pavement shall be primed with RC-70.

Damages to existing pavement due to construction traffic and track machinery shall be repaired according to these specifications, to the limits dictated by the Engineer. The repair of damages to existing pavement due to construction traffic and track machinery shall **not** be paid for, but shall be fully repaired at the Contractors expense.

Prior to the placement of any permanent pavement, the contractor shall perform a proof roll in accordance with the latest addition of the IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

Measurement and Payment
This work shall be paid for at the contract unit price per SQUARE YARD (SY) for CLASS D PATCHING of the thickness specified, which price shall be payment in full for all labor, materials including aggregate base, and equipment necessary to perform this work in accordance with the plans, details, and specifications.

SP R.4 – HOT-MIX ASPHALT PAVEMENT SURFACE COURSE

This work shall consist of the placement of a one and one-half (1-1/2") 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. The Contractor shall stagger the longitudinal joints in the surface course to provide a minimum offset distance of six inches (6") from the binder course. 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 HMA SURFACE COURSE 1-1/2", 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.

SP R.5 – PCC DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT

This work consists of the removal of existing residential and commercial drive approaches, and replacement with Portland concrete cement driveways and performing necessary earthwork (such as excavation or embankment) according to the proposed grade.

The replaced driveway shall be six inches (6") for residential approaches, and eight inches (8") for commercial approaches of Class "PV" Portland cement concrete, non-reinforced with a continuous, full depth bituminous fiber expansion joint at the sidewalk and at the back of the curb. The surface shall be cured and protected as per the requirements for sidewalk. The pavement shall be placed on a compacted stone or gravel base to a depth of four inches (4") minimum for residential, and 6" minimum for commercial. **Portland cement concrete driveways shall have contraction joints installed as shown on the plan details.**

This item shall be paid for at the contract unit price per SQUARE YARD (SY) for PCC DRIVE APPROACH REMOVAL & REPLACEMENT, for the thickness specified in the bid proposal, measured in place, which price shall be payment in full for all labor, materials, and equipment necessary to complete this item in accordance with the plans and specifications.

SP R.6 – HOT MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT

This work consists of the removal of existing residential and commercial drive approaches, and replacement with bituminous concrete cement driveways and performing necessary earthwork (such as excavation or embankment) according to the proposed grade.

The replaced driveway surface course shall be two inches (2") for residential approaches and four inches (4") for commercial approaches. The driveway pavement shall be placed on a compacted stone or gravel base to a depth of four inches (4") minimum for residential, and 6" minimum for commercial.

This item shall be paid for at the contract unit price per SQUARE YARD (SY) for HOT MIX ASPHALT DRIVE APPROACH REMOVAL & REPLACEMENT, for the thickness specified in the bid proposal, measured in place, which price shall be payment in full for all labor, materials, and equipment necessary to complete this item in accordance with the plans and specifications.

SP R.7 – COMBINATION P.C.C. CURB & GUTTER

This work shall consist of the removal of existing and the installation of new combination P.C.C. (Portland cement concrete) curb & gutter of the type and size matching that which exists, or as directed by the Engineer, by method and materials specified in Articles 606 and 1020 of the "Standard Specification for Road and Bridge Construction". The new combination P.C.C. curb and gutter shall be installed in locations where the work has caused damage or loss of the existing curb, or as shown on the plans.

Removal of P.C.C. curb and gutter shall include saw cutting full depth where construction or expansion joints are not available.

Construction of combination P.C.C. curb and gutter shall include:

1. The excavation for, the supplying and placement of, four inches (4") compacted CA-7 Aggregate base.
2. The placement of Class "SI", P.C.C. (Portland cement concrete) per the detail shown on the plans.
3. The placement of reinforcement per the detail shown on the plans.
4. The drilling and placement of dowel bars with grease caps into the existing adjoining concrete.
5. The placement of contraction joints, expansion joints, and construction joints per the detail and table shown on the plans.
6. The application of curing compounds for Portland cement concrete per the detail shown on the plans.
7. The backfilling of curb & gutter with material approved by the Engineer.

This work shall be paid for at the contract unit price per FOOT (FT) for COMBINATION P.C.C. CURB & GUTTER and shall include all labor, material, and equipment necessary for installation as specified herein. Saw cutting, expansion joints, asphalt materials, and pavement restoration shall be considered incidental to this item.

SP R.8 – P.C.C. SIDEWALK REMOVAL AND REPLACEMENT, 5" / DETECTABLE WARNINGS

This work shall consist of removing the existing sidewalk and placing a Portland Cement Concrete Sidewalk in accordance with Section 424 and 440 of the Standard Specifications, the details included and as directed by the Engineer.

The Contractor shall saw cut, remove and dispose of sidewalks marked in the field for removal and prepare the subgrade to provide for the proposed sidewalk and 2" of compacted granular material, CA-6.

At locations where a handicap sidewalk will be installed and/or the grade of the curb has been changed, the Contractor shall excavate subbase and subgrade as required to properly construct the lowered sidewalk.

Sidewalk shall be completely formed with lumber of 1½" nominal thickness and held securely in place with stakes.

All replacement sidewalks shall be a minimum of 5" thick. Sidewalk through driveways shall be increased to 6" thick for residential and 8" thick for commercial drive approaches. Sidewalk curb ramps shall be increased to 6" thick. The additional thickness will not be paid for separately but shall be considered incidental to Sidewalk Removal and Replacement.

The concrete used shall be Class "SI" concrete in accordance with Section 424 and 440 of the Standard Specifications, and should be cured as specified in the current issue of the State of Illinois "Standard Specifications for Road and Bridge Construction." Membrane curing with W. R. Meadows CS 309, or approved equal, will be allowed with a white fugitive dye as per Type II membrane curing.

All sidewalk shall be sealed with W. R. Meadows "TIAH", or approved equal, immediately after seven (7) days of curing at a rate of 300 sq.ft. per gallon, utilizing a spray application. The surface must be thoroughly clean and dry at time of application.

The surface finish shall be a light broom finish.

The sidewalk shall be constructed with construction joints at five foot (5') intervals and shall be saw cut to a minimum depth of one inch (1") full width within twenty-four (24) hours of concrete placement, or tooled at the time of placement to the same depth.

Expansion joints of three-fourths inches (3/4") full depth bituminous fiber material are required where the new sidewalk abuts all curb, buildings, poles, other structures, through all drives on each side, and spaced as specified in the plans or as directed by the Engineer.

At locations as directed by the engineer, the contractor shall excavate sod, topsoil and other material to install subbase granular material and a new sidewalk. Subbase thickness at these locations shall be 4". Earth Excavation required for this work will not be paid for separately but shall be considered incidental to this item.

Sidewalk curb ramps with detectable warning surface shall be constructed according to Standard 424001 and the details included. The Detectable Warning area shall be Red Color, 2' X 4' or 2' X 5' as required.

This work will be paid for at the contract unit price per SQUARE FOOT (SF) for SIDEWALK REMOVAL AND REPLACEMENT, 5" and DETECTABLE WARNINGS, which price shall include all labor and equipment necessary to remove the existing sidewalk, excavation, subbase material, disposal and placing sidewalk and furnishing and installing detectable warnings as specified herein. Root cutting and disposal of roots shall be considered incidental to this item.

SP R.9 **– AGGREGATE SHOULDER**

This work shall consist of the installation of new aggregate shoulder of the depth which exists, or as

directed by the Engineer, by method and materials specified in Articles 481 and 1004 of the "Standard Specification for Road and Bridge Construction". The new aggregate shoulder shall be installed in locations where the work has caused damage or loss of the existing aggregate shoulder, or as shown on the plans.

All select granular material shall meet IDOT specifications. Material excavated as part of this project shall not be processed on site for re-use. This work shall be paid for at the contract unit price per TON for AGGREGATE SHOULDER.

SP R.10 **– 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.

Measurement and Payment: The work specified herein shall be paid for by the contract unit price per SQUARE YARD (SY) for SEEDING – AURORA MIX, which price shall be payment in full for all labor, materials, and equipment necessary, including pulverized top soil, loose straw mulch covered with hydraulic mulch, and all other appurtenances required to perform this work in accordance with the plans, details, and specifications.

State of Illinois
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
EMPLOYMENT PRACTICES

In addition to all other labor requirements set forth in this proposal and in the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation, during the performance of this contract, the Contractor for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

I. SELECTION OF LABOR

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

II. EQUAL EMPLOYMENT OPPORTUNITY

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

(1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service, and further that it will examine all job, classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such under-utilization.

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

(3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service.

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

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

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

(7) That it will include verbatim or by reference the provisions of this clause in every subcontract so that such provisions will be binding upon every such Subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by all its Subcontractors; and further it will promptly notify the City of Aurora and the Illinois Department of Human Rights in the event any Subcontractor fails or refuses to comply therewith. In addition, the Contractor will not utilize any Subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets
SPECIAL PROVISION
FOR
WAGES OF EMPLOYEES ON PUBLIC WORKS
Effective: January 1, 1999
Revised: January 2, 2013

1. Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Illinois Department of Labor publishes the prevailing wage rates on its website at www.state.il.us/agency/idol/rates/rates.htm. If the Illinois Department of Labor revises the prevailing wage rates, the revised prevailing wage rates on the Illinois Department of Labor's website shall apply to this contract and the Contractor will not be allowed additional compensation on account of said revisions. The Contractor shall review the wage rates applicable to the work of the contract at regular intervals in order to ensure the timely payment of current wage rates. The Contractor agrees that no additional notice is required. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto.

2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of not less than three years from the date of the last payment on a contract or subcontract, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's name, address, telephone number when available, social security number, classification or classifications, the hourly wages paid in each pay period, the number of hours worked each day, and the starting and ending times of work each day. Upon seven business days' notice, the Contractor and each subcontractor shall make available for inspection and copying at a location within this State during reasonable hours, the payroll records to the public body in charge of the project, its officers and agents, the Director of Labor and his deputies and agents, and to federal, State, or local law enforcement agencies and prosecutors.

3. Submission of Payroll Records. The Contractor and each subcontractor shall ,no later than the tenth day of each calendar month, file a certified payroll for the immediately preceding month with the public body in charge of the project, except that the full social security number and home address shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). The certified payroll shall consist of a complete copy of the payroll records except starting and ending times of work each day may be omitted

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

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

CITY OF AURORA GENERAL SPECIFICATIONS
SECTION 1 - DEFINITION OF TERMS

1.1 ADVERTISEMENT

The word Advertisement shall mean and refer to the official notice as published in the Aurora Beacon News, a daily newspaper published in the City of Aurora, Illinois, inviting bids for the construction of this improvement.

1.2 A.S.T.M.

Wherever the letters A.S.T.M. are herein used, they shall be understood to mean the American Society of Testing Materials.

1.3 ATTORNEY

Wherever the word Attorney is used in these specifications or in the contract, it shall be understood to mean the Corporation Counsel of the City or designee.

1.4 BIDDER

Wherever the word Bidder is used, it shall be understood to mean the individual, firm, or corporation formally submitting a proposal for the work contemplated, or any portion thereof, acting directly or through an authorized representative.

1.5 BOARD

Wherever the word Board or a pronoun in the place of it occurs in these specifications, it shall be interpreted to mean the Board of Local Improvements of the City of Aurora, Illinois, and any of its authorized representatives provided, however, that such persons shall be understood to represent said Board to the extent of the special duties delegated to such representatives.

1.6 CITY CLERK

Wherever the term City Clerk is used herein, it shall be understood to mean the City Clerk of the City of Aurora, Illinois.

1.7 CITY COUNCIL OR COUNCIL

Wherever the term City Council, or Council, appears in these specifications it shall be taken to mean the City Council of the City of Aurora, Illinois.

1.8 CONTRACT

The term Contract shall be understood to mean the agreement covering the performance of the work covered by these general specifications, including the advertisement for bids, instructions to bidders, bid proposal, performance bond, these general specifications, supplemental specifications, special provisions, general and detailed plans for the work, standard specifications referred to in the special provisions, all supplemental agreements entered into and all general provisions pertaining to the work or materials thereof, all of which are collectively referred to as the “Contract Documents”.

1.9 CONTRACTOR

Wherever the word Contractor occurs in these specifications, it shall be interpreted to mean the person or persons, firm, or corporation who submits a proposal and thereafter enters into the contract

governed by these specifications as party or parties of the second part, and the agents, employees, workmen, heirs, executors, administrators, successors, or assignees thereof.

1.10 ENGINEER

Wherever the word Engineer is used in these specifications, it shall be interpreted to mean the City Engineer or his designee charged with directing and having charge of a portion of the project limited by the particular duties entrusted to him.

1.11 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

The MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, latest edition, as adopted by the Illinois Department of Transportation.

1.12 PAYMENT BOND

The term Payment Bond shall be understood to mean the bond executed by the Contractor and his surety guaranteeing the payment of all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished to such principal for the purpose of performing the contract work.

1.13 PERFORMANCE BOND

The term Performance Bond shall be understood to mean the bond, executed by the Contractor and his surety, guaranteeing complete execution of the contract.

1.14 PLANS

Wherever the word plans is used in these specifications, it shall be understood to mean all drawings, sketches, and detailed plans or reproductions thereof pertaining to the construction involved.

1.15 PROPOSAL

Wherever the word Proposal is used, it shall be taken to mean the written proposal of the bidder on the form furnished for the work contemplated.

1.16 PROPOSAL GUARANTY

The term Proposal Guaranty shall be understood to mean the security designated in the Advertisement for Bids or Notice to Contractors to be furnished by the bidder as a guaranty of good faith to enter into a contract for the work contemplated

1.17 SPECIFICATIONS

Wherever the word Specifications is used it shall be understood to include all directions and requirements contained herein or referred to hereby, together with all special provisions and written agreements made or to be made pertaining to the work involved. All articles referred to in these general specifications when not qualified otherwise than by numbers, shall be understood to be articles from these general specifications.

1.18 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

The STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, latest edition, prepared by the Illinois Department of Transportation and adopted by said Department.

1.19 STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION

The STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION, latest edition, as adopted by the Illinois Society of Professional Engineers.

1.20 STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS

The STANDARD TRAFFIC SIGNAL SPECIFICATIONS, latest edition, as adopted by the Illinois Department of Transportation.

1.21 STATE

Wherever the word State is used herein, it shall mean the State of Illinois.

1.22 SURETY

The word Surety shall be understood to mean the individuals who are, or the corporate body which is bound with and for the Contractor for the acceptable performance of the contract, and for his payment of all debts pertaining to the work.

1.23 WORK

Wherever the word “Work” is used, it shall mean the work including all materials, labor, tools, appliances, equipment, and appurtenance necessary and incidental thereto to perform and complete everything specified or implied in the plans, specifications, and in the contract documents, in full compliance with all the terms and conditions thereof and in a good and workmanlike manner.

SECTION 2
AWARD AND EXECUTION OF CONTRACT

2.1 PUBLIC OPENING OF PROPOSALS

Proposals will be opened and read publicly at the time and place specified in the advertisement, or as soon thereafter as the business of the City Clerk permits. Bidders, their authorized agents, and other interested parties are invited to be present.

2.2 AWARD OF CONTRACT

The decision of the award of the contract will be made as may be decided upon by the Council after bids have been opened and tabulated. The Contract shall be governed by the laws of the State of Illinois. No contract shall provide for arbitration of the parties.

2.3 BONDS AND INSURANCE

The bidder to whom the award of contract is made will be required under this contract to furnish a Performance Bond acceptable to the Engineer in the amount of one hundred percent (100%) of the full contract price, a Payment Bond, Public Liability Insurance, and Workers Compensation Insurance; all of which shall be acceptable to the City of Aurora.

2.4 SUBLETTING OR ASSIGNMENT OF CONTRACT

The Contractor shall not sublet, sell, or assign all, or any portion of the contract, or of the work provided for therein, without the written consent and authorization of the City, and in no case shall such consent relieve said Contractor from either, any, or all of the obligations herein entered into, or change the terms of the obligations hereof.

2.5 FAILURE TO EXECUTE CONTRACT

In the event that said bidder fails or refuses to execute said contract and furnish said bonds within the period of fifteen (15) days after mailing notice of such award or within such additional number of days as the City may determine, then the sum deposited as a proposal guaranty by said bidder on the work so awarded may be retained by the City as liquidated damages and not a forfeiture. It is hereby agreed that said sum is a fair estimate of the amount of damages that the City will sustain in case said bidder fails to enter into the contract and furnish bonds as herein provided, said actual damages being uncertain in amount and difficult to determine in the event of such failure or refusal by the bidder.

2.6 VENUE FOR LEGAL ACTION

The venue for any legal action that may arise from this agreement shall be in Kane County, Illinois.

2.7 WAIVER OF TRAIL BY JURY

The Contractor agrees to waive trial by jury for itself and all of its contracts with sub-Contractors shall contain a provision waiving trial by jury in the event of any legal action which may arise from this agreement with the City of Aurora as a party litigant.

SECTION 3
SCOPE OF THE WORK

3.1 INTENT OF PLANS AND SPECIFICATIONS

The true intent of the plans and these specifications is to provide for the erection and completion in every detail of the work described herein, and it is understood that the Contractor will furnish all labor, materials, equipment, tools, transportation, and necessary supplies, such as may reasonably be required to execute the contract in a satisfactory and workmanlike manner and in accordance with the plans, specifications, and terms of the contract. Both parties must stipulate any deviation from these requirements in writing.

3.2 SPECIAL WORK

Should any construction conditions which are not covered by the plans and these specifications be anticipated or encountered during construction, Supplemental Specifications for such work will be prepared by the Engineer and shall be considered a part of these specifications, the same as though contained fully herein.

3.3 INCREASED OR DECREASED QUANTITIES

The right is reserved, without impairing the contract, to make such increase or decrease in the quantities of the work as may be considered necessary to complete fully and satisfactorily the work included in the contract. The compensation to the Contractor for such changes shall be adjusted as provided herein.

3.4 ALTERATIONS IN PLANS AND SPECIFICATIONS

The City reserves the right to make such changes in the plans and in the character of the work as may be necessary or desirable to ensure completion in the most satisfactory manner, provided such changes do not materially alter the original plans and specifications. Such changes shall not be considered as waiving or invalidating any conditions or provisions of the contract.

3.5 EXTRA WORK

The City reserves the right, without impairing the contract, to order the performance of such work, of a class not contemplated in the proposal as may be considered necessary to complete fully and satisfactorily the work included in the contract. The Contractor shall do such extra work when ordered and authorized in writing by the Engineer, and the Contractor shall be compensated for such extra work on the basis and in the amount as provided herein.

3.6 EASEMENTS, PERMITS, AND REGULATIONS

The Contractor shall keep himself fully informed of all Federal, State, Municipal and local regulations, private contracts, grants, easements, and permits, in any manner affecting the work herein specified and provided for. He shall at all times observe and comply with and cause all his Subcontractors, agents, and employees to observe and comply with each and all of the same. The Contractor does hereby assume any and all liability under the same and shall protect and indemnify the City and its officers and employees against any and all claims or liabilities arising from or based on the violation of, or failure to comply with either or all of the same.

3.7 FINAL CLEANING UP

Upon completion and before final acceptance of the work, the Contractor shall, in addition to the detailed work of grading, restoring ground surfaces, repairing roadways and pavements, and all other work specifically provided for in these specifications, remove all falsework, excess or useless excavated materials, rejected materials, rubbish, temporary buildings, temporary foundations, replace or renew any fences damaged, and restore in an acceptable manner all property, both public and private, which may have been damaged during the prosecution of the work, and shall leave the site of the work in a neat and presentable condition satisfactory to the Engineer.

SECTION 4
CONTROL OF THE WORK

4.1 AUTHORITY OF THE ENGINEER

The Engineer shall decide any and all questions which may arise as to the quality and acceptability of materials furnished and work performed, and as to the manner of performance and rate of progress of the work, and shall decide all questions which may arise as to the interpretation of the plans and specifications, and all questions as to the acceptable fulfillment of the terms of the contract.

4.2 PLANS AND WORKING DRAWINGS

General drawings, showing such details as are necessary to give a comprehensive idea of the construction contemplated, will be shown in the general plans, but the Contractor shall submit to the Engineer for approval such additional detailed shop drawings or working drawings, together with a detailed structural analysis of all component parts, as may be required for the construction of any part of the work and prior to the approval of such plans, any work done or material ordered shall be at the Contractor's risk.

The contract price shall include the cost of furnishing all working drawings and the Contractor will be allowed no extra compensation for such drawings.

4.3 DEVIATIONS FROM THE PLANS

No deviation from the general plans or the approved working drawings will be permitted without the written order of the Engineer. No allowance shall be made for work done other than is shown on the plans, profiles and drawings, and provided for in the specifications.

4.4 COORDINATION OF SPECIFICATIONS AND PLANS

In the event of any discrepancy between the plans and figures written thereon, the figures are to be considered as correct. In the case of any discrepancy between the plans and the specifications, the Engineer shall determine which are to govern. If there is a discrepancy between the general specifications and the supplemental specifications, the supplemental specifications are to govern.

The Contractor shall take no advantage of any apparent error or omission in the plans or specifications, but the Engineer shall be permitted to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specifications.

4.5 ORDER OF WORK

The order of sequence of the execution and/or conduct of the work shall be subject to the approval and/or direction of the Engineer, which approval and/or direction shall not in any way relieve the Contractor of any responsibility in connection with the prosecution to completion of the work under contract.

4.6 COOPERATION BY CONTRACTOR

The Contractor shall conduct his operation so as to interfere as little as possible with those of other Contractors, Subcontractors, the public, or adjoining property owners on or near the work site. The Contractor shall at all times during his absence from the work site have a competent superintendent or foreman capable of reading and thoroughly understanding the plans and specifications, as his agent on the work, who shall receive instructions from the Engineer or his authorized representative. The superintendent or foreman shall have full authority to execute the order and/or directions of the Engineer without delay and to promptly supply such materials, tools, plant equipment, and labor as

may be required. The superintendent or foreman shall have a copy of the plans and specifications on the job at all time.

4.7 CONSTRUCTION STAKES

Reference lines and grade points for the location, alignment, and elevation of each structure will be determined and established by the Engineer, but the Contractor shall assume full responsibility for the alignment, elevations, and dimensions of each and all parts of the work with reference to the lines, points, and grades as established by the Engineer. For all structures, the Engineer shall furnish the Contractor with centerline and/or center points and such benchmarks or other points as are necessary to lay out the work correctly. The Contractor shall check all lines, points, and grades which may be given by the Engineer supplementary to the centerline, points, and control bench marks aforesaid, and shall be responsible for the accuracy of all measurements for grades and alignment of the work with reference to the centerline and/or points and bench marks established by the Engineer.

The Contractor shall exercise proper care in the preservation of alignment, grade, and reference stakes set for his use, or that of the Engineer. If such stakes are injured, lost, or removed by the Contractor's operations, they shall be reset at his expense.

4.8 INSPECTION

The Engineer or his representative shall be allowed access to all parts of the work at all times and shall be furnished such information and assistance by the Contractor as may be required to make a complete and detailed inspection thereof. Such inspection may include mill, plant, or shop inspection and any material furnished under these specifications is subject to such inspection.

SECTION 5
CONTROL OF MATERIALS

5.1 SPECIFICATIONS FOR MATERIALS

All materials used in this work shall conform in all respects to the specifications therefore as herein set forth. Where a specification for material to be used in this work is not specifically set forth in these specifications, such material shall conform in all respects to the specifications as set forth in the A.S.T.M. Standards and/or Tentative Standards adopted and in effect on the date of receiving bids.

5.2 SUBSTITUTION OF MATERIALS AND EQUIPMENT

Wherever in these specifications or on the plans for this work, materials or equipment are specified by trade names or catalog numbers of certain manufacturers, it is done for the purpose of establishing a standard of quality, durability, and/or efficiency, and not for any purpose of limiting competition. Wherever such definite reference is made in these specifications to any such material or equipment, is understood that any equivalent material or equipment may be provided, however, that the written approval and acceptance of the Engineer of such equivalent material or equipment must be obtained prior to its purchase and/or incorporation in any part of the work.

5.3 THE METHODS OF TESTING

All tests of materials or equipment used in the work shall be made in accordance with the methods described in these specifications or the method of test prescribed in any specification for material or equipment herein specifically referred to and designated to govern the quality of any material or equipment.

Where a method of test for any material or equipment is not specifically provided for, such material or equipment shall be tested in accordance with the methods prescribed and set forth in the A.S.T.M. Standards and Tentative Standards adopted and in effect on the date of receiving bids.

5.4 DEFECTIVE MATERIALS

All materials not conforming to the requirements of these specifications shall be considered as defective and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the work by the Contractor at his expense unless otherwise permitted by the Engineer. No rejected materials, the defects of which have been subsequently corrected, shall be used until approval has been given. Upon failure on the part of the Contractor to immediately comply with any order of the Engineer relative to the provisions of this section, the Engineer shall have the authority to remove and replace such defective material and to deduct the cost of removal and replacement from any moneys due or which may become due to the Contractor.

SECTION 6
LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

6.1 COMPLIANCE WITH LAWS AND REGULATIONS

The Contractor shall at all times observe and comply with all Federal, State, Municipal and other local laws, ordinances, regulations, and requirements which in any manner affect the conduct of the work, and with all Federal, State and local laws and policies of non-discrimination, sexual harassment, prevailing wages and others applicable hereto; and all such orders or decrees as exist at the present and which may be enacted later, of bodies or tribunals having jurisdiction or authority over the work, and no plea of misunderstanding or ignorance thereof will be considered. He shall indemnify and save harmless the City and all its officers, agents, employees, and servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, requirement, order or decree, whether by himself or his employees.

6.2 PERMITS AND LICENSES

The Contractor shall take out and procure at his own expense all permits and licenses required by Federal, State or local public authorities, and he shall, without extra compensation from the City, pay all fees and charges and give notices required incident to the due and lawful prosecution of the work in relation thereto.

6.3 PATENTED DEVICES, MATERIALS, AND PROCESSES

It is mutually understood and agreed that without exception contract prices are to include all royalties and costs arising in the work. It is the intent that whenever the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, the right of such use shall be provided for by suitable legal agreement with the patent owner. The Contractor and Surety in all cases shall indemnify and save harmless the City from any and all claims for infringement by reason of the use of any such patent design, device, materials, or process, to be performed or used under the contract, and shall indemnify and save harmless the said City for any costs, expenses, attorney's fees, and damages which it may be obligated to pay, by reason of any such infringement at any time during the prosecution or after the completion of the work.

6.4 BARRICADES, LIGHTS, AND SIGNS

The Contractor shall at his own expense and without further or other order provide, erect, and maintain at all times during the progress or suspension of the work, suitable barricades, fences, signs, or other adequate protection, and shall provide, keep, and maintain such lights, danger signals, and watchmen as may be necessary or as may be ordered by the Engineer to ensure the safety of the public, as well as those engaged in connection with the work. All barricades and obstructions shall be protected at night by signal lights, which shall be suitably placed and which shall be kept burning from sunset to sunrise. Barricades shall be of substantial construction, and shall be painted in such a way as to increase their visibility at night.

The Contractor shall be held responsible for all damage to the work due to failure of barricades, signs, lights, and watchmen to protect it, and whenever evidence of such damage is found prior to acceptance, the Engineer may order such damaged portion immediately removed and replaced by the Contractor without cost to the City if, in his opinion, such action is justified. The Contractor's responsibility for the maintenance of barricades, signs, and lights shall not cease until the project shall have been accepted.

6.5 USE OF EXPLOSIVES

The use of explosives shall be prohibited.

6.6 PROTECTION AND RESTORATION OF PROPERTY

It is understood that in the execution of the work herein provided for there may be interference with and/or damage to trees, shrubbery, crops, fences, railroad tracks, overhead structures such as poles, wires, cables, underground structures such as sewers, gas mains, telephone conduits and cables, water mains, drains, service connections, wires, pipes, conduits, located along, adjacent to, and/or crossing the locations of the work, and that it may be necessary to relocate or reconstruct certain of such structures, improvements, and installations and/or to make repairs to the same by reasons of doing the work herein provided for, and it is therefore particularly and specifically agreed that the Contractor, except as otherwise herein provided, shall do the work necessary for such relocation, reconstruction, and repair and shall bear and pay all of the cost and expense of such relocation, reconstruction, and/or repair of, and all damage done to any and all such pipe line and other structures, improvements, and installations, including service connections, if any, to adjacent property, existing at the date of the execution of the contract and/or existing, during the period of the work to be done under the contract, which may be interfered with, damaged, and/or necessarily relocated, reconstructed, or repaired in the performance of the work herein provided for, including the restoration and resurfacing of unpaved portions of public streets and alleys, rights-of-way, easements, and private property damaged or disturbed by the work, the same to be restored to as good condition as the same existed at the time of the commencement of any such work or relocation.

It is further agreed that the owners of any structures, improvements, installations, referred to in the preceding paragraph shall have the right to do the work or any part thereof necessary for the relocation, reconstruction, replacement, repair, and other work required by reason of any interference with and/or damage to such structures, improvements, installations, due to the prosecution of the work and upon completion of such work by them done, said owners may render bills to the Contractor for the cost and expense thereof, which bills shall be paid by the Contractor, without extra compensation therefore from the City, upon demand by said owners, or upon demand made by the City upon the Contractor for the payment thereof.

6.7 RESPONSIBILITY FOR DAMAGE CLAIMS

The Contractor agrees to indemnify and save harmless the City of Aurora, their agents, and employees from and against all loss and expenses (including costs and attorneys' fees) by reason of liability imposed by law or claims made upon the City of Aurora for damages because of bodily injury, including death at any time resulting therefrom sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of this work, whether such claims or injuries to persons or damage to property be due to the negligence of the Contractor, his Subcontractors or the City of Aurora.

The Contractor shall assume total risk and shall be responsible for any and all damages or losses caused by or in any way resulting from the work and provide all insurance necessary to protect and save harmless the City of Aurora and its employees. Said insurance shall include contractual liability equal to the limits hereinafter set forth.

The Contractor agrees to purchase a policy of insurance, which shall include the City of Aurora as an additional insured or provide separate coverage for the City with an owner's protective policy. All Insurance provided by Contractor, extending to owner as additional insurance, shall be primary and insurance maintained by owner shall be excess and not contributing with Contractor’s insurance. The minimum amounts of insurance shall be as follows, except that no restrictions on occurrence limits will be permitted:

Bodily Injury Liability	Property Damage Liability	
Each Occurrence	Each Occurrence	Aggregate
$3,500,000	$500,000	$7,000,000

The coverage and amounts above are minimum requirements and do not establish limits to the Contractor's liability. Other coverage and higher limits may be provided at the Contractor's option and expense.

Owner does not waive its subrogation rights against Contractor and/or any Subcontractor for damages due to losses to owner due to the fault or negligence of the Contractor and/or any Subcontractors during or as a result of the performance of the work.

All such insurance must include an endorsement whereby the insurer agrees to notify the City of Aurora at least thirty (30) days prior to non-renewal, reduction or cancellation. The Contractor shall cease operations on the project if the insurance is canceled or reduced below the required amount of coverage. All costs for insurance as specified herein will not be paid for separately, but shall be considered as incidental to the contract.

6.8 WORKERS COMPENSATION ACT

The Contractor further agrees to insure his employees and their beneficiaries and to provide the employees and the beneficiaries of any Subcontractor employed from time to time by him on said work, the necessary first-aid, medical, surgical, and hospital services and any compensation provided for in the Workers Compensation Act of the State of Illinois that is or may be in force in the State.

Such insurance shall be placed by said Contractor in a company or association (to be approved by the City and to be accepted by the Council thereof) authorized under the laws of the State of Illinois to insure the liability above specified.

Said Contractor hereby further agrees to indemnify, keep and save harmless said City from all action, proceedings, claims, judgments, awards, and costs, losses, damages, expenses, and attorney's fees which may in any way be brought against said City by reason of any accidental injuries or death suffered by any of his employees or the employees of any Subcontractor employed by him in and about the performance of the work provided for in the contract, and any and all liability resulting thereupon; and said Contractor, in case of any suit, action, or proceeding on account of any or all of the foregoing shall defend the same for and on behalf of said City and indemnify the City therefore and pay the amount of any and all awards and final judgments and/orders rendered and entered therein, together with all loss, costs, damages, attorney's fees, and expenses incurred therein. Said Contractor shall be the sole employer of its employees and workers, and in no way so shall the City be considered a joint employer of same under any circumstance.

SECTION 7
PROSECUTION AND PROGRESS OF WORK

7.1 SUBLETTING OR ASSIGNMENT OF WORK

If the Contractor sublets the whole or any part of the work to be done under the contract, with or without the written consent of the City, he shall not, under any circumstances, be relieved of his liabilities and obligations. All transactions of the Engineer shall be with the Contractor; Subcontractors shall be recognized only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competence. In case any party or parties, to whom any work under the contract shall have been sublet, shall disregard the directions of the Engineer or his duly authorized representatives, or shall furnish any unsatisfactory work or shall fail or refuse in any way to conform to any of the provisions or conditions of the contract, then in that case, upon the written order of the Engineer, the Contractor shall require said party or parties in default to discontinue work under the contract. Said work shall be corrected or made good and shall be continued and completed by the said Contractor or by such other party or parties as are approved by the Engineer, in the manner and subject to all of the requirements specified in the contract.

7.2 PROSECUTION OF WORK

The Contractor shall begin the work to be performed under the contract no later than ten (10) days after the execution and acceptance of the contract, unless otherwise provided. The work shall be conducted in such a manner and with sufficient materials, equipment and labor as is considered necessary to ensure its completion within the time specified in the contract. The Contractor shall solely be fully responsible for complying with state and local prevailing wage requirements in accordance with its Bidders Certification, and for all wage rate and hour regulations and applications

7.3 GUARANTEE AND MAINTENANCE OF WORK

The Contractor shall guarantee the work to be free from defects of any nature for a period of one year from and after the final acceptance and payment for the work by the City, and the Contractor shall maintain said work and shall make all needed repairs and/or replacements during this one year period which in the judgment of the Council, may be necessary to ensure the delivery of the work to the City in first-class condition and in full conformity with the plans and specifications therefore, at the expiration of the guarantee period.

7.4 PAYMENT

Basis of Payment

Payment of the CONTRACTOR for performance of the CONTRACT shall be made by the OWNER and shall be based on the value of the installation resulting from the CONTRACTOR's operations.

The cost of all WORK incidental to the completion of the project in accordance with the Plans and Specifications, excepting authorized extra WORK, shall be included in the unit and lump sum prices stated in the CONTRACTOR's accepted Proposal. The amount obtained by the summation of the products of the quantities of WORK performed or the respective unit or lump sum prices for several items listed in the proposal shall be payment in full, except for payment for authorized extra WORK, for delivering the completed project to the OWNER in accordance with the Plans and Specifications.

Submission of Bid Breakdown

Within 10 days after the execution of this CONTRACT, the CONTRACTOR must submit to the ENGINEER in duplicate an acceptable breakdown of the lump sums and unit prices bid for items of the CONTRACT, showing the various operations to be performed under the CONTRACT, and the value of each of such operations, the total of such items to equal the total price bid. The CONTRACTOR shall also submit such other information relating to the bid prices as may be required and shall revise the bid breakdown as directed. Thereafter, the breakdown may be used for checking the CONTRACTOR's applications for partial payments hereunder but shall not be binding upon the OWNER or the ENGINEER for any purpose whatsoever.

Partial Payments

When not otherwise provided for under the Specifications for an item of WORK or a complete project, and if the rate of progress is satisfactory to the ENGINEER, partial payments will be made the CONTRACTOR by the OWNER during progress of construction. The amount of each partial payment shall be limited to ninety (90) percent (unless otherwise provided in the Instructions to Bidders) of the value of the WORK shown in the Engineer's periodic estimate to have been done and installed in place by the CONTRACTOR subsequent to the time of commencing WORK or of making the last preceding partial payment on account of WORK done. An amount greater than ninety (90) percent of the value of a largely completed project may be paid the CONTRACTOR at the option of the OWNER.

The CONTRACTOR's request for payment shall be in the form of an invoice, submitted to the OWNER through the ENGINEER, setting forth amounts due for WORK completed on payment items set forth in the CONTRACTOR's Proposal, and shall be accompanied by:

(1) CONTRACTOR's Sworn Statement setting forth the Subcontractors and material suppliers, the amount requested for each of the Subcontractors or material suppliers, and the amount of the subcontract or material to be completed.

(2) Subcontractor or material suppliers waivers of lien for amounts requested on previous payment requests.

(3) CONTRACTOR's waivers of lien.

The CONTRACTOR's request will be reviewed by the ENGINEER and if the ENGINEER is in agreement with the value of WORK completed, as requested by the CONTRACTOR, and if the request is accompanied by the CONTRACTOR's Sworn Statement, Subcontractor and material suppliers waiver of lien as stated above, and by the CONTRACTOR's waiver of lien, the ENGINEER will recommend payment to the OWNER.

Partial payment made to the CONTRACTOR by the OWNER for WORK performed shall in no way constitute an acknowledgement of the acceptance of the WORK nor in any way prejudice or affect the obligation of the CONTRACTOR, at his expense, to repair, correct, renew or replace any defects or imperfections in the construction of the WORK under CONTRACT and its appurtenances, nor any damage due or attributable to such defect, damage and the CONTRACTOR shall be liable to the OWNER for failure to correct the same as provided herein.

Payment in full or in part may be withheld for reasons which include but are not limited to: (1) the existence of defective work which is not remedied; (2) the existence of third party claims filed or reasonable evidence indicating probable filing of such claims; (3) the failure of the CONTRACTOR to make payments properly to Subcontractors or for labor, materials or equipment; (4) the existence of reasonable evidence that the WORK cannot be completed for the unpaid balance of the contract sum;

(5) damage to the OWNER; (6) the existence of reasonable evidence that the WORK will not be completed within the CONTRACT time, and that the unpaid balance will not be adequate to cover actual or liquidated damages for the anticipated delay; or, (7) persistent failure to carry out the work in accordance with the contract documents. If within a reasonable time not to exceed 45 days CONTRACTOR has not remedied any condition for which payment in full has been withheld, then OWNER may make such payments as OWNER deems necessary to remedy such situation from said funds withheld and pay the balance to CONTRACTOR, or if, sums are still due to remedy the situation, CONTRACTOR will remit any balances due to OWNER within 10 days of notice of same.

ACCEPTANCE AND FINAL PAYMENT

Whenever the CONTRACT shall have been completely performed on the part of the CONTRACTOR, and all parts of the WORK have been approved by the ENGINEER and accepted by the OWNER, including the resolution of all matters of dispute, a final estimate showing the value of the WORK will be prepared by the ENGINEER as soon as the necessary measurements and computations can be made, all prior estimates upon which payments have been made being approximate only and subject to corrections in the final payments.

The CONTRACTOR shall submit a final payment request showing the total quantities completed for the entire project and all previous payouts. This payment request shall be accompanied by a sworn affidavit listing all Subcontractors and material suppliers and the total payments to each. Final Waivers of Lien from the Subcontractors and material suppliers as well as the CONTRACTOR shall also be furnished at this time.

A final payment including all amounts of money shown by the final estimate to be due the CONTRACTOR shall be made by the OWNER as soon as practicable after the final acceptance of the WORK, provided the CONTRACTOR has furnished the OWNER satisfactory evidence that all sums of money due for labor, materials, apparatus, fixtures or machinery furnished for the purpose of performing the Contract have been paid or that the person or persons to whom the same may respectively be due have consented to such final payment.

RETURN WITH BID

BIDDER'S CERTIFICATION

I/We hereby certify that:

A. A complete set of bid papers, as intended, has been received, and that I/We will abide by the contents and/or information received and/or contained herein.

B. I/We have not entered into any collusion or other unethical practices with any person, firm, or employee of the City which would in any way be construed as unethical business practice.

C. I/We have adopted a written sexual harassment policy which is in accordance with the requirements of Federal, State and local laws, regulations and policies and further certify that I/We are also in compliance with all other equal employment requirements contained in Public Act 87-1257 (effective July 1, 1993) 775 ILCS 5/2-105 (A).

D. I/We are in compliance with the most current "Prevailing Rate" of wages for laborers, mechanics and other workers as required by the City of Aurora Ordinance No. O18-054, adopted on June 26, 2018.

E. I/We operate a drug free environment and drugs are not allowed in the workplace or satellite locations as well as City of Aurora sites in accordance with the Drug Free Workplace Act of January, 1992.

F. The Bidder is not barred from bidding on the Project, or entering into this contract as a result of a violation of either Section 33E-3 or 33E-4 of the Illinois Criminal Code, or any similar offense of "bid rigging" or "bid rotating" of any state or the United States.

G. I/We will submit with our bid, for all contracts in excess of $25,000.00, a certificate indicating participation in apprenticeship and training programs approved and registered with the United Sates Department of Labor.

☐ Contractor shall check the box indicating that a copy of applicable program certification is attached.

H. I/We have obtained IDOT prequalification as described in Check Sheet LRS6 in the "Supplemental Specifications and Recurring Special Provisions" in the categories appropriate for the type of work proposed for this project.

☐ Contractor shall check the box indicating that a copy of the IDOT prequalification certification for the appropriate categories is attached.

I. I/We will abide by all other Federal, State and local codes, rules, regulations, ordinances and statutes.

COMPANY NAME _____

ADDRESS _____

CITY/STATE/ZIP CODE _____

NAME OF CORPORATE/COMPANY OFFICIAL _____
PLEASE TYPE OR PRINT CLEARLY

TITLE _____

AUTHORIZED OFFICIAL SIGNATURE _____

DATE _____

TELEPHONE (_____)_____

FAX No. (_____)_____

Subscribed and Sworn to

Before me this _____ day

of _____, 20___

_____
Notary Public

Apprenticeship or Training Program Certification

Return with Bid

All contractors are required to complete the following certification:

☐ For this contract proposal or for all groups in this deliver and install proposal.

☐ For the following deliver and install groups in this material proposal:

_____

_____

_____

_____

The City of Aurora 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. In addition to all other responsibility factors, this contract or deliver and install proposal requires all bidders and all bidders' subcontractors to disclose participation in apprenticeship or training programs that are approved by and registered with the United States Department of Labor's Bureau of Apprenticeship and Training, and applicable to the work of the above indicated proposals or groups. Therefore, all bidders are required to complete the following certification:

I. Except as provided in paragraph IV 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.

II. The undersigned bidder further certifies for work to be performed by subcontract that each of its subcontractors submitted for approval is, at the time of such bid, participating in an approved, applicable apprenticeship or training program applicable to the work of the subcontract.

III. 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.

_____

_____

_____

_____

VI. Except for any work identified above, any bidder or subcontractor that 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 workforce and positions of ownership. ☐

_____

_____

_____

_____

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 City of Aurora requires 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 be included with the bid in order to qualify to bid on the project.**

Bidder: _____ By: _____

(Signature)

Address: _____ Title: _____

RETURN WITH BID

STATE OF ILLINOIS)
) ss.
County of Kane)

BIDDER'S TAX CERTIFICATION

(BIDDER'S EXECUTING OFFICER), being first duly sworn on oath, deposes and states that all statements made herein are made on behalf of the Bidder, that this despondent is authorized to make them and that the statements contained herein are true and correct.

Bidder deposes, states and certifies that Bidder is not barred from contracting with any unit of local government in the State of Illinois as result of a delinquency in payment of any tax administered by the Illinois Department of Revenue unless Bidder is contesting, in accordance with the procedures established by the appropriate statute, its liability for the tax or the amount of the tax, all as provided for in accordance with 65 ILCS 5/11-42.1-1.

DATED this _____ day of _____, 20___.

By _____
(Signature of Bidder's Executing Officer)

_____
(Print name of Bidder's Executing Officer)

_____
(Title)

ATTEST/WITNESS:

By _____

Title _____

Subscribed and sworn to before me this
_____ day of _____, 20___.

_____
Notary Public

(SEAL)

LOCAL BIDDER PREFERENCE

O18-070 approved August 28, 2018 defines “Local business” to mean a vendor or contractor who has a valid, verifiable physical business address located within the corporate boundaries of the City of Aurora at least twelve months prior to a bid or proposal opening date, from which the vendor, contractor or consultant operates or performs business on a daily basis, including manufacturing production or distribution. The business must disclose the percentage of workforce in the City of Aurora; be registered with the City of Aurora, if applicable; be subject to City of Aurora taxes (inclusive of sales taxes); be current with property tax payments and sales tax payments; not have any outside cited code violations; not have any outstanding debts to the City of Aurora; have adequately qualified and trained staff to service the bid of interest.

City of Aurora, IL - Local Vendor Preference Application

The business identified below is requesting to be placed on the City of Aurora, Illinois Local Vendor Preference list, in accordance with ordinance O18-070, approved August 28, 2018.

1) Date Submitted:

2) Name of Business:

3) Address of Local Office:

4) City, State, Zip:

5) Company's Web Address:

6) Phone: Fax:

7) County your Local Business is Located In:

Submitted By (Signature):
Print Name and Title:
Email Address:

Sec. 2-410.-Prequalification; local bidder.

(a) If an interested business would like to prequalify as a "local business", such a business shall complete and submit the prequalification application along with supporting documentation, as listed below, and the applicable fee as set by the City Council, to the Finance Department:

a. Evidence that the business has established and maintained a physical presence in the City of Aurora, by virtue of the ownership or lease of all or a portion of a building for a period of not less than twelve (12) consecutive months prior to the submission of the prequalification application; and

b. Evidence demonstrating that the business is legally authorized to conduct business within the State of Illinois and the City of Aurora, and has a business registered to operate in the City if required; and

c. Evidence that the business is not a debtor to the City of Aurora. For purposes of this subparagraph, a debtor is defined as having outstanding fees, water bills, sales tax or restaurant/bar tax payments that are thirty (30) days or more past due, or has outstanding weed or nuisance abatements or liens, has failure to comply tickets or parking tickets that are not in dispute as to their validity and are not being challenged in court or other administrative processes.

Back up documentation for (a) a. and (a) b. must accompany this submittal or application will be rejected.

Please note for (a) c. above the City of Aurora will verify internally that your company does not have any outstanding fees. Your company should make sure that to the best of its knowledge all bills are current.

Return completed application, with all required backup documentation to:
City of Aurora, Attn: Purchasing Division, 44 E. Downer Place, Aurora, IL 60507
Or email to: PurchasingDL@Aurora-il.org

Do not write below this line: For City of Aurora use ONLY

(a) a.

(a) b.

(a) c.

Date: _____
Approved: _____ Denied: _____
Letter Sent: _____ Initials: _____

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:

_____

_____

_____

_____

_____

_____

_____

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

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 35 working days.

80071

Kane County Prevailing Wage Rates posted on 2/2/2022

						Overtime								
Trade Title	**Rg**	**Type**	**C**	**Base**	**Foreman**	**M-F**	**Sa**	**Su**	**Hol**	**H/W**	**Pension**	**Vac**	**Trng**	**Other Ins**
ASBESTOS ABT-GEN	All	ALL		45.90	46.90	1.5	1.5	2.0	2.0	14.36	16.90	0.00	0.90	
ASBESTOS ABT-MEC	All	BLD		38.85	41.96	1.5	1.5	2.0	2.0	14.42	12.61	0.00	0.82	
BOILERMAKER	All	BLD		52.61	57.34	2.0	2.0	2.0	2.0	6.97	22.34	0.00	1.40	
BRICK MASON	All	BLD		48.56	53.42	1.5	1.5	2.0	2.0	11.70	21.06	0.00	1.03	
CARPENTER	All	ALL		50.86	52.86	1.5	1.5	2.0	2.0	11.79	24.77	0.00	0.79	
CEMENT MASON	All	ALL		49.20	51.20	2.0	1.5	2.0	2.0	11.15	25.07	0.00	0.55	
CERAMIC TILE FINISHER	All	BLD		42.80	42.80	1.5	1.5	2.0	2.0	11.45	14.27	0.00	0.94	
COMMUNICATION TECHNICIAN	N	BLD		42.41	44.81	1.5	1.5	2.0	2.0	13.79	15.42	0.00	0.85	
COMMUNICATION TECHNICIAN	S	BLD		41.41	43.81	1.5	1.5	2.0	2.0	18.30	11.59	0.00	1.45	
ELECTRIC PWR EQMT OP	All	ALL		46.06	62.84	1.5	1.5	2.0	2.0	6.75	12.90	0.00	1.15	1.38
ELECTRIC PWR GRNDMAN	All	ALL		35.38	62.84	1.5	1.5	2.0	2.0	6.75	9.91	0.00	0.88	1.06
ELECTRIC PWR LINEMAN	All	ALL		55.37	62.84	1.5	1.5	2.0	2.0	6.75	15.50	0.00	1.38	1.66
ELECTRIC PWR TRK DRV	All	ALL		36.67	62.84	1.5	1.5	2.0	2.0	6.75	10.27	0.00	0.92	1.10
ELECTRICIAN	N	ALL		52.28	56.68	1.5	2.0	2.0	2.0	15.88	19.28	0.00	1.30	
ELECTRICIAN	S	BLD		51.00	55.25	1.5	1.5	2.0	2.0	20.55	14.28	0.00	1.79	
ELEVATOR CONSTRUCTOR	All	BLD		60.42	67.97	2.0	2.0	2.0	2.0	15.87	19.31	4.83	0.64	
FENCE ERECTOR	All	ALL		48.83	52.74	2.0	2.0	2.0	2.0	13.31	25.25	0.00	1.28	
GLAZIER	All	BLD		47.60	49.10	1.5	2.0	2.0	2.0	14.99	23.55	0.00	1.43	
HEAT/FROST INSULATOR	All	BLD		51.80	54.91	1.5	1.5	2.0	2.0	14.42	15.36	0.00	0.82	
IRON WORKER	All	ALL		48.83	52.74	2.0	2.0	2.0	2.0	13.31	25.25	0.00	1.28	
LABORER	All	ALL		45.90	46.65	1.5	1.5	2.0	2.0	14.36	16.90	0.00	0.90	
LATHER	All	ALL		50.86	52.86	1.5	1.5	2.0	2.0	11.79	24.77	0.00	0.79	
MACHINIST	All	BLD		50.68	53.18	1.5	1.5	2.0	2.0	8.93	8.95	1.85	1.47	
MARBLE FINISHER	All	ALL		37.00	50.10	1.5	1.5	2.0	2.0	11.70	19.10	0.00	0.93	
MARBLE MASON	All	BLD		47.71	52.48	1.5	1.5	2.0	2.0	11.70	20.53	0.00	1.02	
MATERIAL TESTER I	All	ALL		35.90		1.5	1.5	2.0	2.0	14.36	16.90	0.00	0.90	
MATERIALS TESTER II	All	ALL		40.90		1.5	1.5	2.0	2.0	14.36	16.90	0.00	0.90	
MILLWRIGHT	All	ALL		50.86	52.86	1.5	1.5	2.0	2.0	11.79	24.77	0.00	0.79	
OPERATING ENGINEER	All	BLD	1	53.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	2	52.30	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	3	49.75	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	

OPERATING ENGINEER	All	BLD	4	48.00	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	5	57.35	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	6	54.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	7	56.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	FLT		41.00	41.00	1.5	1.5	2.0	2.0	20.90	17.85	2.00	2.15	
OPERATING ENGINEER	All	HWY	1	51.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	2	51.25	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	3	49.20	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	4	47.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	5	46.60	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	6	54.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	7	52.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
ORNAMENTAL IRON WORKER	All	ALL		48.83	52.74	2.0	2.0	2.0	2.0	13.31	25.25	0.00	1.28	
PAINTER	All	ALL		49.30	51.30	1.5	1.5	1.5	2.0	19.08	4.15	0.00	1.10	
PAINTER - SIGNS	All	BLD		40.74	45.75	1.5	1.5	2.0	2.0	3.04	3.90	0.00	0.00	
PILEDRIVER	All	ALL		50.86	52.86	1.5	1.5	2.0	2.0	11.79	24.77	0.00	0.79	
PIPEFITTER	All	BLD		52.00	55.00	1.5	1.5	2.0	2.0	11.60	21.85	0.00	2.92	
PLASTERER	All	BLD		45.50	48.23	1.5	1.5	2.0	2.0	16.75	19.04	0.00	1.25	
PLUMBER	All	BLD		52.80	55.95	1.5	1.5	2.0	2.0	16.45	16.75	0.00	1.47	
ROOFER	All	BLD		46.70	50.70	1.5	1.5	2.0	2.0	11.58	14.56	0.00	0.96	
SHEETMETAL WORKER	All	BLD		51.83	54.42	1.5	1.5	2.0	2.0	11.22	19.08	0.00	1.45	2.46
SIGN HANGER	All	BLD		26.07	27.57	1.5	1.5	2.0	2.0	3.80	3.55	0.00	0.00	
SPRINKLER FITTER	All	BLD		52.25	55.00	1.5	1.5	2.0	2.0	14.20	18.60	0.00	0.75	
STEEL ERECTOR	All	ALL		48.83	52.74	2.0	2.0	2.0	2.0	13.31	25.25	0.00	1.28	
STONE MASON	All	BLD		48.56	53.42	1.5	1.5	2.0	2.0	11.70	21.06	0.00	1.03	
TERRAZZO FINISHER	All	BLD		44.54	44.54	1.5	1.5	2.0	2.0	11.45	16.64	0.00	0.97	
TERRAZZO MASON	All	BLD		48.38	51.88	1.5	1.5	2.0	2.0	11.45	18.10	0.00	1.00	
TILE MASON	All	BLD		49.75	53.75	1.5	1.5	2.0	2.0	11.45	17.98	0.00	1.02	
TRAFFIC SAFETY WORKER	All	HWY		38.50	40.10	1.5	1.5	2.0	2.0	8.90	8.90	0.00	0.90	
TRUCK DRIVER	All	ALL	1	40.06	40.61	1.5	1.5	2.0	2.0	10.15	13.57	0.00	0.15	
TRUCK DRIVER	All	ALL	2	40.21	40.61	1.5	1.5	2.0	2.0	10.15	13.57	0.00	0.15	
TRUCK DRIVER	All	ALL	3	40.41	40.61	1.5	1.5	2.0	2.0	10.15	13.57	0.00	0.15	
TRUCK DRIVER	All	ALL	4	40.61	40.61	1.5	1.5	2.0	2.0	10.15	13.57	0.00	0.15	
TUCKPOINTER	All	BLD		48.25	49.25	1.5	1.5	2.0	2.0	8.79	20.47	0.00	1.01	

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 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, 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.

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.

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

TRAFFIC SAFETY - Effective November 30, 2018, the description of the traffic safety worker trade in this County is as follows: Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary, non-temporary or permanent lane, pavement or roadway markings, and the installation and removal of temporary road signs.

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.

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".