

VILLAGE OF DOWNERS GROVE
Report for the Village Council Meeting
8/5/2025

SUBJECT:	SUBMITTED BY:
Award of Contract - Traffic Signal Modernization (TR-030)	Scott Vasko Director of Engineering

SYNOPSIS

A motion is requested to award a contract for the Traffic Signal Modernization project to Acura, Inc. of Bensenville, Illinois in the amount of \$388,254.00.

STRATEGIC PLAN ALIGNMENT

The goals for 2024-2026 include *Top Quality Infrastructure*.

FISCAL IMPACT

The FY25 budget includes \$225,000 from the Capital Fund for this project. The required additional funds are available in the Capital Fund.

RECOMMENDATION

Approval on the August 5, 2025 consent agenda.

BACKGROUND

The scope of this project consists of the modernization of four (4) traffic signal locations. These updates are focused on pedestrian accessibility, and include implementation of pedestrian signals, traffic signal cabinet updates, traffic signal optimization, and sidewalk reconstruction. The four traffic signal locations can be seen in the below table:

Number	Location List
1	Downers Drive & Finley Mall Drive
2	Finley Road and Brook Drive
3	Finley Road and Finley Mall Drive
4	Lacey Road and Woodcreek Drive

A call for bids (CFB) was issued and published in accordance with the Village’s Purchasing Policy. Two bids were received on July 16, 2025 and a synopsis of the bids is as follows:

Contractor	Total Bid	
Acura, Inc.	\$388,254.00	Low Bid
MYS Incorporated	\$533,494.77	

Staff recommends award of the project to Acura, Inc. While this contractor has not performed work recently in Downers Grove, they have successfully completed projects for the Villages of Schaumburg, Niles and Westchester and the City of Oakbrook Terrace.

ATTACHMENTS

Contract



CALL FOR BIDS – FIXED WORKS PROJECT

- I. Name of Company Bidding: Acura Inc.
- II. Instructions and Specifications:
- A. Bid No.: TR-030
 - B. DemandStar Bid No.: CFB-27-0-2025/EE
 - C. For: Traffic Signal Modernization
 - D. Bid Opening Date/Time: Wednesday, July 16, 2025 @ 11:00 AM
 - E. Pre-Bid Conference Date/Time: None
 - F. Pre-Bid Conference Location: None
- III. Required of All Bidders:
- A. Bid Deposit: 5%
 - B. Letter of Capability of Acquiring Performance Bond: YES
- IV. Required of Awarded Contractor(s)
- A. Performance Bond or Letter of Credit: YES
 - B. Certificate of Insurance: YES

Legal Advertisement Published: Wednesday, July 2, 2025

This document comprises 107 pages.

RETURN ORIGINAL BID (NO STAPLES) IN SEALED ENVELOPE MARKED WITH THE BID NUMBER AS NOTED ABOVE TO:

EMILY ERICSON
VILLAGE OF DOWNERS GROVE
5101 WALNUT AVENUE
DOWNERS GROVE, IL 60515
PHONE: 630/434-6863
FAX: 630/434-5495
www.downers.us

CALL FOR BIDS – FIXED WORKS PROJECT**Bid No.: TR-030**

The VILLAGE OF DOWNERS GROVE will receive bids Monday through Friday, 8:00 A.M. to 5:00 P.M. at the Public Works Building, 5101 Walnut Avenue, Downers Grove, IL 60515.

The Village Council reserves the right to accept or reject any and all bids, to waive technicalities and to accept or reject any item of any Bid.

The documents constituting component parts of this Contract are the following:

- I. CALL FOR BIDS
- II. TERMS & CONDITIONS
- III. GENERAL PROVISIONS
- IV. SPECIAL PROVISIONS
- V. BID & CONTRACT FORM

All Bidders MUST submit the entire bid package, with one original Bid Form. Upon formal Award, the successful Bid will automatically convert to a Contract, and the successful Bidder will receive a copy of the executed contract upon formal award of the Bid with the Notice of Award.

DO NOT DETACH ANY PORTION OF THIS DOCUMENT. INVALIDATION COULD RESULT.**PLEASE DO NOT BIND ANY PORTION OF THE BID WITH STAPLES.****ALL PAGES OF THE BID MUST BE SUBMITTED SINGLE-SIDED.**

I. CALL FOR BIDS and INSTRUCTIONS TO BIDDERS

1. GENERAL

- 1.1 Notice is hereby given that Village of Downers Grove will receive sealed bids up to the time and date set forth on the cover page of this Call for Bids.
- 1.2 Defined Terms:
 - 1.2.1 Village – the Village of Downers Grove acting through its officers or agents.
 - 1.2.2 Contract Documents – this document plus any drawings issued therewith, any addenda and the Bidder's completed proposal, bonds and all required certifications.
 - 1.2.3 Bid – this document completed by an individual or entity and submitted to the Village.
 - 1.2.4 Bidder – the individual or entity who submits or intends to submit a bid proposal to the Village.
 - 1.2.5 Contractor – the individual or entity whose bid is selected by the Village and who enters into a contract with the Village.
 - 1.2.6 Work – the construction or service defined herein.
 - 1.2.7 Day – unless otherwise stated all references to day "Day" "Days", "day" or "days" shall refer to calendar days.
 - 1.2.8 Proposal Guaranty – the required bid deposit.
- 1.3 Bids must be received at the Village by the time and date specified. Bids received after the specified time and date will not be accepted and will be returned unopened to the Bidder.
- 1.4 Bids shall be sent to the Village of Downers Grove, ATTN: EMILY ERICSON, in a sealed envelope marked "SEALED BID." The envelope shall be marked with the name of the project, date, and time set for receipt of Bids. The bid package may be submitted any time prior to the time set for receipt of Bids.
- 1.5 All Bids must be submitted on the forms supplied by the Village and signed by a proper official of the company submitting the Bid. Telephone, email and fax Bids will not be accepted.
- 1.6 Under penalty of perjury, the Bidder certifies by submitting this Bid that he has not acted in collusion with any other Bidder or potential Bidder.

2. BID PREPARATION

- 2.1 It is the responsibility of the Bidder to carefully examine the Contract Documents and to be familiar with all of the requirements, stipulations, provisions, and conditions surrounding the proposed Work.
- 2.2 The Bidder shall inspect the site of the proposed Work in detail, investigate and become familiar with all the local conditions affecting the Work and become fully acquainted with the detailed requirements of the Work. Submitting a Bid shall be a conclusive assurance and warranty that the Bidder has made these examinations and that the Bidder understands all requirements for the performance of the Work. If the Bid is accepted, the Bidder will be responsible for all errors in the Bid resulting from his willing or neglectful failure to comply with these instructions. IN NO CASE WILL THE VILLAGE BE RESPONSIBLE FOR ANY COSTS, EXPENSES, LOSSES OR CHANGES IN ANTICIPATED MARGINS OF PROFIT RESULTING FROM THE WILLING OR NEGLECTFUL FAILURE OF

THE BIDDER TO MAKE THESE EXAMINATIONS. THE VILLAGE WILL NOT BE RESPONSIBLE FOR ANY COSTS, EXPENSES, LOSSES OR CHANGES IN ANTICIPATED MARGINS OF PROFIT RESULTING FROM THE WILLING OR NEGLECTFUL FAILURE OF THE CONTRACTOR TO PROVIDE THE KNOWLEDGE, EXPERIENCE AND ABILITY TO PERFORM THE WORK REQUIRED BY THIS CONTRACT. No changes in the prices, quantities or contract provisions shall be made to accommodate the inadequacies of the Bidder, which might be discovered subsequent to award of contract. The Bidder shall take no advantage of any error or omission in the Contract Documents nor shall any error or omission in the Contract Documents serve as the basis for an adjustment of the amounts paid to the Bidder.

- 2.3 When the Contract Documents include information pertaining to subsurface explorations, borings, test pits, and other preliminary investigations, such information is included solely for the convenience of the Bidder. *The Village assumes no responsibility whatsoever with respect to the sufficiency of the information, and does not warrant, neither expressly nor by implication, that the conditions indicated represent those existing throughout the Work, or that unanticipated developments may not occur.*
- 2.4 Any information shown in the Contract Documents regarding the locations of underground utility facilities is included solely for the convenience of the Bidder. The Village assumes no responsibility whatsoever with respect to the sufficiency, accuracy or inadequacy of such information. It shall be the Bidder's responsibility to obtain detailed information from the respective utility companies relating to the location of their facilities and the work schedules of the utility companies for removing or adjusting them. Utilities whose facilities may be affected by the work include, but may not be limited to, the following: Nicor, ComEd, SBC, Comcast Cable, Downers Grove Sanitary District, and Village water, storm sewer, and street lighting systems.
- 2.5 No oral or telephone interpretations of specifications shall be binding upon the Village. All requests for interpretations or clarifications shall be made in writing and received by the Village at least five (5) business days prior to the date set for receipt of Bids or the pre-bid conference, if offered. The Village shall make all changes or interpretations of the Contract Documents in a written addendum and shall provide an addendum to any Bidder of record. Any and all changes to the Contract Documents are valid only if they are included by written addendum to all Bidders. Each Bidder must acknowledge receipt of any addenda by indicating same on the Bid Form. Each Bidder, by acknowledging receipt of any addenda, is responsible for the contents of the addenda and any changes to the Bid therein. Failure to acknowledge any addenda may cause the Bid to be rejected. The Village will not assume responsibility for receipt of any addenda. In all cases, it will be the Bidder's responsibility to obtain all addenda issued. Bidders will provide written acknowledgement of receipt of each addendum issued with the bid submission.
- 2.6 An estimate of the quantities of Work to be performed and the materials to be furnished is shown in the Bid Form. It is given as a basis for comparing the properly submitted Bids, and shall be used by the Village in awarding the Contract. The Village does not expressly warrant nor imply that the estimated quantities shown will correspond with those quantities required to perform the Work. No Bidder shall plead misunderstanding or deception because of such an estimate of quantities, or because of the character, location or other conditions pertaining to the Work. Payment shall be based on the actual quantities of work properly performed in accordance with the Contract, at the Contract unit prices specified. The Village reserves the right to increase, decrease or omit entirely, any or all items. No allowance will be made for any change in anticipated profits due to an increase or decrease in the original estimate of quantities.
- 2.7 The Bid shall be executed properly, and Bids shall be made for all items indicated in the Bid Form. The Bidder shall indicate, in figures, a unit price or lump sum price for each of the separate items called for in the Bid Form. The Bidder shall show the products of the respective quantities and unit prices in the column provided for that purpose. The gross sum shown in the place indicated in the Bid Form shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the Bidder, which shall be written with ink.
- 2.8 In case of error in the extension of prices in the Bid, the hourly rate or unit price will govern. In case of discrepancy

in the price between the written and numerical amounts, the written amount will govern.

- 2.9 All costs incurred in the preparation, submission, and/or presentation of any Bid including the Bidder's travel or personal expenses shall be the sole responsibility of the Bidder and will not be reimbursed by the Village.
- 2.10 The Bidder hereby affirms and states that the prices quoted herein constitute the total cost to the Village for all work involved in the respective items, as well as the materials to be furnished in accordance with the collective requirements of the Contract Documents. The Bidder also affirms that this cost includes all insurance, bonds, royalties, transportation charges, use of all tools and equipment, superintendence, overhead expense, profits and other work, services and conditions necessarily involved in the work to be done.
- 2.11 The Bidder shall complete and submit with the Bid an "Affidavit" (IDOT Form BC-57, or similar) listing all uncompleted contracts, including subcontract work; all pending low bids not yet awarded or rejected, and equipment available.
- 2.12 The Bidder shall complete and submit with the Bid a "Municipal Reference List" indicating other municipalities for which the Bidder has successfully performed similar work.

3. PRE-BID CONFERENCE

- 3.1 A pre-bid conference may be offered to provide additional information, inspection or review of current facilities or equipment, and to provide an open forum for questions from Bidders. This pre-bid conference is not mandatory (unless stated "Mandatory" on the cover of this document), but attendance by Bidders is strongly advised as this will be the last opportunity to ask questions concerning the Bid.
- 3.2 Questions may be posed in writing to the Village (faxed and emailed questions are acceptable), but must be received by the Village prior to the scheduled time for the pre-bid conference. Questions received will be considered at the conference. An addendum may be issued as a result of the pre-bid conference. Such an addendum is subject to the provisions for issuance of an addendum as set forth in Section 2.5 above.
- 3.3 No Contract Documents will be issued after a mandatory pre-bid conference except to attendees.

4. BID SUBMISSION

- 4.1 An original copy of the sealed bid marked as indicated in Section 1 shall be submitted to the Village. Please do not bind any portion of the bid with staples.
- 4.2 A bid deposit will be required, which shall not exceed ten percent (10%) of the estimated cost of the work to be furnished. Such bid deposit shall be in the form of a bid bond, certified check, cash or money order. Checks shall be drawn upon a bank of good standing payable to the order of the Village and said deposit shall be forfeited to the Village in the event the Bidder neglects or refuses to enter into a contract and bond when required, with approved sureties, to execute the Work or furnish the material for the price mentioned in his Bid and according to the plans and specifications in case the contract shall be awarded to him.
- 4.3 Bids shall be publicly opened at the hour and place indicated above.

5. BID MODIFICATION OR WITHDRAWAL

- 5.1 A Bid that is in the possession of the Village may be altered by a letter bearing the signature of the person authorized for submitting a Bid, provided that it is received prior to the time and date set for the bid opening. Telephone, email or verbal alterations of a Bid will not be accepted.
- 5.2 A Bid that is in the possession of the Village may be withdrawn by the Bidder, up to the time set for the bid opening, by a letter bearing the signature of the person authorized for submitting Bids. Bids may not be withdrawn after the bid

opening and shall remain valid for a period of ninety (90) days from the date set for the bid opening, unless otherwise specified.

6. BID REJECTION

- 6.1 Bids that contain omissions, erasures, alterations, additions not called for, conditional bids or alternate bids not called for, or irregularities of any kind, shall be rejected as informal or insufficient. Bids otherwise acceptable, which are not accompanied by the proper Proposal Guaranty, shall also be rejected as informal or insufficient. The Village reserves the right however, to reject any or all Bids and to waive such technical error as may be deemed best for the interest of the Village.

7. BIDDER COMPETENCY

- 7.1 No Bid will be accepted from, or contract awarded to, any person, firm or corporation that is in arrears or is in default upon any debt or contract. The Bidder, if requested, must present evidence to the Village of ability and possession of necessary facilities, and financial resources to comply with the terms of the Contract Documents. Evidence must be presented within three (3) business days.

8. BIDDER DISQUALIFICATION

- 8.1 Any one or more of the following causes may be considered as sufficient for the disqualification of a Bidder and the rejection of their Bid.

- 8.1.1 More than one Bid for the same Work from an individual, firm partnership, or corporation under the same or different names.
- 8.1.2 Evidence of collusion among Bidders.
- 8.1.3 Unbalanced Bids in which the prices for some items are substantially out of proportion to the prices for other items.
- 8.1.4 Failure to submit a unit price for each item of Work listed in the Bid Form.
- 8.1.5 Lack of competency as revealed by financial statement or experience questionnaire.
- 8.1.6 Unsatisfactory performance record as shown by past work, judged from the standpoint of workmanship and progress.
- 8.1.7 Uncompleted work which, in the judgment of the Village, might hinder or prevent the prompt completion of this Work.
- 8.1.8 Failure to submit a signed Bidder's Certificate stating the following:
 - 8.1.8.1 That the Bidder is not barred from bidding on this Contract as a result of a violation of Sections 720 ILCS 5/33-E3 and 720 ILCS 5/33-E4 of the Illinois Compiled Statutes; and
 - 8.1.8.2 The Bidder is not delinquent in the payment of any tax administered by the Illinois Department of Revenue; and
 - 8.1.8.3 The Bidder will maintain the types and levels of insurance required by the terms of this Contract; and
 - 8.1.8.4 The Bidder will comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*

9. BASIS OF AWARD

- 9.1 The Village reserves the exclusive right to accept or reject any and all Bids or to waive sections, technicalities and irregularities, or to accept or reject any Bid or any item of any Bid.

10. AWARD OF CONTRACT

- 10.1 Unless the Village exercises its right to reject all Bids, the Contract will be awarded to that responsible Bidder whose Bid, conforming to the Contract Documents, will be most advantageous to the Village, price and other factors considered (the credentials, financial information, bonding capacity, insurance protection, qualifications of the labor and management of the firm, past experience and ability to complete the project within time frame required - lowest responsible bidder).
- 10.2 Unless otherwise specified, if a Contract is not awarded within ninety (90) days after the opening of Bids, a Bidder may file a written request with the Village for the withdrawal of their Bid. The Village will have a maximum of ten (10) days after the receipt of such request to award the Contract or release the Bidder from further obligation by return of the Bidder's bid deposit. Any attempt or actual withdrawal or cancellation of a Bid by the awarded contractor who has been notified by the Village of the acceptance of said Bid shall be considered a breach of contract.

11. RETURN OF BID DEPOSIT

- 11.1 The bid deposit of all except the three (3) lowest responsive bidders on each contract will be returned within fifteen (15) days after the opening of Bids. The remaining bid deposits of each contractor will be returned within fifteen (15) days after the Village Council has awarded the contract and the required appurtenances to the contract have been received.

12. FAILURE TO ENTER INTO CONTRACT

- 12.1 Failure on the part of the successful Bidder to execute a Contract and provide acceptable bonds, as provided herein, within ten (10) days from the date of receipt of the Contract and Notice of Award from the Village, will be considered as just cause for the revocation of the award. The Bidder's bid security shall then be forfeited to the Village, not as a penalty, but in payment of liquidated damages sustained as a result of such failure.
- 12.2 Failure on the part of the successful Bidder to provide the Village a construction schedule for approval within ten (10) calendar days from the date of receipt of the Notice of Award from the Village, and, if required, provide a modified construction schedule as requested by the Village within an additional five (5) calendar days, may be considered as just cause for the revocation of the award. In such case, the Bidder's bid security shall then be forfeited to the Village, not as a penalty, but in payment of liquidated damages sustained as a result of such failure.
- 12.3 The Bidder shall not be allowed to claim lack of receipt where the Contract and Notice of Award was mailed by U.S. Postal Services certified mail to the business address listed in his Bid. In case the Village does not receive evidence of receipt within ten (10) days of the date of Notice of Award, the Village may revoke the award. The Bidder shall then forfeit the bid security to the Village, not as a penalty, but in payment of liquidated damages sustained as the result of such failure to execute the Contract.
- 12.4 By submitting a Bid, the Bidder understands and agrees that, if his Bid is accepted, and he fails to enter into a contract forthwith, he shall be liable to the Village for any damages the Village may thereby suffer.

13. SECURITY FOR PERFORMANCE

- 13.1 The successful Bidder shall, within ten (10) days after acceptance of the Bidder's Bid by the Village, furnish a Performance Bond and a Materials and Labor Payment Bond acceptable to the Village in the full amount of the Bid. Said bonds shall guarantee the Bidder's performance under the Contract Documents and shall guarantee payment of all subcontractors and material suppliers. Any bond shall include a provision that guarantees faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*

14. TAX EXEMPTION

- 14.1 The Village is exempt from Illinois sales or use tax for direct purchases of materials and supplies. A copy of the Illinois Sales Tax Exemption Form will be issued upon request. The Village's federal identification number will also be provided to the selected Bidder.

15. RESERVED RIGHTS

- 15.1 The Village reserves the right to waive sections, irregularities, technicalities and informalities to this Contract and to accept any Bid and to reject any and all Bids and to disapprove of any and all subcontractors as may be in the best interest of the Village. Time and date requirements for receipt of Bids, however, will not be waived.

16. CATALOGS AND SHOP DRAWINGS

- 16.1 Each Bidder shall submit catalogs, descriptive literature, and detailed drawings, where applicable, to fully illustrate and describe the work or material he proposes to furnish.

17. TRADE NAMES AND SUBSTITUTIONS

- 17.1 Certain materials and equipment are specified by a manufacturer or trade name to establish standards or quality and performance and not for the purpose of limiting competition. Products of other manufacturers may be substituted, if, in the opinion of the Village, they are equal to those specified in quality, performance, design, and suitability for intended use. If the Bidder proposes to furnish an "equal", the proposed "equal" item must be so indicated in the written Bid. Where two or more items are specified, the selection among those specified is the Bidder's option, or he may submit his Bid on all such items. Detail specification sheets shall be provided by Bidder for all substituted items.

II. TERMS AND CONDITIONS

18. VILLAGE ORDINANCES

- 18.1 The successful Bidder, now the Contractor, will strictly comply with all ordinances of the Village of Downers Grove and laws of the State of Illinois.

19. USE OF VILLAGE'S NAME

- 19.1 The Contractor is specifically denied the right of using in any form or medium the name of the Village for public advertising unless the Village grants express permission.

20. HOURS OF WORK

- 20.1 The Contractor shall do no work between the hours of 7:00 p.m. and 7:00 a.m., nor on Sundays or legal holidays. The Contractor shall do no work on Saturdays, unless otherwise approved in writing by the Village. If approved by the Village, allowed work hours on Saturdays shall be between the hours of 8:00 a.m. and 3:00 p.m. However, such work may be performed at any time if necessary, for the proper care and protection of work already performed, or in case of an emergency. All after-hour work is still subject to the permission of the Village. Any work, including the starting and/or idling of vehicles or machinery, or a congregation of workers prior to starting work, which may cause any noise level that can be heard by adjacent residents, performed outside of these hours of work and not authorized by the Village shall be subject to a fine of \$250 per day, per violation, which shall be deducted from the value of work completed.

21. PERMITS AND LICENSES

- 21.1 The Contractor shall obtain all necessary permits and licenses required to complete the Work. The cost of acquisition of all necessary permits, bonds, insurance and services as specified herein shall be considered INCLUDED IN THE TOTAL COST, and no additional compensation will be allowed the Contractor.

22. INSPECTION

- 22.1 The Village shall have a right to inspect, by its authorized representative, any material, components or workmanship as herein specified. Materials, components or workmanship that have been rejected by the Village as not in accordance with the terms of the contract specifications shall be replaced by the Contractor at no cost to the Village.

23. DELIVERIES

- 23.1 All materials shipped to the Village must be shipped F.O.B. designated location, Downers Grove, Illinois.

24. SPECIAL HANDLING

- 24.1 Prior to delivery of any product that is caustic, corrosive, flammable or dangerous to handle, the Contractor will provide written directions as to methods of handling such products, as well as the antidote or neutralizing material required for its first aid before delivery. Contractor shall also notify the Village and provide material safety data sheets for all substances used in connection with this Contract which are defined as toxic under the Illinois Toxic Substances Disclosure to Employees Act.

25. NONDISCRIMINATION

- 25.1 Contractor shall, as a party to a public contract:

- 25.1.1 Refrain from unlawful discrimination in employment and undertake affirmative action to assure equality of employment opportunity and eliminate the effects of past discrimination;
- 25.1.2 By submission of this Bid, the Contractor certifies that he is an "equal opportunity employer" as defined by Section 2000(e) of Chapter 21, Title 42, U.S. Code Annotated and Executive Orders #11246 and #11375, which are incorporated herein by reference. The Equal Opportunity clause, Section 6.1 of the Rules and Regulations of the Department of Human Rights of the State of Illinois, is a material part of any contract

awarded on the basis of this Bid.

- 25.2 It is unlawful to discriminate on the basis of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, sexual identity, or an unfavorable discharge from military service. Contractor shall comply with standards set forth in Title VII of the Civil Rights Act of 1964, 42 U.S.C. Secs. 2000 *et seq.*, The Human Rights Act of the State of Illinois, 775 ILCS 5/1-101 *et seq.*, and The Americans with Disabilities Act, 42 U.S.C. Secs. 12101 *et seq.*

26. SEXUAL HARASSMENT POLICY

26.1 The Contractor, as a party to a public contract, shall have a written sexual harassment policy that:

- 26.1.1 Notes the illegality of sexual harassment;
- 26.1.2 Sets forth the State law definition of sexual harassment;
- 26.1.3 Describes sexual harassment utilizing examples;
- 26.1.4 Describes the Contractor's internal complaint process including penalties;
- 26.1.5 Describes the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and how to contact these entities; and
- 26.1.6 Describes the protection against retaliation afforded under the Illinois Human Rights Act.

27. EQUAL EMPLOYMENT OPPORTUNITY

27.1 In the event of the Contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this Contract, the Contractor agrees as follows:

- 27.1.1 That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, sexual identity, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- 27.1.2 That, if it hires additional employees in order to perform this Contract or any portion thereof, it will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- 27.1.3 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, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, or an unfavorable discharge from military services.
- 27.1.4 That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or

representative of the Contractor's obligations under the Illinois Human Rights Act and the 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 Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

- 27.1.5 That it will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 27.1.6 That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purpose of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 27.1.7 That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon 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 such subcontractors; and further it will promptly notify the contracting agency and the Department 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 subdivision or municipal corporations.

28. DRUG FREE WORK PLACE

28.1 Contractor, as a party to a public contract, certifies and agrees that it will provide a drug free workplace by:

- 28.1.1 Publishing a statement:
 - (1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the Village's or Contractor's workplace.
 - (2) Specifying the actions that will be taken against employees for violations of such prohibition.
 - (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
 - (A) abide by the terms of the statement; and
 - (B) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- 28.1.2 Establishing a drug free awareness program to inform employees about:
 - (1) the dangers of drug abuse in the workplace;
 - (2) the Village's or Contractor's policy of maintaining a drug free workplace;
 - (3) any available drug counseling, rehabilitation and employee assistance programs;
 - (4) the penalties that may be imposed upon employees for drug violations.
- 28.1.3 Providing a copy of the statement required by subparagraph 1.1 to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
- 28.1.4 Notifying the contracting or granting agency within ten (10) days after receiving notice under part (3)(B) of subparagraph 1.1 above from an employee or otherwise receiving actual notice of such conviction.
- 28.1.5 Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by, any employee who is so convicted as required by section 5 of the Drug Free Workplace Act.
- 28.1.6 Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation

is required and indicating that a trained referral team is in place.

28.1.7 Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

29. SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS PROJECTS ACT

29.1 In the event this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, Contractor agrees to comply with the Substance Abuse Prevention on Public Works Projects Act, 820 ILCS 265/1 *et seq.*, and further agrees that all of its subcontractors shall comply with such Act.. As required by the Act, Contractor agrees that it will file with the Village prior to commencing work its written substance abuse prevention program and/or that of its subcontractor(s) which meet or exceed the requirements of the Act.

30. PREVAILING WAGE ACT

30.1 Contractor agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*, for all work completed under this Contract. Contractor agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. For applicable rates, go to the State of Illinois – Department of Labor website (www.state.il.us/agency/idol/rates/rates.HTM) and use the most current DuPage County rate. The Department revises the prevailing wage rates and the Contractor or subcontractor has an obligation to check the Department's website for revisions to prevailing wage rates throughout the duration of this Contract.

30.2 Contractor and each subcontractor shall keep or cause to be kept accurate records of all laborers, mechanics and other workers employed by them on the public works project, which records must include each worker's name, address, telephone number when available, the last four digits of the worker's social security number, gender, race, ethnicity, veteran's status, skill level, classification, hourly wage paid (including itemized hourly cash and fringe benefits paid in each pay period), number of hours worked each day, the starting and ending times of work each day, the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable. These records shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor (IDOL) and must be preserved for five (5) years from the date of the last payment on the public work.

30.3 Since this is a contract for a public works project, as defined in 820 ILCS 130/2, Contractor agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed.

30.4 Because this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, any and all contractors and subcontractors shall submit certified payroll records to IDOL no later than the fifteenth (15th) day of each calendar month for the immediately preceding month in which construction on a public works project has occurred. Contractor shall then provide an IDOL certification and case number to the Village. WITHOUT THIS PAPERWORK, NO INVOICE SHALL BE PAID BY THE VILLAGE. Filing false records is a Class A misdemeanor.

30.5 In the event that this is a construction project where Motor Fuel tax monies or state grant monies are used in the construction, maintenance and extension of municipal streets, traffic control signals, street lighting systems, storm sewers, pedestrian subways or overhead crossings, sidewalks and off-street parking facilities, and the like, the Village will require an Apprenticeship and Training Certification, attached after the Bidder's Certification.

30.6 Any bond furnished as security for performance shall include a provision that guarantees faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*

31. PATRIOT ACT COMPLIANCE

31.1 The Contractor represents and warrants to the Village that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person. The Contractor further represents and warrants to the Village that the it and its principals, shareholders, members, partners, or affiliates, as applicable are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Contract on behalf of any person or entity named as a Specially Designated National and Blocked Person. The Contractor hereby agrees to defend, indemnify and hold harmless the Village, and its elected or appointed officers, employees, agents, representatives, engineers and attorneys, from and against any and all claims, damages, losses, risks, liabilities and expenses (including reasonable attorney's fees and costs) arising from or related to any breach of the foregoing representations and warranties.

32. INSURANCE REQUIREMENTS

32.1 Prior to starting the Work, Contractor and any Subcontractors shall procure, maintain and pay for such insurance as will protect against claims for bodily injury or death, or for damage to property, including loss of use, which may arise out of operations by the Contractor or Subcontractor or any Sub-Sub Contractor or by anyone employed by any of them, or by anyone for whose acts any of them may be liable. Such insurance shall not be less than the greater of coverages and limits of liability specified below or any coverages and limits of liability specified in the Contract Documents or coverages and limits required by law unless otherwise agreed to by the Village.

Workers Compensation	\$500,000	Statutory
Employers Liability	\$1,000,000	Each Accident
	\$1,000,000	Disease Policy Limit
	\$1,000,000	Disease Each Employee
Comprehensive General Liability	\$2,000,000	Each Occurrence
	\$2,000,000	Aggregate
		<i>(Applicable on a Per Project Basis)</i>
Commercial Automobile Liability	\$1,000,000	Each Accident
Professional Errors & Omissions (pursuant to section.9 below)	\$2,000,000	Each Claim
	\$2,000,000	Annual Aggregate
Umbrella Liability	\$ 5,000,000	

32.2 Comprehensive General Liability Insurance required under this paragraph shall be written on an occurrence form and shall include coverage for Products/Completed Operations, Personal Injury with Employment Exclusion (if any) deleted, Blanket XCU and Blanket Contractual Liability insurance applicable to defense and indemnity obligations and other contractual indemnity assumed under the Contract Documents. The limit must be on a "Per Project Basis".

32.3 Commercial Automobile Liability Insurance required under this paragraph shall include coverage for all owned, hired and non-owned automobiles.

32.4 Workers Compensation coverage shall include a waiver of subrogation against the Village.

- 32.5 Comprehensive General Liability, Employers Liability and Commercial Automobile Liability Insurance may be arranged under single policies for full minimum limits required, **or** by a combination of underlying policies with the balance provided by Umbrella and/or Excess Liability policies.
- 32.6 Contractor and all Subcontractors shall have their respective Comprehensive General Liability (including products/completed operations coverage), Employers Liability, Commercial Automobile Liability, and Umbrella/Excess Liability policies endorsed to add the "Village of Downers, its officers, officials, employees and volunteers" as "additional insureds" with respect to liability arising out of operations performed; claims for bodily injury or death brought against the Village by any Contractor or Subcontractor employees, or the employees of Subcontractor's subcontractors of any tier, however caused, related to the performance of operations under the Contract Documents. Such insurance afforded to the Village shall be endorsed to provide that the insurance provided under each policy shall be ***Primary and Non-Contributory***.
- 32.7 Contractor and all Subcontractors shall maintain in effect all insurance coverages required by the Contract Documents at their sole expense and with insurance carriers licensed to do business in the State of Illinois and having a current A. M. Best rating of no less than A- VIII. In the event that the Contractor or any Subcontractor fails to procure or maintain any insurance required by the Contract Documents, the Village may, at its option, purchase such coverage and deduct the cost thereof from any monies due to the Contractor or Subcontractor, or withhold funds in an amount sufficient to protect the Village, or terminate this Contract pursuant to its terms.
- 32.8 All insurance policies shall contain a provision that coverages and limits afforded hereunder shall not be canceled, materially changed, non-renewed or restrictive modifications added, without thirty (30) days prior written notice to the Village. Renewal certificates shall be provided to the Village not less than five (5) days prior to the expiration date of any of the required policies. All Certificates of Insurance shall be in a form acceptable to the Village and shall provide satisfactory evidence of compliance with all insurance requirements. The Village shall not be obligated to review such certificates or other evidence of insurance, or to advise Contractor or Subcontractor of any deficiencies in such documents, and receipt thereof shall not relieve the Contractor or Subcontractor from, nor be deemed a waiver of the right to enforce the terms of the obligations hereunder. The Village shall have the right to examine any policy required and evidenced on the Certificate of Insurance.
- 32.9 If the Work under the Contract Documents includes design, consultation, or any other professional services, Contractor or the Subcontractor shall procure, maintain, and pay for Professional Errors and Omissions insurance with limits of not less than \$2,000,000 per claim and \$2,000,000 annual aggregate. If such insurance is written on a claim made basis, the retrospective date shall be prior to the start of the Work under the Contract Documents. Contractor and all Subcontractors agree to maintain such coverage for three (3) years after final acceptance of the Project by the Village or such longer period as the Contract Documents may require. Renewal policies during this period shall maintain the same retroactive date.
- 32.10 Any deductibles or self-insured retentions shall be the sole responsibility of the Insured. At the option of the Village, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Village, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.
- 33. INDEMNITY AND HOLD HARMLESS AGREEMENT**
- 33.1 To the fullest extent permitted by law, the Contractor shall indemnify, keep and save harmless the Village and its agents, officers, and employees, against all injuries, deaths, strikes, losses, damages, claims, suits, liabilities, judgments, costs and expenses, which may arise directly or indirectly from any negligence or from the reckless or willful misconduct of the Contractor, its employees, or its subcontractors.-
- 33.2 The Contractor shall, at its own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and, if any judgment shall be rendered against the

Village in any such action, the Contractor shall, at its own expense, satisfy and discharge the same. This agreement shall not be construed as requiring the Contractor to indemnify the Village for its own negligence. The Contractor shall indemnify, keep and save harmless the Village only where a loss was caused by the negligent, willful or reckless acts or omissions of the Contractor, its employees, or its subcontractors.

34. SUBLETTING OF CONTRACT

- 34.1 No contract awarded by the Village shall be assigned or any part subcontracted without the written consent of the Village. In no case shall such consent relieve the Contractor from his obligation or change the terms of this Contract.

All approved subcontracts shall contain language which incorporates the terms and conditions of this Contract.

35. TERMINATION OF CONTRACT

- 35.1 The Village reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, for any reason.

- 35.2 The Village further reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, in the event of default by the Contractor. Default is defined as failure of the Contractor to perform any of the provisions of this Contract or failure to make sufficient progress so as to endanger performance of this Contract in accordance with its terms. In the event that the Contractor fails to cure the default upon notice, and the Village declares default and termination, the Village may procure, upon such terms and in such manner as it may deem appropriate, supplies or services similar to those so terminated. The Village may also contact the issuer of the Performance Bond to complete the Work. The Contractor shall be liable for any excess costs for such similar supplies or services. Any such excess costs incurred by the Village may be set off against any monies due and owing by the Village to the Contractor.

36. BILLING AND PAYMENT PROCEDURES

- 36.1 Payment will be made upon receipt of an invoice referencing Village purchase order number. Once an invoice and receipt of materials or service have been verified, the invoice will be processed for payment in accordance with the Village's payment schedule. The Village will comply with the Local Government Prompt Payment Act, 50 ILCS 505/1 *et seq.*, in that any bill approved for payment must be paid or the payment issued to the Contractor within 60 days of receipt of a proper bill or invoice. If payment is not issued to the Contractor within this 60-day period, an interest penalty of 1.0% of any amount approved and unpaid shall be added for each month or fraction thereof after the end of this 60-day period, until final payment is made.

- 36.2 The Village shall review each bill or invoice in a timely manner after its receipt. If the Village determines that the bill or invoice contains a defect making it unable to process the payment request, the Village shall notify the Contractor as soon as possible after discovering the defect pursuant to rules promulgated under 50 ILCS 505/1 *et seq.* The notice shall identify the defect and any additional information necessary to correct it.

- 36.3 As this Contract is for work defined as a "fixed public work" project under the Illinois Prevailing Wage Act, 820 ILCS 130/2 and pursuant to section 30.4 of this Call For Bid, the Contractor shall provide an IDOL certification and case number to the Village along with the invoice. No invoice shall be paid without said records.

- 36.4 Please send all invoices to the attention of: Emily Ericson, Village of Downers Grove, Public Works, 5101 Walnut Ave., Downers Grove, IL 60515.

37. COMPLIANCE WITH OSHA STANDARDS

- 37.1 Equipment supplied to the Village must comply with all requirements and standards as specified by the Occupational Safety and Health Act. All guards and protectors as well as appropriate markings will be in place before delivery. Items not meeting any OSHA specifications will be refused.

38. CERCLA INDEMNIFICATION

- 38.1 The Contractor shall, to the maximum extent permitted by law, indemnify, defend, and hold harmless the Village, its officers, employees, agents, and attorneys from and against any and all liability, including without limitation, costs of response, removal, remediation, investigation, property damage, personal injury, damage to natural resources, health assessments, health settlements, attorneys' fees, and other related transaction costs arising under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C.A. Sec. 9601, *et seq.*, as amended, and all other applicable statutes, regulations, ordinances, and under common law for any release or threatened release of the waste material collected by the Contractor, both before and after its disposal.
- 38.2 If the Contractor encounters any waste material governed by the above Act, it shall immediately notify the Village and stop working in the area until the above requirements can be met.

39. COPYRIGHT or PATENT INFRINGEMENT

- 39.1 The Contractor agrees to indemnify, defend, and hold harmless the Village against any suit, claim, or proceeding brought against the Village for alleged use of any equipment, systems, or services provided by the Contractor that constitutes a misuse of any proprietary or trade secret information or an infringement of any patent or copyright.

40. BUY AMERICA

- 40.1 The Contractor agrees to comply with 49 U.S.C.5323(j), the Federal Transportation Administration's (FTA) Buy America regulations at 49 C.F.R. Part 661, and any amendments thereto, and any implementing guidance issued by the FTA, with respect to this Contract, when financed by Federal funds (through a grant agreement or cooperative agreement).
- 40.2 As a condition of responsiveness, the Contractor agrees to submit with its Bid submission, an executed Buy America Certificate, attached hereto.

41. CAMPAIGN DISCLOSURE

- 41.1 Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate, attached hereto.
- 41.2 The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.
- 41.3 Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.
- 41.4 By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

42. GUARANTEE PERIOD

- 42.1 The Contractor shall guarantee all work and provide a maintenance bond for the full amount of the contract, covering a minimum period of one (1) year after approval and acceptance of the Work. The bond shall be in such form as the Village may prescribe, unless otherwise noted in the Specifications, and shall be submitted before receiving final payment. If longer guarantee periods are required, they will be noted in the Special Provisions for this project.

43. SUCCESSORS AND ASSIGNS

- 43.1 The terms of this Contract will be binding upon and inure to the benefit of the parties and their respective successors and assigns; provided, however, that neither party will assign this Contract in whole or in part without the prior written

approval of the other. The Contractor will provide a list of key staff, titles, responsibilities, and contact information to include all expected subcontractors.

44. WAIVER OF BREACH OF CONTRACT

44.1 The waiver by one party of any breach of this Contract or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof will be limited to the particular instance and will not operate or be deemed to waive any future breaches of this Contract and will not be construed to be a waiver of any provision except for the particular instance.

45. CHANGE ORDERS

45.1 The contract price is a "not-to-exceed" cost. At any time additional work is necessary or requested, and the not-to-exceed price is increased thereby, all parties must agree to any change, addition or price increase in writing.

45.2 Change orders for public works projects which authorize an increase in the contract price that is 50% or more of the original contract price or that authorize or necessitate any increase in the price of a subcontract under the contract that is 50% or more of the original subcontract price must be resubmitted for bidding in the same manner by which the original contract was bid. (50 ILCS 525/1)

46. SEVERABILITY OF INVALID PROVISIONS

46.1 If any provisions of this Contract are held to contravene or be invalid under the laws of any state, country or jurisdiction, contravention will not invalidate the entire Contract, but it will be construed as if not containing the invalid provision and the rights or obligations of the parties will be construed and enforced accordingly.

47. GOVERNING LAW AND VENUE

47.1 This Contract will be governed by and construed in accordance with the laws of the State of Illinois. Venue is proper only in the County of DuPage for state cases or the Northern District of Illinois for federal cases.

48. NOTICE

48.1 Any notice will be in writing and will be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party at the party's place of business. Notices shall be addressed to the Village as follows:

**Village Manager
Village of Downers Grove
850 Curtiss St.
Downers Grove, IL 60515**

And to the Contractor as designated on the Contract Form.

49. AMENDMENT

49.1 This Contract will not be subject to amendment unless made in writing and signed by all parties.

50. COOPERATION WITH FOIA COMPLIANCE

50.1 Contractor acknowledges that the Freedom of Information Act does apply to public records in possession of the Contractor or a subcontractor. Contractor and all of its subcontractors shall cooperate with the Village in its efforts to comply with the Freedom of Information Act. 5 ILCS 140/1 *et seq.*

51. EMPLOYMENT OF ILLINOIS WORKERS ON PUBLIC WORKS ACT

51.1 If the work contemplated by this Contract is funded or financed in whole or in part with State Funds or funds administered by the State, Contractor agrees to comply with the terms of the Employment of Illinois Workers on Public Works Act by employing at least 90% Illinois laborers on the project. 30 ILCS 570/1 *et seq.* Contractor agrees

further to require compliance with this Act by all of its subcontractors.

52. DISADVANTAGED BUSINESS ENTERPRISE (DBE) CERTIFICATION

- 52.1 Pursuant to 35 ILCS 200/18-50.2, Contractor and all subcontractors are required to complete and submit a Vendor DBE certification, regardless of DBE status. Contractor shall complete and require all its subcontractors to complete the DBE certification for this project at www.downers.us/vss. The information necessary for the Contractor and all subcontractors to complete the certification includes the following: DBE Classification (minority-owned, women-owned, persons with disabilities-owned, veteran-owned, or none); if DBE, whether the company holds a certificate or self-certifies; if self-certifying, whether the company qualifies as a small business under the U.S. Small Business Administration standards; the company's name, address, city, state and zip code; company's contact person's name, title, telephone number and email address. NO PAYMENTS WILL BE MADE TO THE CONTRACTOR BY THE VILLAGE UNLESS AND UNTIL ALL OF THE CERTIFICATIONS FOR THE CONTRACTOR AND SUBCONTRACTORS HAVE BEEN COMPLETED.

III. GENERAL PROVISIONS

1. STANDARD SPECIFICATIONS

- 1.1 The following standards shall govern the construction of the proposed improvements:
 - 1.1.1 Standard Specifications for Water and Sewer Main Construction in Illinois, Eighth Edition, 2020 (the Water & Sewer Specs.); and
 - 1.1.2 Standard Specifications for Road and Bridge Construction as adopted by the Illinois Department of Transportation, January 1, 2022; along with Supplemental Specifications and Recurring Special Provisions as adopted by the Illinois Department of Transportation, January 1, 2025 (collectively the “SSRBC”); and
 - 1.1.3 Water Distribution Specifications, Village of Downers Grove, Illinois, revised January 2017.
 - 1.1.4 Standard Detail Drawings, Village of Downers Grove, Illinois revised January, 2025.
- 1.2 These Contract Documents shall take precedence whenever there are conflicts in the wording or statements made by the above specifications and these Contract Documents.
- 1.3 Unless otherwise referenced herein, Division I of the Water and Sewer Specs and Section 102 and Articles 104.03, 104.07, 107.02, 107.27, 107.35, 108.10, 108.11, and 108.12 of the SSRBC are hereby ineffective and not a part of this Contract.

2. COOPERATION OF CONTRACTOR

- 2.1 The Contractor will be supplied with a minimum of 2 sets of approved plans and contract assemblies including Special Provisions, one set of which the Contractor shall keep available on the work site at all times. The Contractor shall give the work site constant attention necessary to facilitate the progress thereof, and shall cooperate with the Village in every way possible.
- 2.2 The Contractor shall assign a superintendent for the work per Sections 105.06 and 108.06 of the SSRBC and as amended herein. The Contractor’s superintendent shall be involved in the work to the extent necessary to prosecute the work per the Contract. Furthermore, the superintendent shall be required to attend weekly progress meetings, provide two-week schedules of expected construction activities, provide updated overall construction schedules and, if required by the Engineer, acknowledge and sign IDOT Form BC-239 Weekly Report of Resident. The Contractor shall not replace the superintendent without prior written notification to the Village.

3. LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

- 3.1 Section 107 of the SSRBC shall govern the Contractor’s legal regulations and responsibility to the public, with the following additions:
 - 3.1.1 PROJECT SAFETY. Add the following to Article 107.28:
 - 3.1.1.1 The Contractor shall conduct his work in such a manner as to provide an environment consistent with the safety, health and well-being of those engaged in the completion of the Work specified in this Contract.
 - 3.1.1.2 The Contractor shall comply with all State and Federal Safety Regulations as outlined in the latest revisions of the Federal Construction Safety Standards (Series 1926) and with applicable provisions and/or regulations of the Occupation Safety and Health Administration (OSHA) and Standards of the Williams-Stelger Occupational Health Safety Act of 1970 (Revised). SPECIAL ATTENTION SHALL BE PAID TO COMPLIANCE WITH OSHA’S SUBPART P –

EXCAVATIONS STANDARD.

- 3.1.1.3 The Contractor and Village shall each be responsible for their own respective agents and employees.
- 3.1.1.4 The Contractor shall, prior to performing any work, request information from the Village regarding any existing confined spaces owned by the Village that may be entered in the course of the work, and shall obtain all required confined space entry permits prior to entering any confined spaces. Contractor shall follow all current laws and regulations with regard to confined space entry. Contractor shall maintain and, upon request, provide full documentation of compliance with the appropriate confined space permits for each separate confined space entered on the project.
- 3.1.2 **BACKING PRECAUTIONS.** Any motor vehicle which has an obstructed view to the rear and is to be operated at any time in reverse gear on the public streets of the Village by the Contractor or any subcontractor shall either be equipped with a reverse signal alarm (backup alarm) audible above and distinguishable from the surrounding noise level, or shall provide an observer to signal that it is safe to back up.
- 3.1.3 **OVERWEIGHT, OVERWIDTH AND OVERHEIGHT PERMITS.** The Village has and supports an overweight truck enforcement program. Contractors are required to comply with weight requirements and safety requirements as established by Illinois Law or Village Ordinance, for vehicles, vehicle operators and specialty equipment. In some instances, specialty equipment for road repairs or construction projects requires the movement of overweight, overwidth, or overheight loads utilizing a Village roadway. Such movement will require obtaining a permit from the Village Police Department's Traffic Supervisor.
- 3.1.4 **BARRICADES AND WARNING SIGNS.** The Contractor shall provide the Village with a telephone number of a person or company who is available 24 hours per day, seven days per week, to erect additional barricades or signs. If the Village or its representative deems it necessary for the Public's safety to erect additional barricades or signs during normal working hours, the Contractor will furnish the necessary barricades or signs, and have them in place within 30 minutes. If, after normal working hours, the requested signs are not in place within three hours after the request is made, the Village reserves the right to have the barricades and signs erected. The cost of erecting the barricades and signs shall be deducted by the Village from any payments due the Contractor.

4. PROSECUTION AND PROGRESS

- 4.1 Section 108 of the SSRBC shall govern the prosecution and progress of the work, with the following additions:
 - 4.1.1 The Contractor shall schedule his work such that all improvements shall be complete by **Friday, November 21, 2025**. The completion date will remain binding throughout the duration of the Contract unless revised in writing by the Village.
 - 4.1.2 The total duration of disturbance for work related to means of public egress through the project site or access to private property (e.g. removal and replacement of curb and gutters, sidewalks, driveway entrances, etc.) must not exceed ten (10) calendar days. The Contractor may use high-early strength concrete, meeting all specifications herein, **at his own expense** to help meet this requirement.
 - 4.1.3 The Contractor shall also make special note of the following work schedule requirements:
 - 4.1.3.1 No work shall occur when crossing guards are present at any intersection.
 - 4.1.4 Should the Contractor fail to complete the work on or before the specified completion dates set forth in

Sections 4.1.1, 4.1.2, 4.1.3, or within such extended time as may be allowed, the Contractor shall be liable for liquidated damages in accordance with the applicable sections of Article 108.09 of the SSRBC. In addition, the Contractor shall be liable for additional costs incurred by the Village due to the delay for construction engineering services, which shall be deducted from the value of work completed.

- 4.1.5 Upon substantial completion of the project, the Engineer will deliver to the Contractor a punch list as well as a due date for completion of the punch list. If the Contractor fails to complete the punch list by the stated punch list completion date, the Contractor shall be liable for liquidated damages in accordance with the applicable sections of Article 108.09 of the SSRBC.
- 4.1.5 Prior to commencing construction, a meeting will be held with the Contractor and the Village. Any questions concerning procedures, general conditions, special provisions, plans or specific items related to the project shall be answered and clarified. No Pre-Construction meeting shall be scheduled until submittals, performance bonds, and certificates of insurance are delivered to, and approved by, the Village.
- 4.1.6 Weekly progress meetings may be required by the Village. If required, the Contractor shall have a capable person, such as a site superintendent or project manager, attend such meetings and be prepared to report on the prosecution of the Work according to the progress schedule. The Village reserves the right to require adjustments to scheduling of work.

5. MEASUREMENT AND PAYMENT

5.1 Section 109 of the SSRBC shall govern measurement and payment, with the following additions:

- 5.1.1 Modifies Article 109.07 - Partial payments will be made per Section 36 of Part II of this document (Billing and Payment Procedures.)
- 5.1.2 The Village will require that partial and final affidavits for all labor, materials and equipment used on the Project and certified payroll records, be submitted with the partial and final payment requests. Such waivers shall indicate that charges for all labor, materials and equipment used on the project have been paid. Partial waivers from suppliers and subcontractors may be submitted after the first payment to the Contractor, and before the subsequent payment to that which they apply. However, partial waivers from the Contractor must accompany the invoice of the payment to which it applies. All final waivers, from all suppliers and subcontractors MUST accompany the Contractor's invoice upon submittal for final payment. A sworn statement by the Contractor shall accompany full waivers. Such requirement for full waivers is solely for the benefit of the Village and shall not be construed to benefit any other person. Partial payment for work done shall in no way imply acceptance of the work to that date.
- 5.1.3 For each progress payment made to the Contractor prior to acceptance of the Work by the Village, the Village shall have the right to retain ten percent (10%) of the amount due to the Contractor for each such payment. The Village may, in its sole discretion, reduce the amount to be retained at any time.

Typically, upon completion of 50% of the work, as determined by the Engineer, retainage may be reduced to 5%. Upon substantial completion, as determined by the Engineer, retainage may be reduced to 2%. Additionally, the Village has the right to withhold an amount of money equivalent to complete unfinished work and/or work that may need to be redone.

6. SCOPE OF WORK

6.1 In addition to the Special Provisions in the Detailed Specifications Section below, Section 104 of the SSRBC shall govern scope of work, with the following revisions:

- 6.1.1 Modify Article 104.02 as follows:

104.02 Alterations, Cancellations, Extensions, Deductions, and Extra Work.

The Department reserves the right to make, in writing, at any time during work, changes in quantities, alterations in work, and the performance of extra work to satisfactorily complete the project. Such changes in quantities, alterations, and extra work shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.

If alterations or changes in quantities do not significantly change the character of the work to be performed under contract, the altered work will be paid for as provided elsewhere in the contract. The term "significant change" shall be construed to apply only when the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction ~~or when a major item, defined as an item whose total original contract cost plus any additions exceeds ten percent of the total original contract amount, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity.~~

All alterations, cancellations, extensions, and deductions shall be authorized in writing by the Engineer before work is started. Such authorizations shall set up the items of work involved and the method of payment for each item. The Contractor shall accept payment for alterations which result in an increase or decrease in the quantities of work to be performed according to the following.

(a) All increases in work of the type which appear in the contract as pay items accompanied by unit prices will, except as provided under paragraph (d) herein, be paid for at the contract unit prices. Decreases in quantities included in the contract will be deducted from the contract at the unit bid prices. No allowance will be made for delays or anticipated profits.

(b) Major items of work for which the quantities are increased ~~by not more than 125 percent or reduced to not less than 75 percent of the original contract quantities~~ OR DECREASED will be paid for as specified in paragraph (a) above. ~~Any adjustments for increased quantities for major items of work increased more than 125 percent shall only apply to that portion in excess of 125 percent of original contract quantities. Any adjustments made for major items of work which are decreased to less than 75 percent of the original contract quantities shall apply to the actual amount of work performed.~~

(c) Extra work which is not included in the contract as pay items at unit prices and is not included in other items of the contract will be paid for according to Article 109.04.

(d) Extra work for which there is a pay item at unit price in the contract which for any one or more of the following reasons materially increases or decreases the cost of the pay item as bid and which is not included in the prices bid for other items in the contract will be paid for according to Article 109.04. This includes:

- (1) Work involving a substantial change of location.
- (2) Work which differs in design.
- (3) Work requiring a change in the type of construction.

(e) In cases where the Department cancels or alters any portion of the contract items, items which are partially completed will be paid for as specified in Article 109.06.

Claims for extra work which have not been authorized in writing by the Engineer will be rejected.

IV. SPECIAL PROVISIONS

The following Special Provisions shall modify, supersede, or supplement the Standard Specifications referred to in Section III - General Provisions.

Where any section, subsection, paragraph, or subparagraph of the Standard Specifications is *supplemented* by any of the following paragraphs, the provisions of such section, subsection, paragraph, or subparagraph shall remain in effect. The Special Provisions shall govern in addition to the particular Standard Specification so supplemented, and not in lieu thereof.

Where any section, subsection, paragraph, or subparagraph of the Standard Specifications is *amended, voided, or superseded* by any of the following paragraphs, any provision of such section, subsection, paragraph, or subparagraph standing unaffected, shall remain in effect. The Special Provisions shall govern in lieu of any particular provision of the Standard Specification so amended, voided, or superseded, and not in addition to the portion changed.

SP-1 SCOPE OF WORK

This project shall consist of modernization of traffic signals at 15 locations and appurtenant ADA and other work.

SP-2 GENERAL CONSTRUCTION REQUIREMENTS

The following general requirements are intended to govern the overall priority for the performance of the work described in this contract. As general requirements, they are not intended to dictate to the Contractor the precise method by which these tasks shall be performed.

The awarded Contractor shall schedule his work such that all improvements shall be installed by the completion date specified in Section III.4.1.1. Failure to complete the work on time will result in assessment of liquidated damages in accordance with the applicable sections of Article 108.09 of the Standard Specifications.

The Contractor shall maintain traffic flow on ALL STREETS during the day in accordance with the applicable special provision. Adequate signing and flagging is of particular importance for safe travel of all residents.

SP-3 QUALIFICATIONS OF BIDDER

In addition to those requirements set forth in Section 10.1 above, in order to be considered a responsible bidder, the bidder must have particular expertise in having successfully constructed projects of a similar size and scope, specifically including commercial/residential neighborhood street and utility removal and reconstruction. The Bidder must submit the following information for itself and for each Sub-Contractor which is proposed for earthwork, paving or underground utility work:

- a. Similar Project Experience
 - i. Bidder must provide detailed information regarding past similar projects performed by the submitting firm within the past five (5) years.

- ii. Bidder must submit a list of references of previous projects identifying the location of the work, the dollar value of the work, the owner or agency responsible for the work, and the name and phone number of the contact person.
- b. Proposed Project Team – the Bidder must identify the project manager and full-time onsite superintendent (can be the same person) on the Certification of Qualifications form. Bidder must also provide qualifications of the project manager and full-time onsite superintendent. The individuals proposed must be utilized for the duration of this project unless an alternate is approved in writing by the Village.
- c. Bidder must completely fill out and submit the Certification of Qualifications form with the Bid.

SP-4 STATUS OF UTILITIES

Effective: May 1, 2024

Revised: N/A

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 Contractor to proceed with work. Each table entry includes an identification of the action necessary and, if applicable, the estimated duration required for the resolution.

Utilities to be adjusted

Conflicts noted below have been identified. The owner of the utility has been notified of all conflicts and will be required to obtain the necessary permits to complete their work; in some instances, resolution will be a function of the construction staging. The owner of the utility must relocate, or complete new installations as noted below; this work has been deemed necessary for the Village's Contractor to complete the improvements.

Location	Type	Description	Owner	Duration of Time	Responsible Agency for Resolution
N/A	N/A	N/A	N/A	N/A	N/A

Utilities to be watched and protected

The information provided is not a comprehensive list of all remaining utilities, but those which during coordination were identified as ones which might require the Contractor to take into consideration when making the determination of the means and methods that would be required to construct the proposed improvement. In some cases, the Contractor will be responsible to notify the utility owner in advance of the work to take place so necessary staffing on the utility owner's part can be secured.

Location	Type	Description	Owner
Throughout	Buried	Fiber Optic	ATT&T
Throughout	Buried	Water	DuPage Water Commission
Throughout	Buried	Sanitary	Downers Grove Sanitary District
Sht 45; STA 2+13, 22.8' RT	Buried	Natural Gas	Nicor
Sht 45; STA 1+61, 32' LT	Buried	Natural Gas	Nicor
Sht 49; STA 1+36, 37.1' RT	Buried	Natural Gas	Nicor
Sht 51; STA 2+20.1, 28' RT	Buried	Natural Gas	Nicor
Sht 66; NE corner of Woodward Ave & Prentiss Dr	Buried	Natural Gas	Nicor

*Maintain a minimum of two foot of clearance from existing gas main

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

<u>Agency/Company Responsible to Resolve Conflict</u>	<u>Name of contact</u>	<u>Phone</u>	<u>E-mail address</u>
Downers Grove	Scott Vasko	630-434-6804	svasko@downers.us
AT&T			G11629@att.com
COMED			prt.il@usicllc.com
COMCAST	Martha Gieras	224-229-5862	Martha_gieras@cable.comcast.com
DOWNERS GROVE SANITARY DISTRICT	Keith Shaffner	630-353-3610	kshaffner@dgsd.org
DUPAGE WATER		630-834-0100	pipeline@dpwc.org
ADESTA	Aaron Rydell	630-962-9139	Arron.rydell@aus.com
NICOR GAS		630-388-2362	
USIC LOCATING SERVICES			

The above represents the best information available to the Village and is included for the convenience of the Contractor. The Contractor is responsible for contacting J.U.L.I.E. prior to all excavation work. The Contractor is also responsible for investigating/verifying any and all potential conflicts with existing utilities per special provision for EXPLORATORY TRENCH, SPECIAL.

SP-5 PRECONSTRUCTION VIDEOTAPING

This work shall consist of furnishing all materials and labor required to perform a videotape survey of the construction limits, adjacent right-of-way, and adjacent structures bordering the work. This shall include, but not be limited to, existing buildings, garages, pavements, curb and gutter, sidewalks, fences, trees and landscaping. Two (2) copies of the videotape shall be furnished to the Village on a flash drive. Videotaping shall be performed by a reputable company meeting the approval of the Village, in the presence of a representative of the Village, and shall be performed prior to the commencement of construction. The videotape survey shall serve as a basis for establishing damage that has occurred as a result of construction operations.

Basis of Payment: This work will be paid for at the contract **LUMP SUM** price for **PRECONSTRUCTION VIDEOTAPING**, which price shall be payment in full for the work as specified herein.

SP-6 CONSTRUCTION STAKING

Description: Section 5-7 of the Water and Sewer Specs shall be replaced in its entirety by the following:

The Contractor shall furnish and place all construction layout stakes for this project. Competent personnel with suitable equipment shall conduct this work, supervised by a licensed Illinois Land Surveyor. The Contractor shall be responsible for having the finished work conform substantially to the lines, grades, elevations and dimensions shown on the plans.

The Contractor shall provide adequate control points to construct the individual Project elements, and shall provide the Engineer with adequate control in close proximity to check the compliance of the elements constructed.

Basis of Payment: This work will be paid for at the contract **LUMP SUM** price for **CONSTRUCTION STAKING**, which price shall be payment in full for the work as specified herein.

SP-7 TRAFFIC CONTROL AND PROTECTION, SPECIAL

This item shall include the furnishing, installing, maintaining, relocating and removing of all traffic control devices and personnel used for the purpose of regulating, warning, or directing traffic during the construction of this project. All traffic control devices used on this project shall conform to the Standard Specifications for Traffic Control Devices and the Illinois Manual on Uniform Traffic Control Devices. No waiving of these requirements will be allowed without prior written approval of the Engineer.

The Contractor shall protect all workers engaged in the project, and shall provide for safe and convenient public travel by providing adequate traffic control under all circumstances. Such circumstances may include, but not be limited to work performed along the route under construction, road closures for construction operations of any type, or when any section of the road is opened to traffic prior to completion of all work. The Contractor shall ensure that the work zone in question is properly signed, barricaded and otherwise marked.

The Contractor will be responsible for the proper location, installation, and arrangement of all traffic

control devices during the period of construction. All open excavations shall be protected by Type I barricades equipped with bi-directional flashing lights at each end of the excavation, as well as at 50-foot intervals between ends for excavations greater than 50 feet in length and weighted down by **two sandbags per each barricade**. All street closures shall be protected by Type III barricades equipped with bi-directional flashing lights and weighted down by **eight sandbags per each barricade**.

The Contractor shall plan his work so that there will be no open holes during non-working hours and that all barricades have been removed from the pavement during non-working hours.

In the event that one direction of travel must be closed, the Contractor has the option of setting up a detour route or using flaggers (minimum of two). The Engineer shall approve proper signing and barricading of the detour route and lane closures, and shall issue written authorization prior to closure. The Contractor shall maintain his operations in a manner such that traffic flow shall not be substantially impeded during the construction of the proposed improvements. Where traffic must cross open trenches during a given work day, the Contractor shall provide steel plates at street intersections and driveways. Prior to the end of a given work day, the pavement surface shall be temporarily restored. No open excavation may be left overnight or on the weekend without the express written permission of the Engineer.

As the condition and location of the work changes, the Contractor shall maintain all traffic control devices and personnel engaged in traffic control, in a manner that will accommodate the changing particulars of the work at any given time. Advance warnings, detour and directional information and other controls or directions necessary for safe passage of traffic around the work site shall be reviewed and changed, if necessary, to meet the needs of the situation. Signage erected, but not necessary or proper for the situation ahead shall be covered or taken down. Barricading and signage shall be monitored on a daily basis to ensure that it meets the requirements for work zone safety for the conditions of the particular work being performed.

The Contractor shall provide a name and phone number for a responsible party capable of providing emergency service, 24 hours per day, for the duration of the Project.

Basis of Payment: This work shall be paid for at the contract **LUMP SUM** price for **TRAFFIC CONTROL AND PROTECTION, SPECIAL**, which price shall be payment in full for the installation and maintenance of proper traffic control to protect the work and the public for the duration of the Project.

SP-8 IEPA CLEAN CONSTRUCTION OR DEMOLITION DEBRIS

If construction activities will result in removal and disposal of excavation spoils, per Illinois Public Act 96-1416 and the Illinois Environmental Protection Agency, soil sampling and analysis, along with certification from a licensed professional engineer (PE) or licensed professional geologist (PG) that the soil is uncontaminated, will be required prior to clean construction and demolition debris (CCDD) facility acceptance. However, if the subject property has never been used for industrial or commercial purposes, and is not adjacent to Potentially Impacted Properties (PIP's), then the site owner or operator may certify that the soil is uncontaminated by use of IEPA form LPC-662.

To facilitate meeting the above requirements, the Village will supply a signed LPC-663 or LPC-662 form. Neither the LPC-663/662, nor the report shall be considered a guarantee that excavated material shall meet the requirements of Illinois Public Act 96-1416, and the Contractor shall be responsible for satisfactory removal and disposal of all material as specified herein. No additional environmental testing of the existing on-site material may be performed without prior written permission from the Engineer. In the event that Contractor performs any additional testing without the written permission of the Engineer, Contractor will be required to properly and legally dispose of all material from the project site, regardless of its suitability for disposal in a CCDD facility, at his own expense, without any additional payment for testing, hauling and disposal as specified below.

The Village anticipates that one or more of the following CCDD facilities will accept material from this project:

- Reliable Lyons CCDD, 4226 Lawndale Ave, Lyons, IL 60534
- Hanson Material Service, 125 N Independence Blvd Romeoville, IL 60446
- Bluff City Materials, 1245 Gifford Rd, Elgin, IL 60120
- Vulcan Materials, 5500 Joliet Rd, McCook, IL 60525
- Heartland Recycling Aurora CCDD, Mettel Rd, Aurora, IL 60505

Contractor shall consult with these facilities prior to submitting a bid for this project. Contractor shall base his bid on hauling all CCDD generated by this project to these facilities. No additional compensation will be allowed for hauling to any other facilities, for any reason, unless none of the above listed facilities will accept the material. If an alternate facility was approved by the Village prior to bid submittal, and that facility will no longer accept the material, the facilities listed above shall be used by the Contractor at no additional cost to the Village, unless none of the above facilities will accept the material. In the case where neither any of the above listed facilities, nor a pre-approved alternate facility, will accept the material, the Village and Contractor shall attempt to locate an alternate facility, unless the material is classified as unsuitable for disposal in a CCDD facility, in which case it shall be hauled to a landfill and paid for as specified below. Should the Contractor wish to haul material to an alternate facility, the name, location and contact information for the proposed facility shall be submitted to the Village for evaluation, a minimum of five (5) calendar days prior to submission of a bid. Any costs associated with additional sampling, analysis, and/or reporting to meet the acceptance requirements of the alternate facility shall be borne by the bidding Contractor and included within the Contractor's bid. By submitting a bid, Contractor agrees that at least one (1) of the above listed facilities, or an alternate facility approved by the Village in writing prior to the submission of the bid, will accept the material and shall be used for disposal of all CCDD from this project, unless otherwise determined to be non-hazardous special waste as specified below. In the event that the Contractor needs to alter the CCDD facility used for placement of excavated material, the Contractor shall notify the Engineer no later than three (3) days in advance of the planned alteration. In no event shall material be hauled to an alternate facility without the written permission of the Engineer.

Construction Requirements: The Contractor shall be responsible for satisfactory removal and disposal of all waste material, asphalt, concrete, stone, dirt, and debris generated or discovered in the course of the work. Removal and disposal of excavation items being disposed of at a clean

construction and demolition debris (CCDD) facility shall meet the requirements of Public Act 96-1416. This work shall be incidental and shall not be paid for separately, with the exception of the **ADDITIONAL HAULING SURCHARGE, NON-HAZARDOUS SPECIAL WASTE** as specified below.

The temporary storing of excavated materials within the public right-of-way or project limits shall not be allowed unless approved by the Engineer. It shall be the Contractor's responsibility to find an approved dumpsite for debris and any excavated materials. The Village will not provide one.

The Contractor shall employ a licensed testing firm, as approved by Engineer, to screen each truck-load of material on-site, using a PID or FID field screen or other acceptable method. The PID shall be calibrated on a daily basis. The Contractor shall enter all truck-loads leaving the site into an on-site screening log including, but not limited to, project name, date, time, weather conditions, name of screener, hauling company, truck number, screening method, background PID reading, calibrated PID reading, truck/bucket PID reading, and description of materials screened. Each day prior to the first truck leaving the site, Engineer and Contractor's testing consultant shall agree on the allowable PID reading in accordance with the receiving CCDD facility procedures (typically 0.0 or daily background levels). The receiving CCDD facility may be consulted daily, or periodically, as needed to verify that the appropriate value is being used. If said screen indicates levels that will be unacceptable for disposal at the CCDD facility, the material shall be quarantined on-site for further evaluation. If material is rejected at the CCDD facility, it shall be returned to the project site and quarantined for further evaluation. No additional compensation shall be allowed for returning a rejected load back to the project site, or any other additional hauling, loading, unloading, etc, as may be required. Should it be determined by the Village or Village's agent that the material is not suitable for disposal in a CCDD facility, the Contractor shall be responsible for properly disposing of the material at an acceptable landfill, and providing the Village with all of the proper paperwork to document the material disposal with the IEPA. This work shall be paid for as specified below. If a truck-load is rejected by a CCDD facility after leaving the project site, and said truck-load is not identified in the on-site screening log, the Contractor shall still be required to properly dispose of the material and provide the Village with the necessary documentation, but shall not be additionally compensated as specified below.

All additional work to satisfy these requirements shall be the responsibility of the Contractor. All costs associated with meeting these requirements shall be paid for as specified herein. These costs shall include but are not limited to all required testing, lab analysis, and certification by a licensed professional engineer (PE) or licensed professional geologist (PG), if required, in addition to the cost of additional hauling, dump fees, etc. Payment for this work shall be in addition to payment for EARTH EXCAVATION per the contract unit price. No adjustment to the contract unit price will be allowed due to changes to quantities based on actual field conditions.

Basis of Payment: This work shall be paid for at the contract unit price per **LOAD** for **ADDITIONAL HAULING SURCHARGE, NON-HAZARDOUS SPECIAL WASTE**, which price shall be payment in full for the work as specified herein.

SP-9 DRIVEWAY ACCESS NOTIFICATION

Description: If access to a driveway will be blocked, the Contractor shall give that resident or business proper written notification at least 24 hours in advance. The Contractor must provide

them the opportunity to remove their cars from the driveway or make other arrangements. In addition, the Contractor shall be responsible for notifying the resident or business verbally on the morning of any driveway closure, to ensure awareness of the lack of access.

Samples of written notices shall be submitted to the Engineer for approval before Notice to Proceed is given.

Basis of Payment: This work shall be considered **INCIDENTAL** to the project.

SP-10 PARKWAY RESTORATION, SPECIAL

Description: This item shall be done in accordance with the applicable portions of Sec. 252 of the Standard Specifications and the following provisions.

As contract work progresses through the Village, parkway restoration work shall commence in a timely manner in areas where permanent placement of new curb and gutter, traffic signal work, sidewalks, etc., has been completed. Under no circumstances shall the Contractor prolong final grading, shaping and sod placement so that the entire project can be permanently restored at the same time.

This work shall consist of the excavation, topsoiling, and sodding and sidewalks removed and replaced during the course of construction, adjacent to all curbs, traffic signal work as shown in the plans, or as directed by the Engineer. Restoration will also be performed on areas disturbed by storm sewer or culvert construction.

All topsoil to be used for parkway restoration shall be obtained from outside the limits of this improvement, transported to the site and placed at required locations to a minimum depth of 4". All materials shall meet the requirements of Art. 1081.05 of the Standard Specifications. All placement of topsoil shall meet the requirements of Sec. 211 of the Standard Specifications.

All sod shall meet the requirements of Art. 1081.03 of the Standard Specifications. All placement of sod shall meet the requirements of Sec. 252 of the Standard Specifications.

For that period prior to full parkway restoration, the Contractor shall backfill and grade all disturbed areas so as to insure the safety of the general public. Parkways shall be left in a safe, clean and usable condition conducive to foot traffic and to the satisfaction of the Village. The Contractor shall protect these unfinished areas against erosion and work to keep them weed free.

Basis of Payment: This work will be paid for at the contract unit price per **SQUARE YARD** for **PARKWAY RESTORATION, SPECIAL**, measured as specified, which price shall include excavation, backfill and legal disposal of excess material.

SP-11 EXPLORATORY TRENCH, SPECIAL

Description: This item shall consist of excavating an area for the purpose of locating existing utilities within the construction limits of the proposed improvements. The Contractor shall perform exploratory trenching for all existing utilities potentially in conflict with the proposed improvements. The Contractor shall proactively perform exploratory trenching in a timely fashion to help mitigate delays, if any, caused by conflicts with existing utilities. The Contractor shall also perform exploratory trenching as directed by the Engineer. It shall be the responsibility of the Contractor to immediately inform the Engineer of any conflicts with existing utilities in conflict with the proposed improvements. A nominal quantity of exploratory excavation has been included in the schedule of prices for the purpose of establishing a unit price for this item of work.

After the excavation has been inspected, it shall be backfilled as directed by the Engineer. If it is located within 2' of a paved area (existing or proposed), the excavation shall be backfilled with Trench Backfill as specified herein. Otherwise, the excavation shall be backfilled with excavated material compacted to the satisfaction of the Engineer. Any excess material shall be disposed of in accordance with Article 202.03 of the IDOT Standard Specifications.

Exploratory trenching will be measured in its original position and the volume calculated in cubic yards based upon the dimensions of the excavation. Trench Backfill will not be measured for payment and shall be included in the unit price of EXPLORATORY TRENCH, SPECIAL.

Basis of Payment: This work will be paid for at the contract unit price per **CUBIC YARD** for: **EXPLORATORY TRENCH, SPECIAL**, measured as specified, which price shall include excavation, backfill and legal disposal of excess material

SP-12 TREE PROTECTION

Description: Municipal Codes regarding trees, including tree protection requirements for public parkway trees, are located in Chapter 24 of the Downers Grove Municipal Code. Specifically, Municipal Codes 24-7 and 24-8 detail the public parkway tree protection sizes and fines for violations. The Village Forester shall approve all tree protection measures and any deviations. All tree protection measures and any deviations shall be noted in the contract specifications and on approved project plan sheets and permits using the guidelines listed below.

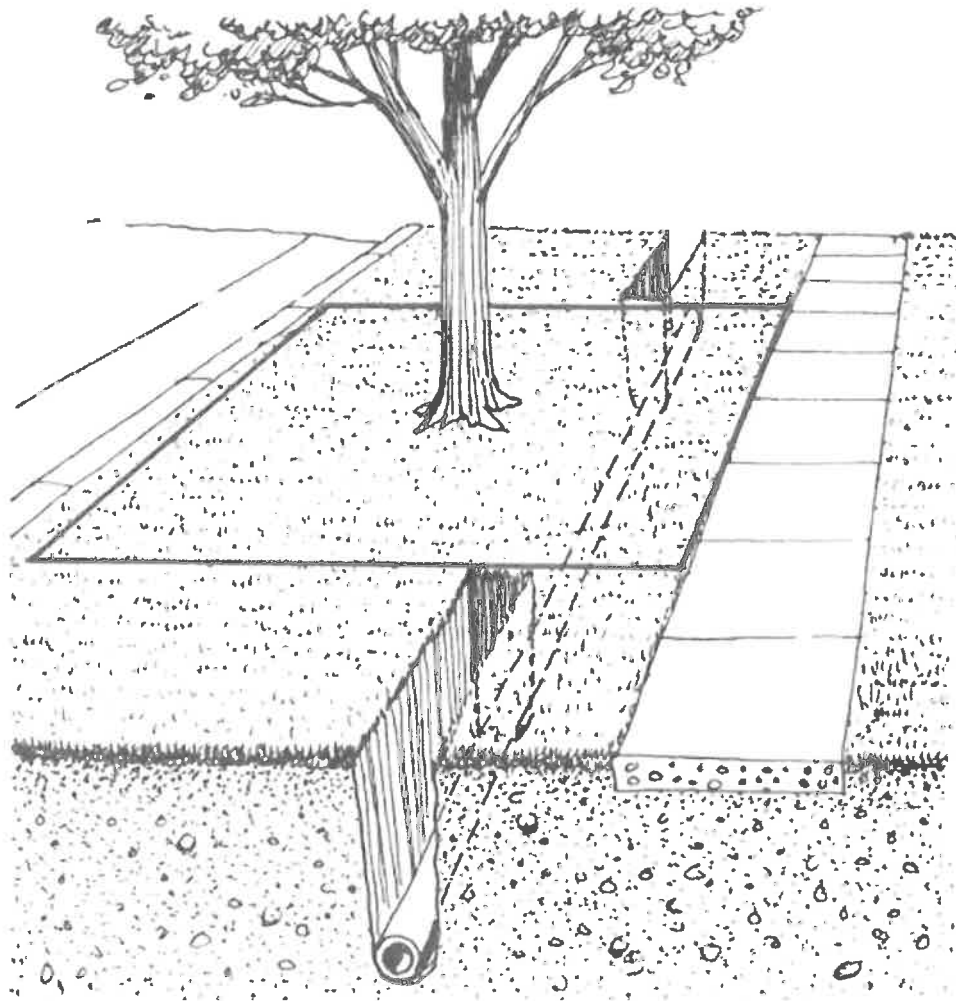
Tree protection shall include avoiding damage to the above ground tree branches and trunk, and the below ground root system and surrounding soil. Tree crowns and trunks shall not suffer any branch or bark loss.

Roots shall be protected from compaction, storage of materials, severing, regrading of the parkway or excavation unless specifically noted on the project plan sheets.

The Critical Root Zone, or CRZ, is the area immediately surrounding a tree that must be protected from damage. In a municipal parkway setting with utilities and paved or concrete surfaces, the size of the CRZ has been adjusted to form a rectangle around the parkway tree trunk with minimum dimensions listed in the following table. The depth of the CRZ extends to 4 feet below the natural

ground surface level.

<u>Parkway Tree diameter at 4.5'</u>	<u>Width street to property (min. curb to sidewalk)</u>	<u>Length along street street(minimum)</u>	<u>Depth</u>
0 – 12.0 inches	10.0 feet	10 feet	4 feet
12.1 – 24.0 inches	10.0 feet	20 feet	4 feet
24.1 or more inches	10.0 feet	30 feet	4 feet



For projects that involve excavations of less than one (1) foot in depth in the parkway or street and are replacing structures in the same location, fencing of the public parkway trees shall not be required. Example projects include, but are not limited to, street pavement resurfacing, curb removal/replacement, driveway removal/replacement, or sidewalk removal/repairs or new sidewalk installations. Contractors shall be mindful of the CRZ dimensions and potential for fines if any parkway trees suffer any unauthorized damage as determined by the Village Forester.

For projects that involve excavations of one (1) foot or more in depth in the parkway or street or both, fencing of the public parkway trees shall be required. Example projects include, but are not

limited to, watermain replacements with new roundway keystops and domestic service box installations, sanitary line replacements and new service connections, new or replacement natural gas services, new or replacement phone or fiber optic lines, or new or replacement storm sewers, or projects that widen roads which in turn decreases the parkway soil volume around public parkway trees.

Projects that require fencing (listed above) shall fence the public parkway trees with six (6) foot high chain link construction fence secured to metal posts driven in the ground which are spaced no further than ten (10) feet apart. The dimensions of the fence shall depend on the tree diameter size and shall follow the table listed for the CRZ above, or as large as practical dependent on driveways and other field conditions. The fenced rectangle shall have three (3) sides with the opening facing the adjacent residences for easy access for mowing or tree care. Under no circumstances shall any items be stored within the fence. All fencing shall be maintained daily in an upright good condition. The size and location of all fencing shall be shown on the project plan sheets.

To avoid damage to the CRZ, utilities must be augered underneath the public parkway trees. Excavation pits for augering equipment are to be outside the fenced area and are to be shown on the project plan sheets. Excavation pits for roundway keystops and domestic service boxes are to be as small as practical with excavation occurring in a direction away from the adjacent public parkway tree.

In cases when severing of roots within a portion of the CRZ may be unavoidable (ex. sidewalk installation, curb replacement, water or sanitary service replacement), subject to the approval of the Village Forester, sharp clean cuts shall be made on root ends to promote wound closure and root regeneration. Root pruning and excavation activities shall occur such that the smallest volume of soil and roots is disturbed, and the locations shall be shown on the project plan sheets. **See TREE ROOT PRUNING special provision.**

In addition to fines and citations that may be assessed for violations of any Chapter 24 of the Municipal Code (such as not maintaining fencing around the CRZ or unauthorized removal of protected trees), the contractor may be subject to the following provisions:

- Issuance of an invoice for the value or partial value of the tree lost due to damage to either the above ground or below ground portions of the parkway tree, or unauthorized tree removal.
- Costs of repairs, such as pruning or cabling, or costs for removal of the damaged parkway tree along with the stump if the tree cannot remain in the right-of-way.
- Fines of \$500 for the 1st offense; \$1,000 for the 2nd offense; \$2,500 for the 3rd and subsequent offenses.
- Each day during which a violation continues shall be construed as a separate and distinct offense.

The value or partial value of the tree lost shall be determined by the Village Forester using the most current edition of the Guide for Plant Appraisal (prepared by the Council of Tree &

Landscape Appraisers and the International Society of Arboriculture) and the most current edition of the Species Ratings & Appraisal Factors for Illinois (prepared by the Illinois Arborist Association). The total cost determined for the damage shall be deducted from the payments made to the Contractor for the project. Should the Village hire another Contractor or tree service to complete pruning work, these costs shall also be deducted from the payments made to the Contractor.

Basis of Payment: This work shall be considered **INCIDENTAL** to the project.

Tree removal as defined by the standard specifications, which will be paid for separately.

TREE ROOT PRUNING will be paid for separately.

SP-13 FIBER OPTIC CABLE

Effective: May 22, 2002

Revised: July 1, 2015

871.01TS

Add the following to Article 871.01 of the Standard Specifications:

The Fiber Optic cable shall be installed in conduit or as specified on the plans.

Add the following to Article 871.02 of the Standard Specifications:

The control cabinet distribution enclosure shall be 24 Port Fiber Wall Enclosure, unless otherwise indicated on plans. The fiber optic cable shall provide twelve fibers per tube for the amount of fibers called for in the Fiber Optic Cable pay item in the Contract. Fiber Optic cable may be gel filled or have an approved water blocking tape.

Add the following to Article 871.04 of the Standard Specifications:

A minimum of six multimode fibers from each cable shall be terminated with approved mechanical connectors at the distribution enclosure. Fibers not being used shall be labeled "spare." Fibers not attached to the distribution enclosure shall be capped.. A minimum of 13.0 feet (4m) of extra cable length shall be provided for controller cabinets. The controller cabinet extra cable length shall be stored as directed by the Engineer.

Add the following to Article 871.06 of the Standard Specifications:

The distribution enclosure and all connectors will be included in the cost of the fiber optic cable.

Testing shall be in accordance with Article 801.13(d). Electronic files of OTDR signature traces shall be provided in the Final project documentation with certification from the Contractor that attenuation of each fiber does not exceed 3.5 dB/km nominal at 850nm for multimode fiber and 0.4 bd/km nominal at 1300nm for single mode fiber.

SP-14 STREET SWEEPING

All roadway surfaces shall be kept free of dirt, mud, dust and debris of any kind throughout every phase of the project. Dirt, mud, dust and debris of any kind shall be removed from the roadway surface to the satisfaction of the Engineer by any one or combination of the following: approved mechanical sweeping equipment, manual labor, or other approved techniques.

Whenever ordered by the Engineer, especially for locations subject to a particularly high volume of traffic, the Contractor shall mechanically sweep the work site.

Basis of Payment: This work will be paid for at the contract unit price per **HOURLY** for: **STREET SWEEPING** which price shall be payment in full for the work as specified herein.

SP-15 SAW CUTTING

Description: This work shall consist of saw cutting existing sidewalk along the limits of removal as indicated by the Engineer. Saw cutting shall be full depth for bituminous pavement and 1-1/2 inch depth for concrete through drive approaches for removal of driveway necessary for sidewalk installation for the purpose of delineating sidewalk edges and contraction joints where none currently exist.

Basis of Payment: Saw cutting shall not be paid for separately but shall be **INCIDENTAL** to the contract.

SP-16 DETECTABLE WARNINGS

Description: This work shall consist of the installation of new detectable warning material as shown in the plans. All detectable warnings shall be placed by methods and with materials in accordance with Article 424 and 424.09 of the SSRBC.

Detectable Warnings shall be brick red, cast-in-place composite panels with inline dome pattern. Panels shall be installed full width of the walk (2" max concrete border allowed) in accordance with the latest PROWAG guidelines and at the direction of the Director of Engineering (or his/her designee).

Detectable Warnings shall be:

- 1) Access-Tile Cast-In-Place Replaceable,
- 2) Tuff Tile Wet-Set Replaceable Tile

or equivalent equal.

Basis for Payment: This work shall be paid for at the contract unit price per **SQUARE FOOT** for: **DETECTABLE WARNINGS (SPECIAL)**, which price shall include all material, labor, and equipment necessary to complete this item.

SP-17 TREE ROOT PRUNING

Description: All trees, public or private, affected by new sidewalk installation within its root protection zone, shall be root pruned prior to any excavation taking place. Root pruning shall be performed in accordance with the Tree Protection Zone detail of the Plans, and shall be done only

to the depth of the excavation necessary for installing the new sidewalk. Root pruning shall start and proceed uninterrupted for the length of travel through the root protection zone. Root pruning shall be made no more than ten inches (10") from the tree-side edge of the proposed sidewalk.

Approval by the Village Forester of the equipment to be used for root pruning, as well as the proposed path of the root pruning work, is required prior to the work being performed. The Engineer or his representative shall permit no excavation until written approval is obtained by the Contractor from the Village Forester. No materials or equipment may be stored or kept in the Tree Protection Zone. Tree damage, as determined by the Village Forester, shall be assessed to the Contractor using the most recent edition of the Guide for Plant Appraisal, published by the International Society of Arboriculture.

Basis of Payment: This work shall be paid for at the contract unit price per **FOOT** for: **TREE ROOT PRUNING**, which price shall be payment in full for the work as specified herein and as measured in place.

SP-18 STORAGE OF MATERIALS AND EQUIPMENT

At no time shall the Contractor store materials and equipment in private or public right-of-ways. Parking or storing construction vehicles and equipment overnight is strictly prohibited including, but not limited to, box trucks, dump trucks, pavers, trailers, etc.

SP-19 CLEANING UP

The Contractor shall, at all times, keep the premises free from an accumulation of waste material or rubbish caused by his employees or work. At the end of the day, he shall remove all his rubbish from and about the streets and sidewalks. All his tools, form boards, and surplus materials shall be removed and relocated to any temporary on-site storage location assigned by the Village or its Engineer, and shall leave his work "broom clean" or its equivalent, unless more precisely defined. Upon completion of the work called for by the contract, and upon final inspection and acceptance, the Contractor shall remove any of his remaining rubbish, tools, form boards, and surplus materials completely from the work site.

In case of dispute, the Village may remove the rubbish and any other materials and charge the cost to the Contractor.

SP-20 PEDESTRIAN SIGNAL POST

Effective: January 1, 2020

Revised:

875.02TS

Description.

This work shall consist of furnishing and installing a metal pedestrian signal post. All installations shall meet the requirements of the "District One Standard Traffic Signal Design Details".

Materials.

- (a) General. The pedestrian signal post shall be designed to support the traffic signal loading shown on the plans. The design and fabrication shall be according to the

Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, as published by AASHTO.

- (b) **Post.** The post shall be made of steel or aluminum and have an outside diameter of 4 1/2 in. The post shall be threaded for assembly to the base. Aluminum posts shall be according to the specifications for Schedule 80 aluminum pipe. Steel posts shall be according to the specifications for Schedule 40 steel pipe.
- (c) **Base.** The base of a steel post shall be cast iron. The base of an aluminum post shall be aluminum. The base shall be threaded for the attachment to the threaded post. The base shall be approximately 10 in. high and 6 3/4 in. square at the bottom. The bottom of the base shall be designed to accept four 5/8 in. diameter anchor rods evenly spaced in a 6 in. diameter circle. The base shall be true to pattern, with sharp clean cutting ornamentation, and equipped with access doors for cable handling. The door shall be fastened to the base with stainless steel screws. A grounding lug shall be provided inside the base.
- (d) **Anchor Rods.** The anchor rods shall be 5/8 in. in diameter and 16 in. long and shall be according to Article 1006.09. The anchor rods shall be threaded approximately 6 in. at one end and have a bend at the other end. The first 12 in. at the threaded end shall be galvanized. One each galvanized nut and trapezoidal washer shall be furnished with each anchor rod. The washer shall be properly sized to fully engage and sit flush on all sides of the slot of the base plate.

The aluminum post and base shall be drilled at the third points around the diameter and 1/4 in. by 2 in. stainless steel bolts shall be inserted to prevent the post from turning and wobbling.

- (e) **Finish.** The steel post, steel post cap and the cast iron base shall be 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. If the post and the base are threaded after the galvanization, the bare exposed metal shall be immediately cleaned to remove all cutting solvents and oils, and then spray painted with two coats of an approved galvanized paint.

The aluminum post shall have a natural finish, 100 grit or finer.

Installation.

The pedestrian signal post shall be erected plumb, securely bolted to a concrete foundation, and grounded to a ground rod according to the details shown on the plans. No more than 3/4 in. of the post threads shall protrude above the base.

A post cap shall be furnished and installed on the top of the post. The post cap shall match the material of the post. The Contractor shall apply an anti-seize paste compound on all nuts and bolts prior to assembly.

Prior to the assembly, the Contractor shall apply two additional coats of galvanized paint on the threads of the post and the base. The Contractor shall use a fabric post tightener to screw the post to the base.

Basis of Payment.

This work will be paid for at the contract unit price per each for **PEDESTRIAN SIGNAL POST**, of the length specified.

SP-21 FULL-ACTUATED CONTROLLER AND CABINET

Effective: January 1, 2002

Revised: March 1, 2024

857.02TS

Description.

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

If the intersection is part of an existing system and/or when specified in the plans, this work shall consist of furnishing and installing a(n) "_____" brand traffic actuated solid state controller.

Materials.

Add the following to Article 857.02 of the Standard Specifications:

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

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

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

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

Add the following to Article 1074.03 of the Standard Specifications:

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

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

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

Add the following to Article 1074.03 of the Standard Specifications:

- (b) (5) Cabinets – Provide 1/8 in. (3.2 mm) thick unpainted aluminum alloy 5052-H32. The surface shall be smooth, free of marks and scratches. All external hardware shall be stainless steel.
- (b) (6) Controller Harness – Provide a TS2 Type 2 “A” wired harness in addition to the TS2 Type 1 harness.
- (b) (7) Surge Protection – Shall be a 120 VAC Single phase Modular filter Plug-in type, supplied from an approved Vendor.
- (b) (8) BIU – shall be secured by mechanical means.
- (b) (9) Transfer Relays – Solid state or mechanical flash relays are acceptable.
- (b) (10) Switch Guards – All switches shall be guarded.
- (b) (11) Heating – One (1) 200 W, thermostatically-controlled, electric heater.
- (b) (12) Lighting – One (1) LED Panel shall be placed inside the cabinet top panel and one (1) LED Panel shall be placed on each side of the pull-out drawer/shelf assembly located beneath the controller support shelf. The LED Panels shall be controlled by a door switch. The LED Panels shall be provided from an approved Vendor.
- (b) (13) The cabinet shall be equipped with a pull-out drawer/shelf assembly. A 1-1/2 in. (38mm) deep drawer shall be provided in the cabinet, mounted directly beneath the controller support shelf. The drawer shall have a hinged top cover and shall be capable of accommodating one (1) complete set of cabinet prints and manuals. This drawer shall support 50 lb (23 kg) in weight when fully extended. The drawer shall open and close smoothly. Drawer dimensions shall make maximum use of available depth offered by the controller shelf and be a minimum of 18 in. (610mm) wide.
- (b) (14) Plan & Wiring Diagrams – 12 in. x 15 in. (305mm x 406mm) moisture sealed container attached to door.
- (b) (15) Detector Racks – Fully wired and labeled for four (4) channels of emergency vehicle preemption and sixteen channels (16) of vehicular operation.
- (b) (16) Field Wiring Labels – All field wiring shall be labeled.
- (b) (17) Field Wiring Termination – Approved channel lugs required.
- (b) (18) Power Panel – Provide a nonconductive shield.
- (b) (19) Circuit Breaker – The circuit breaker shall be sized for the proposed load but shall

not be rated less than 30 A.

- (b) (20) Police Door – Provide wiring and termination for plug in manual phase advance switch.

Basis of Payment.

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

SP-22 UNINTERRUPTABLE POWER SUPPLY, SPECIAL

Effective: January 1, 2013

Revised: March 1, 2024

862.01TS

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

Add the following to Article 862.01 of the Standard Specifications:

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

Add the following to Article 862.02 of the Standard Specifications:

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

Add the following to Article 862.03 of the Standard Specifications:

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

Revise Article 862.04 of the Standard Specifications to read:

Installation.

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

cabinet.

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

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

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

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

Materials.

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

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

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

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

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

“When the intersection is in battery backup mode, the UPS shall bypass all internal cabinet lights, ventilation fans, cabinet heaters, service receptacles, luminaires, any lighted street

name signs, any automated enforcement equipment and any other devices directed by the Engineer.”

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

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

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

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

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

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

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

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

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

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

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

- (8) The UPS shall include a tip or kill switch installed in the battery cabinet, which shall completely disconnect power from the UPS when the switch is manually activated.
- (9) The UPS shall include standard RS-232 and internal Ethernet interface.
- (10) The UPS shall incorporate a flanged electric generator inlet for charging the batteries and operating the UPS. The generator connector shall be male type, twist-lock, rated as 15A, 125VAC with a NEMA L5-15P configuration and weatherproof lift cover plate. Access to the generator inlet shall be from a secured weatherproof lift cover plate or behind a locked battery cabinet police panel.
- (11) The bypass switch shall include an internal power transfer relay that allows removal of the battery back-up unit, while the traffic signal is connected to utility power,

without impacting normal traffic signal operation.

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

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

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

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

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

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

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

Add the following to Article 1074.04 of the Standard Specifications:

(e) Warranty. The warranty for an uninterruptable power supply (UPS) and batteries (full replacement) shall cover a minimum of five (5) years from date the equipment is placed in operation.

(f) Installation. Bypass switch shall completely disconnect the traffic signal cabinet from the utility provider.

(g) The UPS shall be set-up to run the traffic signal continuously without going to a red flashing condition when switched to battery power unless otherwise directed by the Engineer. The Contractor shall confirm set-up with the Engineer. The continuous operation mode when switched to battery may require modification to unit connections and these modifications are included in the unit price for this item.

Revise Article 862.04 of the Standard Specifications to read:

Basis of Payment.

This work will be paid for at the Contract unit price per each for UNINTERRUPTABLE POWER SUPPLY, SPECIAL, UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED, or UNINTERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL. Replacement of emergency vehicle priority system confirmation beacons and any required

modifications to the traffic signal controller shall be included in the cost of the UNINTERRUPTABLE POWER SUPPLY, SPECIAL, UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED, or UNINTERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL item. The concrete apron and earth excavation required shall be included in the cost of the UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED or UNINTERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL item.

SP-23 ACCESSIBLE PEDESTRIAN SIGNALS

Effective: April 1, 2003

Revised: November 1, 2023

888.02TS

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.

Add the following to Article 888.03 of the Standard Specifications:

A mounting bracket and/or extension shall be used to assure proper orientation and accessibility where needed. 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 to meet mounting requirements.

Add the following to Article 1074.02(e) of the Standard Specifications:

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 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. Stations shall be powder coated yellow with a black pushbutton and stainless steel arrow on pushbutton.

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". Locator tones shall be audible 6 to 12 ft from pushbutton.

If two accessible pedestrian pushbuttons are placed less than 10 ft apart or placed on the same pole,

the audible walk and don't walk indication shall be a speech message. This speech message shall sound throughout the WALK interval only. Common street name shall be used and not the route number of the street unless there is no common street name. The street name used in programming shall reflect the street name mast arm mounted sign panel. Locations without street name (ex. private benefit driveways, shopping plaza entrance, etc.) shall use a general term "Commercial Driveway" as a street name for that leg. The speech 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, speech pushbutton information message shall be provided by actuating the APS pushbutton during DON'T WALK interval. This verbal message shall be modeled after: "Wait". The extended press option verbal message shall be: "Wait to cross 'Street Name' at 'Street Name'".

Railroad Preemption.

At locations with railroad interconnection APS pushbutton shall be capable of receiving a railroad preemption similar to a traffic signal controller and shall be hard wired to the railroad preemption relay inside the traffic signal cabinet. A shelf mount control unit shall be provided and installed inside the cabinet capable of receiving and transmitting the railroad preemption to all the push buttons.

At railroad intersections all APS pushbuttons shall use the speech message and shall follow the below speech models.

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

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

During Railroad preemption: All push buttons at same time "Train Approaching" – this message shall be repeated two times.

At locations with emergency vehicle preemption, NO additional speech message shall be provided.

At locations with Equestrian Pushbuttons style installation the APS push buttons shall use speech message only and shall emit the audible message from the bottom mounted push button only.

Locations with Corner Islands or Center Medians

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

Crossing of the right turn lane from or to Corner Island: "Wait to cross right turn lane for 'Street Name' at 'Street Name' crosswalks" and "Walk sign is on to cross right turn lane for 'Street Name' at 'Street Name' crosswalks"

Crossing from Corner Island to Corner Island where second pushbutton actuation is required: "Wait to cross 'Street Name' at 'Street Name' to median with second pushbutton" and "Walk

sign is on to cross 'Street Name' to median with second pushbutton"

Center Medians on a divided highways with push buttons will require pushbutton to have a dual arrow on the pushbutton.

Where two accessible pedestrian pushbuttons are separated by 10 ft or more, 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. Percussive tone shall be uniform at all stations at the intersection and shall not change for different directions.

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. Locator tone and speech message shall be programmed at same volume one shall not be significantly louder than the other and shall be adjusted as directed by the Engineer.

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.

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

APS push buttons shall be compatible with one another and easily replaceable on future replacements or maintenance repairs no multiple model variations will be allowed.

All APS pushbuttons shall come with the messages pre-programmed for each particular intersection regardless of the location or the 10 ft separation. Final field adjustments including percussive tone vs speech message use shall be completed once push buttons are installed in the final location. All push buttons shall be programmed with the appropriate parameters and settings as directed by the Engineer. These settings shall be standard for all pushbuttons and will vary based on the manufacturer. Access to pushbutton settings shall be provided through an app either through wired, wireless, or Bluetooth connection. Pushbutton information, settings, and access instructions shall all be provided in a weatherproof pouch and safely stored inside each traffic signal cabinet.

Contractor shall remove any existing pedestrian isolation boards, field wire terminals, and any wires to the board when easily accessible. If the pedestrian isolation board has been installed from the factory on the back panel of the cabinet, contractor is to disconnect the power to the isolation board and any wires while leaving the board mounted. This work shall be included in the cost of

Accessible Pedestrian Signals and will not be paid for separately.

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 the following standard



MUTCD design: R10-3e

R10-3E

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.

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

SP-24 CONCRETE FOUNDATIONS

Effective: May 22, 2002

Revised: March 1, 2024

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. at the threaded end.

Depending on the foundation type, the top of foundation shall be between 1 in. and 6 in. above finished grade or as directed by the Engineer.

No foundation is to be poured until the Resident Engineer gives their approval as to the depth of the foundation.”

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

“The concrete apron in front of the cabinet and UPS shall be included in this pay item.”

Revise the first paragraph of Article 878.05 of the Standard Specifications to read:

“Basis of Payment. This work will be paid for at the Contract unit price per foot (meter) of depth of CONCRETE FOUNDATION of the type specified, or CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER for pedestrian post concrete foundations.”

SP-25 GENERAL ELECTRICAL REQUIREMENTS

This special provision replaces Articles 801.01 – 801.07, 801.09 – 801.16 of the Standard Specifications.

Definition. Codes, standards, and industry specifications cited for electrical work shall be by definition the latest adopted version thereof, unless indicated otherwise.

Materials by definition shall include electrical equipment, fittings, devices, motors, appliances, fixtures, apparatus, all hardware and appurtenances, and the like, used as part of, or in connection with, electrical installation.

Standards of Installation. Materials shall be installed according to the manufacturer’s recommendations, the NEC, OSHA, the NESC, and AASHTO’s Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

All like materials shall be from the same manufacturer. Listed and labeled materials shall be used whenever possible. The listing shall be according to UL or an approved equivalent.

Safety and Protection. Safety and protection requirements shall be as follows.

Safety. Electrical systems shall not be left in an exposed or otherwise hazardous condition. All electrical boxes, cabinets, pole handholes, etc. which contain wiring, either energized or non-energized, shall be closed or shall have covers in place and be locked when possible, during nonworking hours.

Protection. Electrical raceway or duct openings shall be capped or otherwise sealed from the entrance of water and dirt. Wiring shall be protected from mechanical injury.

Equipment Grounding Conductor. All electrical systems, materials, and appurtenances shall be grounded. Good ground continuity throughout the electrical system shall be assured, even though every detail of the requirements is not specified or shown. Electrical circuits shall have a continuous insulated equipment grounding conductor. When metallic conduit is used, it shall be bonded to the equipment grounding conductor, but shall not be used as the equipment grounding conductor.

Detector loop lead-in circuits, circuits under 50 volts, and runs of fiber optic cable will not require an equipment grounding conductor.

Where connections are made to painted surfaces, the paint shall be scraped to fully expose metal at the connection point. After the connection is completed, the paint system shall be repaired to the satisfaction of the Engineer. Bonding of all boxes and other metallic enclosures throughout the wiring system to the equipment grounding conductor shall be made using a splice and pigtail

connection. Mechanical connectors shall have a serrated washer at the contact surface.

All connections to structural steel or fencing shall be made with exothermic welds. Care shall be taken not to weaken load carrying members. Where connections are made to epoxy coated reinforcing steel, the epoxy coating shall be sufficiently removed to facilitate a mechanical connection. The epoxy coating shall be repaired to the satisfaction of the Engineer. Where connections are made to insulated conductors, the connection shall be wrapped with at least four layers of electrical tape extended 6 in. (150 mm) onto the conductor insulation.

Submittals. At the preconstruction meeting, the Contractor shall submit a written listing of manufacturers for all major electrical and mechanical items. The list of manufacturers shall be binding, except by written request from the Contractor and approval by the Engineer. The request shall include acceptable reasons and documentation for the change.

Within 30 calendar days after contract execution, the Contractor shall submit, for approval, through the Traffic Operations Construction Submittals Application (TOCS) system the manufacturer's product data (for standard products and components) and detailed shop drawings (for fabricated items). Submittals for the materials for each individual pay item shall be complete in every respect. Submittals which include multiple pay items shall have all submittal material for each item or group of items covered by a particular specification, grouped together and the applicable pay item identified. Various submittals shall, when taken together, form a complete coordinated package. A partial submittal will be returned without review unless prior written permission is obtained from the Engineer.

Each PDF document must be a vector format PDF from the originating supplier or program and not scanned images.

The submittal must clearly identify the specific model number or catalog number of the item being proposed.

For further information and requirements regarding the TOCS system, the Contractor should reference the *TOCS Contractors User Guide*.

The submittal shall be properly identified by route, section, county, and contract number.

The Contractor shall have reviewed the submittal material and affixed his/her stamp of approval, with date and signature, for each individual item.

Illegible print, incompleteness, inaccuracy, or lack of coordination will be grounds for rejection.

Items from multiple disciplines shall not be combined on a single submittal and transmittal. Items for lighting, signals, surveillance and CCTV must be in separate submittals since they may be reviewed by various personnel in various locations.

The Department may provide a list of pay items broken out by discipline upon request for a particular contract.

The Engineer will review the submittals for conformance with the design concept of the project according to Article 105.04 and the following. The Engineer will stamp the drawings indicating their status as “Approved”, “Approved as Noted”, “Disapproved”, or “Information Only”. Since the Engineer’s review is for conformance with the design concept only, it shall be 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, or layout drawings by the Engineer’s approval thereof. The Contractor shall still be in full compliance with contract and specification requirements.

All submitted items reviewed and marked “Disapproved” or “Approved as Noted” shall be resubmitted by the Contractor in their entirety, unless otherwise indicated within the submittal comments.

Work shall not begin until the Engineer has approved the submittal. Material installed prior to approval by the Engineer, will be subject to removal and replacement at no additional cost to the Department.

Certifications. When certifications are specified and are available prior to material manufacture, the certification shall be included in the submittal information. When specified and only available after manufacture, the submittal shall include a statement of intent to furnish certification. All certificates shall be complete with all appropriate test dates and data.

Authorized Project Delay. See Article 801.08

Maintenance transfer and Preconstruction Inspection:

General. Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall request a maintenance transfer and preconstruction site inspection, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting and/or traffic control systems which may be affected by the work. The request for the maintenance transfer and preconstruction inspection shall be made no less than fourteen (14) calendar days prior to the desired inspection date. The maintenance transfer and preconstruction inspection shall:

Establish the procedures for formal transfer of maintenance responsibility required for the construction period.

Establish the approximate location and operating condition of lighting and/or traffic control systems which may be affected by the work

Marking of Existing Cable Systems. The party responsible for maintenance of any existing lighting and/or traffic control systems at the project site will, at the Contractor's request, mark and/or stake, once per location, all underground cable routes owned or maintained by the State. A project may

involve multiple "locations" where separated electrical systems are involved (i.e. different controllers). The markings shall be taken to have a horizontal tolerance of at least 1 foot (304.8 mm) to either side. The request for the cable locations and marking shall be made at the same time the request for the maintenance transfer and preconstruction inspection is made. The Contractor shall exercise extreme caution where existing buried cable runs are involved. The markings of existing systems are made strictly for assistance to the Contractor and this does not relieve the Contractor of responsibility for the repair or replacement of any cable run damaged in the course of his work, as specified elsewhere herein. Note that the contractor shall be entitled to only one request for location marking of existing systems and that multiple requests may only be honored at the contractor's expense. No locates will be made after maintenance is transferred, unless it is at the contractor's expense.

Condition of Existing Systems. The Contractor shall conduct an inventory of all existing electrical system equipment within the project limits, which may be affected by the work, making note of any parts which are found broken or missing, defective or malfunctioning. Megger and load readings shall be taken for all existing circuits which will remain in place or be modified. If a circuit is to be taken out in its entirety, then readings do not have to be taken. The inventory and test data shall be reviewed with and approved by the Engineer and a record of the inventory shall be submitted to the Engineer for the record. Without such a record, all systems transferred to the Contractor for maintenance during construction shall be returned at the end of construction in complete, fully operating condition."

Maintenance and Responsibility During Construction.

Lighting Operation and Maintenance Responsibility. The scope of work shall include the assumption of responsibility for the continuing operation and maintenance of the existing, proposed, temporary, sign and navigation lighting, or other lighting systems and all appurtenances affected by the work as specified elsewhere herein. Maintenance of lighting systems is specified elsewhere and will be paid for separately

The proposed lighting system must be operational prior to opening the roadway to traffic unless temporary lighting exists which is designed and installed to properly illuminate the roadway.

Energy and Demand Charges. The payment of basic energy and demand charges by the electric utility for existing lighting which remains in service will continue as a responsibility of the Owner, unless otherwise indicated. Unless otherwise indicated or required by the Engineer duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously at the Owner's expense and lighting systems shall not be kept in operation during long daytime periods at the Owner's expense. Upon written authorization from the Engineer to place a proposed new lighting system in service, whether the system has passed final acceptance or not, (such as to allow temporary lighting to be removed), the Owner will accept responsibility for energy and demand charges for such lighting, effective the date of authorization. All other energy and demand payments to the utility shall be the responsibility of the Contractor until final acceptance.

Damage to Electrical Systems. Should damage occur to any existing electrical systems through the Contractor's operations, the Engineer will designate the repairs as emergency or non-emergency in nature.

Emergency repairs shall be made by the Contractor, or as determined by the Engineer, the Department, or its agent. Non-emergency repairs shall be performed by the Contractor within six working days following discovery or notification. All repairs shall be performed in an expeditious manner to assure all electrical systems are operational as soon as possible. The repairs shall be performed at no additional cost to the Department.

Lighting. An outage will be considered an emergency when three or more lights on a circuit or three successive lights are not operational. Knocked down materials, which result in a danger to the motoring public, will be considered an emergency repair.

Temporary aerial multi-conductor cable, with grounded messenger cable, will be permitted if it does not interfere with traffic or other operations, and if the Engineer determines it does not require unacceptable modification to existing installations.

Marking Proposed Locations for Highway Lighting System. The Contractor shall mark or stake the proposed locations of all poles, cabinets, junction boxes, pull boxes, handholes, cable routes, pavement crossings, and other items pertinent to the work. A proposed location inspection by the Engineer shall be requested prior to any excavation, construction, or installation work after all proposed installation locations are marked. Any work installed without location approval is subject to corrective action at no additional cost to the Department.

Inspection of electrical work. Inspection of electrical work shall be according to Article 105.12 and the following.

Before any splice, tap, or electrical connection is covered in handholes, junction boxes, light poles, or other enclosures, the Contractor shall notify and make available such wiring for the Engineer's inspection.

Testing. Before final inspection, the electrical work shall be tested. Tests may be made progressively as parts of the work are completed or may be made when the work is complete. Tests shall be made in the presence of the Engineer. Items which fail to test satisfactorily shall be repaired or replaced. Tests shall include checks of control operation, system voltages, cable insulation, and ground resistance and continuity.

The forms for recording test readings will be available from the Engineer in electronic format. The Contractor shall provide the Engineer with a written report of all test data including the following:

- Voltage Tests
- Amperage Tests
- Insulation Resistance Tests
- Continuity tests
- Detector Loop Tests

Lighting systems. The following tests shall be made.

- (1) Voltage Measurements. Voltages in the cabinet from phase to phase and phase to neutral, at no load and at full load, shall be measured and recorded. Voltage readings at the last termination of each circuit shall be measured and recorded.
- (2) Insulation Resistance. Insulation resistance to ground of each circuit at the cabinet shall be measured and recorded with all loads disconnected. Prior to performance of the insulation resistance test, the Contractor shall remove all fuses within all light pole bases on a circuit to segregate the luminaire loads.

On tests of new cable runs, the readings shall exceed 50 megohms for phase and neutral conductors with a connected load over 20A and shall exceed 100 megohms for conductors with a connected load of 20A or less.

On tests of cable runs which include cables which were existing in service prior to this contract, the resistance readings shall be the same or better than the readings recorded at the maintenance transfer at the beginning of the contract. Measurements shall be taken with a megohm meter approved by the Engineer.

- (3) Loads. The current of each circuit, phase main, and neutral shall be measured and recorded. The Engineer may direct reasonable circuit rearrangement. The current readings shall be within ten percent of the connected load based on material ratings.
- (4) Ground Continuity. Resistance of the system ground as taken from the farthest extension of each circuit run from the controller (i.e. check of equipment ground continuity for each circuit) shall be measured and recorded. Readings shall not exceed 2.0 ohms, regardless of the length of the circuit.
- (5) Resistance of Grounding Electrodes. Resistance to ground of all grounding electrodes shall be measured and recorded. Measurements shall be made with a ground tester during dry soil conditions as approved by the Engineer. Resistance to ground shall not exceed 10 ohms.

ITS. The following test shall be made in addition to the lighting system test above.

Detector Loops. Before and after permanently securing the loop in the pavement, the resistance, inductance, resistance to ground, and quality factor for each loop and lead-in circuit shall be tested. The loop and lead-in circuit shall have an inductance between 20 and 2500 microhenries. The resistance to ground shall be a minimum of 50 megohms under any conditions of weather or moisture. The quality factor (Q) shall be 5 or greater.

Fiber Optic Systems. Fiber optic testing shall be performed as required in the fiber optic cable special provision and the fiber optic splice special provision.

All test results shall be furnished to the Engineer seven working days before the date the inspection is scheduled.

Contract Guarantee. The Contractor shall provide a written guarantee for all electrical work provided under the contract for a period of six months after the date of acceptance with the following warranties and guarantees.

- (a) The manufacturer's standard written warranty for each piece of electrical material or apparatus furnished under the contract. The warranty for light emitting diode (LED) modules, including the maintained minimum luminance, shall cover a minimum of 120 months from the date of delivery.
- (b) The Contractor's written guarantee that, for a period of six months after the date of final acceptance of the work, all necessary repairs to or replacement of said warranted material or apparatus for reasons not proven to have been caused by negligence on the part of the user or acts of a third party shall be made by the Contractor at no additional cost to the Department.
- (c) The Contractor's written guarantee for satisfactory operation of all electrical systems furnished and constructed under the contract for a period of six months after final acceptance of the work.

The warranty for an uninterruptable power supply (UPS) shall cover a minimum of two years from date the equipment is placed in operation; however, the batteries of the UPS shall be warranted for full replacement for a minimum of five years.

Record Drawings. Alterations and additions to the electrical installation made during the execution of the work shall be made on the PDF copy of the as-Let documents using a PDF editor. Hand drawn notations or markups and scanned plans are not acceptable. These drawings shall be updated daily and shall be available for inspection by the Engineer during the work. The record drawings shall include the following:

- Cover Sheet
- The Electrical Maintenance Contract Management System (EMCMS) location designation, i.e. "L" number
- Summary of Quantities, electrical items only
- Legends, Schedules, and Notes
- Plan Sheets
- Pertinent Details
- Single Line Diagrams
- Other useful information useful to locate and maintain the systems.

Any modifications to the details shall be indicated. Final quantities used shall be indicated on the Summary of Quantities. Foundation depths used shall also be listed.

As part of the record drawings, the Contractor shall inventory all materials, new or existing, on the project and record information on inventory sheets provided by the Engineer.

The inventory shall include:

- Location of Equipment, including rack, chassis, slot as applicable.
- Designation of Equipment
- Equipment manufacturer
- Equipment model number
- Equipment Version Number
- Equipment Configuration
 - Addressing, IP or other
 - Settings, hardware or programmed
- Equipment Serial Number

The following electronic inventory forms are available from the Engineer:

- Lighting Controller Inventory
- Lighting Inventory
- Light Tower Inspection Checklist
- ITS Location Inventory

The information shall be entered in the forms; handwritten entries will not be acceptable; except for signatures. Electronic file shall also be included in the documentation.

When the work is complete, and seven days before the request for a final inspection, the 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 through TOCS, on CD-ROM as well as hardcopy’s for review and approval.

In addition to the record drawings, PDF copies of the final catalog cuts which have been Approved and Approved as Noted with applicable follow-up shall be submitted along with the record drawings. The PDF files shall clearly indicate either by filename or PDF table of contents the respective pay item number. Specific part or model numbers of items which have been selected shall be clearly visible. Hard copies of the catalog are not required with this submittal.

The Contractor shall provide three sets of electronically produced drawings in a moisture proof pouch to be kept on the inside door of the controller cabinet or other location approved by the Engineer. These drawings shall show the final as-built circuit orientation(s) of the project in the form of a single line diagram with all luminaires numbered and clearly identified for each circuit.

Final documentation shall be submitted as a complete submittal package, i.e. record drawings, test results, inventory, etc. shall be submitted at the same time. Partial piecemeal submittals will be rejected without review.

A total of three hardcopies and two CD-ROMs of the final documentation shall be submitted. The identical material shall also be submitted through the TOCS system utilizing the following final documentation pay item numbers:

Pay Code	Description	Discipline
FDLRD000	Record Drawings - Lighting	Lighting
FDSRD000	Record Drawings - Surveillance	Surveillance
FDTRD000	Record Drawings - Traffic Signal	Traffic Signal
FDIRD000	Record Drawings - ITS	ITS
FDLCC000	Catalog Cuts - Lighting	Lighting
FDSCC000	Catalog Cuts – Surveillance	Surveillance
FDTCC000	Catalog Cuts – Traffic Signal	Traffic Signal
FDICC000	Catalog Cuts - ITS	ITS
FDLWL000	Warranty - Lighting	Lighting
FDSWL000	Warranty - Surveillance	Surveillance
FDTWL000	Warranty - Traffic Signal	Traffic Signal
FDIWL000	Warranty - ITS	ITS
FDLTR000	Test Results - Lighting	Lighting
FDSTR000	Test Results - Surveillance	Surveillance
FDTTR000	Test Results - Traffic Signal	Traffic Signal
FDITR000	Test Results - ITS	ITS
FDLINV00	Inventory - Lighting	Lighting
FDSINV00	Inventory - Surveillance	Surveillance
FDTINV00	Inventory - Traffic Signal	Traffic Signal
FDIINV00	Inventory - ITS	ITS
FDLGPS00	GPS - Lighting	Lighting
FDSGPS00	GPS - Surveillance	Surveillance
FDTGPS00	GPS - Traffic Signal	Traffic Signal
FDIGPS00	GPS - ITS	ITS

Record Drawings shall include Marked up plans, controller info, Service Info, Equipment Settings, Manuals, Wiring Diagrams for each discipline.

Test results shall be all electrical test results, fiber optic OTDR, and Fiber Optic power meter as applicable for each discipline.

GPS Documentation. In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following electrical components being installed, modified or being affected in other ways by this contract:

- All light poles and light towers.
- Handholes and vaults.
- Junction Boxes

- Conduit roadway crossings.
- Controllers.
- Control Buildings.
- Structures with electrical connections, i.e. DMS, lighted signs.
- Electric Service locations.
- CCTV Camera installations.
- Roadway Surveillance installations.
- Fiber Optic Splice Locations.
- Fiber Optic Cables. Coordinates shall be recorded along each fiber optic cable route every 200 feet.
- All fiber optic slack locations shall be identified with quantity of slack cable included. When sequential cable markings are available, those markings shall be documented as cable marking into enclosure and marking out of enclosure.

Datum to be used shall be North American 1983.

Data shall be provided electronically. 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:

1. District
2. Description of item
3. Designation
4. Use
5. Approximate station
6. Contract Number
7. Date
8. Owner
9. Latitude
10. Longitude
11. Comments

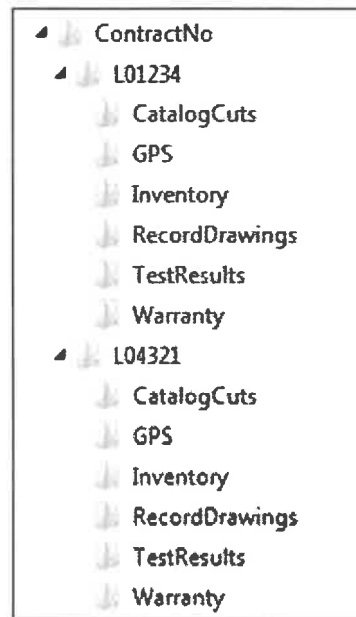
A spreadsheet template will be available from the Engineer for use by the Contractor.

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 minimum 5 meter 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.”

The documents on the CD shall be organized by the Electrical Maintenance Contract Management System (EMCMS) location designation. If multiple EMCMS locations are within the contract, separate folders shall be utilized for each location as follows:



Extraneous information not pertaining to the specific EMCMS location shall not be included in that particular folder and sub-folder.

The inspection will not be made until after the delivery of acceptable record drawings, specified certifications, and the required guarantees.

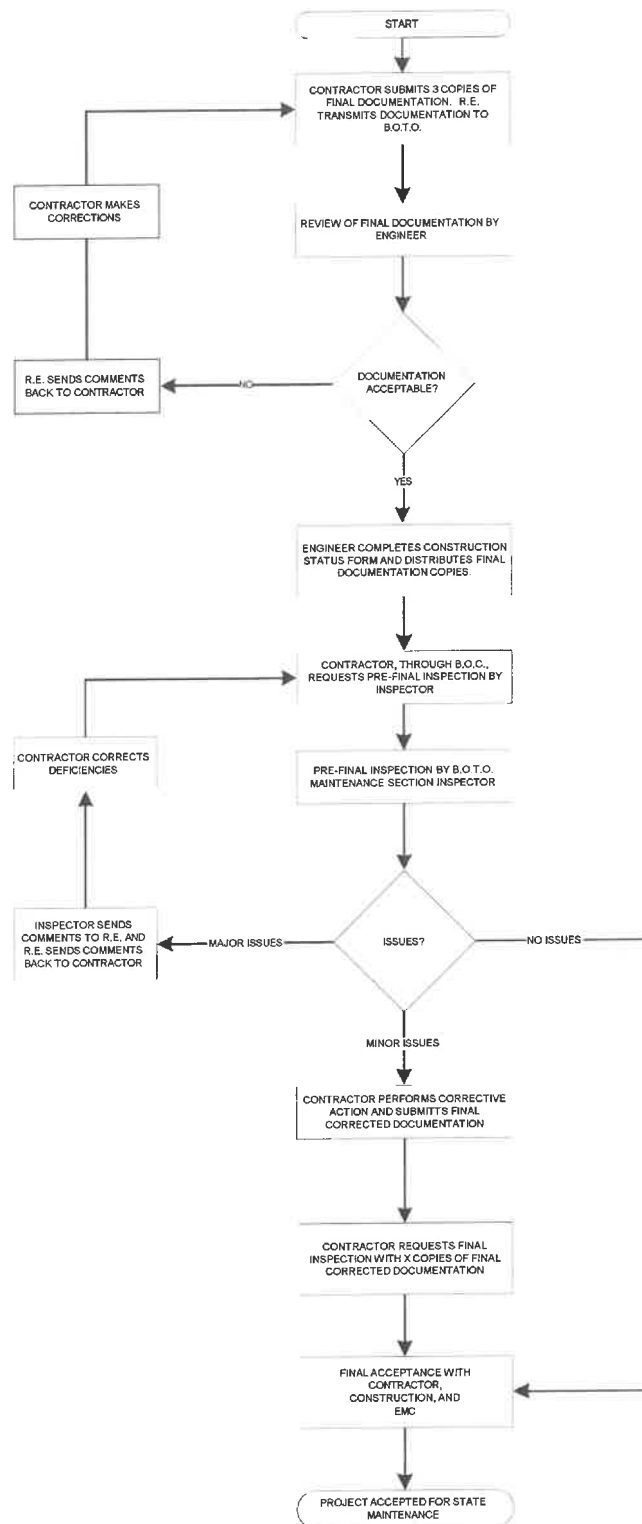
The Final Acceptance Documentation Checklist shall be completed and is contained elsewhere herein.

All CD's shall be labeled as illustrated in the CD Label Template contained herein.

Acceptance. Acceptance of electrical work will be given at the time when the Department assumes the responsibility to protect and maintain the work according to Article 107.30 or at the time of final inspection.

When the electrical work is complete, tested, and fully operational, the Contractor shall schedule an inspection for acceptance with the Engineer no less than seven working days prior to the desired inspection date. The Contractor shall furnish the necessary labor and equipment to make the inspection.

A written record of the test readings taken by the Contractor according to Article 801.13 shall be furnished to the Engineer seven working days before the date the inspection is scheduled. Inspection will not be made until after the delivery of acceptable record drawings, specified certifications, and the required guarantees.



Final Acceptance Documentation Checklist

LOCATION	
Route	Common Name
Limits	Section
Contract #	County
Controller Designation(s)	EMC Database Location Number(s)

ITEM	Contractor (Verify)	Resident Engineer (Verify)
Record Drawings		
-Three hardcopies (11" x 17")	☐	☐
-Scanned to two CD-ROMs	☐	☐
Field Inspection Tests		
-Voltage	☐	☐
-Amperage	☐	☐
-Cable Insulation Resistance	☐	☐
-Continuity	☐	☐
-Controller Ground Rod Resistance	☐	☐
(Three Hardcopies & scanned to two CD's)		
GPS Coordinates		
-Excel file	☐	☐
(Check Special Provisions, Excel file scanned to two CD's)		
Job Warranty Letter		
(Three Hardcopies & scanned to two CD's)	☐	☐
Catalog Cut Submittals		
-Approved & Approved as Noted	☐	☐
(Scanned to two CD's)		
Lighting Inventory Form		
(Three Hardcopies & scanned to two CD's)	☐	☐
Lighting Controller Inventory Form		
(Three Hardcopies & scanned to two CD's)	☐	☐
Light Tower Inspection Form		
	☐	☐

(If applicable, Three Hardcopies & scanned to two CD's)		
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Three Hardcopies & scanned to two CD's shall be submitted for all items above. The CD ROM shall be labeled as shown in the example contained herein.

General Notes:

Record Drawings – The record drawings should contain contract cover sheet, summary of quantities showing all lighting pay item sheets, proposed lighting plans and lighting detail sheets. Submit hardcopies shall be 11” x 17” size. Temporary lighting plans and removal lighting plans should not be part of the set.

Field Inspection Tests – Testing should be done for proposed cables. Testing shall be per standard specifications. Forms shall be neatly filled out.

GPS Coordinates – Check special provisions “General Electrical Requirements”. Submit electronic “EXCEL” file.

Job Warranty Letter – See standard specifications.

Cutsheet Submittal – See special provisions “General Electrical Requirements”. Scan Approved and Approved as Noted cutsheets.

Lighting Inventory Form – Inventory form should include only proposed light poles, proposed light towers, proposed combination (traffic/light pole) lighting and proposed underpass luminaires.

Lighting Controller Inventory Form – Form should be filled out for only proposed lighting controllers.

Light Tower Safety Inspection Form – Form should be filled out for each proposed light tower.

SP-26 TRAFFIC SIGNAL GENERAL REQUIREMENTS

Effective: May 22, 2002

Revised: March 1, 2024

800.01TS

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

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

maintaining all traffic signal work and items as specified in the plans and as specified herein in a manner acceptable and approved by the Engineer.

Definitions of Terms.

Add the following to Section 101 of the Standard Specifications:

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

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

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

Submittals.

Revise Article 801.05 of the Standard Specifications to read:

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

- (1) All material approval requests shall be made prior to or no later than the date of the preconstruction meeting. A list of major traffic signal items can be found in Article 801.05. Material or equipment which is similar or identical shall be the product of the same manufacturer, unless necessary for system continuity. Traffic signal materials and equipment shall bear the U.L. label whenever such labeling is available.
- (2) Product data and shop drawings shall be assembled by pay item. Only the top sheet of each pay item submittal will be stamped by the Department with the review status, except shop drawings for mast arm pole assemblies and the like will be stamped with the review status on each sheet.
- (3) Original manufacturer published product data and shop drawing sheets with legible dimensions and details shall be submitted for review.

- (4) When hard copy submittals are necessary, four (4) complete copies of the manufacturer's descriptive literatures and technical data for the traffic signal materials shall be submitted. For hard copy or electronic submittals, the descriptive literature and technical data shall be adequate for determining whether the materials meet the requirements of the plans and specifications. If the literature contains more than one item, the Contractor shall indicate which item or items will be furnished.
- (5) When hard copy submittals are necessary for structural elements, four (4) complete copies of the shop drawings for the mast arm assemblies and poles, and the combination mast arm assemblies and poles showing, in detail, the fabrication thereof and the certified mill analyses of the materials used in the fabrication, anchor rods, and reinforcing materials shall be submitted.
- (6) Partial or incomplete submittals will be returned without review.
- (7) Certain non-standard mast arm poles and special structural elements will require additional review from IDOT's Central Office. Examples include ornamental/decorative, non-standard length mast arm pole assemblies and monotube structures.
- (8) The Contract number or Permit number, project location/limits, and corresponding pay code number must be on each sheet of correspondence, material approval, and mast arm poles and assemblies drawings.
- (9) Where certifications and/or warranties are specified, the information submitted for approval shall include certifications and warranties. Certifications involving inspections and/or tests of material shall be complete with all test data, dates, and times.
- (10) After the Engineer reviews the submittals for conformance with the design concept of the project, the Engineer will stamp the drawings indicating their status as 'Approved', 'Approved-As-Noted', 'Disapproved', or 'Incomplete'. Since the Engineer's review is for conformance with the design concept only, it is the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, layout drawings, or other documents by the Department's approval thereof. The Contractor must still be in full compliance with Contract and specification requirements.
- (11) The Contractor shall secure approved materials in a timely manner to assure construction schedules are not delayed.
- (12) All submitted items reviewed and marked 'APPROVED AS NOTED', 'DISAPPROVED', or 'INCOMPLETE' are to be resubmitted in their entirety, unless otherwise indicated within the submittal comments, with a disposition of previous comments to verify Contract compliance at no additional cost to the Contract.

- (13) Exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the Contractor's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the Engineer. In general, substitutions will not be acceptable. Requests for substitutions must demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the Engineer.
- (14) The Contractor shall not order major equipment such as mast arm assemblies prior to Engineer approval of the Contractor marked proposed traffic signal equipment locations to assure proper placement of Contract required traffic signal displays, push buttons and other facilities. Field adjustments may require changes in proposed mast arm length and other coordination.
- (15) Revised cabinet wiring diagrams shall be submitted whenever any wiring modifications are made to the traffic signal cabinet."

Marking Proposed Locations.

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

Add the following to Article 801.09 of the Standard Specifications:

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

Inspection of Electrical Systems.

Add the following to Article 801.10 of the Standard Specifications:

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

Maintenance and Responsibility of Traffic Signal and Flashing Beacon Installations.

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

- (b) Traffic Signals and Flashing Beacons. The Contractor shall be responsible for maintaining the traffic signal/flashing beacon installation in proper operating condition.
 - (1) General.
 - a. The Contractor must notify the Area Traffic Signal Maintenance and Operations Engineer of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a

minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. The Department will attempt to fulfill the Contractor's inspection date request(s); however, workload and other conditions may prevent the Department from accommodating specific dates or times. The Contractor shall not be entitled to any other compensation if the requested inspection date(s) cannot be scheduled by the Department.

- b. Full maintenance responsibility shall start upon the successful completion of a maintenance transfer inspection, or as directed by the Engineer. If the Contractor begins any physical work on the Contract or any portion thereof prior to a traffic signal inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at the time of transfer at no cost to the owner of the traffic signal equipment. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection, otherwise the traffic signal installation will not be accepted.
- c. All traffic signals within the limits of the Contract or those which have the item "MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION," "TEMPORARY TRAFFIC SIGNAL INSTALLATION", "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION", "TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION", and/or "MAINTENANCE OF EXISTING FLASHING BEACON INSTALLATION" shall become the full responsibility of the Contractor. Maintenance responsibility shall end upon issuance of final acceptance by the Engineer.
- d. The Contractor shall have electricians with IMSA/IPSI Traffic Signal Technician Level II certification on staff to provide signal maintenance. A copy of the certification shall be immediately available upon request by the Engineer.
- e. This item shall include maintenance of all traffic signal equipment and other connected and related equipment such as flashing beacons, emergency vehicle preemption (EVP) equipment, master controllers, network switches, uninterruptable power supply (UPS) and batteries, pan-tilt-zoom (PTZ) cameras, vehicle detection, handholes, lighted signs, telephone service installations, cellular modems, radios, communication cables, and other traffic signal equipment. All conduit and related equipment to adjacent intersections shall be maintained to the far back handhole, or as directed by the Engineer. If adjacent intersections are part of Contract work, then

maintenance of all conduit and related equipment shall be included in this item.

- f. Regional transit, County, and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as network switches and transit signal priority (TSP, SCP, and BRT) servers, radios, and other devices, where maintenance shall be coordinated with the owner.
- g. Maintenance shall not include automatic traffic enforcement equipment such as red light enforcement cameras, detectors, or peripheral equipment. This equipment is operated and maintained by others and shall be deactivated while on Contractor maintenance.
- h. The energy charges for the operation of the traffic signal installation shall be paid for by the Contractor.

(2) Maintenance.

- a. The Contractor shall inspect all traffic signal equipment and appurtenances every two (2) weeks to ensure they are functioning properly. Signal heads shall be properly adjusted, including plumb, and tightly mounted. All controller cabinets, signal posts, and controller pedestals shall be tight on their foundations and in alignment. Deficient equipment shall be repaired or replaced as necessary. The Contractor shall check signal system communications and phone lines to assure proper operation. This item includes, as routine maintenance, all portions of EVP equipment. The Contractor shall always maintain enough materials and equipment in stock to provide effective temporary and permanent repairs. The Contractor shall supply a detailed maintenance log monthly that includes dates, locations, names of electricians performing the required checks and inspections, and any other information requested by the Engineer. The Contractor shall attend any additional inspections as requested by the Engineer. The Contractor shall check the controllers, relays, and detectors after receiving complaints or calls to ascertain that they are functioning properly and make all necessary repairs and replacement.
- b. The Contractor is advised that the existing and/or temporary traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation which exceeds fifteen (15) minutes must have prior approval from the Engineer. Approval to shut down the traffic signal installation will only be granted during the period extending from 9:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.

- c. The Contractor shall provide immediate corrective action when any part(s) of the signal fail to function properly. Two far side heads facing each approach shall be considered the minimum acceptable signal operation pending permanent repairs. When repairs at a signalized intersection require that the controller be disconnected or otherwise removed from normal operation, and power is available, the Contractor shall place the traffic signal installation in flashing operation. The signals shall flash RED for all directions unless a different indication has been specified by the Engineer. The Contractor shall install cones on all lane lines at the stop bar on each approach, R1-1 (36 in. minimum) "STOP" signs at the stop bar on each approach on the right side and on raised medians (where applicable), and black on fluorescent orange "SIGNALS OUT AHEAD" warning signs followed by fluorescent orange W3-1 symbolic stop ahead warning signs on all approaches to the intersection.
- d. Temporary replacement of a damaged or knocked down mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the Engineer to assure signal heads are located overhead and over traveled pavement. Temporary replacement of mast arm mount signals with post mount signals is not permitted.
- e. The Contractor shall provide the Engineer with two (2) 24-hour telephone numbers for the maintenance of the traffic signal installation and for emergency calls by the Engineer.
- f. Traffic signal equipment which is lost, damaged, or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of the Standard Specifications and these special provisions.
- g. The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals and other equipment noted herein. The Contractor shall respond to all emergency calls from the Department or others within one (1) hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the Contractor shall replace it with new equipment meeting current District One traffic signal specifications. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional cost to the Contract. The Contractor may institute action to recover damages from a responsible third party. If at any time the Contractor fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition, or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the Department's Electrical Maintenance Contractor perform the maintenance work. The Contractor shall be responsible for all of the Department's Electrical Maintenance Contractor's costs and liquidated damages of \$1,000 per day per

occurrence. The Department's Electrical Maintenance Contractor shall bill the Contractor for the total cost of the work. The Contractor shall pay this bill within thirty (30) days of the date of receipt of the invoice or the cost of such work will be deducted from the amount due the Contractor. The Contractor shall allow the Electrical Maintenance Contractor to inspect the traffic signal installation that has been transferred to the Contractor for maintenance. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection, otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed. The Department may inspect any signalizing device on the Department's highway system at any time without notification. The Contractor shall not install padlocks on traffic signal cabinets or otherwise restrict the Department's access to the cabinet or controller.

- h. Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.
 - i. The Contractor shall be responsible to clear snow, ice, dirt, debris, vegetation, temporary fence, or other condition that obstructs visibility of any traffic signal display or access to traffic signal equipment.
 - j. The Contractor shall maintain the traffic signal in normal operation during any loss of utility or battery backup power. Temporary power to the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries. Temporary power shall not be paid for separately but shall be included in the Contract.
- (3) Basis of Payment. This work will be paid for at the Contract unit price per each for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION, TEMPORARY TRAFFIC SIGNAL INSTALLATION, TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION, or TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION. Each location will be paid for separately. Maintenance of a flashing beacon shall be paid for at the Contract unit price for MAINTENANCE OF EXISTING FLASHING BEACON INSTALLATION. Each flashing beacon will be paid for separately.

Damage to Traffic Signal System.

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

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

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

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

Replacement of any equipment for any reason shall be reported to the Area Traffic Signal Maintenance and Operations Engineer in writing within 24 hours. Permanent and

temporary replacement of the controller and/or cabinet shall require inspection and testing by the Vendor.

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

Traffic Signal Inspection (TURN-ON).

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

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

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

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

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

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

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

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

Final Project Documentation:

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

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn-on", completeness of the required documentation, and successful operation during a minimum 72 hour "burn-in" period following activation of traffic signal equipment. If approved, traffic signal acceptance shall be verbal at the final inspection followed by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until Departmental acceptance is granted.

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

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

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

Record Drawings.

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

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

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

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

Add the following to Article 801.16 of the Standard Specifications:

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

- All Mast Arm Poles and Posts
- Traffic Signal Wood Poles
- Railroad Bungalow

- UPS
- Handholes
- Controller Cabinets
- Communication Cabinets
- Electric Service Disconnect locations
- CCTV/PTZ Camera installations

Datum to be used shall be North American 1983.

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

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

Examples:

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

01/01/2024	COMC (Communication Cabinet)		41.584600	- 87.793432
01/01/2024	BBS (Battery Backup System)		41.558532	- 87.792571

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

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

Bagging Signal Heads.

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

Turn-on of New Traffic Signal Installations.

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

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

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

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



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

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



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

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

Locating Underground Facilities.

Revise Section 803 to the Standard Specifications to read:

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

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

The Contractor shall take whatever precautions to protect the electric cable or electric conductors in conduit from damage during location and construction operations. If the wiring is damaged, the Contractor shall replace the entire length of cable or conductors in

conduit, in a manner satisfactory to the Engineer. Splicing below grade will not be permitted.

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

Grounding of Traffic Signal Systems

Revise Section 806 of the Standard Specifications to read:

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

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

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

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

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

SP-27 RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM

Effective: May 22, 2002

Revised: November 1, 2023

800.03TS

Description.

This work shall consist of re-optimizing a traffic signal system according to the following Levels of work.

LEVEL I applies when improvements are made to an existing signalized intersection within an existing traffic signal system. The purpose of this work is to integrate the improvements to the subject intersection into the signal system while minimizing the impacts to the existing system operation. This type of work would be commonly associated with the addition of signal phases, pedestrian phases, or improvements that do not affect the capacity at an intersection.

LEVEL II applies when improvements are made to an existing signalized intersection within an existing traffic signal system and detailed analysis of the intersection operation is desired by the engineer, or when a new signalized or existing signalized intersection is being added to an existing system, but optimization of the entire system is not required. The purpose of this work is to optimize the subject intersection, while integrating it into the existing signal system with limited impact to the system operations. This item also includes an evaluation of the overall system operation, including the Traffic Responsive Program (TRP).

For the purposes of re-optimization work, an intersection shall include all traffic movements operated by the subject controller and cabinet.

After the signal improvements are completed, the signal shall be re-optimized as specified by an approved Consultant who has previous experience in optimizing traffic signal systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4734 for a listing of approved Consultants. Traffic signal system

optimization work, including fine-tuning adjustments of the optimized system, shall follow the requirements stated in the most recent IDOT District 1 SCAT Guidelines, except as note herein.

A listing of existing signal equipment, interconnect information, phasing data, timing patterns, and SCAT Report may be obtained from the Department, if available and as appropriate. The Consultant shall confer with the Area Traffic Signal Maintenance and Operations Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system, in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

(a) LEVEL I Re-Optimization

1. The following tasks are associated with LEVEL I Re-Optimization.
 - a. Appropriate signal timings shall be developed for the subject intersection and existing timings shall be utilized for the rest of the intersections in the system.
 - b. Proposed signal timing plan for the modified intersection(s) shall be forwarded to IDOT for review prior to implementation.
 - c. Consultant shall conduct on-site implementation of the timings at the turn-on and make fine-tuning adjustments to the timings of the subject intersection in the field to alleviate observed adverse operating conditions and to enhance operations. The consultant shall respond to IDOT comments and public complaints for a minimum period of six (6) months from date of timing plan implementation.
2. The following deliverable shall be provided for LEVEL I Re-Optimization.
 - a. Consultant shall furnish to IDOT a cover letter describing the extent of the re-optimization work performed.

(b) LEVEL II Re-Optimization

1. In addition to the requirements described in the LEVEL I Re-Optimization above, the following tasks are associated with LEVEL II Re-Optimization.
 - a. Traffic counts shall be taken at the subject intersection(s) after the traffic signals are approved for operation by the Area Traffic Signal Maintenance and Operations Engineer. Manual turning movement counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday and on a Saturday and/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, multi-unit heavy vehicles, and transit buses.

- b. The intersections shall be re-addressed and all system detectors reassigned as necessary according to the current standard practice of District One. System detector quantities and locations shall be assessed for optimal performance. The Department shall be notified of any proposed changes.
 - c. TRP operation shall be evaluated to verify proper pattern selection and lack of oscillation and a report of the operation shall be provided to IDOT.
- 2. The following deliverables shall be provided for LEVEL II Re-Optimization.
 - a. Consultant shall provide to IDOT one (1) USB flash drive for the optimized system containing the following:
 - (1) Electronic copy of the technical memorandum in PDF format
 - (2) Revised Synchro (or other appropriate, approved optimization software) files including the new signal and the rest of the signals in the system
 - (3) Traffic counts conducted at the subject intersection(s)

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

- b. The technical memorandum shall include the following elements:
 - (1) Brief description of the project
 - (2) Analysis output from Synchro (or other appropriate, approved optimization software file)
 - (3) Traffic counts conducted at the subject intersection(s)

Basis of Payment.

This work shall be paid for at the contract unit price each for RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM – LEVEL I or RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM – LEVEL II, which price shall be payment in full for performing all work described herein per intersection. Following completion of the timings and submittal of the specified deliverables, 100 percent of the bid price will be paid. Each intersection will be paid for separately.

SP-28 UNDERGROUND RACEWAYS

Effective: May 22, 2002

Revised: March 1, 2024

810.02TS

Revise Article 810.04 of the Standard Specifications to read:

“Installation. All underground conduits shall have a minimum depth of 30 in. (700 mm) below the finished grade and shall be installed to avoid existing and proposed utilities within the project limits.”

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.”

All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum of 1 ft (300 mm) 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 1/8 in. (3 mm) 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.”

SP-29 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.

SP-30 TRAFFIC SIGNAL POST

Effective: May 22, 2002

Revised: July 14, 2021

875.01TS

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

- (c) Anchor Rods. The anchor rods shall be a minimum of 5/8 in. in diameter and 16 in. long and shall be according to Article 1006.09. The anchor rods shall be threaded

approximately 6 in. at one end and have a bend at the other end. The first 12 in. at the threaded end shall be galvanized. One each galvanized nut and trapezoidal washer shall be furnished with each anchor rod. The washer shall be properly sized to fully engage and sit flush on all sides of the slot of the base plate.

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

All posts shall be steel and bases shall be cast iron. All posts and bases shall be 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.

SP-31 MODIFY EXISTING CONTROLLER CABINET

Effective: May 22, 2002

Revised: July 1, 2015

895.01TS

The work shall consist of modifying an existing controller cabinet as follows:

- (a) Uninterruptable Power Supply (UPS). The addition of uninterruptable power supply (UPS) to an existing controller cabinet could require the relocation of the existing controller cabinet items to allow for the installation of the uninterruptable power supply (UPS) components inside the existing controller cabinet as outlined under Sections 862 and 1074.04 of the Standard Specifications and the wiring of UPS alarms.
- (b) Light Emitting Diode (LED) Signal Heads, Light Emitting Diode (LED) Optically Programmed Signal Heads and Light Emitting Diode (LED) Pedestrian Signal Heads. The contractor shall verify that the existing load switches meet the requirements of Section 1074.03(b)(2) of the Standard Specifications and the recommended load requirements of the light emitting diode (LED) signal heads that are being installed at the existing traffic signal. If any of the existing load switches do not meet these requirements, they shall be replaced, as directed by the Engineer.
- (c) Light Emitting Diode (LED), Signal Head, Retrofit. The contractor shall verify that the existing load switches meet the requirements of Section 1074.03(b)(2) of the Standard Specifications and the recommended load requirements of light emitting diode (LED) traffic signal modules, pedestrian signal modules, and pedestrian countdown signal modules as specified in the plans. If any of the existing load switches do not meet these requirements, they shall be replaced, as directed by the Engineer.
- (d) This item shall include the upgrade of all non-railroad controller software to the latest version available at the time of the signal TURN-ON.

Basis of Payment.

Modifying an existing controller cabinet will be paid for at the contract unit price per each for

Modify Existing Controller Cabinet. This shall include all material and labor required to complete the work as described above, the removal and disposal of all items removed from the controller cabinet, as directed by the Engineer. The equipment for the Uninterruptable Power Supply (UPS) and labor to install it in the existing controller cabinet shall be included in the pay item Uninterruptable Power Supply, Special or Uninterruptable Power Supply, Ground Mounted.

SP-32 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

Effective: May 22, 2002

Revised: March 1, 2024

895.02TS

Add the following to Article 895.05 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 State shall be delivered by the Contractor to the State's Traffic Signal Maintenance Contractor's main facility. The Contractor shall contact the State's Electrical Maintenance Contractor to schedule an appointment to deliver the equipment. No equipment will be accepted without a prior appointment. All equipment shall be delivered within thirty (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 the State, including model and serial numbers, where applicable. The Contractor shall also provide a copy of the Contract plan or special provision 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. If equipment is not returned according to these requirements, it will be rejected by the State's Electrical Maintenance Contractor. The Contractor shall be responsible for the condition of the traffic signal equipment from the time Contractor takes maintenance of the signal installation until approval by the Department. A delivery receipt will be signed by the State's Electrical Maintenance Contractor indicating the items have been returned.

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

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

SP-33 RELOCATE EXISTING UPS

Effective: JULY 3, 2024

Description.

This work shall consist of relocating an existing UPS from one cabinet to another cabinet as specified and/or as shown on the plans. This pay item shall include all necessary work and equipment required to relocate the existing UPS including but not limited to all the necessary hardware, cables, and accessories required to complete the relocation in accordance with the manufacturer’s specifications and to the satisfaction of the Engineer.

Basis of Payment.

This work shall be paid for at the Contract unit price each for RELOCATE EXISTING UPS, the price of which shall include the cost for all of the work and material described herein and includes removing and reinstalling all cables and mounting hardware necessary for a fully operational UPS.

SP-34 SHROUD

Description. This work shall consist of furnishing and installing a shroud around an existing traffic signal pole as shown on the plans and approved IDOT. The contractor shall be responsible for measuring the existing pole and providing an appropriate sized shroud.

Basis of Payment. This work will be paid for at the contract unit price per each for **SHROUD** and shall include furnishing, installation, and any hardware for a complete installation.

SP-35 TRAFFIC CONTROL, MAINTENANCE OF TRAFFIC, DETOURS

Description: This item shall include the furnishing, installing, maintaining, relocating, and removing of all traffic control devices and personnel used for the purpose of regulating, warning, or directing traffic during the construction of this project. Placement and maintenance of all traffic control devices shall be in accordance with the applicable parts of Article 107.14 and Section 701 of the Standard Specifications and included Highway Standards. All traffic control devices used on this project shall conform to the Standard Specifications for Traffic Control Devices and the Illinois Manual on Uniform Traffic Control Devices and as indicated on the Traffic Control Plan. No waiving of these requirements will be allowed without prior written approval of the Engineer.

The Contractor shall protect all workers engaged in the project, and shall provide for safe and convenient public travel by providing adequate traffic control under all circumstances. Such circumstances may include, but not be limited to, work performed along the route under construction, road closures for construction operations of any type, or when any section of the road is opened to traffic prior to completion of all work. The Contractor shall ensure that work zone in question is properly signed, barricaded, and otherwise marked.

The Contractor will be responsible for the proper location, installation, and arrangement of all

traffic control devices during the period of construction. All open excavations shall be protected by Type I barricades equipped with working bi-directional flashing lights at each end of the excavation, as well as at 50-foot intervals between ends for excavations greater than 50 feet in length and weighted down by one sandbag per each barricade. All street closures shall be protected by Type III barricades equipped with working bi-directional flashing lights and weighted down by eight sandbags per each barricade.

The Contractor shall plan the work not to leave any open excavations during non-working hours and that all barricades not necessary have been removed from the pavement during non-working hours.

In the event that one direction of vehicular travel must be closed, the Contractor shall use certified flaggers (minimum of two) to direct traffic around the work area. The Engineer shall approve proper signing and barricading of the lane closures, and shall issue written authorization prior to closure. Presence of certified flaggers shall be required anytime the contractor's activities may impede the designated flow of traffic.

In the event that both directions of vehicular travel must be closed, the Contractor shall set up a detour route to direct traffic around the work area. The Engineer shall approve proper signing and barricading of the detour route and shall issue written authorization prior to closure. Where it is necessary to establish a temporary detour, all the requirements of the Standard Specifications and MUTCD shall be met.

The Contractor shall maintain their operations in a manner such that traffic flow shall not be substantially impeded during the construction of the proposed improvements. Where traffic must cross open trenches during a given work day, the Contractor shall provide steel plates at street intersections and driveways. Prior to the end of a given work day, the pavement surface shall be temporarily restored.

No open excavation may be left overnight or on the weekend without the express written permission of the Engineer.

As the condition and location of the work changes, the Contractor shall maintain all traffic control devices and personnel engaged in traffic control, in a manner that will accommodate the changing particulars of the work at any given time. Advance warnings, detour and directional information and other controls or directions necessary for safe passage of traffic around the work site shall be reviewed and changed, if necessary, to meet the needs of the situation. Signage erected, but not necessary or proper for the situation ahead shall be covered or taken down. Barricading and signage shall be monitored by the Contractor on a daily basis to ensure that it meets the requirements for work zone safety for the conditions of the particular work being performed.

In the event public sidewalk must be closed, the Contractor shall provide SIDEWALK CLOSED AHEAD signs adjacent to the closure and at the nearest intersections to the closure. If the closure occurs an intersection, the Contractor shall provide SIDEWALK CLOSED USE OTHER SIDE signs at the corner(s) opposite the closed sidewalk.

Access to all properties shall remain open at all times unless work is taking place in the immediate vicinity, requiring that access be restricted on a temporary basis. Full access must be

restored immediately upon the completion of any work blocking said access, and full access must be restored to all properties over weekends and legal holidays unless approved by the Engineer. Special consideration to hours and location of work near school shall be made to allow for full and safe access during normal student arrival and departure schedules. The Contractor is responsible for all traffic control and this item is incidental to the cost of the overall contract work.

The Contractor shall provide a name and phone number of a responsible party capable of providing emergency service, 24 hours per day, for the duration of the Project.

DEFICIENCY CHARGE:

The primary concern of the Village is to maintain a safe travel way for the public and a safe environment for the work in the construction zone. The Contractor is expected to comply with the Standard Specifications, contract plans, the Special Provisions, and directions from the Engineer concerning traffic control and protection. The Contractor shall provide a telephone number where a responsible individual can be contacted on a 24-hour-a-day basis to receive notification of any deficiencies regarding traffic control and protection. The Contractor shall immediately respond correcting traffic control deficiencies by dispatching workers, materials, and equipment to correct such deficiencies.

Failure to comply with the Contract or as directed by the Engineer as it relates to corrections or modifications to the traffic control and protection will result in a deduction of either \$1,000 or 0.05 percent of the awarded contract value, whichever is greater, in accordance with Article 105.03. This charge is separate from the cost of any corrective work ordered. The Contractor shall not be relieved of any contractual responsibilities by the Village's actions.

Basis of Payment: This work shall be paid for at the contract **Lump Sum** price for: **TRAFFIC CONTROL, MAINTENANCE OF TRAFFIC, DETOURS**, which price shall be payment in full for the installation and maintenance of proper traffic control to protect the work and public for the duration of the Project.

SP-36 CLASS D PATCH, 6", SPECIAL

Description: This work shall consist of pavement patching by methods and with materials in accordance with Sec. 442 of the Standard Specifications, except as amended herein.

The Contractor shall not use equipment of excessive size or weight that causes damage to existing pavement or appurtenances. Any damage done to the existing pavement or appurtenances that are to remain in place shall be repaired or removed and replaced by the Contractor at their own expense, as directed by the Engineer.

Pavement patching shall include the saw cutting of existing pavement, transportation and disposal of all pavement, sub-base, and subgrade materials to depth not less than six inches (6") in accordance with Sections 202, 205, and 440 of the Standard Specifications where marked in the field by the Engineer. Pavement patches shall vary in area but minimum width shall be measured at four feet (4').

Where applicable the existing subbase shall be leveled and compacted. Where remaining base is

existing HMA, PCC, or brick, the bottom of each prepared hole shall be free of all loose material and a bituminous prime shall be applied to the bottom prior to replacement of HMA patches.

The hot-mix asphalt material shall conform to the requirements for Hot-Mix Asphalt Binder Course, IL-19.0, N50.

Paragraph 5 of Article 442.11 of the SSRBC is deleted and is replaced by: No additional compensation will be made for repairing subbase damage or for material adhering to removed pavement.

Method of Measurement: Pavement removal and replacement shall be measured for payment in place and the area computed in square yards. Patches shall be classified as CL D, 6”.

Basis of Payment: This work will be paid for at the contract unit price per **SQUARE YARD** for **CLASS D PATCH, 6” SPECIAL**, which price shall be payment in full for the work as specified herein.

SP-37 COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT

Description (removal): This work shall consist of the removal of existing P.C.C. Curb and Gutter of the type and size at the locations noted in Schedule of Quantities. This work shall be performed in accordance with Section 440 of the Standard Specifications, except as amended herein.

At those locations where curb removal operations fall within the Critical Root Zone (CRZ) the Contractor will be required to trench with a "chain" driven trencher immediately back of curb prior to curb removal. This procedure will proceed uninterrupted through the CRZ and insure general tree root pruning. The width of the CRZ shall be determined as noted in the general provision for TREE PROTECTION elsewhere in these documents. If it is determined that proposed removal methods do not cause undo harm to adjacent roots, the Village Forester may waive the need to perform trenching.

During removal operations Contractor shall take special care not to damage or extend sawed joint into adjacent appurtenances such as driveways and sidewalks which are to remain in place. During machine sawing operations Contractor shall also take special care to remove, clean, or otherwise account for any residue / slurry produced by the sawing so material will not be tracked by either vehicular or foot traffic onto adjacent appurtenances which are to remain in place.

Description (placement): This work shall consist of the placement of P.C.C. Curb or Curb and Gutter, of the type, size and location shown on the plans. All P.C.C. Curb and Gutter shall be placed by methods and materials as specified in Articles 606 and 1020 of the SSRBC, except as amended herein.

Placement of P.C.C. Combination Curb and Gutter shall include the following:

- a) The use of Class SI Portland cement concrete, 6.05 cwt/cy mix, with 6% air entrainment, 3" slump;
- b) The placement of four inches (4") min. Type B, CA-6 compacted aggregate base;
- c) The saw cutting of 2 inch deep joints at not more than 15-foot intervals, within 24 hours after being placed;
- d) The placement of 2 dowel bars into the gutter portion of existing concrete curb, and at

- e) expansion joints, in accordance with the detail shown on the plans;
- e) The placement of 3/4 inch pre-molded expansion joint filler perpendicular to the centerline of the roadway for the full depth of the curb and gutter, where abutting existing concrete curb and gutter, at 10 feet either side of a utility structure, at construction joints at the ends of pours, at not more than 90 foot intervals;
- f) The proper curing of all concrete work utilizing the methods and materials outlined in Articles 424 and 1022.01 of the SSRBC (Type 2 membrane curing with red dye is preferred);
- g) The backfilling of all curb work with materials approved by the Engineer.

At locations shown on the plans or where directed by the Engineer the contractor will use High-early strength concrete. The desired concrete mix shall have a minimum compressive strength of 3,000 psi at 24 hours. Mix design shall be submitted to the Engineer for review and approval.

All voids existing between newly placed P.C.C Gutter and the adjacent roadway pavement shall be filled with Class SI concrete, prior to bituminous surface placement, to a point 1-1/2 inches below finish grade. This work shall be considered incidental.

If placement of P.C.C. gutter takes place prior to April 15, or after October 15, the gutter shall be properly cured and that followed by the application of protective coat in accordance with Article 420.18 of the Standard Specifications.

Basis of Payment: This work will be paid for at the contract unit price per **FOOT** for:

**COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND
REPLACEMENT (TYPE),**

which price shall be payment in full for the work as specified herein.

SP-38 PORTLAND CEMENT CONCRETE SIDEWALK, 5-6 INCH.

Description: This work shall consist of installation of P.C.C. sidewalk as indicated by location or shown on the plans. All P.C.C. sidewalks shall be installed by methods and with materials in accordance with Articles 424 and 1020.04 of the SSRBC, except as amended herein.

Removal of existing sidewalk shall include saw cutting and disposal of existing concrete as directed by the Engineer, removal of tree roots, bituminous paved sidewalks and/or bituminous overlayment of existing sidewalks and shall be paid for separately in accordance with the specification for SIDEWALK REMOVAL.

All work related to removal and replacement of sidewalk shall be performed in such a way as to not disturb pavement, curb and gutter, stone shoulder, turf or any other existing feature in the Village's right-of-way, with the exception of turf immediately adjacent to the sidewalk being removed and replaced or other features explicitly marked for disturbance by the Engineer. The Contractor shall be paid for restoring disturbed turf directly adjacent to sidewalk being removed and replaced or any other feature explicitly marked for disturbance by the Engineer under the stipulations of the Contract. All other features shall be restored by the Contractor per Village Standards at no cost to the Village.

The following items shall be included in the pay item PORTLAND CEMENT CONCRETE SIDEWALK REMOVE AND REPLACE and shall not be paid for separately:

- a. Saw cutting, removal and disposal of existing sidewalk as directed by the Engineer;
- b. Saw cutting and removal of existing tree roots 1"-diameter and less as directed by the

- Engineer;
- c. Furnishing, placement and compaction of varying thicknesses (typically 1" to 3") of Subbase Granular material, Type B, CA 6 with the methods and with materials in accordance with Section 311 and of Article 1004.04 of the SSRBC for the purpose of leveling-off the sub-base to place uniform thickness of sidewalk; use of recycled materials shall not be allowed unless with a prior written permission by the Engineer;
 - d. The set up of form work such that the maximum running slope of the finished walk does not exceed 5 percent (1:20) or not to exceed the general grade established for the roadway, and the cross slope is not more than 2 percent (1:50) where feasible and as directed by the Engineer;
 - e. The placement of five inch (5") thick, Class SI Portland Cement Concrete, 5.65 cwt/cy mix, with 5-8% air entrainment, 2"-4" slump, and six inch (6") thickness through or in residential driveways or where subject to vehicular traffic, to the width specified on the plans or as directed by the Engineer;
 - f. The tooling of contraction joints, 1/2-inch radius and 1 inch deep, 5 feet on center;
 - g. The placement of 1/2 inch thick premoulded expansion joints at 50 foot intervals on center, or abutting existing concrete sidewalk, or at the end of a pour or as directed by the Engineer;
 - h. The installation per Village Standards of all traffic control devices removed by the Contractor;
 - i. The proper curing of all concrete work utilizing methods and materials outlined in Articles 424 and 1022.01 of the SSRBC, (Type III membrane curing compound white pigmented), WORK THAT IS NOT PROPERLY CURED WILL NOT BE ACCEPTED OR PAID FOR;
 - j. Installation of ADA compliant ramps for curbed and non-curbed streets.

In order to limit driveway closure to 72 hours, at locations shown on the plans or where directed by the Engineer the contractor will use High-early strength concrete. The desired concrete mix shall have a minimum compressive strength of 3,000 psi at 24 hours. Mix design shall be submitted to the Engineer for review and approval.

NOTE: Placement of concrete shall not be allowed prior to the Engineer inspecting the base material. PCC sidewalk installed without prior inspection and approval of the base material will not be accepted for payment. The Contractor shall at the direction of the Engineer remove and replace the section (s) of sidewalk in question at no cost to the Village.

Basis for Payment: This work shall be paid for at the contract unit price per SQUARE FOOT for:

P.C.C. SIDEWALK, 5"-6"

which price shall be payment in full for the work as specified herein.

SP-39 PED SAFETY



PedSafety

Independent 4-Wire Accessible Pedestrian Signal for RRFBs Specification

Guardian RRFB 5.0 (PN 501-0811R)

Guardian Wave RRFB 5.0 (PN 501-0821R)

Bluetooth Optional Add-on (PN 501-0650)

1. **System Operational Requirements:**

- I. Shall meet the intent and functionality identified and defined in Manual on Uniform Traffic Control Devices 11th Edition Section 4L. RECTANGULAR RAPID FLASHING BEACONS Federal Highway Administration 2023
https://mutcd.fhwa.dot.gov/pdfs/11th_Edition/part4.pdf
- II. Shall meet The United States Access Board's "Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way" Chapter R3: Technical Requirements Sub section: R307 Dated: September 7, 2023
<https://www.federalregister.gov/documents/2023/08/08/2023-16149/accessibility-guidelines-for-pedestrian-facilities-in-the-public-right-of-way>
- III. Shall have non-contact and / or typical actuation.
- IV. Shall have non-contact actuation with no exclusivity or proprietary apps.
- V. Shall have confirmation indications at momentary (< 1 second) button activation (Press) via non-latching LED.
- VI. Shall provide a programmable verbal information message.
- VII. Shall provide a locator tone of duration 0.15 seconds or less with a configurable repetition rate defaulting to 1 second.
- VIII. All sounds shall automatically adjust to ambient noise levels over a 60 dB range. Shall have a maximum volume of 100 dBA.
- IX. Shall support a variety of voice messages, languages, tones, and sounds; downloadable from an indications database, via Bluetooth® or USB interface.
- X. Shall have min and max volume levels independently set for locator and non-locator indications.
- XI. Shall provide synchronized outputs of multiple pedestrian stations.
- XII. Shall account for day light saving time.
- XIII. Shall have time of day, day of week calendaring functionality providing different operating characteristics for identified time of day, and day of week.
- XIV. Shall have utility for collection / download of pedestrian data.
- XV. Shall not require update to firmware prior to installation.



PedSafety

2. Mechanical Requirements of the Push Button Station:

- I. Shall meet The United States Access Board's
"Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way"
Chapter R3: Technical Requirements
Sub section: R307
Dated: September 7, 2023
<https://www.federalregister.gov/documents/2023/08/08/2023-16149/accessibility-guidelines-for-pedestrian-facilities-in-the-public-right-of-way>
- II. Shall be constructed of aluminum and rugged amorphous and semicrystalline thermoplastics.
- III. All mounting hardware must be stainless steel.
- IV. Shall have Quiet Signal Technology (QST) forward facing speaker system.
- V. Shall have a raised tactile arrow on the push button.
- VI. Shall have non-contact actuation sensors near push button.
- VII. Shall have a solid-state switch rated at > 100 X 10⁶ operations.
- VIII. Shall have a #8 Barrier Terminal connection on station allowing pedestrian station to connect to existing wiring.
- IX. Shall have a cover plate for the Barrier Terminal connections bay.
- X. Shall provide service access from the front of the station allowing connections to be made when station is mounted.
- XI. Shall be capable of displaying a 5 X 7 ¾" sign directly affixed to the station.
- XII. Shall be capable of displaying a 5 X 9", 9 X 12", 9 X 15", and 9 X 18" sign with the use of an adapter plate.
- XIII. Base Station shall conform to all sized poles without requiring removable mounting buttons, while providing arrow directionality.
- XIV. Shall have the ability to be programmed while only connected to USB as a power source.
- XV. Shall have the ability to program using USB for secure connection on Android smart devices.
- XVI. Shall have a universal mounting, fits all manufacturer's mounting hole dimensions.
- XVII. Shall not require any disassembly of base station for mounting.

3. Non-Contact Actuation (Wave Sensor) for the Push Button:

- I. Shall have active Infrared detection.
- II. Sensor shall detect in all light conditions: day or night.
- III. Sensor shall not place false calls in extreme weather conditions.
- IV. Sensor shall not change sensitivity in operational temperatures.
- V. Sensor shall operate across full NEMA TS2 temperature range of -34 to +74°C
- VI. Shall detect non-contact actuation at 1-6" distance from sensor.
- VII. Shall detect non-contact extended actuation without requiring continuous hand motion.
- VIII. Shall be adjustable in distance and sensitivity from 1-3", 1-6", 1-9" increments.
- IX. Shall not require sensor configuration as part of standard installation procedure.
- X. Shall detect all skin pigments and hand size.
- XI. Shall detect all materials and surfaces.
- XII. Shall be able to turn off non-contact actuation.



PedSafety

4. Environmental Requirements for the Push Button Station:

- I. Shall be fully operational between -34°C to +74°C.
- II. Shall have a weatherproof speaker.
- III. Shall have a NEMA 250 Type 4X rated enclosure.
- IV. PCBA shall be encapsulated in a UL94 V-0 rated polyurethane.

5. Programming and Configuration:

- I. The Accessible Pedestrian Signal will be configured at the factory for true "Plug and Play" operations.
- II. Shall have firmware capable of creating reusable templates, flashing software, uploading audio files, and configuring stations.
- III. Shall have optional Bluetooth® capability to allow full configuration and file transfer via Bluetooth, iOS and Android.
- IV. Shall have Bluetooth mobile capable of creating reusable templates, flashing software, uploading audio files, and configuring stations.
- V. Shall have the ability to change passwords for each station.
- VI. Configuration utility shall provide full screen display with integrated hover help menus.
- VII. The Accessible Pedestrian Signal will be field upgradeable via USB or Bluetooth® connection with free publicly available firmware operating on Windows 8 and newer revisions.
- VIII. The Accessible Pedestrian Signal will allow any audible indication in a .wav and .opus mono format to be uploaded via USB or Bluetooth connection with free publicly available software operating on Windows 8 and newer revisions.

6. Testing Conformance

Test Type	Compliance
Functionality	MUTCD 2009 - 4 E
Temperature and Humidity	NEMA TS2
Transient Suppression	NEMA TS2
Transient Voltage Protection	IEC 61000-4-4, IEC 61000-4-5
Electronic Noise	FCC Title 47, Part 15 Class A & B
Mechanical Shock and Vibration	NEMA TS2
Guardian PBS enclosure	NEMA 250 – Type 4X
Electrical Reliability	NEMA TS2
Bluetooth® Specifications	Bluetooth® SIG Member



PedSafety

7. Electrical Parameters

Parameter	Value
Average Idle Current – 65 vol with locator	16.1 mA
Battery charge consumption per activation – 100 vol	0.04 mA * Hr
Typical Input Voltage	12 VDC

8. Warranty:

- I. APS devices must have a limited 3-year warranty.

Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

Bid Bond

CONTRACTOR:

(Name, legal status and address)

Acura, Inc.
556 County Line Road
Bensenville, IL 60106

SURETY:

(Name, legal status and principal place of business)

Liberty Mutual Insurance Company
175 Berkeley Street
Boston, MA 02116

Mailing Address for Notices

1411 Opus Place, Suite 450
Downers Grove, Illinois 60515

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:

(Name, legal status and address)

Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515

BOND AMOUNT: \$ 5% Five Percent of Amount Bid

PROJECT:

(Name, location or address, and Project number, if any)

Traffic Signal Modernization

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 16th day of July, 2025

Francesca Afman

(Witness)

Acura, Inc.

(Principal)

(Seal)

By:

(Title) PROJECT MANAGER

Liberty Mutual Insurance Company

(Surety)

(Seal)

By:

(Title) James I. Moore Attorney-in-Fact

Alexa K. Costello

(Witness) Alexa Costello





POWER OF ATTORNEY

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint James I. Moore all of the city of Downers Grove, state of IL its true and lawful attorney-in-fact, with full power and authority hereby conferred to sign, execute and acknowledge the following surety bonds, undertakings, recognizances, contracts of indemnity, and all other surety obligations related thereto, the execution of which shall be binding upon the Companies as if it had been duly signed and executed by its own officers:

Principal Name: Acura, Inc.
Obligee Name: Village of Downers Grove
Surety Bond Number: Bid Bond

Bond Amount: See Bond Form

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 16th day of July, 2025.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: Nathan J. Zangerle
Nathan J. Zangerle, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 16th day of July, 2025, before me personally appeared Nathan J. Zangerle, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2029
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Nathan J. Zangerle, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, of Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company do hereby certify that this power of attorney executed by said Companies is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 16th day of July, 2025.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

State of Illinois

County of DuPage

SURETY ACKNOWLEDGEMENT (ATTORNEY-IN-FACT)

I, Diane M. Rubright **Notary Public of** DuPage **County, in the State of** Illinois ,

do hereby certify that James I. Moore **Attorney-in-Fact, of the** Liberty Mutual Insurance

Company **who is personally known to me to be the same person whose**

name is subscribed to the foregoing instrument, appeared before me this day in person, and

acknowledged that he signed, sealed and delivered said instrument, for and on behalf of the

Liberty Mutual Insurance Company **for the uses and purposes therein set forth.**

Given under my hand and notarial seal at my office in the City of DuPage **in**

said County, this 16th **day of** July , 2025 .

Diane M. Rubright

Notary Public Diane M. Rubright

My Commission expires: March 23, 2027



SCHEDULE OF PRICES:

CODE NUMBER	ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT COST	TOTAL COST
20200100	EARTH EXCAVATION	CU YD	143	\$80.00	\$11,440.00
25200200	SUPPLEMENTAL WATERING	UNIT	4	\$100.00	\$400.00
44000600	SIDEWALK REMOVAL	SQ FT	1776	\$5.00	\$8,880.00
67100100	MOBILIZATION	L SUM	1	\$23,000.00	\$23,000.00
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	670	\$17.00	\$11,390.00
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	35	\$45.00	\$1,575.00
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	220	\$25.00	\$5,500.00
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	31	\$76.00	\$2,356.00
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	105	\$150.00	\$15,750.00
81400100	HANDHOLE	EACH	1	\$4,500.00	\$4,500.00
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	4	\$7,000.00	\$28,000.00
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1245	\$5.80	\$7,221.00
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	785	\$6.20	\$4,867.00
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	620	\$7.70	\$4,774.00
87900200	DRILL EXISTING HANDHOLE	EACH	4	\$1,050.00	\$4,200.00
88102717	PEDESTRIAN SIGNAL HEAD, L.E.D., 1 FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4	\$1,000.00	\$4,000.00
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1	\$300.00	\$300.00
89502300	REMOVE ELECTRICAL CABLE FROM CONDUIT	FOOT	311	\$5.00	\$1,555.00
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	4	\$2,000.00	\$8,000.00
X0323677	STREET SWEEPING	HOURL	5	\$500.00	\$2,500.00
X1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	2	\$1,350.00	\$2,700.00
X1400378	PEDESTRIAN SIGNAL POST, 5 FT.	EACH	2	\$1,200.00	\$2,400.00
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	\$35,000.00	\$35,000.00
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	22	\$2,300.00	\$50,600.00
X8780012	CONCRETE FOUNDATION, TYPE A, 12- INCH DIAMETER	FOOT	16	\$400.00	\$6,400.00
X8891009	VIDEO VEHICLE DETECTION SYSTEM, SINGLE APPROACH	EACH	2	\$12,000.00	\$24,000.00
Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1	\$3,000.00	\$3,000.00
SP-4	PRECONSTRUCTION VIDEOTAPING	L SUM	1	\$5,000.00	\$5,000.00
SP-5	CONSTRUCTION STAKING	L SUM	1	\$9,000.00	\$9,000.00

CODE NUMBER	ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT COST	TOTAL COST
SP-7	ADDITIONAL HAULING SURCHARGE, NON- HAZARDOUS SPECIAL WASTE	LOAD	10	\$1,500.00	\$15,000.00
SP-9	PARKWAY RESTORATION, SPECIAL	SQ YD	157	\$40.00	\$6,280.00
SP-11	EXPLORATORY TRENCH, SPECIAL	CU YD	50	\$100.00	\$5,000.00
SP-16	DETECTABLE WARNINGS	SQ FT	165	\$50.00	\$8,250.00
SP-17	TREE ROOT PRUNING	EACH	20	\$250.00	\$5,000.00
SP-33	RELOCATE EXISTING UPS	EACH	1	\$3,000.00	\$3,000.00
SP-34	SHROUD	EACH	1	\$1,250.00	\$1,250.00
SP-35	TRAFFIC CONTROL, MAINTENANCE OF TRAFFIC, DETOURS	L SUM	1	\$15,000.00	\$15,000.00
SP-36	CLASS D PATCH, 6" SPECIAL	SQ YD	11	\$250.00	\$2,750.00
SP-37	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (TYPE)	FOOT	100	\$100.00	\$10,000.00
SP-38	P.C.C. SIDEWALK (DEPTH SPECIFIED)	SQ FT	1776	\$16.00	\$28,416.00

Total Base Bid:

\$388,254.00

*****THIS BID WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.**

BIDDER:

Date _____

E-mail Address

Contact Name (Print)

24-Hour Telephone

Signature of Officer, Partner or Sole Proprietor

Print Name & Title

Signature of Corporation Secretary

We hereby agree to furnish the Village of Downers Grove all necessary materials, equipment, labor, etc. to complete the project within the timeframe specified herein and in accordance with the provisions, instructions and specifications for the unit prices shown on the Schedule of Prices.

ATTEST:

Village Clerk

Date _____

In compliance with the specifications, the above-signed offers and agrees, if this Bid is accepted within **90** calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

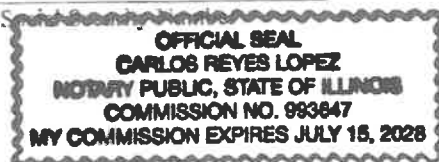
BIDDER'S CERTIFICATION (page 2 of 3)

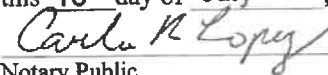
BY: 
 Bidder's Authorized Agent Signature

3	6	-	3	9	1	6	3	0	1
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FEDERAL TAXPAYER IDENTIFICATION NUMBER

or



Subscribed and sworn to before me
 this 16 day of July, 2025

 Notary Public

(Fill Out Applicable Paragraph Below)

(a) Corporation

The Bidder is a corporation organized and existing under the laws of the State of Illinois, which operates under the Legal name of Acura Inc., and the full names of its Officers are as follows:

President: Domenico DiGioia

Secretary: Domenico DiGioia

Treasurer: _____

and it does have a corporate seal. (In the event that this bid is executed by other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation which permits the person to execute the offer for the corporation.)

(b) Limited Liability Company (LLC)

The Bidder is a LLC organized and existing under the laws of the State of _____, which operates under the legal name of _____, and the full names of its managers or members are as follows:

Manager or Member: _____

Manager or Member: _____

Manager or Member: _____

Manager or Member: _____

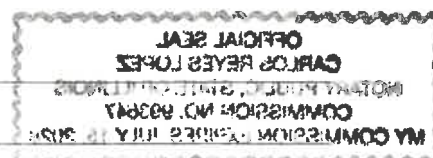
BIDDER'S CERTIFICATION (page 3 of 3)

(c) Partnership

The partnership does business under the legal name of: _____,

which name is registered with the office of _____ in the State of _____.

Names and Addresses of All Partners:



(d) Sole Proprietor

The Bidder is a Sole Proprietor whose full name is: _____; and if operating under a trade name, said trade name is: _____, which name is registered with the office of _____ in the State of _____.

6. Are you willing to comply with the Village's insurance requirements within 10 days of the award of the contract? ☒ YES ☐ NO (circle one)

INSURER'S NAME: Acura Inc.

AGENT: Southpoint Insurance

Street Address: 15341 S. 94th Ave.

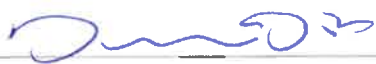
City, State, Zip Code: Orland Park, IL. 60462

Telephone Number: 773-251-3448

I/We hereby affirm that the above certifications are true and accurate and that I/we have read and understand them.

Print Name of Company: Acura Inc.

Print Name and Title of Authorizing Signature: Domenico DiGioia - President

Signature: 

Date: 7/31/2025

MUNICIPAL REFERENCE LIST

Municipality: Village of Schaumburg
 Address: 714 S Plum Grove Road, Schaumburg, IL. 60193
 Contact Name: Joe Velna Phone #: 847-923-6650
 Name of Project: Mid Block Pedestrian Crossing
 Contract Value: \$150,000.00 Date of Completion: 2024

Municipality: City of Oakbrook Terrace
 Address: 17W275 Butterfield Road, Oakbrook Terrace, IL. 60181
 Contact Name: Craig Ward Phone #: 630-941-1651
 Name of Project: 2024 Curb Replacement Program
 Contract Value: \$235,000.00 Date of Completion: 2025

Municipality: Village of Niles
 Address: 1000 Civic Center Drive, Niles, IL. 60714
 Contact Name: Ogar Somo Phone #: 847-588-8011
 Name of Project: Milwaukee Green Alley
 Contract Value: \$225,000.00 Date of Completion: 2024

Municipality: Village of Westchester
 Address: 10300 W. Roosevelt Road, Westchester, IL. 60154
 Contact Name: Robert Mitchard Phone #: 847-344-8019
 Name of Project: 2024 Alley Reconstruction
 Contract Value: \$1,700,000.00 Date of Completion: 2024

Municipality: _____
 Address: _____
 Contact Name: _____ Phone #: _____
 Name of Project: _____
 Contract Value: _____ Date of Completion: _____

SUBCONTRACTORS LIST

The Bidder hereby states the following items of work will not be performed by its organization. (List items to be subcontracted as well as the names, addresses and phone numbers of the subcontractors.)

1) Integral Power Atlantic Type of Work Electric

Addr: 2658 Corporate Parkway City Algonquin State IL Zip 60102

2) TBD Type of Work Pavement Marking

Addr: _____ City _____ State _____ Zip _____

3) _____ Type of Work _____

Addr: _____ City _____ State _____ Zip _____

4) _____ Type of Work _____

Addr: _____ City _____ State _____ Zip _____

5) _____ Type of Work _____

Addr: _____ City _____ State _____ Zip _____

6) _____ Type of Work _____

Addr: _____ City _____ State _____ Zip _____

7) _____ Type of Work _____

Addr: _____ City _____ State _____ Zip _____

8) _____ Type of Work _____

Addr: _____ City _____ State _____ Zip _____

CERTIFICATION OF QUALIFICATIONS

Project Team

Project Manager: Nico DiGioia

Superintendent: Nico DiGioia

Team Member: Imtiaz Ahmed

Team Member: Carlos Lopez

Team Member: Arshad Shareef

Team Member: Dhrumil Padia

Team Member: Juan Galvan

Team Member: _____



By checking this box, the bidder hereby certifies that it complies with all requirements of SP-3 including at least three (3) contracts of similar nature and scope within the last five (5) years, and can provide detailed supporting information upon request.

by: _____ (Corporate Seal) Signed

Title: President

Name & Address: 556 County Line Road, Suite B., Bensenville, IL. 60106

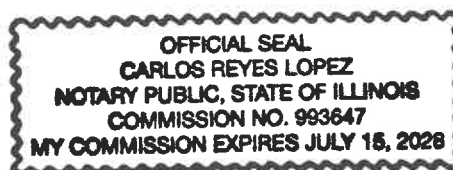
of Contractor Acura Inc.

or Vendor _____

Subscribed and sworn to before
me this 16 day of July, 2022

Carlos Lopez

Notary Public





VENDOR W-9 REQUEST FORM

The law requires that we maintain accurate taxpayer identification numbers for all individuals and partnerships to whom we make payments, because we are required to report to the I.R.S. all payments of \$600 or more annually. We also follow the I.R.S. recommendation that this information be maintained for all payees including corporations.

Please complete the following substitute W-9 letter to assist us in meeting our I.R.S. reporting requirements. The information below will be used to determine whether we are required to send you a Form 1099. Please respond as soon as possible, as failure to do so will delay our payments.

BUSINESS (PLEASE PRINT OR TYPE):

NAME: Acura Inc.

ADDRESS: 556 County Line Road, Suite B.

CITY: Bensenville

STATE: Illinois

ZIP: 60106

PHONE: 630-766-9979 FAX: 630-766-6826

TAX ID #(TIN): 36-3916301

(If you are supplying a social security number, please give your full name)

REMIT TO ADDRESS (IF DIFFERENT FROM ABOVE):

NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____ ZIP: _____

TYPE OF ENTITY (CIRCLE ONE):

Individual	Limited Liability Company – Member-Managed
Sole Proprietor	Limited Liability Company- Manager-Managed
Partnership	Medical
Charitable/Nonprofit	<u>Corporation</u>

SIGNATURE: _____

DATE: 7/16/2025

Apprenticeship and Training Certification

Bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The Bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this Contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Village of Downers Grove, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The Bidder shall list in the space below, the official name of the 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 forces. Types of work or craft work 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 that does not have an applicable apprenticeship or training program. **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 listed below. Return this with the Bid. This Certification will be used to determine the lowest responsible bidder in accordance with the Village Council Policy regarding Purchasing Procedures.**

Laborers Union Cement Masons Union Operators Union

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. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this Contract.

<i>Certificate of Compliance</i> The bidder hereby certifies that it and its subcontractors participate in an applicable apprenticeship program.	
Signature	
Company Name	Acura Inc.
Title	President
Date	7/16/2025

<i>Certificate of Non-Compliance</i> The bidder hereby certifies that it or its subcontractors do not participate in an applicable apprenticeship program.	
Signature	_____
Company Name	_____
Title	_____
Date	_____

BUY AMERICA CERTIFICATION

Certification requirement for procurement of steel, iron, or manufactured products when Federal funds (Grant Agreement or Cooperative Agreement) are used.

Instructions:

Bidder to complete the Buy America Certification listed below. Bidder shall certify EITHER COMPLIANCE OR NON-COMPLIANCE (not both). This Certification MUST BE submitted with the Bidder's bid response.

Special Note: Make sure you have signed only one of the above statements – either Compliance OR Non-Compliance (not both).

Certificate of Compliance

The bidder or offeror hereby certifies that it **will meet** the requirements of 49 U.S.C. 5323(j)(1), as amended, and the applicable regulations in 49 CFR Part 661.

Signature 

Company Name Acura Inc.

Title President

Date 7/16/2025

Certificate of Non-Compliance

The bidder or offeror hereby certifies that it **cannot comply** with the requirements of 49 U.S.C. 5323(j)(1), as amended, and 49 C.F.R. 661, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Signature _____

Company Name _____

Title _____

Date _____

AFTER THIS CERTIFICATE HAS BEEN EXECUTED, A BIDDER MAY NOT SEEK A WAIVER.

Note: The U.S/Canadian Free Trade Agreement does not supersede the Buy America requirement.

Suspension or Debarment Certificate

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of \$100,000.00. Contractors receiving individual awards for \$100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the Bidder certifies to the best of its knowledge and belief, that the company and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal, state or local governmental entity, department or agency;
2. Have not within a three-year period preceding this Bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction, or convicted of or had a civil judgment against them for a violation of Federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
4. Have not within a three-year period preceding this application/proposal/contract had one or more public transactions (Federal, State or local) terminated for cause or default.

If the Bidder is unable to certify to any of the statements in this certification, Bidder shall attach an explanation to this certification.

Company Name: Acura Inc.

Address: 556 County Line Road, Suite B.

City: Bensenville Zip Code: 60106

Telephone: (630) 766-9979 Fax Number: (630) 766-6826

E-mail Address: nico@acurainc.com

Authorized Company Signature: 

Print Signature Name: Domenico DiGioia Title of Official: President

Date: 7/16/2025

CAMPAIGN DISCLOSURE CERTIFICATE

Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate.

The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

Under penalty of perjury, I declare:

☒ Bidder/vendor has not contributed to any elected Village position within the last five (5) years.


Signature

Domenico DiGioia - President
Print Name

☐ Bidder/vendor has contributed a campaign contribution to a current member of the Village Council within the last five (5) years.

Print the following information:

Name of Contributor: _____
(company or individual)

To whom contribution was made: _____

Year contribution made: _____ Amount: \$ _____

Signature

Print Name

BID SUBMITTAL CHECKLIST

Each Bidder's Bid Package must be submitted with all requisite forms properly completed, and all documentation included. The following list is not all-inclusive, but is designed to facilitate a good, competitive bidding environment.

1. ☒ Instructions to Bidders read and understood. Any questions must be asked according to the instructions.
2. ☒ Cover sheet filled-in
3. ☒ Bid Form copies filled-in. All copies must have original signatures and seals on them.
4. ☒ Bid Bond or cashier's check enclosed with bid package.
5. ☒ Schedule of Prices completed. Check your math!
6. ☒ Bidder Certifications signed and sealed.
7. ☒ Letter from Surety ensuring issuance of Performance and Labor Bonds.
8. ☒ Letter from Insurance Agent or Carrier ensuring issuance of required job coverage.
9. ☒ Municipal Reference List completed.
10. ☒ Vendor request form W-9 completed.
11. ☒ Affidavit (IDOT Form BC-57, or similar).
12. ☒ Bid package properly sealed and labeled before delivery. If sending by mail or messenger, enclose in a second outer envelope or container. Project plan sheets do not have to be included with the bid package.



Illinois Department of Transportation

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

Affidavit of Availability For the Letting of 7/15/2025 (Letting date)

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	PENDING	
Contract Number	62P92	62P94	I-20-4533	2411-10160	25 Green Alleys	
Contract With	IDOT	IDOT	Judlau	Builders	Blue Island	
Estimated Completion Date	50 WD	60 WD	12/2027	11/2025	35 WD	
Total Contract Price	1,217,180.80	979,267.34	10,695,433.85	5,363,915.88	749,860.00	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	0.00	0.00			749,860.00	749,860.00
Uncompleted Dollar Value if Firm is the Subcontractor			3,714,238.54	2,558,001.88		6,272,240.42
						7,022,100.42

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**.

						Accumulated Totals
Earthwork						0.00
Portland Cement Concrete Paving			1,678,685.93			1,678,685.93
HMA Plant Mix						0.00
HMA Paving						0.00
Clean & Seal Cracks/Joints						0.00
Aggregate Bases & Surfaces						0.00
Highway, R.R. and Waterway Structures			2,035,552.61			2,035,552.61
Drainage						0.00
Electrical						0.00
Cover and Seal Coats						0.00
Concrete Construction				2,558,001.88		2,558,001.88
Landscaping						0.00
Fencing						0.00
Guardrail						0.00
Painting						0.00
Signing						0.00
Temp Barrier Wall						0.00
Demolition						0.00
Pavement Markings (Paint)						0.00
Traffic Control						0.00
Mobilization						0.00
Layout						0.00
Totals	0.00	0.00	3,714,238.54	2,558,001.88	0.00	6,272,240.42

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.



Illinois Department of Transportation

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

Affidavit of Availability For the Letting of 7/15/2025

(Letting date)

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**.

	6	7	8	9	PENDING	
Contract Number	62P98	RR-24-4976	61D77	2115-10272R	PA067	
Contract With	IDOT	K5	IDOT	FHP	IDOT	
Estimated Completion Date	70 WD	5/1/2026	6/1/2025	12/1/2025	36 C.D.	
Total Contract Price	2,023,130.30	932,980.00	4,550,910.49	6,961,354.18	2,563,713.00	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	0.00		0.00		2,563,713.00	3,313,573.00
Uncompleted Dollar Value if Firm is the Subcontractor		532,461.51		6,124,280.48		12,928,982.41
						16,242,555.41

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**.

						Accumulated Totals
Earthwork				1,477,101.64	599,400.00	2,076,501.64
Portland Cement Concrete Paving				2,335,523.00	256,750.00	4,270,958.93
Rebar						0.00
HMA Paving					226,250.00	226,250.00
Clean & Seal Cracks/Joints						0.00
Aggregate Bases & Surfaces				765,343.86	153,000.00	918,343.86
Highway,R.R. and Waterway Structures						2,035,552.61
Drainage					213,617.00	213,617.00
Electrical					627,650.00	627,650.00
Cover and Seal Coats						0.00
Concrete Construction		532,461.51		1,546,311.98		4,636,775.37
Landscaping					36,390.00	36,390.00
Fencing						0.00
Guardrail						0.00
Painting						0.00
Signing						0.00
Temp Barrier Wall						0.00
Demolition						0.00
Pavement Markings (Paint)					34,656.00	34,656.00
Traffic Control					160,000.00	160,000.00
Mobilization					256,000.00	256,000.00
Layout						0.00
Totals	0.00	532,461.51	0.00	6,124,280.48	2,563,713.00	15,492,695.41

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.



Illinois Department of Transportation

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

Affidavit of Availability For the Letting of

8/27/2024

(Letting date)

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**.

	11	12	13		
Contract Number	E-5-498		2411-04112		
Contract With	FHP		CCDOH		
Estimated Completion Date	450 CD		10/14/2025		
Total Contract Price	1,811,375.82		13,486,288.75		Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor			3,944,111.74		7,257,684.74
Uncompleted Dollar Value if Firm is the Subcontractor	1,229,239.13				14,158,221.54
Total Value of All Work					21,415,906.28

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**.

					Accumulated Totals
Earthwork					2,076,501.64
Portland Cement Concrete Paving					4,270,958.93
HMA Plant Mix					0.00
HMA Paving					226,250.00
Clean & Seal Cracks/Joints					0.00
Aggregate Bases & Surfaces					918,343.86
Highway, R.R. and Waterway Structures					2,035,552.61
Drainage	277,754.13				491,371.13
Electrical					627,650.00
Cover and Seal Coats					0.00
Concrete Construction	951,485.00		2,293,915.47		7,882,175.84
Landscaping					36,390.00
Fencing					0.00
Guardrail					0.00
Painting					0.00
Signing					0.00
Cold Milling, Planning & Rotomilling					0.00
Demolition					0.00
Pavement Markings (Paint)					34,656.00
Traffic Control					160,000.00
Mobilization					256,000.00
Layout					0.00
Totals	1,229,239.13	0.00	2,293,915.47	0.00	19,015,850.01

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.

	6	7	8	5	13
Subcontractor	Arteaga		High Star		Builders Paving
Type of Work	Landscaping		Pavement Marking		Asphalt
Subcontract Price	32,616.12		22,521.90		1,823,936.15
Amount Uncompleted	0.00		0.00		309,003.45
Subcontractor	Vetrans Vac		Everlast		Diamond Coring
Type of Work	Sewer Cleaning		Asphalt		Diamond Grinding
Subcontract Price	34,800.00		866,709.79		519,192.50
Amount Uncompleted	0.00		0.00		171,333.53
Subcontractor	H&H Electric		Home Towne		Galaxy Underground
Type of Work	Electric		Electric		Underground
Subcontract Price	283,366.65		484,564.20		633,096.00
Amount Uncompleted	0.00		0.00		302,614.00
Subcontractor	Precision Pvmt		Arteaga		Integral Power Atlantic
Type of Work	Pvmt Marking		Landscaping		Electric
Subcontract Price	38,047.85		51,410.40		276,241.50
Amount Uncompleted	0.00		0.00		199,841.69
Subcontractor	Barricade Lites		High Star		Maintenance Coating
Type of Work	Traffic Control		Traffic Control		Pavement Marking
Subcontract Price	45,986.00		119,195.20		727,832.59
Amount Uncompleted	0.00		0.00		340,004.28
Subcontractor			CSD		Material Solutions
Type of Work			Environmental		Landscaping
Subcontract Price			202,500.00		172,730.55
Amount Uncompleted			0.00		60,078.47
Subcontractor			JLA		Veterans Vac
Type of Work			Sewer		Sewer Cleaning
Subcontract Price			757,014.00		308,923.45
Amount Uncompleted			0.00		267,320.85
Total Uncompleted	0.00	0.00	0.00	0.00	1,650,196.27

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

Subscribed and sworn to before me

this 16 day of July, 2025

Carlos Reyes Lopez
Notary Public

Type or Print Name DOMENICO DIGIOIA
Officer or Director

Signed *[Signature]*

My commission expires: 7/15/2028

Company ACURA INC.

Address 556 COUNTY LINE ROAD, SUITE B.
BENSENVILLE, IL. 60106

(Notary Seal)

