City of Wheaton
303 W. Wesley Street
Wheaton, IL 60187-0727
630-260-2000
City of Wheaton, Illinois
www.wheaton.il.us

Description:	**TRAFFIC SIGNAL INSTALLATION**
Requesting:	Invitation to Bid (2 original copies compiled as described within)
Issue Date:	January 2017
Pre-Bid Meeting:	None
Last Date for Questions:	Friday, February 17, 2017 at 12:00 pm local time
Sealed Proposal Submittal Due:	Wednesday. February 22, 2017 prior to 11:00 am local time Customized Mailing Label for sealed submittal provided in bid documents
Bid Opening Location:	Wheaton City Hall, 303 West Wesley St., Wheaton, IL Council Chambers, 2nd Floor
Project Commences:	After May 1, 2017
Note:	Illinois Prevailing Wage Act 820 ILCS does apply
Contacts for this bid:	LStyczen@wheaton.il.us
Enclosures:	General Instructions Regarding the Solicitation of Contracted Services General Terms and Conditions for Contractors Special Terms and Conditions for Contracted Services Special Provisions Statement of Work Material Specifications and Drawings Insurance Provisions Change Order Draft
Bid Submission must include:	Cost Proposal Page Certification of Compliance Contractor Profile and Submittal Requirements Certificate of Insurance
If you are awarded the bid, Additional Documents Required:	Signed Agreement (boilerplate example included in bid documents) Payment and Performance Bond (110%) Certificate of Insurance with endorsements

All questions concerning this solicitation shall be via e-mail to the Procurement Officer and received no later than time stated above. A written response in the form of a public addendum will be published and forwarded to qualified proposers.

Contact with anyone other than the Procurement Officer for matters relative to this solicitation during the solicitation process is prohibited.

GENERAL INSTRUCTIONS REGARDING THE SOLICITATION OF CONTRACTED SERVICES

Solicitations are open to all business firms actively engaged in providing the materials, equipment, and services specified and inferred. Active engagement will be verified via references.

1) SOLICITATION PROCESS
   a) Documents:
      i) The City of Wheaton's website, www.wheaton.il.us/bids/ is the official source for all documents related to this solicitation. The City is not responsible for documents distributed by any other source.
      ii) It is the responsibility of the Bidder to seek clarification of any requirement that may not be clear. This includes a review of all solicitation documents.
      iii) All questions concerning this solicitation shall be submitted via e-mail to the attention of the Procurement Officer by the last date for questions as reflected on the cover page of this document. A written response in the form of a public addendum will be published on the City's website, www.wheaton.il.us/bids/.
      iv) Any interpretation, correction or change of the solicitation documents will be made by published Addendum. Interpretations, corrections, and changes to the solicitation documents made in any other manner will not be binding. All addenda will be published on the City's website at http://www.wheaton.il.us/bids/. It is up to the Bidder to check this site for the most current addendum.
      v) Bidders shall acknowledge the receipt of any addendum.
   b) The Cone of Silence:
      i) The Cone of Silence is designed to protect the integrity of the procurement process by shielding it from undue influences.
      ii) During the period beginning with the issuance of the solicitation document through the execution of the award document, bidders are prohibited from all communications regarding this solicitation with City staff, City consultants, City legal counsel, City agents, or elected officials.
      iii) Any attempt by a bidder to influence a member or members of the aforementioned may be grounds to disqualify the bidder from participation in this solicitation.
   c) Exceptions to the Cone of Silence:
      i) Written communications directed to the Procurement Officer
      ii) All communications occurring at pre-bid meetings
      iii) Oral presentations during finalist interviews, negotiation proceedings, or site visits
      iv) Oral presentations before publicly noticed committee meetings
      v) Contractors already on contract with the City to perform services for the City are allowed discussions necessary for the completion of an existing contract.
      vi) Procurement of goods or services for Emergency situations

2) INVESTIGATION
   a) It shall be the responsibility of the Bidder to make any and all investigations necessary to become thoroughly informed of what is required and specified in the solicitation.
      i) If the site of the work is an area restricted from the general public, a pre-bid meeting will be provided for all potential bidders to perform this inspection.
      ii) If the site of the work is an area open to the general public, the potential bidder may perform their inspection at a time of their choosing.
   b) Bidder shall inspect in detail the site of the proposed work and familiarize himself with all the local conditions affecting the work and the detailed requirements of delivery, installation, or construction.
   c) No plea of ignorance by the bidder of conditions that exist or that may hereafter exist, because of failure or omission on the part of the bidder to make the necessary examinations and investigations, will be accepted as a basis for varying the requirements of the City or the compensation to the bidder.

3) OFFERS

a) Exceptions to specifications, requirements, Terms and Conditions must be clearly identified.
b) Offers including goods or equipment must include: Manufacturer's warranties and/or guarantees
c) Offers including service during the warranty/guarantee period must include, in writing, any restrictions, and/or associated costs.
d) QUOTES are to be submitted via fax or e-mail. Verbal offers will not be accepted.
e) FORMAL OFFERS must be on the forms provided and compiled in the order stated. Do not use binders, folders, tabs, or papers larger than 8.5 x 11.
f) Delivery of an offer is acceptance of the City's requirements. Offers containing terms and conditions contrary to those specified, or taking exception to any of the Special Terms and Conditions, General Terms and Conditions, Specifications, or Addenda as stated by the City may be considered non-responsive.
g) The City shall not accept an offer which is based upon any other offer, contract, or reference to any other document or numbers not included in the solicitation documents.

4) ORDER OF PRECEDENCE
a) Wherever requirements are in conflict, the order of precedence shall be as follows: City Contract, City Specifications, City Special Terms, and Conditions; City General Terms and Conditions.
b) City requirements take precedence over Bidder's offer.

5) SIGNATURES AS OFFER
a) Under the conditions of the Uniform Commercial Code, the signing of the submittal by the bidder constitutes an offer. If accepted by the City, the offer becomes part of the contract.
b) Offers by:
   i) Individuals or sole proprietorships shall be signed by a person with the authority to enter into legal binding contracts. Said individual shall use his usual signature.
   ii) Partnerships shall be signed with partnership name by one of the members of the partnership, or an authorized representative, followed by the signature and title of the person signing.
   iii) By corporations shall be signed with the name of the corporation, followed by the signature and title of person authorized to bind it in the matter.

6) WITHDRAWAL OF OFFERS
a) Offers may be withdrawn at any time prior to the scheduled opening or due date. Requests to withdraw an offer shall be in writing, properly signed, and received by the Procurement Officer prior to the due date.
b) Offers may not be withdrawn after the due date without the approval of the Procurement Officer.
c) Negligence in preparing an offer confers no right of withdrawal after opening / due date.

7) TIMEFRAME AND CONSEQUENCES
a) Offers must be received before the designated time.
b) Offers received after the designated time will be returned to the sender without review. Offers received late that may be attributed to delays by overnight delivery services, or by delivery services trying to deliver when offices are closed, will be considered late and returned to the sender.
c) Unless otherwise specified in the solicitation, offers shall be binding for ninety (90) calendar days following due date.

8) PUBLIC OPENINGS
a) Formal offers by sealed envelope will be publicly opened at the time and location stated. The Procurement Officer shall read the name of the bidder, offered price, and note if deviations are stated. after the opening an apparent low bid will be announced. Award will be based on analysis of costs, deviations, city budget, and approval by City Council.
b) Results of Openings will be published on the City's website www.wheaton.il.us/bids/ within three business days.

c) Bidders are encouraged to attend all openings and to offer constructive suggestions for improvements to the solicitation process, to increase competition, and ways in which the City may achieve greater savings and increased transparency.
d) Despite the reading of offers at a public opening, if the offers are thence rejected and thus subject to rebid, the read results will not be published and will be exempt from FOIA requests.

9) REQUIREMENTS

a) Brand Names or Equal:
   i) Specifications are prepared to describe the goods and services which the City deems to be in its best interests to meet its performance requirements. These specifications shall be considered the minimum standards expected of the contractor.
   ii) If an offer does not indicate deviations or alternatives to the specifications, the City shall assume the offer is fully compliant with all specifications.
   iii) Specifications are not intended to exclude potential contractors. Any reference in the City's specifications to a brand name, manufacturer, trade name, catalog number or the like is descriptive, not restrictive, indicating materials that are satisfactory.
   iv) Consideration of other makes and models will be considered, provided the bidder submits a request for pre-approval by the Last Date for Questions stated on the cover page. Bidder should state exactly what he proposes and attach a cut sheet, illustration or other descriptive matter which will clearly indicate the character of the item. A written response in the form of a public addendum will be published on the City's website, www.wheaton.il.us/bids/.
b) Quantities:
   i) All quantities represent an estimate of the quantity of the work to be done and/or materials to be ordered. It is given as a basis for comparison of offers and to determine the awarding of the contract.
   ii) The City does not expressly or by implication agree that the actual quantities involved will correspond to the published estimate. The bidder accepts that the quantities stated are estimates only and will not hold the City bound to said number.
   iii) The City reserves the right to modify the estimates, or remove them in their entirety, whichever is in the best interests of the City.

10) BID BONDS

a) The City may require a Bid Bond / Bid Deposit if so stated.
b) Bid Bonds / Bid Deposits are typically ten percent (10%) of the full contract price unless depicted otherwise.
c) If a Bid Deposit (preferred), it shall be submitted with the formal offer and be in the form of a certified check or a bank cashier's check made payable to the City of Wheaton. Checks will be retained by the City until an award is fully executed, at which time the checks will be promptly returned to the unsuccessful Bidders.
   i) The Bid Deposit check of the successful Bidder will be retained until the contract has been executed and all required documents, including a Performance Bond if requested, are received.
   ii) The Bid Deposit check of the successful Bidder shall be forfeited to the City if the Bidder withdraws its offer, or neglects, refuses or is unable to enter into a contract.
d) If Bidder chooses to use a Bid Bond, the Bid Bond must be in compliance with all bond requirements mandated by the State of Illinois.

11) DEVIATIONS TO REQUUIREMENTS AND ALTERNATE OFFERS

a) If the Bidder is unable to meet most of the specifications, but believes their product/work will meet the needs of the city, the Bidder should submit an Alternate Bid and include material specification sheets, performance data, or other documentation justifying consideration.
b) If a Bidder plans to submit multiple offers, each offer must be packaged separately and identified on the outer envelope and on the cover page of the offer in a way that can be differentiated from the other offer(s).

c) The Procurement Officer reserves the right to make the final determination of compliance or whether any deviation or alternate is of an equivalent or better quality and which offer can best meet the needs of the City. Such determination shall be incorporated within Purchasing's' recommendation to the City Council.

12) ENVIRONMENTAL REQUIREMENTS

a) The City is committed to becoming a sustainable city that conserves its use of resources to optimize efficiency and minimize waste. The City is committed to providing services in an equitable manner for present and future generations.
b) Recycled Content Products: It is in the City's interest to purchase products with the highest recycled material content feasible. The City requests that Bidders suggest recycled content products as alternatives.
c) Recycled Packing Material: The City desires that all shipping containers/packing material for equipment, materials and supplies delivered to the City contain no less than the specified minimum EPA percentage requirements of post-consumer recycled content. Containers and packing material should show the recycled product logo and recycled content percentage information.
d) To help "Turn Wheaton Green", the bidder's sustainability policy, as well as green initiatives for this solicitation, will be considered in the evaluation of the offer.

13) PRICE

a) The price offered shall remain firm throughout the duration of the agreement.
b) Failure to record all requested breakdown of prices may result in disqualification. Unit price shall be shown for each unit specified. In case of mistake in extended price, unit price shall govern.
c) Price shall represent the entire cost of all requirements stated within the solicitation and contract. No subsequent claim will be recognized for any surcharges, add on costs, increase in material prices, cost indexes, wage scales, fuel surcharges, freight costs, packaging or any other rates affecting the industry or this project.

14) FOR PROJECTS BID AS TIME AND MATERIAL

a) Time, inclusive of but not limited to salaries, benefits, overtime, set-up, break-down, includes all costs associated with labor for this service.
b) Material, inclusive of but not limited to goods, components, equipment, includes all costs associated with all items necessary to complete this service.
    i) Complete illustrative and technical data, drawings, and/or printed literature for the materials or equipment quoted should be included with the offer.
c) Overhead and Profit shall include all costs not covered under material or labor, such as fixed costs and taxes.

15) DISCOUNTS

a) Discounts of less than thirty (30) days will not be considered in the evaluation.
b) Discounts for thirty (30) days or more may be considered in in the evaluation.
c) Where the net offer is equal to an offer with a discount deducted, the award shall be made to the net offer.
d) Discounts will be figured from the date of receipt of a proper invoice or the approval of the quality of the product received or service completed – whichever is later.

16) TAXES

a) Unit prices shall not include any local, state or federal taxes.
b) The City is exempt by law from paying sales tax on goods, equipment, and products permanently incorporated to the project, from State and City Retailer's Occupation Tax, State Service Occupation Tax, State Use Tax, and Federal Excise Tax.
c) The City's Sales Tax Exemption Number is E9997-4312-07.
d) The Contractor shall pay sales, consumer, use and other similar taxes.

17) EVALUATION OF OFFERS

a) Receipt of One (or too few) offers: If the City receives one or too few bids, as defined by the City, from a publicly broadcasted solicitation, the City may reschedule the opening to a later date. The offers received will either be:

i) returned unopened to the Bidder for re-submittal at the new due date and time, or
ii) if there are no changes in requirements, and pending agreement with the Bidder, held until the new due date and time

b) If the City does not receive any bids, from a publicly broadcasted solicitation, the City may negotiate with any interested parties.

18) DETERMINING RESPONSIVENESS OF THE OFFER

a) Responsive bids are inclusive of, but not restricted to: received prior to the due date and time, completed as stated in the solicitation documents, inclusive of all required documents, compliant to all product requirements and specifications, able to meet delivery requirements, accepting of all contract terms and conditions.

19) WAIVERS AND REJECTIONS OF OFFERS

a) The City reserves the right to waive any informality, technical requirement, deficiency, or irregularity in the offer. The City may conduct discussion with Bidders to further clarify the offer as may be necessary. Correction of the offer shall be effected by submission within 4 hours (e-mail or fax) of a corrected page with changes documented and signed.

b) The City reserves the right to reject any or all offers for any reason including but not limited to: budgetary constraints, unclear solicitation documents, change in needs, suspicion of collusion, pricing aberrations, front end loading; mathematically unbalanced proposals in which prices for some items are substantially out of proportion to comparable prices, materially unbalanced proposals in which material requirements for some items are substantially higher to comparable proposals; poor quality or poor performance in past City contracts, and other reasons deemed important to the City.

c) The City reserves the right to accept or reject any offer in which the Bidder names a total price for all the work without breaking down requested material costs, labor costs, and/or overhead and profit.

d) Multiple offers from an individual, firm, partnership, corporation, or association under the same or different names are subject to rejection unless specifically permitted in the solicitation. Reasonable grounds for believing that a bidder is interested in more than one offer may result in rejection of all offers in which the bidder is interested. Any or all offers will be rejected if there is any reason for believing that collusion exists.

e) Nothing in this section will preclude a firm acting as a subcontractor to be included as a subcontractor for two or more prime contractors submitting a proposal for work. However, a subcontractor may not submit a proposal as a prime contractor, and a prime contractor may not submit a proposal as a subcontractor.

f) FOIA: If the City rejects all offers and concurrently provides notice of its intent to reissue the solicitation, the rejected offers remain exempt from FOIA requirements until the City awards or rejects the reissued solicitation.

20) DETERMINING RESPONSIBLENESS OF THE BIDDER

a) The City reserves the right to determine the competence, the financial stability, and the operational capacity, of any Bidder.

b) Upon request by the City, Bidders shall furnish evidence for the City to evaluate their resources and ability to provide the goods and services required. Such evidence may include; but not be limited to: tour of facilities, staffing levels, listing of equipment and vehicles, listing of personnel's qualifications, certificates, licenses; listing of committed but not yet completed orders; financial statements.

c) Bidder may be required to submit samples of items within a specified timeframe and at no expense to the City. If not destroyed in testing, samples will be returned at the Supplier's request and expense. Samples which are not requested for return within thirty (30) days will become the property of the City.

d) Bidders may be required to affect a demonstration of the item or service being proposed. Such demonstration must be at a site convenient and agreeable to the affected City personnel and at no cost to the City.

e) Bidders may be required to provide references. The City reserves the right to contact said references or other references that may be familiar with the Bidder. The City reserves the right to eliminate a bidder who has not demonstrated the required years of service within the required specialty.

f) Bidders may be required to provide their internal policy on sustainability.

g) The City reserves the right to determine if such information might hinder, influence the quality of the work specified, or prevent the prompt completion of additional work such as future maintenance and service.

21) CONFIDENTIAL INFORMATION

a) Bidders may be required to provide evidence of financial viability. This may be a Dunn and Bradstreet Report, a financial statement prepared by a licensed Certified Public Accountant showing the Bidder's financial condition at the end of the past fiscal year, an annual report.
b) Bidders may be required to provide other information which they consider proprietary and confidential, and if made known to the public, may affect their ability to compete in the marketplace. Said information will be subject to Illinois State FOIA requirements including the following exemptions:
    i) (5 ILCS 140/7) (From Ch. 116, par. 207) Sec. 7.
    ii) Exemptions. (1) The following shall be exempt from inspection and copying: (g) Trade secrets and commercial or financial information obtained from a person or business where the trade secrets or commercial or financial information are furnished under a claim that they are proprietary, privileged or confidential, and that disclosure of the trade secrets or commercial or financial information would cause competitive harm to the person or business and only insofar as the claim directly applies to the records requested.
c) Bidders considering requests to be proprietary and confidential should submit an additional redacted offer. Failure to do so may result in information becoming available to the public.

22) SELECTION PROCESS

a) The City endeavors to select the offer meeting the best interests of the City as stated by its City Council based on the totality of lawful considerations.
b) The City's determination of best overall value may include consideration of the City's internal cost structure for meeting requirements, such as the city's inventory carrying costs, ordering lead times, equipment maintenance costs, standardization, available project management resources, and items typically identified with and relating to a "Life Cycle Cost Analysis".
c) The City will consider the following non-exclusive list in determining award: soft costs of contract management; total cost of ownership factors such as transition costs, training costs, additional requirements such as spare parts and special tooling.
d) The City will contact references to verify bidder's ability and skill to perform the work required based on: past work of similar nature, quality of work, proactive nature of work crew, adherence to the project's production schedule and proposed price constraints, and references' experience if the contractor has character, integrity, and a reputation for good judgment.
e) If the city's evaluation yields a concern with the potentially recommended bidder's ability, the City reserves the right to require a Performance Bond at no additional cost to the city.
f) Should identical low, responsive and responsible bids be received from two or more Bidders, the City shall exercise one of the following tie breaking methods:
    i) Tie Bid (two suppliers): The Procurement Officer, with a witness present, may flip a coin with heads representing the Offeror whose name appears first in alphabetical order. If the toss is heads, said Offeror will receive the recommendation to award.
    ii) Tie Bid (three or more suppliers): The Procurement Officer, with a witness and each vendor present, shall shuffle a new deck of playing cards and have each Offeror cut the cards. The Offeror who cuts the highest card (with Ace high) shall be recommended for award.

23) AWARD

a) Except as otherwise stated, bidders will be awarded within ninety (90) days from the opening date.
b) Award is based on the lowest responsive responsible offer; offering the lowest life-cycle cost; providing the best overall value to the City; and deemed most advantageous to the City, price and other factors considered.
c) When there is a Base Bid and Alternates, the low bidder shall be the lowest responsible and responsive bid submitted for the Base Bid and Alternate A. If all Bids and Alternate A exceed the project budget, the city reserves the right to award to the bidder presenting the best alternatives for the city.
d) When there is a Base Bid and Options, the low bidder shall be the lowest responsible and responsive bid submitted for the best combinations for the city.

e) The City reserves the right to award by item, part or portion of an item, group of items, in the aggregate, or to reject any and all offers in whole or in part according to the best interests of the City.
   i) Bidder may restrict their offer to consideration in the aggregate by so stating on the proposal form, but must name a unit price on each item.

f) The successful Bidder may be required to enter into a contract with the City of Wheaton covering all matters set forth in the solicitation document, and addenda.

24) REQUIREMENTS IF AWARDED THE WORK

a) Registration: The successful supplier, prior to the execution of the order, or no later than 10 days after receipt of the award document, must be registered to do business in the City of Wheaton and the State of Illinois.

b) Insurance: The successful Bidder, if awarded by contract, will be required to carry insurance acceptable to the City. *(reference Contract Addendum 1)*.
   i) Certificates of Insurance, Endorsements, and a Waiver of Subjugation must be submitted with the execution of the contract.
   ii) The Bidders obligation to purchase stated insurance cannot be waived by the city's action or inaction.

c) Bonds: The successful bidder, if awarded by contract, may be required to provide a bond/bonds. Said bonds must be through a bonding company listed on the Department of the Treasury's Listing of Certified Companies http://www.fms.treas.gov/c570/c570_a-z.html.
   i) Surety must be in compliance with any bond requirements mandated by the State of Illinois.

d) Security Clearance: Background checks inclusive of finger printing MAY be required for contractors servicing secured areas. Contractors will submit a list of employees' names to the Project Manager who will coordinate the background checks with the police department. Said list should include staff to cover absences or reassignment.
   i) Anyone with a background history showing a conviction for a felony; theft history of any kind, sex offense history, or any crime involving moral turpitude, illegal drug or narcotics use, sale or possession, or anyone showing a felony charge pending, or who has any outstanding warrants of any type, including misdemeanor traffic or felony warrants, may be subject to arrest, and will not be allowed to work under this contract.
   ii) The contractor shall be responsible for all personnel engaged in the work. Contractor must ensure that: said personnel have been completely and satisfactorily cleared by the City of Wheaton for work within secure areas; a sufficient amount of backup or relief personnel to cover absenteeism or replacement have been completely and satisfactorily cleared or work; equipment and personnel do not enter facilities except as required during the progress of the work.
   iii) The City reserves the right to request removal of any contractor's employee upon submitting proper justification should such action be considered necessary to the best interests of the City. Contractor is permitted to add/replace personnel with approved backup personnel, or reassign personnel already cleared by the City for work within secure areas. The City must be provided written notice prior to time of replacement.

25) AUDIT

a) The successful Bidder may be audited by the City or an agent of the City. Audits may be at the request of federal or state regulatory agencies, other governmental agencies, courts of law, consultants hired by the City or other parties which in the City's opinion requires information. Data, information, and documentation will include, but not be limited to, original estimate files, change order estimate files, detailed worksheets, subcontractor proposals, supplier quotes and rebates, and all project related correspondence, and subcontractor and supplier change order files.

26) PROTESTS

a) Any Bidder who claims to be aggrieved in connection with a solicitation, the selection process, a pending award, or other reasonable issue may initiate a protest.
   i) Protests involving the solicitation process or stated requirements must be presented in writing via e-mail to the Procurement Officer no later than the last date for questions as reflected on the cover page of this document.

ii) Protests involving the evaluation of offers, staff recommendations, or the award process must be submitted in writing to the Procurement Officer no later than three business days after bid results are publicly posted.

b) Protests must include: the name and address of the protestor; appropriate identification of the solicitation; if an award has been initiated, the award document number (if available), identification of the procedure that is alleged to have been violated; precise statement(s) of the relevant facts; identification of the issue to be resolved; protestor's argument and supporting documentation (Exhibits, evidence, or documents to substantiate any claims).

c) A person filing a notice of protest will be required, at the time the notice of protest is filed, to post a bond in the form of a cashier's check in an amount equal to twenty-five percent of the City's estimate of the total volume of the award, or $1,000, whichever is less.
   i) If the decision of the Protest does not uphold the action taken by the City, then the City shall return the amount, without deduction, to the Bidder filing the protest.
   ii) If the decision of the Protest upholds the action taken by the City, then the City shall retain the amount of the cashier's check in payment for a portion of the cost and expense for time spent by City staff in responding to the protest and in conducting the evaluation of the protest.

d) Upon receipt of the notice of protest, the Procurement Officer shall stop the award process.
   i) The Procurement Officer will rule on the protest in writing within two business days from receipt of protest.
   ii) Appeals of the Procurement Officer's decision must be made in writing within two business days after receipt thereof and submitted to the City Manager for final resolution. Appellant shall have the opportunity to be heard and an opportunity to present evidence in support of the appeal.
   iii) The City Manager's decision is final.

27) OTHER ENTITY USE

a) Although this solicitation is specific to the City of Wheaton, Offerors have the option of allowing this offer, if awarded by the City to the Offeror, to be available to other local entities and agencies within the DuPage-Kane-Cook-Will and Kendall Counties. If the successful Offeror and the interested entity/agency mutually agree on the Terms and Conditions, inclusive of pricing, both parties may perform business under the authority of this solicitation and contract.

b) It is understood that at no time will any city or municipality or other agency be obligated for placing an order for any other city, municipality, or agency; nor will any city or municipality or agency be obligated for any bills incurred by any other city or municipality or agency. Further, it is understood that each agency will issue its own purchase order to the awarded Supplier.

END OF GENERAL INSTRUCTIONS REGARDING THE SOLICITATION OF CONTRACTED SERVICES

TRAFFIC SIGNAL INSTALLATION

GENERAL TERMS AND CONDITIONS FOR CONTRACTORS

1) CONTRACT ADMINISTRATION
   a) A "Work May Proceed" order will be issued by Procurement upon confirmation of a properly executed contract.
   b) Once the "Work May Proceed" order is issued, the contractor's primary contact with the city will become the Project Manager.
   c) The Project Manager's primary responsibility is to assure the city receives the contracted services in accordance to the terms and conditions and specifications of the contract. The Project Manager will, but is not limited to: oversee the entire project from kick-off activities through close out and payment of final invoice; monitor equipment, materials, and project progress; address any quality issues and change orders; verify schedule of Values, output, schedule status; conduct random inspections.
   d) The contractor will provide name and contact information of key contact to the Project Manager for use during time of emergency or at any hour city staff sees fit to do so.
   a. If security clearance is required for this work, it will be pursued at this time.

2) COMMUNICATIONS PLAN
   a) The Contractor shall designate an individual who must be present, at all times, on the site and who will serve as the Contractor's authorized representative throughout the completion of the Work and who shall be readily available to respond to communications. This individual must be a competent, English-speaking individual who is capable of reading and understanding the Contract Documents. This representative shall be subject to receive instructions and have full authority to execute the directions, without delay, and promptly supply any necessary labor, equipment, material, or incidentals to do so. If any person employed shall refuse or neglect to obey the directions of the Project Manager, in anything relating to the Work, or shall appear to be incompetent, disorderly, or unfaithful, he/she shall, upon request of the City, be at once discharged and shall not be employed again on any part of the Work.
   b) The Contractor shall provide the name and phone number of the Contractor's representative who, in the case of an off-hours emergency can be readily accessible and be available for quick response to the site. If that person does not respond within the period of time requested all reasonable costs, including the payment of overtime wages or charges, shall be deducted from payments due the Contractor. Contractor shall immediately notify the Project Manager in writing of any change in the identity and telephone number of the Contractor's representative.
   c) The contractor is required to provide the City's project manager with written/e-mailed bulletins addressing the status of the project throughout the life of the contract.
   d) The bulletins shall cover all work performed and completed and shall confirm the schedule of the work yet to be performed. It shall also state any assumptions and/or exclusions.
   e) The bulletin shall identify problems encountered, or still outstanding, with an explanation of the cause and resolution of the problem or how the problem will be resolved.
   f) The contractor will be responsible for conducting status meetings with the project manager as scheduled. The meetings can be in person or over the phone, at the discretion of the city.

3) DOCUMENTS
   a) Contractor is to maintain at the job site a complete and current set of drawings, plans and contract documents; bulletins, supplemental instructions, proposals, change orders, subcontractor's proposals, supplier's invoices, all written requests, and responses to each required change.
   b) All documents must accurately reflect the current status of all pertinent data including changes in the line item quantities and contract sum attributed to change orders.
   c) All documents are to be available to the Project Manager.
   d) All documents are to be available for auditing purposes, FOIA, and other reasons necessitated by the city.

4) MATERIAL AND EQUIPMENT

a) If the offer identifies an item by manufacturer's name, trade name, catalog number, or reference, the contractor shall furnish the item so identified and shall not propose to furnish an "equal".
b) If the identified item is no longer available, the City must approve any proposed "equal" prior to order placement. The City will not incur any additional costs for the "equal".
c) All components used in the manufacture or construction of materials, supplies and equipment, and all finished materials, shall be new, the latest make/model, of the best quality, and the highest grade workmanship.
d) Contractor must provide documentation that any and all Hazardous Material created during the performance of the project work has been disposed of or recycled in compliance with all Illinois Administrative Code Title 35, Part 733 "Standards for Universal Waste Management", and other applicable State, Federal and local regulations.
e) All material or equipment furnished shall meet the minimum requirements of Occupational Safety & Health Standard (OSHA) published in the Federal Register, U L, or other nationally recognized certifying body.

5) SUBSTITUTIONS
a) No substitutions will be considered after Notice of Award except under one or more of the following conditions:
    i) Substitution required for compliance with final interpretations of code requirement or insurance regulations
    ii) Unavailability of specified products, through no fault of the contractor.
    iii) Subsequent information discloses inability of specified product to perform properly or to fit in designated space.
    iv) Manufacturer /fabricator refusal to certify or guarantee performance of specified product as specified.
    v) When a substitution would be substantially to owner's best interest.
b) Substitutions will not be considered when items are indicated or implied on shop drawings or product data submittals without formal request.

6) REQUESTS FOR SUBSTITUTION
a) Submit request for substitution to the attention of the Project Manager. Include documentation confirming compliance of proposed substitution with contract documents.
    i) For products include: Product description and identification, manufacturer's name, and address. manufacturer's literature, performance and test data, reference standards, samples, name, and address of similar projects on which product was used and dates of installation
    ii) For construction methods include: detailed description of proposed method, drawings illustrating methods, itemized comparison of proposed substitution with product or method specified, statement regarding the effect of the substitution to the construction schedule
b) Identify: changes or coordination required, other contracts affected, accurate cost data on proposed substitution in comparison with product or method specified.
c) Contractor attests that he has personally investigated proposed product or method and determined that it is equal or superior in all respects to that specified; that he will provide the same guarantee for substitution as for product or method specified; that he will coordinate installation of accepted substitutions into the work, making all changes for work to be complete in all respects.
d) Cost data must include all related costs under contract but excludes owner's redesign, administrative costs of owner, costs under separate contracts.
e) Contractor will pay all additional costs and expenses for owner and other contractors.
    i) Acceptance of substitution will require substantial revision of plans, drawings, and contract documents for all related projects.

7) DELIVERY AND STORAGE
a) Deliveries of documents, materials, equipment etc. are between the hours of 8:30 A.M. and 3:00 P.M. Monday through Friday, excluding holidays, unless otherwise stipulated.
b) Failure to deliver within a reasonable lead-time as determined by the city, shall constitute authority for the Procurement Officer to purchase in the open market items of comparable grade to replace the items not delivered.

c) Contractor is to accept material and equipment delivered to the job site and is responsible to store all items in accordance with the manufacturer's written instructions, handling, and protection from weather, damage, and theft for the duration of the contract. Contractor shall be responsible for losses.
d) Material delivered shall remain the property of the Contractor until:
    i) A physical inspection and actual usage of the material is made and found to be acceptable to the City; and
    ii) Material is determined to be in full compliance with the solicitation documents and executed contract.
    iii) Where circumstances or conditions exist preventing effective inspection of the goods at the time of delivery, the City of Wheaton reserves the right to inspect the goods within a reasonable time after delivery.
e) Contractor assumes full responsibility for protection and safekeeping of the contractor's own materials and equipment stored on premises, and move, if necessary, all stored products which interfere with operations of the city.
f) Unless otherwise specified, packaged material shall remain in original containers with labels intact and seals unbroken.
g) The contractor shall submit a Material Safety Data Sheet (MSDS) prior to or at the time of delivery for any/all toxic substances per Public Act 83-240, OSHA standards or any other applicable law.

8) NONCONFORMING MATERIALS
a) In the event the delivered material is not in compliance to the specification documents and executed contract, the City will reject the material.
b) Contractor shall remove rejected materials at his expense promptly after notification of rejection.
c) Contractor shall provide replacement of rejected articles immediately. If replacement is not timely, as determined by the city, the Procurement Officer will purchase in the open market items of comparable grade to replace the items not replaced and the Contractor shall reimburse the City for any expense incurred in excess of contract prices. Such purchases shall be deducted from contract quantities
d) The city reserves the right to either: cancel the order; request contractor to issue credit to the city; or deduct such amount from monies owed.
e) Should public necessity demand it, the City reserves the right to use or consume items delivered which are substandard in quality, subject to an adjustment in price to be determined by the Procurement Officer.

9) WARRANTY / GUARANTEE PERIOD
a) The Contractor warrants that all goods furnished hereunder will conform in all respects to the terms of this order, including any drawings, specifications, or standards incorporated herein, and/or defects in goods are free from defects in design. Contractor also warrants the goods are suitable for and will perform in accordance with the purposes for which they were intended.
b) The Contractor agrees that the supplies or services furnished under this contract shall be covered by the most favorable commercial warranties the Contractor gives to any customer for such supplies or services and that the rights and remedies provided herein are in addition to and do not limit any rights afforded to the City by any other clause of this contract or by law.
c) Unless otherwise specified, the contractor shall unconditionally guarantee the materials and workmanship on all equipment furnished by him for a period of one year (Guarantee Period) from date of installation close out.
d) If within the Guarantee Period any defects or signs of deterioration are noted which, in the opinion of the City, are due to faulty design and installation, workmanship, or materials, the City shall notify the contractor. At the contractor's expense, the Contractor shall repair or adjust the equipment or parts to correct the condition, or replace the part or equipment to the complete satisfaction of the city.
    i) Replacement parts of defective components shall be supplied at no cost to the City. Shipping costs for defective parts required to be returned to the contractor shall be paid by the contractor.

10) MANUFACTURER’S REQUIREMENTS
a) All work must be performed according to manufacturer's stated recommendations.
b) If manufacturer's stated recommendations conflict with specifications, issues should be addressed in writing to the Project Manager prior to proceeding with any work.

c) If manufacturer's stated recommendations include required services not listed within the specifications, said services must be considered as inherent to the city's specifications and offers should include said services.
d) All work is to be performed consistent to industrial performance standards.

11) PERMITS AND LICENSES
a) The successful contractor shall be responsible for obtaining, at their own expense, all permits and licenses which may be required to complete the contract.
b) Contractor represents that it, its employees, agents, and subcontractors shall hold all required licenses, permits, qualifications and certificates, and have duly registered and otherwise complied in all respects with all applicable federal, state and local laws, regulations, and ordinances applicable to the performance of this contract.

12) CONTRACTOR USE OF PREMISES
a) Confine operations at site to areas permitted by all laws, ordinances, and permits, as well as the contract documents.
b) The contractor shall control operations to avoid interference with normal traffic flow on and around the site; when necessary provide barriers, warning lights, and signs as required to protect workers and the public.
c) Limit use of premises for work, storage of material and equipment, and parking of worker's automobiles.
d) Conduct operations in a manner that avoids interference with use of the building and building operations and which protects persons and property.
e) If utility shut-down is required, provide Project Manager two (2) days advanced warning and estimation of duration of required utility shutdown.

13) UTILITY LOCATION
a) The contractor must exercise extreme caution while working around existing utilities. The contractor shall notify J.U.L.I.E., utility companies, and the Project Manager before commencing construction work around utility locations within the scope of the project.

14) CONTRACTOR IDENTIFICATION
a) For security purposes, all contracted service providers must be clearly identified with company photo id and company attire.
b) Upon Project Manager’s approval, contractors requiring unrestricted mobility within designated facilities will require a City of Wheaton Contractor photo id.
c) Contractor's advertising decals, stickers or other signs shall not be affixed to equipment or visible to the public.

15) MANUALS AND DOCUMENTS
a) The contractor shall submit to the owner such operating and maintenance manual and repair part lists as required by the nature of the work.

16) CLEANING
a) Contractor shall maintain premises and public properties free from accumulation of waste, debris, and rubbish caused by construction operations. Cleaning and disposal operations must comply with Federal, State and local ordinances and anti-pollution laws.
b) Provide on-site metal containers for collection of waste materials, debris, and rubbish.
c) At completion of work: sweep paved areas broom clean; remove waste materials, rubbish, tools, equipment, machinery, and surplus materials; clean all sight-exposed surfaces and leave project area clean and ready for use; clean the project site, yard, grounds, and landscaped areas; remove petro- chemical spills, stains, and other foreign deposits; clean plumbing fixtures to a sanitary condition, free of stains.
d) Touch-up and otherwise repair and restore marred exposed finishes and surfaces.

17) SAFETY AND HEALTH
a) All Occupational Safety and Health Administration (OSHA) standards apply.
b) Store volatile wastes in covered metal containers and remove from premises daily.

c) Provide adequate ventilation during use of volatile or noxious substances.

18) CHANGE ORDER PROCEDURE

a) The city reserves the right to make changes in the plans and specifications by altering, adding to, or deducting from the work, without invalidating the contract. All such changes shall be executed under the conditions of the original contract, except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.
b) Bulletins: From time to time during progress of the work, the city may issue a bulletin which interprets the contract documents or order minor changes in the work without change in contract sum or contract time.
    i) Issuance of a bulletin is not to be considered a change order authorizing additional work or affecting project time table. Such changes require a proposal, review, and if approved, a change order.
c) Should the contractor consider that a change in the specified work, the contract sum or contract time is required, he shall initiate a change order and submit to the Project Manager for documented approval before proceeding with the work.

19) CHANGE ORDERS

a) Issuance of a statement, or verbal approval, is not to be considered a Change Order and is not authorization to proceed.
b) Change orders will be numbered in sequence and dated.
c) Approved Change Orders are required with any/all changes in, the specified work, the contract sum, the time for completion, or any combination thereof.
d) Change orders will describe the change or changes, will refer to the bulletin(s) and proposal(s) involved, and will be signed by the city and the contractor prior to implementing the change.
e) All Change Orders shall clearly identify the impact of cost and the effect on time required to perform the work associated with the proposal.
    i) If the proposal is found to be satisfactory and in proper order, and both parties agree upon cost or credit for the change, the city will authorize the documented Change Order which will be confirmed via contract amendment.
    ii) Additional requests for additional costs and/or extensions of time for previously proposed and accepted items will NOT be granted after initial acceptance.
f) The contractor will take measures to ensure contractors and sub-contractor's staff is familiar with the procedures for processing change orders.

20) PAYMENT

a) Authorization of payment requires receipt of contractor’s invoice, acceptance of product/services and receipt of other required paperwork such as: certificate of origin, MSDS, Waivers and Liens, Certified Payroll (if applicable).
b) Retainage in the amount of ten percent (10%) of a payment request will be deducted from the amount determined for the first fifty percent (50%) of the project for major projects. Retainage will be held until:
    i) All defective work has been remedied.
    ii) All work is 100% final and the City's project manager has formally accepted the work.
    iii) All waivers, liens, certified payrolls, warranty documents and other required documentation are provided.
    iv) Or, if the work is fifty percent (50%) completed, satisfactory and on schedule, upon the discretion of the Project Manager. In such a case, the city will continue to retain no less than five percent (5%) of the total adjusted contract price.
    v) Retainage will not apply to payments for Bonds and Mobilization.
c) Payment will be:
    i) made to the company awarded this order. Under no circumstances will a third party be reimbursed.
    ii) Via the City’s Purchasing Card Program, MasterCard, in which payment will occur at time of product or service delivery (preferred); or
    iii) Via supplier generated invoice.
d) The City complies with the Illinois Local Government Prompt Payment Act which states that any bill approved for payment shall be paid within 30 days after date of approval.

i) Invoices must be submitted to the city within six months of order completion. Any invoices submitted in excess of six months from order completion will not be paid.

21) CONTRACTOR SERVICE ISSUES

a) Recourse for non-compliant construction services shall be managed, in any order, via (a) Punch List, (b) Retainage and/or (c) Performance Bonds.

22) LIQUIDATED DAMAGES

a) Delivery delays beyond the contract delivery date will result in added expense to the city. The city shall be paid damages for such delay. Because the amount of damage is extremely difficult to ascertain, the contractor agrees to compensate the city in the amount specified in the document entitled Special Terms and Conditions for Contracted Services in the section entitled Liquidated Damages.
b) This amount shall be fixed as liquidated damages that the City will suffer because of such delay, and not as a penalty.
c) The City shall have the right to deduct and retain the amount of such liquidated damages from any monies due the contractor.
d) The contractor shall be entitled to a reasonable extension of time for unavoidable delay in delivery due to causes not reasonably foreseeable by the parties at the time of the contract execution, and that are entirely beyond the control and without the fault or negligence of the contractor, including, but not limited to, acts of god or the public enemy , war or other national emergency making delivery temporarily impossible or illegal, acts or omissions of other suppliers, strikes and labor disputes not brought on by any act or omission of the supplier, fire, flood, epidemics, quarantines, or freight embargoes.

23) PROCESS TO TERMINATE

a) The service provider shall not be reimbursed until services are compliant.
b) If services continue to remain non-compliant, Procurement will prepare a formal Letter of Warning addressing the contractor's Failure to Comply. Contract language states "The City may terminate this Agreement upon seven (7) days written notice to the Contractor."
c) If contractor fails to achieve required results within stated timeframe, Procurement will terminate contract.
d) The City shall have the right to terminate this Agreement, without cause, upon twenty-one (21) days written notice to the Contractor. The Contractor shall be paid for all work performed in conformance with the Agreement through the effective date of the not for cause termination.

END OF GENERAL TERMS AND CONDITIONS FOR CONTRACTORS

TRAFFIC SIGNAL INSTALLATION

SPECIAL TERMS AND CONDITIONS FOR CONTRACTED SERVICE

1) Background

The City of Wheaton is seeking bids from qualified contractors for the complete modernization of an existing traffic signal installation and associated minor intersection improvements at the intersection of President Street and College Avenue in the City of Wheaton, DuPage County, Illinois.

2) Timeframe

(a) Bid posted on January 30, 2017
(b) Last date for questions: Friday, February 17, 2017, at 12:00 p.m. local time
(c) Bid responses due: Wednesday, February 22, 2016 prior to 11:00 a.m. local time
(d) Bid award: Within thirty days of bid opening date
(e) Project work to commence after May 1, 2017

3) Liquidated Damages

(a) The city retains the right to demand liquidated damages if deadlines are not met.
(b) For this contract, the contractor agrees to compensate the City in the amount of $500.00 per calendar day beyond the delivery date specified.
(c) Any extensions agreed to by executed Change Orders will be considered in the application of Liquidated Damages.

4) Communications Plan

(a) The Contractor shall attend a pre-construction meeting with the City project engineer prior to commencement of any work.
(b) The successful bidder must submit the following for approval at, or before, the pre-construction meeting:
    (i) Certificates of Insurance, Endorsements, and a Waiver of Subrogation
    (ii) Payment and Performance Bond
    (iii) Project schedule, including anticipated completion date
    (iv) List of all essential project personnel with job title and experience listed

5) Work Hours

(a) Monday - Friday 7:00-7:00pm (excluding City holidays) or with the approval of the Project Manager.
(b) The contractor shall notify the Project Manager at least 48 hours prior to initial start of operations, and prior to any temporary cessation and resumption of operations.

6) Prevailing Wage

(a) Illinois Prevailing Wage Act 820 ILCS does apply.
(b) Certified Payroll is required with each invoice.

Waivers of Lien

(c) The first Application for Payment shall be accompanied by the General Contractor's partial waiver of lien, called Waiver of Lien to Date, for the full amount of payment due.
(d) Each subsequent Application for Payment shall be accompanied by the General Contractor's Waiver of Lien to Date, plus the partial waivers of lien of Labor, Subcontractors and Material Suppliers who were included in the immediately preceding Application for Payment to the extent of that payment.
(e) The final Application for Payment must be accompanied by the Final Waiver of Lien for the full amount of the Contract from the General Contractor, Labor, Subcontractors, and Material Suppliers, including those who have not previously furnished such final waivers.

7) Bonds
   (a) A Bid Bond / Bid Deposit is not required.
   (b) A **Payment and Performance Bond** of one hundred ten percent (110%) of the full contract price is required for the faithful fulfillment of the contract; for the protection of the City from all liens and damages arising out of the work.
   (c) Bond Certificates must be submitted with the signed contract, i.e. no later than 10 days after receipt of the award document.

8) Insurance Requirements
   Reference Contract Addendum 1

9) Cost Structure:
   (a) All items of work not specifically mentioned herein which are required to deliver the completed project as specified herein shall be included in the bid proposal.

10) Method of Payment: Partial payment based on progress
   Invoices:
   (a) A schedule of dates when pay requests must be submitted will be determined at the preconstruction meeting.
   (b) All invoices must reflect the following applicable information: The Contract Number, the name of the Project, the Name of the Contractor, and the services/deliverables with the price depicted in the same format as the offer.
   (c) Lien waivers must be submitted with each invoice.
   (d) The City shall withhold 10% retainage from each payment due the Contractor. Contract retainage shall be released upon final completion of all work and receipt of all documentation as required by the contract.
   (e) All invoices are mailed to the attention of the Project Engineer; City of Wheaton; PO Box 727; Wheaton, IL 60187.

   Project Close Out:
   (f) Verification of quality and completion of service
   (g) Completion of Punch List and all areas of non-compliance or incomplete tasks
   (h) Review Liquidated Damages
   (i) Review Retainage
   (j) Final Payment: Prior to authorization of Final Payment, the following documents must be submitted:
      (i) Completed Waivers and Liens
      (ii) All Certified Payrolls
      (iii) Documented completion of the Punch List
      (iv) Statements of Warranty
      (v) Written approval of the City's Project Manager

END OF SPECIAL TERMS AND CONDITIONS FOR CONTRACTED SERVICE

CITY OF WHEATON

CONTRACT
SPECIAL PROVISIONS

The following Special Provisions supplement the Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction", Adopted April 1, 2016, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", the "Manual of Test Procedures for Materials" and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein; all which apply to and govern all work for the modernization of an existing traffic signal installation and associated intersection improvements as specified in the Plans and Specifications herein. In case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

The project is located at the intersection of President Street and College Avenue in the City of Wheaton, DuPage County, Illinois.

DESCRIPTION OF PROJECT

The project consists the complete modernization of an existing traffic signal installation and associated minor intersection improvements.

The work will include the installation of conduit, handholes, electric cable, various traffic signal and control equipment, removal of existing traffic signal equipment/infrastructure; sidewalk, ramp and curb modifications; pavement marking; and all other collateral work necessary to complete the project as shown on the Plans and described herein.

PREVAILING WAGE REQUIREMENT

In compliance with the Illinois Prevailing Wage Act, passed and approved June 26, 1941, as amended, the Contractor and each subcontractor shall pay all laborers, workmen and mechanics performing work pursuant to this contract, not less than the prevailing rate of wages as has been determined by the Illinois Department of Labor and as set forth herein.

This contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et seq. ("the Act"). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus fringe benefits) in the county where the work is performed.

For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website at: http://www.state.il.us/agency/idol/rates/rates.HTM.

All contractors and subcontractors rendering services under this contract must comply with all requirements of the ACT, including but not limited to, all wage, notice and record keeping duties.

PREQUALIFICATION

Pre-qualification of bidders, in accordance with Article 102.01 (b) of the Standard Specifications, will be required of all bidders on this proposal. Bidders shall be prequalified in IDOT Work Category 14 – Electrical.

EXAMINATION OF PLANS, SPECIFICATION, SPECIAL PROVISION, AND SITE OF WORK:

The prospective bidder shall, before submitting a bid, carefully examine the provisions of the contract. The bidder shall inspect in detail the site of the proposed work, investigate and become familiar with all the local conditions affecting the contract and fully acquaint themselves with the detailed requirements of construction.

STATUS OF UTILITIES TO BE ADJUSTED

Contacts for utilities believed to be located within the project limits are as follows:

Name of Utility	Type	Estimated Duration of time for the Completion of Relocation or Adjustments
A T & T 1000 Commerce Drive Oak Brook, IL 60523 (800) 288-2020	Telephone, Cable TV & Internet	No utility adjustments required
A T & T 4513 Western Ave Lisle, IL 60532 (630) 810-6274	Telephone, Cable TV & Internet	No utility adjustments required
Comcast 688 Industrial Drive Elmhurst, IL 60126 (630) 600-6352	Cable	No utility adjustments required

ComEd 7601 S. Lawndale Ave Chicago, IL 60652 (630) 420-6137	Electric	No utility adjustments required
DuPage Water Commission 600 E. Butterfield Road Elmhurst, IL60126 (630) 834-0100	Water	No utility adjustments required
Nicor Gas 1844 W Ferry Rd, Naperville, IL 60563 (630) 388-3046	Natural Gas	No utility adjustments required
Sprint Nextel Corporation 5600 N. River Road, Suite 200 Rosemont, IL 60018 (708) 955-6659	Telephone	No utility adjustments required
Wheaton College 924 College Avenue Wheaton, IL 60187 (630) 752-5570	Internet/communications	No utility adjustments required

The above represents the best information available to the City and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

QUANTITY CHANGES

The City reserves the right to add or delete quantities of sidewalk, curb, and gutter at the unit prices bid.

DAILY PROJECT SCHEDULING

The Contractor shall contact or meet with the Engineer at the beginning of each work day to inform the Engineer of daily and weekly progress and schedules.

ORDERS TO CONTRACTORS

The Contractor must have on the job, at all times, a foreman, superintendent, or other competent representative to whom orders and instructions may be given. Such orders shall have the same force and effect as if given directly to the Contractor.

NOTICE

A minimum of forty-eight (48) hours' notice shall be given to the Engineer, prior to starting work, or restarting work after some absence of work for any reason.

NOTIFY: Sarang Lagvankar, Senior Project Engineer
City of Wheaton Engineering Department
(630) 260-2067

CLEAN UP

Besides complete and thorough restoration of grass and pavement areas as part of this contract work, the Contractor shall be responsible to thoroughly clean up any and all areas affected by his work. All gravel, spilled concrete, debris, and construction related materials shall be completely removed from the site and the pavements and parkways cleaned. If the pavements have not been cleaned by hand at each location, a mechanical street sweeper shall be used. All clean-up related work shall be incidental in cost to the contract work.

MATERIAL SUBMITTALS AND INSPECTION

<u>All catalog cut/shop drawings, mix designs, etc. approval requests must be reviewed and approved by the City of Wheaton.</u>

All materials must be Illinois Department of Transportation certified. No material of any kind may be used until the Contractor has submitted appropriate documentation and it has been accepted by the Engineer. Documentation regarding materials/equipment for all installed traffic signal facilities shall comply with the special provision for TRAFFIC SIGNAL GENERAL REQUIREMENTS. All material used must meet the requirements as outlined in this contract. The City of Wheaton has a Soils and Materials Testing Consultant available to help in the periodic testing of the work.

INSPECTION

No concrete shall be poured until the inspector has been properly notified to inspect the premises. The inspector may require 24-hour notice.

The inspector will collect redi-mix concrete delivery tickets from the truck driver or the person designated by the contractor to hold tickets on a "per truck" or daily basis. This ticket shall show the concrete specification, volume, time of batching and delivery, etc.

Inspections will be made when the forms are set, prior to the concrete pour, and prior to the City acceptance of the work.

DISPOSAL OF DEBRIS, EXCESS MATERIALS AND EXCAVATED OR REMOVED MATERIALS

The Contractor shall be responsible for satisfactory removal and disposal of all waste material, asphalt, concrete, stone, dirt, or debris generated in the course of the work. Removal and disposal of surplus, unstable, and unsuitable materials and organic waste shall follow Section 202 of the Standard Specifications. All removal or excavation items being disposed of at a landfill or Clean Construction and Demolition Debris (CCDD) fill site shall meet the requirements of Public Act 96-1416 and Section 107 of the Standard Specifications. All costs associated with meeting these requirements shall be included in the unit price cost for the associated removal or excavation items in the contract. These costs shall include but are not limited to all required testing, lab analysis, certification by a licensed professional engineer, and State or Local tipping fees.

The contractor shall load the removed pieces of curb and gutter, sidewalk, driveway and street pavements, etc., directly onto trucks, haul it away, and dispose of it. The temporary storing of excavated materials on the parkways, and re-handling them later for disposal will not be allowed due to additional damage caused to tree root systems, parkways, existing equipment, and conditions. It shall be the contractor's responsibility to find an approved dumpsite for debris and any excavated materials. The City will not provide for one. The stockpiling of excavated or backfill material within the roadway overnight shall not be permitted.

PORTLAND CEMENT CONCRETE SIDEWALK

Revise Article 424.13 of the Standard Specifications to include:

Basis of Payment. All earth excavation required for the construction of proposed sidewalk and curb ramps as specified in the plans and specifications shall not be paid for separately but shall be included in the cost of PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH and PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH. Restoration of all disturbed areas of

existing surface vegetation shall include the placement of topsoil (as necessary) and salt tolerant sodding.

SIDEWALK REMOVAL

Revise Article 440.08 of the Standard Specifications to include:

Basis of Payment. All (remaining) disturbed/exposed areas where existing sidewalk has been removed and new sidewalk has not been constructed shall be restored with the placement of topsoil (as necessary) and salt tolerant sodding; and shall not be paid for separately but shall be included in the cost of SIDEWALK REMOVAL.

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

Revise Article 424.13 of the Standard Specifications to include:

The Contractor shall provide a thorough cleaning and filling of the void area between the existing pavement base and the newly poured combination concrete curb and gutter. This item also includes the full depth saw cut into the existing pavement/base 6" (25” from the back of curb) from and paralleling the curb wherever curb is to be removed. The void shall be completely cleaned of any loose material, fragments or wood forms and stakes, spilled or excess concrete mix, dirt, etc. by hand and by compressed air to the satisfaction of the Engineer. The void area shall then be dampened by a light spray of water and filled with a Portland Cement Grout mixture up to an elevation, as shown on the plans, below the toe of the curb. The grout shall be a minimum of six (6) bags of cement per cubic yard. An approved PC Concrete may be substituted for grout.

Basis of Payment. All earth excavation, pavement and surface restoration (including pavement patching) required (as directed by the Engineer) for the construction of proposed concrete curb and gutter at all locations as specified in the plans and specifications shall not be paid for separately but shall be included in the cost of COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12. Restoration of all disturbed areas of existing surface vegetation shall include the placement of topsoil (as necessary) and salt tolerant sodding.

MAST ARM SIGN PANELS
Effective: May 22, 2002
Revised: July 1, 2015
720.01TS

Add the following to Article 720.02 of the Standard Specifications:

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

TRAFFIC SIGNAL GENERAL REQUIREMENTS

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

- All material furnished shall be new unless otherwise noted herein.
- Traffic signal construction and maintenance work shall be performed by personnel holding current IMSA Traffic Signal Technician Level II certification. A copy of the certification shall be immediately available upon request of the Engineer.
- The work to be done under this contract consists of furnishing, installing and maintaining all traffic signal work and items as specified in the Plans and as specified herein in a manner acceptable and approved by the Engineer.

Definitions of Terms.
Add the following to Section 101 of the Standard Specifications:

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

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

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

Submittals.

Revise Article 801.05 of the Standard Specifications to read:

All material approval requests shall be submitted to the Engineer. General requirements include:

1. All material approval requests shall be made prior to or no later than one week after 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 requested by the Bureau of Local Roads and Streets, the number of requested sets of the manufacturer's descriptive literatures and technical data for the traffic signal materials shall be submitted.
5. 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.
6. When hard copy submittals are necessary for structural elements, four complete copies of the shop drawings for the mast arm assemblies and poles, and the combination mast arm assemblies and poles showing, in detail, the fabrication thereof and the certified mill analyses of the materials used in the fabrication, anchor rods, and reinforcing materials shall be submitted.
7. Partial or incomplete submittals will be returned without review.
8. Certain non-standard mast arm poles and special structural elements will require additional review from IDOT's Central Office. Examples include ornamental/decorative, non-standard length mast arm pole assemblies and monotube structures. The Contractor shall account for the additional review time in his schedule.
9. The contract number, the name of the lead local agency (as indicated on the cover sheet of the plans), section number, project location/limits and corresponding pay code number must be on each sheet of correspondence, catalog cuts and mast arm poles and assemblies drawings.
10. 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.

11. 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 'Information Only'. 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.
12. The Contractor shall secure approved materials in a timely manner to assure construction schedules are not delayed.
13. All submitted items reviewed and marked 'APPROVED AS NOTED' or 'DISAPPROVED' are to be resubmitted in their entirety, unless otherwise indicated within the submittal comments or transmittal accompanying the documents, with a disposition of previous comments to verify contract compliance at no additional cost to the contract.
14. 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.
15. 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.

Marking Proposed Locations.

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

Add the following to Article 801.09 of the Standard Specifications:

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

Inspection of Electrical Systems.

Add the following to Article 801.10 of the Standard Specifications:

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

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

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

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

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

d. When the project has a pay item for "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," the Contractor must notify the Engineerand/or their Electrical Maintenance Contractor of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. If work is started prior to an inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment

that is not operating properly or is damaged at no cost to the owner of the traffic signal. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted.

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

f. 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.

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

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

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

Any traffic signal control equipment damaged or not operating properly from any cause shall be replaced with new equipment meeting current District One traffic signal specifications and/or applicable Local Agency traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices are only allowed at the bases of post and mast arms.

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

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

Traffic Signal Inspection (TURN-ON).
Revise Article 801.15(b) of the Standard Specifications to read:

It is the intent to have all electric work completed and equipment field tested by the Equipment Supplier prior to the 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 road is open to traffic, except as otherwise provided in Section 850 of the Standard Specifications, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Engineer a minimum of seven (7) working days prior to the time of the requested inspection. The City will not grant a field inspection until written or electronic notification is provided from the Contractor that the equipment has been field tested and the intersection is operating according to Contract requirements. The Contractor must invite local fire department personnel to the turn-on regarding Emergency Vehicle Preemption (EVP) included in the project.

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

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

Upon demonstration that the signals are operating and all work is completed in accordance with the Contract and to the satisfaction of the Engineer, the Engineer will then allow the signals to be placed in continuous operation. The Agency that is responsible for the maintenance of each traffic signal installation will assume the maintenance upon successful completion of this inspection.

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

1. Record Drawings. Signal plans of record with field revisions marked in red ink. One hard copy set of 11"x17" record drawings shall also be provided.
2. Inventory. Inventory of new and existing traffic signal equipment including cabinet types and devices within cabinets in an Excel spread sheet format. One hard copy shall also be provided.
3. Pictures. Digital pictures of a minimum 12M pixels of each intersection approach showing all traffic signal displays and equipment. Pictures shall include controller cabinet equipment in enough detail to clearly identify manufacture and model of major equipment.
4. Field Testing. Written notification from the Contractor and the equipment vendor of satisfactory field testing with corresponding material performance measurements, such as for detector loops and fiber optic systems (see Article 801.13). One hard copy of all contract required performance measurement testing shall also be provided.
5. Materials Approval. The material approval letter. A hard copy shall also be provided.
6. Manuals. Operation and service manuals of the signal controller and associated control equipment. One hard copy shall also be provided.
7. Cabinet Wiring Diagram and Cable Logs. Five (5) hard copies 11" x 17" of the cabinet wiring diagrams shall be provided along with electronic pdf and dgn files of the cabinet wiring diagram. Five hard copies of the cable logs and

electronic excel files shall be provided with cable #, number of conductors and spares, connected device/signal head and intersection location.

8. Controller Programming Settings. The traffic signal controller's timings; backup timings; coordination splits, offsets, and cycles; TBC Time of Day, Week and Year Programs; Traffic Responsive Program, Detector Phase Assignment, Type and Detector Switching; and any other functions programmable from the keyboard. The controller manufacturer shall also supply a printed form, not to exceed 11" x 17" for recording that data noted above. The form shall include a location, date, manufacturer's name, controller model and software version. The form shall be approved by the Engineer and a minimum of three (3) copies must be furnished at each turn-on. The manufacturer must provide all programming information used within the controller at the time of turn-on.
9. Warrantees and Guarantees. All manufacturer and contractor warrantees and guarantees required by Article 801.14.
10. GPS coordinate of traffic signal equipment as describe in the Record Drawings section herein.

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

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

All punch list work shall be completed within two (2) weeks after the final inspection. The Contractor shall notify the Electrical Maintenance Contractor to inspect all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of $500 per month per incident.

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

Record Drawings.

The requirements listed for Electrical Installation shall apply for Traffic Signal Installations in Article 801.16. Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

"When the work is complete, and seven days before the request for a final inspection, the reduced-size set of contract drawings, stamped "RECORD DRAWINGS", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval. If the contract consists of multiple intersections, each intersection shall be saved as an individual PDF file with location name in its file name.

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

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

Add the following to Article 801.16 of the Standard Specifications:

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

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

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

- File shall be named: TSXXX-YY-MM-DD (i.e. TS22157_15-01-01)
- Each intersection shall have its own file
- Row 1 should have the location name (i.e. IL 31 @ Klausen)
- Row 2 is blank
- Row 3 is the headers for the columns
- Row 4 starts the data
- Column A (Date) – should be in the following format: MM/DD/YYYY
- Column B (Item) – as shown in the table below
- Column C (Description) – as shown in the table below
- Column D and E (GPS Data) – should be in decimal form, per the IDOT special provisions

Examples:

Date	Item	Description	Latitude	Longitude
01/01/2015	MP (Mast Arm Pole)	NEQ, NB, Dual, Combination Pole	41.580493	-87.793378
01/01/2015	HH (Handhole)	Heavy Duty, Fiber, Intersection, Double	41.558532	-87.792571
01/01/2015	ES (Electrical Service)	Ground mount, Pole mount	41.765532	-87.543571
01/01/2015	CC (Controller Cabinet)		41.602248	-87.794053
01/01/2015	RSC (Rigid Steel Crossing)	IL 31 east side crossing south leg to center HH at Klausen	41.611111	-87.790222
01/01/2015	PTZ (PTZ)	NEQ extension pole	41.593434	-87.769876
01/01/2015	POST (Post)		41.651848	-87.762053
01/01/2015	MCC (Master Controller Cabinet)		41.584593	-87.793378

01/01/2015	COMC (Communication Cabinet)		41.584600	-87.793432
01/01/2015	BBS (Battery Backup System)		41.558532	-87.792571
01/01/2015	CNCR (Conduit Crossing)	4-inch IL 31 n/o of Klausen	41.588888	-87.794440

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 1 foot. Upon verification, data collection can begin. Data collection can be made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the contractor shall make corrections to the data collection equipment and/or process and submit the data for review and approval as specified.

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

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

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

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

Locating Underground Facilities.
Revise Section 803 to the Standard Specifications to read:

City of Wheaton traffic signal facilities are not part of any of the one-call locating service such as J.U.L.I.E or Digger. If this Contract requires the services of an Electrical Contractor, the Contractor shall be responsible at his/her own expense for locating existing electrical facilities prior to performing any work. 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: J.U.L.I.E. at 1-800-892-0123 or 811.

Restoration of Work Area.
Add the following article to Section 801 of the Standard Specifications:

801.17 Restoration of work area. Restoration of the traffic signal work area shall be included in the related pay items such as foundation, conduit, handhole, underground raceways, etc. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded. All brick pavers disturbed in the work area shall be restored to their original configuration as directed by the Engineer. All damaged brick pavers shall be replaced with a comparable material approved by the Engineer. Restoration of the work area shall be included in the contract without any extra compensation allowed to the Contractor.

Bagging Signal Heads.

Light tan colored traffic and pedestrian signal reusable covers shall be used to cover dark/un-energized signal sections and visors. Covers shall be made of outdoor fabric with urethane coating for repelling water, have elastic fully sewn around the cover ends for a tight fit over the visor, and have a minimum of two straps with buckles to secure the cover to the backplate. A center mesh strip allows viewing without removal for signal status testing purposes. Covers shall include a message indicating the signal is not in service.

MODIFY EXISTING SERVICE INSTALLATION

Revise Section 805 of the Standard Specifications to read:

Description.
This work shall consist of all materials and labor required to modify an existing electric service installation meeting the requirements of the "District One Standard Traffic Signal Design Details" and the following provisions.

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

The electric utility contact information is noted on the plans and represents the current information at the time of contract preparation. The Contractor must request in writing for service modification within 10 days of contract award and must follow-up with the electric utility to assure all necessary documents and payment are received by the utility. The

Contractor shall forward copies of all correspondence between the contractor and utility company to the Engineer. Any service agreement and sketch shall be submitted to the Engineer for the City's signature.

Materials.

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

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

   The enclosures shall include a green external power indicator LED light with circuitry as shown in the Electrical Service-Panel Diagram detail sheet. For pole mounted service enclosures, the power indicator light shall be mounted as shown in the detail. For ground mounted enclosures, the power indicator light shall be mounted on the side of the enclosure most visible from the major roadway.

c. Electric Utility Meter Housing and Riser. The electric meter housing and meter socket shall be supplied and installed by the contractor. Electric utility required risers, weather/service head and any other materials necessary for connection shall also be included in the pay item. Materials shall be in accordance with the electric utility's requirements. For ground-mounted service, the electric utility meter housing shall be mounted to the enclosure. The meter shall be supplied by the utility company. Metered service shall not be used unless specified in the plans.

d. Surge Protector. Overvoltage protection, with LED indicator, shall be provided for the 120 volt load circuit by the means MOV and thermal fusing technology. The response time shall be <5n seconds and operate within a range of –40C to +85C. The surge protector shall be UL 1449 Listed.

e. Circuit Breakers. Circuit breakers shall be standard UL listed molded case, thermal-magnetic bolt-on type circuit breakers with trip free indicating handles. 120 volt circuit breakers shall have an interrupting rating of not less than 65,000 rms symmetrical amperes. Unless otherwise indicated, the main disconnect circuit breaker for the traffic signal controller shall be rated 60 amperes, 120 V and the auxiliary circuit breakers shall be rated 10 amperes, 120 V.

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

g. Ground and Neutral Bus Bars. A single copper ground and neutral bus bar, mounted on the equipment panel shall be provided. Ground and neutral conductors shall be separated on the bus bar. Compression lugs, plus 2 spare lugs, shall be sized to accommodate the cables with the heads of the connector screws painted green for ground connections and white for neutral connections.

h. Utility Services Connection. The Contractor shall notify the Utility Company marketing representative a minimum of 30 working days prior to the anticipated date of hook-up. This 30 day advance notification will begin only after the Utility Company marketing representative has received service charge payments from the Contractor. Prior to contacting the Utility Company marketing representative for service connection, the service installation controller cabinet and cable must be installed for inspection by the Utility Company.

i. Ground Rod. Ground rods shall be copper-clad steel, a minimum of 10 feet (3.0m) in length, and 3/4 inch (20mm) in diameter. Ground rod resistance measurements to ground shall be 25 ohms or less. If necessary additional rods shall be installed to meet resistance requirements at no additional cost to the contract.

Installation.

The Contractor shall confirm the orientation of the traffic service installation and its door side with the Engineer, prior to installation. All conduit entrances into the service installation shall be sealed with a pliable waterproof material.

Brackets designed for pole mounting shall be used. All mounting hardware shall be stainless steel. Mounting height shall be as noted on the plans or as directed by the Engineer.

Basis of Payment.

The service installation shall be paid for at the contract unit price each for MODIFY EXISTING SERVICE INSTALLATION and shall include as needed the 3/4 inch (20mm) grounding conduit, ground rod, and pole mount assembly. Any charges by the utility companies shall be approved by the Engineer and paid for as an addition to the contract according to Article 109.05 of the Standard Specifications.

UNDERGROUND RACEWAYS

Revise Article 810.04 of the Standard Specifications to read:

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

Add the following to Article 810.04 of the Standard Specifications:

> "Underground conduit for the electrical service cable shall be Rigid Metallic (Galvanized Steel). All other conduit installed underground shall be Rigid Nonmetallic (PVC) Conduit unless otherwise indicated on the plans."

Add the following to Article 810.04 of the Standard Specifications:

> "All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum or 300 mm (12") or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped.
>
> The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap.
>
> The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125") thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring."

Add the following to Article 810.04 of the Standard Specifications:

All necessary "pot-holing" performed by the Contractor to locate existing utilities for the installation of underground raceways shall be included in the cost of the contract pay item for UNDERGROUND CONDUIT, PVC, 2", 2 ½", 3" and 4" DIA.

GROUNDING OF TRAFFIC SIGNAL SYSTEMS
Effective: May 22, 2002
Revised: July 1, 2015
806.01TS

Revise Section 806 of the Standard Specifications to read:

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

The grounding electrode system shall include a ground rod installed with each traffic signal controller concrete foundation and all mast arm and post concrete foundations. An additional ground rod will be required at locations 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.

3. All metallic and non-metallic raceways shall have a continuous equipment grounding conductor, except raceways containing only detector loop lead-in circuits, circuits under 50 volts and/or fiber optic cable will not be required to include an equipment grounding conductor.

4. Individual conductor splices in handholes shall be soldered and sealed with heat shrink. When necessary to maintain effective equipment grounding, a full cable heat shrink shall be provided over individual conductor heat shrinks.

(c) The grounding electrode conductor shall be similar to the equipment grounding conductor in color coding (green) and size. The grounding electrode conductor is used to connect the ground rod to the equipment grounding conductor and is bonded to ground rods via exothermic welding, UL listed pressure connectors, and UL listed clamps.

HANDHOLES

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

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

Steel cable hooks shall be coated with hot-dipped galvanization in accordance with AASHTO Specification M111. Hooks shall be a minimum of 1/2 inch (13 mm) diameter with two 90 degree bends and extend into the handhole at least 6 inches (152 mm). Hooks shall be placed a minimum of 12 inches (305 mm) below the lid or lower if additional space is required.

Precast handholes shall not be used.

The cover of the handhole frame shall be labeled "Traffic Signals" with legible raised letters.

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

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

Add the following to Article 814.03 of the Standard Specifications:

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

For grounding purposes the handhole frame shall have provisions for a 7/16 inch (11 mm) diameter stainless steel bolt cast into the frame. The covers shall have a stainless steel threaded stint extended from the eye hook assembly for the purpose of attaching the grounding conductor to the handhole cover.

The minimum wall thickness for heavy duty hand holes shall be 12 inches (305mm).

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

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

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

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

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

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

Add the following to Article 817.05 of the Standard Specifications:

Basis of Payment.

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

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION

General.

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

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

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

4. Maintenance shall not include Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, or peripheral equipment. This equipment is operated and maintained by the local municipality and should be de-activated while on contractor maintenance.

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

Maintenance.

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

schedule that includes dates, locations, names of electricians providing the required checks and inspections along with any other information requested by the Engineer.

2. The Contractor is advised that the existing and/or span wire traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation, which exceeds fifteen (15) minutes, must have prior approval of the Engineer. Approval to shut down the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.

3. The Contractor shall provide immediate corrective action when any part or parts of the system fail to function properly. Two far side heads facing each approach shall be considered the minimum acceptable signal operation pending permanent repairs. When repairs at a signalized intersection require that the controller be disconnected or otherwise removed from normal operation, and power is available, the Contractor shall place the traffic signal installation on flashing operation. The signals shall flash RED for all directions unless a different indication has been specified by the Engineer. The Contractor shall be required to place stop signs (R1-1-36) at each approach of the intersection as a temporary means of regulating traffic. When the signals operate in flash, the Contractor shall furnish and equip all their vehicles assigned to the maintenance of traffic signal installations with a sufficient number of stop signs as specified herein. The Contractor shall maintain a sufficient number of spare stop signs in stock at all times to replace stop signs which may be damaged or stolen.

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

5. Traffic signal equipment which is lost or not returned to the City for any reason shall be replaced with new equipment meeting the requirements of the Standard Specifications and these special provisions.

6. The Contractor shall respond to all emergency calls from the City or others within one (1) hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the Contractor shall replace it with new and identical equipment. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional charge to the contract. The Contractor may institute action to recover damages from a responsible third party. If at any time the Contractor fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the City's Electrical Maintenance Contractor perform the maintenance work. The Contractor

shall be responsible for all of the City's Electrical Maintenance Contractor's costs and liquidated damages of $1000 per day per occurrence. The City's Electrical Maintenance Contractor shall bill the Contractor for the total cost of the work. The Contractor shall pay this bill within thirty (30) days of the date of receipt of the invoice or the cost of such work will be deducted from the amount due the Contractor. The Contractor shall allow the Electrical Maintenance Contractor to make reviews of the Existing Traffic Signal Installation that has been transferred to the Contractor for Maintenance.

7. Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

8. Equipment included in this item that is damaged or not operating properly from any cause shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed.

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

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

11. Temporary replacement of damaged or knockdown of a mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the Engineer to assure signal heads are located overhead and over

traveled pavement. Temporary replacement of mast arm mount signals with post mount signals will not be permitted.

12. The following intersections are under the jurisdiction of the City of Wheaton:

    1. President Street & College Avenue

    All work at these intersections, including maintenance transfers, shall be performed in accordance with the applicable portions of the Special Provisions and with any City of Wheaton Traffic Signal policies coordinated through the Engineer.

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

FULL-ACTUATED CONTROLLER AND CABINET

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

This work shall consist of furnishing and installing a "Siemens M52" brand traffic actuated solid state controller or approved equivalent.

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

Unless specified otherwise on the plans or these specifications, the controller shall be of the most recent model and software version supplied by the equipment supplier at the time of the traffic signal TURN-ON. A removable controller data key shall also be provided. Individual load switches shall be provided for each vehicle, pedestrian, and right turn over lap phase. The controller shall prevent phases from being skipped during program changes and after all preemption events and shall inhibit simultaneous display of circular yellow and yellow arrow indications.
Add the following to Article 1074.03 of the Standard Specifications:

(a) (6) Cabinets shall be designed for NEMA TS2 Type 1 operation. All cabinets shall be pre-wired for a minimum of eight (8) phases of vehicular, four (4) phases of pedestrian and four (4) phases of overlap operation.
(b) (1) Revise “conflict monitor” to read “Malfunction Management Unit”

(b) (5) Cabinets – Provide 1/8" (3.2 mm) thick unpainted aluminum alloy 5052-H32. The surface shall be smooth, free of marks and scratches. All external hardware shall be stainless steel.

(b) (6) Controller Harness – Provide a TS2 Type 2 "A" wired harness in addition to the TS2 Type 1 harness.

(b) (7) Surge Protection – Shall be a 120VAC Single phase Modular filter Plug-in type, supplied from an approved vendor.

(b) (8) BIU – shall be secured by mechanical means.

(b) (9) Transfer Relays – Solid state or mechanical flash relays are acceptable.

(b) (10) Switch Guards – All switches shall be guarded.

(b) (11) Heating – One (1) 200 watt, thermostatically-controlled, electric heater.

(b) (12) Lighting – One (1) LED Panel shall be placed inside the cabinet top panel and one (1) LED Panel shall be placed on each side of the pull-out drawer/shelf assembly located beneath the controller support shelf. The LED Panels shall be controlled by a door switch. The LED Panels shall be provided from an approved vendor.

(b) (13) The cabinet shall be equipped with a pull-out drawer/shelf assembly. A 1 ½ inch (38mm) deep drawer shall be provided in the cabinet, mounted directly beneath the controller support shelf. The drawer shall have a hinged top cover and shall be capable of accommodating one (1) complete set of cabinet prints and manuals. This drawer shall support 50 lbs. (23 kg) in weight when fully extended. The drawer shall open and close smoothly. Drawer dimensions shall make maximum use of available depth offered by the controller shelf and be a minimum of 18 inches (610mm) wide.

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

(b) (15) Detector Racks – Fully wired and labeled for four (4) channels of emergency vehicle pre-emption and sixteen channels (16) of vehicular operation.

(b) (16) Field Wiring Labels – All field wiring shall be labeled.

(b) (17) Field Wiring Termination – Approved channel lugs required.

(b) (18) Power Panel – Provide a nonconductive shield.

(b) (19) Circuit Breaker – The circuit breaker shall be sized for the proposed load but shall not be rated less than 30 amps.

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

Basis of Payment.
This work will be paid for at the contract unit price each for FULL-ACTUATED CONTROLLER AND TYPE IV CABINET.

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.

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

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

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

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

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

MAST ARM ASSEMBLY AND POLE
Effective: May 22, 2002
Revised: July 01, 2015
877.01TS

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

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

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

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

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

Add the following to Article 878.03 of the Standard Specifications:

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

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

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

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

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

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

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

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

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

3. All signal heads shall provide 12" (300 mm) displays with glossy yellow or black polycarbonate housings. All head housings shall be the same color (yellow or black) at the intersection. For new signalized intersections and existing signalized intersections where all signals heads are being replaced, the proposed head housings shall be black. Where only selected heads are being replaced, the proposed head housing color (yellow or black) shall match existing head housings. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on. Post top mounting collars are required on all posts, and shall be constructed of the same material as the brackets.

4. The LED signal modules shall be replaced or repaired if an LED signal module fails to function as intended due to workmanship or material defects within the first 7 years from the date of traffic signal TURN-ON. LED signal modules which exhibit luminous intensities less than the minimum values specified in Table 1 of the ITE Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Circular Signal Supplement (June 27, 2005) [VTSCH], or applicable successor ITE specifications, or show signs of entrance of moisture or contaminants within the first 7 years of the date of traffic signal TURN-ON shall be replaced or repaired. The vendor's written warranty for the LED signal modules shall be dated, signed by a vendor's representative and included in the product submittal to the State.

(a) Physical and Mechanical Requirements

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

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

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

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

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

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

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

(b) Photometric Requirements

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

(c) Electrical

1. Maximum power consumption for LED modules is per Table 2.

2. Operating voltage of the modules shall be 120 VAC. All parameters shall be measured at this voltage.

3. The modules shall be operationally compatible with currently used controller assemblies (solid state load switches, flashers, and conflict monitors).

4. When a current of 20 mA AC (or less) is applied to the unit, the voltage read across the two leads shall be 15 VAC or less.

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

6. LED arrows shall be wired such that a catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

(d) The following specification requirements apply to the 12 inch (300 mm) arrow module only. All general specifications apply unless specifically superseded in this section.

1. The arrow module shall meet specifications stated in Section 9.01 of the Equipment and Material Standards of the Institute of Transportation Engineers (November 1998) [ITE Standards], Chapter 2 (Vehicle Traffic Control Signal Heads) or applicable successor ITE specifications for arrow indications.

2. The LEDs arrow indication shall be a solid display with a minimum of three (3) outlining rows of LEDs and at least one (1) fill row of LEDs.

(e) The following specification requirement applies to the 12 inch (300 mm) programmed visibility (PV) module only. All general specifications apply unless specifically superseded in this section.

1. The LED module shall be a module designed and constructed to be installed in a programmed visibility (PV) signal housing without modification to the housing.

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

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

LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEAD
Effective: May 22, 2002
Revised: July 1, 2015
881.01TS

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

No mixing of different types of pedestrian traffic signals or displays will be permitted.

Add the following to Article 881.03 of the Standard Specifications:

(a) Pedestrian Countdown Signal Heads.

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

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

applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on.

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

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

General.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EMERGENCY VEHICLE PRIORITY SYSTEM
Effective: May 22, 2002
Revised: July 1, 2015
887.01TS

Revise Section 887 of the Standard Specifications to read:

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

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

movement shall be signalized by a flashing indication at the rate specified by Section 4L.01 of the "Manual on Uniform Traffic Control Devices," and other applicable sections of future editions. The stopped pre-empted movements shall be signalized by a continuous indication.

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

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

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

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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 City shall be delivered by the Contractor to the City's Traffic Signal Maintenance Contractor's main facility. The Contractor shall contact the City'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 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 City, 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 City'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 the acceptance of a receipt drawn by the City's Electrical Maintenance Contractor indicating the items have been returned in good condition.

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

Revise the first sentence of the last paragraph of Article 895.08 of the Standard Specifications to read:

Basis of Payment.
Removal of existing traffic signal equipment will be paid for at the contract unit price per each intersection for REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

VIDEO VEHICLE DETECTION SYSTEM

This work shall consist of furnishing, installing and placing into operation a vehicle detection system, which detects vehicles by processing video images and providing detection outputs to a traffic signal controller. This equipment shall meet the NEMA environmental, power and surge ratings as set forth in NEMA TS1 and TS2 Specifications.

This work shall consist of furnishing and installing the following "Iteris" brand video detection equipment or approved equivalents:

1. Vantage Edge 2 machine processor
2. (4) RZ-4 Advanced WDR cameras

Hardware.
The sensor shall be four integrated imaging CCD arrays with optics, high-speed, color, image-processing hardware and a CPU bundled into a sealed enclosure. The environmental enclosure shall be waterproof and dust-tight to NEMA-4 specifications. The enclosure shall allow the sensor to operate satisfactorily over an ambient temperature range from -34 degrees C to +60 degrees C while exposed to precipitation as well as direct sunlight. The enclosure shall allow the image sensor horizon to be rotated during field installation. The enclosure shall include a provision at the rear of the enclosure for connection of the factory fabricated power and communications cable. Input power to the environmental enclosure shall be 110/220 VAC and either 50 or 60 Hz. A heater shall be at the front of the enclosure to prevent the formation of ice and condensation in cold weather, as well as to assure proper

operation of the lens' iris mechanism. The heater shall not interfere with the operation of the image sensor electronics, and it shall not cause interference with the video signal. The enclosure shall be light-colored and shall include a sun shield to minimize solar heating and glare. The front edge of the sunshield shall protrude beyond the front edge of the environmental enclosure and shall include provision to divert water flow to the sides of the sunshield. The amount of overhang of the sunshield shall be adjustable to prevent direct sunlight from entering the lens or hitting the faceplate.

The sensor shall process a minimum of twenty detector zones placed anywhere in the field of view of the sensor. The sensor shall have the ability to produce digital streaming MPEG-4 video output. The video output shall have the ability to selectively show overlaid graphics indicating the current real-time detection state of each individual detector defined in the video. The sensor output color video shall be viewed with any compatible video-display device.

Sensor Hardware.

As a minimum each image sensor shall produce images with a CCD sensing element with a horizontal resolution > 470 TVL NTSC. Images shall be output as video conforming to NTSC or PAL specifications and provide software MPEG-4 video compression. The sensor shall provide direct real-time iris and shutter speed control, be usable for video surveillance, provide an optical filter and appropriate electronic circuitry in the sensor to suppress “blooming” effects at night, and have gamma for the image sensor present at the factory to a value of 1.0.

Sensor Optics.

The machine vision sensor shall be equipped with an integrated zoom lens with zoom and focus capabilities that can be changed using either configuration computer software or a hand-held controller.

Functionality.

The sensor shall be able to be programmed with a variety of detector types that perform specific functions selectable by software. Detector types shall include stopbar detectors capable of providing presence of moving vehicle detection based upon phase status, presence detectors, directional presence, and input detectors. Additionally, phase green or red shall be displayed. The sensor shall also have the capability of being programmed with dilemma zone detectors used to extend green time when vehicles are detected in advance of an intersection. The unit shall monitor a programmable contrast detector and apply video loss timing parameters to the output by implementing minimum, maximum, or user defined fixed time recall the assigned phase(s). The detector shall be capable of having Boolean logic applied to multiple detectors or a minimum number of detectors out of a total present, prior to placing a call.

Detector features shall include:

a) Count detection - outputs traffic volume statistics and generates traffic counts and occupancy.
b) Presence detection - indicate presence of a vehicle, stopped vehicle, or vehicles traveling in the wrong direction.
c) Dilemma Zone Detection – detect the presence of vehicles a specific distance from the intersection in order to extend green time.
d) Speed detection - provide vehicle counts, speed, length, and classification.
e) Detector function combines - outputs of multiple detectors via Boolean logic functions.
f) Label displays - information on the machine video output and passes input information to other detectors.
g) Detector Station - collects and reports traffic data gathered over specified time intervals.
h) Incident detection - monitor traffic parameters for conditions that indicate an incident has occurred, such as an accident or a stalled vehicle that results in a sudden reduction in roadway capacity or throughput.
i) Schedulers - define plans that can be used by other detectors to specify different parameters for each time-of-day plan.
j) Contrast Loss detection - monitor the quality of the video image that the machine vision sensor is processing.
k) Speed Alarm - generates alarm outputs based on user-defined algorithms using speed.

External Interfaces.

The external interfaces to the sensor shall include an access point specifically to exchange detector state data with the cabinet interface devices.

Sensor Field Interface Equipment: An interface panel shall be provided for installation. The interface panel shall provide a terminal block for terminating power and wiring to the image sensor.

Supervisor Communications Port.

There shall be an interface panel port to configure and provide general communications. The sensor shall use an RJ45 Ethernet connection to facilitate 10/100 Mbps communications via a network of rack cards to a remote or local PC client/server application. The communications port shall allow the user to update the embedded software with a new software release and interact with a PC client/server application for all of the various detection requests supported by the sensor.

Interface Panel.

The interface panel shall provide a dedicated interface between the machine vision sensor and a detector port master such as a card rack or Access Point. The real-time state of phase inputs shall be transmitted to the sensor. The sensor shall exchange input and output state data with the detector port master every 100 ms. A detector port master shall subsequently translate the detection states in an electrically compatible manner to a traffic signal controller:

(1) The interface card immediately upon receipt of the state change shall apply single pin state outputs and each on or off pulse shall be guaranteed a minimum pulse width of 100 ms.

(2) Speed outputs from 2 pins shall reflect the true output of the delay proportional to measured speed within ±1 ms.

Power.

The sensor shall operate on 110/220 VAC, 50/60 Hz at a maximum of 25 watts. The camera and processor electronics shall consume a maximum of 10 watts. The remaining 15 watts shall support an enclosure heater.

Sensor Operations.

Log The machine vision sensor shall maintain a non-volatile operations log, which minimally contains:

a. Revision numbers for the current machine vision sensor hardware and software components in operation.
b. Title and comments for the detector configuration.
c. Date and time the last detector configuration was downloaded to the machine vision sensor.
d. Date and time the operation log was last cleared.
e. Date and time communications were opened or closed with the machine vision sensor.
f. Date and time of last power-up.
g. Time-stamped, self-diagnosed hardware, and software errors that shall aid in system maintenance and troubleshooting.

Sensor Vehicle Detection Performance.

The real time detection performance of the machine vision sensor shall be optimized by following the guidelines for the traffic application including, sensor mounting location; the number of traffic lanes to monitor; the sizing, placement, and orientation of vehicle detectors; traffic approaching and/or departing from the sensor ’s field of view; and minimizing the effects of lane changing maneuvers.

Detection Zone Placement.

The video detection system shall provide flexible detection zone placement anywhere and at any orientation within the field of view of the machine vision sensor. Preferred detector configurations shall be detection zones placed across lanes of traffic for optimal count accuracy, detection zones placed parallel to lanes of traffic for optimal presence detection

accuracy of moving or stopped vehicles. A single detection zone shall be able to replace one or more conventional detector loops connected in series. Detection zones shall be able to be overlapped for optimal road coverage. In addition, selective groups of detectors shall be able to be logically combined into a single output by using optional delay and extend timing and signal state information. Optimal detection shall be achieved when the sensor placement provides an unobstructed view of each traffic lane where vehicle detection is required. Obstructions are not limited to fixed objects. Obstruction of the view can also occur when vehicles from a lane nearer to the sensor obscure the view of the roadway of a lane further away from the sensor.

Detection Zone Programming.

Placement of detection zones shall be by means of a portable or desktop computer using a Windows operating system, a keyboard, and a mouse. The VGA monitor shall be able to show the detection zones superimposed on images of traffic scenes. The mouse and keyboard shall be used to place, size, and orient detection zones to provide optimal road coverage for vehicle detection; modify detector parameters for site geometry to optimize performance; edit previously defined detector configurations; adjust the detection zone size and placement; add detectors for additional traffic applications; reprogram the sensor for different traffic applications, changes in installation site geometry, or traffic rerouting.

It shall be possible to download detector configurations from the computer to the sensor; upload the current detector configuration that is running in the sensor; back up detector configurations by saving them to the computer's removable or fixed disks; perform the above upload, store, and retrieve functions for video snapshots of the sensors' view.

Optimal Detection.

The sensor shall be able to view either approaching or departing traffic or both in the same field of view. The sensor, when placed at a mounting height that minimizes vehicle image occlusion and equipped with a lens to match the width of the road shall be able to monitor a maximum of 6 to 8 traffic lanes simultaneously.

Detection Zone Operation.

The sensor's real-time detection operation shall be verifiable through the following means:

a. View the video output of the sensor with any standard video display device (monitor).
b. The video output of the sensor shall be capable of selectively transmitting:
    (1) Camera video only.
    (2) Analog video overlaid with the current real-time detection state of each detector.
    (3) Camera video with overlaid, scaled cross-hairs that are used for aiming the sensor (during installation).

(4) Individual detectors shall have the option of being hidden.

c. View the associated output LED state on the detector port master:

(1) An LED shall be ON when its assigned detector output or signal controller phase input is on.

(2) An LED shall be OFF when its assigned detector or signal controller input is off.

Count Detection Performance.

Using a sensor installed within the optimal viewing specifications described above for count station traffic applications the system shall be able to accurately count vehicles with at least 96% accuracy under normal operating conditions (day and night) and at least 93% accuracy under adverse conditions. Adverse conditions are combinations of weather and lighting conditions that result from shadows, fog, rain, snow, etc.

Demand Presence Detection Performance.

Using a sensor installed within the optimal viewing specifications described above for intersection control applications the system shall be able to accurately provide demand presence detection. The demand presence accuracy shall be based on the ability to enable a protected turning movement on an intersection stop line, when a demand exists. The probability of not detecting a vehicle for demand presence shall be less than 1-percent error under all operating conditions. In the presence of adverse conditions, the machine vision sensor shall minimize extraneous (false) protected movement calls to less than 7 %.

Speed Detection Performance.

The sensor shall accurately measure average (arithmetic mean) speed of multiple vehicles with more than 98% accuracy under all operating conditions for approaching and departing traffic. The average speed measurement shall include more than 10 vehicles in the sample to ensure statistical significance. The sensor shall accurately measure individual vehicle speeds with more than 95% accuracy under all operating conditions for vehicles approaching the sensor (viewing the front end of vehicles), 90% accuracy for vehicles departing from the sensor (viewing the rear end of vehicles). These specifications shall apply to vehicles that travel through both the count and speed detector pair and shall not include partial detection situations created by lane changing maneuvers.

Sensor Electrical.

The video output of the sensor shall be isolated from earth ground. All video connections from the sensor to the interface panel shall also be isolated from earth ground. The video output, communication, and power stages of the sensor shall include transient protection to prevent damage to the sensor due to voltage transients occurring on the cable leading from the machine vision sensor to other field terminations. Connections for video, communications and power shall be made to the image sensor using a “three wires only” branch cable connection and shall be installed to the interface panel with compression blocks.

The machine vision sensor shall have passed requirements for and received the CE mark. The power to the sensor shall be fused in the controller cabinet.

Auxiliary Equipment.
The system shall be supplied with a color 10-inch monitor in the controller cabinet to display a camera field of view with detection areas overlaid. The input to the monitor shall be selectable from any of the cameras in the system via a push button selector device. An Ethernet cable shall be supplied in the cabinet to allow for communications from the video detection system to a laptop computer.

Training.
The supplier of the video detection system shall provide adequate training to City maintenance and engineering staff in the operation, setup and maintenance of the video detection system.

Basis of Payment.
This work will be paid for at the contract unit price each per intersection for VIDEO VEHICLE DETECTION SYSTEM, which price shall be payment in full for furnishing, installing, placing into operation and training of/for the equipment specified to the satisfaction of the Engineer.

CAMERA MOUNTING ASSEMBLY

This item shall consist of furnishing and installing a camera mounting assembly to traffic signal mast arms as shown on the plan details.

The assembly consists of two adjustable galvanized steel mast arm clamps, 8 feet of galvanized steel schedule 80 pipe, and a camera mounting bracket. The camera mounting bracket shall be affixed to the pipe with stainless steel ¾" banding.

Basis of Payment.
This work will be paid for at the contract unit price each for CAMERA MOUNTING ASSEMBLY, which price shall be payment in full for furnishing and installing the equipment specified and shown on the plans to the satisfaction of the Engineer.

TEMPORARY INFORMATION SIGNING

Description.
This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs in accordance with IDOT District 1 Standard TC-22. Included in this item may be ground mount signs, skid mount

signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

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

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

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

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

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

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

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

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

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

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

TRAFFIC SIGNAL TIMING

Description.
This work shall consist of providing revised timing for a modernized traffic signal at the following traffic signal location as described below.

President Street & College Avenue

For the purposes of traffic signal timing 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 programmed as specified by an approved Consultant who has previous experience in timing traffic signal systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants. Traffic signal system timing work shall be consistent with current traffic signal timing practices used in IDOT District 1, applicable requirements stated in the most recent IDOT District 1 SCAT Guidelines and (NCHRP Report 812) Signal Timing Manual – Second Edition except as noted herein.

The Consultant shall confer with the Engineer and/or City's Traffic Engineering staff 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 traffic signal timing.

The following tasks are associated with Traffic Signal Timing for this project.

a. Appropriate signal timings shall be developed for the subject intersection.
b. Proposed signal timing plan for the modified intersection(s) shall be forwarded to the City 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. Adverse operating conditions shall include conditions caused from the nearby Union Pacific/Metra railroad crossing located approximately 400 feet south of the intersection. The consultant shall respond to City's comments and public complaints for a minimum period of 60 days from date of timing plan implementation.

d. Recent manual turning movement counts are available from the City upon request.

The following deliverables shall be provided for Traffic Signal Timing.

a. Consultant shall furnish to the Engineer one (1) copy of a technical memorandum for the timing of the traffic signal. The technical memorandum shall include the following elements:
   (1) Brief description of the project
   (2) Printed copies of the analysis output from any Synchro (or other appropriate, approved software file)
   (3) Printed copies of the traffic counts conducted at the subject intersection
b. Consultant shall furnish to the Engineer two (2) CDs for the newly timed traffic signal. The CDs shall include the following elements:
   (1) Electronic copy of the technical memorandum in PDF format
   (2) Any Synchro files (or other appropriate, approved optimization software file) of the new signal
   (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 TRAFFIC SIGNAL TIMING, which price shall be payment in full for performing all work described herein per intersection. Following completion of the timings and submittal of specified deliverables, 100 percent of the bid price will be paid.

EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
Effective: January 1, 2013
Revised: July 1, 2015
873.03TS

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

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

LUMINAIRE, LED, HORIZONTAL MOUNT, 108 WATT

This work shall consist of furnishing and installing street lighting luminaires as specified in the Plans. The luminaires shall be a 108 watt LED flat lens fixture for horizontal mounting with full cut-off photo metrics for a Type 3 distribution and the following.

a) The reflector, refractor or lens and the entire optical assembly shall not develop any discoloration over the normal life span of the luminaire.
b) The luminaire shall be suitable for multi-volt (120/208/240/277) operation set for 120 volt connection.
c) The luminaire housing shall be of the modular component design with "power door" and abrasion resistant gray finish.
d) Each luminaire shall be equipped with a 120/240 volt photo-cell receptacle and a shorting cap or photo-cell which meets the requirements of Section 602.6.
e) The luminaires shall be "General Electric (G.E.) ERS2-0-16-G1-40-A" or an approved equivalent.
g) The lamp shall be of clear finish, be heat and shock resistant, and be capable of operating in a horizontal position, and shall meet the applicable requirements of the Section 821 of the Standard Specifications and Section 602 of the City of Naperville Standard Specifications.

Basis of Payment.
This work shall be paid for at the contract unit price per each for LUMINAIRE, LED, HORIZONTAL MOUNT, (SPECIAL), which price shall be payment in full for the luminaire with lamp, photocell, all nuts, bolts and incidentals necessary to complete the lighting unit assembly.

ACCESSIBLE PEDESTRIAN SIGNALS

Description.
This work shall consist of furnishing and installing pedestrian push button accessible pedestrian signals (APS) type. 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.

This work shall consist of furnishing and installing the following "Polara" brand APS push button or approved equivalent:

"EZ Communicator Navigator 3 Wire Push Button Station"

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 with volume settings a maximum of 5 dBA louder than ambient sound.

If two accessible pedestrian pushbuttons are placed less than 10 ft (3 m) apart or placed on the same pole, the audible walk indication shall be a speech walk message.

A clear, verbal message shall be used to communicate the pedestrian walk interval. This message shall sound throughout the WALK interval only. The verbal message shall be modeled after: "Street Name." Walk Sign is on to cross "Street Name." No other messages shall be used to denote the WALK interval.

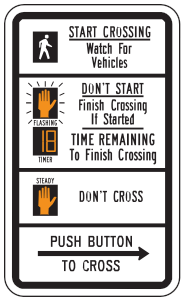
Where two accessible pedestrian pushbuttons are separated by at least 10 ft (3 m), the walk indication shall be an audible percussive tone. It shall repeat at 8 to 10 ticks per second with a dominant frequency of 880 Hz.

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

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 indicator shall be located on or near the pushbutton which, when activated, acknowledges the pedestrians request to cross the street. The recorded messages and roadway designations shall be confirmed with the engineer and included with submitted product data.

Signage.
A sign shall be located immediately above the pedestrian pushbutton and parallel to the crosswalk controlled by the pushbutton. The sign shall be the following standard MUTCD design: R10-3e (9" x 15").



R10-3e

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

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

Training.
The Contractor shall provide APS onsite training for Department personnel and person(s) or group that requested the installation of the APS. APS features and operation shall be demonstrated during the training. The training shall be presented by the APS equipment supplier. Time, date, and location of the training and demonstration shall be coordinated with the Engineer.

Basis of Payment.
This work will be paid for at the contract unit price each for a pedestrian push button, ACCESSIBLE PEDESTRIAN SIGNALS type and shall include furnishing, installation, mounting hardware, message programming, and training.

TRAFFIC CONTROL AND PROTECTION (SPECIAL)

The Contractor shall be responsible for all signing, traffic control, and protection of this project in accordance with applicable parts of Section 701 of the Standard Specifications, the Supplemental Specifications, and the latest edition of the State of Illinois Manual on Uniform Traffic Control Devices (MUTCD), Traffic Control Devices for Streets and Highway", special details, Highway Standards, General Notes/Maintenance of Traffic plan contained in the Plans and the Special Provisions contained herein. The Contractor shall follow the traffic control guidelines as outlined by the MUTCD and I.D.O.T. standards.

Work zone safety shall be practiced and maintained at all times until the project work is completely finished.

The standards for traffic control are considered the minimum amount necessary, and the Engineer reserves the right to adjust or modify the traffic control as deemed necessary throughout the various stages of construction to guarantee the safety of motorists and pedestrians during construction.

This item of work shall include furnishing, installing, maintaining, replacing, relocating and removing all traffic control devices used for the purpose of regulating, warning or directing traffic during the construction or maintenance of this improvement.

Traffic Control and Protection shall be provided as called for in these Special Provisions, applicable Highway Standards, applicable sections of the Standard Specifications, or as directed by the Engineer. Special attention is called to Articles 107.09, 107.14 and Section 701 of the Standard Specifications and the following Highway Standards, Details, General Notes/MOT plan (in the Plans), Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

STANDARDS:	701701-10, 701801-06, 701901-05
DETAILS:	Typical Pavement Markings (TC -13), Arterial Road Information Sign (TC – 22)
PLANS:	Maintenance of Traffic (MOT)

The Contractor shall contact the Engineer of the maintaining agency at least 72 hours in advance of beginning work.

The governing factor in the execution and staging of work for this project is to provide the motoring public and pedestrians with the safest possible travel conditions along the roadway and sidewalk through the construction zone. The Contractor shall arrange his operations to keep delays or the closing of any lane of the roadway to a minimum.

All traffic control devices used on this project shall conform to the Special Provisions, Traffic Control Standards, Traffic Specifications and the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways. No modification of these requirements will be allowed without prior approval of the Engineer.

Traffic control devices include signs and their supports, signals, pavement markings, barricades with sand bags, barrels, channelizing devices, warning lights, arrow boards, flaggers, or any other device used for the purpose of regulating, detouring, warning or guiding traffic through or around the construction zone.

The initial erection of a traffic control installation shall not include devices that are bent, scratched, faded, worn, and dirty or otherwise present a shabby appearance. The Contractor is required to conduct routine inspections of the work site at a frequency that will allow for the prompt replacement of any traffic control device that has become displaced, worn or damaged to the extent that it no longer conforms to the shape, dimensions, color and operational requirements of the MUTCD, and the Traffic Control Standards or will no longer present a neat appearance to motorists. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement.

The Contractor shall be responsible for the proper location, installation and arrangement of all traffic control devices. Special attention shall be given to advance warning signs during construction operations in order to keep lane assignment consistent with barricade placement at all times. The Contractor shall immediately remove, cover or turn from the view of the motorists all traffic control devices which are inconsistent with detour or lane assignment patterns and conflicting conditions during the transition from one construction stage to another. When the Contractor elects to cover conflicting or inappropriate signing, the materials used shall totally block out reflectivity for the sign and shall cover the entire sign. The method used for covering the signing shall meeting with the approval of the Engineer.

The Contractor shall coordinate all traffic control work on this project with adjoining or overlapping projects, including barricade placement necessary to provide a uniform traffic detour pattern. When directed by the Engineer, the Contractor shall remove all traffic control devices which were furnished, installed and maintained by him/her under this Contract, and such devices shall remain the property of the Contractor. All traffic control devices shall remain in place until authorization for relocation or removal is received from the Engineer.

The Contractor shall ensure that all traffic control devices installed by him/her are operational, functional and effective 24 hours a day, including Sundays and holidays.

After curb and gutter removal and prior to its replacement, the Contractor shall fill excavations with temporary stone or millings and provide bituminous patching to provide a safe driving surface. The Contractor shall be responsible for routinely inspecting and maintaining this temporary pavement. The cost of all temporary stone (or millings) ramps and access provisions shall be included in the cost to the Traffic Control and Protection pay item.

Where access is specified across the work zone, adequate temporary stone (or at the Contractors option, millings) ramps must be provided and maintained until pavement is once again restored. The ramps may need to be cut out and put back at various stages of excavation and as road building progresses. The cost of all temporary stone (or millings) ramps and bituminous patching shall be included in the cost to the Traffic Control and Protection pay item.

Arterial Road Information signs shall be posted in advance of the project limits as directed by the Engineer prior to beginning of work per IDOT traffic control standard TC – 22 and shall remain in place throughout the duration the project.

A "DO NOT STOP ON TRACKS" (R8-8) sign shall be permanently placed near the railroad tracks as shown on the MOT plan or as directed by the Engineer. The sign shall not be removed upon completion of the project and shall remain permantly.

This item includes all temporary stone access drives, signs, signals ,electric arrow boards, reflectorized paint lines and markings, traffic cones, barricades, warning lights, drums, flagmen, and other traffic control devices required for the type of operation being performed. The Contractor shall at all times conduct the work in such a manner as to ensure the least obstruction to vehicular and pedestrian traffic. The convenience and safety of the general public and of residents along the site shall be provided for in an adequate and satisfactory manner.

Sidewalk replacement work is situated in areas traveled by pedestrians. Intermittent repairs may be encountered by pedestrians and bicyclists both day and night throughout the various phases of the work. The contractor must anticipate this and accommodate them. Any potential hazards to the general public due to nails, boards, materials, equipment, obstructions, tripping hazards, drop-offs or any hazardous aspects of the work must be remedied or properly protected and barricaded.

All of the contractor's workers must wear reflective orange vests at all times during work operations.

The contractor shall obtain, erect, maintain and remove all signs, markings, barricades, electric light arrow boards, flagmen and other traffic control devices as may be necessary for the purpose of regulating, warning or guiding traffic and/or pedestrians. Placement and maintenance of all traffic control devices shall be as directed by the Engineer and in accordance with the attached standards, applicable parts of Article 107.14 of Standard Specifications and the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways.

The Contractor shall clean the pavement of all dust, dirt and debris at the end of each day's operation and as required at other times. Maintenance of work zone driving lanes and temporary driving lanes shall be maintained at all times by the Contractor to the satisfaction of the Engineer. At times, temporary asphalt will need to be used in order to fill "potholes" and any other pavement deficiencies to maintain a safe driving area through the construction zone. Nails should never be lying on the pavement.

Any traffic control device which has become ineffective due to damage or defacement shall be replaced by the Contractor. All traffic control devices shall be kept clean and neat

appearing. Barricades placed in excavated areas shall have leg extensions to maintain proper barricade height above the traveled way.

All barricades or signs shall be equipped with highly reflectorized covering and flashing amber warning lights. Construction signs necessary only during working hours shall be removed or covered during non-working hours.

Barricades used for channelization or delineation and warning signs shall be sequentially placed in the direction of the traffic flow and removed in reverse order. Lane closure signs and flagmen signs shall be erected prior to barricades and/or cones, and shall remain erected until such time as all traffic control devices have been removed from the pavement.

The Contractor shall notify the city at least two (2) working days in advance of any construction work which might in any way inconvenience or adversely impact traffic.

The Contractor shall at all times conduct the work in such a manner as to ensure the least obstruction to vehicular and pedestrian traffic. The convenience and safety of the general public and of residents along the site shall be provided for in an adequate and satisfactory manner.

During the work operation, a minimum of one lane of traffic must be maintained in each direction at all times. All lane closures must be approved by the engineer in advance. Appropriate lane closures with arrow boards and signs are required regardless of duration of the lane reduction.

The Contractor shall clean the pavement, sidewalks and driveways of all dust, dirt and debris at the end of each day's operation and as required at other times.
At all times during which workers are present and where two-way traffic is to be maintained over one lane of pavement, the Contractor shall furnish flaggers to protect his workers and to warn and direct traffic. Two flaggers will be required for each separate operation. Barricades used for channelization or delineation and warning signs shall be sequentially placed in the direction of the traffic flow and removed in reverse order. Lane closure signs and flagger signs shall be erected prior to barricades and/or cones, and shall remain erected until such time as all traffic control devices have been removed from the pavement.

Type I and Type II barricades shall be placed on 15m (50') centers for the entire length of a lane closure. Approach tapers shall be 10:1 with one (1) barricade placed for every 0.5m (2') of lateral displacement. Type I and Type II barricades shall not be intermixed within a string of barricades.

Prior to beginning any work, the Contractor shall post mount 1200mm X 1200mm (48" X 48"), "Road Construction Ahead" signs. These signs shall be mounted on all approaching streets of the work site, as shown on the Maintenance of Traffic sheets. These signs shall be left in

place for the duration of the project. During construction operations additional signage is required. The post mounted Road Construction Ahead signs do not override the additional signage required for certain aspects of the construction process. They provide the motorist with warning of ongoing construction operations prior to the motorist entering that area.

The Contractor shall also provide a list of three persons who can be contacted on a 24-hour basis to handle barricading, or other problems relating to the construction activity. These emergency response persons shall be capable of responding within 1 hour after notification by the City. (If there has been no response within 1 hour after notification, the City will respond at a cost of $40 per hour (1 man plus truck) with a minimum charge of two hours plus materials. This charge will be deducted from payments to the contractor.

Any pedestrian signal heads or buttons that are not functioning during construction shall be bagged by the Contractor.

Failure to comply with directions from the Engineer for correction of or changes to traffic control devices will result in a charge of $500.00 per day.

This work will be paid for at the contract LUMP SUM price for "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)." The price shall include all labor, materials and equipment necessary to provide, erect and maintain all traffic control and protection as outlined in these specifications, Standard Details, General Notes/MOT plan and as directed by the Engineer. No additional compensation shall be made.

Arterial Road Information signs shall be paid for separately at the contract SQ FT price for “TEMPORARY INFORMATION SIGNING”.

The “DO NOT STOP ON TRACKS” sign shall be paid for separately at the contract SQ FT price for SIGN PANEL, TYPE 2 and contract FOOT price for TELESCOPING STEEL SIGN SUPPORT.

LIGHTING CABLE FUSE KITS

Furnishing and installation of In-line fuse holder(s) and fuse(s) on all leads shall be in accordance with Article 1065.01 of the standard specifications and as follows:

A. Fuse holders of the in-line quick disconnect breakaway type shall be used on all light pole installations in the base of each lighting standard. The fuse holder shall have a minimum rating of 30 amps. and be sized for 13/32” x 1 1/2” fuses. Fuse holder shall be Edison HEB-AW-RLC-A 30A 600V for load/line and HET-AW-RLC-A for neutral or equal as approved by Engineer.

B. Wires shall be carefully stripped only as far as needed for connection to the device. Over-stripping shall be avoided. An oxide inhibiting lubricant shall be applied to the wire for minimum connection resistance before the terminals are crimped-on.

C. Crimping shall be performed in accordance with the fuse holder manufacturer's recommendations.

D. The exposed metal connecting portion of the assembly shall be taped with two half-lapped wraps of electrical tape and then covered by the specified insulating boot.

E. The fuse holder shall be installed such that the fuse side is connected to the pole wire (load side) and the receptacle side of the holder connected to the line side.

F. In-line fuse holder(s) shall be provided on all neutral conductors with a solid slug in place of the fuse in the base of each lighting standard.

G. Fuses for fuse holders on line/load cable to pole wire connection shall be Type MEQ or MEM equal 12 ampere rating.

This work consists of a furnishing and installing:

- a quick disconnect breakaway fuse holder and fuse for the power cable to pole wire connection and
- a quick disconnect breakaway fuse holder and solid slug for the neutral conductor connection
- MEQ or MEM 12 ampere rated fuse.

This work will be paid for at the contract unit price per each for LIGHTING CABLE FUSE KIT.

UNINTERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL

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 10 (ten) 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 AND CABINET (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.

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

Revise Article 862.04 of the Standard Specifications to read:

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

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

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

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

The UPS shall include the following "Alpha" brand UPS equipment or approved equivalents:

1. Alpha FXM1100 UPS Module
2. Alpha (Battery) Heater Mats
3. AlphaGuard Battery Charge Management System

The UPS shall be line interactive or double conversion and provide voltage regulation and power conditioning when utilizing utility power. The UPS shall be sized appropriately for the intersection(s) normal traffic signal operating load. The UPS must be able to maintain the intersection's normal operating load plus 20 percent (20%) of the intersection's normal operating load. When installed at a railroad-interconnected intersection the UPS must maintain the railroad pre-emption load, plus 20 percent (20%) of the railroad preemption-

operating load. The total connected traffic signal load shall not exceed the published ratings for the UPS.

The UPS shall provide a minimum of 10 (ten) hours of normal operation run-time for signalized intersections with LED type signal head optics at 77 °F (25 °C) (minimum 1000 W active output capacity, with 86 percent minimum inverter efficiency).

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

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

Revise Article 1074.04(a)(10) of the Standard Specifications to read:

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

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

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

Revise Article 1074.04(b)(2)b of the Standard Specifications to read:
Batteries, inverter/charger and power transfer relay shall be housed in a separate NEMA Type 3R cabinet. The cabinet shall be Aluminum alloy, 5052-H32, 0.125-inch thick and have a natural mill finish.

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

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

Revise Article 1074.04(b)(2)e of the Standard Specifications to read:
The battery cabinet housing shall have the following nominal outside dimensions: a width of 25 in. (785 mm), a depth of 16 in. (440 mm), and a height of 41 to 48 in. (1.1 to 1.3 m). Clearance between shelves shall be a minimum of 10 in. (250 mm).

End of paragraph 1074.04(b)(2)e

The door shall be equipped with a two position doorstop, one a 90^{o} and one at 120^{o}.

Revise Article 1074.04(b)(2)g of the Standard Specifications to read:
The door shall open to the entire cabinet, have a neoprene gasket, an Aluminum continuous piano hinge with stainless steel pin, and a three point locking system. The cabinet shall be provided with a main door lock which shall operate with a traffic industry conventional No. 2 key. Provisions for padlocking the door shall be provided.

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

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

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

(8) The UPS shall include a tip or kill switch installed in the battery cabinet, which shall completely disconnect power from the UPS when the switch is manually activated.

(9) The UPS shall include standard RS-232 and internal Ethernet interface.

(10) The UPS shall incorporate a flanged electric generator inlet for charging the batteries and operating the UPS. The generator connector shall be male type, twist-lock, rated as 15A, 125VAC with a NEMA L5-15P configuration and weatherproof lift cover plate. Access to the generator inlet shall be from a secured weatherproof lift cover plate or behind a locked battery cabinet police panel.

(11) The bypass switch shall include an internal power transfer relay that allows removal of the battery back-up unit, while the traffic signal is connected to utility power, without impacting normal traffic signal operation.

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

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

Revise Article 1074.04(d)(4) of the Standard Specifications to read:
Batteries shall be certified by the manufacturer to operate over a temperature range of -13 to 160 °F (-25 to + 71 °C) for gel cell batteries and -40 to 140 °F (-40 to + 60 °C) for AGM type batteries.

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

(9) The UPS shall consist of an even number of batteries that are capable of maintaining normal operation of the signalized intersection for a minimum of 10 (ten) hours. Calculations shall be provided showing the number of batteries of the type supplied that are needed to satisfy this requirement. A minimum of four batteries shall be provided.

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

Add the following to the Article 1074.04 of the Standard Specifications:

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

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

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

Revise Article 862.05 of the Standard Specifications to read:

Basis of Payment.
This work will be paid for at the contract unit price per each for UNINTERRUPTABLE POWER SUPPLY AND CABINET (SPECIAL).

CONSTRUCTION LAYOUT (SPECIAL)

The Contractor will be required to furnish and place construction layout stakes for this project. The Contractor will locate and reference the centerline of survey and will establish benchmarks along the line of the improvement outside construction limits. Location and referencing the centerline of survey shall consist of locating and referencing control points such as point of curvature, points of tangent, and sufficient points on tangent to provide a line of sight. Control points set by the Contractor shall be identified in the field. Any structure scheduled for removal has been depicted with an "R, RMF, RPF and RCF" on the Plans. The Contractor will be responsible for establishing additional ties if they are required.

The Contractor shall provide field forces directed by a registered surveyor or engineer, and set all additional stakes for this project, including interchanges, which are needed to establish offset stakes, reference points, slope stakes, pavement and curb line and grade, stakes for sewers and drainage structures, paved gutters, sidewalk grades and any other horizontal or vertical controls, including supplementary benchmarks, necessary to secure a correct layout of the work. Grading slope stakes shall be set at sufficient intervals (not to exceed 100 feet) to accurately outline the slopes. Stakes for line and grade of pavement and/or curb shall be set at sufficient station intervals (not to exceed 50 feet) to assure substantial conformance to plan line and grade.

The Contractor will not be required to set additional stakes to locate a utility line which is not included as a pay item in the Contract, or to determine the property line between properties.

The Contractor shall be responsible for having the finished work substantially conform to the lines, grades, elevations and dimensions called for in the Plans. Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of all or any part of it shall not relieve the Contractor of his responsibility to secure the proper dimensions, grades, and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of stakes and benchmarks, and shall have them reset at his expense when any are damaged, lost, displaced or removed. The Contractor shall use a registered land surveyor or engineer and competent personnel and suitable equipment for the layout work required. The Contractor shall not engage the services of any person or persons in the employ of the City for the performance of any of the work covered by this item.

Special attention is drawn to the fact that the Contractor will be required to keep and provide to the City electronic record drawings (PDF format) of the improvement. The Contractor will be required to keep the as-built information recorded on the drawings. Standard dimensioning techniques are to be used. The information shall be clear and legible and render a satisfactory print as determined by City. Lettering on any plans shall not be smaller than 1/10 of an inch in height.

The Contractor shall retain the services of a Professional Engineer registered in the State of Illinois who shall review the record drawings and then provide the signed and sealed statement of opinion regarding the contents of the information included in the record drawings. The statement of opinion will be in accordance with the statement of opinion provided by the City at the pre-construction meeting.

As-built information on the record drawings shall include:

1. Dimensional ties of all conduit crossings.

2. Sidewalk grades and breakpoints in grade for improvements.

3. GPS Coordinates of all installed traffic signal facilities in accordance with IDOT's requirements for record drawings (see IDOT special provisions).

4. Any other deviations from the Plans should be noted on the record drawings.

This work will be paid for at the Contract lump sum for CONSTRUCTION LAYOUT (SPECIAL) which shall include all materials, equipment, and labor as needed to establish, maintain and correct as necessary, the lines and grades as described herein.

REMOVAL AND DISPOSAL OF SURPLUS EXCAVATED MATERIALS

This work shall be in accordance with section 202 of the Standard Specification except as modified herein.

Add the following to Article 202.03 of the Standard Specifications:

All excess excavated materials resulting from but not limited to traffic signal modernization, sidewalk and other associated roadway improvements as specified in the Plans and as directed by the Engineer shall be properly disposed outside the limits of the project as described herein.
Replace Article 202.08 of the Standard Specifications to read:

Basis of Payment.
This work will be paid for at the contract unit price per cubic yard for REMOVAL AND DISPOSAL OF SURPLUS EXCAVATED MATERIALS.

SIDEWALK CURB

This work shall be in accordance with section 424 of the Standard Specification except as modified herein.

Add the following to Article 424.01 of the Standard Specifications:

This work shall be provided to maintain proper elevation for constructing ADA ramps as shown in the plans and as directed by the Engineer.

Add the following to Article 424.01 of the Standard Specifications:

This work shall be constructed according to current ADA Standards and per HWY STD 424026 Side Curb detail.

Replace Article 424.12 of the Standard Specifications with the following:

This work will be measured for payment in place in feet along the face of the curb."

Replace Article 424.13 of the Standard Specifications with the following:

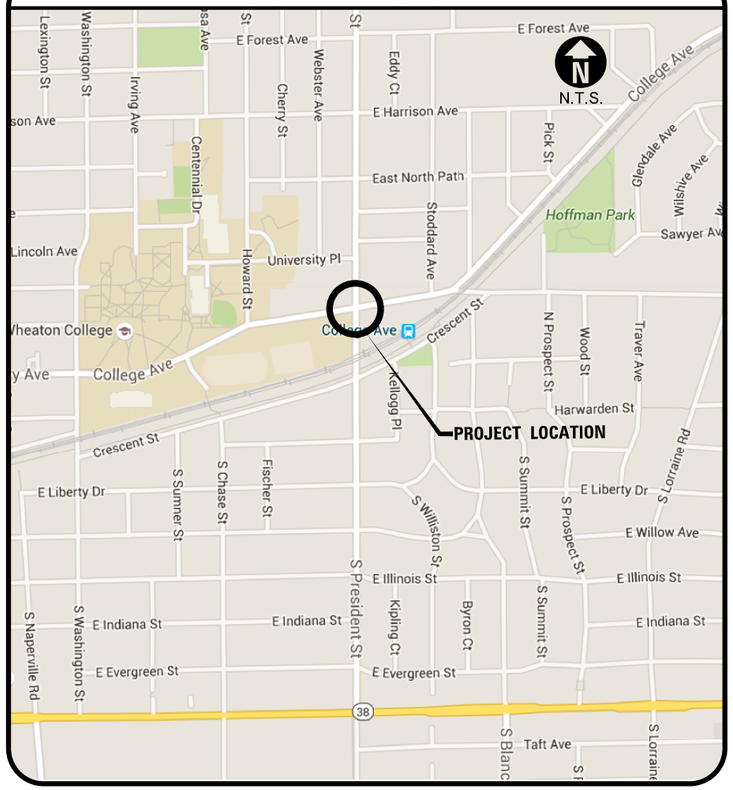
Basis of Payment.
This work will be paid for at the contract unit price per foot for SIDEWALK CURB."

TRAFFIC SIGNAL INSTALLATION PLAN

PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

INDEX

LOCATION / VICINITY MAP



STANDARDS

IDOT

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
424001-08	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-05	TRAFFIC CONTROL DEVICES
805001-01	ELECTRICAL SERVICE INSTALLATION DETAILS
814001-03	HANDHOLES
814006-02	DOUBLE HANDHOLES
821101-01	LUMINAIRE WIRING DIAGRAM
857001-01	STANDARDS PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPABLE POWER SUPPLY (UPS)
877011-06	STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
877011-07	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001-10	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS

BENCH MARK: OSBM15-50 LOCATION: FIRE HYDRANT STA. 255+55, 44' LT.

CALL JULIE 1-800-892-0123
WITH THE FOLLOWING:
COUNTY DUPAGE
CITY-TOWNSHIP WHEATON-MILTON
SEC. & 1/4 SEC. NO. 16 & N.E.
48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

ENGINEER 6-29-2016 DATE

GEORGE M. ZIEGLER
062-045853
REGISTERED PROFESSIONAL ENGINEER
ILLINOIS

GEORGE M. ZIEGLER
ILLINOIS REGISTRATION No. 062-045853
EXPIRATION DATE: 11-30-2017

CLIENT :

CITY OF WHEATON
303 W. Wesley Street
Wheaton, Illinois
60187

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

PROFESSIONAL DESIGN FIRM No.: 184-001742
EXPIRATION DATE: 04-30-2017

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SPECIFICATIONS, STANDARDS, AND SPECIAL PROVISIONS

1. ALL REFERENCES TO STANDARD SPECIFICATIONS IN THESE GENERAL NOTES SHALL BE INTERPRETED TO MEAN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, APRIL 1, 2016 AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED APRIL 1, 2016.

2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", (ILMUTCD; THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS", SSTC), "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" JULY 2009 6TH EDITION, THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS, IDOT STANDARD DRAWINGS, , THE AMERICANS WITH DISABILITIES ACT OF 1990 ACCESSIBILITY GUIDELINES, THE "DRAFT" REHABILITATION ACT OF 1973 (SECTION 504), AND THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES.

3. IN THE GENERAL NOTES, ALL REFERENCES TO ENGINEER SHALL BE INTERPRETED AS THE RESIDENT ENGINEER, AND ALL REFERENCES TO CITY AND TO OWNER SHALL BE INTERPRETED AS THE CITY OF WHEATON.

STAKING

1. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE CITY, ITS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

2. ALL RADII FOR PROPOSED CURB AND GUTTER ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

3. THE STATION/OFFSET/ELEVATIONS NOTED FOR ALL DRAINAGE STRUCTURES LOCATED IN THE CURB LINE REFER TO THE POSITION OF THE ADJACENT PROPOSED EDGE OF PAVEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE OFFSET NECESSARY FOR EACH STRUCTURE TO SET THE FRAME AND GRATE IN THE PROPER LOCATION. ALL OTHER STRUCTURES ARE DIMENSIONED TO THE CENTER OF STRUCTURE.

4. PAVEMENT GRADES: THE ELEVATIONS INDICATED ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT, UNLESS OTHERWISE INDICATED.

UTILITIES

1. PRIOR TO THE START OF THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES. THE LOCATION OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE CITY DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT LOCATION OF SUCH UTILITIES AND EXERCISE CARE DURING CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING UTILITIES SO THAT THEIR FACILITIES MAY BE LOCATED AND ADJUSTED OR MOVED.

2. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS, WATER, SEWER, AND CABLE TELEVISION FACILITIES. 48 HOURS NOTIFICATION IS REQUIRED.

3. THE CITY WILL LOCATE EXISTING SANITARY AND WATER SERVICE CONNECTIONS TO THE INDIVIDUAL RESIDENCES (AT THE MAIN ONLY) WITHIN THE PROJECTS LIMITS DEPENDENT ON AVAILABLE INFORMATION. THESE SERVICES WILL BE LOCATED ONE TIME ONLY. FROM THEN ON THE CONTRACTOR SHALL DOCUMENT AND BE RESPONSIBLE FOR MAINTAINING KNOWLEDGE OF THE LOCATIONS OF THESE SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AS-BUILT KNOWLEDGE OF THE LOCATION (INCLUDING ELEVATIONS) OF THE NEWLY INSTALLED SERVICES AND MAINS. THE CITY WILL NOT BE RESPONSIBLE FOR LOCATING NEW MAINS OR SERVICES FOR THE CONTRACTOR. THIS IS IN EFFECT UNTIL FINAL PAYMENT FROM THE CITY. FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL MAKE THE AS-BUILT UNDERGROUND UTILITY INFORMATION AVAILABLE TO THE CITY WHENEVER REQUESTED. IN THE EVENT OF A "JULIE" CALL WITHIN THE PROJECT LIMITS, THE CITY OR ITS AGENT WILL NOTIFY THE CONTRACTOR TO MARK ANY UTILITIES STILL UNDER THE CONTRACTORS RESPONSIBILITY.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ABOVE AND BELOW GROUND UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OR THE CITY. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

5. THE CONTRACTOR SHALL COOPERATE WITH THE CITY IN ANY UNDERGROUND UTILITY CONSTRUCTION WHICH THE CITY MAY WANT TO HAVE PLACED DURING THE CONTRACTOR'S OPERATIONS.

6. GRADATION OF TRENCH BACKFILL MATERIAL SHALL BE CA-6, AND SHALL BE PLACED IN UNIFORM LAYERS NOT EXCEEDING 12 INCHES (LOOSE MEASURE) AND COMPACTED WITH MECHANICAL EQUIPMENT TO 95% OF STANDARD PROCTOR DENSITY. PIPE BEDDING SHALL BE A MINIMUM OF 4 INCHES THICK.

7. ALL FRAMES WITH SELF SEALING CLOSED LIDS TO BE FURNISHED AS PART OF THIS CONTRACT FOR CONSTRUCTION, ADJUSTMENT OR RECONSTRUCTION OF ANY MANHOLES, CATCH BASIN, INLET, VALVE VAULT, OR METER VAULT SHALL HAVE CAST INTO THE LID ONE OF THE FOLLOWING WORDS: ALL LIDS TO BE USED ON STORM SEWER STRUCTURES SHALL BEAR THE WORD "STORM". ALL LIDS TO BE USED ON SANITARY SEWER STRUCTURES SHALL BEAR THE WORD "SANITARY". ALL LIDS TO BE USED ON WATER SYSTEM STRUCTURES SHALL BEAR THE WORD "WATER". ALL CURB BOXES SHALL SAY "DUMP NO WASTE!" OR "DRAINS TO RIVERS" OR SIMILAR. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE FRAME AND GRATE OR FRAME AND CLOSED LID PROVIDED.

8. WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT.

9. ALL AUXILIARY VALVES, FRAMES, GRATES, LIDS AND WATER SERVICE BOXES WHICH ARE TO BE ABANDONED OR ADJUSTED WITH A NEW OR DIFFERENT FRAME AND LID SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

10. ANY EXISTING OR PROPOSED SEWER DAMAGED BY THE CONSTRUCTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE OWNER.

11. THE CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR CONSTRUCTION STAGING NECESSARY TO ACCOMMODATE UTILITY RELOCATION OR ADJUSTMENT AND/OR FOR DELAYS CAUSED BY UTILITY RELOCATION OR ADJUSTMENT.

12. THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY FOR DEWATERING TRENCH EXCAVATIONS AS WELL AS SHORING TRENCH WALLS DURING UTILITY OPERATIONS. COMPLIANCE WITH THE ABOVE WILL BE INCLUDED IN THE COST OF THE ASSOCIATED UTILITY INSTALLATIONS.

13. ALL PROPOSED UTILITY STRUCTURES SHALL INCLUDE AN EXTERNAL CHIMNEY SEAL UNLESS THEY FALL IN THE PAVEMENT AND ARE ADJUSTED TO FINAL GRADE WITH CLASS SI CONCRETE OR BITUMINOUS SURFACE OR BINDER FULLY COVERING THE RINGS AND CASTING. THE COST OF THE CHIMNEY SEAL SHALL BE CONSIDERED INCLUDED IN THE COST OF THE UTILITY STRUCTURE BEING INSTALLED.

STORM & SANITARY SEWER

1. THE COST OF MAKING SEWER CONNECTIONS TO EXISTING OR PROPOSED SEWER OR DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF THE SEWER OR STRUCTURE BEING CONSTRUCTED.

2. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS OR CATCH BASINS. THE CONTRACTOR SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE THE SAME. HE/SHE SHALL PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT, IF NECESSARY, AND A TEMPORARY OUTLET. HE/SHE SHALL BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM TEMPORARY CONNECTIONS UNTIL SUCH TIME AS THE PERMANENT CONNECTIONS WITH SEWERS ARE BUILT AND IN SERVICE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT.

3. ALL ABANDONED PIPE AND STRUCTURE INVERTS SHALL BE PLUGGED WITH BRICK AND MORTAR TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE COST OF THE STORM OR SANITARY SEWER ITEMS BEING REMOVED.

4. THE CONTRACTOR SHALL DETERMINE WHEN FLAT SLAB TOPS ARE REQUIRED ON MANHOLES. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THE USE OF FLAT SLAB TOPS.

5. RIM ELEVATIONS GIVEN ON THE PLANS ARE ONLY TO ASSIST THE CONTRACTOR IN DETERMINING THE APPROXIMATE OVERALL HEIGHT OF THE STRUCTURE. FRAMES OF ALL NEW, ADJUSTED OR RECONSTRUCTED STRUCTURES WILL BE ADJUSTED TO THE FINAL ELEVATION OF THE AREA IN WHICH THEY ARE LOCATED AS PART OF THE STRUCTURE, ADJUSTMENT OR RECONSTRUCTION COST.

PAVING AND CURB & GUTTER

1. THE CONTRACTOR SHALL SAW CUT PAVEMENT, CURB & GUTTER, AND SIDEWALK AS INDICATED ON THE PLANS TO SEPARATE THE EXISTING MATERIAL TO BE REMOVED BY MEANS OF AN APPROVED CONCRETE SAW TO A DEPTH AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEM BEING REMOVED.

2. BASE COURSE SHALL NOT BE PLACED ADJACENT TO CURB AND GUTTER UNTIL THE CURB AND GUTTER HAS BEEN PROPERLY CURED AND BACKFILLED TO THE SATISFACTION OF THE ENGINEER.

EROSION AND SEDIMENT CONTROL

1. PRIOR TO BEGINNING ANY REMOVAL ITEMS, CONTRACTOR SHALL INSTALL INLET PROTECTION IN ALL EXISTING OPEN LIDDED DRAINAGE STRUCTURES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

2. CONTRACTOR SHALL NOT DISTURB LANDSCAPED AREAS OUTSIDE OF THE IMPROVEMENT LIMITS.

3. UPON COMPLETION OF PROJECT, AT DIRECTION OF ENGINEER, CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS.

TREE REMOVAL, CLEARING AND HEDGE REMOVAL

1. ALL TREES ARE DESIGNATED TO BE SAVED UNLESS OTHERWISE NOTED ON THE PLANS, AND SHALL BE PROTECTED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 201.05 OF THE STANDARD SPECIFICATIONS.

2. ALL CLEARING AND REMOVAL OF BUSHES, HEDGES AND TREES UNDER 6" IN DIAMETER SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

MISCELLANEOUS

1. A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN TO THE ENGINEER PRIOR TO STARTING WORK OR RESTARTING WORK AFTER SOME ABSENCE OF WORK FOR ANY REASON.

2. DIMENSIONS: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.

3. PAY ITEMS IN THE SUMMARY OF QUANTITIES HAVE BEEN ESTIMATED. IF, IN THE ENGINEER'S OPINION, THE WORK IS NOT REQUIRED, THE ITEM WILL BE DEDUCTED FROM THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

4. ALL WASTE MATERIAL SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY AT THE CONTRACTOR'S EXPENSE.

5. USE OF CCDD FILL OPERATIONS: PER PUBLIC ACT 97-0137, IF THE CONTRACTOR CHOOSES TO DISPOSE OF UNCONTAMINATED SOIL OR UNCONTAMINATED SOIL MIXED WITH CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) AT A CCDD FILL OPERATION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL NECESSARY FIELD AND LABORATORY ANALYSIS AND TO OBTAIN THE LICENSED PROFESSIONAL ENGINEER'S CERTIFICATION REQUIRED AS PER PUBLIC ACT 96-1416 TO USE THE SITE. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION OR RELATED REMOVAL PAY ITEM, AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

6. ALL PEDESTRIAN ROUTES CONSTRUCTED AS PART OF THIS PROJECT SHALL BE ADA COMPLIANT.

7. DEPRESSED CURBS ACCESSIBLE TO THE HANDICAPPED SHALL BE PROVIDED AS SHOWN IN THE PLANS. THE TRANSITION FROM FULL HEIGHT CURB TO DEPRESSED CURB WILL BE AS SHOWN IN PLANS AND HIGHWAY STANDARDS. THIS WORK IS INCLUDED IN THE COST OF THE ASSOCIATED CONC. CURB AND GUTTER.

8. SIDEWALK RAMPS SHALL BE INSTALLED AT ALL INTERSECTING STREETS AT LOCATIONS SHOWN IN THE PLANS PER HIGHWAY STANDARDS.

9. ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB AND GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED OTHERWISE ON THE PLAN.

10. MINIMUM CURB HEIGHT OF 3" OUTSIDE OF RAMP/FLARE/DRIVEWAY AREAS.

11. WHEN DIRECTED BY THE ENGINEER, SUPPLEMENTAL WATERING SHALL BE APPLIED TO AREAS AT A RATE SPECIFIED BY THE ENGINEER AND IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

12. THE CONTRACTOR SHALL ADHERE TO LIMITS OF RESTORATION SHOWN. AREAS OUTSIDE THESE LIMITS THAT ARE DAMAGED OR DISTURBED BY THE CONTRACTOR SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

13. CONTRACTOR TO COORDINATE WITH ANY ADJACENT AND ABUTTING PROJECTS. THIS THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST TRAFFIC CONTROL AND PROTECTION, AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

14. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER PRIOR TO THE SCHEDULED TRAFFIC SIGNAL "TURN ON" INSPECTION DATE REGARDING THE REMOVAL OF ANY NON-APPLICABLE TRAFFIC SIGNING AND THE INSTALLATION OF NEW PERMANENT SIGNING BY THE CITY, WHICH SHALL BE IN PLACE PRIOR TO THE SIGNAL BEING PLACED IN CONTINUOUS OPERATION.

15. THE CONTRACTOR SHALL SECURE ALL NECESSARY RIGHTS AND PERMISSIONS TO PERFORM ANY WORK ON PRIVATE PROPERTY.

CONSTRUCTION STAGING, SCHEDULE, AND MAINTENANCE OF TRAFFIC

1. TRAFFIC CONTROL SHOWN IS MINIMUM REQUIRED; ADDITIONAL TRAFFIC CONTROL AS REQUIRED AND AS DIRECTED BY ENGINEER IS INCLUDED IN THE VARIOUS TRAFFIC CONTROL PAY ITEMS.

2. MATERIALS AND EQUIPMENT SHALL NOT BE STORED WITHIN 15 FEET OF THE EDGE OF PAVEMENT UNLESS PROTECTED BY A NATURAL OR MANMADE BARRIER IN ACCORDANCE WITH ARTICLE 701.11 OF THE STANDARD SPECIFICATIONS.

3. ALL CONTRACTORS SHALL PROVIDE SUITABLE TRAFFIC CONTROL FOR THEIR CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. TRAFFIC CONTROL MUST BE PROVIDED FOR ANY ACTIVITY THAT IMPACTS TRAFFIC FLOW. THIS INCLUDES, BUT IS NOT LIMITED TO, ROAD CLOSURES REQUIRING DETOURS, DAILY LANE CLOSURES, LONG TERM LANE CLOSURES, NARROW LANES, AND CONSTRUCTION VEHICLES ENTERING AND EXITING THE PUBLIC ROADWAY. ALL TRAFFIC CONTROL SETUPS MAY BE INSPECTED BY THE CITY TO ENSURE THAT THEY ARE PROVIDING POSITIVE GUIDANCE TO MOTORISTS AND ARE NOT IN THEMSELVES PRESENTING A HAZARDOUS SITUATION. A REPRESENTATIVE OF THE CONTRACTOR MUST PROVIDE PHONE NUMBERS AT WHICH THEY CAN BE REACHED 24 HOURS A DAY AND ON WEEKENDS SO THAT THEY CAN MAINTAIN TRAFFIC CONTROL DEVICES.

4. PEDESTRIANS MUST BE PROVIDED WITH A SAFE ALTERNATE ROUTE IF PEDESTRIAN FACILITIES ARE TO BE CLOSED AS A RESULT OF CONSTRUCTION ACTIVITIES. GUIDANCE MUST BE PROVIDED TO PEDESTRIANS SO THAT THEY MAY AVOID THE WORK ZONE. SAID PEDESTRIAN DETOUR PLAN (WITH SIGNAGE) IS TO BE REVIEWED AND ACCEPTED BY THE CITY IN WRITING, PRIOR TO THE COMMENCEMENT OF THE WORK.

5. THE CONTRACTOR SHALL EMPLOY THE APPROPRIATE METHODS OF TRAFFIC CONTROL IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SUCH THAT THE SAFETY OF VEHICLES, AND PEDESTRIANS IS PRESERVED AT ALL TIMES. THE ERECTION AND MAINTENANCE OF THE TRAFFIC CONTROL DEVICES SHALL BE TO THE SATISFACTION OF THE AGENCY OF JURISDICTION AND THE ENGINEER.

6. CONTRACTOR SHALL COORDINATE TRAFFIC SIGNAL WORK TO ENSURE APPROPRIATE TRAFFIC FLOW DURING ALL STAGES OF CONSTRUCTION.

7. ANY TEMPORARY OPEN HOLES SHOULD BE BARRICADED AND PROTECTED IN ACCORDANCE WITH APPLICABLE STANDARDS.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
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CLIENT:
CITY OF WHEATON
303 W. Wesley Street
Wheaton, Illinois
60187

NO.	DATE	NATURE OF REVISION	CHKD.

DSGN.	TFS
DWN.	FPB
CHKD.	GMZ
SCALE:	N.T.S.
PLOT DATE:	7/1/2016
CAD USER:	tbarlso
MODEL:	Default
FILE NAME	N:\WHEATON\160034\Traffic\NOT_General-160034.dgn

TITLE:
GENERAL NOTES
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	2 OF 20
DRAWING NO.	2

CODE NO.	ITEM	UNIT	TOTAL	President Street @ College Avenue	
				Traffic Signal	Sidewalk & Pavement Marking
20800150	TRENCH BACKFILL	CU YD	5		5
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	222		222
25200110	SODDING, SALT TOLERANT	SQ YD	204		204
28000510	INLET FILTERS	EACH	3		3
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	306		306
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	57		57
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1255		1255
42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	711		711
42400800	DETECTABLE WARNINGS	SQ FT	80		80
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	676		676
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	223		223
44000600	SIDEWALK REMOVAL	SQ FT	1431		1431
550B0050	STORM SEWERS, CLASS B, TYPE 1 12"	FOOT	27		27
60207915	CATCH BASINS, TYPE C, TYPE 11V FRAME AND GRATE	EACH	1		1
60250200	CATCH BASINS TO BE ADJUSTED	EACH	3		3
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	226		226
67100100	MOBILIZATION	L SUM	1	0.5	0.5
72000100	SIGN PANEL - TYPE 1	SQ FT	26.5	26.5	
72000200	SIGN PANEL - TYPE 2	SQ FT	12		
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	26		
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	10		10
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	10		10
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	288		288
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	88		88
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	24	24	
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	23	23	
81028360	UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	25	25	
81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	90	90	
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	274	274	
81400100	HANDHOLE	EACH	2	2	
81400300	DOUBLE HANDHOLE	EACH	2	2	
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2032	2032	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1	1	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1082	1082	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	619	619	
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1177	1177	
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	44	44	
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	282.5	282.5	
87500600	TRAFFIC SIGNAL POST, 10 FT.	EACH	2	2	
87501200	TRAFFIC SIGNAL POST, 16 FT.	EACH	3	3	
87702850	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT.	EACH	1	1	
87702860	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.	EACH	1	1	
87702870	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.	EACH	1	1	
87702920	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	1	1	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	20	20	
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4	
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60	60	
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4	4	
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	0	0	
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4	4	
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4	4	
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8	8	
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	12	12	
88700200	LIGHT DETECTOR	EACH	2	2	
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	1	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4700	4700	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	
89502380	REMOVE EXISTING HANDHOLE	EACH	4	4	
89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	1	1	
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9	9	
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	27		27
X0321973	MODIFY EXISTING SERVICE INSTALLATION	EACH	1	1	
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	200	200	
X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	0.5	0.5
X8211125	LUMINAIRE, LED, HORIZONTAL MOUNT. (SPECIAL)	EACH	4	4	
X8620200	UNINTERRUPTABLE POWER SUPPLY AND CABINET (SPECIAL)	EACH	1	1	
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8	8	
Z0010688	CAMERA MOUNTING ASSEMBLY	EACH	4	4	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	103	52	51
Z0033072	VIDEO VEHICLE DETECTION SYSTEM	EACH	1	1	
	LIGHTING CABLE FUSE KITS	EACH	4	4	
	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1	0.5	0.5
	TRAFFIC SIGNAL TIMING	EACH	1	1	
	REMOVAL AND DISPOSAL OF SURPLUS EXCAVATED MATERIALS	CU YD	20		
	SIDEWALK CURB	FOOT	132		132

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Wheaton, Illinois
60187

NO.	DATE	NATURE OF REVISION	CHKD.

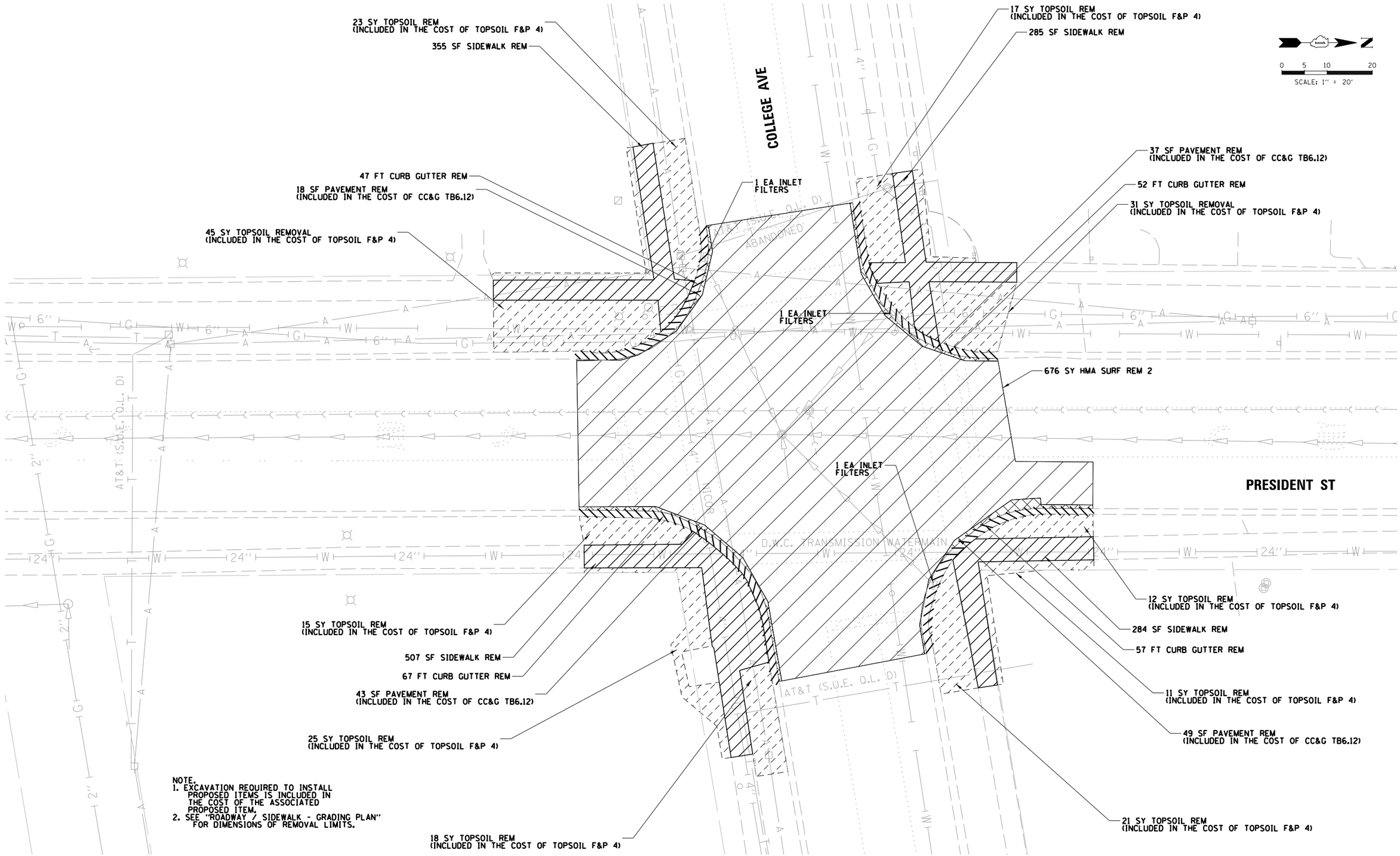
FILE NAME: N:\WHEATON\160034\Traffic\SUM_160034.dgn

DSGN.	TFS
DWN.	FPB
CHKD.	GMZ
SCALE:	N.T.S.
PLOT DATE:	7/1/2016
CAD USER:	fbarlso
MODEL:	Default

TITLE:

SUMMARY OF QUANTITIES
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	3 OF 20
DRAWING NO.	3



NOTE.
1. EXCAVATION REQUIRED TO INSTALL PROPOSED ITEMS IS INCLUDED IN THE COST OF THE ASSOCIATED PROPOSED ITEM.
2. SEE "ROADWAY / SIDEWALK - GRADING PLAN" FOR DIMENSIONS OF REMOVAL LIMITS.

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NO.	DATE	NATURE OF REVISION	CHKD.

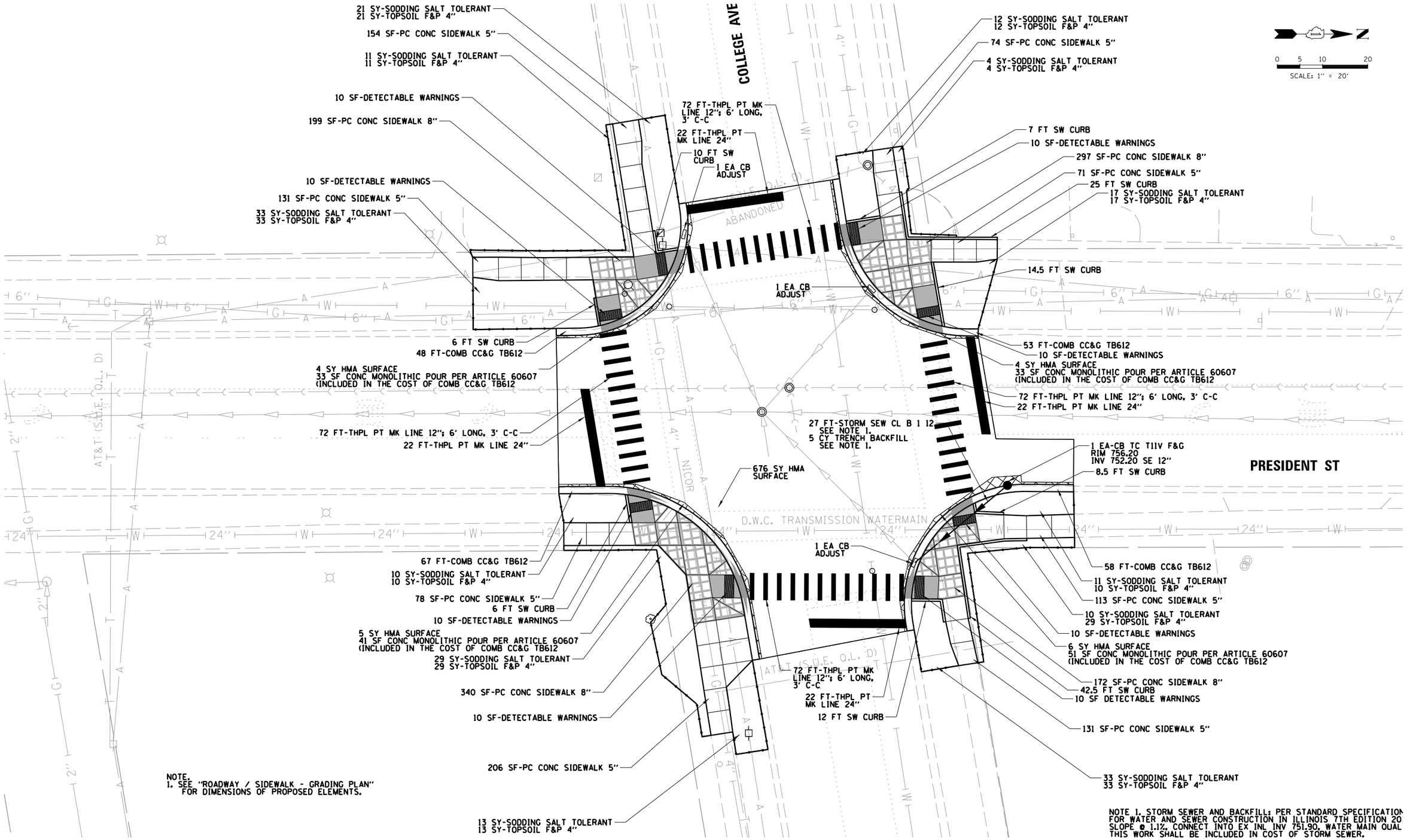
DSGN.	TFS
DWN.	FPB
CHKD.	GMZ
SCALE:	1" = 20'
PLOT DATE:	7/1/2016
CAD USER:	fbarlso
MODEL:	default

FILE NAME: N:\WHEATON\160034\Civil\C-REM_President-College.dgn

TITLE:

ROADWAY /SIDEWALK – REMOVAL PLAN
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	4 OF 20
DRAWING NO.	4



NOTE.
1. SEE "ROADWAY / SIDEWALK - GRADING PLAN" FOR DIMENSIONS OF PROPOSED ELEMENTS.

NOTE 1. STORM SEWER AND BACKFILL: PER STANDARD SPECIFICATION FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS 7TH EDITION 20 SLOPE @ 1.1%, CONNECT INTO EX INL INV 751.90, WATER MAIN QUAL THIS WORK SHALL BE INCLUDED IN COST OF STORM SEWER.

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FILE NAME: N:\WHEATON\160034\Civil\C-PRO_President-College.dgn

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CHKD.	GMZ
SCALE:	1" = 20'
PLOT DATE:	7/1/2016
CAD USER:	fbarlso
MODEL:	default

TITLE:

ROADWAY /SIDEWALK – PROPOSED PLAN
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	5 OF 20
DRAWING NO.	5

POINT	ELEV	COORDINATES	
SW01	(756.07)	N=	1894863.73
		E=	1049917.76
SW02	756.00	N=	1894864.49
		E=	1049922.42
SW03	755.05	N=	1894868.54
		E=	1049947.11
SW04	754.70	N=	1894863.74
		E=	1049947.16
SW05	754.60	N=	1894858.71
		E=	1049947.27
SW06	754.25	N=	1894853.63
		E=	1049947.29
SW07	753.50	N=	1894838.62
		E=	1049947.30
SW08	(753.30)	N=	1894832.95
		E=	1049947.33
SW09	754.70	N=	1894864.63
		E=	1049952.37
SW10	755.05	N=	1894869.28
		E=	1049952.13
SW11	755.40	N=	1894873.95
		E=	1049945.71
SW12	(755.90)	N=	1894878.44
		E=	1049935.38
SW13	755.40	N=	1894878.52
		E=	1049944.98
SW14	754.90	N=	1894878.21
		E=	1049945.55
SW15	754.80	N=	1894876.07
		E=	1049950.96

SW16	755.00	N=	1894872.58
		E=	1049955.70
SW17	754.45	N=	1894869.55
		E=	1049958.39
SW18	754.05	N=	1894866.00
		E=	1049960.55
SW19	753.95	N=	1894860.75
		E=	1049962.38
SW20	754.45	N=	1894860.75
		E=	1049962.38
SW21	(753.70)	N=	1894851.47
		E=	1049962.98
SW22	(753.20)	N=	1894851.47
		E=	1049964.54
SW23	PC	N=	1894856.37
		E=	1049964.48
SW24	753.95	N=	1894861.50
		E=	1049963.84
SW25	754.05	N=	1894866.29
		E=	1049962.19
SW26	754.80	N=	1894878.01
		E=	1049950.62
SW27	754.90	N=	1894879.89
		E=	1049945.30
SW28	755.20	N=	1894880.43
		E=	1049942.11
SW29	PT	N=	1894880.14
		E=	1049936.06
SW30	(755.45)	N=	1894879.99
		E=	1049935.13

POINT	ELEV	COORDINATES	
NW01	(759.30)	N=	1894948.74
		E=	1049942.98
NW02	759.20	N=	1894944.10
		E=	1049943.00
NW03	756.65	N=	1894934.15
		E=	1049942.97
NW04	756.55	N=	1894928.62
		E=	1049943.00
NW05	757.05	N=	1894929.12
		E=	1049942.43
NW06	(758.20)	N=	1894925.54
		E=	1049922.72
NW07	756.45	N=	1894923.64
		E=	1049943.24
NW08	756.55	N=	1894929.17
		E=	1049948.78
NW09	756.65	N=	1894934.09
		E=	1049947.96
NW10	756.75	N=	1894934.97
		E=	1049952.89
NW11	756.65	N=	1894930.12
		E=	1049953.70
NW12	(757.05)	N=	1894944.62
		E=	1049962.64
NW13	756.70	N=	1894936.63
		E=	1049962.11
NW14	756.60	N=	1894931.26
		E=	1049960.41
NW15	756.45	N=	1894926.81
		E=	1049957.86

NW16	756.30	N=	1894918.23
		E=	1049948.22
NW17	755.90	N=	1894916.61
		E=	1049944.39
NW18	755.95	N=	1894915.44
		E=	1049939.50
NW19	(756.50)	N=	1894913.75
		E=	1049929.61
NW20	(756.00)	N=	1894912.31
		E=	1049929.90
NW21	755.95	N=	1894913.88
		E=	1049939.78
NW22	PC	N=	1894913.96
		E=	1049940.25
NW23	755.90	N=	1894915.02
		E=	1049944.65
NW24	(755.40)	N=	1894920.59
		E=	1049954.46
NW25	756.60	N=	1894931.52
		E=	1049962.22
NW26	756.70	N=	1894936.94
		E=	1049963.75
NW27	PT	N=	1894942.05
		E=	1049964.27
NW28	(756.80)	N=	1894944.63
		E=	1049964.22

0 5 10
SCALE: 1" = 10'

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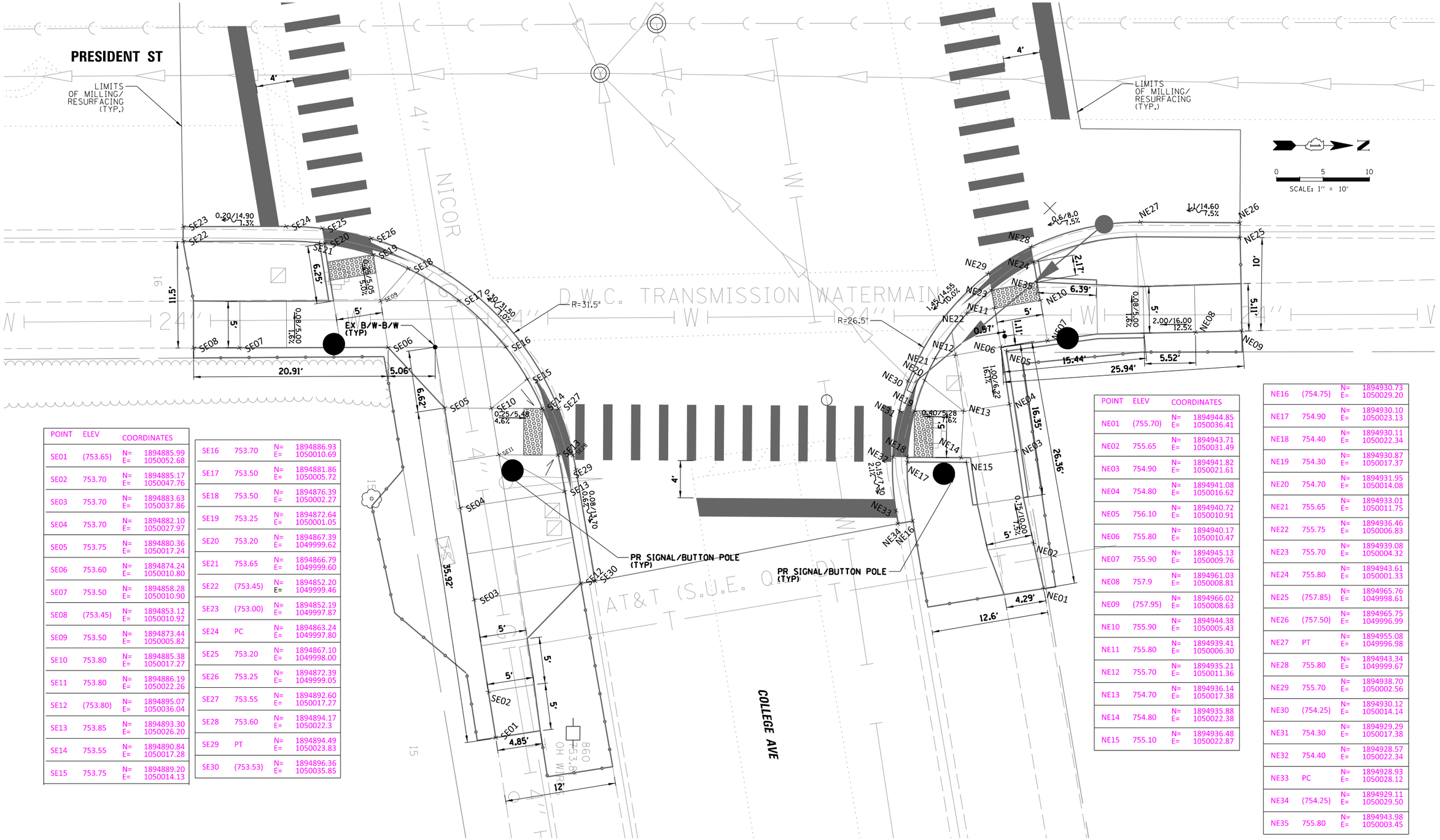
CAD USER:	fbarlso
MODEL:	default

FILE NAME N:\WHEATON\160034\Civil\C-GRA-1_President-College.dgn

TITLE:

ROADWAY /SIDEWALK – WEST LEG GRADING PLAN
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	6 OF 20
DRAWING NO.	6



POINT	ELEV	COORDINATES
SE01	(753.65)	N= 1894885.99 E= 1050052.68
SE02	753.70	N= 1894885.17 E= 1050047.76
SE03	753.70	N= 1894883.63 E= 1050037.86
SE04	753.70	N= 1894882.10 E= 1050027.97
SE05	753.75	N= 1894880.36 E= 1050017.24
SE06	753.60	N= 1894874.24 E= 1050010.80
SE07	753.50	N= 1894858.28 E= 1050010.90
SE08	(753.45)	N= 1894853.12 E= 1050010.92
SE09	753.50	N= 1894873.44 E= 1050005.82
SE10	753.80	N= 1894885.38 E= 1050017.27
SE11	753.80	N= 1894886.19 E= 1050022.26
SE12	(753.80)	N= 1894895.07 E= 1050036.04
SE13	753.85	N= 1894893.30 E= 1050026.20
SE14	753.55	N= 1894890.84 E= 1050017.28
SE15	753.75	N= 1894889.20 E= 1050014.13

SE16	753.70	N= 1894886.93 E= 1050010.69
SE17	753.50	N= 1894881.86 E= 1050005.72
SE18	753.50	N= 1894876.39 E= 1050002.27
SE19	753.25	N= 1894872.64 E= 1050001.05
SE20	753.20	N= 1894867.39 E= 1049999.62
SE21	753.65	N= 1894866.79 E= 1049999.60
SE22	(753.45)	N= 1894852.20 E= 1049999.46
SE23	(753.00)	N= 1894852.19 E= 1049997.87
SE24	PC	N= 1894863.24 E= 1049997.80
SE25	753.20	N= 1894867.10 E= 1049998.00
SE26	753.25	N= 1894872.39 E= 1049999.05
SE27	753.55	N= 1894892.60 E= 1050017.27
SE28	753.60	N= 1894894.17 E= 1050022.3
SE29	PT	N= 1894894.49 E= 1050023.83
SE30	(753.53)	N= 1894896.36 E= 1050035.85

POINT	ELEV	COORDINATES
NE01	(755.70)	N= 1894944.85 E= 1050036.41
NE02	755.65	N= 1894943.71 E= 1050031.49
NE03	754.90	N= 1894941.82 E= 1050021.61
NE04	754.80	N= 1894941.08 E= 1050016.62
NE05	756.10	N= 1894940.72 E= 1050010.91
NE06	755.80	N= 1894940.17 E= 1050010.47
NE07	755.90	N= 1894945.13 E= 1050009.76
NE08	757.9	N= 1894961.03 E= 1050008.81
NE09	(757.95)	N= 1894966.02 E= 1050008.63
NE10	755.90	N= 1894944.38 E= 1050005.43
NE11	755.80	N= 1894939.41 E= 1050006.30
NE12	755.70	N= 1894935.21 E= 1050011.36
NE13	754.70	N= 1894936.14 E= 1050017.38
NE14	754.80	N= 1894935.88 E= 1050022.38
NE15	755.10	N= 1894936.48 E= 1050022.87

NE16	(754.75)	N= 1894930.73 E= 1050029.20
NE17	754.90	N= 1894930.10 E= 1050023.13
NE18	754.40	N= 1894930.11 E= 1050022.34
NE19	754.30	N= 1894930.87 E= 1050017.37
NE20	754.70	N= 1894931.95 E= 1050014.08
NE21	755.65	N= 1894933.01 E= 1050011.75
NE22	755.75	N= 1894936.46 E= 1050006.83
NE23	755.70	N= 1894939.08 E= 1050004.32
NE24	755.80	N= 1894943.61 E= 1050001.33
NE25	(757.85)	N= 1894965.76 E= 1049998.61
NE26	(757.50)	N= 1894965.75 E= 1049996.99
NE27	PT	N= 1894955.08 E= 1049996.98
NE28	755.80	N= 1894943.34 E= 1049999.67
NE29	755.70	N= 1894938.70 E= 1050002.56
NE30	(754.25)	N= 1894930.12 E= 1050014.14
NE31	754.30	N= 1894929.29 E= 1050017.38
NE32	754.40	N= 1894928.57 E= 1050022.34
NE33	PC	N= 1894928.93 E= 1050028.12
NE34	(754.25)	N= 1894929.11 E= 1050029.50
NE35	755.80	N= 1894943.98 E= 1050003.45

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CLIENT:

CITY OF WHEATON
303 W. Wesley Street
Wheaton, Illinois
60187

NO.	DATE	NATURE OF REVISION	CHKD.

FILE NAME: N:\WHEATON\160034\Civil\C-GRA-2_President-College.dgn

DSGN.	TFS
DWN.	FPB
CHKD.	GMZ
SCALE:	1" = 10'
PLOT DATE:	7/1/2016
CAD USER:	fbarlso
MODEL:	default

TITLE:

ROADWAY /SIDEWALK – EAST LEG GRADING PLAN
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	7 OF 20
DRAWING NO.	7

REMOVAL NOTES:

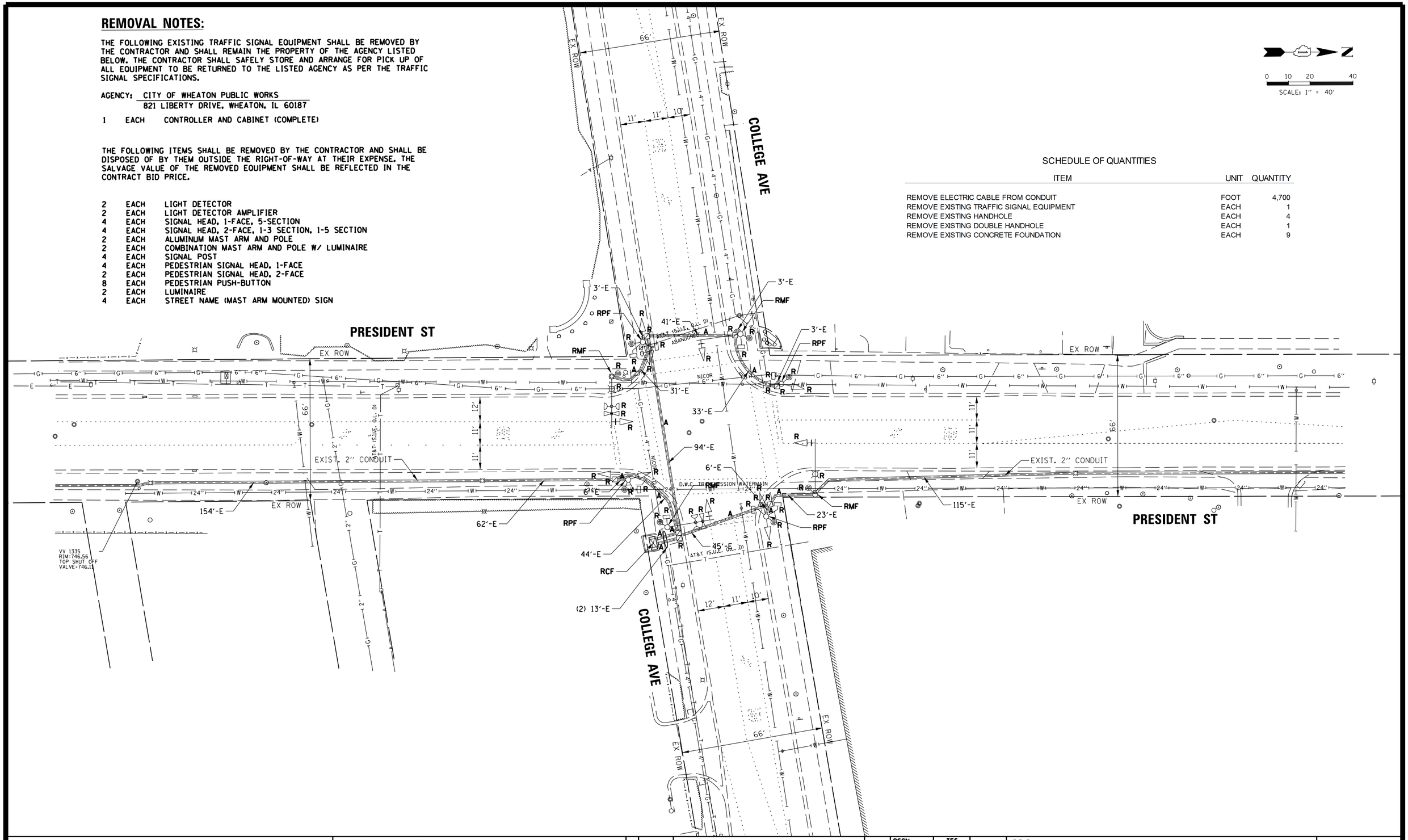
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: CITY OF WHEATON PUBLIC WORKS
821 LIBERTY DRIVE, WHEATON, IL 60187

1	EACH	CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

2	EACH	LIGHT DETECTOR
2	EACH	LIGHT DETECTOR AMPLIFIER
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
2	EACH	ALUMINUM MAST ARM AND POLE
2	EACH	COMBINATION MAST ARM AND POLE W/ LUMINAIRE
4	EACH	SIGNAL POST
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
8	EACH	PEDESTRIAN PUSH-BUTTON
2	EACH	LUMINAIRE
4	EACH	STREET NAME (MAST ARM MOUNTED) SIGN



0 10 20 40
SCALE: 1" = 40'

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4,700
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	4
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9

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Wheaton, Illinois
60187

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DSGN.	TFS
DWN.	FPB
CHKD.	GMZ
SCALE:	1" = 40'
PLOT DATE:	7/1/2016
CAD USER:	fbarlso
MODEL:	default

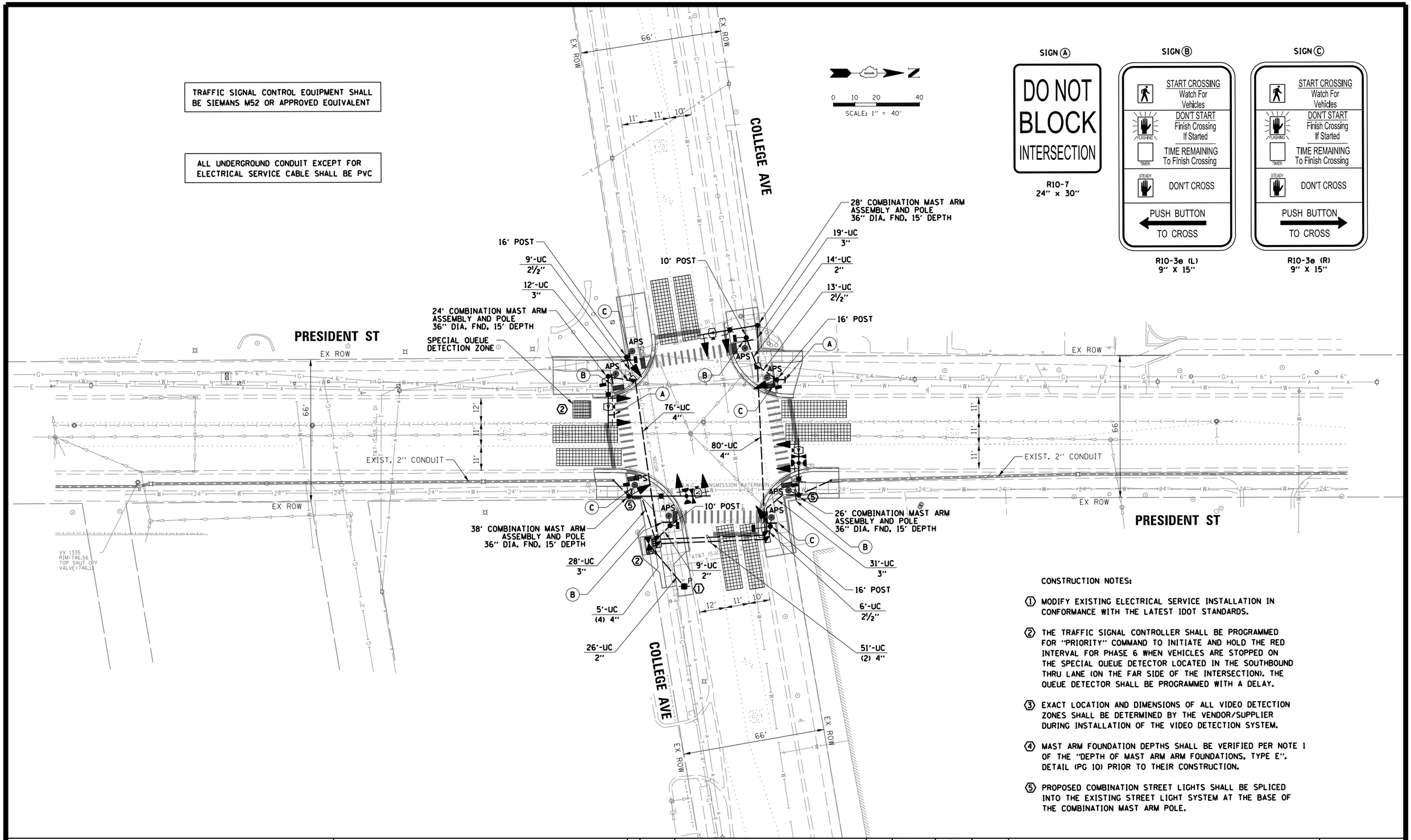
FILE NAME N:\WHEATON\160034\Traffic\REM_TS_President-College.dgn

TITLE:
TRAFFIC SIGNAL EQUIPMENT REMOVAL PLAN
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	8 OF 20
DRAWING NO.	8

TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE SIEMANS M52 OR APPROVED EQUIVALENT

ALL UNDERGROUND CONDUIT EXCEPT FOR ELECTRICAL SERVICE CABLE SHALL BE PVC



SIGN Ⓐ

DO NOT BLOCK INTERSECTION

R10-7
24" x 30"

SIGN Ⓑ

START CROSSING Watch For Vehicles
DON'T START Finish Crossing If Started
TIME REMAINING To Finish Crossing
DON'T CROSS
PUSH BUTTON TO CROSS

R10-3e (L)
9" X 15"

SIGN Ⓒ

START CROSSING Watch For Vehicles
DON'T START Finish Crossing If Started
TIME REMAINING To Finish Crossing
DON'T CROSS
PUSH BUTTON TO CROSS

R10-3e (R)
9" X 15"

CONSTRUCTION NOTES:

① MODIFY EXISTING ELECTRICAL SERVICE INSTALLATION IN CONFORMANCE WITH THE LATEST IDOT STANDARDS.

② THE TRAFFIC SIGNAL CONTROLLER SHALL BE PROGRAMMED FOR "PRIORITY" COMMAND TO INITIATE AND HOLD THE RED INTERVAL FOR PHASE 6 WHEN VEHICLES ARE STOPPED ON THE SPECIAL QUEUE DETECTOR LOCATED IN THE SOUTHBOUND THRU LANE (ON THE FAR SIDE OF THE INTERSECTION). THE QUEUE DETECTOR SHALL BE PROGRAMMED WITH A DELAY.

③ EXACT LOCATION AND DIMENSIONS OF ALL VIDEO DETECTION ZONES SHALL BE DETERMINED BY THE VENDOR/SUPPLIER DURING INSTALLATION OF THE VIDEO DETECTION SYSTEM.

④ MAST ARM FOUNDATION DEPTHS SHALL BE VERIFIED PER NOTE 1 OF THE "DEPTH OF MAST ARM ARM FOUNDATIONS, TYPE E". DETAIL (PG 10) PRIOR TO THEIR CONSTRUCTION.

⑤ PROPOSED COMBINATION STREET LIGHTS SHALL BE SPLICED INTO THE EXISTING STREET LIGHT SYSTEM AT THE BASE OF THE COMBINATION MAST ARM POLE.

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FILE NAME: N:\WHEATON\160034\Traffic\TSO_President-College.dgn

DSGN.	TFS
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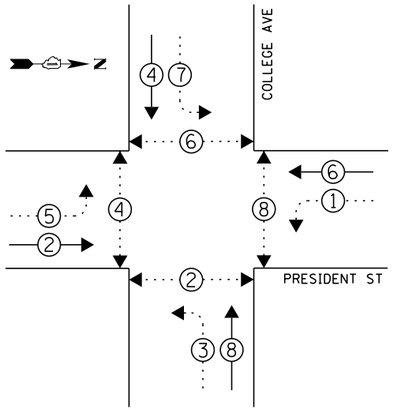
CHKD.	GMZ
SCALE:	1" = 40'
PLOT DATE:	7/1/2016
CAD USER:	fbarlso
MODEL:	default

TITLE:

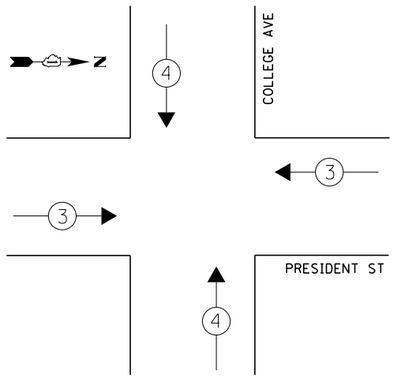
TRAFFIC SIGNAL INSTALLATION PLAN
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	9 OF 20
DRAWING NO.	9

PROPOSED CONTROLLER SEQUENCE

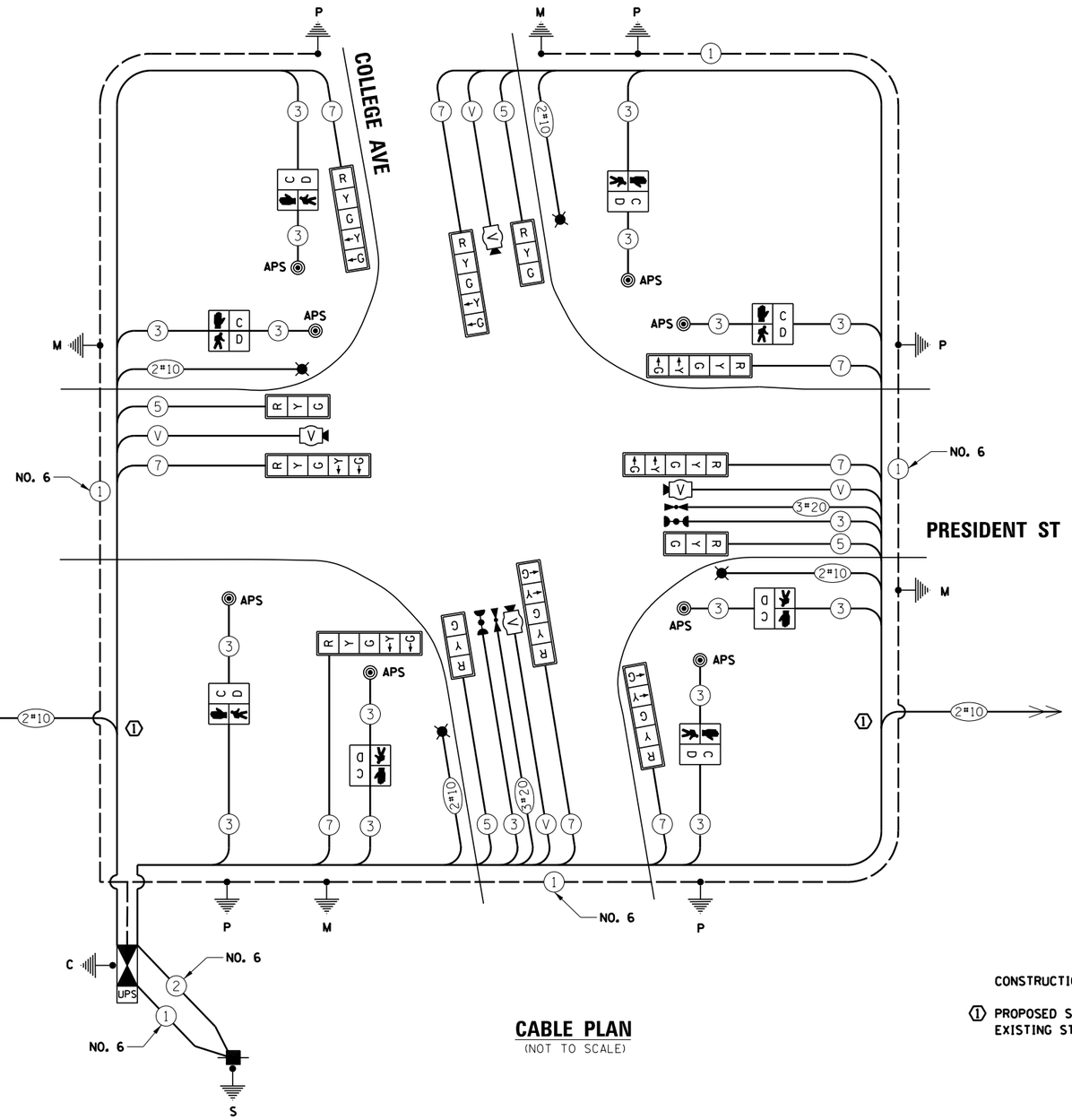


PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

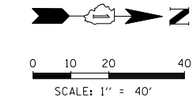


LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL — OVERLAP



CABLE PLAN
(NOT TO SCALE)



CONSTRUCTION NOTE:

① PROPOSED STREET LIGHTING SHALL BE SPLICED INTO THE EXISTING STREET LIGHT SYSTEM.

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	108	50	-
ENERGY COSTS TO:			TOTAL =	593.8

CITY OF WHEATON
303 W. WESLEY STREET
WHEATON, ILLINOIS 60187

ENERGY SUPPLY: CONTACT: PETE KRATZER
PHONE: (708) 518-6209
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER:

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NO.	DATE	NATURE OF REVISION	CHKD.

DSGN.	TFS
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SCALE:	NOT TO SCALE
PLOT DATE:	7/1/2016
CAD USER:	fbarlso
MODEL:	default

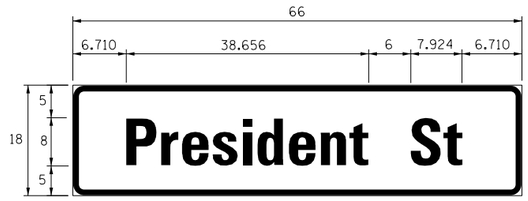
FILE NAME: N:\WHEATON\160034\Traffic\CAB_President-College.dgn

TITLE:
CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE PRESIDENT STREET AND COLLEGE AVENUE WHEATON, ILLINOIS

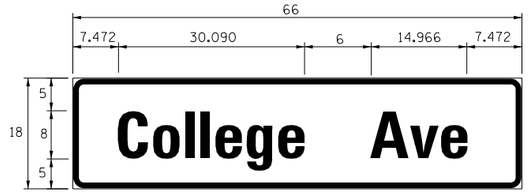
PROJ. NO.	160034
DATE:	7/1/2016
SHEET	10 OF 20
DRAWING NO.	10

MAST ARM MOUNTED STREET NAME SIGNS

SIGN PANEL – TYPE 1



DESIGN SERIES	AREA (SQ. FT.)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
C	8.25	1	ZZ	2



DESIGN SERIES	AREA (SQ. FT.)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
C	8.25	1	ZZ	2

SCHEDULE OF QUANTITIES – TRAFFIC SIGNAL ITEMS

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	26.5
SIGN PANEL - TYPE 2	SQ FT	-
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	24
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	23
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	25
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	90
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	274
HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2,032
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,082
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	619
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,177
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	44
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	283
TRAFFIC SIGNAL POST, 10 FT.	EACH	2
TRAFFIC SIGNAL POST, 16 FT.	EACH	3
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING SERVICE INSTALLATION	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	200
LUMINAIRE, LED, HORIZONTAL MOUNT, (SPECIAL)	EACH	4
UNINTERRUPTABLE POWER SUPPLY AND CABINET (SPECIAL)	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
CAMERA MOUNTING ASSEMBLY	EACH	4
VIDEO VEHICLE DETECTION SYSTEM	EACH	1
CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1
LIGHTING CABLE FUSE KITS	EACH	4
TRAFFIC SIGNAL TIMING	EACH	1

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60187

NO.	DATE	NATURE OF REVISION	CHKD.

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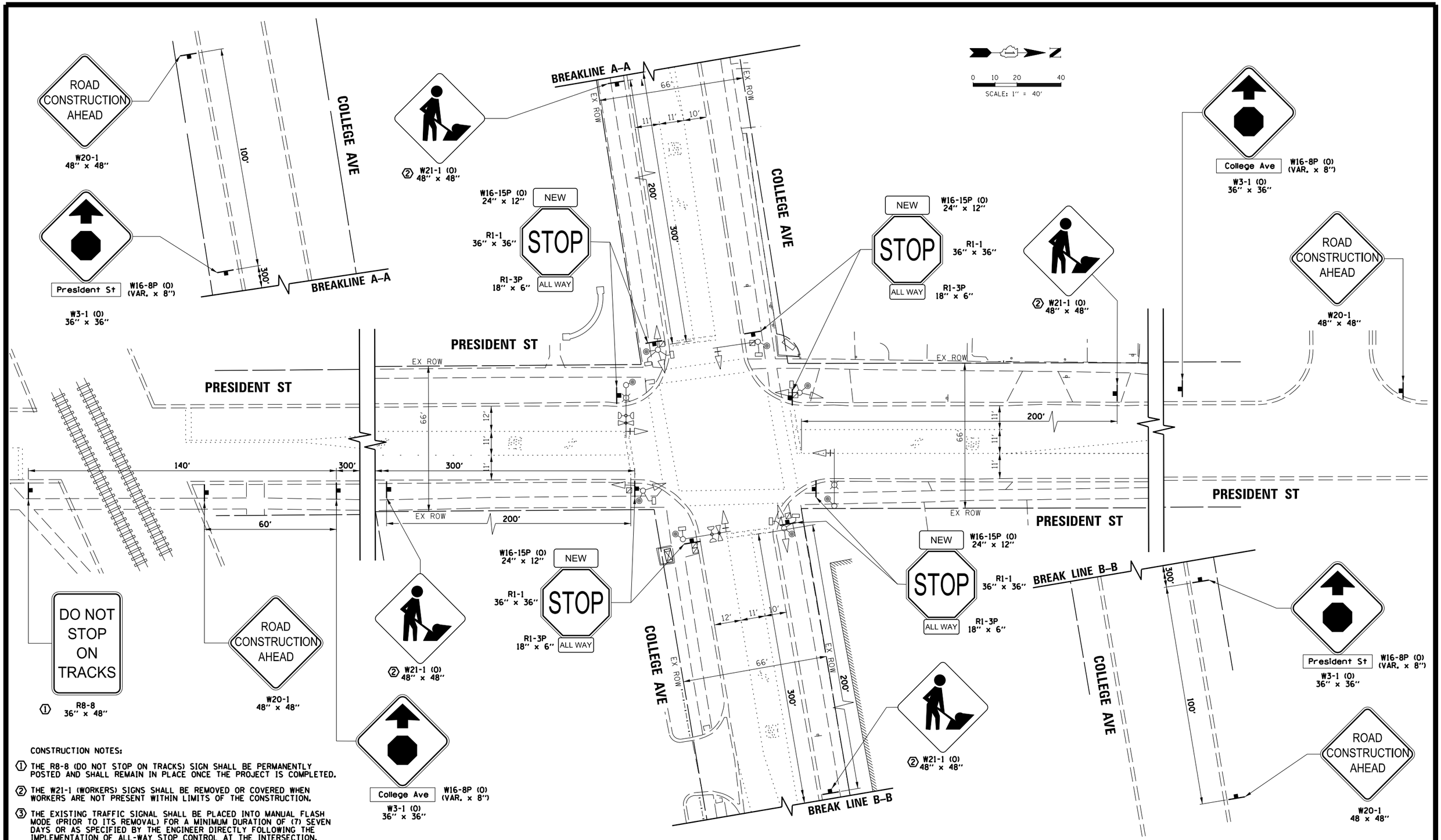
DWN.	FPB
CHKD.	GMZ
SCALE:	NOT TO SCALE
PLOT DATE:	7/1/2016
CAD USER:	fbarlso
MODEL:	default

TITLE:
MAST ARM MOUNTED STREET NAME SIGN AND SCHEDULE OF QUANTITIES – TRAFFIC SIGNAL ITEMS PRESIDENT STREET AND COLLEGE AVENUE WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	11 OF 20
DRAWING NO.	11



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MODEL:	default

FILE NAME N:\WHEATON\160034\Traffic\MOT_President-College.dgn

TITLE:

MAINTENANCE OF TRAFFIC PLAN
PRESIDENT STREET AND COLLEGE AVENUE
WHEATON, ILLINOIS

PROJ. NO.	160034
DATE:	7/1/2016
SHEET	12 OF 20
DRAWING NO.	12

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		RR	RR
COMMUNICATIONS CABINET	R CC	ECC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTABLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G ◄Y ◄G	R Y G ◄Y ◄G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD "RB" INDICATES REFLECTIVE BACKPLATE		R Y G ◄Y ◄G "P"	R Y G ◄Y ◄G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		I	I
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F		36F	36F
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RPF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
QUEUE DETECTOR		Q	Q
PREFORMED QUEUE DETECTOR		PQ	PQ
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

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		DRAWN - BCK	REVISED -	
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -	
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	13
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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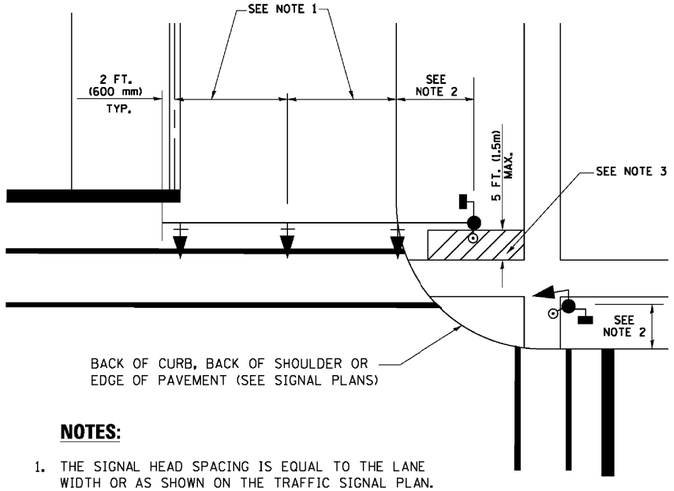
TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

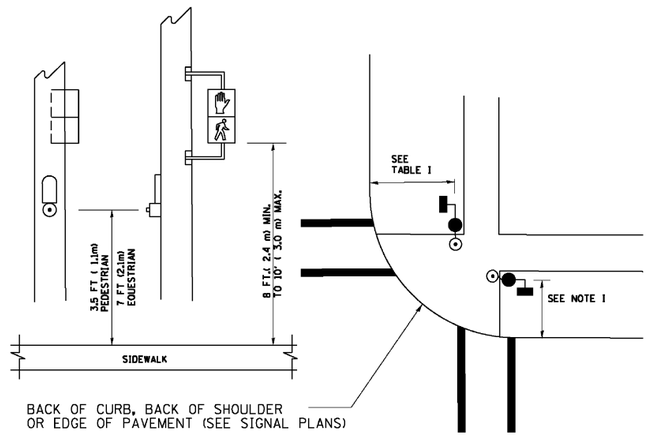
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

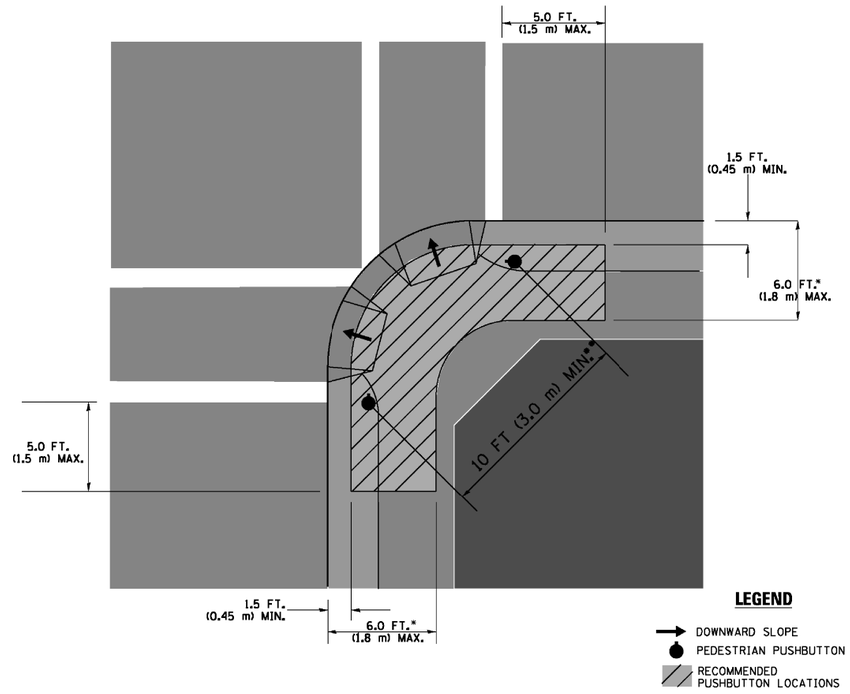
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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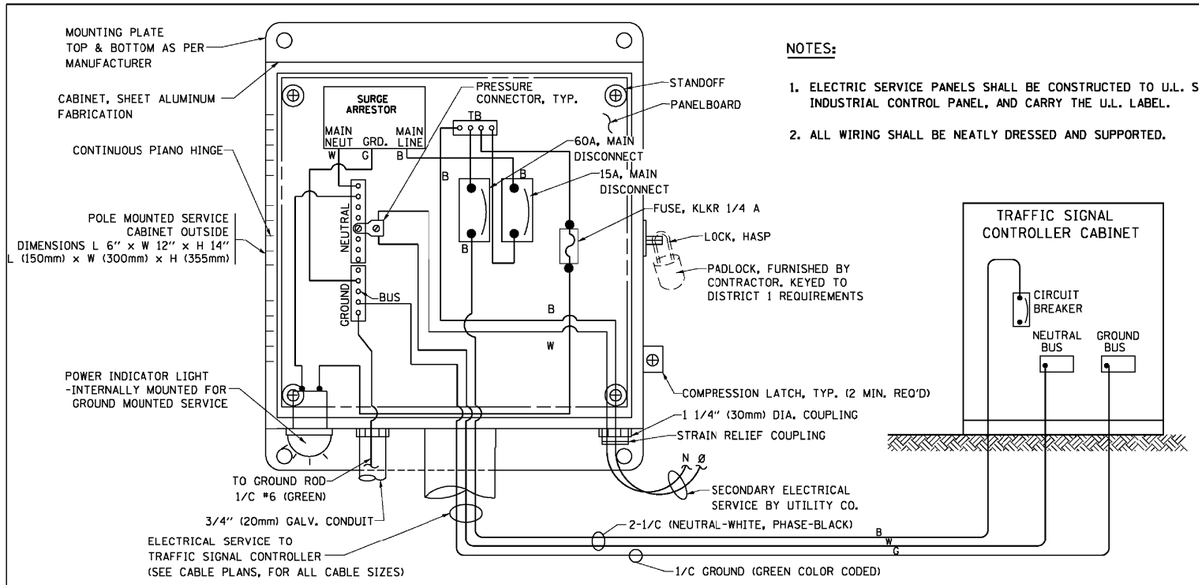
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	14
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



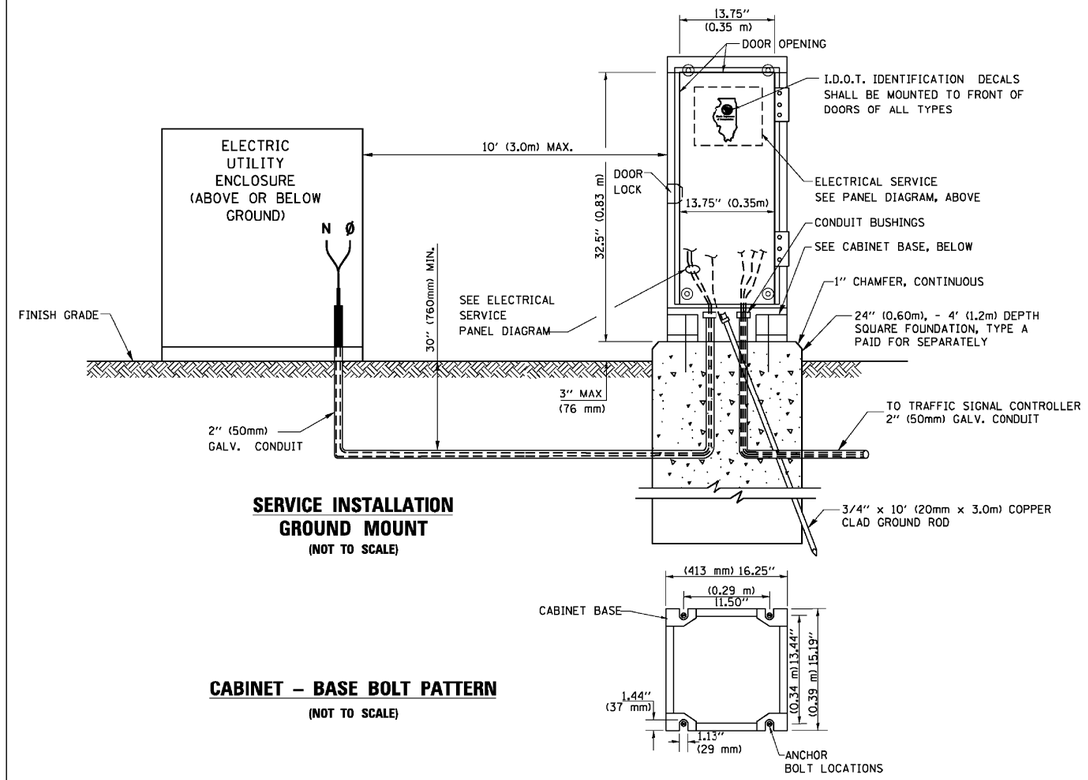
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)

NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

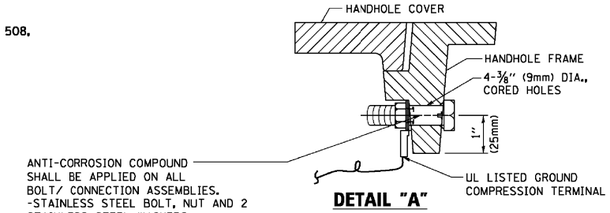


SERVICE INSTALLATION GROUND MOUNT

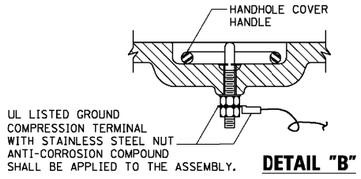
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



DETAIL "A"



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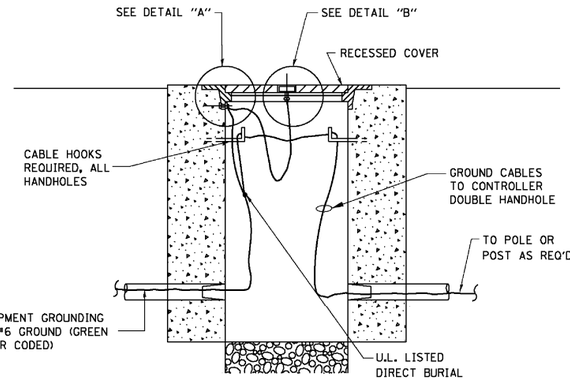


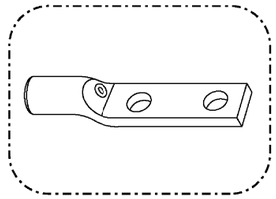
HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

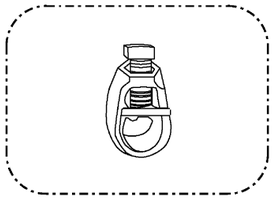
NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS, THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



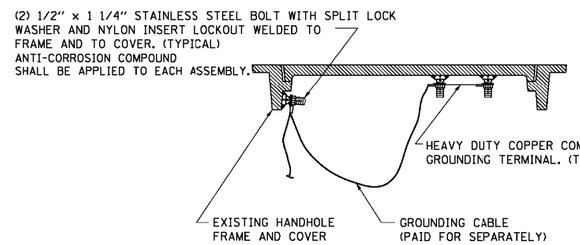
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

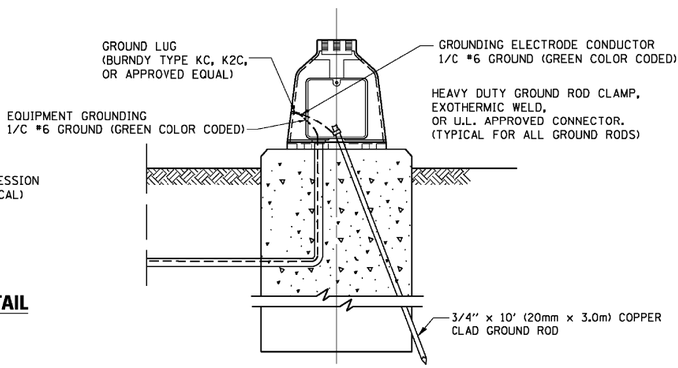
NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
  6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
  13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
  5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

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		DRAWN - BCK	REVISED -						20	15
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -				TS-05	CONTRACT NO.		
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -		SCALE: NONE SHEET NO. 4 OF 7 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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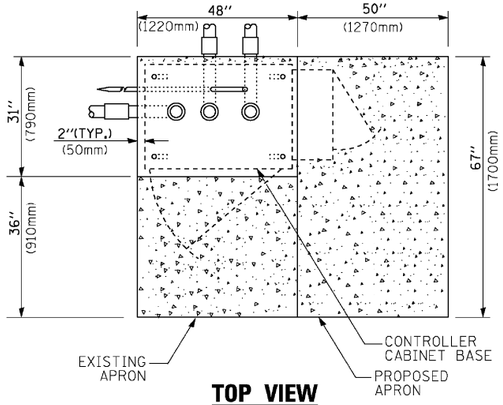
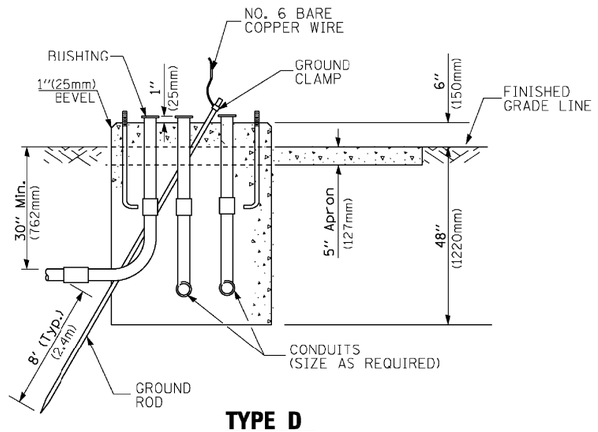
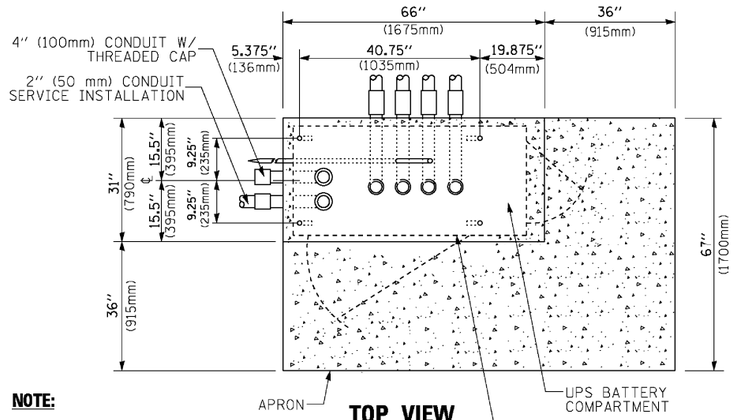


TOP VIEW



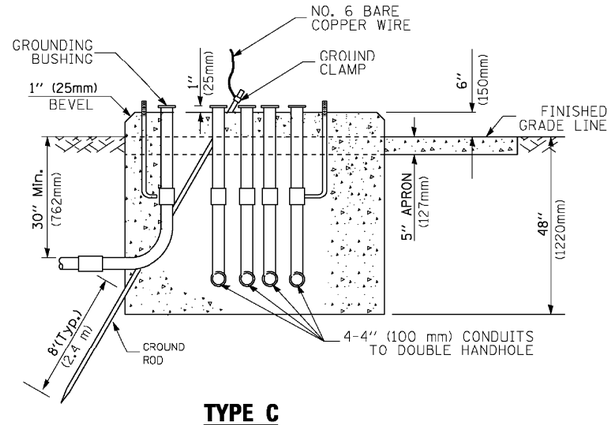
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



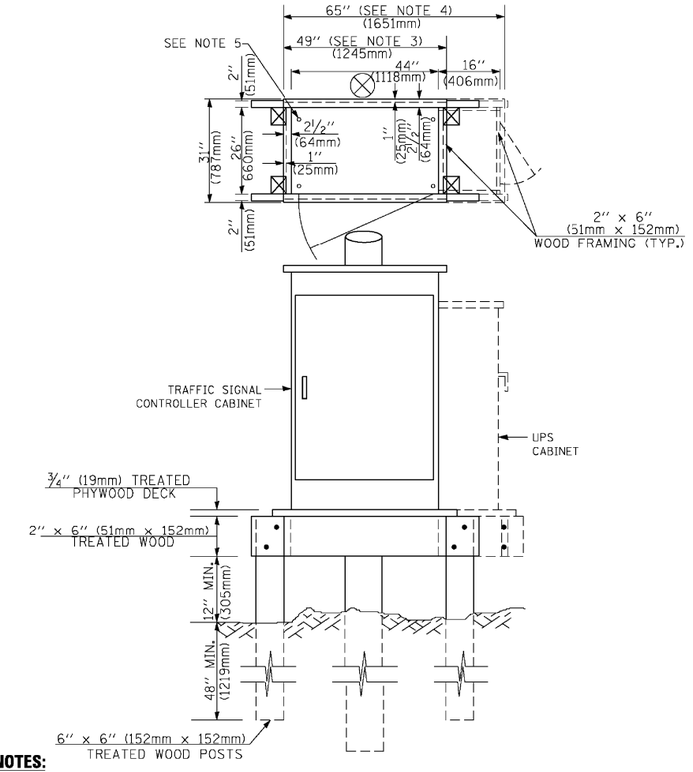
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

TOP VIEW



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations
4. For mast arm assemblies with dual arms refer to state standard 878001..

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	16
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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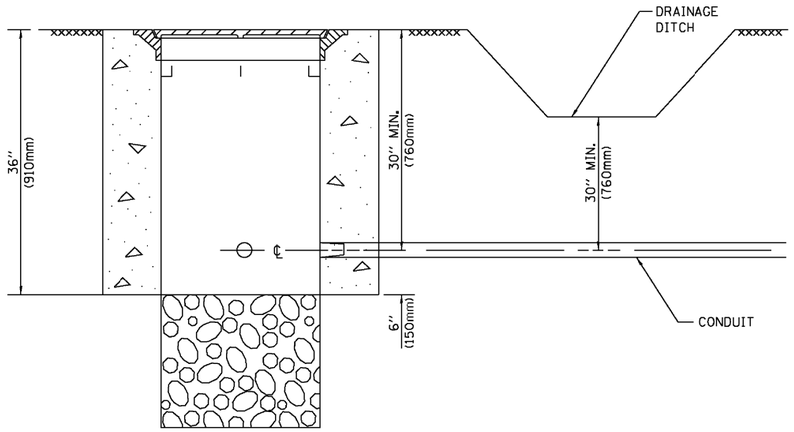
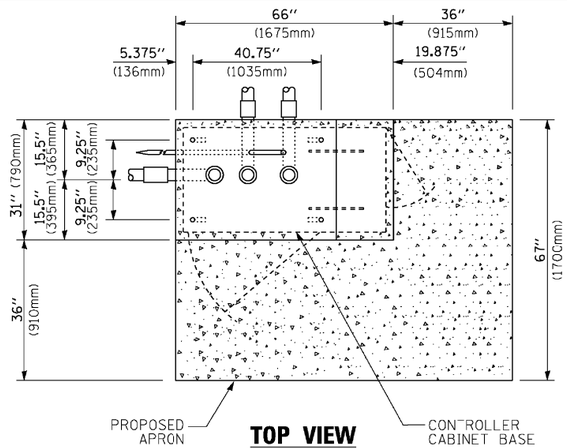


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

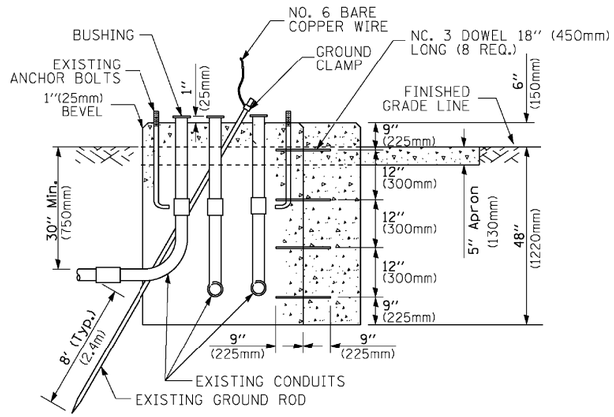
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



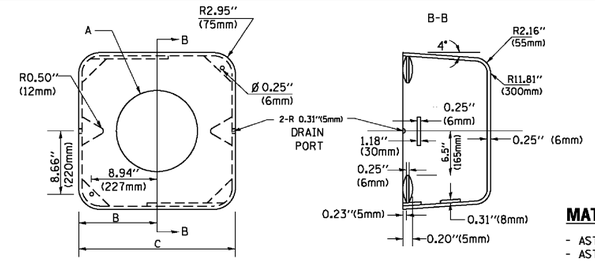
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL:

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

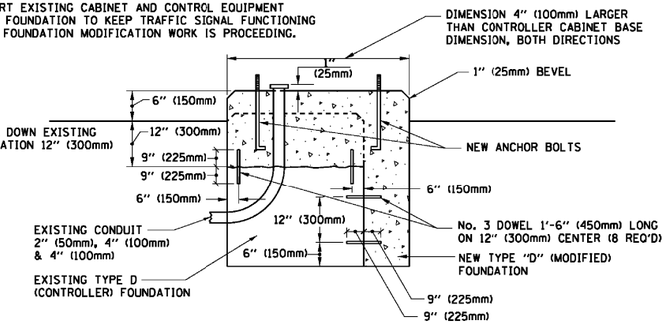
SHROUD

NOTES:

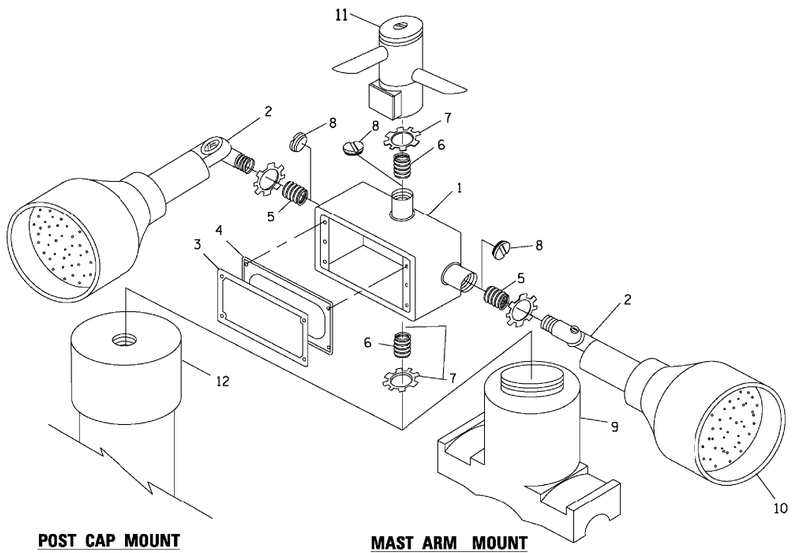
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



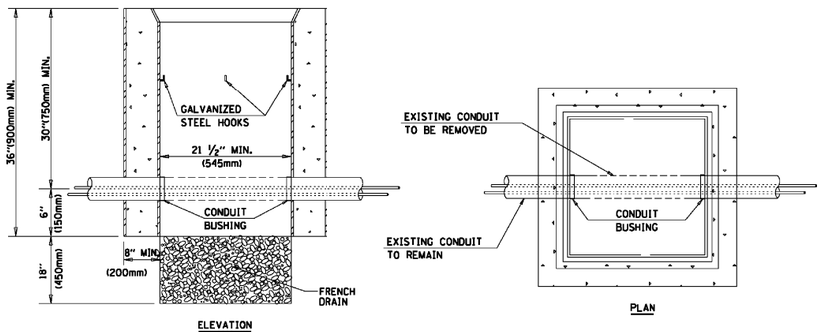
POST CAP MOUNT **MAST ARM MOUNT**

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

FILE NAME = c:\pw_work\pwidot\footemj\d0108315\ts05.dgn	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
		DRAWN - BCK	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

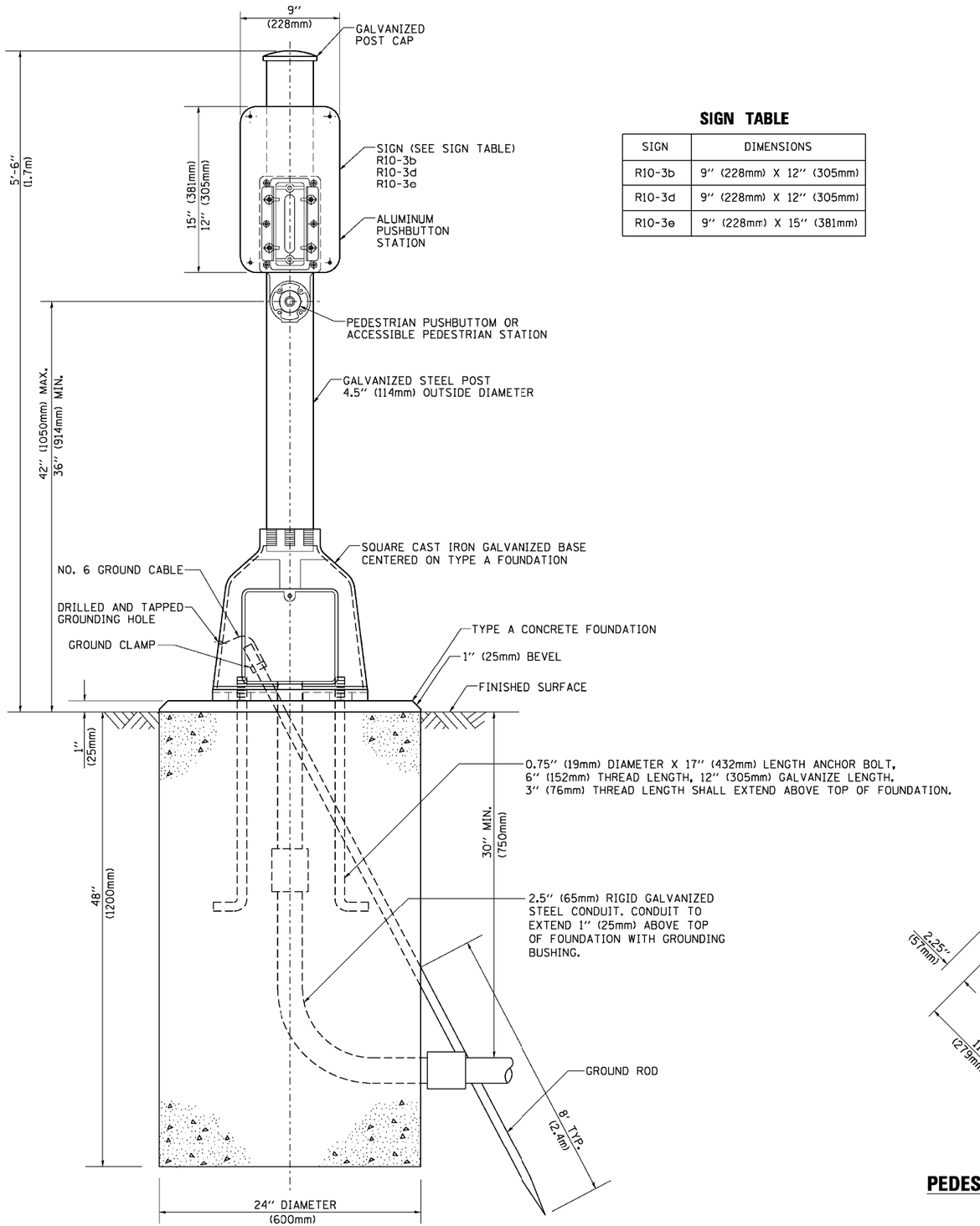
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

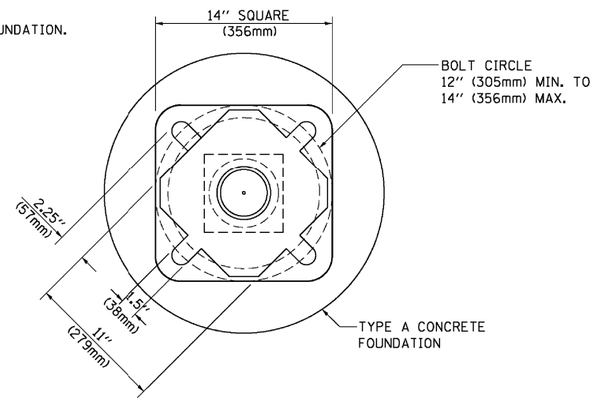
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	17
	TS-05		CONTRACT NO.	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

ts05.dgn 1/13/2014 1:20:19 PM C:\pwwork\footemj



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9'' (228mm) X 12'' (305mm)
R10-3d	9'' (228mm) X 12'' (305mm)
R10-3e	9'' (228mm) X 15'' (381mm)



BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

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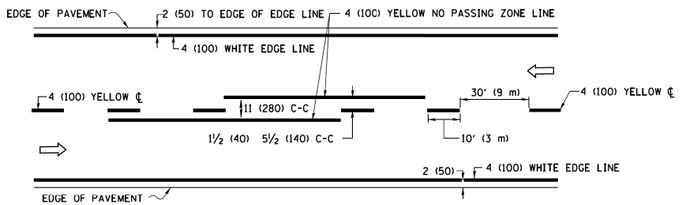
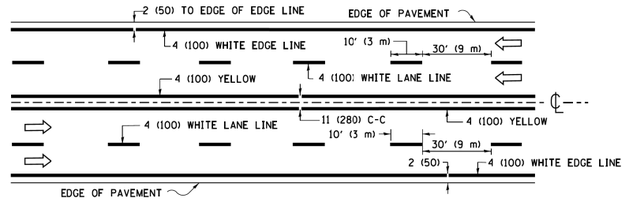
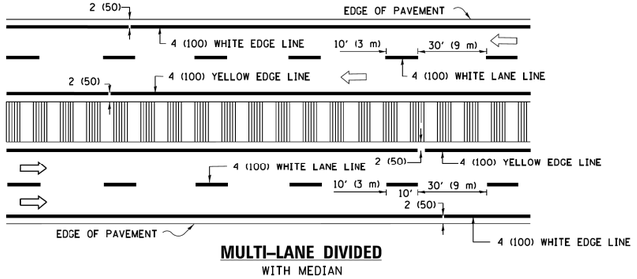
		DRAWN - GND	REVISED -								20	18
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -						TS-05	CONTRACT NO.		
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -		SCALE: NONE	SHEET NO. 7 OF 7 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2–LANE ROADWAY

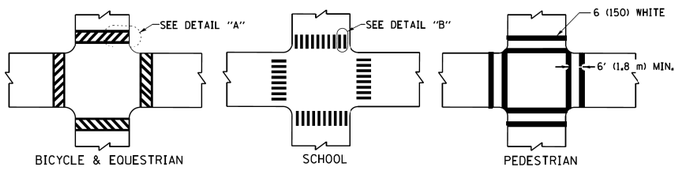


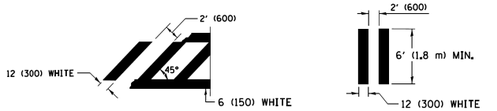
MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

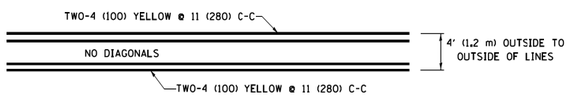




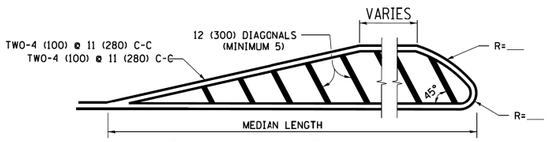
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

✳ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



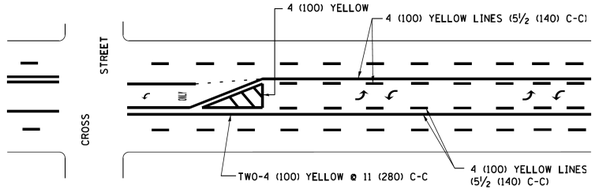
4' (1.2 m) WIDE MEDIANS ONLY



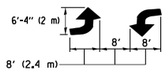
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

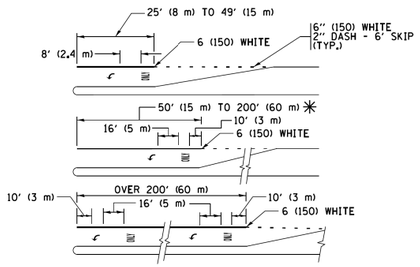


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

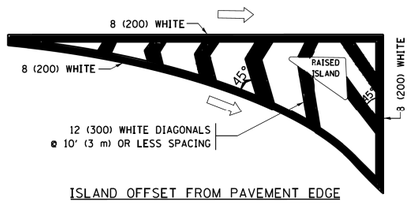


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

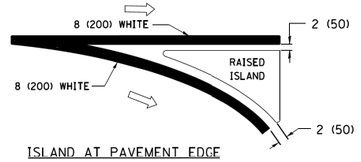
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

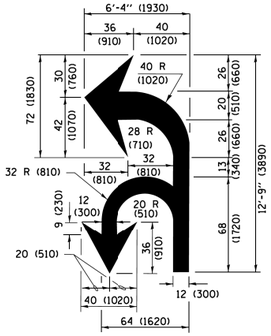


ISLAND OFFSET FROM PAVEMENT EDGE

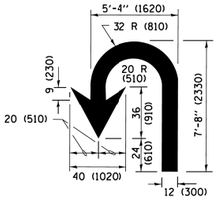


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

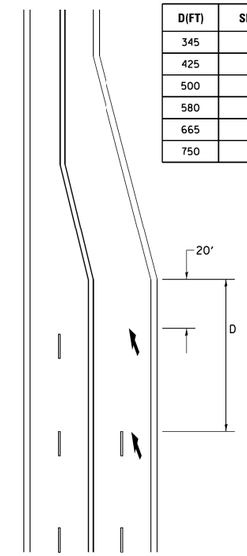


COMBINATION LEFT AND U–TURN



U–TURN

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55



LANE REDUCTION TRANSITION

✳ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ⌀ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2,4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ⌀ 4 (100) EACH DIRECTION 8' (2,4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⌀ 6 (150) 12 (300) ⌀ 45° 12 (300) ⌀ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⌀ 4 (100) WITH 12 (300) DIAGONALS ⌀ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⌀ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) ⌀ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist\Standards\CADData\CADsheets\tc13.dgn	USER NAME = footemj	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
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Default	PLOT DATE = 4/13/2016	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
			REVISED - C. JUCIUS 04-12-16

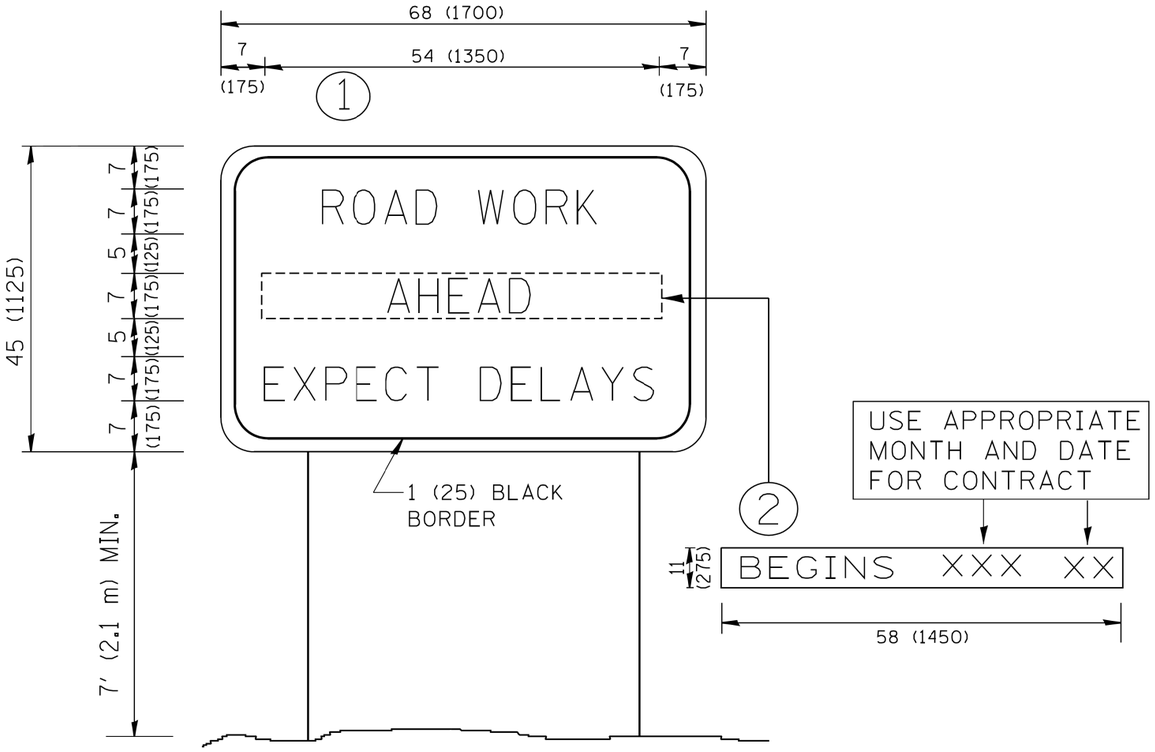
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	19
	TC-13		CONTRACT NO.	
		ILLINOIS	FED. AID PROJECT	

tc13.dgn 4/13/2016 2:04:04 PM User=footemj



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE ''ROAD CONSTRUCTION AHEAD'' SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR ''TEMPORARY INFORMATION SIGNING'' FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
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	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			20	20
	TC-22		CONTRACT NO.	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL INSTALLATION

COST PROPOSAL

Based on Amendment #_____dated_____

PLEASE SUBMIT 2 Original Proposals AS FOLLOWS:

1) This Page
2) Certification of Compliance
3) Contractor Profile and Submittal Requirements
4) Certificate of Insurance

Do not submit perforated pages, nor bind your proposal in anything other than paper clips**.**

We hereby agree to furnish and deliver to the City of Wheaton, in accordance with the Terms and Conditions, Specifications, and Contract Requirements as follows:

CODE NUMBER	UNIT	ITEM	QTY	UNIT PRICE	TOTAL
20800150	CU YD	TRENCH BACKFILL	5		
21101615	SQ YD	TOPSOIL FURNISH AND PLACE, 4"	222		
25200110	SQ YD	SODDING, SALT TOLERANT	204		
28000510	EACH	INLET FILTERS	3		
40600290	POUND	BITUMINOUS MATERIALS (TACK COAT)	306		
40603335	TON	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	57		
42400200	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	1,255		
42400410	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	711		
42400800	SQ FT	DETECTABLE WARNINGS	80		
44000157	SQ YD	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	676		
44000500	FOOT	COMBINATION CURB AND GUTTER REMOVAL	223		
44000600	SQ FT	SIDEWALK REMOVAL	1,431		
550B0050	FOOT	STORM SEWERS, CLASS B, TYPE 1 12"	27		
60207915	EACH	CATCH BASINS, TYPE C, TYPE 11V FRAME AND GRATE	1		
60250200	EACH	CATCH BASINS TO BE ADJUSTED	3		
60603800	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	226		
67100100	L SUM	MOBILIZATION	1		
72000100	SQ FT	SIGN PANEL - TYPE 1	27		
72000200	SQ FT	SIGN PANEL - TYPE 2	12		
72800100	FOOT	TELESCOPING STEEL SIGN SUPPORT	26		
78000200	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	10		
78000400	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	10		
78000600	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	288		
78000650	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	88		
81028200	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	24		
81028350	FOOT	UNDERGROUND CONDUIT, PVC, 2" DIA.	23		
81028360	FOOT	UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	25		
81028370	FOOT	UNDERGROUND CONDUIT, PVC, 3" DIA.	90		
81028390	FOOT	UNDERGROUND CONDUIT, PVC, 4" DIA.	274		
81400100	EACH	HANDHOLE	2		
81400300	EACH	DOUBLE HANDHOLE	2		
81702110	FOOT	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	2,032		

Firm Name_____

Signature_____ Job Title_____

Print Name_____ Date Signed_____

TRAFFIC SIGNAL INSTALLATION

COST PROPOSAL

CODE NUMBER	UNIT	ITEM	QTY	UNIT PRICE	TOTAL
85000200	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	1		
85700200	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	1		
87301225	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	1,082		
87301245	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	619		
87301255	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	1,177		
87301805	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	44		
87301900	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	283		
87500600	EACH	TRAFFIC SIGNAL POST, 10 FT.	2		
87501200	EACH	TRAFFIC SIGNAL POST, 16 FT.	3		
87702850	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT.	1		
87702860	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.	1		
87702870	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.	1		
87702920	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	1		
87800100	FOOT	CONCRETE FOUNDATION, TYPE A	20		
87800150	FOOT	CONCRETE FOUNDATION, TYPE C	4		
87800415	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	60		
88030020	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	4		
88030100	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	4		
88030110	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	4		
88102717	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	8		
88200410	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	12		
88700200	EACH	LIGHT DETECTOR	2		
88700300	EACH	LIGHT DETECTOR AMPLIFIER	1		
89502300	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT	4,700		
89502375	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	1		
89502380	EACH	REMOVE EXISTING HANDHOLE	4		
89502382	EACH	REMOVE EXISTING DOUBLE HANDHOLE	1		
89502385	EACH	REMOVE EXISTING CONCRETE FOUNDATION	9		
550A0340	FOOT	STORM SEWERS, CLASS A, TYPE 2 12"	27		
X0321973	EACH	MODIFY EXISTING SERVICE INSTALLATION	1		
X0324085	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	200		
X7010216	L SUM	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	1		
X8211125	EACH	LUMINAIRE, LED, HORIZONTAL MOUNT, (SPECIAL)	4		
X8620200	EACH	UNINTERRUPTABLE POWER SUPPLY AND CABINET (SPECIAL)	1		
X8760200	EACH	ACCESSIBLE PEDESTRIAN SIGNALS	8		
Z0010688	EACH	CAMERA MOUNTING ASSEMBLY	4		
Z0030850	SQ FT	TEMPORARY INFORMATION SIGNING	103		
Z0033072	EACH	VIDEO VEHICLE DETECTION SYSTEM	1		
	EACH	LIGHTING CABLE FUSE KITS	4		
	L SUM	CONSTRUCTION LAYOUT (SPECIAL)	1		
	EACH	TRAFFIC SIGNAL TIMING	1		
	CU YD	REMOVAL AND DISPOSAL OF SURPLUS EXCAVATED MATERIALS	20		
	FOOT	SIDEWALK CURB	32		
				PROJECT TOTAL =	

Firm Name_____

Signature_____ Job Title_____

Print Name_____ Date Signed_____

TRAFFIC SIGNAL INSTALLATION

CERTIFICATION OF COMPLIANCE

The undersigned, being first duly sworn an oath, deposes and states that he/she has the authority to make this certification on behalf of the bidder for the product, commodity, or service and:

(A) The undersigned certifies that, pursuant to 720 ILCS Act 5, Article 33E of the Illinois Compiled Statutes, the bidder is not barred from bidding on this contract as a result of a conviction for the violation of State of Illinois laws prohibiting bid-rigging or bid-rotating.

(B) The undersigned certifies that, pursuant to 65 ILCS 5/11-42.1-1 of the Illinois Compiled Statutes, the bidder is not delinquent in the payment of any tax administered by the Illinois Department of Revenue.

(C) The undersigned certifies that, pursuant to 30 ILCS 580/3, Section 3 the bidder deposes, states and certifies it will provide a drug free workplace by complying to the Illinois Drug Free Workplace Act.

(D) The undersigned certifies that, pursuant to 820 ILCS 130/1-12 of the Illinois Compiled Statutes, the bidder, when required, is in compliance to all requirements of the Prevailing Wage Act.

(E) The undersigned certifies that, pursuant to 30 ILCS 570/ Section 5 Article 2 of the Illinois Compiled Statutes, the bidder is in compliance to all requirements of the Employment of Illinois Workers on Public Works Act.

(F) The undersigned certifies that they agree to fulfill all Requirements, Specifications, Terms and Conditions.

(G) The undersigned certifies that they agree to fulfill all Contract Requirements.

(H) The undersigned certifies that they agree to present alternative Greener products/processes to the City for consideration in this work.

***Check One**:*

☐**There are no conflicts of interest**; In the event that a conflict of interest is identified anytime during the duration of this award, or reasonable time thereafter, you, your firm, or your firm's ownership, management or staff will immediately notify the City of Wheaton in writing.

☐ **There is an affiliation or business relationship** between you, your management or staff, your firm, or your firm's ownership, and an employee, officer, or elected official of the City of Wheaton who makes recommendations to the City of Wheaton with respect to expenditures of money, employment, and elected or appointed positions. Provide any and all affiliations or business relationships that might cause a conflict of interest or any potential conflict of interest. Include the name of each City of Wheaton affiliate with whom you, your firm, or your firm's ownership, management or staff, has an affiliation or a business relationship.

This Business Firm is: (check one)

☐a Corporation ☐a Partnership ☐an Individual ☐an LLC

Firm Name:_____

Firm Address:_____

_____

Signature:_____

Print Name:_____

Position:_____

Phone #:_____

Fax #:_____

e-mail address:_____

Date Signed:_____

Operational Contact for this work

Name:_____

Phone #:_____

e-mail:_____

Sales Contact

Name:_____

Phone #:_____

e-mail:_____

Billing Contact

Name:_____

Phone #:_____

e-mail:_____

Signing this Agreement affirms that the original solicitation document has not been altered in any way.

CUSTOMIZED MAILING LABEL FOR SEALED BID

XXXXXXX CUT OUT XXXXXXX

Cut along outer border and affix this label to your sealed bid envelope to identify it as a "Sealed Bid".

SEALED BID – DO NOT OPEN

PROPOSAL FOR: TRAFFIC SIGNAL INSTALLATION

PROPOSAL FROM: ***(Insert your company name below)***

Sealed Bids Due: February 22, 2017 before 11:00 a.m.
Public Bid Opening: February 22, 2017 at 11:00 a.m.

TO BE OPENED BY PROCUREMENT OFFICER

MAIL TO:

Procurement Office
City of Wheaton / City Hall
P.O. BOX 0727
303 West Wesley Street
Wheaton, IL 60187-0727

TRAFFIC SIGNAL INSTALLATION

CONTRACTOR PROFILE AND SUBMITTAL REQUIREMENTS

The Contractor shall attach to this proposal:

☒ ***This completed form***

☒ ***Evidence of Experience and Capabilities:***

1. Experience as evidenced by a listing of five (5) references which demonstrate previous successful projects completed by the installer for comparable system during the last three (3) years.

   Complete:
   Years in business:_____ Years in business under this name:_____ Years performing this type of work:_____

2. Work History

   Complete:
   Value of work: completed in past 12 months: $_____ now under contract: $_____
   Number of Clients: serviced in past 12 months: _____ now under contract: _____

☒ ***Work Specific Knowledge and Ability***

3. A certification from the product manufacturer stating that the installer has been trained and approved in the installation of the product to be used. Certification letter shall be dated within twelve (12) months of bid date.
4. Manufacturer's product literature, installation recommendations, technical data sheets for each product used, including ASTM test results indicating the product conforms to and is suitable for its intended use per these specifications.
5. Manufacturer's certification that the products to be used meet the applicable referenced standards and these specifications.
6. Attach a list of the areas of work that will be performed by a sub-contractor.

☒ ***Availability and Lead Time***

7. A properly executed Contractor's Qualification statement (AIA document A305).

☒ ***Safe Risk***

8. An Insurance Certificate as evidence that the company is insured
9. Warranty Statement
10. Answer the following questions:

Has your firm:	Failed to complete a contract? Yes No
	Been involved in bankruptcy or reorganization? Yes No
	Pending judgment claims or suits against firm? Yes No
Have you had any:	OSHA fines within the last three (3) years? Yes No
	Job related fatalities within the last five (5) years? Yes No

If you have answered Yes to any of the above questions, you MUST submit, on a separate sheet, the details describing the circumstances surrounding each incident.

Firm Name_____

Signature_____ Job Title_____

Print Name_____ Date Signed_____

This number must appear on all invoices and documents
No. C _____

Agreement Between the City of Wheaton, Illinois and _____

TRAFFIC SIGNAL INSTALLATION

This Agreement is entered into by and between the City of Wheaton, an Illinois municipal corporation ("City"), 303 West Wesley Street, Wheaton, IL 60187, and _____, ("Contractor), *address.*

WITNESSETH:

Whereas, the City has determined that it is necessary to hire a contractor to provide labor, and/or materials and/or equipment to perform Traffic Signal Installation (hereinafter the "Work") as more fully recited in the Invitation to Bid issued January 2017, which is incorporated herein as Exhibit A [Exhibit A will be the City Solicitation Package]; and

Whereas, the City has heretofore requested proposals for the work, materials, and services necessary to perform the services and complete all the work as specified in Exhibit A; and

Whereas, the Contractor did submit a proposal to the City for the Work specified, which is attached hereto and incorporated herein as Exhibit B [Exhibit B will be the proposal.]; and

Whereas, the City did on the _____day of _____, 2017, select the Contractor for the work specified in this Agreement and Exhibits**.**

Now, therefore, for in consideration of their mutual promises, terms, covenants, agreements, and conditions recited in this Agreement, the City and the Contractor hereto do hereby agree as follows:

1. Scope of Services. The Recital paragraphs are incorporated herein as substantive terms and conditions of this Agreement and as representing the intent of the Parties. Any inconsistency between the Work as stated by the City and the work as proposed by the contractor shall be controlled by the Work as stated by the City unless specifically varied in writing to the contrary in this paragraph.

The Contractor shall furnish all labor, materials, and equipment to provide and perform the Work. The Contractor represents and warrants that it shall perform the Work in a manner consistent with the level of care and skill customarily exercised by other professional contractors under similar circumstances. The contractor shall be responsible for the work performed under the Contract Documents and every part thereof, and for all materials, tools, equipment, appliances, and property of any and all description used in connection with the Work. The contractor assumes all risks for direct and indirect damage or injury to the property or persons used or employed on or in connection with the Work contracted for, and of all damage or injury to any person or property wherever located, resulting from any action, omission, commission, or operation under this contract, or in any way whatsoever with the Work.

2. Compensation. The City shall compensate the Contractor per the terms of the Contractor's proposal which is attached hereto as Exhibit B,

3. Waivers of Lien: The City reserves the right to require waivers of lien before payment where the City deems it to be in its best interest to do so.

4. Term of Agreement. This Agreement shall become effective upon the latter of the date accepted and signed by the City and the date accepted and signed by the Contractor and shall terminate upon the written approval of the City's Project Manager. The City, at its option, may extend this Agreement for an additional term if the Contractor holds firm to the original proposal prices, conditions, and specifications.

5. Time is of the Essence. Time is of the essence in the performance of all the terms and conditions of this agreement. Failure to meet stated terms may result in Liquidated Damages in the amount of $500.00 per calendar day beyond the delivery date specified.

6. Additional Services. The Contractor shall provide only the Work specified in this Agreement and attached Exhibits. In the event the Contractor, Engineer or the City determines that additional goods and/or services are required to complete the Work, such additional goods shall not be provided and/or such additional services shall not be performed unless authorized in writing by the City via the attached change order form [Exhibit C will be the Change Order Form]. Terms, frequency, and prices for additional work shall be as mutually agreed upon in writing by the City and the Contractor.

7. Integration. The provisions set forth in this Agreement represent the entire agreement between the parties and supersede all prior agreements, contracts, promises, and representations, as it is the intent of the parties to provide for a complete integration within the terms of this Agreement. This Agreement may be modified only by a further written agreement between the parties, and no modification shall be effective unless properly approved and signed by each party via change order or amendment. No course of conduct before, or during the performance of this Agreement, shall be deemed to modify, change, or amend this Agreement.

8. Waiver. Any failure of either the City or the Contractor to strictly enforce any term, right, or condition of this Agreement, whether implied or expressed, shall not be construed as a waiver of such term, right, or condition.

9. Compliance with Laws. The Contractor shall comply with all applicable federal, state, and local laws, rules, and regulations, and all City ordinances, rules, and regulations now in force or hereafter enacted, in the provision of the goods and/or performance of the services required under this Agreement.

10. Freedom of Information Act: The Contractor shall, within twenty-four hours of the City's request, provide any documents in the Contractor's possession related to the contract which the City is required to disclose to a requester under the Illinois Freedom of Information Act. This provision is a material covenant of this Agreement. Contractor agrees to not apply any costs or charge any fees to the City regarding the procurement of records required pursuant to a FOIA request. Should Contractor request that City utilize a lawful exemption under FOIA in relation to any FOIA request thereby denying that request, Contractor agrees to pay all costs connected therewith (such as reasonable attorney's and witness fees, filing fee, and any other expenses) to defend the denial of the request. The defense shall include, but not be limited to, challenged or appealed denials of FOIA requests to either the Illinois Attorney General or a court of competent jurisdiction. Contractor agrees to defend, indemnify, and hold harmless City, and agrees to pay all costs connected therewith (such as reasonable attorney's and witness fees, filing fees and any other expenses) to defend any denial of a FOIA request by Contractor 's request to utilize a lawful exemption to City.

11. Discrimination Prohibited. The Contractor shall comply with the provisions of the Illinois Human Rights Act, as amended, 775 ILCS 5/1-101 et seq. (1992 State Bar Edition), and with all rules and regulations established by the Department of Human Rights. The Contractor agrees that it will not deny employment to any person or refuse to enter into any contract for services provided for in this Agreement to be performed on its behalf on the basis of unlawful discrimination as defined in the Illinois Human Rights Act.

12. Prevailing Wage: Where applicable, the contractor and any subcontractors shall comply with all provisions of the Prevailing Wage Act, 820 ILCS 130/1 et seq., or any successor statute, and the documents entitled "Special Provisions for: Wages of Employees on Public Works," and "DuPage County Prevailing Wage for …" which are attached hereto and incorporated as an Addendum 2. Rates reflected in the Addendum are subject to change. The City of Wheaton provides no legal advice or opinion whether the Act is or is not applicable to this contract.

13. Status of Independent Contractor. Both City and Contractor agree that Contractor will act as an Independent Contractor in the performance of the Work. Accordingly, the Independent Contractor shall be responsible for payment all taxes including federal, state, and local taxes arising out of the Contractor's activities in accordance with this agreement, including by way of illustration but not limitation, federal and state income tax, social security tax, and any other taxes or license fees as may be required under the law. Contractor further acknowledges under the terms of this Agreement, that it is not an agent, employee, or servant for the City for any purpose, and that it shall not hold itself out as an agent, employee, or servant of the City under any circumstance for any reason. Contractor is not in any way authorized to make any contract, agreement, or promise on behalf of City, or to create any implied obligation on behalf of City, and Contractor specifically agrees that it shall not do so. City shall have no obligation to provide any compensation or benefits to Contractor, except those specifically identified in this Agreement. City shall not have the authority to control the method or manner by which Contractor complies with the terms of this Agreement.

14. Assignment; Successors and Assigns. Neither this Agreement, nor any part, rights, or interests hereof, may be assigned, to any other person, firm, or corporation without the written consent of all other parties. Upon approval of assignment, this Agreement and the rights, interests and obligations hereunder shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

15. Non-disclosure. During the course of the Work Contractor may have access to proprietary and confidential information including, but not limited to, methods, processes, formulae, compositions, systems, techniques, computer programs, databases, research projects, resident name and address information, financial data, and other data. Contractor shall not use such information for any purpose other than described in this Agreement and Exhibits and shall not directly or indirectly disclose or disseminate such information to any third party without the express written consent of the City.

16. Hold Harmless and Indemnification. The Contractor shall defend, hold harmless, and indemnify the City, its directors, officers, employees, agents, and elected officials, in whole or in part from and against any and all liabilities, losses, claims, demands, damages, fines, penalties, costs, and expenses, judgment, or settlement, including, but not limited to, reasonable attorneys' fees and costs of litigation including reasonable expert witness, and all causes of action of any kind or character, that may be incurred as a result of bodily injury, sickness, death, or property damage or as a result of any other claim or suit of any nature whatsoever arising from or in any manner connected with directly or indirectly, the negligent acts,

errors, omissions, or intentional acts or omissions, or omissions of any agent, subcontractor, or contractor hired to perform any services on behalf of the Contractor.

17. Patents: The successful contractor agrees to protect, defend, and save the City harmless against any demand for payment for the use of any patented material process, article, or device that may enter into the manufacture and construction, or form a part of the work covered by the contract.

18. Termination of Contract. If the Contractor fails to perform according to the terms of this Agreement, then the City may terminate this Agreement upon seven (7) days written notice to the Contractor. In the event of a termination, the City shall pay the Contractor for services performed as of the effective date of termination, less any sums attributable, directly or indirectly, to Contractor's breach. The City shall have the right to terminate this Agreement, without cause, upon twenty-one (21) days written notice to the Contractor. The Contractor shall be paid for all work performed in conformance with the Agreement through the effective date of the not for cause termination. The written notice required under this paragraph shall be either (i) served personally during regular business hours; (ii) served by facsimile data transmission during regular business hours; (iii) by e-mail or (iv)served by certified or registered mail, return receipt requested, addressed to the address listed in this Agreement with postage prepaid and deposited in the United States mail. Notice served personally and by facsimile data transmission shall be effective upon receipt, and notice served by United States mail shall be effective three (3) business days after mailing.

19. Cancellation for Unappropriated Funds: The obligation of the City for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of the contract into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

20. Default. In case of default by the contractor, the City will procure articles or service from other sources and hold the contractor responsible for any excess cost incurred as provided for in Article 2 of the Uniform Commercial Code. The City reserves the right to cancel the whole or any part of the contract if the contractor fails to perform any of the provisions in the contract, fails to make delivery within the time stated, becomes insolvent, suspends any of its operations, or if any petition is filed or proceeding commenced by or against the Seller under any State or Federal law relating to bankruptcy arrangement, reorganization, receivership, or assignment for the benefit of creditors. The contractor will not be liable to perform if situations arise by reason of strikes, acts of God or the public enemy, acts of the City, fires, or floods.

21. Force Majeure. No party hereto shall be deemed to be in default or to have breached any provision of this Agreement as a result of any delay, failure in performance or interruption of services resulting directly or indirectly from acts of God, acts of civil or military disturbance, or war, which are beyond the control of such non-performing party.

22. Other Entity Use. The Contractor may, upon mutual agreement, permit any municipality or other governmental agency to participate in the contract under the same prices and terms and conditions, if agreed to by both the Contractor and the other municipality or governmental agency.

23. Notification. All notification under this Agreement shall be made as follows:

If to the Contractor:	*If to the City:*
Contractor Name	*City of Wheaton*
Attn:	*Attn: City Clerk*

Street Address	*303 West Wesley Street Box 727*
City, State, Zip	*Wheaton, IL 60189-727*
Fax #	*Fax # 630-260-2017*
e-mail	*e-mail* cityclerk@wheaton.il.us

24. Severability. If any provision of this Contract is held to be illegal, invalid, or unenforceable, such provision shall be fully severable, and this Contract shall be construed and enforced as if such illegal, invalid, or unenforceable provision were never a part hereof; the remaining provisions hereof shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance; and in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this agreement, a provision as similar in its terms to such illegal, invalid, or unenforceable provision as may be possible and legal, valid and enforceable.

25. Recovery of Costs. In the event the City is required to file any action, whether legal or equitable, to enforce any provision of this Agreement, the City shall be entitled to recover all costs and expenses incurred as a result of the action or proceeding, including expert witness and attorney's fees, if so provided in any order of the Court.

26. Governing Law. This agreement is governed by the laws of the State of Illinois. Exclusive jurisdiction for any litigation involving any aspect of this Agreement shall be in the Eighteenth Judicial Circuit Court, DuPage County, Illinois.

In Witness Whereof, the parties have entered into this Agreement this _____ day of *month, year*.

City of Wheaton, an Illinois municipal corporation

By:_____Date:_____

Title:_____

Attest:

_____
Sharon Barrett-Hagen, City Clerk

Contractor Name

By:_____Date:_____

Title:_____

Attest:

_____

Special Provisions for:
Insurance Coverage for Contractual Services

The Contractor and each of its agents, subcontractors, and consultants hired to perform the Work, shall purchase and maintain during the term of this contract insurance coverage which will satisfactorily insure the Contractor and where appropriate, the City against claims and liabilities which may arise out of the Work. Such insurance shall be issued by companies authorized to do business in the State of Illinois and approved by the City. The insurance coverages shall include, but not necessarily be limited to, the following:

- **Worker's Compensation Insurance** with limits as required by the applicable statutes of the State of Illinois. The employer's liability coverage under the worker's compensation policy shall have limits not less than FIVE HUNDRED THOUSAND DOLLARS ($500,000) and each accident/injury and FIVE HUNDRED THOUSAND DOLLARS ($500,000) each employee/disease and FIVE HUNDRED THOUSAND DOLLARS ($500,000) policy limit.
  The workers' compensation policy shall provide a waiver of subrogation (aka Waiver of our Right to Recover from Others Endorsement), to the City.

- **Commercial General Liability Insurance** protecting the Contractor against any and all liability claims which may arise in the course of performance of this contract. The limits of liability shall be not less than ONE MILLION DOLLARS ($1,000,000) each occurrence bodily injury/property damage combined single limit and ONE MILLION DOLLARS ($1,000,000) aggregate bodily injury/property damage combined single limit. The policy of commercial liability insurance shall include contractual liability coverage and an endorsement naming the City as an additional insured on a primary and non-contributory basis. Completed Operations coverage shall continue for a period of two years after completion of the project. XCU coverage shall be included.

- **Commercial Automobile Liability Insurance** covering the Contractor's owned, non-owned, and hired vehicles which protects the Contractor against automobile liability claims whether on or off of the city's premises with coverage limits of not less than ONE MILLION DOLLARS ($1,000,000) per accident bodily injury/property damage combined single limit. The policy of commercial liability insurance shall include contractual liability coverage and an endorsement naming the City as an additional insured on a primary and non-contributory basis.

- **Umbrella or Excess Liability Insurance co**verage of not less than ONE MILLION ($1,000,000) per occurrence.

Nothing herein set forth shall be construed to create any obligation on the part of the City to indemnify Contractor for any claims of negligence against Contractor or its agents, employees, subcontractors or consultants. Prior to commencement of any work under this Agreement, Contractor shall file with the City the required original certificates of insurance with endorsements, including those of subcontractors, which shall clearly state all of the following:

A. The policy number; name of insurance company; name and address of the agent or authorized representative; name, address, and telephone number of the insured; project name and address; policy expiration date; and specific coverage amounts; and

B. That the City of Wheaton (including its agents, elected officials, officers and employees) is named as an additional insured under all coverage, except Workers' Compensation, and that all such coverage shall be primary and non-contributory for the City, its agents, elected officials, officers, and employees. A

waiver of subrogation (aka Waiver of our Right to Recover from Others Endorsement), on all coverages shall be provided; and

C. Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions; and

D. Contractor's insurance is primary with respects to any other valid or collectible insurance City may possess, including any self-insured retention that City may have; and

E. Any deductibles or self-insured retention shall be stated on the certificates of insurance provided to the City; and

In addition to all of the insurance requirements identified above and contained on the certificates of insurance, all policies of insurance coverage under this section shall also be subject to the following requirements.

F. All insurance carriers providing coverage under this Agreement shall be authorized to do business in the State of Illinois and shall be rated at least A:VI in A.M. Best and Companies Insurance Guide or otherwise acceptable to the City.

G. The City of Wheaton shall have the right to reject the insurer/insurance of the contractor or any subcontractor; and

H. Occurrence policies are preferred. The city may accept claims made policies for Professional Liability or Pollution/Environmental Liability on a case by case basis providing the contractor purchases a claims made policy for four (4) years past the contract completion date.

I. The City will consider deductible amounts as part of its review of the financial stability of the bidder; and

J. No acceptance and/or approval of any insurance by the City shall be construed as relieving or excusing the Contractor, or the surety, or its bond, from any liability or obligation imposed upon either or both of them by the provisions of the Contract Documents; and

K. The City may require increases in Contractor's insurance coverage amounts over the course of this Agreement as it deems necessary so long as it reimburses Contractor for the actual increase in Contractor's insurance premiums attributable to the City's requested increase; and

L. Insurance coverage required by this contract shall be in force throughout the Contract Term and upon written request by the City, the Contractor shall, within 7 days, provide to the City acceptable evidence of current insurance. Should the Contractor fail to provide acceptable evidence of current insurance following written request, the City shall have the absolute right to terminate the Contract without any further obligation to the Contractor; and

M. Contractual and other liability insurance provided under this Contract shall not contain a supervision, inspection or engineering services exclusion that would preclude the City from supervising or inspecting the project to the end result. The Contractor shall assume all on-the-job responsibilities as to the control of persons directly employed by it; and

N. All existing structures, utilities, roads, services, trees, shrubbery and landscaping shall be protected against damage or interruption of service at all times by the Contractor and its subcontractors during the term of the Contract.

END OF SPECIAL PROVISIONS FOR INSURANCE COVERAGE FOR CONTRACTUAL SERVICES

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). A waiver of subrogation is required.

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$ $1,000,000
	[X] COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	[ ] CLAIMS-MADE [X] OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$ $1,000,000
							GENERAL AGGREGATE	$ $2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$ $2,000,000
	[ ] POLICY [X] PRO-JECT [ ] LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ $1,000,000
	[X] ANY AUTO						BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	[X] HIRED AUTOS [X] NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	[X] **UMBRELLA LIAB** [X] OCCUR						EACH OCCURRENCE	$ $2,000,000
	[X] **EXCESS LIAB** [ ] CLAIMS-MADE						AGGREGATE	$ $2,000,000
	[ ] DED [ ] RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						[X] WC STATU-TORY LIMITS [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [ ] **(Mandatory in NH)**	N / A					E.L. EACH ACCIDENT	$ $500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ $500,000
							E.L. DISEASE - POLICY LIMIT	$ $500,000
	[ ] Professional Liability and Errors and Omissions:							$1,000,000
	[x] Owners/Contractors Protection							
	[x] XCU Coverage Included with General Liability							$5,000,000
	[x] Pollution/Environmental Liability							

MEDIUM

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Bid/Project Name or Contract Name and #
Contractor
Contact
Address
Phone #, Email Address, Fax #

-The City of Wheaton is an additional insured on a primary and non-contributory basis on all insurance policies with respect to Liability.
- Endorsements and a Waiver of Subrogation shall be provided for all policies with each updated certificate.
- Contractors: It shall be the responsibility of the contractor to insure that all subcontractors comply with the same insurance requirements.

CERTIFICATE HOLDER

City of Wheaton
303 West Wesley Street
PO Box 727
Wheaton, IL 60187-0727

Attn: Procurement Officer
(fax) 630-260-2017

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Contract Addendum 2

Special Provisions for:
Wages of Employees on Public Works

This contract may be subject to the "Prevailing Wage Act," 820 ILCS 130/1 et seq ("The Act"). It shall be the responsibility of the contractor to determine whether the Act is applicable and if so to comply with all its terms and conditions. Any contractor having a question as to whether the Act is applicable shall consult with their own attorney to ascertain applicability. The City shall not have any duty to inform the contractor of the Acts applicability. If however the City informs the contractor that the Act is applicable it shall be the contractor's obligation to comply with all its terms and conditions unless the contractor can establish to the satisfaction of the City that the Act is inapplicable. If it is determined that The Act applies to this contract, all contractors and subcontractors subject to its terms shall comply with all of its provisions, including, but not limited to the following:

1. Not less than the prevailing rate of wages as found by the City of Wheaton or Department of Labor or determined by a court on review shall be paid to all laborers, workers and mechanics performing work under this contract. These prevailing rates of wages are included in this contract.

2. In all contractors' bonds the contractor shall include a provision that will guarantee the faithful performance of the prevailing wage clause provided by this contract.

3. If the Department of Labor revises the prevailing rate of hourly wages to be paid by the public body, the revised rate shall apply to the contractor, and the public body shall be responsible to notify the contractor and each subcontractor, of the revised rate.

4. The contractor and each subcontractor shall:
    a. make and keep, for a period of not less than 3 years, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's name, address, telephone number when available, social security number, classification or classifications, the hourly wages paid in each pay period, the number of hours worked each day, and the starting and ending times of work each day; and
    b. submit monthly, in person, by mail, or electronically a certified payroll to the public body in charge of the project. The certified payroll shall consist of a complete copy of the records identified in paragraph (1) of this subsection (a). The certified payroll shall be accompanied by a statement signed by the contractor or subcontractor which avers that:
        i. such records are true and accurate;
        ii. the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by this Act; and
        iii. the contractor or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class B misdemeanor.

5. Upon 2 business days' notice, the contractor and each subcontractor shall make available for inspection the records identified in paragraph 4 to the City of Wheaton, its officers and agents, and to the Director of Labor and his deputies and agents driving reasonable hours at a location within this State.

Du Page County Prevailing Wage for July 2015

(See explanation of column headings at bottom of wages)

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
ASBESTOS ABT-GEN		ALL		39.400	39.950	1.5	1.5	2.0	13.98	10.72	0.000	0.500
ASBESTOS ABT-MEC		BLD		36.340	38.840	1.5	1.5	2.0	11.47	10.96	0.000	0.720
BOILERMAKER		BLD		47.070	51.300	2.0	2.0	2.0	6.970	18.13	0.000	0.400
BRICK MASON		BLD		43.780	48.160	1.5	1.5	2.0	10.05	14.43	0.000	1.030
CARPENTER		ALL		44.350	46.350	1.5	1.5	2.0	11.79	16.39	0.000	0.630
CEMENT MASON		ALL		43.750	45.750	2.0	1.5	2.0	13.05	14.45	0.000	0.480
CERAMIC TILE FNSHER		BLD		36.810	0.000	1.5	1.5	2.0	10.55	9.230	0.000	0.770
COMMUNICATION TECH		BLD		32.650	34.750	1.5	1.5	2.0	9.550	15.16	1.250	0.610
ELECTRIC PWR EQMT OP		ALL		37.890	51.480	1.5	1.5	2.0	5.000	11.75	0.000	0.380
ELECTRIC PWR EQMT OP		HWY		39.220	53.290	1.5	1.5	2.0	5.000	12.17	0.000	0.390
ELECTRIC PWR GRNDMAN		ALL		29.300	51.480	1.5	1.5	2.0	5.000	9.090	0.000	0.290
ELECTRIC PWR GRNDMAN		HWY		30.330	53.290	1.5	1.5	2.0	5.000	9.400	0.000	0.300
ELECTRIC PWR LINEMAN		ALL		45.360	51.480	1.5	1.5	2.0	5.000	14.06	0.000	0.450
ELECTRIC PWR LINEMAN		HWY		46.950	53.290	1.5	1.5	2.0	5.000	14.56	0.000	0.470
ELECTRIC PWR TRK DRV		ALL		30.340	51.480	1.5	1.5	2.0	5.000	9.400	0.000	0.300
ELECTRIC PWR TRK DRV		HWY		31.400	53.290	1.5	1.5	2.0	5.000	9.730	0.000	0.310
ELECTRICIAN		BLD		38.160	41.980	1.5	1.5	2.0	9.550	18.29	4.680	0.680
ELEVATOR CONSTRUCTOR		BLD		50.800	57.150	2.0	2.0	2.0	13.57	14.21	4.060	0.600
FENCE ERECTOR	NE	ALL		37.340	39.340	1.5	1.5	2.0	13.05	12.06	0.000	0.300
FENCE ERECTOR	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	20.76	0.000	0.700
GLAZIER		BLD		40.500	42.000	1.5	2.0	2.0	13.14	16.99	0.000	0.940
HT/FROST INSULATOR		BLD		48.450	50.950	1.5	1.5	2.0	11.47	12.16	0.000	0.720
IRON WORKER	E	ALL		44.200	46.200	2.0	2.0	2.0	13.65	21.14	0.000	0.350
IRON WORKER	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	20.76	0.000	0.700
LABORER		ALL		39.200	39.950	1.5	1.5	2.0	13.98	10.72	0.000	0.500
LATHER		ALL		44.350	46.350	1.5	1.5	2.0	11.79	16.39	0.000	0.630
MACHINIST		BLD		45.350	47.850	1.5	1.5	2.0	7.260	8.950	1.850	0.000
MARBLE FINISHERS		ALL		32.400	34.320	1.5	1.5	2.0	10.05	13.75	0.000	0.620
MARBLE MASON		BLD		43.030	47.330	1.5	1.5	2.0	10.05	14.10	0.000	0.780
MATERIAL TESTER I		ALL		29.200	0.000	1.5	1.5	2.0	13.98	10.72	0.000	0.500
MATERIALS TESTER II		ALL		34.200	0.000	1.5	1.5	2.0	13.98	10.72	0.000	0.500
MILLWRIGHT		ALL		44.350	46.350	1.5	1.5	2.0	11.79	16.39	0.000	0.630
OPERATING ENGINEER		BLD	1	48.100	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	2	46.800	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	3	44.250	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	4	42.500	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	5	51.850	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	6	49.100	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		BLD	7	51.100	52.100	2.0	2.0	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		FLT		36.000	36.000	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	1	46.300	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	2	45.750	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	3	43.700	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	4	42.300	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	5	41.100	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	6	49.300	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
OPERATING ENGINEER		HWY	7	47.300	50.300	1.5	1.5	2.0	17.55	12.65	1.900	1.250
ORNAMNTL IRON WORKER	E	ALL		45.000	47.500	2.0	2.0	2.0	13.55	17.94	0.000	0.650
ORNAMNTL IRON WORKER	W	ALL		45.060	48.660	2.0	2.0	2.0	10.52	20.76	0.000	0.700
PAINTER		ALL		41.730	43.730	1.5	1.5	1.5	10.30	8.200	0.000	1.350
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
PILEDRIVER		ALL		44.350	46.350	1.5	1.5	2.0	11.79	16.39	0.000	0.630
PIPEFITTER		BLD		46.000	49.000	1.5	1.5	2.0	9.000	15.85	0.000	1.780
PLASTERER		BLD		43.430	46.040	1.5	1.5	2.0	10.05	14.43	0.000	1.020
PLUMBER		BLD		46.650	48.650	1.5	1.5	2.0	13.18	11.46	0.000	0.880
ROOFER		BLD		41.000	44.000	1.5	1.5	2.0	8.280	10.54	0.000	0.530

SHEETMETAL WORKER		BLD	44.720	46.720	1.5	1.5	2.0	10.65	13.31	0.000	0.820
SPRINKLER FITTER		BLD	49.200	51.200	1.5	1.5	2.0	11.75	9.650	0.000	0.550
STEEL ERECTOR	E	ALL	42.070	44.070	2.0	2.0	2.0	13.45	19.59	0.000	0.350
STEEL ERECTOR	W	ALL	45.060	48.660	2.0	2.0	2.0	10.52	20.76	0.000	0.700
STONE MASON		BLD	43.780	48.160	1.5	1.5	2.0	10.05	14.43	0.000	1.030
~~SURVEY WORKER~~		->NOT IN EFFECT		ALL	37.000	37.750	1.5	1.5	2.0	12.97	9.930
0.000 0.500											
TERRAZZO FINISHER		BLD	38.040	0.000	1.5	1.5	2.0	10.55	11.22	0.000	0.720
TERRAZZO MASON		BLD	41.880	44.880	1.5	1.5	2.0	10.55	12.51	0.000	0.940
TILE MASON		BLD	43.840	47.840	1.5	1.5	2.0	10.55	11.40	0.000	0.990
TRAFFIC SAFETY WRKR		HWY	32.750	34.350	1.5	1.5	2.0	6.550	6.450	0.000	0.500
TRUCK DRIVER		ALL 1	35.920	36.120	1.5	1.5	2.0	8.280	8.760	0.000	0.150
TRUCK DRIVER		ALL 2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER		ALL 3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER		ALL 4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TUCKPOINTER		BLD	42.620	43.620	1.5	1.5	2.0	10.05	13.34	0.000	0.670

Legend: RG (Region)
TYP (Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers)
C (Class)
Base (Base Wage Rate)
FRMAN (Foreman Rate)
M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.
OSA (Overtime (OT) is required for every hour worked on Saturday)
OSH (Overtime is required for every hour worked on Sunday and Holidays)
H/W (Health & Welfare Insurance)
Pensn (Pension)
Vac (Vacation)
Trng (Training)

Explanations

DUPAGE COUNTY

IRON WORKERS AND FENCE ERECTOR (WEST) - West of Route 53.

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

EXPLANATION OF CLASSES

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

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

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

CERAMIC TILE FINISHER

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

COMMUNICATIONS TECHNICIAN

Low voltage installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

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

and exterior which are installed in a similar manner.

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

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

OPERATING ENGINEER - BUILDING

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

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

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

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

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

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

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

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

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300

ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

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

Class 6. Field Mechanics and Field Welders

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

OPERATING ENGINEER - FLOATING

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

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

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

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

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

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

TERRAZZO FINISHER

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

Other Classifications of Work:

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

LANDSCAPING

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

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

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

Contract #:
Contract Addendum #: ____
For Office Use Only

Agreement Between the City of Wheaton, Il
and _____

TRAFFIC SIGNAL INSTALLATION

CHANGE ORDER #_____

Change Order required due to:
☐Changed/Unforeseen Condition
☐Change in Scope
☐Errors and Omissions
☐Other: _____

Type of Change Order:
☐Fixed Cost of $_____
☐Time & Materials, not to exceed: $_____
☐Emergency Change, not to exceed $_____
☐Extension of Completion Date

Attached is: ☐Service Providers Proposal; ☐Description of Change

Cost and Schedule Control Summary

If this section is left blank, Change Order will not result in additional charges:

Original Contract Amount	$_____
Previous COs Adds/Deducts	$_____
This CO Add/Deduct	$_____
Revised Contract Amount	$_____

If this section is left blank, Change Order will not result in additional time to complete the project:

Original Contract Duration	_____days
Previous COs Add/Deduct	_____days
This CO Add/Deduct	_____days
Revised Contract Duration	_____days
Revised Contract Completion Date	_____

The compensation (time and cost set forth in this Change Order comprises the total compensation due the Service Provider, all subcontractors, and all suppliers, for the work or change defined in this Change Order, including impact on the unchanged work. By signing the Change Order, the Service Provider acknowledges and agrees on behalf of himself, all subcontractors, and all suppliers, that the stipulated compensation includes payment for all work contained in the Change Order, plus all payment interruptions of schedules, extended field overhead costs, delay, and all impact, ripple effect or cumulative impact on all other work under this contract. The signing of the Change Order indicates that the Change Order constitutes full mutual accord and satisfaction of subcontractors, and all suppliers, as a result of the change. The Service Provider on behalf of himself, all subcontractors and all suppliers, agrees to waive all rights, without exception or reservation of any whatsoever to file any further claim related to the Change Order. No further claim or request for equitable adjustment of any type shall rise out of or as a result of this Change Order or the impact of this Change Order on the remainder of the work under this Contract.

All terms and Conditions of the original contract apply to this Change Order and remain the same and in full force and effect.

Project Manager: _____ Date: _____

Department Head: _____Date: _____

Finance: _____ Date: _____

City Manager: _____Date: _____

Service Provider: _____Date: _____

Upon approval, forward this document to Procurement for Amendment of Contract.