



NOTICE TO BIDDERS, INSTRUCTIONS TO BIDDERS, BID FORM,
AGREEMENT FORM, GENERAL CONDITIONS, SUPPLEMENTARY
CONDITIONS, AND SPECIFICATIONS

FOR

**NORTHWESTERN AVENUE PHASE III
SAFETY IMPROVEMENTS**

Redevelopment Commission
City of West Lafayette
609 W. Navajo Street
West Lafayette, Indiana

June 10, 2014

SECTION 00003

CITY OF WEST LAFAYETTE, INDIANA

NORTHWESTERN AVENUE PHASE III
SAFETY IMPROVEMENTS

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NOTICE TO BIDDERS

The Redevelopment Commission of the City of West Lafayette, Indiana will receive sealed bids for the **Northwestern Avenue Phase III Safety Improvement** project until the hour of **8:30 AM** local time on **June 10th, 2014** at the Office of the Clerk-Treasurer, West Lafayette Police Station, 711 West Navajo St., West Lafayette, IN 47906, for the completion of the work hereinafter listed. After said time, all bids received will be taken to the Board of Works meeting at the Morton Community Center, Multi-Purpose Room, 222 N. Chauncey Ave., West Lafayette, **on the same day at 8:30 AM** local time and there be publicly opened and read aloud. Bids received after said time will be returned unopened. No oral, telephoned, telegraphed, facsimile, or email bids or changes to bids will be considered.

This project consists of median reconstruction, curb ramp replacements, fence installation, decorative street lighting, new pavement markings and landscaping, along Northwestern Avenue from Grant Street to Dodge Street. The traffic signal at Stadium Avenue will be modified with new traffic and pedestrian signal equipment, and two new traffic signals will be installed within the project limits.

Bids must be entered upon the bid form and the State Board of Accounts Form 96 (Revised 2013) submitted in triplicate with the bid and non-collusion affidavit properly executed, and must comply with the statutes of Indiana and with the rules and regulations of the State Board of Accounts of Indiana. Bids shall be in a sealed envelope marked "**Northwestern Avenue Phase III Safety Improvement**". Forms are available at the City Engineer's Office, 222 N Chauncey Ave., Room 106, West Lafayette, Indiana.

The bid must be accompanied by a certified or cashier's check or bid bond in an amount not less than five percent (5%) of the total bid price made in favor of the City of West Lafayette, Indiana, which amount shall accrue to and become the property of the City should the Bidder, awarded the contract, fail to enter into the required written agreement and secure same with the required one hundred percent (100%) performance, payment and guarantee bond. As required by the Indiana Code, a minimum wage has been determined for this Project and will be on file at the office of the Owner at least fifteen (15) days prior to the date set for receipt of bids. Contractor shall pay the minimum wage rates as established by this Wage Scale. Said Wage Scale is a part of this Contract and is incorporated herein as fully as if here set forth.

Instructions to Bidders, General Conditions, Special Conditions, Construction Documents (Bid Set) and Specifications are on file at the Office of the Engineer. Copies may be obtained from Butler, Fairman & Seufert, 10 North Third Street, Lafayette, Indiana, (765) 423-5602.

Contractors may request a hard copy of the complete set of plans and bid documents for a nonrefundable fee of \$200 for one set. Alternatively, electronic copies will be provided free of charge upon request.

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NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

Bids remain in effect for sixty (60) days. The Commission reserves the right to reject any or all bids and waive irregularities of bidding.

A mandatory pre-bid meeting will be held on **June 3, 2014, at 10:00 AM** local time at the Morton Community Center, Multi-Purpose Room, 222 N. Chauncey Ave., West Lafayette.

**CITY OF WEST LAFAYETTE
REDEVELOPMENT COMMISSION**
Judith C. Rhodes, Clerk-Treasurer

Publish: May 23rd, 2014 and May 30th, 2014

END OF SECTION

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NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

SECTION 00200

INSTRUCTIONS TO BIDDERS

ARTICLE 1 DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General conditions of the Construction Contract and Supplementary Conditions.
- 1.02 Project Description

“Northwestern Avenue Phase III Safety Improvements” shall include all items, materials, and resources required to install median modifications, curb ramps, decorative fence, decorative street lighting, new pavement markings and landscaping, along Northwestern Avenue from Grant Street to Dodge Street. As well as, traffic signal modifications at Stadium Avenue to include new traffic and pedestrian signal equipment, and two new signals installations: one at Dodge Street and another at the northwestern parking garage.”

ARTICLE 2 COPIES OF BIDDING DOCUMENTS

- 2.01 Refer to the Notice to Bidders for information on how and where copies of the Bidding Documents may be examined or obtained.
- 2.02 Complete sets of Bidding Documents must be used in preparing bids; the City of West Lafayette does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 The City of West Lafayette, in making copies of the Bidding Documents available does so only for the purpose of obtaining bids on the work and does not confer a license or grant for any other use.

ARTICLE 3 QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the work, each Bidder must complete the Experience Questionnaire on the Indiana State Board of Accounts Form 96. The Bidder's financial statement shall be submitted in a separately sealed envelope, clearly marked Bidder's Financial Statement, enclosed in the sealed envelope containing the bid. Upon request, the financial statement can be returned to the Bidder unopened with his Bid Security unless it is necessary to open the envelope for the purpose of determining the award. The financial statement submitted by the successful Bidder will be retained by the City.
- 3.02 Bidders who are nonresident corporations shall furnish to the City a certified copy of the Certificate of Authority to do Business in Indiana issued by the State of Indiana within 15 calendar days of notice to do so. Such notice will be given to Bidders who are nonresident corporations, to whom it appears an award will be made, and the copy of the certificate must be filed with the City before the award will be made. Failure to promptly submit this evidence of qualification to do business in the State of Indiana may be basis for rejection of the bid.
- 3.03 Each bidder must ensure that to the greatest extent feasible, opportunities for training and employment should be given to lower income residents of the project area and purchases and/or contracts for work in connection with the project should be awarded to small business

concerns which are located in, or owned in substantial part by persons residing in, the area of the project.

- 3.04 Any one of the following causes may be considered as sufficient for the disqualification of a Bidder and the rejection of its bid.
- A. More than one bid for the same work from one individual, firm, or corporation under the same or different names.
 - B. Evidence of collusion among Bidders. Participants in such collusion will receive no recognition as Bidders for any future work of the City of West Lafayette until any such participant shall have been reinstated as a qualified Bidder.
 - C. Lack of competency and adequate machinery, plant, and other equipment, as revealed by the Financial Statement and Experience Questionnaire.
 - D. Unsatisfactory performance record as shown by past work judged from the standpoint of workmanship and progress.
 - E. Uncompleted work which, in the judgment of the City, might hinder or prevent the prompt completion of additional work if awarded.
 - F. Failure to pay, or satisfactorily settle, all bills due for labor and material on former contracts in force at the time of the bid opening.

ARTICLE 4 EXAMINATION OF CONTRACT DOCUMENTS, OTHER RELATED DATA, AND SITE

- 4.01 It is the responsibility of each Bidder before submitting a bid to:
- A. Examine and carefully study the Bidding Documents, including any Addenda and the other related data identified in the Bidding Documents;
 - B. All Bidders are to inform themselves of the conditions under which the work is to be performed, the site of the work, the obstacles which may be encountered, and all other relevant matters concerning the work to be performed. The successful Bidder will not be allowed any extra compensation by reason of any matter or thing concerning which said Bidder might have fully informed himself, because of his failure to have so informed himself prior to the bidding.
 - C. Become familiar with and satisfy Bidder as to all federal, state, and local laws and regulations that may affect cost, progress, or performance of the work;
 - D. To study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data;
 - E. Verify for themselves the accuracy of said quantities for their bidding purposes and adjust as necessary to satisfy the accuracy of their bids. Any and all quantities listed in these construction documents are approximate and for estimate purposes only. Any estimated quantity shown as UNDISTRIBUTED, shall be included in the base bid and be used to obtain a unit price based on the anticipated quantity. In other words, the bidder should include the provided quantity in their base bid and reflect the corresponding unit price, as requested, to allow additions or deletions to the anticipated quantity as determined by field conditions;

- F. To promptly notify Engineer of all conflicts, errors, ambiguities, or discrepancies which Bidder has discovered in or between the Contract Documents and other such related documents. Bidders requiring clarification or interpretation of the Bidding Documents shall make a written or email request to the City Engineer at least four (4) days prior to the date for receipt of bids;
 - G. Become aware of the general nature of the work to be performed by the City and others at the site that relates to the work as indicated in the Bidding Documents;
 - H. Correlate the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
 - I. Agree at the time of submitting its bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its bid for performance of the work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents; and
 - J. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the work.
- 4.02 The submission of a bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the bid is premised upon performing and furnishing the work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the work.

ARTICLE 5 PRE-BID SCHEDULE

- 5.01 5/23/2014 1ST Advertisement to Bid and bid documents available
- 5.02 5/30/2014 2nd Advertisement to Bid
- 5.03 6/3/2014 Mandatory pre-bid meeting – **June 3, 2014 at 10:00 AM** local time at the Morton Community Center, Multi-Purpose Room, 222 N. Chauncey Ave., West Lafayette.
- 5.04 6/4/2014 Last day for Contractor Questions. Questions to be submitted to Butler, Fairman, and Seufert c/o Carly Sheets, 765-423-5602 or email CSheets@BFSEngr.com .
- 5.05 6/5/2014 Final Addendum to be issued to all listed plan holders.
- 5.06 6/10/2014 **BIDS DUE.** The Redevelopment Commission of the City of West Lafayette, Indiana will receive sealed bids for the **Northwestern Avenue Phase III Safety Improvement** project until the hour of **8:30 AM** local time on **June 10th, 2014** at the Office of the Clerk-Treasurer, West Lafayette Police Station, 711 West Navajo St., West Lafayette, IN 47906. See Notice to Bidders for additional information.

5.07 6/18/2014 Bid approved and notice to proceed given at Redevelopment Commission.

ARTICLE 6 SITE AND OTHER AREAS

6.01 The site is identified in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the work are to be obtained and paid for by Contractor. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by the City unless otherwise provided in the Bidding Documents.

ARTICLE 7 INTERPRETATIONS AND ADDENDA

7.01 No interpretation of the meaning of the Plans, Drawings, or other Contract Documents will be made to any Bidder orally. All questions about the meaning or intent of the bidding documents are to be directed to Butler, Fairman & Seufert, Inc. in writing, mailed to: 10 N. 3rd St., Lafayette, Indiana 47901 c/o Carly Sheets or email to CSheets@BFSengr.com. Interpretations or clarifications considered necessary by the Engineer in response to such questions will be issued by addenda. Addenda will be e-mailed, mailed or delivered to all who are known by the City of West Lafayette to have received a complete set of Bidding Documents. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose. Each bidder shall ascertain prior to submitting his bid that he has received all Addenda issued, and he shall acknowledge their receipt in his bid.

All questions to be submitted in writing or email by contractors by end of day June 4, 2014. Contractor questions submitted past this deadline will remain unanswered and the contractor should bid the project on the available information. No addendum will be issued less than 48 hours before the submittal deadline, an addendum issued after this time will only be for delay of the bid. The number of addendum to be issued is undetermined.

7.02 Any interpretation, correction or change of the Bidding Documents will be made by Addendum. Interpretations, corrections or changes of the Bidding Documents made in any other manner will not be binding, and bidders shall not rely upon such interpretations, corrections and changes.

ARTICLE 8 BID SECURITY

8.01 Each bid must be accompanied by bid security made payable to the City of West Lafayette in an amount of five percent (5%) of Bidder's maximum bid price and in the form of a certified or bank cashier's check or a Bid Bond, on the form attached, issued by a surety meeting the requirements of paragraphs 5.01 and 5.02 of the General Conditions.

8.02 The bid security of the successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the bid security will be returned. If the successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within fifteen (15) days after the Notice of Award, the City may annul the Notice of Award and the bid security of that Bidder will be forfeited. The bid security of other Bidders whom the City believes to have a reasonable chance of receiving the award may be retained by the City until

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the earlier of the seventh day after the effective date of the agreement or the 60th day after the bid opening, whereupon bid security furnished by such Bidders will be returned.

- 8.03 Bid security of other Bidders whom the City believes do not have a reasonable chance of receiving the award will be returned within seven days after the bid opening.

ARTICLE 9 CONTRACT TIMES

- 9.01 Contractor shall proceed with all work after receiving notice to proceed. The Notice to Proceed will be on June 18, 2014.

The Contract shall be substantially complete on or before August 8, 2014 and final completion and acceptance shall be on or before August 29, 2014.

Contract Milestones	Contract Dates
Notice to Proceed	June 18, 2014
Substantial Completion: All concrete work, to include medians: curb, center curb, curb ramps, sidewalk, driveways, pavers, foundations, as well as conduit, and longitudinal pavement markings shall be installed.	August 8, 2014
Final Completion	August 29, 2014

ARTICLE 10 LIQUIDATED DAMAGES

- 10.01 The work specified shall be arranged and prosecuted such that Northwestern Avenue is open to all lanes of traffic by August 8, 2014, the substantial completion date. Exceptions to this include any work that requires temporary lane closures such as above ground lighting work, signal work, landscape work, pavement marking work, or any other work that can be accomplished under temporary lane restriction.

If all required lanes are not opened to traffic on or before the August 8, 2014 date shown above, \$1,500/calendar day will be assessed as liquidated damages.

The contractor should assume for the sake of bidding that if **all available good weather** days were not worked including Saturdays and Sundays, and **overtime was not utilized** during weekdays to make use of all available daylight, **no extension of time will be granted** to the substantial completion date of August 8, 2014.

Extension of contract time, if required, shall be in accordance with INDOT specification 108.08 with respect to fixed calendar dates; however, if the work plan shows that it will not meet the substantial completion date, the contractor shall make any and all efforts to increase the work rate such as working overtime, Saturday's and Sunday's. If the contractor has not shown an effort to work all necessary overtime, Saturday's, and Sundays to bring the project back on schedule, the contractor shall be subject to the Liquidated Damages outlined above and in the table below.

All other features necessary for the completion of the project as shown in the plans including landscaping, lighting, signal work, and transverse pavement markings shall be done prior to

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the August 29 deadline or \$20,000 will be assessed as liquidated damages, not as a penalty, but as damages sustained.

ARTICLE 11 SUBSTITUTE AND "OR EQUAL" ITEMS

- 11.01 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitution will be considered unless written request for approval has been submitted by the Bidder and has been received by Butler, Fairman & Seufert, Inc. prior to **June 4th, 2014**. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the person who proposes it. The City Engineer's decision of approval or disapproval of the proposed substitution shall be final. If the City Engineer approves any proposed substitution, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.
- 11.02 Before any contract is awarded, the Bidder may be required to furnish a complete statement of origin, composition, and manufacture of any or all materials to be used in the construction of the work together with samples. These samples may be subjected to tests provided for in these specifications to determine their quality and fitness for the work.

ARTICLE 12 PREPARATION OF BID

- 12.01 The Bid Proposal Form is included with the Bidding and Contract Documents. Prepare and present the Bid Form, including a fully executed Indiana State Board of Accounts Form No. 96 (Revised 2013) together with the Additional Provisions, in accordance with the Instructions to Bidders.
- 12.02 All blanks on the Bid Form shall be completed by printing in black ink and the bid signed. A bid price shall be indicated for each bid item listed therein.
- 12.03 A bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
- 12.04 A bid by a partnership shall be executed in the partnership name and signed by a partner, whose title must appear under the signature, accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.
- 12.05 A bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.
- A bid by an individual shall show the Bidder's name and official address.

A bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture must be shown below the signature.

12.06 Print all names in black ink below the signatures.

12.07 Acknowledge receipt of all Addenda on the Bid Form.

12.08 Show the address and telephone number for communications regarding the bid.

Provide evidence of authority to conduct business as an out-of-state corporation in the State of Indiana in accordance with Article 3 above. Show state contractor license number, if any.

ARTICLE 13 SUBMITTAL OF BID

13.01 A bid shall be submitted no later than **8:30 AM on June 10th, 2014** at the Office of the Clerk-Treasurer, West Lafayette Police Station, 711 West Navajo St., West Lafayette, IN 47906 and place indicated in the Notice to Bidders and shall be enclosed in a **sealed envelope**, marked with the Project title (and, if applicable, the designated portion of the Project for which the bid is submitted) and name and address of Bidder, and accompanied by the bid security and other required documents. If the bid is sent through the mail or other delivery system, the sealed envelope containing the bid must be enclosed in a separate envelope plainly marked on the outside with the notation "**BID – NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS**". A mailed bid shall be addressed to City of West Lafayette Clerk-Treasurer, 711 West Navajo St., West Lafayette, IN 47906 and sent by Certified Mail. Mailed bids must be clearly marked as a bid and received no later than the time fixed for receiving bids.

ARTICLE 14 MODIFICATIONS AND WITHDRAWAL OF BID

14.01 A bid may be modified or withdrawn by an appropriate document duly executed in the manner that a bid must be executed and delivered to the place where bids are to be submitted prior to the date and time for the opening of bids.

14.02 If, within 24 hours after bids are opened, any Bidder files a duly signed, written notice with the City and promptly thereafter demonstrates to the reasonable satisfaction of the Engineer that there was a material and substantial mistake in the preparation of its bid, that Bidder may withdraw its bid and the bid bond will be returned. Thereafter, that Bidder will be disqualified from further bidding on the work to be provided under the Contract Documents.

ARTICLE 15 OPENING OF BIDS

15.01 Bids will be opened at the time and place indicated in the advertisement or Notice to Bidders and, unless obviously nonresponsive, read aloud publicly.

ARTICLE 16 BIDS TO REMAIN SUBJECT TO ACCEPTANCE

16.01 All bids will remain subject to acceptance for 60 calendar days after the day of the bid opening, but the City may, in its sole discretion, release any bid and return the Bid Security prior to that date.

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NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

ARTICLE 17 AWARD OF CONTRACT

- 17.01 The City reserves the right to reject any or all bids, including, without limitation, the rights to reject any or all nonconforming, nonresponsive, unbalanced or conditional bids and to reject the bid of any Bidder if the City believes that it would not be in the best interest of the project to make an award to that Bidder, whether because the bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the City. The City also reserves the right to waive all information not involving price, time or changes in the work and to negotiate contract terms with the successful Bidder. Discrepancies between the multiplication of units of work and unit prices will be resolved in favor of unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum figures will be resolved in favor of the words.
- 17.02 In evaluating bids, the City will consider whether or not the bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 17.03 The City may conduct such investigations as the City deems necessary to establish the responsibility, qualifications and financial ability of Bidders to perform the work in accordance with the Contract Documents.
- 17.04 If the contract is to be awarded, the City will award the contract to the bidder whose bid will be in the best interests of the project.

ARTICLE 18 CONTRACT SECURITY AND INSURANCE

- 18.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth the City's requirements as to performance and payment bonds and insurance. When the successful Bidder delivers the executed Agreement to the City, it must be accompanied by such bonds.
- 18.02 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth the City's requirements as to insurance. Certificates of Insurance (and other evidence of insurance requested by the City or other additional insured) must be furnished, as required, before beginning work.

ARTICLE 19 SIGNING OF AGREEMENT

- 19.01 When the City gives a Notice of Award to the successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents, which are identified in the Agreement as attached thereto. Within 15 days thereafter, successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to the City with the required Bonds. Within ten days thereafter the City shall deliver one fully signed counterpart to successful Bidder.

ARTICLE 20 SALES AND USE TAX

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20.01 The City is exempt from Indiana State Sales and Use Taxes on materials and equipment to be incorporated in the work. Said taxes shall not be included in the contract price.

ARTICLE 21 RETAINAGE

21.01 Provisions concerning retainage are set forth in the Agreement.

ARTICLE 22 WAGE RATES

22.01 Wage rates for the work shall not be less than the current State of Indiana prescribed wage scale. The prevailing wage rates applicable to the project are made a part of the Supplementary Conditions.

END OF SECTION

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SECTION 00300

**BID PROPOSAL FORM
NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS**

Each Bidder shall complete this form and submit it with their bid. The Total Base Bid amount should include the cost necessary to complete all work described by these documents. Unit prices shall apply to addition or deductions, by change order, to the contract as required/requested by the Owner.

BASE BID ITEMS						
ITEM No.	ITEM NAME	QUANTITY	UOM	Unit Price		TOTAL PRICE
1	MOBILIZATION AND DEMOBILIZATION	1	LS		=	
2	CLEARING RIGHT OF WAY	1	LS		=	
3	STRUCTURES AND OBSTRUCTIONS, REMOVE	1	LS		=	
4	PAVEMENT REMOVAL	1378	SYS		=	
5	TEMPORARY INLET PROTECTION	14	EACH		=	
6	SUBGRADE TREATMENT, TYPE IIIA	103	SYS		=	
7	SUBGRADE TREATMENT, TYPE IC	77	SYS		=	
8	FENCE, DECORATIVE	2485	LFT		=	
9	SIDEWALK, CONCRETE	275	SYS		=	
10	CURB RAMP, CONCRETE, A	173	SYS		=	
11	CURB RAMP, CONCRETE, K	7	SYS		=	
12	CURB RAMP, CONCRETE, L , INTEGRALLY COLORED	228	SYS		=	
13	SALVAGED PAVERS, FOR APPROACHES	77	SYS		=	
14	SALVAGED PAVERS, FOR SIDEWALKS	30	SYS		=	
15	CURB, CONCRETE	1350	LFT		=	
16	CURB, CONCRETE, PAVER BAND	46	LFT		=	
17	CENTER CURB, D, CONCRETE, MODIFIED	312	SYS		=	
18	CURB, CONCRETE, DEPRESSED	248	LFT		=	
19	MULCHING MATERIAL	1	TON		=	
20	TOPSOIL	491	CYS		=	
21	TEMPORARY PAVEMENT MARKING, REMOVABLE, 4 IN	1916	LFT		=	
22	CONSTRUCTION SIGN, A	14	EACH		=	
23	CONSTRUCTION SIGN, B	8	EACH		=	
24	FLASHING ARROW SIGN	225	DAY		=	
25	MAINTAINING TRAFFIC	1	LS		=	
26	BARRICADE, III-B	132	LFT		=	
27	SIGN, OVERHEAD, RELOCATE	4	EACH		=	

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NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

28	SIGN POST, SQUARE, TYPE 1, REINFORCED ANCHOR BASE	211.5	LFT		=	
29	SIGN, SHEET, WITH LEGEND 0.080"	201.5	SFT		=	
30	SIGN, SHEET, WITH LEGEND 0.100 IN	100	SFT		=	
31	SIGN, SHEET, WITH LEGEND 0.125 IN THICKNESS	60	SFT		=	
32	TRAFFIC SIGNAL EQUIPMENT, REMOVE	1	LS		=	
33	TRANSPORTATION OF SALVAGEABLE SIGNAL EQUIPMENT	1	LS		=	
34	PEDESTRIAN SIGNAL HEAD, COUNTDOWN, 18 IN, RELOCATE	8	EACH		=	
35	PEDESTRIAN SIGNAL HEAD, COUNTDOWN, 18 IN	18	EACH		=	
36	PEDESTRIAN SIGNAL HEAD, COUNTDOWN, REMOVE, SALVAGE AND RESET	8	EACH		=	
37	SIGNAL PEDESTAL FOUNDATION, A	12	EACH		=	
38	SIGNAL POLE, PEDESTAL, 4FT	1	EACH		=	
39	BACKPLATE, SIGNAL	23	EACH		=	
40	CONTACT CLOSURE CARD, 2-CHANNEL	15	EACH		=	
41	RECEIVER PROCESSOR	5	EACH		=	
42	WIRELESS MAGNETOMETER DETECTOR TYPE N	51	EACH		=	
43	WIRELESS MAGNETOMETER DETECTOR TYPE C	18	EACH		=	
44	WIRELESS REPEATER	4	EACH		=	
45	SIGNAL CANTILEVER STRUCTURE, SINGLE ARM 25 FT.	3	EACH		=	
46	SIGNAL CANTILEVER STRUCTURE, SINGLE ARM 30 FT.	1	EACH		=	
47	SIGNAL CANTILEVER STRUCTURE, SINGLE ARM 35 FT.	2	EACH		=	
48	SIGNAL CANTILEVER STRUCTURE, SINGLE ARM, 40 FT.	1	EACH		=	
49	SIGNAL CANTILEVER STRUCTURE, SINGLE ARM 45 FT.	2	EACH		=	
50	SIGNAL CANTILEVER STRUCTURE, DRILLED SHAFT FOUNDATION, TYPE A	5	EACH		=	
51	SIGNAL CANTILEVER STRUCTURE, DRILLED SHAFT FOUNDATION, TYPE B	2	EACH		=	
52	HANDHOLE SIGNAL, TYPE 2	4	EACH		=	
53	CONDUIT, HDPE, 2 IN, SCHEDULE 80	955	LFT		=	

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54	PEDESTRIAN PUSH BUTTON, APS	26	EACH		=	
55	PEDESTRIAN PUSH BUTTON EXTENSION BRACKETS	26	EACH		=	
56	CONTROLLER AND CABINET, SECONDARY, MENU DRIVEN, 8 PHASE	2	EACH		=	
57	SECONDARY CONTROLLER	1	EACH		=	
58	MASTER CONTROLLER	1	EACH		=	
59	FIBER OPTIC DATA HARDWARE SWITCH	4	EACH		=	
60	TRAFFIC SIGNAL HEAD, 3 SECTION, 12 IN	16	EACH		=	
61	TRAFFIC SIGNAL HEAD, 4 SECTION, 12 IN	5	EACH		=	
62	TRAFFIC SIGNAL HEAD, 5 SECTION, 12 IN	2	EACH		=	
63	SIGNAL SERVICE	2	EACH		=	
64	SIGNAL SERVICE, REMOVE, SALVAGE AND RESET	1	EACH		=	
65	SIGNAL CABLE, SERVICE, COPPER. 3C/8GA	350	LFT		=	
66	SIGNAL CABLE, CONTROL, COPPER 3C/14GA	1500	LFT		=	
67	SIGNAL CABLE, CONTROL, COPPER 5C/14GA	2490	LFT		=	
68	SIGNAL CABLE, CONTROL, COPPER 7C/14GA	495	LFT		=	
69	SIGNAL CABLE CONTROL, COPPER 9C/14GA	1160	LFT		=	
70	CONTROLLER CABINET FOUNDATION, P1	2	EACH		=	
71	SIGNAL POLE, PEDESTAL, 10 FT	12	EACH		=	
72	HANDHOLE, LIGHTING	5	EACH		=	
73	LIGHT STANDARD FOUNDATION, 3FT DIAMETER X 8FT	19	EACH		=	
74	CONNECTOR KIT, UNFUSED	19	EACH		=	
75	CONNECTOR KIT, FUSED	19	EACH		=	
76	MULTIPLE COMPRESSION FITTING, NON-WATERPROOFED	16	EACH		=	
77	MULTIPLE COMPRESSION FITTING, WATERPROOFED	32	EACH		=	
78	INSULATION LINK, NON- WATERPROOFED	19	EACH		=	
79	INSULATION LINK, WATERPROOFED	19	EACH		=	
80	WIRE, NO 4 COPPER, IN PLASTIC DUCT, 4 1/C	11,500	LFT		=	

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81	LIGHT POLE, ORNAMENTAL, 30 FT E.M.H., 5 FT MAST ARM	19	EACH		=	
82	LUMINAIRE, L.E.D., 140 WATT	31	EACH		=	
83	TRANSVERSE MARKING, THERMOPLASTIC, CROSSWALK, 24"	847	LFT		=	
84	LINE, THERMOPLASTIC, BROKEN, WHITE, 4 IN	4,509	LFT		=	
85	LINE, THERMOPLASTIC, SOLID, WHITE, 4 IN.	1,160	LFT		=	
86	TRANSVERSE MARKING, PREFORMED PLASTIC, WHITE, YIELD LINE	19	LFT		=	
87	LINE, THERMOPLASTIC, SOLID, YELLOW, 4 IN	4,343	LFT		=	
88	TRANSVERSE MARKING, THERMOPLASTIC, CROSSHATCH LINE, WHITE, 12"	84	LFT		=	
89	TRANSVERSE MARKING, THERMOPLASTIC, CROSSHATCH LINE, YELLOW, 12"	38	LFT		=	
90	TRANSVERSE MARKING, THERMOPLASTIC, STOP LINE, 24 IN	310	LFT		=	
91	PAVEMENT MESSAGE MARKING, THERMOPLASTIC, LANE INDICATION ARROW	1	EACH		=	
92	LINE, THERMOPLASTIC, SOLID, YELLOW, 8"	317	LFT		=	
93	IRRIGATION	1	LS		=	
				TOTAL	=	

ALTERNATE BID #1: ITEMS FOR ALTERNATE SIGNAL LAYOUT						
ITEM No.	ITEM NAME	QUANTITY	UOM	Unit Price		TOTAL PRICE
1000	TRAFFIC SIGNAL EQUIPMENT, REMOVE	1	LS		=	
1001	TRANSPORTATION OF SALVAGEABLE SIGNAL EQUIPMENT	1	LS		=	
1002	CONSTACT CLOSURE CARD, 2-CHANNEL	29	EACH		=	
1003	RECEIVER PROCESSOR	9	EACH		=	
1004	WIRELESS MAGNETOMETER DETECTOR TYPE N	108	EACH		=	

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1005	WIRELESS MAGNETOMETER DETECTOR TYPE C	34	EACH		=	
1006	CONDUIT, HDPE, 2 IN, SCHEDULE 80	1,055	LFT		=	
1007	SIGNAL CABLE, SERVICE, COPPER, 3C/8GA	470	LFT		=	
1008	SIGNAL CABLE, CONTROL, COPPER 3C/14GA	1,605	LFT		=	
1009	SIGNAL CABLE, CONTROL, COPPER 5C/14GA	2,595	LFT		=	
1010	SIGNAL CABLE, CONTROL, COPPER, 7C/14GA	630	LFT		=	
1011	SIGNAL CABLE, CONTROL, COPPER 9C/14GA	1,260	LFT		=	
1012	CONTROLLER, RELOCATE AND REWIRE	1	EACH		=	
1013	CIVL HARDWIRE RELOCATE	1	EACH		=	
1014	2-CABINET	1	EACH		=	
1015	2-FOUNDATION	1	EACH		=	
				TOTAL	=	

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CONTRACTOR _____

TOTAL BASE BID PRICE (Total of all Contract Item Prices not including Alternate #1)

(amount in words)

\$ _____

(amount in figures)

Schedule of Alternates:

See Section 00200 – Instructions to Bidders for further clarification of Alternates. If scope of work does not add or deduct cost indicate as \$0.00. Indicate whether amount is an “Add” or “Deduct” by circling the correct one.

Alternate No. 1 – ALTERNATE SIGNAL LAYOUT

(Add / Deduct) Dollars (\$ _____)

RECEIPT OF ADDENDUM (NUMBERS) _____

Additional Provisions

1. Bidder acknowledges that quantities are not guaranteed and final payment will be based on actual quantities determined as provided in the Contract Documents.
2. Bidder agrees that once the Notice to Proceed is issued, work will be substantially complete by August 8, 2014.
3. The following documents are attached to and made a condition of this Bid:
 - a. Required Bid Security in the amount of five percent (5%) of the Bid in the form of a certified or cashier’s check, or a bid bond. The Bid Security will be retained or returned in accordance with Article 8 of the Instructions to Bidders.
 - b. Required executed copy of Bidder’s Qualification Statement with supporting data.
 - c. Required Bidder’s Financial Statement.
4. The terms used in this Bid which are defined in the General Conditions or Instructions to Bidders will have the meanings indicated in the General Conditions or Instructions to Bidders.
5. Accompanying this Bid is a certified check, a bank cashier’s check, or bid bond which shall become the property of the City of West Lafayette, Indiana, if this Bid shall be accepted by the City of West Lafayette, Indiana, and the undersigned

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bidder fails to furnish the required bonds and insurance within fifteen (15) days and to enter into a Contract within thirty (30) days after the City's acceptance of this Bid.

IN WITNESS WHEREOF, this Bid is hereby signed and sealed as of the date indicated.

Bidder:

Date: _____

By: _____

Printed name of signer

Title of signer

END OF SECTION

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NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

CONTRACTOR'S BID FOR PUBLIC WORK – FORM 96

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NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

SECTION 00500

AGREEMENT FORM

NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

This agreement, made this **18th** day of **June, 2014** at West Lafayette, Indiana, by and between the Redevelopment Commission for the City of West Lafayette, Indiana (hereinafter referred to as the "City") and _____ (hereinafter referred to as the "Contractor").

WITNESSETH:

That in consideration of the mutual covenants hereinafter set forth, the City and the Contractor agree as follows:

Article 1: SCOPE OF WORK

The Contractor shall furnish all labor and tools and equipment and do all things required for complete installation, construction, and grading in accordance with the plans and specifications. The plans and specifications shall be on file in the office of the City Engineer.

Article 2: PAYMENT

The City shall pay to the Contractor, in full and complete payment for all performance of the Contract, in current funds. The estimated sum of \$_____ defined as the contract price, and computed from the Contractors Bid included herein. The final contract price will be the result of the actual installed quantities of materials multiplied by the corresponding contract unit prices. Variance from the estimated plan quantities will be done by change order for any additions or deletions to the contract as determined by the work and approved by the Redevelopment Commission.

Said contract price shall be paid to the Contractor in installments in the manner provided in, and under conditions of, the General Conditions.

If litigation is commenced to enforce any term of this contract, the prevailing party is entitled to receive litigation costs including reasonable attorney fees.

Article 3: CONTRACT DOCUMENTS

The contract documents include this agreement, current wage rate table, the General Conditions, Special Conditions, Materials Specifications, the Contractor's maintenance bond, and the Contractor's certification of insurance, together with plans and any subsequent addenda.

Said documents are hereby incorporated into and made a part of this agreement the same as if herein fully set forth.

Article 4: SEVERANCE

The intent of the parties is that this agreement be deemed entire in the sense that its purpose is to establish one price for the doing of the whole work, and that it be deemed severable in the sense that the voidance of any part or portion shall not void the remainder.

It is understood and agreed that partial payments may be made for the mutual convenience of the City and Contractor but shall not be construed as the City's acceptance of a part or portion of the work. Acceptance is to only in the manner prescribed in the General Conditions.

Article 5: RECORDS

The Contractor will maintain proper records for review by the City.

Article 6: DATE OF COMPLETION

The Contractor agrees that he will have the work contained in this contract substantially complete on or before August 8, 2014 and finally complete on or before August 29, 2014.

IN WITNESS WHEREOF we have set our hands the day and year first above written.

CONTRACTOR:

REDEVELOPMENT COMMISSION

Name, Title

Larry Oats, President

Company Name

ATTEST: Judith C. Rhodes, Clerk-Treasurer

END OF SECTION

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NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

SECTION 00700

STANDARD GENERAL CONDITIONS

*TO GOVERN CONSTRUCTION, REPAIR AND MAINTENANCE
CONTRACTS WITH THE CITY OF WEST LAFAYETTE, INDIANA*

**Adopted July 13, 2009 by the Board of Public Works and Safety
of the City of West Lafayette, Indiana**

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NORTHWESTERN AVENUE PHASE III SAFETY IMPROVEMENTS

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ARTICLE 1 SCOPE

- 1.01 Contractor shall furnish all labor and materials, equipment, services, tools, fuel, water, electricity, transportation and all other items necessary for, and incidental to, complete construction of the work, and shall do all things required by the contract documents.
- 1.02 Contractor shall procure all permits and licenses and pay all charges and fees in connection there-with, and shall give all notices, necessary for, and incidental to, lawful prosecution of the work.
- 1.03 The General Conditions apply equally to all classifications of work.

ARTICLE 2 DEFINITIONS

- 2.01 City refers to the City Engineer of the City of West Lafayette, Indiana, and is the Owner's Representative.
- 2.02 Contractor is identified in the written agreement.
- 2.03 Subcontractor is a person, firm or corporation undertaking a portion of the work by virtue of an agreement with the Contractor. A subcontractor bears no contractual relationship to the City and under the City-Contractor agreement is deemed an employee of the Contractor.
- 2.04 Engineer refers to The Schneider Corporation and its Inspector.
- 2.05 Plans refer to the approved drawings, profiles, sections, details and notations issued by the City as the basis for bidding and for construction of the project.
- 2.06 Specifications the written directions, provisions, requirements and instructions, together with all material incorporated therein by reference, pertaining to the work and issued by the City as supplemental to the plans.
- 2.07 Working drawings refer to data sheets, shop and setting drawings, erection drawings, false work drawings, coffer dam plans, bending diagrams for reinforcing steel, and supplemental plans and that which the Contractor is required to submit to the Engineer for approval.
- 2.08 Contract documents include the written agreement between the City and the Contractor together with all Modification Agreements, the plans and specifications together with all addenda, the Contractor's bid, performance bond and certificate of insurance, the Advertisement for Bids, the Instruction to Bidders, these General Conditions, the Special Conditions, and the working drawings.
- 2.09 Project refers to the improvements which are the subject to the contract documents.
- 2.10 Site is the field location of the project.
- 2.11 Work includes all performance required of the Contractor under the Contract Documents. It also includes all materials, labor, tools, equipment, services, fuel, water, electricity, transportation, apparatus, controls, services, and related items which are necessary, or are customarily furnished, for proper

and complete construction, erection and installation of materials, equipment and systems.

- 2.12 Extra Work includes any work by the Contractor in addition to that required by the Contract Documents, when secured by a written Modification Agreement executed by the City and by the Contractor.
- 2.13 Addendum (plural Addenda) is a correction of, addition to, modification of, or clarification of the plans and specifications, and is issued by the Engineer prior to the time set for receiving bids.
- 2.14 Modification Agreement is a written pact between the City and the Contractor, pertaining to the project, and entered subsequently to the signing of the contract.
- 2.15 Approved or Approval refers to an act of the Engineer unless the wording in context refers specifically to another.
- 2.16 Or Equal or Equal To refers to favorable comparison to a specific standard and is by decision of the Engineer.
- 2.17 Graphic Symbols are as defined, or indicated by notation, on the plans and working drawings.
- 2.18 Any technical term or abbreviation which is not defined in the contract documents shall be construed according to its usage in the edition of Indiana Department of Transportation Standard Specification current at the time of signing of the contract.

ARTICLE 3 CODES AND ORDINANCES

- 3.01 The following codes and standards insofar as they pertain to field construction shall govern the work, except that in any case of conflict with the General Conditions or with the plans and specifications said General Conditions and plans and specifications shall govern:
- A. Edition of the Indiana Dept. of Transportation Standard Specifications current at the time of signing the bids, except that the work "Dept." as used therein shall be changed to "City"
 - B. The edition of the American Concrete Institute Code current at the time of signing the bids
 - C. The edition of the American Institute of Steel Construction Code current at the time of signing of the bids
 - D. Rules and regulations of the Dept. of Fire & Building Services, the State Board of Health of Indiana, and the State Fire Marshal
 - E. Codes and Ordinances of the City of West Lafayette, Indiana
 - F. Laws of the United States and statutes of Indiana

ARTICLE 4 COORDINATION

- 4.01 The Contractor shall give not less than 72 hours advance notice to the Police Department, the Fire Department and emergency ambulance services before

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blocking off of any traffic lane, and shall notify said departments when such blockage is removed.

- 4.02 Contractor shall not permit drainage of surface water, storm runoff water, or water standing in any pond or excavation, into any sewer before completion of the project and shall bear all costs of damages to the sewer and to properties connected to such sewer should such drainage into a sewer occur.

ARTICLE 5 PLANS AND SPECIFICATIONS

- 5.01 It is the intent of the plans and specifications that each compliments the other in describing the work. What is called for by one shall be as binding as if called for by both.
- 5.02 It is the intent of the plans and specifications that items which, in the knowledge of craftsmen skilled in the trade, or which are generally known to be necessary to the adequacy or function of the finished project, or which are made mandatory by code, ordinance or statute and are, therefore, included by reference to such code, ordinance or statute, shall be furnished and installed without extra charge even though not specifically mentioned in the contract documents.
- 5.03 In event of discrepancy between the documents the Engineer's interpretation, delivered in writing, shall be a condition precedent to litigation.
- 5.04 Plans and specifications are prepared in such manner as to facilitate the letting of separate contracts. In each separate contract with the City the word "contractor" shall be used as herein defined: in no case shall it be construed as referring to a subcontractor.

ARTICLE 6 SEVERANCE

- 6.01 The contract is deemed several in the sense that voidance of any part or portion shall not void the remainder. It is deemed entire in the sense that the intent is to establish one price for the doing of the whole work; partial payments are not allocated absolutely to certain parts of the work but are made for the mutual convenience of the Contractor and the City. Partial payment shall not be construed as final acceptance of work done or of any material incorporated into the construction.

ARTICLE 7 CLASSIFICATIONS OF CONSTRUCTION, SEPARATE CONTRACTS

- 7.01 The City shall have the right to engage separate contractors for different classifications of construction, and at any time during the construction period, or thereafter, to engage others for work pertaining to construction or occupancy and not already under contract, and each shall have right of access to the project.
- 7.02 It shall be the duty of each contractor to coordinate his work with that of others, and to place his work in such manner that no extra work or extra expense is placed upon others. Each shall do such cutting and patching as is necessary to receive his work, and shall patch, or integrate into the construction, such cutting to the satisfaction of the City, and shall bear full

guarantee responsibility for his cutting and patching of the work of others. Each contractor shall be responsible for excavating to receive his own work and for backfilling such excavation to the standards of the construction specifications.

7.03 Where the work of two (2) or more contractors is interdependent for final function, and such final function is impaired by reason of failure of coordination between contractors, the entire cost of correction shall be borne by the contractor responsible. The Engineer shall decide such issues and his written decision shall be a condition precedent to litigation.

7.04 Where damage to the project or any of its component parts occurs in consequence of defective materials or workmanship, or of defective or malfunctioning part or mechanism, the contractor responsible for the initial installation of such material, workmanship, part of mechanism shall bear all costs of repair of such damage. The Engineer shall decide such issues and his written decision shall be a condition precedent to litigation.

ARTICLE 8 BOND, INSURANCE, LEGAL RESPONSIBILITY, AND PUBLIC SAFETY

8.01 The Contractor shall furnish to the City an acceptable performance and payment bond in the amount of one hundred percent (100%) of the contract price including subsequent modifications of work and contract price. Said bond shall secure the Contractor's performance, and payment of labor, materials, subcontractors, supplies and any furnishing service. Bid bond shall be written by a surety authorized to do business in the State of Indiana and who maintains at least one (1) established place of business, in the State and in a location of which the continuance is not dependent upon decision of individual personnel of the Surety within the State.

8.02 The City of West Lafayette's risk management strategy requires the contractor provide us with evidence of insurance that meets the minimum requirements listed below for this project. This coverage must be placed with an insurance company with an A.M. Best rating of A-VII or better. Please provide a Waiver of Subrogation in favor of the City of West Lafayette, Indiana as it pertains to Commercial General Liability, Workers Compensation, and Automobile Liability.

8.03 Insurance Requirements:

(a) Commercial General Liability (Occurrence Form)

Each Occurrence	\$1,000,000
Products/Completed Operations Aggregate	\$2,000,000
General Aggregate	\$2,000,000
(other than Prod/Comp Ops Liability)	
Personal & Advertising Injury Liability	\$1,000,000

Coverage shall be subject to a per project or vendor general aggregate provision that names all jobs performed by subcontractor if applicable. The City of West Lafayette, Indiana must be named as an Additional Insured per ISO forms CG2010 and CG2037 or their equivalent. The insurance will be

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considered primary and noncontributory before any other applicable coverage. Include Waiver of Subrogation in favor of the City of West Lafayette, Indiana.

accident (b) *Automobile Liability* \$1,000,000 each

If subcontractor at any time transports hazardous materials, subcontractor shall carry appropriate auto pollution coverage. Hired and Non-Owned auto liability coverage is to be included. The insurance will be considered primary and noncontributory before any other applicable coverage. Include Waiver of Subrogation in favor of the City of West Lafayette, Indiana.

(c) *Workers Compensation and Employer's Liability*

Worker's Compensation	State Statutory Limits
Employer's Liability	
Bodily Injury by Accident	\$1,000,000 ea. accident
Bodily Injury by Disease	\$1,000,000 policy limit
Bodily Injury by Disease	\$1,000,000 ea. employee

Include Waiver of Subrogation in favor of the City of West Lafayette, Indiana.

(d) *Umbrella Liability*

Each Occurrence and Aggregate \$1,000,000

(e) *Professional Liability* (Applicable for Professional Services only rendered to the City) All subcontractors performing design, engineering, surveying, testing, or other professional services shall carry professional liability (errors and omissions) insurance. This policy shall provide at least \$1,000,000 for each occurrence and \$2,000,000 aggregate.

8.04 The Contractor shall secure, and maintain throughout the life of this contract, such insurance as will protect himself, the City and the Engineer from claims for bodily injury, death or property damage, arising from the Contractor's operations under the contract documents. Policies shall include the standard rider for coverage under Paragraph 8.03 of Article 8 of these General Conditions. Each policy shall contain a clause providing that such policy shall not be canceled by the insurer until after 30 days written notice, to the City, of intent to cancel. The Contractor shall not commence construction, or any operation pertaining thereto, until he has obtained all insurance required by this paragraph and shall have filed with the City either the insurer's certificate of such insurance or certified copies of the policies.

8.05 Indemnity: The Contractor shall indemnify and save harmless the City and agents and employees of the City, and the Engineer and agents and employees of the Engineer, from and against as allowed by law every loss and expense incurred by the City and agents and employees of the City and the Engineer and agents and employees of the Engineer, these and any of them, on account of claim, demand, payment, suit, action, judgment or recovery occurring by reason of, or out of, the work. Said indemnity shall be

in the full amount of recovery had against the City and agents or employees of the City and the Engineer and agents and employees of the Engineer, these and any of them, plus such expense as may be incurred in determining and defending against such action, and plus legal fees of Defense Counsel.

- 8.06 Patents and Royalties: If the Contractor uses any design, device, material, method or process covered by patent or copyright he shall provide for such use by legal agreement with the holder of the patent or copyright and shall pay all fees and charges pertaining thereto.

ARTICLE 9 USE OF SITE

- 9.01 The Contractor bears full responsibility for prevention of injury to or destruction of streets, roads, pavements, drives, curbs, parking areas, ponds, graded areas, walkways, fences, signs, plantings and beddings, trees and shrubbery, grass, walls, buildings, structures, wires, poles, guys, foundations, conduits, pipes, mains, sewers, and all appurtenances, apparatus and construction pertaining thereto, and all items of existing construction of whatsoever nature, and shall bear all costs of satisfactory repair, replacement or restitution without additional compensation from the City.

ARTICLE 10 MATERIALS AND TESTING

- 10.01 Only materials approved by the Engineer as conforming to the plans and specifications shall be used in construction. Approval of a source shall not constitute acceptance of all materials from that source.
- 10.02 The Contractor shall provide such facilities as the Engineer may require for collecting and forwarding of samples. All samples shall be furnished by the Contractor without charge.

ARTICLE 11 WORKMANSHIP

- 11.01 Workmanship shall be to the best quality of each trade involved.

ARTICLE 12 PROSECUTION AND PROGRESS

- 12.01 Construction shall start within the ten (10) calendar days following consecutively after the Engineer's issuance of the notice to proceed, or as soon after said ten (10) days as weather and site conditions shall permit.
- 12.02 Should the Contractor fail to deploy at the site during normal working hours sufficient labor, equipment and materials to take full advantage of permissive weather and site conditions, or shall perform construction unsuitable or in a reckless or irresponsible manner, or shall neglect or refuse to remove unsuitable construction and replace same with approved construction, or shall discontinue all or any part of construction before completion without approval of the Engineer, or shall fail to pay bills pertaining to the work, or shall become unable adequately to finance the work, the following rights shall accrue to the City:
- A. The right to refuse further payment as long as the Contractor's delinquency shall exist, and

- B. The right to notify the Contractor or Surety, or both, that such delinquency exists and to specify what action shall be taken by the Contractor or Surety, or both. If the Contractor or Surety shall not, within the fourteen (14) calendar days following consecutively after the day of such notice, proceed in accordance therewith, and thereafter continue diligently in accordance therewith, the City shall have the right to take all or any part of the work out of the Contractor's hands. The City shall then have the option of employing others to finish such work or of turning such work over to the Surety for completion. All costs, legal fees and engineering fees thereby incurred by the City shall be deducted from the unpaid balance of the contract price, and, if such unpaid balance is insufficient or non-existent, shall lie against the bond.
- C. The rights stated under (a) and (b) above are not mutually exclusive. The City may exercise any or all of said rights, or may exercise the rights stated under (a) and, at a later date exercise the rights under (b).
- D. The Contractor shall have no additional compensation on account of the City's exercise of rights under (a) and (b) above.

ARTICLE 13 CONTRACTOR'S PROCEDURES AND METHODS

- 13.01 The Contractor is an independent contractor. Construction procedures and methods are at Contractor's option, subject only to quality of materials used and that the finished construction meet the standards of the plans and specifications.
- 13.02 Neither the City nor the Engineer shall be deemed responsible for construction methods or procedures used by the Contractor, nor for the adequacy of safety of construction methods or procedures used by the Contractor.

ARTICLE 14 ACCEPTANCE OF CONSTRUCTION

- 14.01 It is the intent of the contract documents to provide for a completed project. It is the intent of the contract documents that one (1) price be established for the doing of the whole work. The Contractor is an independent contractor, responsible for constructing and turning over to the City the project completed and in accordance with plans and specifications.
- 14.02 No action of the City, its officials, or its agents or employees, and no action of the Engineer or any agent or employee of the Engineer, shall constitute final acceptance of portions or parts of the project, or of workmanship of a portion or part, or of a material installed.
- 14.03 Upon completion of the project the Contractor shall so notify the Engineer. The Redevelopment Commission of the City of West Lafayette, Indiana, shall then inspect the project and furnish to the Contractor a written list of exceptions, if any. When such exceptions, if any, have been corrected by the Contractor, construction shall be deemed complete. The Board shall then furnish to the Contractor a written acceptance of the project.

ARTICLE 15 EXTRA WORK

15.01 All modification agreements shall be in writing.

ARTICLE 16 PAYMENT

16.01 Partial payments will be made, subject to restrictions stated elsewhere in these General Conditions, in such manner that the total of such payments shall at no time prior to final payment exceed ninety percent (90%) of the Contractor's investment in the work or of the contract price, whichever is the smaller.

16.02 Such payments shall be due and payable on or before the tenth (10th) day of each calendar month on application submitted on or before the first (1st) day of such month.

16.03 Each request for payment shall be supported by an itemized statement listing the following:

- A. Original contract price
- B. Modification agreement prices
- C. Current contract price
- D. Total cumulative value of work done
- E. Deduction of five percent (**5%**) of such total cumulative value
- F. Net amount earned
- G. Deduction of previous payments
- H. Amount of payment to be made

16.04 Each request shall be supported by the certificate of the Engineer.

16.05 **Five** percent (**5%**) of the contract price including extras and credits, shall be withheld during the sixty (60) calendar days following consecutively after the date of acceptance of the project and shall be due and payable on the sixty first (61st) day. The Board of Public Works and Safety may, at its discretion, waive the sixty (60) day withholding period upon Contractor's submittal of evidence of payment of all claims pertaining to the work, or submittal of waivers of lien executed by creditors.

16.06 The City shall have the right to withhold from amounts due the Contractor sufficient sums to pay all labor, subcontractors, materials suppliers and those furnishing services, and such amounts as the City may deem necessary to protect its interest on account of:

- A. defective work;
- B. claim filed or reasonable evidence of a claim to be filed;
- C. failure of the Contractor to make payments properly to labor, subcontractors, materials suppliers and others in interest;
- D. a reasonable doubt that the work can be completed for the unpaid balance; and

- E. failure, or refusal, of the Contractor to expedite the work in compliance with the contract documents.

ARTICLE 17 ASSIGNMENT

- 17.01 The Contractor shall not assign the contract or monies due under the contract without written consent of the City.

ARTICLE 18 USE OF SUBCONTRACTORS

- 18.01 The Contractor shall have the right to employ subcontractors for a reasonable amount of the work, and his selection of individual subcontractors shall not be subject to review by, or approval of, the City.
- 18.02 No contractual relationship, pertaining to the work, shall exist between the City and any subcontractor. No act of supervision or inspection, or any approval or acceptance given, shall be taken as implying a contractual relationship between the City and any subcontractor. A subcontractor is to be deemed an employee of the Contractor. The Contractor shall bear full responsibility for the actions of subcontractors, the same as for other employees of the Contractor.

ARTICLE 19 DISCIPLINE

- 19.01 The Engineer shall have the right to require removal from the project of employees of the Contractor for overt incompetence, recklessness, negligence, damage to work, or for language, habits, manners or acts offensive to the community.
- 19.02 No intoxicating beverages shall be permitted on the site. The Engineer shall have the right to require dismissal of any employee appearing to be under the influence of alcohol.

ARTICLE 20 CLAIMS FOR EXTRA WORK

- 20.01 No claim for extra compensation shall be allowed where based upon failure of the Contractor to understand the plans and specifications, nor upon failure of the Contractor to discover work noted upon the plans or in the specifications.
- 20.02 No claim for extra compensation shall be allowed where based upon an oral agreement. All agreements shall be in writing and signed by all parties to the contract.

ARTICLE 21 DISCHARGE OF CONTRACT

- 21.01 The contract shall be considered as discharged when each and every one of the following conditions have been met:
 - A. All construction has been completed and has been accepted by the City.
 - B. Payment in full has been made.
 - C. The guarantee period has expired and no exceptions, given to the Contractor in writing prior to the expiration of the guarantee period, remain uncorrected.
 - D. The provisions of Article 8, Paragraph 8.03 are met either by judgment or settlement or by an applicable statute of limitations.

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ARTICLE 22 EXISTING FACILITIES

- 22.01 Wherever the contract documents require connection to, interception of, revision of, or alterations of any existing facility it shall be the duty of the Contractor to uncover such points of connection, interception, revision or alteration before commencing construction related thereto or dependent thereon and to verify the size, location, dimension, elevation and gradient of such existing facility. The Contractor shall notify the Engineer of such findings and, if a discrepancy is found between actual and anticipated conditions, shall not commence related construction until instructions are received from the Engineer and the contract price adjustment, if any, has been agreed to in writing.
- 22.02 Should the Contractor fail to comply with the above provision, and all or any part of the project be impaired by reason of a discrepancy between actual and anticipated conditions, the Contractor shall bear the entire expense of correction and shall receive no compensation thereof.

ARTICLE 23 OPEN COMPETITION

- 23.01 Where in the plans and specifications certain materials, trade names, catalog numbers or articles of certain manufacture are mentioned it is done for the purpose of establishing standards of quality, performance, durability and efficiency and is not to be construed as limiting competition. Other name materials may be used if in the opinion of the Engineer they are equal in quality, performance, durability and efficiency to those mentioned, and are of a design in harmony with the work as outlined, and the Engineer gives written approval of a substitution before such articles are ordered by the Contractor.

ARTICLE 24 GUARANTEE

- 24.01 The Contractor shall guarantee against defects in materials and workmanship for a period of **one (1)** year commencing with the date of final acceptance of the finished project by the West Lafayette Board of Works and Public Safety. The Contractor shall satisfactorily repair or replace any and all defective materials, whether because of the material or the workmanship of installing it, and shall satisfactorily repair or replace any and all defective or malfunctioning parts and mechanisms, all without cost to the City, during the guarantee period. Contractor shall bear all costs of satisfactorily repairing damage to the project, its component parts, and to property, where such damage is a direct result of defective materials or workmanship or of any defective or malfunctioning part of mechanism installed by the Contractor.
- 24.02 This guarantee shall be secured by a one (1) year extension of the Contractor's performance bond. The guarantee is a part of the contract and is not to be in a separate writing.

ARTICLE 25 NON-DISCRIMINATION

- 25.01 The Contractor shall, in hiring, comply with the Federal and State statutes and regulations pertaining to nondiscrimination in hiring, and in hiring shall not discriminate on account of race, creed or color.

City of West Lafayette Provisions Required in all Contracts

1. Prevailing party – attorney fees

Notwithstanding any term or condition in this Contract to the contrary, in the event litigation is commenced to enforce any term or condition of this Contract, the prevailing party shall be entitled to costs and expenses of litigation including a reasonable attorney fee.

2. Engaging in activities w/Iran

By signing this Contract, [Contractor] certifies that it is not engaged in investment activities in the country of Iran as set forth in I.C. 5-22-16.5.

3. E-Verify

Contractor shall comply with E-Verify Program as follows:

a. Pursuant to IC 22-5-1.7, **Contractor** shall enroll in and verify the work eligibility status of all newly hired employees of **Contractor** through the E-Verify Program (“Program”). **Contractor** is not required to verify the work eligibility status of all newly hired employees through the Program if the Program no longer exists.

b. **Contractor** and its subcontractors shall not knowingly employ or contract with an unauthorized alien or retain an employee or contract with a person that **Contractor** or its subcontractors subsequently learns is an unauthorized alien. If **Contractor** violates this Section 7(b), the City shall require **Contractor** to remedy the violation not later than thirty (30) days after the City notifies **Contractor**. If **Contractor** fails to remedy the violation within the thirty (30) day period, the City shall terminate the contract for breach of contract. If the City terminates the contract, **Contractor** shall, in addition to any other contractual remedies, be liable to the City for actual damages. There is a rebuttable presumption that **Contractor** did not knowingly employ an unauthorized alien if **Contractor** verified the work eligibility status of the employee through the Program.

c. If **Contractor** employs or contracts with an unauthorized alien but the City determines that terminating the contract would be detrimental to the public interest or public property, the City may allow the contract to remain in effect until the City procures a new contractor.

d. **Contractor** shall, prior to performing any work, require each subcontractor to

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certify to **Contractor** that the subcontractor does not knowingly employ or contract with an unauthorized alien and has enrolled in the Program. **Contractor** shall maintain on file a certification from each subcontractor throughout the duration of the Project. If **Contractor** determines that a subcontractor is in violation of this Section 7(d), **Contractor** may terminate its contract with the subcontractor for such violation. Such termination may not be considered a breach of contract by **Contractor** or the subcontractor.

e. By its signature below, **Contractor** swears or affirms that it i) has enrolled and is participating in the E-Verify program, ii) has provided documentation to the City that it has enrolled and is participating in the E-Verify program, and iii) does not knowingly employ an unauthorized alien.

4. Non-Discrimination

Contractor agrees:

(a) That in the hiring of employees for the performance of work under this contract or any subcontract hereunder, no contractor, or subcontractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, religion, color, sex, national origin or ancestry, discriminate against any citizen of the State of Indiana who is qualified and available to perform the work to which the employment relates;

(b) That no contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, religion, color, sex, national origin or ancestry;

(c) That the City may deduct from the amount payable to the contractor a penalty of five dollars (\$5.00) for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the contract;

(d) If there is a second or any subsequent violation of the terms or conditions of this section, then this contract may be cancelled or terminated by City and all money due or to become due hereunder will be forfeited.

END OF SECTION

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SECTION 00800

SUPPLEMENTARY CONDITIONS

SC-01 PLANS AND SPECIFICATIONS ORDER OF PRIORITY

This project will follow INDOT specifications unless otherwise notes in the plans or bid documents. In the event that conflicting standards and/or specifications exist, the following order shall govern:

- 1) Supplementary Conditions
- 2) Standard General Conditions
- 3) Contract Technical Specifications
- 4) Construction Plans
- 5) West Lafayette Standards
- 6) Project Relevant INDOT Recurring Special Provisions
- 7) 2014 INDOT Standard Specifications
- 8) 2014 INDOT Standard Drawings
- 9) Current INDOT Approved Materials List
- 10) 2011 Indiana Manual on Uniform Traffic Control Devices with Revisions 1 and 2

SC-02 PROGRESS MEETINGS

The contractor shall be responsible for conducting progress meetings on a weekly basis and/or as needed. Contractor will be responsible for notification of applicable parties, which shall include but not be limited to Owner, Engineer, and Utility Companies. The Contractor will be responsible for meeting agenda and minutes produced/distributed. The cost shall be covered under the base bid road construction items.

ARTICLE 16 PAYMENT

Add the following to the end of section 16.05 of the General Conditions

The Owner will retain five percent (5%) of the amount due the Contractor on account of each progress payment as "retainage". The retainage will be withheld for sixty (60) days after the date of acceptance of the project and payable to the Contractor on the sixty first (61st) day pending the Contractor's submittal of evidence of all work, payment of all claims being paid, submittal of all "closeout documents" and submittal of waivers of lien executed by creditors.

EXHIBIT A

WAGE RATES

NORTHWESTERN AVENUE GATEWAY PROJECT PHASE II

TS-1

COMMON CONSTRUCTION WAGE SCALE

Date: April 10, 2014

City: Lafayette

County: Tippecanoe

Project Description and Scope:

We the undersigned common construction wage committee, appointed pursuant to Indiana Code 5-16-7 et seq., do hereby fix and determine the following common construction wage scale to apply to any public works construction projects covered by the Indiana Common Construction Wage Act for which the awarding government agency lets not later than three (3) months after the date the committee adopts a wage scale.

HEAVY/HIGHWAY

Classification	Class	Hourly Rate	Fringes	Total:
Asbestos Workers/ Mechanical Insulators	Skilled	\$31.23	\$16.7	\$47.9
	Semiskilled	\$18.70	\$8.7	\$27.4
	Unskilled	\$13.64	\$8.4	\$22.0
Asbestos Workers/ Asbestos Abatement	Skilled	N/A	N/A	0.000
	Semiskilled	N/A	N/A	N/A
	Unskilled	N/A	N/A	N/A
Boilermakers	Skilled	\$33.78	\$25.9	\$59.7
	Semiskilled	\$28.71	\$25.9	\$54.6
	Unskilled	\$23.65	\$25.9	\$49.5
Bricklayers	Skilled	\$27.13	\$14.2	\$41.3
	Semiskilled	\$20.35	\$14.2	\$34.5
	Unskilled	\$13.57	\$14.2	\$27.7
Carpenters	Skilled	\$26.23	\$15.86	42.09
	Semiskilled	\$19.67	\$13.78	33.45
	Unskilled	\$11.80	\$7.30	19.10
Cement Masons	Skilled	\$25.70	\$13.98	39.68
	Semiskilled	\$20.56	\$13.98	34.54
	Unskilled	\$17.99	\$13.98	31.97

Drywall Finishers

Skilled	\$23.60	\$13.86	37.46
Semiskilled	\$17.70	\$13.86	31.56
Unskilled	\$11.80	\$13.86	25.66

Drywall Installers

Skilled	\$26.56	\$16.11	42.67
Semiskilled	\$19.92	\$12.06	31.98
Unskilled	\$11.95	\$7.00	18.95

Electricians

Skilled	\$31.04	\$15.40	46.44
Semiskilled	\$18.62	\$15.40	34.02
Unskilled	\$12.42	\$5.97	18.39

Elevator Constructors

Skilled	\$42.585	\$30.485	73.070
Semiskilled	\$29.99	\$30.485	60.475
Unskilled	\$23.69	\$28.505	52.195

Floorcovers

Skilled	\$26.05	\$13.32	39.37
Semiskilled	\$19.54	\$6.60	29.50
Unskilled	\$11.72	\$6.60	18.32

Glaziers

Skilled	\$25.86	\$13.30	39.16
Semiskilled	\$18.11	\$11.38	29.49
Unskilled	\$12.93	\$10.10	23.03

Iron Workers

Skilled	\$29.29	\$19.42	48.71
Semiskilled	\$21.97	\$19.42	41.39
Unskilled	\$17.57	\$19.42	36.99

Laborers

Skilled	\$23.62	\$12.96	36.58
Semiskilled	\$23.12	\$12.96	36.08
Unskilled	\$22.62	\$12.96	35.58

Mechanical Insulators

Skilled	\$31.23	\$16.65	47.88
Semiskilled	\$18.70	\$8.66	27.36
Unskilled	\$13.64	\$8.39	22.03

Millwrights

Skilled	\$27.32	\$16.88	44.20
Semiskilled	\$20.49	\$12.80	33.29
Unskilled	\$12.29	\$7.60	19.89

Operating Engineers

Skilled	\$30.75	\$15.31	46.06
Semiskilled	\$27.68	\$15.31	42.99
Unskilled	\$23.06	\$15.31	38.37

Painters/Brush/Roll

Skilled	\$23.55	\$13.86	37.41
Semiskilled	\$17.66	\$13.86	31.52
Unskilled	\$11.78	\$13.86	25.64

Painters/Spray/Sandblast

Skilled	\$24.55	\$13.86	38.41
Semiskilled	\$18.66	\$13.86	32.52
Unskilled	\$12.78	\$13.86	26.64

Pipefitters & Steamfitters

Skilled	\$36.02	\$14.07	50.09
Semiskilled	\$21.61	\$14.07	35.68
Unskilled	\$18.01	\$6.50	24.51

Plasters

Skilled	\$26.21	\$14.13	40.34
Semiskilled	\$20.97	\$14.13	35.10
Unskilled	\$18.35	\$14.13	32.48

Plumbers

Skilled	\$36.02	\$14.07	50.09
Semiskilled	\$21.61	\$14.07	35.68
Unskilled	\$18.01	\$6.50	24.51

Pointer/Caulker/Cleaners

Skilled	\$27.13	\$14.17	41.30
Semiskilled	\$20.35	\$14.17	34.52
Unskilled	\$13.57	\$14.17	27.74

Roofers

Skilled	\$24.33	\$10.01	34.34
Semiskilled	\$17.03	\$7.41	24.44
Unskilled	\$12.17	\$2.60	14.77

Sheet Metal Workers

Skilled	\$31.01	\$20.90	51.91
Semiskilled	\$23.26	\$17.95	41.21
Unskilled	\$15.51	\$14.80	30.31

**Sound and Communication
Workers**

Skilled	\$25.95	\$11.19	37.14
Semiskilled	\$16.87	\$10.92	27.79
Unskilled	\$12.98	\$5.74	18.72

Sprinkler Fitters

Skilled	\$33.69	\$15.95	49.64
Semiskilled	\$23.58	\$15.95	39.53
Unskilled	\$16.85	\$8.35	25.20

Stone Masons

Skilled	\$27.13	\$14.17	41.30
Semiskilled	\$20.35	\$14.17	34.52
Unskilled	\$13.57	\$14.17	27.74

Teamsters

Skilled	\$27.91	\$13.87	41.78
Semiskilled	N/A	N/A	N/A
Unskilled	N/A	N/A	N/A

Technical Engineers

Skilled	\$25.59	\$14.60	40.19
Semiskilled	N/A	N/A	N/A
Unskilled	N/A	N/A	N/A

Tile & Marble Setters

Skilled	\$28.98	\$10.85	39.83
Semiskilled	\$26.09	\$10.85	36.94
Unskilled	\$13.08	\$10.85	23.93

Terrazzo Workers

Skilled	\$29.57	\$10.96	40.53
Semiskilled	\$26.62	\$10.96	37.58
Unskilled	\$13.35	\$10.96	24.31

Terrazzo Helpers/Finishers

Skilled	\$19.07	\$7.06	26.13
Semiskilled	\$16.37	\$7.06	23.43
Unskilled	\$12.44	\$7.06	19.50

Tile & Marble Helper/Finishers

Skilled	\$19.96	\$7.07	27.03
Semiskilled	\$18.11	\$7.07	25.18
Unskilled	\$12.45	\$7.07	19.52

[Add classifications as required by the project]

Definitions:

Skilled: An individual who performs work in a classification listed on the scale of wages. It shall be presumed that an employee is a skilled worker in that classification, and entitled to receive compensation at the skilled rate, unless the worker satisfies all of the criteria for being categorized as a semi-skilled or unskilled worker.

Semi-skilled: An individual registered in a bona fide apprenticeship program registered with the United States Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training. Apprentices are paid pursuant to their individually warranted percentage for the classification of work that they perform as set forth in the apprentice program standards.

Unskilled: An individual with less than twelve months of cumulative experience in the construction trades and who is not registered in a bona fide apprenticeship program.

The above definitions shall not apply to workers in the classification of Laborer.

Apprenticeship Programs:

The Wage Committee determines that the common practice in the county is for contractors to participate in bona fide apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training and that the rate of pay for the classifications of labor that participate in such programs is based in part on a percentage of the journeyman's rate (skilled rate herein) depending on the individual's progress in the program.

Workers engaged in such an apprenticeship program will be permitted to work at less than the predetermined rate set out above for the work they perform. Such apprentices must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate which is the skilled hourly rate in this wage scale.

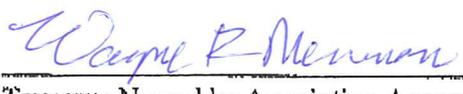
Any worker who is not registered or otherwise employed in a bona fide apprenticeship program registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training and has twelve or more months of cumulative experience in the construction trades shall be paid at the skilled wage rate on this wage determination for the classification of work actually performed by the worker regardless of how the employer classifies such a worker.

Disputes regarding the appropriate classification of workers and the amounts said workers should be paid may be submitted to the Indiana Department of Labor for investigation.


Indiana State AFL-CIO Representative


Awarding Agency Representative


ABC


Taxpayer Named by Appointing Agency


Taxpayer Named by County Legislative
Body

Date: April 10, 2014

EXHIBIT B

PROJECT RELEVANT INDOT RECURRING SPECIAL PROVISIONS

805-T-078	Electrical Insulation Sealant	09-01-13
805-T-173	Wireless Vehicle Detection System	09-01-13
805-T-173d	Wireless Vehicle Detectors Stop Bar Detection Zone	09-01-11
805-T-200d	Traffic Signal Cantilever Structure Details	09-19-13
805-T-201	Accessible Pedestrian Signals	03-01-14

TS-2

TECHNICAL SPECIFICATIONS

**Specifications will follow the latest edition of Indiana Department of Transportation Standard Specifications with Supplements, unless otherwise noted.*

SECTION 100 – GENERAL PROVISIONS

SECTION 101 – DEFINITIONS AND TERMS

101.10 CONSTRUCTION LIMITS: Prior to beginning work in the project, the Contractor shall verify the exact limits of construction with the Engineer. All areas disturbed by the contractor outside these limits shall be repaired/restored to its original condition prior to project acceptance by the Owner. No additional payment shall be made for this restoration work.

SECTION 103 – AWARD AND EXECUTION OF CONTRACT

103.04 INSURANCE: Refer to Article 8 of the General Conditions for insurance requirements.

103.06 WAGE AND LABOR REQUIREMENTS: The following requirements shall apply for all contractors performing work on public works contracts for the City of West Lafayette, Indiana.

(a) NON-DISCRIMINATION OF EMPLOYEES: The Contractor for the work specified in this Contract agrees to take affirmative action to insure that applicants and employees of the Contractor (and any subcontractors) are treated in a manner which provides equal employment opportunity and tends to eliminate inequality based upon race, color, creed, religion, ancestry, national origin, gender, disability, age, marital status or status with regard to public assistance. Affirmative action shall include but not be limited to the issuance of a policy statement regarding equal employment and its communication to all personnel involved in recruitment, hiring, training, assignment, and promotion; notification of all employment sources of company policy and active efforts to review the qualifications of all applicants regardless of race, color, creed, religion, ancestry, national origin, gender, disability, age, marital status or status with regard to public assistance; recruiting in the minority/female group community for employees; and establishing an internal system of reporting concerning equal employment, recruiting, hiring, training, upgrading and the like. Breach of the obligation to take affirmative action shall be a material breach of the contract for which the City shall be entitled to at its option:

To cancel, terminate, or suspend the contract in whole or in part; and/or to declare the Contractor or Vendor ineligible for further City contracts.

(b) AFFIDAVITS AND PAYROLLS: The affidavit form provided in a non-collusion affidavit must be properly executed.

SECTION 104 – SCOPE OF WORK

104.04 MAINTENANCE OF TRAFFIC: The contractor will be responsible for adequate maintenance of traffic measures throughout construction operations and follow the maintenance of traffic details laid out in the plans, and in accordance with the MUTCD. All barrels, cones, barricades, flagmen, and

other associated items shall be provided to protect the workmen and the public. The contractor shall provide adequate means to safely direct traffic past the point of construction, and shall provide for safely conducting traffic at all other points that are affected by the work, at all times.

Contractor shall provide a minimum of one lane of travel, in each direction, along Northwestern Avenue at all times. Coordination with adjacent construction projects is the responsibility of the Contractor to ensure this requirement is met throughout all phases on construction.

Contractor shall be responsible for maintaining pedestrian traffic in accordance with the MUTCD. The pedestrian MOT shall prohibit pedestrian street crossings at any location except signalized intersections. Contractor is responsible for prohibiting pedestrian jaywalking, with physical barriers, until the fence has been installed for the project, and the Owner has given authorization to remove Contractor's barriers.

Prior to the start of work, the Contractor shall provide a traffic and pedestrian maintenance plan for engineering approval. Work can only commence after a traffic maintenance plan has been approved.

Any and all lane restrictions shall be reviewed and approved by the Owner. Access to all property shall be maintained, and any times where there is a loss of access, the contractor shall coordinate with the property owner and/or occupant(s). When requested by the City, the contractor will provide adequate notification to the media and any property owners prior to commencing work in a given area.

Maintenance of traffic for activities that require work or work trucks in the roadway after the roadway has been opened up to traffic shall require the use and placement of a flashing arrow board and a minimum of 180' of cones in front of the arrow board demarcating the narrowing of the lane. A flagman shall be necessary if the work requires crossing the pavement. The cost of maintaining traffic shall be included in the cost of other items for this work in the project.

SECTION 105 – CONTROL OF WORK

105.08 CONSTRUCTION STAKES, LINES AND GRADES

(b) Construction Engineering by the Contractor: The contractor shall be responsible for creating **As-Built** drawings of all underground structures placed as part of this project. The Engineer will furnish one set of electronic CADD files in AutoCAD software, upon the completion of a release form provided by the Engineer. Surface information will not be provided; on the Construction Detail drawing will be provided. The Contractor will revise the received CADD files to reflect all construction amendments.

The Contractor shall revise (2) two sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a daily basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans, which are made in the work, or additional information, which might be uncovered in the course of construction, shall be accurately and

neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural, Steel, etc., as appropriate for the project). The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Inspector and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final as-built drawings as specified herein, the Owners Representative will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings from the cost of Construction Engineering. This monthly deduction will continue until an agreement can be reached between the inspector and the Contractor regarding the accuracy and completeness of updated drawings. The working and final as-built drawings shall show, but shall not be limited to, the following information:

- 1) The actual location, kinds and sizes of all sub-surface utility lines encountered during construction. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, the as-built drawings shall show, by offset dimensions to three permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The invert elevation of each utility surface of each run shall also be recorded relative to the vertical benchmark for the project.
- 2) The Contractor shall locate all new and existing utilities that are removed, relocated, installed or encountered during the construction of the project and record all location information (X-Y-Z coordinates). All elevations shall be North American Vertical Datum 88 (NAVD 88). All horizontal coordinates shall be NAD83 State Plane Coordinate values.
- 3) Certain control points and benchmarks are shown on the plans. These points must be used by the Contractor to provide as-built utility information for this project. The Contractor must locate all existing utilities encountered during the construction of the project and record all information necessary to accurately locate that item in the future.
- 4) The minimum amount of information is that all newly installed utilities must have the x-y-z coordinates (distance north-south, and east-west; and depth) referenced to the control and a written description of all points located (i.e., elevation, location, material, etc.). This information should include information at the start point, end point and any change in direction of the newly installed utility. Reference should also include structures, and any splice from damaged utility lines.
- 5) As-built drawings need to show all changes in size, material, location, and elevation of all new, existing, and/or abandoned underground utility lines or other pertinent work. The drawings must also show the location (x-y-z) of all valves, manholes, etc., referenced by dimension

to permanent structures such as building corners or by coordinates and elevations.

- 6) Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.
- 7) Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.
- 8) The topography, invert elevations and grades of drainage installed or affected as part of the project construction.
- 9) Changes or modifications which result from the final inspection.
- 10) Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.
- 11) Modifications (change order price shall include the Contractor's cost to change working and final as-built drawings to reflect) and compliance with the following procedures:
 - i. A Modification Circle shall be placed at the location of each deletion.
 - ii. For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.
 - iii. For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).
 - iv. For major changes to a drawing, a Modification Circle shall be placed by the title of the affected plan, section, or detail at each location.
 - v. For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.
 - vi. The Modification Circle size shall be (½ inch) diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Owner's Representative after approval by the Owner. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Owner.

The as-built drawing sheet size will be the same as your original drawings unless otherwise authorized by the Project Manager. We expect these drawings to be prepared by a competent draftsman in a neat and acceptable manner to scale and finally dimensioned. As-built information will be accepted in an electronic format (AutoCAD Civil3D 2014), and a reproducible PDF.

Upon completion of the project, the “As-built” drawings will be delivered to the Owner’s Construction Superintendent.

It will be the responsibility of the Contractor to have the Owner’s Construction Superintendent verify all dimensions and/or entries on the drawings. The cost of providing As-Built Drawings shall be included in the cost of Construction Engineering.

SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107.08 PUBLIC CONVENIENCE AND SAFETY: The contractor shall coordinate all work with the West Lafayette Police and Fire Departments.

The contractor shall be responsible for all proper public safety provisions for the construction site and any machinery or equipment whether in operation or not as well as work zones.

No work site(s) shall be left unprotected at any time. The public shall be protected from inadvertently entering a worksite by appropriate means such as cones, barrels, barricades, fencing, warning lights, arrow boards, flagmen, etc.

The contractor shall bring a traffic safety plan to the pre-construction meeting. The contractor must follow all procedures set forth by the West Lafayette Police Department in coordination with the City Engineer’s Office.

107.14 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE: Contractor shall protect existing trees in a five foot (5') length to all sides of the trunk. This area is to be kept clear of project equipment, project materials, waste, and excess soil. Minimal digging, trenching, compaction or other soil disturbance is allowed in this area (as determined by the Engineer).

SECTION 108 – PROSECUTION AND PROGRESS

108.04 PROSECUTION OF THE WORK: The contractor shall coordinate all work with the City Engineer or designated representative prior to commencing and throughout the contract on at least a daily basis. All material tickets shall be promptly turned in at the end of each day of work for record keeping and basis of payment. Failure to report any material tickets shall result in denial of payment claims by the City.

SECTION 200 - EARTHWORK

SECTION 201 – CLEARING AND GRUBBING

201.03 (e) CLEARING RIGHT OF WAY: Clearing right-of-way shall be in accordance with Section 201 and 202 of the INDOT Specifications and include the removal and proper disposal of all obstructions within the limits of the construction that are not specifically covered as pay items of the Contract.

These obstructions shall include but are not limited to: surface objects, trees, stumps, roots, and other protruding obstructions, walls, structures, metal, rubbish, concrete rubble, boulders, building materials, iron boxes, metal pipes, pipe, metal barrels, and any other obstructions encountered. It shall be the responsibility of the Contractor to visit the site prior to the submittal of bids in order to become familiar with the scope of work. Disposal of all materials encountered shall be off site and shall be the responsibility of the Contractor and shall be consistent with all applicable Local, State, and Federal rules, regulations, and guidelines.

No trees are to be removed or relocated inside or outside the construction limits without prior approval from the Engineer and Owner. Except in areas to be excavated, stump holes and other holes from which obstructions are removed shall be backfilled with B-borrow and compacted in accordance with 203.23.

SECTION 202 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS

202.02 GENERAL REQUIREMENTS: Removal of Structures and Obstructions shall be in accordance with Section 202 of the INDOT Specifications and include the removal and proper disposal, i.e. salvage, storage and transport to the West Lafayette Street Department (in accordance with Section 613), when noted on plans or within, of all structures and obstructions. These obstructions shall include but are not limited to: foundations, bollards, light poles and luminaires, signs, beacons, cantilevers, concrete sidewalks, concrete curb ramps, concrete curbs, concrete gutters, concrete drives, and concrete center curb.

202.05 REMOVAL AND RECYCLING OF PCCP, SIDEWALKS, CURBS, ETC: All PCCP, sidewalks, curbs, gutters, etc. designated for removal shall be broken into pieces and hauled to an offsite recycling facility.

SECTION 600 – INCIDENTAL CONSTRUCTION

SECTION 603 – FENCES

603.01 DESCRIPTION: This work shall consist of the construction of Purdue's Standard "Decorative Fence" in accordance with manufacturer and INDOT Specifications Section 603.

603.02 MATERIALS: Materials for fence posts and horizontal pipe shall be in accordance with the construction drawings.

603.03 GENERAL REQUIREMENTS: Contractor shall verify actual location of post by field measurements, and considering locations of median light pole placements. Contractor shall adjust post spacing and railing before anchoring to ensure matching alignment at abutting joints.

All pieces of fence to be sand-blasted and powder coated gloss black and concealed surfaces shall be coated, as required, to prevent corrosion.

Horizontal pipes shall be of 1-1/2-inch diameter, and 1/8-inch wall thickness, and installed per construction drawing detail.

Posts shall be ordered from North Manchester Foundry, Inc.: 205 Wabash Road, Box 345, North Manchester, Indiana. (260) 982-2191, and manufactured per the construction drawings.

Contractor shall form or core drill holes not less than 5-inches deep and 3/4-inch larger than O.D. of the post for installing posts in concrete. Contractor shall leave anchorage joint exposed with 1/8-inch buildup, sloped away from post anchoring with bead of silicone sealant at pipe grout transition for exterior locations and material flush with adjacent surface at interior location.

- 603.04 SETTING POSTS: Post shall be placed a minimum of 18-inches behind the face of curb. Fence inside the center medians shall run between light poles. Posts shall be set in 12-inch diameter Class A concrete footings of 3-foot depth, on 6-inch of compacted aggregate, on compacted subgrade, per the construction drawings.
- 603.07 METHOD OF MEASUREMENT: "Decorative Fence" will be measured by the linear foot. Measurement will be made along the top of the fence from outside to outside end of posts for each continuous run of fence.
- 603.08 BASIS OF PAYMENT: The accepted quantities of fence will be paid for at the contract unit price per linear foot for "Decorative Fence", complete in place. The cost of end caps, finials, posts, pipe, connections, concrete for post footings, anchors coring, installing and all other work or accessories required to install the fence complete in place shall be included in the cost of the fence.

SECTION 604 – SIDEWALKS AND CURB RAMPS

- 604.02 MATERIALS: Concrete is to be limestone aggregate, six bag mix with either wire reinforcement, or fiber reinforcement when not otherwise noted on plans, in the sidewalk and curb ramps. All concrete is to be in accordance with the requirements of the current Indiana Department of Transportation Standard Specifications.

The contractor is responsible for protecting any new concrete work from pedestrian and/or vehicular traffic until it is fully cured and capable of carrying traffic. In the event that it cracks due to lack of strength or negligence in letting traffic on it too soon, the contractor is responsible for replacing the concrete without reimbursement from the City.

Concrete testing is to take place no less than one time every fifty (50) cubic yards or at least one time per day. The owner's representative will be responsible for conducting this test. The contractor is responsible for contacting the owner's representative and coordinating the concrete pour and testing schedules. The testing requirements are:

- Slump = 4", \pm 1"
- Air Content = 6.5%, \pm 1.5%
- 28 day compressive strength \geq 4000 psi

Integrally Colored Concrete shall be in accordance with INDOT Specifications section 604, and manufacturer's instructions. The Contractor shall submit product data for each product indicated as well as samples for initial selection from manufacturer's full range of color charts. Up to 3 sample panels of 2 ft by

2 ft, shall be provided to demonstrate finish and color. Qualification Data must be provided for Installer and Manufacturer, including names and addresses of past completed projects, with the associated architects, and owners listed.

Installer must have a minimum of 3 years' experience with projects of similar scope and quality. The contractor for this work shall be a licensed contractor who has been trained and equipped by integrally colored concrete supplier/manufacturer. Products used must be obtained from same source throughout Project. A Preinstallation Conference including Contractor and Owner shall be conducted at project site.

Mock-ups: Locate at site and obtain approval before start of final work. Mock-ups shall be minimum 4 ft by 4 ft showing representation of each color. The cost of mock-ups will not be paid for directly but included in the cost of integrally colored concrete. Mock-ups must demonstrate range of finishes and workmanship, including joints and sealing procedures. Approved mock-ups will set quality standards for comparison with remaining work. Contractor must remove mock-ups when work is completed. Approved field samples may become part of the completed work, if approved by Owner, and if undisturbed at completion of project.

604.03 CONSTRUCTION REQUIREMENTS: INDOT Standard Specification section 604.03 shall apply for all 604 material; all sidewalk areas noted as "Salvaged Pavers for Sidewalk" shall be constructed per the construction drawings and in accordance with INDOT Standard Specification for compaction and compacted aggregate base.

(j) INTEGRALLY COLORED CONCRETE: Integrally colored concrete shall be constructed to the following requirements: The area to receive integrally colored concrete shall have the sub-grade prepared and compacted as required in concrete specifications. The formwork shall be installed in accordance with concrete specifications and the drawings. The slab reinforcement and thickness shall be as required in concrete specifications. Control joints and/or expansion joints shall be provided in accordance with the drawings and the guidelines established by the American Concrete Institute (ACI). As with any concrete slab, integrally colored concrete shall contain construction joints, control joints and expansion joints; the Contractor shall advise and work with the Engineer to determine the best location for these joints to minimize the visibility of the joints and to minimize unsightly cracking.

Re-cut existing control joints before cracking occurs, within 12 to 24 hours after placement at 70-degF.

Water used in concrete shall be potable. Colored concrete shall be an integral coloring application, with coloring additives mixed in accordance with manufacturer's instructions. Mix until color additives are uniformly dispersed throughout mixture. Do not use calcium chloride admixtures.

Do not install work if air temperature and concrete substrate temperature are not between 45-degF to 85-degF before and during installation. In hot weather, install work in early morning or when surfaces are shaded. Protect integrally colored concrete from rain for 24 hours.

Apply curing compound for colored concrete in accordance with manufacturer's instructions. Apply curing compound at consistent time for each pour to maintain close color consistency. Curing compound shall comply with ASTM C309 and be approved by color additive manufacturer for use with colored concrete.

Surfaces shall be coarse broomed to the slope as shown on the plans.

Provide and apply manufacturer's recommended sealer per manufacturer's recommendations. Apply final coat of sealer uniformly in continuous operation by sprayer according to manufacturer's instructions.

Form joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4-in radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate tool marks on concrete surfaces. Edges of colored concrete not contained by standard concrete shall be tooled in the same manner.

Protect adjacent finished surfaces from splatters. Do not add water to concrete at job site, fog or spray surface with water, or put into pumps or onto tools or brooms. Do not apply color additives meant for integral coloring to surface of concrete.

Do not allow plastic to rest against surface.

Protect integrally colored concrete from damage or deterioration until date of Final Completion. Repair damaged integrally colored concrete according to manufacturer's instructions. Clean spillage and soiling from adjacent construction according to manufacturer's instructions.

(k) CURB RAMPS: Curb Ramps shall meet current ADA standards for accessible design and comply with the proposed guidelines for Public Rights-of-Way. All curb ramp layouts shall be approved by the Engineer prior to installation. Curb shall be installed on the outside of the ramp, based on field conditions and when approved by the Engineer, to minimize grading, to protect against trip hazards, or to match surrounding structures, i.e. structure faces, controller foundations, parking lots, etc. This curb shall be included in the price of the curb ramp.

The Contractor shall install detectable warning surface that is compliant with ADA accessibility guidelines, and in accordance with the Public Rights-of-Way guidelines. Detectable warning surfaces shall be cast iron plates manufactured by East Jordan Iron Works, or approved equal. The detectable warning surface shall be placed such that it is free of gaps between plates and shall extend across the full width of the ramp run (excluding any flared sides); concrete borders required for proper installation should not exceed 2-inches. Radial plates and/or field cutting of plates may be required to produce a continuous detectable warning surface that meets the curvature of the back of curb. The cost of the detectable warning surface shall be included in the price of the curb ramp.

Concrete curb ramps will be measured by the square yard in accordance with the pay limits shown on the plans. The accepted quantities of curb ramps will

be paid for at the contract unit price per square yard for curb ramp, concrete, per the type, complete in place.

Concrete sidewalk shall be placed per plan. Concrete sidewalk shall be reinforced with wire mesh or fiber reinforcing. All concrete sidewalks must be according to West Lafayette Standard Specifications and current ADA Standards.

604.10 METHOD OF MEASUREMENT: INDOT Standard Specifications for Section 604.10 shall apply. "Salvaged Pavers for Sidewalk" will be measured by the square yard.

604.11 BASIS OF PAYMENT: INDOT Standard Specifications for Section 604.11 shall apply. "Salvaged Pavers for Sidewalk" will be paid for at the contract unit price per square yard of walk replaced, complete in place. The unit price includes all costs for labor, equipment and materials for placing the salvaged pavers on the sand bedding, and includes the cost of labor, equipment and material of the sand bedding, sand joints, and compacted aggregate base.

SECTION 605 – CURBING

605.02 MATERIALS: Concrete is to be limestone aggregate, six bag mix with fiber reinforcement in the sidewalk and in the curb and gutter. All concrete is to be in accordance with the requirements of the current Indiana Department of Transportation Standard Specifications.

The contractor is responsible for protecting any new concrete work from pedestrian and/or vehicular traffic until it is fully cured and capable of carrying traffic. In the event that it cracks due to lack of strength, the contractor is responsible for replacing the concrete without reimbursement from the City.

Concrete testing shall take place no less than one time every fifty (50) cubic yards or at least one time per day. The owner's representative will be responsible for conducting this test. The contractor is responsible for contacting the owner's representative and coordinating the concrete pour and testing schedules. The testing requirements are:

- Slump for Hand Placement = 4", ± 1 "
- Slump for Slip Form = 2", ± 1 "
- Air Content = 6.5%, ± 1.5 %
- 28 day compressive strength ≥ 4000 psi

605.04 CAST IN PLACE CEMENT CONCRETE CURBING: Concrete curb shall be cast in place, formed and placed in accordance with the City of West Lafayette Standard Specification for "Box Curb with 6" Face". New curb shall be per plan and set to existing lines and grades in a manner to permit positive drainage. When noted as "Depressed", the height of the curb will vary from standard, per construction drawing detail. When noted as "Paver Band", the curb width will vary from standard to match existing surrounding conditions, per construction drawing detail.

SECTION 610 - APPROACHES

610.02 MATERIALS: Concrete is to be limestone aggregate, six bag mix, constructed to City Standards. All concrete approaches shall be doveled into the curb

and gutter per direction of the owner's representative. The cost of the dowel bars and the labor involved will be included in the cost of the approach. All concrete is to be in accordance with the requirements of the current Indiana Department of Transportation Standard Specifications.

The contractor is responsible for protecting any new concrete work from pedestrian and/or vehicular traffic until it is fully cured and capable of carrying traffic. In the event that it cracks due to lack of strength, the contractor is responsible for replacing the concrete without reimbursement from the City.

Concrete testing shall take place no less than one time every fifty (50) cubic yards or at least one time per day. The owner's representative will be responsible for conducting this test. The contractor is responsible for contacting the owner's representative and coordinating the concrete pour and testing schedules. The testing requirements are:

- Slump = 4", \pm 1"
- Air Content = 6.5%, \pm 1.5%
- 28 day compressive strength \geq 4000 psi

610.03 GENERAL REQUIREMENTS: Concrete drive approaches shall be formed and placed in accordance with Indiana Department of Transportation Standard Specifications Section 610 as well as West Lafayette Standard Specifications. All drive approaches noted as "PCCP for approaches" shall be constructed to an INDOT Class III driveway standard: 9" PCCP on subgrade treatment Type IIIA. Drive approaches shall be reinforced with wire mesh or fiber reinforcing, per City Standards. All drive approaches noted as "Salvaged Pavers for Approaches" shall be constructed per the construction drawings and in accordance with INDOT Standard Specification for compaction and subgrade treatment requirements.

610.05 METHOD OF MEASUREMENT: "PCCP for Approaches" will be measured in accordance with INDOT Standard Specifications. "Salvaged Pavers for Approaches" will be measured by the square yard. Subgrade treatment will be measured in accordance with 207.05.

610.06 BASIS OF PAYMENT: "PCCP for Approaches" will be paid in accordance with INDOT Standard Specifications. "Salvaged Pavers for Approaches" will be paid for at the contract unit price per square yard of driveway replaced, complete in place. The unit price includes all costs for labor, equipment and materials for placing the salvaged pavers on the sand bedding, and includes the cost of labor, equipment and material of the sand bedding and sand joints. Subgrade treatment will be paid for in accordance with 207.06.

SECTION 613 – SALVAGED ROAD MATERIALS

613.02 MATERIALS: This work shall also include all items noted as "salvage" on the construction drawings, to include: light structures, bollards, signage, sign posts, castings, and excess pavers, etc.

613.05 BASIS OF PAYMENT: The cost of the salvaging, storing, and transporting the material to the Owner (West Lafayette Street Department: 705 S. River Road) will not be paid for directly, the cost thereof will be included in the various pay items of the Contract.

SECTION 629 – SAW CUTTING, CURB PATCHING

- 629.01 GENERAL REQUIRMENTS: In locations where existing pavement must be cut to install the new concrete center curb, curb, or drive approaches, the pavement shall be saw cut thoroughly with a flush edge and thoroughly cleaned in its entire length.
- 629.02 BASIS OF PAYMENT: Payment for saw cutting and curb patching, to include the concrete, HMA, and aggregate material, will not be paid for directly, the cost thereof to be included in the various pay items.

SECTION 700 – STRUCTURES

SECTION 720 – MANHOLES, INLETS, AND CATCH BASINS

- 720.04 GRADE ADJUSTMENT OF EXISTING STRUCTURES: Whereas in the plans there have been notes made to perform work on the existing structures the Contractor shall furnish and install inlet grates and curb plates that will ensure the new midblock crosswalk complies with the proposed guidelines for the Public Rights-of-Way: Horizontal openings in gratings shall not be wider than 0.5-inches. Elongated openings in grating shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Grates and Plates can be Neenah or East Jordan, or approved equal.

SECTION 800 – TRAFFIC CONTROL DEVICES AND LIGHTING

SECTION 805 – TRAFFIC SIGNALS

805.01 DESCRIPTION

This work includes installing traffic signal control devices in accordance with 805 as shown on the plans and as specified herein. All other items, not superseded by the information within, shall be furnished and installed per INDOT Standard Specifications section 805.

805.03 GENERAL REQUIREMENTS

(a) REMOVED EQUIPMENT

All removed traffic signal equipment that is not re-used shall be salvaged and transported to the City of West Lafayette Street Department.

(b) CIVL HARDWIRE

The existing hardwire from the Civil Engineering (CIVL) building to the existing cabinet at the intersection Northwestern and Stadium shall be protected at all times. No extra payment shall be made for protecting the hardwire. For the base bid, the existing CIVL hardwire shall remain connected to the existing controller at the southeast corner. For Alternate #1, the CIVL hardwire will be relocated to the new 2-cabinet at the southwest corner and reconnected to the relocated ASC/3 secondary controller.

(c) FIBER OPTIC DATA HARDWARE SWITCH

This work shall consist of installing a fiber optic switch within the controller cabinet for the following purposes:

1. Initial traffic signal coordination between the on-street secondary

controllers and the on-street master controller.

2. Future traffic signal coordination between the on-street secondary controllers and the Econolite Centrac software program (to be installed at a future date).
3. Possible use of pan/zoom/tilt cameras to be used for police surveillance and observation of traffic operations. Possible future cameras may include the Sony SNCDH260 Network 1080p HD Vandal Resistant Minidome Camera with IR Illuminator or the Axis HD 26034-E.

Fiber optic will provided to each of the controller cabinets by others. The provided fiber shall be connected to the fiber optic data hardware switch. The switch shall be connected to the master and secondary controllers.

Termination for Fiber at switches

Small Form-Factor Pluggable Transceiver: TN-SFP-LX1 as manufactured by Transition Networks or Approved Equal:

Transition Networks, Inc.
10900 Red Circle Drive
Minnetonka, MN 55343 USA
Local: 952-941-7600
Toll-Free: 800-526-9267

a. Standards IEEE 802.3 2003; ANSI X3.297-1997

b. Fiber Optic Connector Specs

Single Mode: Min TX PWR: -9.5 dBm
Max TX PWR: -3.0 dBm
RX Sensitivity: -21.0 dBm
Max In PWR: -3.0 dBm
Link Budget: 11.50 dB

c. Width: 0.52 in.

d. Depth: 2.18 in.

e. Height: 0.33 in.

f. Power: 3.3 Volts

g. Power Consumption: 0.66 Watts

h. Operating Temperature: -10°C – 85°C

i. Compliance: IEC-60825; FDA 21; CFR 1040.10 and 1040.11

Patch Cable for POE switch to traffic controller

Outdoor-Rated CAT6 Patch Cords, Meets ANSI/EIA/TIA 568, IEC 61156-5 requirements

Fire safety standard UL 1581 VW-1, IEC 60332-1

(d) TESTING PLAN FOR TRAFFIC SIGNAL AND COMMUNICATIONS EQUIPMENT

One of the purposes of this project is to provide traffic signal coordination and communications to the traffic signals along Northwestern Avenue from Dodge Street to Grant Street for the following two scenarios:

1. Initial traffic signal coordination between the on-street secondary controllers and the on-street master controller. In this scenario, the master controller will be located at Northwestern Avenue and Stadium

Avenue.

2. Future traffic signal coordination between the on-street secondary controllers and the Econolite Centrac software program (to be installed at a future date). In this scenario, the Centrac program will time-sync the on-street secondary controllers along Northwestern Avenue. It is anticipated that the optional Advanced Measures of Effectiveness module of Centrac will also be implemented in the future for this scenario.

In both scenarios, communications will be accomplished via the provided fiber optic and the installed fiber optic data hardware switch. A testing plan shall be created by the contractor to show that the traffic signal and communications equipment will provide for a coordinated traffic signal corridor along Northwestern Avenue for both scenarios described above. The testing plan shall use a demonstration version of Centrac with the optional Advanced Measures of Effectiveness module to show that the features of Centrac with optional module can be achieved with the traffic signal and communications equipment. The testing plan shall be approved by the Engineer before implementation.

No additional payment will be made for the testing plan. The cost of the testing plan shall be included in the cost of the remaining pay items.

805.08 CONTROLLER CABINET, SIGNAL SERVICE, AND DETECTOR HOUSING

Each new controller shall first be provided to the City of West Lafayette Street Department so that the Department may test it. The Department will then provide the Contractor with the tested controller so that the Contractor can install it on site.

The neutral load (induced voltage) shall be measured between each signal head indication field terminal and the AC neutral circuit in the controller cabinet during the off (dark) state of each signal indication, and must not read more than 2V AC RMS.

At a minimum, one spare 2 inch conduit with pull rope shall be installed from the nearest hand hole to inside of the controller cabinet.

The 2 cabinets to be installed at the southwest corner of Northwestern and Stadium for Alternate #1 shall be similar to the existing 2 cabinets at the southeast corner. Each cabinet shall be placed next to each other. Each cabinet shall have a door in the front and in the back. A foundation shall be constructed to accommodate the 2 cabinets for Alternate #1. The contractor shall provide shop drawings of the 2 cabinets and 2-foundation to the Engineer for approval before installation.

805.15 METHOD OF MEASUREMENT

Fiber Optic Data Hardware Switch will be measured by each working unit installed.

The 2 cabinets for Alternate #1 shall be measured as 1 item. The foundation to accommodate the 2 cabinets for Alternate #1 shall be measured as 1 item.

Civil Hardwire Relocate for Alternate #1 will be measured by each installed working unit.

805.16 BASIS OF PAYMENT

The basis of payment will be in accordance with 805.16.

All traffic signal equipment removed shall be paid at a contract lump sum price.

Payment will be made under:

Pay Item	Pay Unit Symbol
Traffic Signal Equipment, Remove.....	LS
Pedestrian Signal Head, Countdown, Remove, Salvage and Reset...	EACH
Signal Service, Remove, Salvage and Reset.....	EACH
Secondary Controller.....	EACH
Master Controller.....	EACH
Fiber Optic Data Hardware Switch.....	EACH
Controller, Relocate and Rewire (<i>for Alternate #1</i>).....	EACH
CIVL Hardwire Relocate (<i>for Alternate #1</i>).....	EACH
2-Cabinet (<i>for Alternate #1</i>).....	EACH
2-Foundation (<i>for Alternate #1</i>).....	EACH

The existing countdown pedestrian signal modules at the intersection Northwestern and Stadium shall be removed, salvaged and reset on the new signal poles. The cost of signal face hook-up wire, pole plates and arms for side mounts, pipe arms, signal brackets, bulbs, weatherhead, and all additional hardware required shall be included in the cost of Pedestrian Signal Head, Countdown, Remove, Salvage and Reset.

The existing signal service and metering equipment at the intersection of Northwestern and Stadium shall be removed, salvaged and reset on the new signal pole. The cost of weatherhead, 1 in. conduit rise, entrance switch, 1 to 2 in. conduit reducer, ground rod, ground wire, and all hardware required to complete the installation, including the meter base when required and supplied by the utility company shall be included in the cost of Signal Service, Remove, Salvage and Reset.

The existing ASC/2 controller at the intersection of Northwestern and Grant shall be replaced with an ASC/3 controller. The cost of removing the ASC/2 controller shall be included in the cost of Traffic Signal Equipment, Remove. The cost of all the ASC/3 controller and all wiring and hardware to operate the intersection with the ASC/3 controller shall be included in the cost of Secondary Controller.

A master controller shall be installed at the intersection of Northwestern and Stadium in order to coordinate the traffic signals along Northwestern from Dodge to Grant. Fiber optic cable will be provided. The cost of wiring and hardware needed to install the master controller and connect it to the fiber optic

cable and data hardware switch shall be included in the cost of Master Controller.

The existing ASC/3 controller at the intersection of Northwestern and Stadium shall be relocated to the new 2-cabinet for Alternate #1. The wiring and hardware needed to relocate the controller and operate the intersection shall be included in the cost of Controller, Relocate and Rewire.

All wiring and hardware associated with relocating the CIVL hardware and reconnecting it for Alternate #1 shall be included in the cost of CIVL Hardware Relocate.

The cost of the standard loop detector racks, all wiring, hardware, and associated equipment required to operate the intersection shall be included in the cost of 2-Cabinet.

The cost of concrete, conduits, grounding bushings, ground rod, ground wire, drainage, anchor bolts, and all hardware required to complete the installation shall be included in the cost of 2-Foundation.

SECTION 807 – HIGHWAY ILLUMINATION

807.01 DESCRIPTION: This work includes installing decorative lighting standards, luminaires and incidental materials in accordance with 807, as shown on the plans and as specified herein. All other items, not superseded by the information within, shall be furnished and installed per INDOT Standard Specifications section 807.

(a) SUBMITTALS

Product Data: For each luminaire, pole, and support component, arranged in order of lighting unit designation. Include data on features, accessories, and finishes.

Shop Drawings: Include anchor-bolt templates keyed to specific poles and certified by manufacturer.

(b) QUALITY ASSURANCE

Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

Comply with IEEE C2, "National Electrical Safety Code." Comply with NFPA 70. Comply with IESNA LM-79-08 & LM-80-08.

(c) WARRANTY

Manufacturer must provide a 5 year warranty.

Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace luminaires or components of luminaires and lamps that fail in materials or workmanship; corrode; or fade, stain, or chalk due to effects of weather or solar radiation within one year of substantial completion. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, or unauthorized repairs or alterations from special warranty coverage.

807.02 MATERIALS

(a) MANUFACTURERS

In Lighting Schedule, the following requirements apply to product selection: Subject to compliance with requirements, provide products by the manufacturer specified.

Luminaires shall comply with UL 1598 and be listed and labeled for installation in wet locations by an NRTL acceptable to authorities having jurisdiction.

Comply with IESNA RP-8 for parameters of lateral light distribution patterns indicated for luminaires.

Metal Parts: Free of burrs and sharp corners and edges.

Sheet Metal Components: Corrosion-resistant aluminum, unless otherwise indicated. Form and support to prevent warping and sagging.

Housings: One-piece die-cast, low copper alloy aluminum with integral cooling ribs over electrical compartment. Solid barrier will to separate optical and electrical compartments. A single die-cast aluminum cam-latch provides positive locking and sealing of the optical chamber. A one-piece extruded and vulcanized silicone gasket seals the housing against the lens surface.

Electronic Driver Module: One-piece die-cast, low copper alloy aluminum with integral cooling ribs over exposed bottom surface. Integral hinges and slide latch with stainless steel mounting and removal from housing. All electronic components are directly mounted to the driver tray.

Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position. Doors shall be removable for cleaning or replacing lenses. Designed to disconnect ballast when door opens.

Exposed Hardware Material: Stainless steel.

Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.

Light Shields: Metal baffles, factory installed and field adjustable, arranged to block light distribution to indicated portion of normally illuminated area or field.

Individual lights and reflectors shall be aimable so as to follow the "70% Principle" achieving cutoff to block glare. Individual LED's shall not be visible.

Reflecting surfaces shall have minimum reflectance as follows, unless otherwise indicated:

White Surfaces: 85 percent.

Specular Surfaces: 83 percent.

Diffusing Specular Surfaces: 75 percent.

Lenses and Refractors Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.

Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.

Factory-Applied Finish for Aluminum Luminaires: Color shall be black. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

(b) LUMINAIRE-MOUNTED PHOTOELECTRIC RELAYS

Comply with UL 773 or UL 773A.

Contact Relays: Factory mounted, single throw, designed to fail in the on position, and factory set to turn light unit on at 1.5 to 3 fc (16 to 32 lx) and off at 4.5 to 10 fc (48 to 108 lx) with 15-second minimum time delay.

Relay with locking-type receptacle shall comply with NEMA C136.10.

Adjustable window slide for adjusting on-off set points.

(c) LED BALLASTS AND LAMPS

Low-Temperature Ballast Capability: Rated by its manufacturer for reliable starting and operation of indicated lamp(s) at temperatures minus 20 deg F and higher.

Instant on and instant off capability.

Remote photocell controllable.

LED Driver Characteristics: Fixture uses two 100W LED drivers. Driver shall be individually replaceable with tool less access.

LED Characteristics: Individual microemitters shall be individually replaceable using tool less technology. Individual microemitters and reflectors recessed into fixture housing. LED microemitters shall not be directly visible. LED microemitters must be individually aimable so as to ensure glare is never in field of view. Provide full light cutoff (no uplight).

Acceptable manufacturers: GE: Evolve LED Series, or approved equal

(d) LIGHT STANDARDS

Lighting Standard shall be round seamless tapered aluminum in accordance with 807. Finish shall be powder coated color: black. Each standard will have 4-1" (25mm) x 48 in. (1200mm) fully galvanized anchor bolts, with 2 nuts and 2 washers per bolt. Each bolt will be covered with a tamper resistant nut cover. Each standard will have Terminal Block for field wire connections

(e) MAST ARMS

The light arm shall be aluminum alloy extruded tube, length per plans. Mounting shall be horizontal slip fitter type. Finish shall be powder coated- Color to match light standard. Mast arm shall be manufactured by the same company as the lighting standard.

Per the construction drawings, structures have either one or dual mast arms.

(f) BANNER ARMS

Banner arms shall be 1 inch OD (25mm) x 24 inch (600mm) length 6063 aluminum tubing. Mounting shall be clamp on type. No stainless steel banding will be allowed Mounting shall be on street side, perpendicular to street. Dual banner arm, a set on each side of the pole, shall be included on structures with dual mast arms. Arm mounting height shall as directed by the Engineer. Finish shall be powder coated- color to match light standard. Banner arm shall be manufactured by the same company as the lighting standard.

807.18 METHOD OF MEASUREMENT

The method of measurement will be in accordance with 807.18

807.19 BASIS OF PAYMENT

The basis of payment will be in accordance with 807.19

Payment will be made under:

Pay Item	Pay Unit Symbol
Light Pole, Ornamental,30 FT(m) E.M.H,___ Mast Arm.....	EACH
Luminaire, L.E.D.,___Watt.....	EACH

The cost of banner arms, mounting hardware and all necessary incidentals to complete this work shall be included in the cost of Light Pole, Ornamental.

SECTION 900 – MATERIALS DETAILS

SECTION 914 – TOPSOIL MATERIALS

914.01 SPECIAL TOPSOIL FOR ROADSIDE DEVELOPMENTS: The topsoil shall be the natural, fertile, friable surface layer of soil obtained from naturally drained areas and free from subsoil, clay lumps, stones, brush, stumps, roots, objectionable weeds or litter (glass, plastic, paper, etc.), excess acid or alkali, or other substances which may be harmful to plant growth or a hindrance to subsequent smooth grading, planting, or maintenance operations. Approximately 80% fines with low plasticity, slow dilatancy, low dry strength; approximately 20% medium sand; wet, dark brown, organic odor, weak reaction with HCl; Roots present throughout.

The pH of the material shall be between 5.5 and 7.6. The organic content shall be not less than two (2) percent or more than twenty (20) percent. The gradation shall be as follows:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
2 Inches	100
1 Inch	85-100
1/4 Inch	65-100
No. 200	20-80

SECTION 922 – TRAFFIC SIGNAL MATERIALS AND EQUIPMENT

922.01 DESCRIPTION

All other materials, not superseded by the information within, shall be per INDOT Standard Specifications section 922.

922.02 TRAFFIC SIGNAL CONTROL EQUIPMENT

All secondary controllers shall be the ASC/3 as manufactured by Econolite Control Products, Inc. All master controllers shall be compatible with the secondary controllers.

The wireless detection devices shall be the Sensys Networks.

The Fiber Optic Data Hardware Switch shall include:

- Cisco IE-3000-4TC - Switch
- Cisco IEM-3000-4PC - PoE expansion module
- Cisco PWR-IE65W-PC-AC - Power module
- GLC-LX-SM-RGD - SFP (2 needed)
- Cisco PWR-IE50W-AC

The controller cabinets shall provide the following additional switches:

Detector test switches shall be installed and wired directly to the controller vehicle and pedestrian detector inputs. 4-phase cabinets shall have 6 switches, 4 vehicle (phase 1, 2, 3 and 4) and 2 pedestrian (phases 2 and 4). 8-phase cabinets shall have 12 switches, 8 vehicle (phases 1, 2, 3, 4, 5, 6, 7 and 8) and 4 pedestrian (phases 2, 4, 6 and 8).

END OF SECTION