ADDENDUM NO. 1

TO THE

DRAWINGS AND SPECIFICATIONS

FOR THE

ALLEN STREET/WALNUT STREET & 4TH STREET/ROGERS STREET INTERSECTION IMPROVEMENTS

ISSUED FROM: CITY HALL AT THE SHOWERS BUILDING
Post Office Box 100
401 North Morton Street
Bloomington, Indiana 47404

ISSUE DATE: June 6, 2017

Bid DATE: June 13, 2017

This Addendum No.1 to the drawings and specifications shall supplement, amend and become a part of the bidding documents, plans, and specifications. All bids and construction contracts shall be based on these modifications to the original contract documents.

ITEM NO. 1: ALL CONDUIT INSTALLED FOR THE PROJECT ON WALNUT STREET SHALL BE PLACED THROUGH DIRECTIONAL BORING.

ITEM NO. 2: ANY COORDINATION REQUIRED WITH DUKE ENERGY SHALL BE DONE BY THE CITY OF BLOOMINGTON OR OTHERS. THE CONTRACTOR IS NOT RESPONSIBLE FOR COORDINATION WITH DUKE ENERGY.

ITEM NO. 3: ELECTRICAL SERVICE POINTS SHALL BE SET IN ACCORDANCE WITH INDOT SPECIFICATION 807.15, UTILIZING A TYPE II SERVICE POINT.

ITEM NO. 4: SPECIFICATIONS FOR THE PEDESTRIAN CROSSING RRFB SYSTEM HAVE BEEN ATTACHED TO THIS ADDENDUM.

	CERTIFIED BY: _____ ANDREW CIBOR CITY ENGINEER **CITY OF BLOOMINGTON, IN**

Acknowledge receipt of the addendum by submitting a signed copy with your bid proposal.

RECEIVED BY: **CONTRACTOR (FIRM AND ADDRESS)**

_____

_____

_____

SIGNATURE: _____ **DATE:** _____

PRINTED NAME: _____

TITLE: _____

Allen Street/Walnut Street & 4th Street/Rogers Street Intersection Improvements

Specifications for Pedestrian Crossing RRFB System

General:

The intent of the following specification is to provide a complete, ready to install, pedestrian crossing wired Rectangular Rapid Flashing Beacon (RFFB) system. The system must be similar to a Carmanah RRFB Pedestrian Crossing System.

Description:

The purpose of this specification is to describe the minimum acceptable design for a pedestrian crossing using a Rectangular Rapid Flashing Beacon (RFFB). The system will be designed to operate 24 hours per day, 7 days per week with the beacons flashing for up to 350 crossings per day. The system shall be designed to operate with a probability of no loss of load during all months of the year.

The system will consists of 2 poles with wired communication between the poles so that when a pedestrian activates the RFFB on one pole, the RRFB on the other pole is activated.

1. Service Point

The utility service point shall be coordinated and set in accordance with INDOT specification 807.15.

2. Wiring

Wiring will be 3C/14 for connection between push-buttons and flashers.

3. Cabinet

The cabinet shall be manufactured of 0.125" sheet aluminum. Nominal cabinet dimensions shall be 19.5" H x 10.5" W x 6.5" D. The cabinet shall have wire screened insect proof louvers on each side of both compartments for ventilation. The louvers shall be designed to not allow any rain to enter the cabinet. On the bottom of the cabinet there shall be two screened insect proof drain holes.

The door shall be a single unit with a continuous piano hinge riveted to the door and the cabinet. The door shall incorporate a neoprene gasket which, when closed, forms a snug weather tight seal. The door lock shall be a standard police lock, reinforced with a steel plate.

Each cabinet shall be equipped with the necessary rigid mount for a 4 inch ID pole with 4.5 inch OD pole clamps. All necessary hardware for proper mounting shall be included.

4. Control Panel

The control panel containing the electronics shall be mounted in the cabinet using bolts with wing nuts for quick and easy removal.

5. Communications

The units on the opposite sides of the road or in the median will communicate via a wired connection. A countdown timer will be part of the communication system to ensure that the lights will flash for a period that will allow pedestrians to safely cross the street. The amount of time will be determined by City employees. The timer is usually set by a typical signal technician.

The initiation of the signal for the flashers to commence flashing will be by pedestrian or bicycle push button. Each time a button is pushed, the countdown timers will reset to the preset count down time; thus allowing the beacons to flash for a full cycle.

All communication components must operate from -20 degrees C to + 60 degrees C.

6. Rectangular Rapid Flashing Beacon (RRFB) Light Bar

The RRFB shall comply with FHWA Interim Approval Memorandum dated July 16, 2008. The light bar will contain 5 rectangular rapid flashing beacons, 2 on each side, and 1 rectangular rapid flashing beacon in the end , visible to pedestrians in the cross walk. The RRFBs will wig-wag with a flash pattern of 2 rapid flashes on 1 beacon and then 3 rapid flashes on the other beacon. The beacons shall flash at a rate between 70 – 80 flashes per minute. The beacons shall be approximately 5" wide x 2" high. The flashing beacons shall be Lab certified Class 1 light intensity double and triple strobe wig-wag flash pattern.

The RRFB light bar will be assembled and wired as a unit. It shall be mounted to the pole with U-bolts.

7. Pole and Base

The pole will be a schedule 40 spun aluminum 4" ID (4.5" OD). The base will be a breakaway base with a set of 4 anchor bolts. The base and bolts will conform to INDOT standards for a Type 'A' signal base. A pole collar assembly and a pole cap will also be provided.

8. Sign

The sign will be a cross walk sign 24" x 24" and will be a W11-15 and a W16-7p plaque. One set of signs are required for each pole, facing the direction of oncoming traffic.

Sign mounting hardware for the sign will be included.

9. Pedestrian Push Button

A pedestrian push button will be mounted on the pole to activate the flashing beacons. The button will be a Polara style push button meeting APS requirements with the plaque on the push button reading 'PUSH BUTTON TO TURN ON WARNING LIGHTS'.

10. Bicycle Push Button

A bicycle push button will be mounted on a separate pole to activate the flashing beacons. The button will be a Polara style push button meeting APS requirements with the plaque on the push button reading 'PUSH BUTTON TO TURN ON WARNING LIGHTS' and a plaque showing the bicycle symbol and an arrow designating the direction of travel.

11. Warranty

A minimum of one year warranty from the date of system installation will be required for all system components. All shipping costs for warranty repairs will be paid by the vendor.