ROCKFORD BOARD OF EDUCATION
INVITATION FOR BID ON SUPPLIES, MATERIALS, EQUIPMENT OR SERVICES FOR SCHOOL DISTRICT NO. 205 ROCKFORD, ILLINOIS

IFB No. 20-46 Hillman Elementary School Boiler Upgrades

DATE: May 1, 2020

RE: **ADDENDUM NO. 2**

To All Bidders:

Included are modifications, clarifications and/or corrections for the Project Manual and are hereby made a part of the contract documents. Please attach this addendum to the Project Manual(s) in your possession. Please note the receipt of this addendum on the bid form. Bidders shall review changes to all portions of this work as changes to one portion may affect the work of another.

If you plan to hand deliver your IFB submission on the due date, please note you must check in on the 2nd floor prior to coming to the bid opening. Please allow time for this as late submission will not be accepted.

Refer all questions relative to the business aspect, Instructions to Bidders, Special Conditions, and questions concerning the technical aspect of the documents to the Director of Purchasing by email at purchasingdeptstaff@rps205.com.

ROCKFORD BOARD OF EDUCATION

By: Dane Youngblood
Director of Purchasing

HILLMAN ELEMENTARY SCHOOL BOILER UPGRADES
ROCKFORD PUBLIC SCHOOLS 205
ROCKFORD, ILLINOIS

LARSON & DARBY GROUP **ARCHITECTURE-ENGINEERING-INTERIORS**
4949 Harrison Avenue, Suite 100 P. O. Box 5207, Rockford, IL 61125-0207
815/484-0739 FAX 815.229.9867

TO: ALL BIDDERS

RE: ADDENDUM #2

Changes to Bidding Documents Dated April 13, 2020

PROJECT: HILLMAN ELEMENTARY SCHOOL BOILER UPGRADES
ROCKFORD PUBLIC SCHOOLS 205
ROCKFORD, ILLINOIS
RPS PROJECT NO.: 2058, IFB 20-46
LDG PROJECT NO.: 30050

DATE: May 1st, 2020

Please attach this Addendum to the Project Manual and Drawings for the referenced project. Take the changes to the Project Manual and Drawings into consideration in preparing your Bid.

Bidders shall make note in writing on Bid Form that this Addendum has been taken into consideration. Failure to do so may be sufficient cause to reject the Bid.

LARSON & DARBY GROUP

By_____
Raed Salem

This Addendum consists of 1 page, plus materials itemized herein.

I. GENERAL CLARIFICATIONS

A. The new heating plant shall be constant volume flow. System pumps shall be constant volume and therefore shall be no requirement for Variable Frequency Drives or Differential Pressure Control. Refer to revised specification section 23 90 93R.

II. ADDITIONS OR CHNAGES TO THE PROJECT MANUAL

SECTION 23 09 93 – SEQUENCE OF OPERATIONS FOR HVAC CONTROLS

1. REPLACE with attached 23 09 93R section issued herewith.

END OF ADDENDUM #2

SECTION 23 09 93R - SEQUENCE OF OPERATIONS FOR HVAC CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 00 Information for Bidders, and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes control sequences for HVAC systems, subsystems, and equipment.

B. Related Sections include the following:

1. Section 230900 "Instrumentation and Control for HVAC" for control equipment and devices and for submittal requirements.

1.3 DEFINITIONS

A. DDC: Direct digital control.

1.4 BOILERS (HEATING WATER RESET CONTROL) AND HW CIRCULATING PUMPS (PRIMARY/SECONDARY):

A. The DDC controller shall enable the hot water system at an outside air temperature below 60°F (adjustable) during occupied mode, below 50°F (adjustable) during unoccupied mode or as required by system demands. Heating water supply temperature set point shall be in accordance with an outdoor air reset schedule (adjustable): 110°F heating supply water at 60°F outside air and 180°F at -10°F.

B. Secondary Pumps: The lead hot water system pump shall start by a signal from the DDC controller. If the lead hot water system pump is started and no flow is proven, signal alarm and start lag hot water system pump. The DDC controller shall automatically switch the lead/lag pump every 14 days (adjustable).

C. Each boiler shall have an associated run around pump, which will operate whenever the boiler is in operation. The boilers control panel (provided by the boiler manufacturer) shall automatically switch lead/lag boiler and associated pump every 30 days (adjustable). Once flow is proven at the secondary pump, if the hot water supply temperature is less than set point temperature, the boilers shall be enabled by a signal from the DDC controller. The boiler control panel shall sequence the boilers as required by the system demand. The lead boiler internal controller shall start the associated pump. If no flow is proven, the boiler shall be disabled and an alarm shall be generated. The lag boiler shall then be enabled.

D. Once flow is proven for both the secondary pump and primary pump, the boiler controller shall start the lead boiler to maintain the hot water supply temperature set point. The DDC controller

shall receive inputs from the supply and return temperature transmitters provided by the TCC and installed in the supply and return main pipes by the mechanical contractor.

E. The boiler manufacturer shall provide interface boiler capacity modulation. As system demand increases, the DDC controller shall start the primary pump and associated boiler in sequence, for example, Boiler No. 1, then Boiler No. 2 and monitor/stage firing for both boilers. As system demand decreases, stop boiler and associated pump in reverse order until only the lead boiler and primary pump are in operation.

F. Once in operation, the boilers individual operating and safety controls shall be in place for proper firing. The DDC controller shall signal alarm upon boiler failure and enable the second boiler.

G. The boiler(s) will continue to operate until shut down either manually or by remote control. Failure of any piece of equipment shall result in immediate shut down of that equipment, and associated equipment, and indication of the alarm. Failure alarms shall be manually reset by the operator.

H. Refer to Specifications for equipment furnished controls.

I. Boiler and pump flow switch(es) shall be furnished by the TCC, installed by the M.C. and wired by the T.C.C. If system is enabled and no flow is proven, alarm shall be issued and the boilers shall be disabled.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 23 09 93R