



# TOWN of BROOKLINE

*Massachusetts*

## BUILDING DEPARTMENT

Daniel Bennett  
Building Commissioner

TO: Selectboard/ School Committee

FROM: Ray Masak, PE Project Manager

SUBJECT: High School Expansion Project – Deferred Maintenance  
NB Kenney Change Order No. 4 (FY 21)

DATE: November 8, 2021

On the Calendar this week, the Building Department has submitted a request for Change Order (CO) for \$18, 413. This CO involves 2 items as outlined in the attached Hill memo dated November 3, 2021.

The subject project was approved as part of the High School Project and was designed by Willian Rawn Associates. The contract is underway and is expected to be completed by the end of November 2021.

The Building Department is available to answer any questions you may have. Thank you for your consideration.

PURCHASE ORDER CHANGE FORM

INVOICE DATE: 03-Nov-21

TO:	N B Kenney Company, Inc 68 Barnum Road Devens MA 01434
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Purchase Order Number
21201437

Vendor Number
59874

PAYMENT AMOUNT
\$18,413.00

BUDGET 3,075,000.00  
BALANCE 3,318,868.61

FUND	ORGANIZATION	ACTIVITY	OBJECT
	2594C204		6C0002

FOR: Tappan Gym - Deferred Maintenance

Change Order #	Date	
4	11/3/2021	Wiring Changes

AMOUNT  
\$18,413.00

BUILDING COMMISSION

APPROVAL OF:

Janet Fierman, Chairman

George Cole

Kenneth Kaplan

Karen Breslawski

Nathan E. Peck

SELECT BOARD

APPROVAL OF:

Heather Hamilton, Chairman

Raul Fernandez

Bernard Greene

John VanScoyoc

Miriam Aschkenasy

SCHOOL COMMITTEE

APPROVAL OF:

Samuel Rippin, Assistant Superintendent For Administration and Finance

**HILL**  
**Hill International**

Hill International, Inc.  
75 Second Avenue, Suite 300  
Needham, MA 02494  
Tel: 617-778-0900  
Fax: 617-778-0999  
www.hillintl.com

November 3, 2021

Mr. Ray Masak, P.E.  
Project Manager  
Town of Brookline Building Department  
333 Washington Street  
Brookline, MA 02445

RE: Recommendation to approve NB Kenney Change Order 004

Dear Mr. Masak:

NB Kenney is submitting original copies of Change Order 004 for the Brookline High School Deferred Maintenance Project for acceptance by the Town of Brookline (ToB). Hill and WRA have previously reviewed, negotiated where applicable, and agree that all items listed in this Change Order are fair, reasonable for the described scope of work, and are compensable adjustments to the Lump Sum Contract. This change order is an additional cost funded from Owner' Hard Cost Contingency total **\$18,413.00**.

The PCO is categorized as follows:

- (2) PCO results from Design Omission regarding the electrical work for the Chillers and ACCU 2-5.

An itemized summary is following:

PCO#	Description	Current Amount	Reason
5	Change wire for replacement of the solenoid valves from 24v to 115v for new Chillers per RFI 18	\$11,339.00	Design Omission
6	Electrical work for ACCU 2-5 (T&M Work) - Change wire for ACCU 2, 3, 4 and 5 from 408 to 208v in response to RFI 19	\$7,074.00	Design Omission

Based on the above, Hill recommends to ToB approval of Change Order 004 to NB-Kenney lump sum contract.

Very truly yours,



Andy Vo, PMP, CCM, LEED AP, MCPPO  
Sr. Project Manager



# AIA Document G701™ – 2017

## Change Order

**PROJECT: (name and address)**

Brookline High School  
115 Greenough Street  
Brookline, MA 02445

**OWNER: (name and address)**

Town of Brookline - Represented by  
The Brookline Building Commission  
333 Washington Street  
Brookline, MA 02445

**CONTRACT INFORMATION:**

Contract For: Deferred Maintenance  
Expansion Project

**ARCHITECT: (name and address)**

William Rawn Associates, Architects, Inc.  
10 Post Office Square  
Boston, MA 02109

**CHANGE ORDER INFORMATION:**

Change Order Number: 4  
Date: November 03, 2021

**CONTRACTOR: (name and address)**

N.B. Kenney Company, Inc.  
68 Barnum Road  
Devens, MA 01434

The Contract is changed as follows:

*(Insert a detailed description of the change and, if applicable, attach or reference specific exhibits. Also include agreed upon adjustments attributable to executed Construction Change Directives.)*

NBK PCO # 005 - Change wire for replacement of the solenoid valves from 24v to 115v for new Chillers per RFI 18: **\$11,339.00**

NBK PCO # 006 - Change wire for ACCU's 2, 3, 4 and 5 from 408v to 208v in response to RFI 19: **\$ 7,074.00**

The original (Contract Sum) (Guaranteed Maximum Price) was	\$	<u>3,075,000.00</u>
The net change by previously authorized Change Orders	\$	<u>243,640.61</u>
The (Contract Sum) (Guaranteed Maximum Price) prior to this Change Order was	\$	<u>3,318,640.61</u>
The (Contract Sum) (Guaranteed Maximum Price) will be (increased) (decreased) (unchanged) by this Change Order in the amount of	\$	<u>18,413.00</u>
The new (Contract Sum) (Guaranteed Maximum Price), including this Change Order, will be	\$	<u>3,337,053.61</u>
The Contract Time will be <del>(increased)</del> <del>(decreased)</del> (unchanged) by		( 0 ) days.
The new date of Substantial Completion will be		Remains Unchanged

*NOTE: This Change Order does not include adjustments to the Contract Sum or Guaranteed Maximum Price, or the Contract Time, that have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.*

**NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.**

WRA Architects, Inc.  
ARCHITECT (Firm name)

SIGNATURE

Andrew Jonic - Project Architect  
PRINTED NAME AND TITLE

11/3/21

DATE

N.B. Kenney Company, Inc.  
CONTRACTOR (Firm name)

SIGNATURE

Robert W. Dejadon - Vice President  
PRINTED NAME AND TITLE

11/03/2021

DATE

Town of Brookline  
OWNER (Firm name)

SIGNATURE

Raymond D. Masak - Project Manager  
PRINTED NAME AND TITLE

DATE

**CAUTION:** You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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## Change Order Proposal Cost Summary

<b>Job Number:</b>	020-025	<b>Job Name:</b>	Brookline High School - Deffered Maintenance	
<b>Proposed Change Order Request No.:</b>	PCO-005	115 Greenough Street, Brookline MA 02445		
<b>Description of Change:</b>	Costs associated with the wiring of new 115 Volt solonids per RFI # 18 and response/direction to proceed.			
<b>Exclusions:</b>				<b>MATERIALS &amp; EXPENSES</b>
<b>Labor - DESCRIPTION OF COSTS:</b>		<b>LABOR COSTS</b>		
		<b>HOURS</b>	<b>DIRECT</b>	<b>BURDEN TOTAL</b>
Engineering		0	\$96.13	\$15.80 \$0.00
Pipefitter - Journeymen	REGULAR RATE	0	\$96.13	\$15.80 \$0.00
Pipefitter - Foreman	REGULAR RATE	4	\$104.46	\$17.19 \$486.60
Pipefitter - Supervisor	REGULAR RATE	0	\$107.88	\$18.02 \$0.00
Pipefitter - Supervisor	Overtime @ 1.5			0.00
Pipefitter - Journeymen	Overtime @ 1.5			0.00
Pipefitter - Foreman				0.00
Pipefitter - Supervisor				0.00
Trucking				0.00
<b>LABOR TOTAL:</b>				\$486.60
				\$ -
Consumables				0.0%
Material Costs				0.00
Equipment Costs - Crane				0.00
				0.00
<b>MATERIAL &amp; EQUIPMENT SUBTOTAL:</b>				0.00
Sales Tax 6.25% (if applicable)				
<b>TOTAL MATERIAL &amp; OTHER:</b>				0.00
<b>LABOR TOTAL:</b>				486.60
<b>TOTAL RAW COST:</b>				486.60
Brothers Electrical - See attached				10,106.46
Trucking				
<b>Subcontractor Sub-Total</b>				10,106.46
<b>SUMMARY</b>				
	N.B. Kenney Direct Costs			486.60
	NBK Overhead & Profit on Direct Costs @ 15%			72.99
	Subcontractor Direct Costs			9,187.69
	Subcontractor Overhead & Profit on Direct Costs @ 10%			918.77
	NBK Overhead & Profit on Subcontractors @ 5%			505.32
	<b>TOTAL COSTS</b>			<b>11,171.37</b>
Bond Costs at 1.5%:				167.57
<b>Round off to nearest dollar</b>				<b>0.06</b>
<b>TOTAL PRICE FOR THIS CHANGE:</b>				<b>\$11,339.00</b>
This PCO labor is based on: <input checked="" type="checkbox"/> YES <b>Straight Time</b> <input type="checkbox"/> NO <b>Overtime</b>				
Schedule Impact due to Change is: <input type="text" value="0"/> <b>Work Days</b>				

*This proposal is based on current market costs and conditions.*

*If the approval of this change is delayed to a point where changes occur in our costs and/or conditions, we reserve the right to cancel or modify this change order accordingly.*

**Submitted By:** Robert W. Dejadon

**Signature:** Robert W. Dejadon

**Date:** 10/7/2021

## Subcontractor COR Proposal Form

Sub-Contractor Name:	<b>Brothers Electrical Corporation</b>
COR Number	2
Date:	9/14/2021
Description of Work:	<b>Running Conduit and wiring of Solenoids for RTUS</b>

Cost of the Work					
	Labor		Hrs	Rate	Total
	Foreman	Premuim	16.0	\$150.85	\$2,413.60
	Journeyman	Premuim	16.0	\$142.29	\$2,276.64
	Foreman		8.00	\$100.57	\$804.56
	<b>TOTAL LABOR</b>				<b>\$5,494.80</b>
	<b>Materials</b>	<b>Qty</b>	<b>Unit</b>	<b>\$/Unit</b>	<b>Total</b>
	Lump Sum (see attached)	1.0	1	\$1.00	\$2,044.45
					\$0.00
					\$0.00
	<b>TOTAL MATERIALS</b>				<b>\$2,044.45</b>
	<b>Supplemental Costs</b>				
	Insurance & Payroll Taxes on Labor (30%)			30%	\$1,648.44
	<b>Overhead and Profit</b>				
	Cost of Work excluding Subcontractor Costs				\$9,187.69
	10% Markup for Overhead and Profit			10%	\$918.77
	<b>Total</b>				
	<b>TOTAL AMOUNT</b>				<b>\$10,106.46</b>







BROTHERS ELECTRICAL

Job ID: JOB-0796  
Project: Brookline Deferred Maintenance

CO: WIRING OF SOLENIODS : Wiring of Soleniods

Vendor: GB\_BOSTON 14 Sep 2021 13:52:42

Phase: FIXTURES

Item #	Qty	U/	Q/M	Size	Description	Material Unit	Material Result
10047	500.00	FT	M	3/4	EMT	1.7865	893.25
160020	60.00	EA	M	3/4	MINERALLAC HANGERS W/BOLT	0.5700	34.20
30127	20.00	EA	M	3/4	EMT STEEL-SS COUPLING	0.4992	9.98
150398	3.00	EA	M	2" DEEP	2G ALUM WP (BELL) BOX W/ 3 x 1/2"HUBS	10.8705	32.61
140594	3.00	EA	M		2G WP BLANK PLATE	1.6341	4.90
50074	30.00	FT	M	3/4	LIQUIDTITE CONDUIT	2.6570	79.71
50024	5.00	EA	M	3/4	FLEX COND ANGLE CONN	1.8760	9.38
50035	10.00	EA	M	3/4	FLEX COND STRAIGHT CONN	0.9892	9.89
70029	3,000.00	FT	M	12	THHN/THWN CU (SOL)	0.3235	970.53
260105	5.00	EA	M	1/2	BLACK IRON CLOSE NIPPLE	0.0000	0.00
Phase Totals:							2,044.45
Job Totals:							2,044.45

Brothers Electrical Corp

Phone:  
Web:





## N.B. Kenney Company, Inc.

68 Barnum Road  
Devens, MA 01434  
Tel: 978-849-5200

## Request for Information

RFI Number: 18  
Date: 08/26/2021  
Page 1

To:  
Hill International  
75 Second Ave  
Needham, MA 0249  
Attn: Andy Vo

Job: 20025 - Brookline HS Deferred  
Title: ACCUSolenoid Valve Wiring

Requested By:	Phone:	E-mail:
Robert Dejadon	(978) 849-5200	rdejadon@nbkenney.com

### Question(s):

We are hereby submitting the following questions for your response. These issues have potential time and cost impacts. Reference is made to the New Trane Chillers Taged ACCU-6, ACCU-7 & ACCU-8. ACCU-6 is a RAUJ-C30 and ACCU's 7 & \* are RAUJ-C50 units. These new units replaced old existing units. The old unit solenoid valves were 24V, the existing plastic pipe and wire is all for a low voltage application.

Your attention is directed to the attached documents regarding the aforereferenced units, the 1st page is the front page of the Installation, Operation & Maintenance Manual, this is provided so that there is no confusion regarding referenced material. The 2nd attachment page to this RFI is page 66 of this manual; the 3rd and 4th pages are a wiring schematic of the units controls.

The 2nd attachment of this RFI in part pertains to the controls wiring - 115V, there is a list of several items that require 115V power if utilized, the last item in that column is "Liquid line solenoid valve" which requires a 115V connection in lieu of a 24V connection.

The quickest and least expensive to this problem is to install new wire of the appropriate gauge into Cantex Schedule 40 PVC conduit with Cantex fittings and water tight connections. Please review and advise on how we are to proceed with this work.

### Response:

RFS takes no exception to the NBK proposed solution. Ensure to coordinate all electrical requirements with electrical contractor.

RFS Response by: Eric Bernow

RFS Engineering, P.C.

Date: 08/27/2021

### Requested By:

*Robert W. Dejadon*

Robert Dejadon  
N.B. Kenney Company, Inc.

Andy Vo  
Hill International



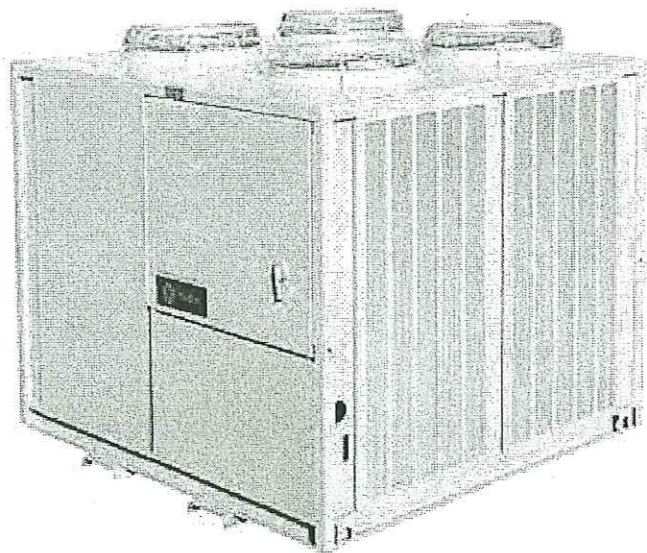
# Installation, Operation, and Maintenance

## Split System

Cooling Condensers — 20 to 120 Tons

Remote Chillers — 20 to 120 Tons

RAUJ-C20  
RAUJ-C25  
RAUJ-C30  
RAUJ-C40  
RAUJ-C50  
RAUJ-C60  
RAUJ-C80  
RAUJ-D10  
RAUJ-D12



### ⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.





## Installation Electrical

### **⚠ WARNING**

#### **Proper Field Wiring and Grounding Required!**

Failure to follow code could result in death or serious injury.

All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in NEC and your local/state electrical codes.

Before installing any connecting wiring, see drawings Dimensions and Weights chapter for the electrical access locations provided on the unit. Install appropriately sized control wiring for the 115 volt electrical components as required by the application.

Since the unit-mounted 115V control power transformer (1T1) is provided on all units, it is not necessary to run a separate 115 volt control power source to the unit.

*Note: All 200/230V units are shipped with transformer 1T1 wired for 200 volt operation. If the unit is to be operated on a 230V power supply, rewire the transformer as shown on the unit schematic.*

*Note: All field wiring must conform to NEC guidelines as well as state and local codes.*

#### **Controls Wiring — 115 VAC**

### **⚠ WARNING**

#### **Hazardous Voltage!**

Failure to disconnect power before servicing could result in death or serious injury.

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized.

Install appropriately sized 115 volt control wiring for the electrical components as required by the application.

These components may include:

- Hot gas bypass solenoid wiring
- Supply fan interlock and control circuit
- System control switch wiring ("No Control" units)
- Step controller wiring ("No Control" units)
- Chilled water pump interlock wiring (EVP units)
- Chilled water flow switch wiring (EVP units)
- Outside air thermostat wiring (EVP units)
- Liquid line solenoid valve(s)

### **Supply Fan Interlock**

#### **Control Options Utilizing an Air Handler**

The normally open evaporator fan interlock auxiliary contacts and the evaporator fan controls; system On/Off switch, fan starter/contact, and overloads, must be wired as illustrated in the appropriate interlock connection wiring diagram for the specified application.

#### **EVP Flow control (6S58)**

The flow switch is a binary output device and must be wired within the interlock circuit. Before installing the control wiring, refer to the remote panel illustration for the electrical access into the panel. Refer to the field connection diagram for the specific connection points inside the remote panel.

#### **EVP Circulating Pump Interlock**

Pump operation and sequence is the responsibility of the installer. During compressor operation, the fluid flow through the chiller must be maintained. The field provided; ON/OFF switch, pump starter/contact, auxiliary contacts and overloads (OLs) must be installed as part of the system's interlock circuit to disable the compressors in the event the circulating pump shuts down or is turned off.

*Note: Due to the location of the 5S1 switch within the circulating pump control circuit, it can be used as a system ON/OFF switch.*

#### **Outside Air Thermostat (5S57)**

A field provided outside air thermostat must be installed within the interlock circuit to prevent the system from operating below its workable temperature range. Before installing the control wiring, refer to the remote panel illustration for the electrical access into the panel. Refer to the field connection diagram for the specific connection points inside the remote panel. Refer to the "EVP Chiller Controls" section for temperature requirements.

#### **Hot Gas Bypass (All control options)**

If hot gas bypass is required, refer to the "Refrigerant Piping" illustration for supporting equipment tubing connections. Refer to the specific control option field connection diagram terminal connections for the hot gas bypass solenoid coils.

### **Controls Wiring — 24 VAC**

### **⚠ WARNING**

#### **Hazardous Voltage!**

Failure to disconnect power before servicing could result in death or serious injury.

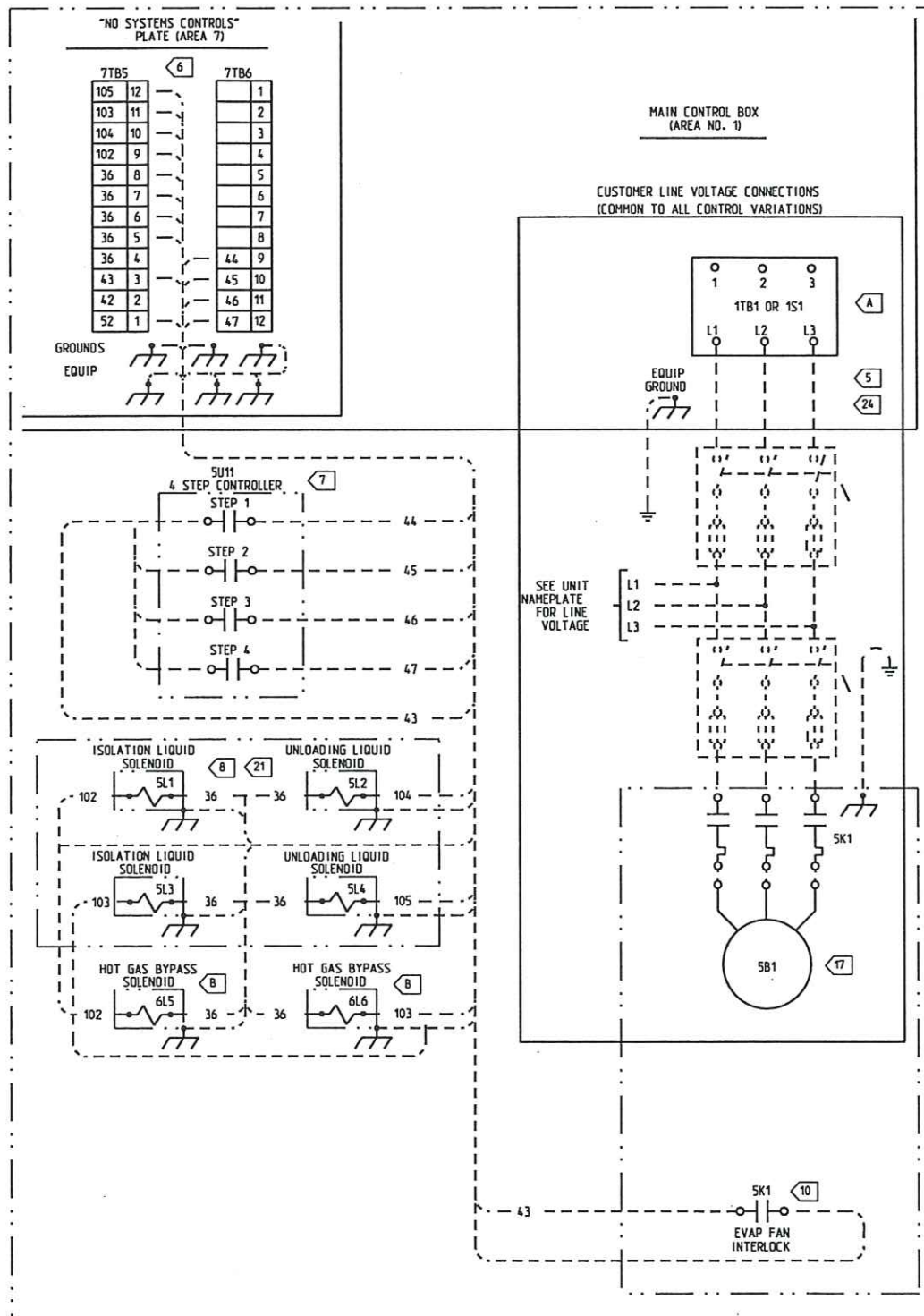
Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized.





## Installation Electrical

Figure 46. Field connection diagram RAUJ 20 to 60 tons



**Figure 47. Field connection diagram RAUJ 20 to 60 tons — all system controls**
**NOTE:**

1. ALL WIRING AND COMPONENTS SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES.
2. ALL WIRING TO BE N.E.C. CLASS 1 UNLESS OTHERWISE SPECIFIED.
3. CAUTION -- DO NOT ENERGIZE UNIT UNTIL CHECK-OUT AND START-UP PROCEDURES HAVE BEEN COMPLETED.
4. ALL THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASE FAILURE CONDITIONS.
5. SEE TABLE OF ACCEPTABLE WIRE SIZES FOR CONNECTION TO MAIN UNIT TERMINAL BLOCK (1TB1) OR DISCONNECT SWITCH (1S1).
6. SIZE CONTROL WIRING SUCH THAT TOTAL WIRE RESISTANCE OF THE RUN DOES NOT EXCEED 6 OHMS. SEE TABLE FOR WIRE SELECTION.
7. 4 STEP CONTROLLER (5U11) MIN. RATING - N.O. CONTACTS = 150 VA INRUSH/75 VA SEALED; N.C. CONTACTS = 80 VA INRUSH/40 VA SEALED.
8. ISOLATION LIQUID SOLENOID VALVES (5L1,5L3), UNLOADING LIQUID SOLENOID VALVES (5L2,5L4) AND HOT GAS BYPASS SOLENOID VALVES (6L5,6L6) -- MAX. SOLENOID RATINGS ARE 72 VA INRUSH/30 VA SEALED.
9. CIRCULATING PUMP CONTROL CIRCUIT MAX. RATINGS ARE 240 VA INRUSH/40 VA SEALED.
10. STARTER INTERLOCK (5K1), OUTSIDE AIR T-STAT (5S57), SYSTEM ON/OFF SWITCH (5S1), STARTER OVERLOAD RELAY (5K1 OL) AND FLOW SWITCH (6S58) MIN. RATINGS ARE 250 VA INRUSH/125 VA SEALED.
12. REMOVE RESISTOR (7R5 - 7TB8-4 & 5) WHEN FIELD SUPPLIED ECONOMIZER IS REQUIRED WITH OPTIONAL VARIABLE AIR VOLUME ("VAV") CONTROLS.
13. WIRING FOR DUCT SENSOR (6RT1), CHILLER TEMP SENSOR (6RT2), DISCHARGE AIR SENSOR (6RT3) AND RETURN AIR SENSOR (6RT6) MUST BE SHIELDED CABLE AND NOT RUN IN CONDUIT WITH OTHER WIRING. FOR RUNS UNDER 500 FEET USE 16 GA (MIN) WIRE. FOR RUNS FROM 500 TO 1000 FEET USE 14 GA (MIN) WIRE. MAXIMUM RUN IS 1000 FEET. GROUND SHIELD AT ONE END ONLY.
14. SUGGESTED SYSTEM CONTROL SWITCH (5S2) FOR "VAV" CONTROLS OPTION IS CUTLER HAMMER 7580K5 SPST TOGGLE SWITCH OR EQUIVALENT.
15. WHEN NIGHT SETBACK IS REQUIRED WITH OPTIONAL "VAV", PROVIDE A CONTACT CLOSURE SUITABLE FOR A DRY CIRCUIT WITH MIN. RATING OF 125 VA/24 VAC - PILOT DUTY. REMOVE JUMPER (7TB7-4 & 5) WHEN REQUIRED.
16. OUTSIDE AIR T-STAT (5S57) IS REQUIRED ONLY WITH "EVP" OPTION - FOR LOW AMBIENT COMPRESSOR LOCKOUT.
17. CIRCUIT AS SHOWN IS FOR A CUSTOMER SUPPLIED EVAPORATOR FAN MOTOR (5B1) AND EVAP FAN STARTER (5K1). WHEN "EVP" OPTION IS REQUIRED, THIS CIRCUIT BECOMES A CIRCULATING PUMP MOTOR (5B1) AND A CIRCULATING PUMP STARTER (5K1).
18. INSTALL JUMPER (6TB9-7 & 8) WHEN HOT GAS BYPASS OPTION IS REQUIRED WITH OPTIONAL "EVP". INSTALL HOT GAS BYPASS SOLENOID VALVE (6L5) AS SHOWN.
19. WHEN DUCT SENSOR (6RT1) IS REQUIRED, REMOVE RESISTOR (7R1 FROM 7TB8-5 & 6).
20. CUSTOMER SUPPLIED HEATER CONTACTOR CONTROL CIRCUIT - 120V/240V/1PH MAX RATING = 750VA INRUSH, 75VA SEALED; 24V/1PH MAX RATING = 240VA INRUSH, 60VA SEALED.
21. ISOLATION LIQUID SOLENOID VALVES (5L1,5L3) ARE REQUIRED FOR CHARGE ISOLATION (PROVIDED & INSTALLED BY THE FIELD). UNLOADING LIQUID SOLENOID VALVES (5L2,5L4), IF APPLICABLE, ARE PROVIDED & INSTALLED BY THE FIELD.
22. CAUTION - DO NOT RUN LOW VOLTAGE WIRE (30 VOLTS MAXIMUM) IN CONDUIT OR RACEWAY WITH HIGHER VOLTAGE WIRE.
23. THE FOLLOWING CAPABILITIES ARE OPTIONAL - THEY ARE IMPLEMENTED & WIRED AS REQUIRED FOR A SPECIFIC APPLICATION.
  - A. UNIT DISCONNECT SWITCH - NON FUSED (AVAILABLE ON ALL CONTROL OPTIONS)
  - B. HOT GAS BYPASS (AVAILABLE ON ALL CONTROL OPTIONS)
  - G. RETURN AIR SENSOR (AVAILABLE WITH "CONSTANT VOLUME" CONTROL)
  - T. FLOW SWITCH (AVAILABLE WITH "EVP" CONTROL)
24. SUPPLY CONDUCTORS MUST BE SIZED PER AMPACITIES BASED ON 60 °C WIRE.

**IMPORTANT!**  
DO NOT ENERGIZE  
UNIT UNTIL CHECK-OUT  
AND START-UP PROCEDURE  
HAS BEEN COMPLETED

**From:** [Ray Masak](#)  
**To:** [Vo, Andy](#); [Robert Dejadon](#)  
**Cc:** [Chris Aubin](#); [Mark Borreliz](#); [Alex Mason](#); [Kalous, Paul](#); [joejr@brotherselectricalcorp.com](#); [Charlie Simmons](#); [Mark Sacco](#); [Hal Mason](#)  
**Subject:** [EXTERNAL] Re: RFI # 18  
**Date:** Friday, August 27, 2021 7:31:32 AM

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we have administrators and teachers here on Monday ...proceed accordingly

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**From:** Vo, Andy <[AndyVo@hillintl.com](mailto:AndyVo@hillintl.com)>  
**Sent:** Thursday, August 26, 2021 6:11 PM  
**To:** Robert Dejadon <[rdejadon@nbkenney.com](mailto:rdejadon@nbkenney.com)>  
**Cc:** Ray Masak <[rmasak@brooklinema.gov](mailto:rmasak@brooklinema.gov)>; Chris Aubin <[CAubin@rawnarch.com](mailto:CAubin@rawnarch.com)>; Mark Borreliz <[mborreliz@rawnarch.com](mailto:mborreliz@rawnarch.com)>; Alex Mason <[amason@rfsengineering.com](mailto:amason@rfsengineering.com)>; Kalous, Paul <[PaulKalous@hillintl.com](mailto:PaulKalous@hillintl.com)>; joejr@brotherselectricalcorp.com <[joejr@brotherselectricalcorp.com](mailto:joejr@brotherselectricalcorp.com)>  
**Subject:** Re: RFI # 18

Chris,

Please ask RFS to respond ASAP. I agreed that the electrical work should be on T&M.

Andy

On Aug 26, 2021, at 6:04 PM, Robert Dejadon <[rdejadon@nbkenney.com](mailto:rdejadon@nbkenney.com)> wrote:

Attached is RFI # 18 which was referenced in the update sent earlier today, this is extremely HOT, we cannot start the roof equipment until this is resolved. There is not sufficient time to issue a Bulletin and price this work, I believe that directing the electrician to proceed on T&M is the best way to ensure it is done quickly with the owner able to monitor the controlled costs. This work is on the roof and will not impact the classrooms however, it will have a significant impact on the administrative offices and areas serviced by these RTU/ACCU's.

The invite for tomorrow's commissioning meeting will be sent shortly, If I missed anyone on this email please forward it to the appropriate people and accept my apology, Christine is out this week and it may not be posted to Share File until she returns.



Respectfully,

*Robert W. Dejadon*

Robert W. Dejadon | Vice President | [rdejadon@nbkenney.com](mailto:rdejadon@nbkenney.com)  
N.B. KENNEY COMPANY, INC. | 68 Barnum Road, Devens, MA 01434  
Office: (978) 849-5200 Ext. #134 | Cell: (978) 423-0427 | Fax: (978) 772-2485

<image001.png>

<RFI # 18 - Solenoid Valves.pdf>

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## Change Order Proposal Cost Summary

Job Number:	020-025	Job Name:	Brookline High School - Deffered Maintenance	
Proposed Change Order Request No.:	PCO-006	115 Greenough Street, Brookline MA 02445		
Description of Change:	Costs associated with running new wire and changing existing 408 3 phase power to ACCU's 2,3,4 & 5 to 208V per RFI # 19.			
Exclusions:		<b>LABOR COSTS</b>		<b>MATERIALS &amp; EXPENSES</b>
Labor - DESCRIPTION OF COSTS:	HOURS	DIRECT	BURDEN	TOTAL
Engineering	0	\$96.13	\$15.80	\$0.00
Pipefitter - Journeymen	0	\$96.13	\$15.80	\$0.00
Pipefitter - Foreman	3	\$104.46	\$17.19	\$364.95
Pipefitter - Supervisor	0	\$107.88	\$18.02	\$0.00
Pipefitter - Supervisor	Overtime @ 1.5			0.00
Pipefitter - Journeymen	Overtime @ 1.5			0.00
Pipefitter - Foreman				0.00
Pipefitter - Supervisor				0.00
Trucking				0.00
<b>LABOR TOTAL:</b>				\$364.95
				\$ -
Consumables				0.0%
Material Costs				0.00
Equipment Costs - Crane				0.00
				0.00
<b>MATERIAL &amp; EQUIPMENT SUBTOTAL:</b>				0.00
Sales Tax				6.25% (if applicable)
<b>TOTAL MATERIAL &amp; OTHER:</b>				0.00
<b>LABOR TOTAL:</b>				364.95
<b>TOTAL RAW COST:</b>				364.95
Brothers Electrical - See attached				6,237.35
Trucking				
<b>Subcontractor Sub-Total</b>				6,237.35
<b>SUMMARY</b>				
	N.B. Kenney Direct Costs			364.95
	NBK Overhead & Profit on Direct Costs @ 15%			54.74
	Subcontractor Direct Costs			5,670.41
	Subcontractor Overhead & Profit on Direct Costs @ 10%			567.04
	NBK Overhead & Profit on Subcontractors @ 5%			311.87
	<b>TOTAL COSTS</b>			<b>6,969.01</b>
Bond Costs at 1.5%:				104.54
Round off to nearest dollar				0.45
<b>TOTAL PRICE FOR THIS CHANGE:</b>				<b>\$7,074.00</b>
This PCO labor is based on: <input checked="" type="checkbox"/> YES <b>Straight Time</b> <input type="checkbox"/> NO <b>Overtime</b>				
Schedule Impact due to Change is: <input type="text" value="0"/> <b>Work Days</b>				

*This proposal is based on current market costs and conditions.*

*If the approval of this change is delayed to a point where changes occur in our costs and/or conditions, we reserve the right to cancel or modify this change order accordingly.*

Submitted By: Robert W. Dejadon

Signature: Robert W. Dejadon

Date: 10/8/2021



## N.B. Kenney Company, Inc.

68 Barnum Road  
Devens, MA 01434  
Tel: 978-849-5200

## Request for Information

RFI Number: 19  
Date: 08/31/2021  
Page 1

To:  
Hill International  
75 Second Ave  
Needham, MA 0249  
Attn: Andy Vo

Job: 20025 - Brookline HS Deferred  
Title: Power to ACCU-2, 3, 4 and 5

Requested By:	Phone:	E-mail:
Robert Dejadon	(978) 849-5200	rdejadon@nbkenney.com

### Question(s):

*We are hereby submitting the following questions for your response. These issues have potential time and cost impacts.*  
I want to start this RFI by making a statement so everyone can clearly understand the problem. Interior units such as UV's, HP's AHU's and their exter counter parts (condensers) outside the building are always the same voltage. For example UV-1 is 460/3/60 and ACCU-1 is also 460/3/60, to the best of my knowledge this is typical of all equipment.

Reference is made to the Mechanical Schedule on M5.01.F specifically UV-2, 3, 4 & 5 along with their associated ACCU's tagged ACCU-2, 3, 4 & 5. The Unit Ventilators and their associated Air Cooled Condensing units specified are to be 208/1/60. The electrical contractor is to disconnect the old units and reconnect the new units to the existing circuit. This has worked fine until ACCU-2, 3, 4 & 5, the UV-s are 208/1/60 however the condensers are 460/3/60 which means the existing circuits cannot be utilized.

In order to maintain schedule N.B. Kenney is directing the electrical contractor to proceed with replacing the existing wire and running it to a proper 208 circuit on a T&M basis. While there may be a couple of different solutions to the problem such as install step-down transformers we feel that this is the most reliable cost efficient and expeditious way to get these units connected and running.

Please review and advise if this solution is acceptable.

### Remarks/Suggestions:

Please respond by: 08/31/2021

Requested By: *Robert W. Dejadon*

Robert Dejadon  
N.B. Kenney Company, Inc.

Andy Vo  
Hill International





## N.B. Kenney Company, Inc.

68 Barnum Road  
Devens, MA 01434  
Tel: 978-849-5200

## Request for Information

RFI Number: 19  
Date: 08/31/2021  
Page 2

### Answer(s):

*(For your convenience, you can "Reply" to the email with your response.)*

#### Response:

RFS takes no exception to replacing the existing wire with new wire and running circuits to a appropriate 208V panel.

RFS Response by: Eric Bernow / Phil Carter

RFS Engineering, P.C.

Date: 09/07/2021

Please respond by: 08/31/2021

#### Requested By:

Robert Dejadon  
N.B. Kenney Company, Inc.

Andy Vo  
Hill International

## Subcontractor COR Proposal Form

Sub-Contractor Name:	<b>Brothers Electrical Corporation</b>
COR Number	4
Date:	9/14/2021
Description of Work:	RFI#19- ACCU's 2,3,4,5 coverting to 208V

Cost of the Work					
	Labor		Hrs	Rate	Total
	Foreman Premium		10.0	\$150.85	\$1,508.50
	Journeyman Premium		10.0	\$142.29	\$1,422.90
	Foreman		3.0	\$100.57	\$ 301.71
	Journeyman		3.0	\$94.86	\$ 284.58
	<b>TOTAL LABOR</b>				<b>\$3,517.69</b>
	<b>Materials</b>	<b>Qty</b>	<b>Unit</b>	<b>\$/Unit</b>	<b>Total</b>
	Lump Sum (see attached)	1.0	1	\$1.00	1,097.41
					\$0.00
					\$0.00
	<b>TOTAL MATERIALS</b>				<b>\$1,097.41</b>
	<b>Supplemental Costs</b>				
	Insurance & Payroll Taxes on Labor (30%)			30%	\$1,055.31
	<b>Overhead and Profit</b>				
	Cost of Work excluding Subcontractor Costs				\$5,670.41
	10% Markup for Overhead and Profit			10%	\$567.04
	<b>Total</b>				
	<b>TOTAL AMOUNT</b>				<b>\$6,237.45</b>



QTY	MATERIAL	PRICE	AMOUNT
1	gang bell box		
2	gang thase cover		
2	Red wire Nuts		
5	3/4 LT		
1	3/4 LT 90° Conn		
2	3/4 LT Connector		
2	3/4 stud clip		

DATE \_\_\_\_\_ NO \_\_\_\_\_

5215

INVOICE NO.

DATE 1-11-11  
 Customer Name  
 Address  
 City  
 State  
 Zip

Wilson Electric Corporation  
 14 and 1/2 Unit 123  
 Mount Pleasant MS 39564

and details on the order  
 call 601.451.1050



TIME

Wire Haysco and Condensers  
 on roof build stud stand to  
 support light & outlet

LABOR	HOURS	RATE	AMOUNT	TOTAL MATERIAL	TOTAL LABOR
Foreman	5.00				
Journey man	3.00				
WORKER					
TOTAL					

THANK YOU  
 PAYMENT AMOUNT



1998



## MATERIAL

ମହାବିଜୟ

AMERICAN

500-10/2 MC

五、六、七、八、九、十、十一、十二、十三、十四、十五、十六、十七、十八、十九、二十、二十一、二十二、二十三、二十四、二十五、二十六、二十七、二十八、二十九、三十、三十一、三十二、三十三、三十四、三十五、三十六、三十七、三十八、三十九、四十、四十一、四十二、四十三、四十四、四十五、四十六、四十七、四十八、四十九、五十、五十一、五十二、五十三、五十四、五十五、五十六、五十七、五十八、五十九、六十、六十一、六十二、六十三、六十四、六十五、六十六、六十七、六十八、六十九、七十、七十一、七十二、七十三、七十四、七十五、七十六、七十七、七十八、七十九、八十、八十一、八十二、八十三、八十四、八十五、八十六、八十七、八十八、八十九、九十、九十一、九十二、九十三、九十四、九十五、九十六、九十七、九十八、九十九、一百。

830 Abbeys

200. DMC Connected  
red heads

454 Daxe

Blank plates

100

115 Clarendon Way, New York, NY 10022

THE UNIVERSITY OF CHICAGO PRESS



1500

Snake and pull new 208v feeds  
for 4 Condensers into panel  
and tie in

LABOR	HOURS	RATE	AMOUNT	TOTAL MATERIAL
2500 MCM	500			TOTAL LABOR

FOR MAGN

Goodbye, Men

WORK ORDERED BY

**ADULTERATED**

100

SIGNATURE Primary account holder must have authority to bind company.

**Thank you  
for the amount**







Job ID: JOB-0796  
Project: Brookline Deferred Maintenance

CO: RFI#19- ACCU'S 2,3,4 & 5; RFI#19- ACCU's 2,3,4 & 5

Vendor: GB\_BOSTON 14 Sep 2021 9:46:49

Phase: FIXTURES

Item #	Qty	U/	Q/M	Size	Description	Material Unit	Material Result
70371	500.00	FT	M	10/2	MC CABLE- STEEL JKT W/G	1.7271	863.55
160676	100.00	EA	M	11.5"	TY-WRAP	0.3663	36.63
180549	4.00	EA	M	30/2	BOLT-ON BREAKER	36.6500	160.61
150006	4.00	EA	M	1-1/2"D	4"SQ CMB- KO NO BRKT	1.1245	4.50
150399	1.00	EA	M	2" DEEP	2G ALUM WP (BELL) BOX W/ 4 x 1/2"HUBS	12.7671	12.77
50074	5.00	FT	M	3/4	LIQUIDTITE CONDUIT	2.2238	11.12
50085	1.00	EA	M	3/4	LIQUIDTITE ANGLE CONNECTOR	4.1483	4.15
50096	1.00	EA	M	3/4	LIQUIDTITE STRAIGHT CONNECTOR	4.0758	4.08
Phase Totals:							1,097.41

Job Totals: 1,097.41

Brothers Electrical Corp

Phone:  
Web: