

North Stonington School Modernization
 297/298/311 Norwich-Westerly Road
 North Stonington, CT 06359



DCC Job #: 25-01-0345
 Architect: QA&M Architecture
 MEP Engineer: RZ Design Associates, Inc.
 Structural Engineer: Perrone & Zajda Engineers, LLC
 Civil Engineer: CLA Engineers, Inc.
 Landscape Architect: TO Design, LLC
 Food Service Consultant: Crabtree McGrath Associates, Inc.

Date: 06/22/18
 Subcontractor/ Vendor: Banton Construction Company

Downes Construction Company, LLC
 P.O. Box 727
 200 Stanley Street
 New Britain, CT 06050
 Attn: Travis Burton

Submittal Description:

Construction Manager's Stamp Area:

SUBMITTAL REVIEW

DOWNES CONSTRUCTION COMPANY, LLC

REVIEWED FOR SUBMISSION REJECTED
 TO ARCHITECT/ENGINEER

DOWNES CONSTRUCTION COMPANY'S REVIEW IS FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. MARKINGS AND/OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE TRADE CONTRACTOR FROM COMPLIANCE WITH THE CONTRACT DOCUMENTS.

BY: <u> TB </u>	DATE: <u> 6/25/2018 </u>
SPECS SECTION: <u> 262413 </u>	SUBMITTAL NUMBER: <u> 001 </u>
CONTRACT DWG. NO.: <u> 000 </u>	REVIEW NUMBER: <u> 1 </u>

Switchboards

Product Data, Shop Drawings & Manufacturer's Instructions

262413-001-002-A

Page: 489
 Paragraph: _____

First Submission:
 Resubmission #: 1

Submitted as Specified:
 Submitted as Substitution (As equal):

Elementary School: <input type="checkbox"/>	Provide submittal for EACH SCHOOL
High School/Middle School: <input checked="" type="checkbox"/>	
Board of Education: <input type="checkbox"/>	

Comments: _____

CONTRACTOR HAS DETERMINED AND VERIFIED MATERIALS, FIELD MEASUREMENTS AND FIELD CRITERIA AND HAS CHECKED AND COORDINATED THE INFORMATION CONTAINED IN THIS SUBMITTAL WITH THE REQUIREMENTS OF THE WORK AND OF THE CONTRACT DOCUMENTS AND RECOMMENDS APPROVAL BY THE CONSTRUCTION MANAGER / ARCHITECT / ENGINEER.

Architect's Stamp Area:

✗

No Exception Taken Make Corrections Noted

Rejected Revise and Resubmit
 Reviewed Provide Record Copy

Review is only for GENERAL COMPLIANCE with design and information given in contract documents. Any action shown is subject to the requirements of the PLANS and SPECIFICATIONS. Submitting contractor is responsible for, dimensions which shall be verified in the field fabrication processes, techniques of construction, coordination with other trades and satisfactory completions of his work in a safe manner.

QUISENBERRY ARCARI MALIK, LLC

DATE: 06-29-18 BY: _____

Engineer's Stamp Area (As Required):

SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS
 NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS

 X NO EXCEPTIONS TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
 REJECTED – SEE REMARKS

RZ Design Associates, Inc.

DATE 6/29/18 BY BJZ

Received Stamp Area:

RECEIVED

06-29-18

Quisenberry Arcari
Architects, LLC



Yale Electric Supply
55 Shawmut Road
Canton, MA 02021



SUBMITTAL/DRAWING REVIEW COMMENT RESPONSES

Date: Friday, June 22, 2018
Project: North Stonington HS/MS
Equipment: Switchboard

RESPONSE(S):

1. SWBD Provided 90" tall per discussions with Banton Construction
2. Pull Sections Provided
3. Electronic trip units provided on all breakers call out for in the schedule per the Addendum
4. AIC Rating Coordinated with the SCC & Arc Flash Studies
5. Contractors responsibility
6. Breakers settings to be Field Adjusted.

Sean Govey
Switchgear Project Sales
D- (617-822-6185)
Email- Sgovey@yaleelectric.com

North Stonington School Modernization
 297/298/311 Norwich-Westerly Road
 North Stonington, CT 06359



DCC Job #: 25-01-0345

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 MEP Engineer: RZ Design Associates, Inc.
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 Downes Construction Company, LLC

P.O. Box 727
 200 Stanley Street
 New Britain, CT 06050
 Attn: Travis Burton

Date: May 10, 2018

Subcontractor/ Vendor: _____
 Banton Construction Company

Submittal Description:
SWITCHBOARDS
 Product Data, Drawings & Instruction Data

Spec. Section: 262413-001-001-A

Page: 489
 Paragraph: _____

First Submission:
 Resubmission #:

Submitted as Specified:
 Submitted as Substitution (As equal):

Elementary School:
 High School/Middle School: Provide submittal for EACH SCHOOL
 Board of Education:

Comments: _____

Construction Manager's Stamp Area:

SUBMITTAL REVIEW	
DOWNES CONSTRUCTION COMPANY, LLC	
<input checked="" type="checkbox"/> REVIEWED FOR SUBMISSION	<input type="checkbox"/> REJECTED
TO ARCHITECT / ENGINEER	
DOWNES CONSTRUCTION COMPANY'S REVIEW IS FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. MARKINGS AND/OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE TRADE CONTRACTOR FROM COMPLIANCE WITH THE CONTRACT DOCUMENTS.	
BY: <u>TB</u>	DATE: <u>5/14/2018</u>
SPECS SECTION: <u>262413</u>	SUBMITTAL NUMBER: <u>001</u>
CONTRACT DWG. NO.: <u>000</u>	REVIEW NUMBER: <u>00</u>

CONTRACTOR HAS DETERMINED AND VERIFIED MATERIALS, FIELD MEASUREMENTS AND FIELD CRITERIA AND HAS CHECKED AND COORDINATED THE INFORMATION CONTAINED IN THIS SUBMITTAL WITH THE REQUIREMENTS OF THE WORK AND OF THE CONTRACT DOCUMENTS AND RECOMMENDS APPROVAL BY THE CONSTRUCTION MANAGER / ARCHITECT / ENGINEER.

Architect's Stamp Area:

RZ REVIEW COMMENTS:

1. PROVIDE 80" TALL SWITCHBOARD
2. PROVIDE INCOMING AND BRANCH PULL SECTIONS AS REQUIRED.
3. PROVIDE ELECTRONIC TRIP UNITS FOR ALL BREAKERS CALLED OUT IN THE SCHEDULES.
4. COORDINATE AIC RATING OF SWITCHBOARD WITH OVERCURRENT & ARCH FLASH ANALYSIS.
5. COORDINATE SWITCHBOARD CONFIGURATION WITH THE LOCAL UTILITY COMPANY.
6. ADJUST BREAKERS PER THE OVERCURRENT & ARCH FLASH ANALYSIS.

- | | |
|---|--|
| <input type="checkbox"/> No Exception Taken | <input checked="" type="checkbox"/> Make Corrections Noted |
| <input type="checkbox"/> Rejected | <input type="checkbox"/> Revise and Resubmit |
| <input type="checkbox"/> Reviewed | <input type="checkbox"/> Provide Record Copy |

Review is only for GENERAL COMPLIANCE with design and information given in contract documents. Any action shown is subject to the requirements of the PLANS and SPECIFICATIONS. Submitting contractor is responsible for, dimensions which shall be verified in the field fabrication processes, techniques of construction, coordination with other trades and satisfactory completions of his work in a safe manner.

QUISENBERRY ARCARI MALIK, LLC

DATE: 05-18-18 BY: _____

Engineer's Stamp Area (As Required):

SHOP DRAWING REVIEW

REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS
 NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS

- _____ NO EXCEPTIONS TAKEN
 MAKE CORRECTIONS NOTED
 _____ AMEND AND RESUBMIT
 _____ REJECTED - SEE REMARKS

RZ Design Associates, Inc.

DATE 05/15/18 BY LCP

RECEIVED

05-15-18

Quisenberry Arcari
 Architects, LLC

Project Name: North Stonington Schools-
V0880221X8K1
General Order No: LBS0019150

Negotiation No: V0880221X8K1
Alternate No: R001

Item No.	Qty	Product	Description
002	1	Switchboards	Pow-R-Line C Switchboard, Front Access/ Front and Rear Align, Type 1, 480Y/277V 3-Phase 4-Wire, 2500 Copper, Minimum Interrupting Rating: 65kA, Bus Bracing Rating: 65kA

Designation SWBD

Qty List of Materials

- 1 Pow-R-Line C
- 1 Service Entrance Label
- 1 2500 Amp CU Main Structure
- 1 2500A Utility Metering - NORTHEAST UTILITIES
- 1 Digitrip 310+ ALSIG w/ ArcFlash Reduction Maintenance System
- 2 Vertical Isol. Barrier (Service Entrance)
- 1 Horizontal Isol. Barrier (Service Entrance)
- 1 2500 Amp CU Bussed Incoming Pull Section
- 1 2500 Amp CU Distribution Structure
- 2 Digitrip 310+ LSI
- 11 Thermal Mag Trip - Standard
- 1 2500A 3P [RGH 2500A Frame], Trip 2500 A, 310+ w/ ARMS, (7) #4-500 kcmil, Mechanical, Bottom
- 2 1200A Adj, 3P [NGH 1200A Frame], Trip 1200 A, 310+, (4) 4/0-500 kcmil, Mechanical
- 1 350A 3P [HKD 400A Frame], Trip 350 A, Thermal Mag, (1) 250-500 kcmil, Mechanical
- 1 200A 3P [HFD 225A Frame], Trip 200 A, Thermal Mag, (1) #4-4/0, Mechanical
- 1 225A 3P [HFD 225A Frame], Trip 225 A, Thermal Mag, (1) #4-4/0, Mechanical
- 2 175A 3P [HFD 225A Frame], Trip 175 A, Thermal Mag, (1) #4-4/0, Mechanical
- 1 150A 3P [HFD 225A Frame], Trip 150 A, Thermal Mag, (1) #4-4/0, Mechanical
- 1 125A 3P [HFD 225A Frame], Trip 125 A, Thermal Mag, (1) #4-4/0, Mechanical
- 1 250A 3P [HJD 250A Frame], Trip 250 A, Thermal Mag, (1) #4-350 kcmil, Mechanical
- 1 100A 3P [HFD 225A Frame], Trip 100 A, Thermal Mag, (1) #14-1/0, Mechanical
- 1 80A 3P [HFD 225A Frame], Trip 80 A, Thermal Mag, (1) #14-1/0, Mechanical
- 1 600A 3P [LGH 600A Frame], Trip 600 A, Thermal Mag, (2) #2-500 kcmil, Mechanical

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Switchboard General Information

Pow-R-Line C - Specifications

Quantity: 1

Alignment: Front Access/ Front and Rear Align

Service: 480Y/277V 3-Phase 4-Wire

Minimum Interrupt Rating: 65 kA

Bus Specifications

Bus Amps: 2500

Bus Bracing Rating: 65kA

Neutral Amps: 2500

Bus Material: Copper

Heat Test

Ground Bus Material: Copper .25 X 2.0 Ground Bus Bolted To Frame, (1) #6-350 kcmil Ground Lug

Incoming Information

Incoming Entry: Bottom

Incoming Location: Left

Incoming Qty & Size: Terminals, Mechanical, Bottom, (7) #4-500 kcmil

Structure Specifications

Service Entrance

Enclosure Type: Type 1

Utility Specifications

Struct # 2

2500 Amps Util. Mtr. Compt. - NORTHEAST UTILITIES
Plant Drawing: 1C97111
Code NEU

Enclosure properties

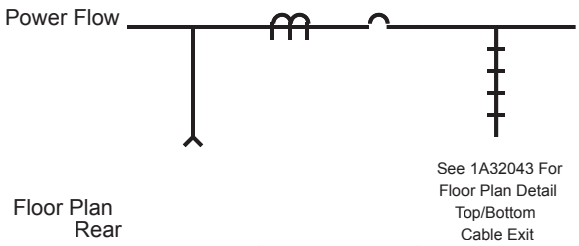
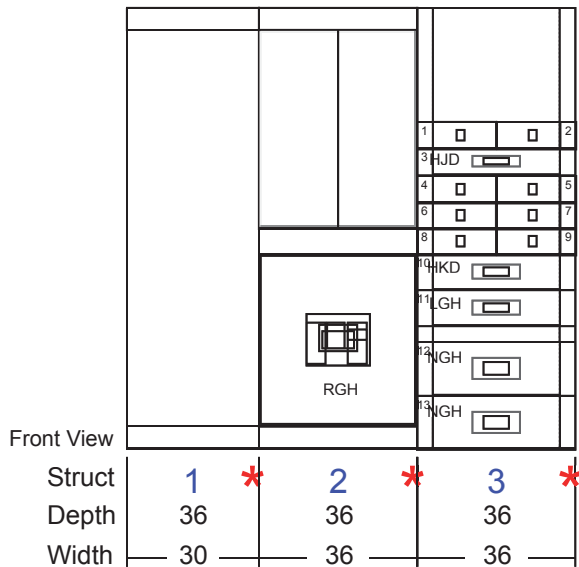
Struct #

Description/Modifications

1	Bussed pulled Structure (Incoming Utility Structures) Vertical isolating barrier
2	Incoming Utility Structures (Incoming Utility Section) Vertical isolating barrier Horizontal isolating barrier
3	50x chassis mounted feeders (Feeder Structure)

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

PREPARED BY	DATE	Eaton		SumterSC	
KENNY BRYSON	6/21/2018	JOB NAME		North Stonington Schools-V0880221X8K1	
APPROVED BY	DATE	DESIGNATION		SWBD	
VERSION		TYPE		DRAWING TYPE	
9.0.8.0		Switchboards		CustAppr	
NEG-ALT Number	REVISION	DWG SIZE	G.O.	ITEM	SHEET
V0880221X8K1-R001	0	DwgA	LBS0019150	002	1 of 4



See 1A32043 For
Floor Plan Detail
Top/Bottom
Cable Exit

Total of 3 Structures, Total Weight of 2832 Weight-Lbs.
Total of 3 Structures, Total Width of 102 Inches

Structure	1	2	3			
Ship-Inches	30.00	36.00	36.00			
Ship-MM	762	914	914			
Wdth-Inches	30.00	36.00	36.00			
Wdth-MM	762	914	914			
Depth(Inner)-In.	36.00	36.00	36.00			
Depth(Inner)-MM	914	914	914			
Depth(Outer)-In.	36.00	36.00	36.00			
Depth(Outer)-MM	914	914	914			
Height-Inches	90.00	90.00	90.00			
Height-MM	2286	2286	2286			
Weight-Lbs.(Est.)	670	1125	1037			
Weight-Kg.(Est.)	303	510	470			

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PREPARED BY KENNY BRYSON	DATE 6/21/2018	Eaton		SumterSC	
APPROVED BY	DATE	JOB NAME North Stonington Schools-V0880221X8K1	DESIGNATION SWBD		
VERSION 9.0.8.0	TYPE Switchboards	DRAWING TYPE CustAppr			
NEG-ALT Number V0880221X8K1-R001	REVISION 0	DWG SIZE DwgA	G.O. LBS0019150	ITEM 002	SHEET 2 of 4

Switchboard Units Information

Str#	Unit	Description/Modifications	Nameplate
1			
2		Main Breaker - Ind Mtd-2500A 3P [RGH 2500A Frame], Trip 2500A., 310+ w/ ARMS, ALSIG Terminals, Mechanical, (7) #4-500 kcmil, Bottom Neutral Terminal, (7) #4-500 kcmil 2500A Utility Metering - NORTHEAST UTILITIES	
3	1	Feeder Breaker - Chassis Mtd-100A 3P [HFD 225A Frame], Trip 100A., Thermal Mag Terminals, Mechanical, (1) #14-1/0 Neutral Terminal, (1) #14-1/0	
	2	Feeder Breaker - Chassis Mtd-80A 3P [HFD 225A Frame], Trip 80A., Thermal Mag Terminals, Mechanical, (1) #14-1/0 Neutral Terminal, (1) #14-1/0	
	3	Feeder Breaker - Chassis Mtd-250A 3P [HJD 250A Frame], Trip 250A., Thermal Mag Terminals, Mechanical, (1) #4-350 kcmil Neutral Terminal, (1) #6-350 kcmil	
	4	Feeder Breaker - Chassis Mtd-150A 3P [HFD 225A Frame], Trip 150A., Thermal Mag Terminals, Mechanical, (1) #4-4/0 Neutral Terminal, (1) #6-350 kcmil	
	5	Feeder Breaker - Chassis Mtd-125A 3P [HFD 225A Frame], Trip 125A., Thermal Mag Terminals, Mechanical, (1) #4-4/0 Neutral Terminal, (1) #6-350 kcmil	
	6	Feeder Breaker - Chassis Mtd-175A 3P [HFD 225A Frame], Trip 175A., Thermal Mag Terminals, Mechanical, (1) #4-4/0 Neutral Terminal, (1) #6-350 kcmil	
	7	Feeder Breaker - Chassis Mtd-175A 3P [HFD 225A Frame], Trip 175A., Thermal Mag Terminals, Mechanical, (1) #4-4/0 Neutral Terminal, (1) #6-350 kcmil	
	8	Feeder Breaker - Chassis Mtd-200A 3P [HFD 225A Frame], Trip 200A., Thermal Mag Terminals, Mechanical, (1) #4-4/0 Neutral Terminal, (1) #6-350 kcmil	
	9	Feeder Breaker - Chassis Mtd-225A 3P [HFD 225A Frame], Trip 225A., Thermal Mag Terminals, Mechanical, (1) #4-4/0 Neutral Terminal, (1) #6-350 kcmil	

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APPROVED BY	DATE	DESIGNATION	SWBD
VERSION	TYPE	DRAWING TYPE	
9.0.8.0	Switchboards	CustAppr	
NEG-ALT Number	REVISION	DWG SIZE	G.O.
V0880221X8K1-R001	0	DwgA	LBS0019150
		ITEM	SHEET
		002	3 of 4

- 10 Feeder Breaker - Chassis Mtd-350A 3P [HKD 400A Frame], Trip 350A., Thermal Mag
Terminals, Mechanical, (1) 250-500 kcmil
Neutral Terminal, (1) #4-500 kcmil

 - 11 Feeder Breaker - Chassis Mtd-600A 3P [LGH 600A Frame], Trip 600A., Thermal Mag
Terminals, Mechanical, (2) #2-500 kcmil
Neutral Terminal, (2) #4-500 kcmil

 - 12 Feeder Breaker - Chassis Mtd-1200A Adj, 3P [NGH 1200A Frame], Trip 1200A., 310+, LSI
Terminals, Mechanical, (4) 4/0-500 kcmil
Neutral Terminal, (4) #4-500 kcmil

 - 13 Feeder Breaker - Chassis Mtd-1200A Adj, 3P [NGH 1200A Frame], Trip 1200A., 310+, LSI
Terminals, Mechanical, (4) 4/0-500 kcmil
Neutral Terminal, (4) #4-500 kcmil
-

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	KENNY BRYSON	6/21/2018			
	APPROVED BY	DATE	JOB NAME	North Stonington Schools-V0880221X8K1 SWBD	
		DESIGNATION			
	VERSION	TYPE	DRAWING TYPE		
	9.0.8.0	Switchboards	CustAppr		
NEG-ALT Number	REVISION	DWG SIZE	G.O.	ITEM	SHEET
V0880221X8K1-R001	0	DwgA	LBS0019150	002	4 of 4