

Request Phase Pre-Bid Post Bid (See Article 15 Materials: Standards, General Conditions)
 (If Pre-bid only) Current Bid Due Date: _____ Request No.: _____ Dated: _____
 To: State of Connecticut CTDCS Project No.: _____
 Department of Construction Services Project Name / Location: _____

References:	Specification(s): _____	Section(s): _____	Paragraph(s): _____
	Drawing(s): _____	Drawing(s) No(s): _____	Detail(s) No(s): _____
Contractually Specified Product: _____			
Contractor Proposed Product: _____			
Proposed Product is : Equal: <input type="checkbox"/> Substitute: <input type="checkbox"/> Model No.: _____			
<i>See attached data for both specified and proposed products as required by Article 15 General Conditions.</i>			
Data attached:	Drawings: <input type="checkbox"/>	Product Data: <input type="checkbox"/>	Reports: <input type="checkbox"/> Samples: <input type="checkbox"/>
	Tests: <input type="checkbox"/>	Other: _____	
Reason(s) for not providing the Specified Product: _____ _____			
Similar Installation:			
Project: _____		Architect: _____	
Address: _____		Owner: _____	
Date Installed: _____			

Will proposed substitution impact other parts of the Work? No <input type="checkbox"/> Yes <input type="checkbox"/> <i>If yes attach explanation.</i>	
Will proposed substitution increase Contract Time? No <input type="checkbox"/> Yes <input type="checkbox"/> <i>by number of Days</i> _____	
Actual Dollar Savings to the State of Connecticut if substitution is accepted: \$ _____	
The Undersigned Certifies that the proposed Request for an Equal or Substitute Product conforms to all of the requirements of Division 01 General Requirements, Section 01 25 00 Substitution Procedures .	
Request Submitted By General Contractor / CMR: _____ <div style="text-align:right;"><i>(Firm's Typed Name)</i></div>	
By: _____	_____
<i>(Typed Name)</i>	<i>(Title)</i>
_____	_____
<i>(Signature)</i>	<i>(Date)</i>
CONTRACTOR / CMR Send copies to DCS PM: <input type="checkbox"/> CA /OR: <input type="checkbox"/>	

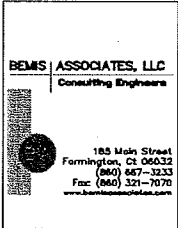
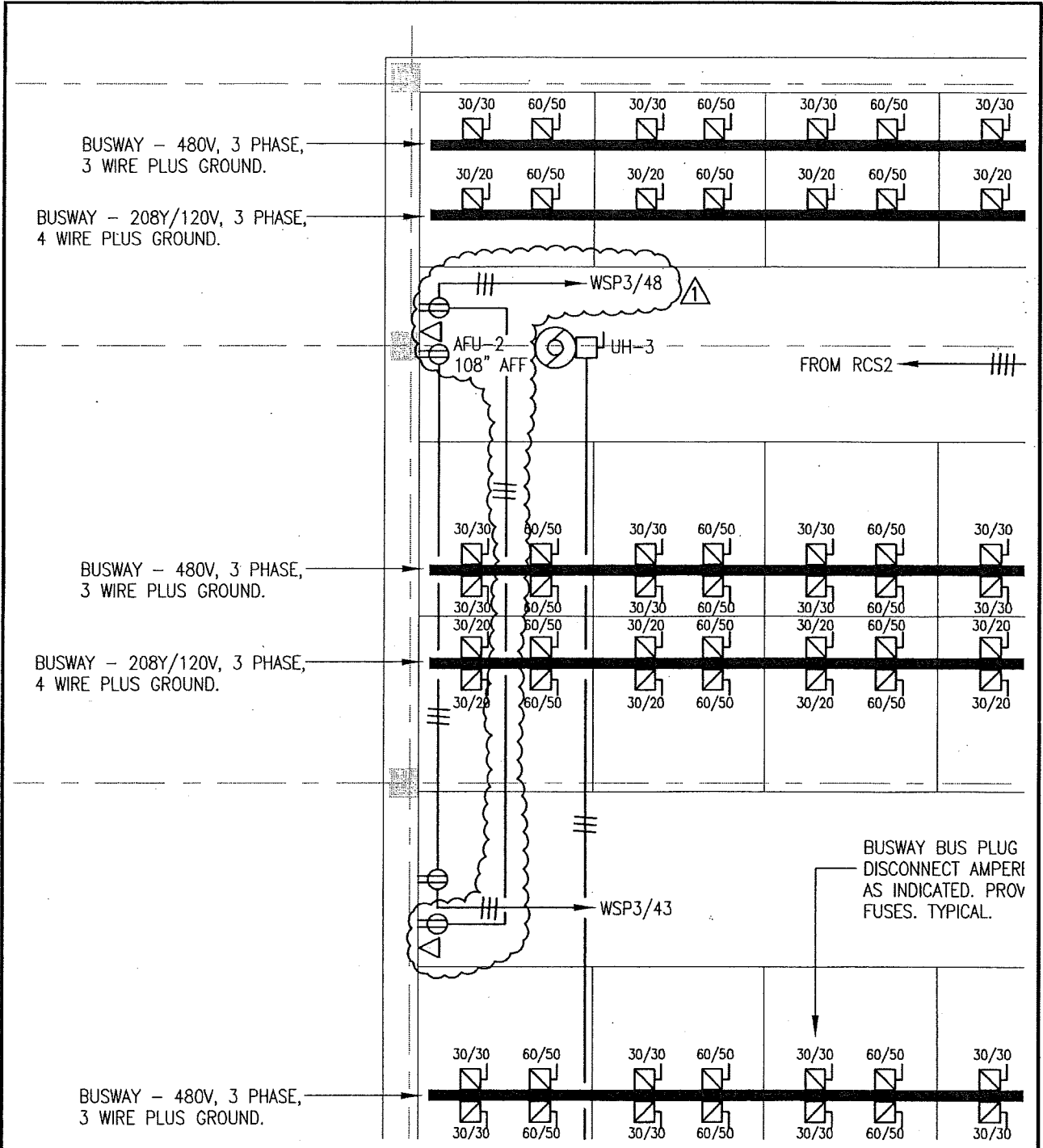
Consultant's Review – This Substitution Request is:		Request Received on (Date): _____
<input type="checkbox"/> Approved:	<i>(Submittals in accordance with Div. 01 General Requirements, Section 01 33 00 Submittal Procedures.)</i>	
<input type="checkbox"/> Approved as Noted:	<i>(Submittals in accordance with Div. 01. General Requirements, Section 01 33 00 Submittal Procedures.)</i>	
<input type="checkbox"/> Rejected:	Use Specified Materials.	
<input type="checkbox"/> Rejected:	Request Not Received Within Specified Time Period - Use Specified Materials.	
Reviewed Issued By: _____	_____	_____
<i>(Typed Name)</i>	<i>(Signature)</i>	<i>(Date)</i>
CONSULTANT Send copies to: DCS PM: <input type="checkbox"/> CA /OR: <input type="checkbox"/> Chief Architect <input type="checkbox"/> Chief Engineer <input type="checkbox"/>		

If Approved: As noted by Consultant,
 DCS Chief Architect: _____

(Signature)

 _____ *(Date)*

Copies: Project File Red R2



PROJECT TITLE
WELDING LAB RENOVATIONS
E.T. GRASSO TECHNICAL HIGH SCHOOL
Groton, Connecticut

PROJECT NO **BI-RT-858-A**

SKETCH TITLE
POWER PLAN

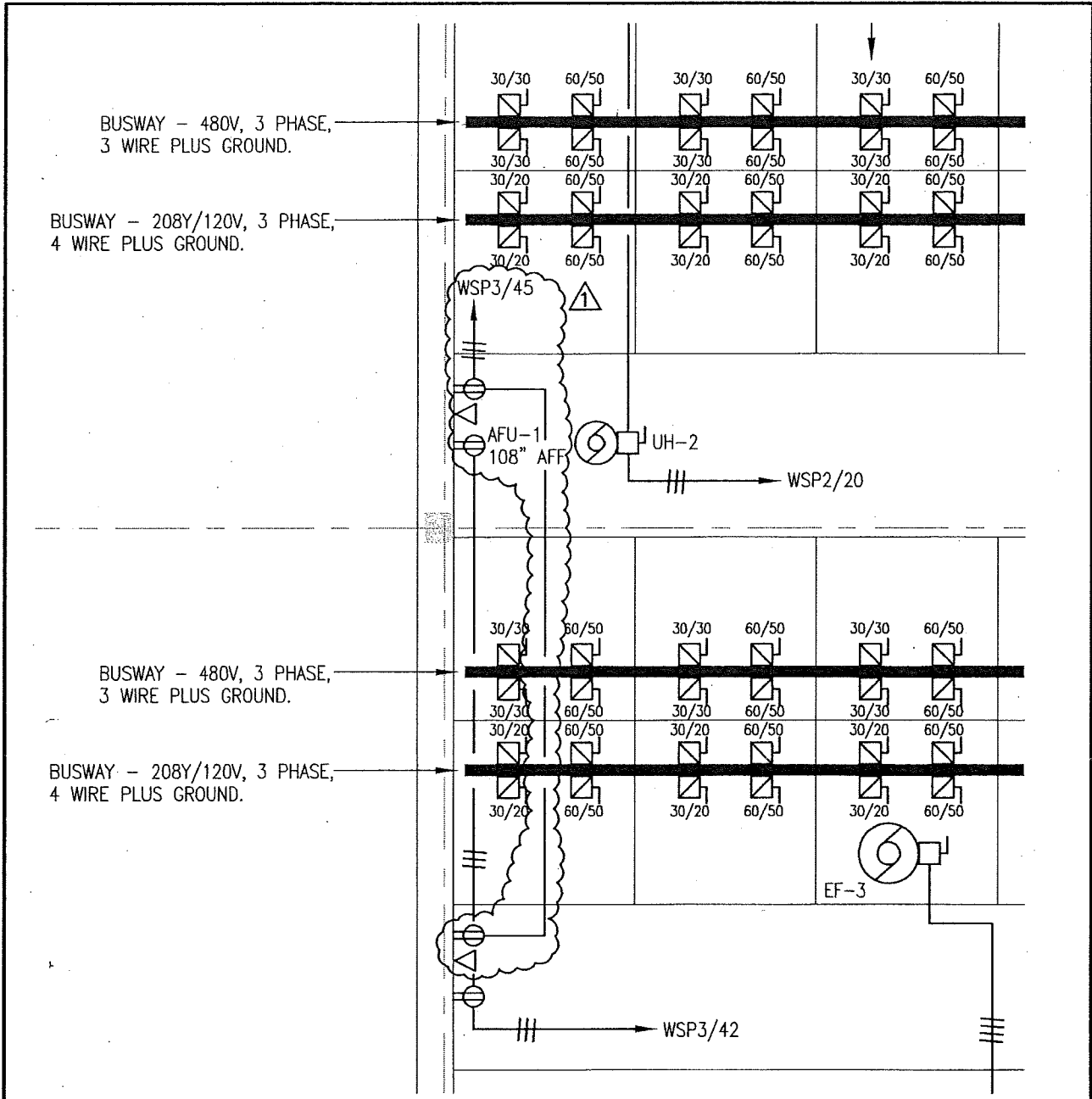
POWER/DATA REVISIONS

DATE **6/17/2015**

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SCALE: **1/4" = 1'-0"**

SKETCH NO.
AD2-SK-EP1.1-1



BUSWAY - 480V, 3 PHASE,
3 WIRE PLUS GROUND.

BUSWAY - 208Y/120V, 3 PHASE,
4 WIRE PLUS GROUND.

BUSWAY - 480V, 3 PHASE,
3 WIRE PLUS GROUND.

BUSWAY - 208Y/120V, 3 PHASE,
4 WIRE PLUS GROUND.

PROJECT TITLE
WELDING LAB RENOVATIONS
E.T. GRASSO TECHNICAL HIGH SCHOOL
Groton, Connecticut

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SKETCH TITLE
POWER PLAN

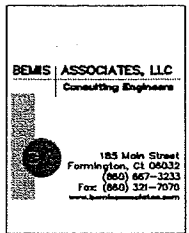
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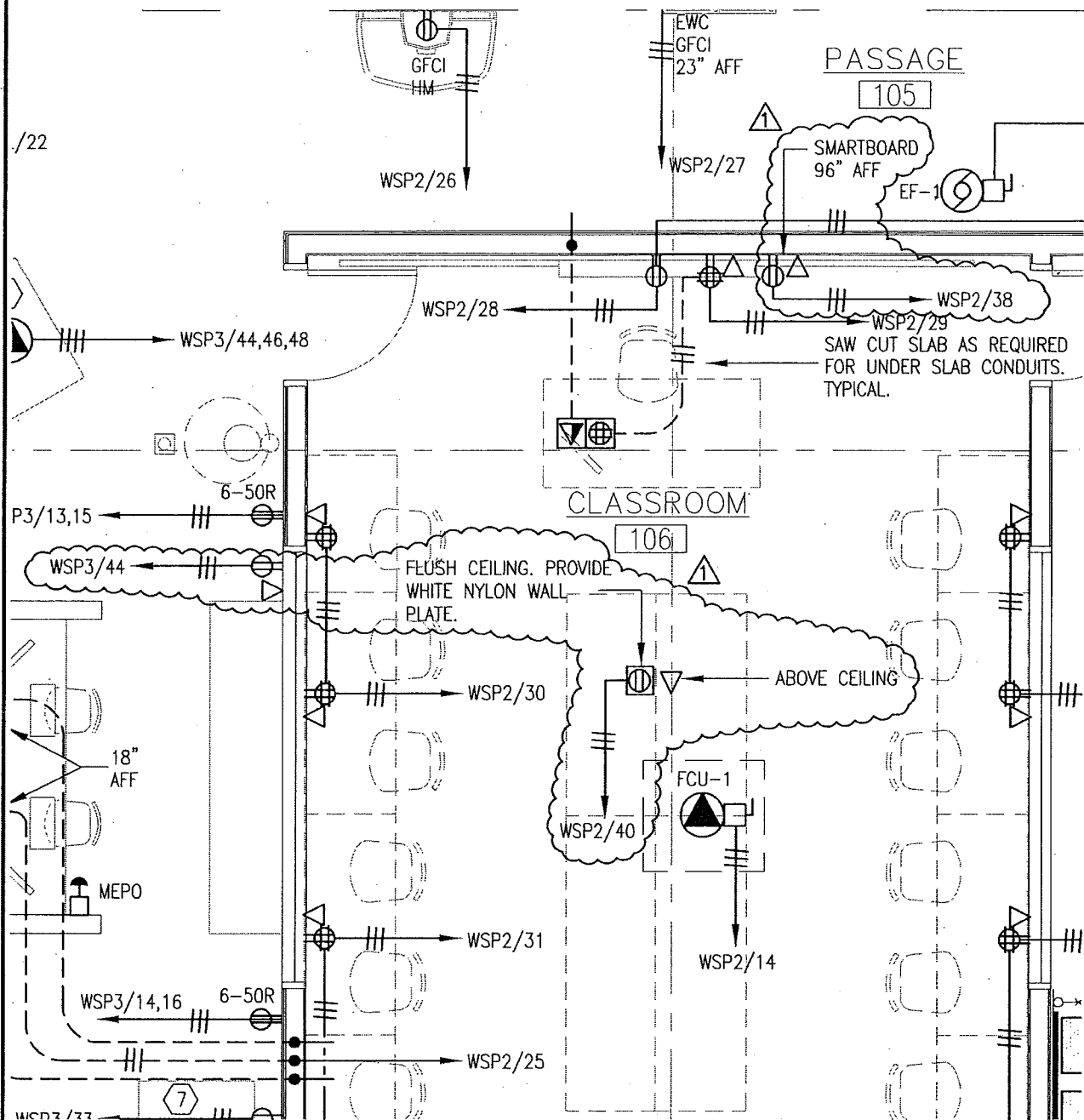
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SCALE: 1/4" = 1'-0"

SKETCH NO.
AD2-SK-EP1.1-2



/22



PROJECT TITLE
 WELDING LAB RENOVATIONS
 E.T. GRASSO TECHNICAL HIGH SCHOOL
 Groton, Connecticut

PROJECT NO BI-RT-858-A

SKETCH TITLE
 POWER PLAN

POWER/DATA REVISIONS

DATE 6/17/2015

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SCALE: 1/4" = 1'-0"

SKETCH NO.

AD2-SK-EP1.1-3



PANEL: WSP2					MANUFACTURE & MODEL: CUTLER HAMMER TYPE PRL4B								
MOUNTING: SURFACE					VOLTAGE CLASSIFICATION: 208Y/120V, 3 PHASE, 4 WIRE								
MAINS RATING: 700 AMP MAIN C/B					SCR (FULLY RATED): 22K A.I.C. MIN.								
200% NEUTRAL: NO					SPD: NO								
BREAKER			PHASE LOAD - KW						BREAKER				
#	TRIP RATING	POLE	LOAD DESCRIPTION	LOAD KW	A	B	C	LOAD KW	LOAD DESCRIPTION	TRIP RATING	POLE	#	
1	400	3	RCS3/PANEL WSP3	38.40	38.40			0.00	SPARE	50	3	2	
3	-	-	-	38.60		38.60		0.00	-	-	-	4	
5	-	-	-	35.10			35.10	0.00	-	-	-	6	
7	50	3	SPARE	0.00	0.00			0.00	SPARE	20	3	8	
9	-	-	-	0.00		0.00		0.00	-	-	-	10	
11	-	-	-	0.00			0.00	0.00	-	-	-	12	
13	20	1	EXH. FAN EF-1	0.30	0.80			0.50	FCU-1	20	1	14	
15	20	1	O.H. DOOR MOTOR	0.80		1.80		1.00	DAMPER CONTROLS	20	1	16	
17	20	1	FILTER CONTROLS	1.00			2.00	1.00	DDC PANEL	20	1	18	
19	20	1	UH-1	0.30	0.90			0.60	UH-2 & UH-3	20	1	20	
21	20	1	AUTO DOOR OPENER	0.80		1.30		0.50	CFPP-1	20	1	22	
23	20	1	ROOF RECEPTACLE	0.20			0.40	0.20	RTAHU-1 RECEPTACLE	20	1	24	
25	20	1	RECEPTACLES	0.90	1.40			0.50	WASH FOUNTAIN	20	1	26	
27	20	1	ELECT. WATER COOLER	1.00		1.70		0.70	RECEPTACLES	20	1	28	
29	20	1	RECEPTACLES	0.70			1.40	0.70	RECEPTACLES	20	1	30	
31	20	1	RECEPTACLES	0.70	1.40			0.70	RECEPTACLES	20	1	32	
33	20	1	RECEPTACLES	0.40		1.10		0.70	RECEPTACLES	20	1	34	
35	20	1	RECEPTACLES	0.70			0.90	0.20	LIGHTING	20	1	36	
37	20	1	LIGHTING	0.20	0.40		0.20	0.20	RECEPTACLES	20	1	38	
39	20	1	NAC BOOSTER PANEL	0.60		0.80		0.20	RECEPTACLES	20	1	40	
41	20	1	SPARE	0.00			0.00	0.00	SPARE	20	1	42	
43	20	1	SPARE	0.00	0.00			0.00	SPARE	20	1	44	
45	20	1	SPARE	0.00		0.00		0.00	SPARE	20	1	46	
47	20	1	SPARE	0.00			0.00	0.00	SPARE	20	1	48	
49	20	1	SPARE	0.00	0.00			0.00	SPARE	20	1	50	
51	20	1	SPARE	0.00		0.00		0.00	SPARE	20	1	52	
53	20	1	SPARE	0.00			0.00	0.00	SPARE	20	1	54	
55	20	1	SPARE	0.00	0.00			0.00	SPARE	20	1	56	
57	20	1	SPARE	0.00		0.00		0.00	SPARE	20	1	58	
59	20	1	SPARE	0.00			0.00	0.00	SPARE	20	1	60	
TOTAL LOAD PER PHASE:					43.30	45.30	39.80	TOTAL LOAD ON PANEL:			128.40		KW
											356.41		AMPS



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WELDING LAB RENOVATIONS
E.T. GRASSO TECHNICAL HIGH SCHOOL
Groton, Connecticut

PROJECT NO **BI-RT-858-A**

SKETCH TITLE
POWER DETAILS

POWER/DATA REVISIONS

DATE **6/17/2015**

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SCALE: **NONE**

SKETCH NO.
AD2-SK-EP2.2-4

PANEL: WSP3					MANUFACTURE & MODEL: CUTLER HAMMER TYPE PRL3a											
MOUNTING: SURFACE					VOLTAGE CLASSIFICATION: 208Y/120V, 3 PHASE, 4 WIRE											
MAINS RATING: 400 AMP MAIN LUGS					SCR (FULLY RATED): 22K A.I.C. MIN.											
200% NEUTRAL: NO					SPD: NO											
BREAKER					PHASE LOAD - KW					BREAKER						
#	TRIP RATING	POLE	LOAD DESCRIPTION	LOAD KW	A	B	C	LOAD KW	LOAD DESCRIPTION	TRIP RATING	POLE	#				
1	250	3	208Y/120V BUSWAY	6.20	12.40			6.20	208Y/120V BUSWAY	250	3	2				
3	-	-	-	6.20		12.40		6.20	-	-	-	4				
5	-	-	-	6.20			12.40	6.20	-	-	-	6				
7	20	3	RECEPTACLE	1.80	2.60			0.80	RECEPTACLE	20	3	8				
9	-	-	-	1.80		2.60		0.80	-	-	-	10				
11	-	-	-	1.80			2.60	0.80	-	-	-	12				
13	50	2	RECEPTACLE	4.20	8.40			4.20	RECEPTACLE	50	2	14				
15	-	-	-	4.20		8.40		4.20	-	-	-	16				
17	50	2	RECEPTACLE	4.20			8.40	4.20	RECEPTACLE	50	2	18				
19	-	-	-	4.20	8.40			4.20	-	-	-	20				
21	50	2	RECEPTACLE	4.20		8.40		4.20	RECEPTACLE	50	2	22				
23	-	-	-	4.20			8.40	4.20	-	-	-	24				
25	50	2	RECEPTACLE	4.20	5.20			1.00	RECEPTACLE	50	2	26				
27	-	-	-	4.20		5.20		1.00	-	-	-	28				
29	20	1	RECEPTACLE	0.20			0.40	0.20	CORD REEL	20	1	30				
31	20	1	CORD REEL	0.20	0.40			0.20	CORD REEL	20	1	32				
33	20	1	RECEPTACLE	0.20		0.40		0.20	RECEPTACLE	20	1	34				
35	20	1	RECEPTACLE	1.80			2.30	0.50	RECEPTACLE	20	1	36				
37	20	1	RECEPTACLE	0.20	0.40			0.20	RECEPTACLE	20	1	38				
39	20	1	RECEPTACLE	0.20		0.40		0.20	RECEPTACLE	20	1	40				
41	20	1	RECEPTACLE	0.20			0.60	0.40	RECEPTACLE	20	1	42				
43	20	1	RECEPTACLE	0.40	0.60			0.20	RECEPTACLES	20	1	44				
45	20	1	RECEPTACLES	0.40		0.80		0.40	RECEPTACLES	20	1	46				
47	20	1	SPARE	0.00			0.00	0.00	SPARE	20	1	48				
49	20	1	SPARE	0.00	0.00			0.00	SPARE	20	1	50				
51	20	1	SPARE	0.00		0.00		0.00	SPARE	20	1	52				
53	20	1	SPARE	0.00			0.00	0.00	SPARE	20	1	54				
55	20	1	SPARE	0.00	0.00			0.00	SPARE	20	1	56				
57	20	1	SPARE	0.00		0.00		0.00	SPARE	20	1	58				
59	20	1	SPARE	0.00			0.00	0.00	-	20	1	60				
TOTAL LOAD PER PHASE:					38.40	38.60	35.10	TOTAL LOAD ON PANEL:					112.10	KW		
															311.17	AMPS



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WELDING LAB RENOVATIONS
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POWER DETAILS

POWER/DATA REVISIONS

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SCALE: NONE

SKETCH NO.
AD2-SK-EP2.2-5

Welding Booth

Processes

(Power source controlled)
Stick, TIG, MIG, Flux-Cored, Metal-Cored,
Submerged Arc

Construction

16 gauge steel

Dimensions

Standard sizes: 5 ft. x 5 ft. or 6 ft. x 6 ft. Height is 7-1/2 ft.
Custom sizes available.

Effective Production or Training Space with Integrated Weld Fume Control

The Lincoln Electric Welding Booth is ideal for use in stationary production welding applications, vocational centers, and training facilities. Source extraction weld fume control can be easily integrated into the booth, with an extraction arm and connection to a Central System.

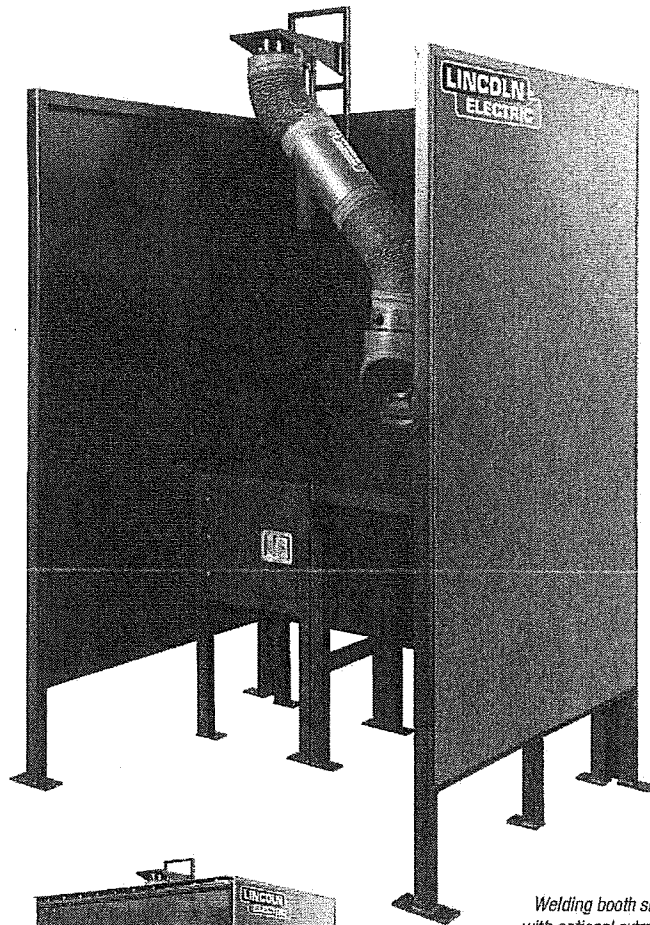
FEATURES

WELDING BOOTH

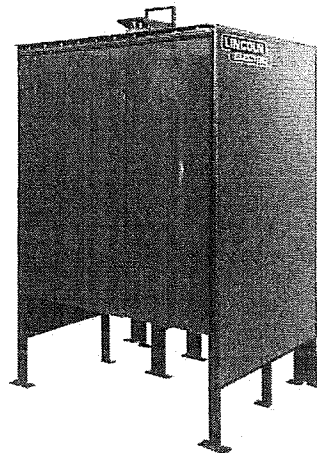
- ▶ **Rugged Steel Construction** - Endures the rigors of production welding operations or training environment.
- ▶ **Easy Installation** - Helps to minimize start-up costs.
- ▶ **Generously Sized** - Plenty of room to maneuver within the work or training space. Standard booth sizes of 5 ft. x 5 ft. and 6 ft. x 6 ft. meet AWS guidelines for booth width and depth.
- ▶ **Optional Work Table with Adjustable Overhead Welding Bracket** - Allows operator or student to be as comfortable as possible while welding.
- ▶ **Optional Welding Curtain** - Helps to protect other students and workers from arc flash and sparks.
- ▶ **Optional Locker Box** - Convenient storage space welding hood, jacket, gloves and other related items.

OPTIONAL EXTRACTION ARM

- ▶ **Telescopic Arm with 360° Rotatable Hood** - Telescopic tube design allows maximum extension and compression. Spring-balanced mechanism provides easy movement and ensures the hood stays where it is positioned. Ideal for pipe welding; position the arm at the start of the weld and no additional adjustment is necessary. Arm length is 61 to 98 in. (1550 to 2500 mm).
- ▶ **Rugged Design** - Made from durable dent and scratch resistant material.
- ▶ **Source Capture Solution** - More effective than back draft designs as a means of controlling weld fume.



Welding booth shown with optional extraction arm, work table and locker box.



Welding booth shown with optional curtain in closed position.

THE LINCOLN ELECTRIC COMPANY
Automation Division

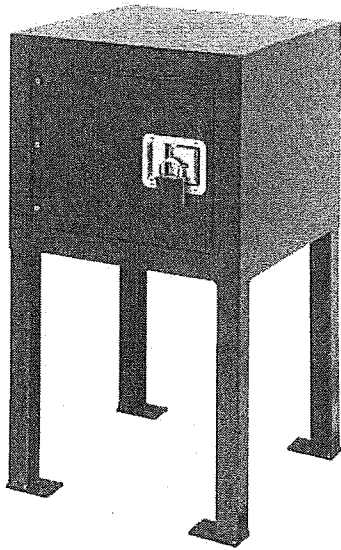
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PH: +1.216-383-2667 • Email: Automation@lincolnelectric.com

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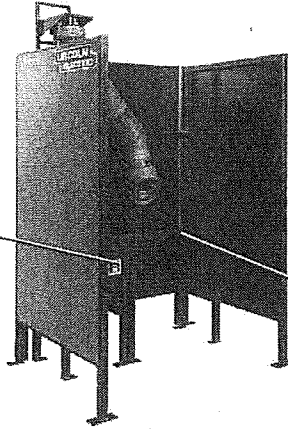
LINCOLN
ELECTRIC

**Automation
Solutions**

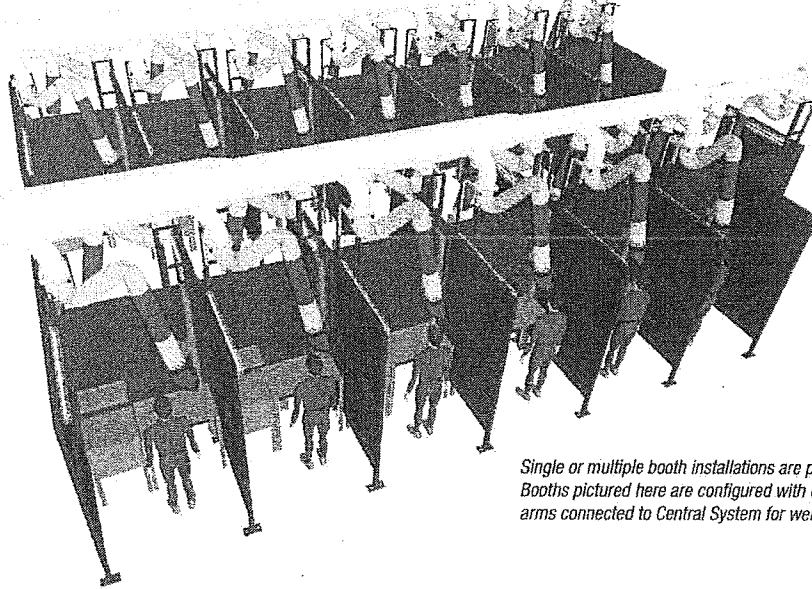
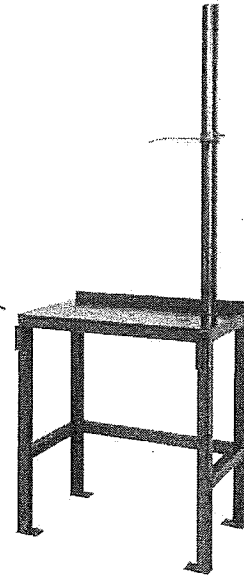
A CLOSER LOOK



Lockable storage cabinet.



*Optional work table with adjustable bracket for overhead welding.
Full booth width table also available.*



*Single or multiple booth installations are possible.
Booths pictured here are configured with extraction arms connected to Central System for weld fume control.*

The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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Automation Solutions