


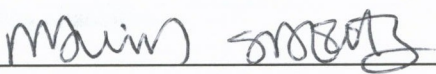
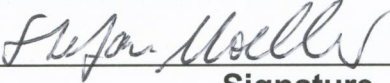
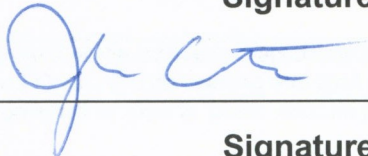



<b>LCLS Room Data Sheet #</b>	<b>1.9-1033</b>	<b>Near Experimental Hall - Vacuum Shop</b>	<b>Revision 2</b>
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Javier A. Sevilla Owner / Editor		 7/28/05
	<b>Signature</b>	<b>Date</b>
Jim Welch Conventional Facilities System Physicist		8/12/05
	<b>Signature</b>	<b>Date</b>
David Saenz Conventional Facilities System Manager		8/12/05
	<b>Signature</b>	<b>Date</b>
Stefan Moeller X-R End stations WBS Manager		8/12/05
	<b>Signature</b>	<b>Date</b>
John Arthur Photon Beam System Manager		8-12-05
	<b>Signature</b>	<b>Date</b>
Darren Marsh Quality Assurance Manager		8/15/05
	<b>Signature</b>	<b>Date</b>

**REVISION INFORMATION**

Rev 2, Added layout figure, deleted floor drain. Added acoustical ceiling requirements . Clarified lighting fixtures requirements

Updated Standards and Codes- Added diversity factor for power panels.

**ROOM DATA SHEETS**

FACILITY COMPONENT	VACUUM SHOP (NEH) - ROOM DATA SHEET		
	<b>Name of Building</b>		Vacuum Shop (NEH) Basement
	<b>Organization or Department</b>		SLAC, Stanford University
	<b>Net area</b>		30.2 sq. meters 325 sf
	<b>Critical dimensions</b>		<b>H:</b> 3.05m 10'-0"
			<b>W:</b> 7.62 m 25'-0"
			<b>L:</b> 3.96 m 13'-0"
	<b>Hours of operation</b>		Operate during normal business hours
<b>Users/Occupancy</b>		Vacuum Technicians using vacuum shop tools and equipment used for the maintenance of existing and the construction of custom-designed experiment equipment used throughout the facility.	
<b>Building orientation</b>		Vacuum Shop is located directly adjacent to the Open Work Area and the Machine Shop on the NEH basement level.	
FUNCTIONAL OBJECTIVE	To provide a vacuum shop equipped with the appropriate shop tools necessary to support the experiment equipment maintenance and construction needs of the facility.		
PLANNING CONSIDERATIONS & CRITICAL FACTORS	Space shall be sufficient to accommodate miscellaneous equipment i.e. tanks that are approximately 4' x 4'. Access into space shall have a 6' wide opening and shall enter from Receiving space. Room shall allow for standard cabinets for parts storage (Furnished by SLAC). Note: Vacuum parts are cleaned by heating out the equipment.		
FINISHES	Walls	Painted framed gypsum board assembly	
	Ceiling	Mylar wrapped acoustic tile panels within suspended ceiling assembly.	
	Floor	Epoxy floor coating	
	Base	Rubber base	
	Doors	Pair of 3ft wide by 7 ft high narrow light hollow metal door	
	Fenestration	NA	
	Acoustical	None	

<b>APPLICABLE STANDARDS</b>	29 CFR Part 1910 Occupational Safety and Health Standards Dept of Labor, 29 CFR Part 1926 Safety and Health Regulations for Construction Dept of Labor, Uniform Building Code (UBC) 1997 including appendixes, National Electric Code (NEC) 2002, Uniform Mechanical Code (UMC) 2003 including appendixes, Uniform Plumbing Code (UPC) 2003 including appendixes, Uniform Fire Code (UFC) 1997 including appendixes, California Code of Regulations Title 8 Industrial Safety, Title 19 Public Safety, NFPA 70 National Fire Codes, National electrical Safety Code ANSI C2, Occupational Safety and Health Act (OSHA), General Services Administration 41 CFR part 101-19, Environmental Protection Agency 40 CFR Parts 264 and 265, SLAC Environmental Safety & Health Manual, General Industrial Activities Storm Water Permit (SLAC Permit), NFPA 101 life Safety Code, Title 24-Energy Code, DOE standard 10 CFR Part 435, ASHRAE/IES Standards 90.1, NFPA Standard 13 and SLAC Fire Marshal requirements, LCLS Cabling Standard, SLAC LOTO
<b>VIEWS &amp; SCHEMATICS (N. T. S.)</b>	Refer to RDS-NEH Overall

9.11 LIST OF SHOP EQUIPMENT		Equipment	Watts/Voltage	Nos.
		<b>Furnished By SLAC</b>		
		Solvent degreasing station with hood separate clean room enclosure (class 100) two racks 7.5kW/ea leak detectors 1 oven 208 volts-3 ph		
	<b>Other</b>	Equipment	Watts/Voltage	Nos.

MECHANICAL REQUIREMENTS	HVAC	<input checked="" type="checkbox"/> Heating system	Temp:	<input type="checkbox"/> Mechanical humidification
		<input checked="" type="checkbox"/> Air conditioning	Temp: 72 degrees F $\pm$ 3 degree F	<input checked="" type="checkbox"/> Direct exhaust system
		<input type="checkbox"/> Direct supply		<input type="checkbox"/> Positive pressure system
		<input type="checkbox"/> Indirect supply		<input type="checkbox"/> Negative pressure system
		<input type="checkbox"/> Smoke control system		<input type="checkbox"/> Standard registers
		<input checked="" type="checkbox"/> Temperature sensors connected to SLAC's DDC system		<input type="checkbox"/> Requirement for gases
		<b>Centralized Mechanical Utilities:</b> a- Clean dry oil-free compressed air 20 SCFM, 100 psig-Provide shut-off valve and gauge. One location b- Provide piping for N2 gas from six pack to be located outside near service dock.		1- 200 CFM exhaust ducts (6") for process exhaust at 1.5"W.C. static pressure.
	<b>Communications</b>	<input checked="" type="checkbox"/> Telephone- 2 phone lines/location		<input type="checkbox"/> PA speakers
		<input checked="" type="checkbox"/> Data port- 2 jacks/location		<input type="checkbox"/> PA station
		<input type="checkbox"/> Payphone		CCTV camera
		<input checked="" type="checkbox"/> Fire alarm station		<input type="checkbox"/> CCTV monitor
		<input type="checkbox"/> Intercom		
		<b>Comments:</b>		
	<b>Plumbing/Fire Protection</b>	<input type="checkbox"/> Hot water system		<input type="checkbox"/> Electric water cooler
		<input type="checkbox"/> Cold water system		<input type="checkbox"/> Drinking fountain
		<input type="checkbox"/> Tempered water		<input checked="" type="checkbox"/> Smoke detection system
		<input type="checkbox"/> Waste drain		<input checked="" type="checkbox"/> Wet Sprinkler System
		<input type="checkbox"/> Floor drain		<input checked="" type="checkbox"/> Eye wash
		<input type="checkbox"/> Trench drain		
		<b>Comments:</b> See figure in " RDS NEH overall" for eyewash locations.		

<b>ELECTRICAL REQUIREMENTS</b>	<b>Power supply</b>	<input checked="" type="checkbox"/> 208V 1 ph and 3 ph- outlets	<input type="checkbox"/> Uninterrupted power supply			
		<input checked="" type="checkbox"/> 110V, 20 Amps outlets	<input checked="" type="checkbox"/> Special electric-see below    Type:			
		<input type="checkbox"/> Emergency power				
		<b>Comments:</b> 1- Number of circuits: Minimum 24 each for clean and dirty power panel. 2 - Provide double duplex, 20 amps outlets, 110 volts-1 phase, every 10 ft on perimeter walls. 3 - Provide Total of four (4) 30 amps, 208 volts, 3 phase, dedicated outlets, "twist-lock" type. Locate two on each wall, longer side of room.				
	<b>Lighting</b>	<input checked="" type="checkbox"/> Light fixtures - see comments	<input type="checkbox"/> Remote lighting control			
		<input type="checkbox"/> Fixture type I: Downright	<input checked="" type="checkbox"/> Light switches			
		<input type="checkbox"/> Fixture type II: Bollard (exterior)	<input checked="" type="checkbox"/> Lighting level    FC: 75			
		<input checked="" type="checkbox"/> Emergency lighting				
		<b>Comments:</b> 1- All conduits are surface mounted. 2.- Standard recessed mounted lighting fixtures either 2'x4' or 2'x2'				
<b>RADIATION/SEISMIC/VIBRATIONS ISSUES</b>	<b>Comments:</b> 1- All equipment (HVAC, panels, etc) and systems are to be seismically braced and restrained per SLAC's seismic Standards and Code.					
<b>SPECIAL REQUIREMENTS FOR EQUIPMENT</b>	<b>Comments:</b>					
<b>CHEMICALS / GASES</b>	<b>CHEMICALS</b>		<b>SPECIALTY GASES</b>			
	<b>#</b>	<b>Chemical Type</b>	<b>Quantity</b>	<b>#</b>	<b>Gas Type</b>	<b>Quantity</b>
<b>ENVIRONMENTAL NEEDS</b>						