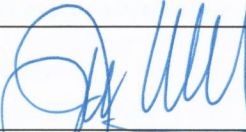
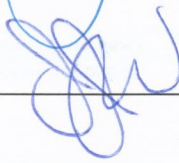

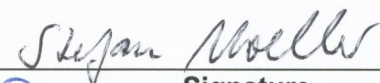
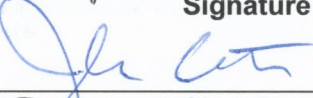
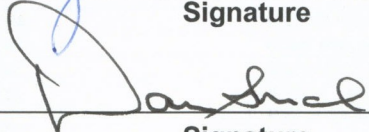


LCLS Room Data Sheet #	1.9-1036	Near Experimental Hall - Optics Lab	Revision 2
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Javier A. Sevilla Owner / Editor		Signature	8/12/05 Date
Jim Welch Conventional Facilities System Physicist		Signature	8/15/05 Date
David Saenz Conventional Facilities System Manager		Signature	8/12/05 Date
Stefan Moeller X-R End stations WBS Manager		Signature	8/12/05 Date
John Arthur Photon Beam System Manager		Signature	8-12-05 Date
Darren Marsh Quality Assurance Manager		Signature	8/15/05 Date

REVISION INFORMATION

Rev 2, Added panic bars for doors, deleted floor drain. Clarified ceiling height requirements
Updated Standards and Codes- Added diversity factor for power panels. Clarified lighting requirements

ROOM DATA SHEETS

FACILITY COMPONENT	OPTICS LAB - ROOM DATA SHEET		
	Name of Building Optics Lab -NEH sub Basement		
	Organization or Department SLAC, Stanford University		
	Net area	98.48 sq. meters includes future mirror tank area (3.49mx10.91m=37.08 sq. m)	1059 sf
	Critical dimensions	H: 3.06 m	10'-0"
		W: 8.2 m	26'-11"
		L: 7.4 m	24'-4"
	Hours of operation Operate during normal business hours		
	Users/Occupancy Laboratory researchers preparing optical equipment in support of the experiments being conducted in the Laser Labs. Occupancy Group "B".		
	Building orientation Optics lab in the NEH is located on the basement level directly adjacent to the Open Work area, across from the Laser Bay.		
FUNCTIONAL OBJECTIVE	1- A room devoted entirely to the preparation of optical equipment in support of the experiments being conducted in the Laser Bay and Hutches.		
PLANNING CONSIDERATIONS & CRITICAL FACTORS	Room shall be open to area designated as "Future Mirror Tank Area" (no wall separation, no doors). Refer to figure in RDS NEH Overall		
FINISHES	Walls	Painted reinforced concrete, 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, card key reader for access. Add panic bar for unobstructed egress.	
	Fenestration	NA	
	Acoustical	Perimeter walls are to be constructed with sound attenuation insulation batts to prevent the shop noise from disturbing the adjacent labs.	
APPLICABLE STANDARDS	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, DOE standard 10 CFR Part 435, ASHRAE/IES Standards 90.1, NFPA Standard 13 and SLAC Fire Marshal requirements, LCLS Cabling Standard, SLAC LOTO		

IEWS & SCHEMATICS (N. T. S.)	Refer to RDS NEH Overall			
9.11 LIST OF SHOP EQUIPMENT		Equipment	Watts/Voltage	Nos.
		SLAC furnished equipment		
	Other	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 ± 1 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			
		Centralized Mechanical Utilities: a- Clean dry oil-free compressed air 20 SCFM, 100 psig-Provide shut-off valve and gauge. One location		1- 200 CFM exhaust ducts (6") for process exhaust at 1.5"W.C. static pressure.		
	Communications	<input checked="" type="checkbox"/> Telephone- 2 phone/location-see diagram for locations	<input type="checkbox"/> PA speakers			
		<input checked="" type="checkbox"/> Data port- 2 outlet/location-see diagram for locations	<input type="checkbox"/> PA station			
		<input type="checkbox"/> Payphone	<input type="checkbox"/> CCTV camera			
		<input checked="" type="checkbox"/> Fire alarm station	<input type="checkbox"/> CCTV monitor			
		<input type="checkbox"/> Intercom				
		Comments:				
	Plumbing/Fire Protection	<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 type="checkbox"/> Eye wash / Safety shower			
		<input type="checkbox"/> Trench drain				
		Comments:				
ELECTRICAL REQUIREMENTS	Power supply	<input type="checkbox"/> 208-230V-1ph outlets	<input type="checkbox"/> Uninterrupted power supply			
		<input checked="" type="checkbox"/> 110V, 1ph Double duplex outlets, 20 amps locate at 10ft apart on all walls.	<input type="checkbox"/> Special electric Type:			
		<input type="checkbox"/> Emergency power	<input type="checkbox"/> 208-230V-3ph outlets			
		Comments: Provide two panels, 120-208 volts, 3 ph, (one "clean" and one "dirty" power). Each panel shall have a main breaker. All panels should have 20% spare capacity and additional breaker space. Capacity of each panel: 100 amps/Panel				
	Lighting	<input checked="" type="checkbox"/> Light fixtures - 2' x 4' recessed fluorescent	<input type="checkbox"/> Remote lighting control			
		<input type="checkbox"/> Fixture type I: Down light	<input checked="" type="checkbox"/> Light switches			
		<input type="checkbox"/> Fixture type II: Bollard (exterior)	Lighting level FC: 75			
		<input checked="" type="checkbox"/> Emergency lighting				
		Comments:				
RADIATION/SEISMIC/VIBRATIONS ISSUES	Comments: 1- All equipment and systems are to be seismically braced and restrained per Code. 2- The mirror tank area in the sub-basement is the most vibration sensitive area in the project. Refer to Vibration criteria LCLS ESD 1.9-105, Vibration Specification A for Optics Lab Area.					
SPECIAL REQUIREMENTS FOR EQUIPMENT	Comments:					
CHEMICALS / GASES	CHEMICALS		SPECIALTY GASES			
	#	Chemical Type	Quantity	#	Gas Type	Quantity
ENVIRONMENTAL NEEDS						