

Facilities: Design and Construction

Project Name	Project Team	TEC (\$K)	Costs To Date 12/31/11 (\$K)	Contingency Balance (\$K)	Status	Funds Type	Comments	Risks (Risks will evolve as projects mature and mitigations are enacted)					
1 B50A/B50B CHW Cross-Connection	K. Haley, PD R. Schaefer, PM CM C Shay-Stewart, PC	\$846	\$197	\$120	A&E	IGPP	<p>Offload 50B floors 3-6 to 50A chiller plant, optimize pumping and replace control system in 50B CHW system.</p> <p>Project value engineering design changes have been completed.</p> <p>We are in negotiations with subcontractor to arrive at acceptable construction cost.</p>	<p>Risk #1</p> <p>Schedule</p> <p>Revised Cost Proposal is greater than budget reducing additional evaluation of estimates and scope, which may increase NTP date. Design assumptions to connect and route new plumbing and electrical conflict with existing conditions. Mitigation measures: Carefully layout routing and notify designer early and immediately to resolve conflict.</p>	<p>Risk #2</p> <p>Cost</p> <p>Cost overruns are possible due to unforeseen field conditions or difficulties with new LBNL standard controls system. Otherwise, unlikely to encounter difficult field conditions due to level of pre-start investigation. Revised pricing is well within budget.</p>	<p>Risk #3</p> <p>CHW Disruption / Loss of Cooling</p> <p>Valving changes will be made. Control monitoring points will be inserted into piping. It is possible that there could be a loss of chilled water that leads to a high-heat situation in data centers. Mitigation: Excellent planning and analysis of system function under impaired condition. Carefully monitor system performance and room temperatures after LOTO. Return system to pre-LOTO condition if unacceptable situation results; replan LOTO for future time. VE changes are reducing scope of work & thereby reducing risk.</p>	<p>Risk #4</p> <p>Safety Incident</p> <p>Safety incident possible while modifying pumping, piping and electrical systems. Mitigation: Follow all LBNL safety procedures, oversight project properly and suspend work if any unsafe condition is observed until unsafe condition is corrected.</p>	<p>Risk #5</p> <p>Commissioning / Functional Performance</p> <p>System will migrate control to new ALC control server; this is first project to do so. It may be difficult to achieve proper function or receive signals from existing controls system. Cost and schedule delay may be encountered, or excessive LBNL effort required to repeatedly troubleshoot the system and coordinate subcontractor personnel.</p>	<p>Risk #6</p> <p>Cutover</p> <p>Cutover to new control sequence results in data centers over-heat condition. Mitigation: Effective planning and technical review, take greatest possible load off system before cutover, contingency planning.</p>

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2	B55 PET Scanner	B. Beedle, PD D. Dovichi, PM J. Tully, CM S. Geddis, PC	\$627	\$165	\$20	Construction	Royalties	Modify an existing 1,000 SF space, that currently contains a PET scan machine, to add a new PET Scanner and relocation of the existing control room. Project is on schedule, to complete prior to arrival of PET Scanner on 02/15/12.	<p>Risk #1</p> <p>Schedule Completion of project work, prior to PET scanner arrival on site (2/14/12)</p>	<p>Risk #2</p> <p>Budget At the start of construction there remains six (6) percent in project contingency, which is below what is traditionally carried for this type of a remodel project.</p>	<p>Risk #3</p> <p>Existing Utilities Infrastructure Investigation of existing infrastructure to address any site conflicts to allow running of utilities to the PET scanner.</p>	<p>Risk #4</p> <p>Coordination with Manufacturer Equipment Review and confirmation of manufacturer (Siemens) PET scanner requirements to operate. Slab electrical rough-in for PET Scanner completed on 12/20/11.</p>
3	B62 ARRA (Phase 2) - Upgrade Laboratory Space	B. Beedle, PD D. Galvez, PM CM C. Shay-Stewart, PC	\$2,773	\$306	\$265	Construction	ARRA	Approximately 1,500 sf of General Purpose Laboratory space in B62. Utility isolation by LBNL is underway. Milestone to begin renovations by 12/31/11 is complete. Construction subcontract award in progress.	<p>Risk #1</p> <p>Overall Project Costs 12/08/11 - Construction bids received over budget. Scope reduced, negotiated price within budget.</p>	<p>Risk #2</p> <p>Schedule 7/1/11 - Lab Scope approved by client. 7/11/11 - WAS approved 12/16/11 - Begin renovations</p>	<p>Risk #3</p> <p>Hazardous Materials Lead and asbestos contamination in area of work has been identified and abatement is included in scope of work.</p>	<p>Risk #4</p> <p>Existing Utilities/Infrastructure Engineering review of record documents and existing field conditions have been conducted on MEP systems. Upon detailed design, additional design requirements have been identified and incorporated in final design.</p>

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4	B62 - 12kV Equipment Replacement	B. Beedle, PD D. Dovichi, PM J. Tully, CM S. Geddings, PC	\$1,907	\$540	\$375	A&E	DMR	Replacement of existing selector switch, transformer, main switchgear and motor control centers. Contract documents to be distributed for quotation from three bidders (PDE Electric, EW Scott Electric and Cupertino Electric) on 01/19/12.	<p>Temporary Power for B62 Operation During the performance of B62 12kV equipment replacement work B62 will need to fully operate 24/7 on generator power. It is anticipated that B62 will need to run on generator power for six (6) weeks. Concern about the logistics to fill the generator(s) on a daily basis and maintenance during this period. Also a concern about providing redundancy for the temporary generator.</p>	<p>BAAQMD Impact Concern about potential impact to LBNL by the Bay Area Air Quality Management District for continuously running generators for six (6) weeks.</p>	<p>Bid Pricing To date the project has incurred FY 11 costs of \$537, 484 to design this project and to purchase electrical gear from Eaton Electrical gear to be transferred to the selected electrical contractor. A total of three electrical firms (Edward Scott Electric, Cupertino Electric and PDE Electric) have been selected to provide a bid for this project. The amount of the lowest responsive bid will dictate the amount of remaining project contingency.</p>	<p>Existing Site Conditions The Contract Documents and submittals were prepared based on existing field conditions. In conjunction with the contract documents all bidders will be given a set of the approved Eaton equipment submittal drawings. Since B62 electrical cabling, raceways and distribution connection(s) are over forty (40) years old there is concern that additional replacement work may be needed once the existing electrical infrastructure is uncovered and evaluated.</p>	<p>Schedule The project budget is based upon utilizing temporary generator power for a six (6) week period. In the event of potential unforeseen and or design conflicts there is a concern the schedule completion date may be extended and the current project contingency may not be sufficient to cover these added costs. In the event of a potential delay the project team will authorize overtime and or weekend work to avoid extending the duration needed to run temporary generators.</p>
5	B74 Trailers	B. Beedle, PD S. McCutchan PM J. Tully, CM S. Geddings, PC	\$1,036	\$0	TBD	Planning	Proposed project will site 3 trailers in the B74/B84 parking lot for 18 office work stations. Trailer configuration may be changing as well as budget.						

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6	Optical Metrology Lab	K. Haley, PD R. Schaefer, PM CM C Shay-Stewart, PC	\$1,355	\$9	\$288	A&E	GPP	Procurement requisitions for design, BIM & commissioning are being issued. The vibrational study has been completed and concluded that the location with the proven equipment isolation supports will meet the performance criteria of the research equipment.				
7	LBNL HSS Gates Technology	K Haley, PD I White, PM CM PC	SC - \$900 HSS - TBD LBNL-\$200	\$44	\$130 TBD \$40	Requirements Identification and Validation	Multi	Schematic Design is underway: The site has been surveyed for underground utilities and topography. The traffic survey is 80% complete. Determining the type and manufacturer of the Grizzly Gate is underway. The Concept of Operations draft is currently being developed.	<p>Risk # 1</p> <p>Underground Utilities not located or known about</p>	<p>Risk # 2</p> <p>Additional access requirements for additional/alternate emergency vehicles</p>	<p>Risk # 3</p> <p>Discrepancies/Omissions between multiple A/E & Consultants</p>	<p>Risk # 4</p> <p>Integration Problems Software</p>
								<p>Risk # 4</p> <p>Integration Problems Hardware</p>	<p>Risk # 4</p> <p>CoO does not work with design and policy</p>	<p>Risk # 4</p> <p>Overtime/off hours work not originally estimated</p>	<p>Risk # 4</p> <p>Additional time for PM due to additional coordination</p>	

NOTES

TEC - Total Cost.
 PD - Project Director; PM - Project Mgr; CM - Construction Mgr.; PC - Project Coordinator
 Costs - Actual costs expended as of month end noted (excludes liens).