### Project List For Discussion - January 12

#### Facilities: Design and Construction

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Team</th>
<th>TEC</th>
<th>Costs To Date</th>
<th>Contingency Balance</th>
<th>Status</th>
<th>Funds Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSGA/BSGB CHW Cross-Connection</td>
<td>K. Haley, PD</td>
<td>$796</td>
<td>$200</td>
<td>$122</td>
<td>Construction</td>
<td>TEC</td>
<td></td>
</tr>
</tbody>
</table>

**Project Description:**
Offload 50B floors 3-6 to 50A chiller plant, optimize pumping and replace control system in 50B CHW system.

**Project Value Engineering Design Changes:** Have been completed.

**Change Order for Reduced/Revised Contract Value:** Has been executed.

**Mobilization and Start of Construction:** In March 2012 with completion in July 2012.

#### Risks (Risks will evolve as projects mature and mitigations are enacted)

**Schedule Risk:**

- **Risk #1:** Project delays due to unforeseen field conditions or conflicts with nearby buildings and electrical concerns.
  - **Likelihood:** 5
  - **Consequences:** 5
  - **Mitigation:** Ensure proper planning and timely execution.

- **Risk #2:** Changes in design assumptions may impact the design.
  - **Likelihood:** 4
  - **Consequences:** 4
  - **Mitigation:** Careful planning.

- **Risk #3:** Due to new control valves, the system may require modifications.
  - **Likelihood:** 3
  - **Consequences:** 3
  - **Mitigation:** Proper planning and execution.

**Cost Risk:**

- **Risk #4:** Cost overruns due to unforeseen field conditions or conflicts with nearby buildings and electrical concerns.
  - **Likelihood:** 4
  - **Consequences:** 4
  - **Mitigation:** Careful planning.

- **Risk #5:** Project delays may lead to increased costs.
  - **Likelihood:** 3
  - **Consequences:** 3
  - **Mitigation:** Proper planning.

**Commissioning / Functional Performance Risk:**

- **Risk #6:** Poor commissioning may impact the system's performance.
  - **Likelihood:** 2
  - **Consequences:** 2
  - **Mitigation:** Proper planning.

**System Incident Risk:**

- **Risk #7:** System incidents may lead to increased costs.
  - **Likelihood:** 1
  - **Consequences:** 1
  - **Mitigation:** Proper planning and execution.
### Project List For Discussion - January 12

#### Risks (Risks will evolve as projects mature and mitigations are enacted)

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Team</th>
<th>TEC (SF)</th>
<th>Costs To Date (01/31/12) ($K)</th>
<th>Contingency Balance (01/31/12) ($K)</th>
<th>Status</th>
<th>Funds Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 B55 PET Scanner</td>
<td>B. Rosen, PD&lt;br&gt; D. Dovichi, PM&lt;br&gt; J. Tully, CM&lt;br&gt; S. Geddins, PC</td>
<td>627</td>
<td>354</td>
<td>10</td>
<td>Construction</td>
<td>Required</td>
<td>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. Original project construction work is complete and the PET Scanner x-ray machine arrived on site 02/20/12. Install and start up of PET Scanner scheduled to complete before 03/12/12.</td>
</tr>
<tr>
<td>3 B62 ARRA (Phase 2) - Upgrade Laboratory Space</td>
<td>B. Rosen, PD&lt;br&gt; D. Galvez, PM&lt;br&gt; C. Shay-Stewart, PC</td>
<td>2,773</td>
<td>1,500</td>
<td>General Purpose Laboratory space in B62. Construction subcontract award completed. Construction start 02/08/12. Mobilization complete 02/13/12. Next milestone: Construction complete 10/31/12.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Lead and Asbestos Contamination

- Risk #1: Lead and asbestos contamination in area of work has been identified and abatement is included in scope of work.
- Risk #2: Hazardous materials in area of work have been identified and abatement is included in scope of work.

### Risks Matrix

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Consequences</th>
<th>Schedule</th>
<th>Budget</th>
<th>Existing Utilities/Infrastructure</th>
<th>Coordination with Manufacturer Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>2</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>Very High</td>
<td>Very High</td>
<td>Very High</td>
<td>Very High</td>
<td>Very High</td>
</tr>
</tbody>
</table>

### Risks

- Risk #1: Review and confirmation of manufacturer (Siemens) requirements to operate.
- Risk #2: Coordination of utility changes in project budget after construction completion.
- Risk #3: Potential additional work requested by tenant may still be performed upon approval.
- Risk #4: Risks will evolve as projects mature and mitigations are enacted.
## Project List For Discussion - January 12

### Risks (Risks will evolve as projects mature and mitigations are enacted)

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<tr>
<th>Project Name</th>
<th>Project Team</th>
<th>TEC</th>
<th>Status</th>
<th>TEC</th>
<th>Contingency Balance</th>
<th>Funds</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>A&amp;E</td>
<td>DMR</td>
<td>Replacement of existing selector switch, transformer, main switchgear and motor control centers. Contract documents to be distributed for quotation to the following four bidders: (PDE Electric, EW Scott Electric, Cupertino Electric, and Blocka Construction). Risks due on 03/16/12 and construction mobilization scheduled for 04/02/12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td>Planning</td>
<td>J. Tully, CM</td>
<td>FACILITIES</td>
<td>5</td>
<td>$1,857</td>
<td>$543</td>
<td>$330</td>
</tr>
<tr>
<td>#3</td>
<td>Const</td>
<td>A&amp;E</td>
<td>DMR</td>
<td>Replacement of existing selector switch, transformer, main switchgear and motor control centers. Contract documents to be distributed for quotation to the following four bidders: (PDE Electric, EW Scott Electric, Cupertino Electric, and Blocka Construction). Risks due on 03/16/12 and construction mobilization scheduled for 04/02/12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#4</td>
<td>Const</td>
<td>A&amp;E</td>
<td>DMR</td>
<td>Replacement of existing selector switch, transformer, main switchgear and motor control centers. Contract documents to be distributed for quotation to the following four bidders: (PDE Electric, EW Scott Electric, Cupertino Electric, and Blocka Construction). Risks due on 03/16/12 and construction mobilization scheduled for 04/02/12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td>Const</td>
<td>Planning</td>
<td>Proposed project will site 3 trailers in the B74 parking lot for 18 individual offices. Project funding received 02/22/12. Anticipated start of construction 06/04/12. Estimated completion date 08/24/12.</td>
<td>1/2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project Details

- **Temporary Power for All Operations**: During the anticipated 6-week equipment replacement period, it will likely be necessary to provision power. This equipment will need to be a generator(s) or fixed-backup power. Concerns about this topic have been raised for the temporary generation. It is anticipated that estimated power for this duration.

- **LIAM**: This project will provide temporary electrical power for future electrical work to be conducted by electrical installation contractor. It is for electrical from (Edward Scott Electric, Cupertino Electric, and Blocka Construction) familiar with the project.

- **Planning IGPP**: Project IGPP will site 3 trailers in the B74 parking lot for 18 individual offices. Project funding received 02/22/12. Anticipated start of construction 06/04/12. Estimated completion date 08/24/12.

- **Proposed project will site 3 trailers in the B74 parking lot for 18 individual offices. Project funding received 02/22/12. Anticipated start of construction 06/04/12. Estimated completion date 08/24/12.**

- **Cost Over-Run**

- **Late Finish**
## Project List For Discussion - January 12

### Facilities: Design and Construction

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<thead>
<tr>
<th>Project Name</th>
<th>Project Team</th>
<th>TEC (SP)</th>
<th>Costs To Date 01/31/12 (US)</th>
<th>Contingency Balance (US)</th>
<th>Status</th>
<th>Funds Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical Metrology Lab</td>
<td>R. Kelley, C. S., C.</td>
<td>$1,355</td>
<td>$14</td>
<td>$228</td>
<td>A&amp;G</td>
<td>GIP</td>
<td>Procurement requirements for design, BIM &amp; commissioning are being issued. The vibrational study has been completed and concluded that the location with the proven equipment isolation support will meet the performance criteria of the research equipment. Estimated construction start date 01/15/12. Estimated construction completion date April 2013.</td>
</tr>
</tbody>
</table>

### Risks (Risks will evolve as projects mature and mitigations are enacted)

- **Fire Risk**
  - Risks related to fire prevention, detection, and suppression. Equipment may be repositioned, modified, relocated, or demolished.
- **Vibration Damage**
  - Risks associated with vibration affecting building systems or structural integrity. Ensuring isolation design and isolation support are adequate.
- **Hazardous Materials**
  - Risks related to hazardous materials, such as asbestos or lead paint. Ensuring adequate handling and disposal procedures are in place.
- **Equipment Damage**
  - Risks related to damage occurring to building systems or structural integrity. Ensuring isolation design and isolation support are adequate.
- **Construction Risks**
  - Risks associated with construction activities, such as delays or changes in design. Ensuring adequate contingency planning is in place.
- **Schedule Risks**
  - Risks related to delays in the construction schedule. Ensuring adequate contingency planning is in place.
- **Functional Requirements**
  - Risks associated with changes in functional requirements. Ensuring adequate contingency planning is in place.
- **Supervision**
  - Risks related to inadequate supervision during construction. Ensuring adequate supervision is in place.
- **Project Changes**
  - Risks associated with changes to the project scope or budget. Ensuring adequate contingency planning is in place.
- **Flooring**
  - Risks related to changes in flooring materials or systems. Ensuring adequate contingency planning is in place.
- **Change Orders**
  - Risks associated with change orders or additional work. Ensuring adequate contingency planning is in place.
- **Contingency**
  - Risks related to unexpected costs or delays. Ensuring adequate contingency planning is in place.
- **Turbulence**
  - Risks related to turbulence affecting building systems or structural integrity. Ensuring adequate isolation design and support is in place.
- **Thermal Stability**
  - Risks related to thermal stability and performance. Ensuring adequate isolation design and support is in place.

### Additional Notes
- Contingency budget is required to cover potential additional costs, such as change orders or additional work.
- AIP budget is required to cover potential additional costs, such as change orders or additional work.

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**Source:** Lawrence Berkeley National Laboratory

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### Risks (Risks will evolve as projects mature and mitigations are enacted)

<table>
<thead>
<tr>
<th>Risk</th>
<th>Likelihood</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>5</td>
<td>Underground utilities not located or known about</td>
</tr>
<tr>
<td>#2</td>
<td>4</td>
<td>Additional access requirements for additional/alternate emergency vehicles</td>
</tr>
<tr>
<td>#3</td>
<td>4</td>
<td>Discrepancies/Omissions between multiple A/E &amp; Consultants</td>
</tr>
<tr>
<td>#4</td>
<td>3</td>
<td>The Concept of Operations and Functional requirements have been in flux as the project team attempts to nail down how to handle the change in access with the new technology. The software will be new to the lab and we are attempting to integrate the two software technologies. Problems could arise which require additional effort.</td>
</tr>
<tr>
<td>#5</td>
<td>3</td>
<td>Concept of Operations currently has the main access control method being card reader at the Grizzly Gate and potentially at the Blackberry Gate. This is a recent change. We have thus far been able to lock down how to handle high traffic volume and flow. Using the LPR, it presents a change to current access policy if we are to have an unmanned gate and allow multiple passengers per car to enter without showing their badge.</td>
</tr>
<tr>
<td>#6</td>
<td>2</td>
<td>FACILITIES RISK MATRIX</td>
</tr>
<tr>
<td>#7</td>
<td>2</td>
<td>FACILITIES RISK MATRIX</td>
</tr>
</tbody>
</table>

### Project List For Discussion - January 12

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Technology</th>
<th>PM</th>
<th>CM</th>
<th>PC</th>
<th>TEC</th>
<th>Status</th>
<th>Funds Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBNL HSS Gates</td>
<td>Technology</td>
<td>K Haley, PD</td>
<td>I White, PM</td>
<td>C White, CH</td>
<td>CM</td>
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<td>A&amp;E</td>
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<td>LBNL -$200</td>
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<td>$40</td>
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</tbody>
</table>

**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).