Phase I includes ISTB-7 with ancillary facilities. Phase II includes research support facilities. Phase III includes a new light rail transit center with transit oriented amenities.
A FLEXIBLE FRAMEWORK
A MODULAR DESIGN THAT CAN ADAPT

The design of ISTB-7 allows for area flexibility as determined by the final program and phasing.
A FLEXIBLE FRAMEWORK
A MODULAR DESIGN THAT CAN ADAPT

The design of ISTB-7 allows for area flexibility as determined by the final program and phasing.

220,000 GSF
60% NET / GROSS

326,000 GSF
60% NET / GROSS
A FLEXIBLE FRAMEWORK
A MODULAR DESIGN THAT CAN ADAPT

The design of ISTB-7 allows for area flexibility as determined by the final program and phasing.
**Initial Programmatic Assumptions**

Research Laboratories:

- Wet laboratory space; biological sciences, engineering, life sciences and sustainability - 40-60% of nsf
- Dry laboratory space; computing, cyber-security, engineering design/fabrication and robotics - 30-40% of nsf
- Space for student project fabrication

Public Outreach space:

- Conference center for public lectures/presentations
- Dedicated space for faculty, PI and student poster displays
- Space for academic meeting
- Catering support area
Sustainable Development: Energy

With abundant sunshine, low humidity, and strong diurnal & seasonal temperature variation, our design team has identified the most effective strategies to reduce overall energy demand.

- Solar PV Potential
- Natural Ventilation
- Solar Shading
- Massing & Building Size
- Urban Heat Island Reduction
- Building Orientation
- Daylighting strategies
- Cross-ventilation potential
- Cool Roofs
- Low albedo materials
- Native vegetation
- District Cooling (and Heating)
- Summer shading South facades
- Year-round shading East & West
- Potential Modeling:
  - Urban heat island & outdoor comfort
  - Building orientation & energy use
  - Solar PV potential
Sustainable Development: Water

In this arid climate, water is precious. Maximizing water use efficiency, reusing water, and harvesting rainwater for non-potable and landscape use will significantly reduce demand.

8" Average annual rainfall

Water Conservation

Efficient & Waterless Fixtures

Low Flow Fixtures
Waterless Fixtures
High efficiency appliances

Rainwater Harvesting

For non-potable uses:
Mechanical systems, irrigation, flushing

Native Xeriscape

Native-adapted plants of the Sonoran Desert
Rainwater harvesting in the landscape
Reclaimed water for establishment irrigation use

Reclaimed Water for Reuse
For non-potable uses

Potential Modeling:
- Rainwater harvesting
- Water budget & use reduction
Phase One: Programming/ Phase Approach

- Comprehensive project definition that captures the qualitative and quantitative goals for the project;
- Development of a preliminary/diagrammatic master plan for the project and surrounding environs;
- Identification of potential project risks to budget and schedule;
- Preparation of a detailed code analysis for innovative building systems that may form part of the project;
- Summary of deliberations/recommendations on how to minimize constructability risk;
- Assist ASU with diagrams and documents as deemed necessary to develop a mutually beneficial inter-
governmental agreement to span over the existing light rail infrastructure;
- Summarize existent utility infrastructure locations, capacity, challenges and preliminary solutions and,
- Integrated cost analysis prepared in a joint effort between the DP/CMAR with specific database benchmarking.
Phase Two: Design Phase

- Demonstrated ability to develop comprehensive technical documentation for all disciplines during all phases of contract document preparation;

- Demonstrated ability with the preparation of multiple design concepts in short periods of time;

- A high level of technical acumen by the project management team, and

- Demonstrated ability to present multiple cost scenarios that meet budgetary constraints at each OAC review session
**Preliminary Project Schedule**

<table>
<thead>
<tr>
<th>Months Weeks</th>
<th>Task or Milestone</th>
<th>Start</th>
<th>End</th>
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<tr>
<td>0.7 3</td>
<td>Prepare DP RFQ</td>
<td>7/10/17</td>
<td>7/28/17</td>
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<tr>
<td>3.5 15</td>
<td>DP Selection and Contracting Process</td>
<td>7/31/17</td>
<td>11/10/17</td>
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<td>DP Notice to Proceed</td>
<td>11/13/17</td>
<td>11/13/17</td>
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<td>Project Definition / Programming</td>
<td>11/20/17</td>
<td>2/2/18</td>
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<td>Schematic Design</td>
<td>1/15/18</td>
<td>4/6/18</td>
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<td>4/9/18</td>
<td>6/29/18</td>
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<tr>
<td>2.3 10</td>
<td>PK 1 Construction Documents: Site + Foundation</td>
<td>7/2/18</td>
<td>9/7/18</td>
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<tr>
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<td>PK 2 Construction Documents</td>
<td>7/2/18</td>
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<td>Owner Move In</td>
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