Emergency Preparedness
Resilience
“Welcome and Safe”

Boston Properties Security Team
Boston Properties Control Center (BPCC)
Emergency Preparedness

- Emergency Management Program
- Building Staff Training and Exercises
- Tenant Training Manuals and Presentations
- Tenant Awareness Brochures
- Evacuation Exercises
Private/Public Sector Partnership

- Participating over 20 years
- Various organizations
- Specific focus or geographic area
- Monthly meetings – information sharing
- Familiarization and trust established
- Meet and network before an emergency incident occurs
- Relationship and collaboration enable invaluable networking
- Years of interaction, cooperation and information sharing
Public Safety Liaison
Exercises and Orientation

- Familiarization Tours
- Active Shooter
- Coordinated Attack
- Explosion/Fire
- Power Outage
- Hurricane/Storm Surge
- Flood
Actual Emergencies

- Priority Life Safety
- Hazard Assessment
- Evacuation or Shelter-in-Place
- Timely, frequent and consistent communications
- Training and exercises for staff and tenants pay off!
Surveillance Camera Partnership

2013 Boston Marathon Bombing

Occupy Boston

Craigslist Killer
The proposed total project is expected to consume 34.6% less energy than a code-compliant baseline building, resulting in an annual cost savings of $650,000.

In comparison to available CBECS data from a regional office peer group, the building proper will operate 47% more efficiently.
## Energy

**“Build Tight, Ventilate Right.”**

### Key Strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Chilled Beams w/ DOAS</td>
<td>Substantial cooling energy savings versus conventional VAV system</td>
</tr>
<tr>
<td>High Efficiency Lighting</td>
<td>40% LPD Reduction (Common Area) 25% LPD Reduction (Tenant Spaces)</td>
</tr>
</tbody>
</table>
| High Performance Glazing | Double-paned Insulated  
U-Factor = 0.235  
SHGC = 0.28 |
| High Efficiency Chillers | COP = 6.38 – highest COP we could find that eliminates ozone depleting refrigerants |
| Heat Recovery Wheels     | DOAHUs include heat recovery wheels that transfer heat from the exhaust air to the supply |

### Figure 2: Annual Energy Consumption by End Use

<table>
<thead>
<tr>
<th>Energy End Use</th>
<th>Annual Energy Consumption [MMBtu]</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRM Baseline</td>
<td>79.14</td>
</tr>
<tr>
<td>100% CD</td>
<td>51.77</td>
</tr>
</tbody>
</table>

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<th>EUI (kBtu/SF)</th>
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### Figure 3: Annual Energy Cost by End Use

<table>
<thead>
<tr>
<th>Energy End Use</th>
<th>Annual Energy Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRM Baseline</td>
<td>$2,193,543</td>
</tr>
<tr>
<td>100% CD</td>
<td>$1,433,629</td>
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</tbody>
</table>

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<th>ECI ($/SF)</th>
<th>PRM Baseline</th>
<th>100% CD</th>
</tr>
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<tr>
<td>3.88</td>
<td>$3.88</td>
<td>$2.68</td>
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</table>
37% water use reduction from fixtures

Rainwater will provide 20% of the total water consumed

Overall, the potable water required for fixtures and processes will be reduced by 44%
CHARLES RIVER VIEWS

13’+ North Facade Glass
9’+ Vision Glass

+ 145%

Rendering
Indoor Air Quality

Better air quality than in a typical office building… 30% more “fresh” air and 50% more air changes per hour.
Great Space and Place
location
Boston Properties

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