

**TOWN OF PASADENA**  
**RECREATION CENTRE**  
**SPACE & COST CONSIDERATIONS**

**PREPARED BY:** ATLANTIC ENGINEERING CONSULTANTS LIMITED  
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**DATE:** APRIL 25, 2008

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The Town of Pasadena, with a population of approximately 3200, is a progressive, growing community with a great potential to provide it's residents with an unparalleled quality of life.

While it is lacking in recreation infrastructure, it's location midway along the Corner Brook - Deer Lake Highway corridor allows it to use the existing facilities in these communities. This, however, is not an ideal situation, especially in Winter, and for a number of years the Town has been looking at the problem in an effort to address the needs, and create a community atmosphere that will enhance the quality of life of the present residents, and at the same time attract young families to the Town.

In 1997 the Pasadena Recplex Building Committee provided a brief report to the Town Council outlining the need and cost implications of such a venture, which would primarily provide an ice arena. Subsequent to that report, Atlantic Engineering Consultants Limited was commissioned to prepare a Feasibility Study into the provision of a Multi-Use Recreation Facility, with the arena as the main component. That report dated September 2008 concluded that even a simple arena building did not appear viable on a purely economic basis, but that Council's decision should consider the intangible benefits of such a Community Facility.

In September 2004, the report was re-visited, costs updated, and a number of options were explored using various combinations of infrastructure components. Opinions of probable costs, at the time, for the various scenarios were as follows:

- 1. Basic Stand-Alone Arena ..... \$ 2,530,000

2.	Arena, Bowling Alley, Fitness Centre, Banquet Hall . . . . .	\$ 5,266,200
3.	Pool, Bowling Alley, Fitness Centre, Banquet Hall . . . . .	\$ 5,801,200
4.	Basic Stand Alone Pool . . . . .	\$ 2,843,000
5.	Pool, Bowling Alley . . . . .	\$4,177,000
6.	Full Recreation Centre - Option 2 Above & Pool . . . . .	\$ 8,277,200

In 2007, The Town commissioned Tract Consulting Inc. to develop a Parks and Recreation Master Plan to serve as a guide in the planning, management, and development of it's parks, recreation and open spaces.

The Draft Plan was presented to Council in February 2008.

That plan envisioned a re-configuration of the present 10th Avenue Recreation Complex to accommodate an international size soccer pitch, surrounded by a running/walking track, an outdoor ice rink, and as the centrepiece, a community centre with the name "Pasadena Place". The plan envisioned the 13,000 sf building supporting the following activities.

1. Great hall (Activity Space)
  - Special Events
  - Large group exercise area
  - Team Training Area
  - Catered dining
  - Floor sports/activities
  
2. Program Room (hardwood spring floor, upstairs)
  - Pilates
  - Yoga
  - Aerobics

- Dance
3. Program Room (tile floor, downstairs)
    - Guides
    - Scouts
    - Quilters
    - Local Groups
    - Related Groups
  4. Therapy Pool/Sauna/Steam Room
  5. Storage Lockers (5) (12 x 10 - 1 assigned per group)
  6. Family Resource Centre
    - Lockers
    - Storage
  7. Fitness Centre
    - Dryland Training
  8. Indoor Playground
    - Tots
  9. Youth
    - Pool Tables
    - Table Tennis
    - Sitting Area
    - Video Games
    - Internet

10. Indoor Walking Track
  - Elevated - surrounds entire building interior
  
11. Interior Climbing Wall
  
12. Kitchen
  
13. Training/Conference
  - AV
  - Satellite feed
  - Remote Conference Centre
  
14. Office Space
  - Administration
  - Reception
  
15. Concession/Café  
(private)
  
16. Laundry/Locker>Showers/Change-Rooms
  
17. Day Spa: Physiotherapy, Manicure, Etc.

While the Master Plan does not suggest that a swimming pool be built as part of the complex, it does recognize the need and allows for such a facility in the future.

With the information provided in the Master Plan, including stakeholder input and the needs assessment, council has decided to explore the possibility of constructing a recreation centre similar to the Pasadena Place concept but to also include a bowling alley and a community swimming pool. This facility would be similar in size to Option 3 of the Atlantic Engineering September 2004 updates to its original report of September 2007, except that the Banquet Hall could be replaced by some of the activity areas outlined in the 2008 Master Plan for Pasadena Place.

This study will now explore the possibilities, look at the site possibilities, and provide both preliminary construction and operating costs for Council's consideration.

### 2.1 Bowling Alley

The provision of a bowling alley, in any Community, can provide a two-fold benefit in that it can cater to virtually all demographic ranges and can operate year round. Both youth and seniors can avail of the facility.

A six lane alley will require a lane space approximately 40' x 104' plus appropriate provision for shoe rentals, vending machines, storage etc. We would suggest the minimum space requirement to be in the order of 40' x 140' (5600 sf). A four lane alley has been suggested. However, discussions with existing alley operators, indicate this will severely limit the ability to host both league play and tournaments. For purposes of this review, therefore, we will base our discussion on a six lane alley.

### 2.2 Swimming Pool

A Community Swimming Pool would be a year-round family sport facility that could, along with being part of the local school Physical Education Program, cater to a broad base of demographics. For a pool approximately 82' x 42' (similar to the SWGC Pool), the gross area, including a small tot pool, washroom/change room area, and a family viewing area, would be in the order of 130' x 90' (11,700 sf).

### 2.3 Community Centre

The Community Centre, would encompass much of the area envisioned by the Tract Report, as "Pasadena Place". The exact composition of this centre would, of course, be at Council's discretion. However, as part of a larger complex including a bowling alley and swimming pool,

not all of the facilities as envisioned in “Pasadena Place”, in our opinion, may be necessary. We would suggest the 17 activity areas outlined in Section 1 of this report can be reduced to 9 as follows:

- Great Hall (Including Kitchen) ..... 2,700 sf
- Program Room (Sports floor) ..... 1,000 sf
- Program Room (Groups/Meetings) ..... 1,000 sf
- Fitness Centre ..... 2,500 sf
- Youth Centre ..... 1,000 sf
- Training/Conference ..... 250 sf
- Office Space ..... 400 sf
- Locker/Showers, Change Room ..... 500 sf

The total space requirement for this component of the complex would therefore be in the order of 9,350 sf.

2.4 Total Space

The total space requirement for the complex would be as follows:

- Bowling Alley ..... 5,600 sf
  - Swimming Pool ..... 11,700 sf
  - Community Centre ..... 9,350 sf
- 26,650 sf

There are other space implications that must be addressed including general circulating and “crush” space, utility and electrical rooms, etc. Careful design can minimize the total space requirement by cross-utilization of such spaces as washrooms, entrance areas etc. At this point in time, we would suggest a one storey building, as probably the most cost effective, with a gross-up factor of approximately 23% for a total footprint requirement of 32,780 sf - Say 33,000.

The exact configuration of the complex will be addressed in the preliminary planning stage, but on a conceptual basis we would envision a main entrance/lobby/atrium, with the Pool in one wing and the bowling alley and the Community Centre in other wings, all accessed through the main lobby, but being capable of being operated independently.

Site selection and development, is obviously a major factor in utilization of the facility. In this case, the existing 10<sup>th</sup> Avenue Recreation Complex site, is centrally located and already established. The site lends itself well to the addition of a complex such as envisioned in this report. Movement of vehicles and pedestrians must obviously be addressed, along with a variety of other items such as parking capacity, access to 10<sup>th</sup> Avenue and Bonnell Drive, grades, drainage, landscaping, walkways, safety, etc.

The existing Recreation Centre does not appear suitable for re-development or incorporation into a new complex. For purposes of this study, therefore we have assumed it will ultimately be removed. The adjacent Fire Hall will remain.

The inclusion of a soccer field will require the removal of the existing ballfields, one of which, we believe, can be accommodated at the South Brook Ballfield site. Orientation of the soccer pitch will require careful consideration. The existing playground at the intersections of 10<sup>th</sup> Avenue & Bonnell drive can be salvaged if the soccer pitch is placed at an angle running North-South. However, land utilization may be enhanced by placing it parallel to Bonnell Drive with bleachers along that street. This will require relocation of the playground.

In today’s high energy cost environment, it is wise to invest in every energy option available and feasible, and to construct buildings to the best principles of environmental sustainability.

The LEED™ (Leadership in Energy and Environmental Design) green building rating system was developed to provide a recognized standard for the construction industry to assess the environmental sustainability of building designs.

LEED™ is a point-based rating system; points are earned for building attributes considered environmentally beneficial.

LEED™ 70 points cover six topic areas. Each topic area has a statement of associated goals.

- **Site Development:** minimize storm water run-off, encourage car pooling and bicycling, increase urban density and green space.
- **Water Efficiency:** eliminate site irrigation, reduce water consumption, minimize or treat wastewater.
- **Energy Efficiency:** reduce building energy consumption, use renewable energy, eliminate ozone-depleting chemicals, commission building systems.
- **Material Selection:** minimize construction waste, use recycled and salvaged materials, use renewable construction materials, and design and build more durable buildings.
- **Indoor Environmental Quality:** Incorporate day lighting, use low off-emitting materials, provide operable windows and occupant control of work space, improve delivery of ventilation air.

- **Innovation in Design:** use a LEED™ Accredited Professional, greatly exceed the requirements of a credit, incorporate innovative environmental features not covered in other areas.

LEED™ Certification of Municipal and other Government Buildings is a desired goal, keeping in mind that budgets will be of prime importance, along with durability of the facility and ease of maintenance.

There are a number of sustainable initiatives that have little or minimum impact on capital costs and as a rule these should all be implemented. There are a number of other initiatives that will ultimately require additional capital funded.

The attached LED Scorecard, (included for your information), is usually used in the preliminary design stage to assess the viability of applying for LEED Certification. Of the available 70 points, 26-32 are required to obtain basic certification, 33 to 38 for silver, 39 to 51 for Gold and 52 to 70 for Platinum. Achieving basic certification or Silver can usually be accomplished for a construction cost increase in the order of 10%. Gold or Platinum will drive this up to the 15% + range. It should be remembered that achieving a high LEED rating does not always manifest itself in savings in building operational costs, as energy efficiency is only one component of the overall rating system and therefore the initial additional capital costs are not always recoverable in the short or medium term. Nevertheless, LEED goals are desirable for all buildings.

We have found that for most Municipalities, with limited financial resources, spending the additional capital funds on items such as energy efficiency, where capital cost recovery is quantifiable, may be the most prudent approach, rather than trying to achieve LEED certification for it's own sake.

The design of this particular building, therefore, should strive for maximum energy efficiency. One way of accomplishing this is to exceed the Model National Energy Code by at least 25%. Optimizing energy performance to levels beyond this will require a more in-depth look at other systems such as geothermal.

Assuming electricity will be the baseline energy source for mechanical and electrical systems, a very simplistic analysis of a geothermal ground source heat pump system was carried out based primarily on the use of similar systems in nearby projects. The cost of approximately 15 boreholes will be in the order of \$ 200,000. The additional cost of heat pump systems, over and above the electric heating system will be in the order of \$ 300,000. In this particular building, air conditioning will be required, thus allowing for year-round utilization of the Geothermal System. Annual energy savings should be in the order of \$60,000 per year for a simple capital cost payback of 8 to 9 years. On this basis, a closer look at a ground source energy supply, during the preliminary design stage, is warranted. For purposes of this study, we have allowed for such a system in our preliminary opinion of probable cost.

5.

**COST CONSIDERATIONS**

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5.1 Capital Costs

Based on the spatial implications noted earlier, specifically a building in the order of 33,000 sf, we have prepared the following elemental preliminary opinion of probable cost, based on recent projects in our area:

1.	Site work	
	Site Development .....	300,000
	Mechanical & Electrical Site Services (Geothermal) .....	350,000
2.	Building Shell .....	3,200,000
3.	Interiors .....	1,800,000
4.	Services	
	Mechanical .....	1,400,000
	Electrical .....	950,000
5.	Special Features	
	Pool/Equipment .....	400,000
	Bowling Alley Systems/Equipment .....	350,000
6.	Fittings & Equipment .....	600,000
7.	"Green" features allowance .....	600,000
8.	Design Allowance .....	<u>850,000</u>
		<hr/> Total 10,800,000

5.2 Operating Costs

Based on figures obtained from comparable facilities, we would suggest a complex of this nature would involve the following main annual operating cost components:

1.	Salaries including: Manager Pool - 2 Full Time 2 Part Time Bowling - 1 Full Time 2 Part Time Other - 1 Full Time 2 Part-time .....	225,000
2.	Energy/Utilities .....	60,000
3.	General Maintenance .....	30,000
4.	Insurance .....	15,000
5.	Supplies .....	20,000
6.	Other .....	<u>50,000</u>
		\$ 400,000

### 5.3 Revenues

Again, based on figures obtained from comparable facilities, we would suggest the following potential revenues.

Bowling Alley .....	90,000
Swimming Pool .....	110,000
Community Centre -Fitness Centre/Catering/Meetings .....	<u>25,000</u>
<hr/>	
	Total 225,000

On a stand-alone basis, the Bowling Alley can be self-sufficient, while the pool will require the largest subsidy. Overall, the preliminary figures indicate a total net annual subsidy in the order of \$175,000.

#### 5.4 Funding Structure

This proposed complex, primarily a recreation facility, can be funded through the Government of Newfoundland & Labrador, Department of Municipal Affairs, Capital Works Program. The recently announced new cost sharing policy will allow for a 80%-20% split for the Town of Pasadena, which, we believe, may provide a rather attractive opportunity for Council's consideration.

<b>0</b>	<b>0</b>	<b>0</b>	<b>LEED Study - LEED Scorecard</b>	<b>Possible Points: 70</b>	<b>Lead</b>
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<b>Y</b>	<b>?</b>	<b>N</b>	<b>Certified</b> 26 to 32 points <b>Silver</b> 33 to 38 points <b>Gold</b> 39 to 51 points <b>Platinum</b> 52 to 70 points		
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			<b>Sustainable Sites</b>	<b>Possible Points: 14</b>	<b>Requirements for Prerequisite/Credit</b>	<b>Proposed Action/Comments</b>
<b>Y</b>			Prereq 1	<b>0</b>	<b>Erosion &amp; Sedimentation Control</b> Design a sediment and erosion control plan to EPA standards.	
			Credit 1	<b>1</b>	<b>Site Selection</b> Site must not be prime farmland, public parkland, identified as habitat for endangered species, within 5 ft (vertical) of floodplain or within 100 ft of water (or wetland).	
			Credit 2	<b>1</b>	<b>Development Density</b> Site and surroundings must have high development density (>60 000 ft² per acre).	
			Credit 3	<b>1</b>	<b>Brownfield Redevelopment</b> Site must be a remediated Brownfield.	
			Credit 4.1	<b>1</b>	<b>Alternative Transportation, Public Transportation Access</b> Building must be located within 1/4 mile of 2 or more bus lines or 1/2 mile of a commuter rail or subway station.	
			Credit 4.2	<b>1</b>	<b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b> Provide bicycle storage facilities for 5% of occupants (commercial).	
			Credit 4.3	<b>1</b>	<b>Alternative Transportation, Alternative Fuel Refueling Stations</b> Provide alternative fuel vehicles and preferred parking for 3% of occupants or install alternative fuel refueling stations for 3% of total parking capacity.	
			Credit 4.4	<b>1</b>	<b>Alternative Transportation, Parking Capacity</b> Size parking to meet local zoning requirements (new projects) or add no new parking (for rehabilitation projects). Provide preferred parking for carpools.	
			Credit 5.1	<b>1</b>	<b>Reduced Site Disturbance, Protect or Restore Open Space</b> Restore 50% of non-building area by planting native vegetation.	
			Credit 5.2	<b>1</b>	<b>Reduced Site Disturbance, Development Footprint</b> Designate open space equal to building and parking/driveway footprint.	
			Credit 6.1	<b>1</b>	<b>Stormwater Management, Rate and Quantity</b> No increase in 1.5 year 24 hour peak rate of stormwater runoff	
			Credit 6.2	<b>1</b>	<b>Stormwater Management, Treatment</b> Remove solids and phosphorous from stormwater to specified levels.	
			Credit 7.1	<b>1</b>	<b>Landscape &amp; Ext Design to Reduce Heat Islands, Non-Roof</b> Provide shade and/or use highly reflective material and/or use open grid pavement for non-roof surfaces or put 50% of parking spaces underground.	
			Credit 7.2	<b>1</b>	<b>Landscape &amp; Ext Design to Reduce Heat Islands, Roof</b> High reflectance and high emissivity roofing (70% of area) or vegetated roof (50% of area).	
			Credit 8	<b>1</b>	<b>Light Pollution Reduction</b> Limit outdoor lighting to IESNA requirements and no direct-beam light off-site.	

			<b>Water Efficiency</b>	<b>Possible Points: 5</b>	<b>Requirements for Prerequisite/Credit</b>	<b>Comments/Proposed Action</b>
			Credit 1.1	<b>1</b>	<b>Water Efficient Landscaping, Reduce by 50%</b> Reduce potable water consumption for irrigation by 50% relative to baseline.	
			Credit 1.2	<b>1</b>	<b>Water Efficient Landscaping, No Potable Use or No Irrigation</b> Only captured rain or recycled site water to be used for site irrigation needs OR no permanent irrigation system.	
			Credit 2	<b>1</b>	<b>Innovative Wastewater Technologies</b> Reduce potable water for sewage conveyance by 50% by using greywater or stormwater re-use.	
			Credit 3.1	<b>1</b>	<b>Water Use Reduction, 20% Reduction</b> Reduce use of potable water by 20% relative to baseline.	
			Credit 3.2	<b>1</b>	<b>Water Use Reduction, 30% Reduction</b> Reduce use of potable water by 30% relative to baseline.	

			<b>Energy &amp; Atmosphere</b>	<b>Possible Points: 17</b>	<b>Requirements for Prerequisite/Credit</b>	<b>Comments/Proposed Action</b>
<b>Y</b>			Prereq 1	<b>0</b>	<b>Fundamental Building Systems Commissioning</b> Engage a commissioning authority to design and implement a commissioning plan.	
<b>Y</b>			Prereq 2	<b>0</b>	<b>Minimum Energy Performance</b> Design building to meet minimum energy performance.	

Y			Prereq 3	<b>CFC Reduction in HVAC&amp;R Equipment</b>	0	No use of CFC-based refrigerants.		
			Credit 1.1	<b>Optimize Energy Performance</b> , 29% New / 10% Existing	2	Reduce design energy use by 29% vs. MNECB.		
			Credit 1.2	<b>Optimize Energy Performance</b> , 38% New / 20% Existing	2	Reduce design energy use by 38% vs. MNECB.		
			Credit 1.3	<b>Optimize Energy Performance</b> , 47% New / 30% Existing	2	Reduce design energy use by 47% vs. MNECB.		
			Credit 1.4	<b>Optimize Energy Performance</b> , 55% New / 40% Existing	2	Reduce design energy use by 55% vs. MNECB.		
			Credit 1.5	<b>Optimize Energy Performance</b> , 63% New / 50% Existing	2	Reduce design energy use by 63% vs. MNECB.		
			Credit 2.1	<b>Renewable Energy</b> , 5%	1	Supply 5% of total annual design energy cost (regulated loads only) by renewable electricity.		
			Credit 2.2	<b>Renewable Energy</b> , 10%	1	Supply 10% of total annual design energy cost (regulated loads only) by renewable electricity.		
			Credit 2.3	<b>Renewable Energy</b> , 20%	1	Supply 20% of total annual design energy cost (regulated loads only) by renewable electricity.		
			Credit 3	<b>Additional Commissioning</b>	1	Implement Commissioning Plan in with additional tasks as specified.		
			Credit 4	<b>Ozone Depletion</b>	1	Install HVAC and refrigeration equipment that do not contain HCFC's or Halon.		
			Credit 5	<b>Measurement &amp; Verification</b>	1	Develop a long term continuous performance measurement and verification plan.		
			Credit 6	<b>Green Power</b>	1	Engage in a two year contract to purchase certified green power.		

0 0 0 Materials & Resources			Possible Points: 14	Requirements for Prerequisite/Credit	Comments/Proposed Action
Y			Prereq 1	<b>Storage &amp; Collection of Recyclables</b>	0 Designate recycling area in building.
			Credit 1.1	<b>Building Reuse</b> , Maintain 75% of Existing Shell	1 Maintain 75% of existing building structure and shell.
			Credit 1.2	<b>Building Reuse</b> , Maintain 100% of Existing Shell	1 Maintain 100% of existing building structure and shell.
			Credit 1.3	<b>Building Reuse</b> , Maintain 100% Shell & 50% Non-Shell	1 Maintain 100% of existing building structure and shell and 50% non-shell.
			Credit 2.1	<b>Construction Waste Management</b> , Divert 50%	1 Recycle and/or salvage 50% (by weight) of construction waste.
			Credit 2.2	<b>Construction Waste Management</b> , Divert 75%	1 Recycle and/or salvage 75% (by weight) of construction waste.
			Credit 3.1	<b>Resource Reuse</b> , Specify 5% Salvaged	1 Specify salvaged or refurbished materials for 5% (by cost) of building materials.
			Credit 3.2	<b>Resource Reuse</b> , Specify 10% Salvaged	1 Specify salvaged or refurbished materials for 10% (by cost) of building materials.
			Credit 4.1	<b>Recycled Content</b> , Specify 25%	1 Specify 25% (by cost) of building materials with 20% post-consumer or 40% post-industrial.
			Credit 4.2	<b>Recycled Content</b> , Specify 50%	1 Specify 50% (by cost) of building materials with 20% post-consumer or 40% post-industrial.
			Credit 5.1	<b>Local/Regional Materials</b> , 10% Manufactured Locally	1 Specify 10% (by mass) of building materials that are manufactured within 500 miles of the site or 1500 miles if transported by ship or rail to site..
			Credit 5.2	<b>Local/Regional Materials</b> , 20% Manufactured/Harvested Locally	1 Specify 20% (by mass) of building materials that are manufactured within 500 miles of the site or 1500 miles if transported by ship or rail to site..
			Credit 6	<b>Rapidly Renewable Materials</b>	1 Specify 5% (by cost) of building materials that are rapidly renewable.
			Credit 7	<b>Certified Wood</b>	1 Specify 50% (by cost) of total new wood-based materials that are FSC certified.
			Credit 8	<b>Durable Building</b>	1 Minimize material and construction waste over a building's life from premature failure of components and assemblies

0 0 0 Indoor Environmental Quality			Possible Points: 15	Requirements for Prerequisite/Credit	Comments/Proposed Action
Y			Prereq 1	<b>Minimum IAQ Performance</b>	0 Comply with ASHRAE 62-1999 "Ventilation for Acceptable Indoor Air Quality".
Y			Prereq 2	<b>Environmental Tobacco Smoke (ETS) Control</b>	0 Zero exposure of nonsmokers to ETS.
			Credit 1	<b>Carbon Dioxide (CO<sub>2</sub>) Monitoring</b>	1 Install permanent carbon dioxide monitoring for ventilation to limit level to 530 ppm above outdoors.
			Credit 2	<b>Increase Ventilation Effectiveness</b>	1 Minimum mechanical ventilation effectiveness of 0.9 according to ASHRAE 129-1997.
			Credit 3.1	<b>Construction IAQ Management Plan</b> , During Construction	1 IAQ Management Plan to SMACNA standards, protect materials and replace filter media.
			Credit 3.2	<b>Construction IAQ Management Plan</b> , Before Occupancy	1 2 week building flush-out at 100% outdoor air or baseline IAQ testing.
			Credit 4.1	<b>Low-Emitting Materials</b> , Adhesives & Sealants	1 Adhesives and sealants must meet VOC limits.
			Credit 4.2	<b>Low-Emitting Materials</b> , Paints	1 Paints must meet VOC limits.
			Credit 4.3	<b>Low-Emitting Materials</b> , Carpet	1 Carpets must meet VOC limits.
			Credit 4.4	<b>Low-Emitting Materials</b> , Composite Wood	1 Composite woods must contain no added urea-formaldehyde resins.

			Credit 5	<b>Indoor Chemical &amp; Pollutant Source Control</b>	1	Design to minimize cross-contamination of regularly occupied areas by chemical pollutants.		
			Credit 6.1	<b>Controllability of Systems</b> , Perimeter	1	Minimum of one operable window and one lighting zone per 200 sf within 15 feet of perimeter.		
			Credit 6.2	<b>Controllability of Systems</b> , Non-Perimeter	1	Controls for each individual for airflow, temperature, and lighting for 50% of non-perimeter.		
			Credit 7.1	<b>Thermal Comfort</b> , Comply with ASHRAE 55-1992	1	Comply with ASHRAE 55-1992 "Thermal Comfort" for temperature and relative humidity.		
			Credit 7.2	<b>Thermal Comfort</b> , Permanent Monitoring System	1	Permanent temperature and humidity monitoring with operator control over thermal comfort.		
			Credit 8.1	<b>Daylight &amp; Views</b> , Daylight 75% of Spaces	1	Minimum daylight factor of 2% in 75% of space for critical visual tasks.		
			Credit 8.2	<b>Daylight &amp; Views</b> , Views for 90% of Spaces	1	Direct line of sight to vision glazing from 90% of occupied areas.		

0	0	0	<b>Innovation &amp; Design Process</b>		Possible Points: 5	<b>Requirements for Prerequisite/Credit</b>	<b>Comments/Proposed Action</b>	
			Credit 1.1	<b>Innovation in Design:</b>	1	For exceptional performance above LEED requirements.		
			Credit 1.2	<b>Innovation in Design:</b> Specific Title	1	For exceptional performance above LEED requirements.		
			Credit 1.3	<b>Innovation in Design:</b> Specific Title	1	For exceptional performance above LEED requirements.		
			Credit 1.4	<b>Innovation in Design:</b> Specific Title	1	For exceptional performance above LEED requirements.		
			Credit 2	<b>LEED™ Accredited Professional</b>	1	At least one principal participant of the project team must be a LEED Accredited Professional.		

**Costs:**

**Legend:** ARCH: architect, MECH: mechanical, ELEC: electrical, CIV: Civil, OW: Owner

Y = LEED points that the design team intends to achieve.

? = LEED points that may be possible to achieve but require owner input or further study.

N = LEED points that are not achievable given current circumstances and/or design.