**Live Green Loan Fund – Project Proposal**

**Project Background:**

When planning began for the College of Design’s environmentally sustainable addition, King Pavilion, in 2006, the design team was requested to also study the existing College of Design facility for investment opportunities that could provide long-term savings in energy consumption. The existing College of Design facility is a six-story, 160,000 square foot classroom and faculty office building, supporting over 2,000 students and faculty daily. Due to the nature of the coursework and curriculum it supports, this building operates on a continuous 24/7 schedule.

The examination of the current facility, led by the Weidt Group under contract with RDG Planning and Design of Des Moines, was completed in 2007. Results of the study provided a number of alternatives for energy savings, all noting specifics related to initial costs, projected annual savings, and payback periods. Final report recommendations include four different “bundles” of strategies that incorporate a mix of investments that would provide significant savings over time. Bundle components included: building envelope, lighting, and HVAC systems.

Two of these bundles focus largely on lighting strategies and are the focus of this Live Green Loan Fund application.

Lighting strategies in particular were chosen due to their savings impact within the required payback period. It is the intent of the College of Design to complete additional bundling strategies as funding is available.

**Project Description; Project # LG0003 College of Design:**

The lighting systems inside the College of Design building uses a combination of fluorescent, incandescent, metal halide, and mercury vapor lamp sources. The lighting system has not been retrofitted from original construction. This project will implement a new lighting strategy for all the Design College building classrooms, laboratories, and public areas. Implementation of this strategy includes the installation of energy-efficient fluorescent lighting, daylighting controls (stepped controls, dimming controls, switch controls), and occupancy sensors.

Specifically, this project will complete the following bundled items:

Daylighting switch control of perimeter studio/classrooms

Classroom occupancy sensor control

Storage occupancy sensor control

Conference room occupancy sensor control

Computer lab occupancy sensor control

Classroom retrofit w/ Super T8 bulbs w/ electric ballasts

Computer lab retrofit w/Super T8 bulbs w/ electric ballasts

Private office retrofit w/Super T8 bulbs w/ electric ballasts

Open office retrofit w/Super T8 bulbs w/ electric ballasts

Shop retrofit w/Super T8 bulbs w/ electric ballasts

Restroom retrofit w/Super T8 bulbs w/ electric ballasts

The lighting strategy project will be completed in two phases. Building areas completed in each phase will be dependent upon occupancy requirements. Phase 1 requests funding for the completion of bundled items that will be completed in FY09.

**Project Contact:** Mark Engelbrecht, College of Design Dean 515-294-7427

**Project Return on Investment:**

Total project costs are estimated at $293, 100. A $100,000 loan is requested for Phase 1. Expected annual savings equals $37,092/year with a payback period of 4.6 years.

**Live Green Loan Fund – Project Profile**

**College of Design Phase 1**

**Applicant**

Name/Contact Info: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Name/Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Project Outcomes:**

In addition to annual budget savings for ISU and Iowa taxpayers, the College of Design will have an opportunity to showcase significant reduction in energy consumption while improving its interior and exterior environmental performance in one of the most extensively used buildings on the ISU campus. The improvements made in the existing building will complement, both in focus and function, the accompanying King Pavilion facility. In all facets of a learning, working, and strategic planning environment, as the College of Design represents, implementing energy efficiency products and processes, as outlined above, provide a unique and valuable ongoing demonstration for students, faculty, staff, and donors.

**Confirmation of Due Diligence:**

Technical and financial viability is considered satisfactory for the scope of this project.

Required signatures for project administrative approval have been received (see attached application signature page).

**Funding Recommendation by Live Green Loan Fund Committee:**

$100,000

**Recommended Action by Live Green Loan Fund Committee:**

Project approval by President and signature of attached Funding Agreement.

**On Behalf of the Live Green Loan Fund Committee**

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Director of Sustainability Date