Las Plumas Facility Operating Budget and Programming Report

Prepared for:

City of San Jose
Environmental Services Department

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Introduction

The City of San Jose is renovating a city-owned building on Las Plumas Avenue into a one-of-a-kind facility that will serve as a pathway to further the City’s Green Vision policies. The 40,000 SF facility will be called the San Jose Environmental Innovation Center (EIC) and is intended to reflect San Jose’s Green Vision and the City’s commitment to Clean Technology Innovation by providing a premier location for the development, demonstration and display of solar technology, clean advanced transportation technology, energy efficiency solutions and green building and construction products. In addition, the building itself will be renovated into a LEED Silver Certified “green building” with a goal of Platinum, which will be a model of sustainability throughout and which will serve as a physical demonstration of the City’s commitment and capabilities at sustainable design.

It is anticipated that the facility would include a clean technology demonstration and prototype manufacturing center. This Clean Tech Demonstration Center (CTDC) will provide commercialization, incubation and prototype manufacturing services that will
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assists emerging clean tech companies to start and grow their businesses in San Jose and
Santa Clara County.

The EIC would also house a construction material “Reuse Store”, a retail outlet where
quality, used and surplus building materials are sold at a fraction of normal prices. The
building would also offer training and meeting space for clean tech, energy efficiency and
green building organizations.

The Environmental Services Department hired Business Cluster Development (BCD) to
prepare the following report identifying the programs that will likely utilize the Las
Plumas facility, prepare an estimated operating budget for the facility, and identify
potential funding sources to support the operating budget. At a later date, BCD will be
developing an organizational design, including staffing and advisory board functions for
the EIC.

Programming Overview

The EIC is planned to house three major functions:

A. Clean Tech Demonstration Center

Because many emerging technology companies lack a place to test their technology on a
commercial level or to manufacture a prototype product, San Jose is extending its
traditional incubation model to form a continuum of commercialization services
necessary to create a full clean technology innovation cluster - from technology
innovation through incubation, demonstration, early stage manufacturing and market
entry within a single unified process.

The San Jose Clean Tech Demonstration Center (CTDC) will provide 17,000 SF of
industrial space as well as limited office and meeting space and will be the clean tech
innovation, development and demonstration facility for solar energy, green fleet vehicles
and green building/energy efficiency technologies emerging from the City’s incubator
network and from across Silicon Valley. In addition, the CTDC will be a model of green
building design and construction best practices.

The program elements of the CTDC could include:

- **A Solar Demonstration Site** - where Silicon Valley companies can work on
  and test new solar technologies in order to speed adoption by taking advantage
  of San Jose's technology demonstration and Green Vision policies. Solar
  technologies developed at the CTDC may also power parts of the facility.

- **An Electronic Transportation Development Center (ETDC)** - where Silicon
  Valley companies can work together to design, test and commercialize
  prototypes of advanced clean and renewable energy transportation
  technologies for green fleet commercial vehicles of all types. The ETDC will
provide lab and prototype manufacturing space for a series of clean transportation demonstration vehicles.

- **A Demonstration Display for Green Building Materials and Energy Efficient Technologies** - where contractors, designers and consumers can learn about green construction materials and energy efficiency technologies and see samples of green building materials and energy efficiency products on-site.

Finally, the CTDC would provide a link back into the Environmental Business Cluster (EBC) and the San Jose BioCenter, the City’s environmental and biotech incubators. The CTDC programs are described in more detail below, along with a discussion of possible revenue opportunities for each program.

**B. The Construction Material Reuse Store**

The Construction Material Reuse Store would be a 15,000 square foot retail outlet where quality, used and surplus building materials are sold at a fraction of normal prices. The materials sold in this type of facility are usually donated by contractors and developers that wish to support nonprofit organizations that reuse building materials. The regional resource would provide an opportunity for the community to buy relatively new and surplus construction material at fraction of the cost of retail construction supply stores. This local resource could allow community members to upgrade from older to more energy efficient products. This operation would bring a range of homeowners and contractors to this site by offering quality products at discounted prices. The business model described above is based on the Habitat for Humanity ReStore which has operations nationwide including Oakland and Sacramento. Proceeds from Habitat for Humanity’s ReStore help fund the construction of low income houses within the community. In addition to raising funds, the ReStore helps the environment by channeling good, usable building supplies and materials back into the economy instead of entering the landfill.

**C. Environmental and Job Training Programs**

Both environmental technology training and green job training could take place within the EIC. Housed between the Reuse Store and the CTDC will be common shared office and conference room space for those two programs as well as conference room and training space for environmental technology and green job training programs. The facility would provide space where contractors, remodeling experts, designers and others can learn about green construction and green building materials, and where PG&E and other groups can provide educational seminars on clean technologies and energy efficiency products and programs. Programs would cover reuse, use of green building materials, energy efficiency technologies, lighting technologies, clean transportation, renewable energy, and sustainable building practices. Green workforce training by the City and other organizations, and linked with the San Jose’s clean tech and biotech incubators, can help prepare others for employment in the clean tech and environmental sectors. A large conference room and training room will be available for these uses. The CTDC display center will also help support these education/training efforts in a pragmatic way through
their display of the latest recycled or green construction materials and energy efficient products.

**Facility Design**

The city-owned Las Plumas facility is a former industrial building that will be renovated into a 40,000 square foot Environmental Innovation Center that would house:

- a 17,000 square foot Clean Tech Demonstration Center,
- a 15,000 square foot construction material reuse retail operation, and
- approximately 8,000 square foot of shared office space and meeting/training rooms.

The facility itself will also serve as a showcase for green building design through the use of green and re-used construction materials, solar energy production, and energy efficiency measures. Additionally, the site will utilize best practices in storm water management, waste and water reduction and sustainable landscaping. Architectural design is underway at this time.

**Facility Staffing**

The Las Plumas facility is owned by the City of San Jose and will be operated by the Environmental Services Department (ESD). ESD will continue to provide a currently budgeted full-time Facility Manager that will provide oversight and facilitation of City facility services such as maintenance, grounds keeping. The CTDC and the Reuse Store will also each have its own management and administrative staff on-site in the building. BCD is currently working with the City to further define management details of the EIC, such as scheduling of educational and training events, co-ordination of solar technology or energy efficiency demonstration projects, as well as other facility issues.

**Facility Budget**

Each program (below) occupying space at the facility will pay either a use fee or a share of monthly operating expenses, including all utilities. State law currently prohibits the sub-metering of tenant space. Both the CTDC and the Construction Reuse Store would contribute to operating costs. Non-resident organizations using the conference and training facilities intermittently could pay a daily use charge. Actual operating and use fees would be set in the future. It is anticipated that the LEED Certified green building will keep most operating costs to a modest level.

**Specific Proposed Uses & Revenue Opportunities**

**Clean Tech Demonstration Center**

1. Solar Demonstration Site
A solar demonstration site would be established where commercial prototypes of new solar technologies could be tested in order to speed adoption of successful technology in San Jose and Silicon Valley. Many emerging solar technology companies need an opportunity to demonstrate that their technology works in a commercial setting. Private and public entities are often reluctant to risk trying new technologies and this significantly slows adoption of the very technologies needed to combat climate change and increase availability of renewable energy sources and energy efficiency products. The City can provide such a demonstration opportunity within a controlled environment at the Las Plumas facility using its unique technology demonstration policy.

The Las Plumas facility has ample space to allow photovoltaic and other solar arrays to be placed on the roof or on the grounds surrounding the facility. Such solar arrays can be connected to building electrical or hot water infrastructure and be monitored and tested. It is not anticipated that the solar demonstration projects will require significant space inside the building, probably only one room where solar energy production and use can be monitored. This solar demonstration facility will not only allow for technology demonstration and testing of multiple types of cutting-edge solar technologies over time, but it can be used to provide power for HVAC and lighting, as well as hot water for the building, under appropriate circumstances. In addition, solar car shades demonstrating a variety of photovoltaic technologies could be used to cover the parking areas around the facility.

The creation of the Solar Demonstration Site will also help the City Economic Development and Redevelopment officials, the EBC, and San Jose BioCenter recruit emerging solar companies to San Jose.

**Revenue Potential:** Emerging solar companies often have research funding that can be used to cover expenses such as facility charges. In many circumstances, the demonstration solar technology can reduce facility utility costs modestly. A conservative estimate of the combined utility bill savings from various solar demonstration projects over one year would be 10% of facility utility charges. It is probably premature to reflect such savings in the utility budget at this early stage, but income from use fees for four solar demonstration projects per year are reflected in the attached budget. Fees are estimated to be $48,000 in the first year. It is also likely that some solar companies may be willing to donate their technology permanently for public relations reasons, and this could permanently reduce utility costs.

2. Electronic Transportation Development Center

The proposed Electronic Transportation Development Center (ETDC) will house labs and prototype manufacturing space for a series of new clean vehicles. The ETDC will draw upon existing and emerging Silicon Valley technologies—including hardware, software, and communications solutions—to spur the growth of next-generation clean transportation technologies. Vehicles are the largest single source of CO2 and addressing this problem is critical for San Jose’s Green Mobility goals. A primary focus of the ETDC program will be supporting the City’s green fleet development and policies
through special projects designed to help the City develop the clean, advanced transportation vehicles it will need in the future.

The ETDC facility would include technology labs, assembly and manufacturing space, and would offer the services, equipment, and physical location necessary to attract and engage Silicon Valley companies. Over 75 Silicon Valley companies have already identified technology or products appropriate for clean transportation projects and indicated their interest in the ETDC. The ETDC will also offer up to 30 cubicles in their space to companies partnering on projects.

**Revenue Potential:** The ETDC would contribute a pro-rata share of operating costs based upon their square footage (17,000 SF). This contribution is reflected in the attached budget. The ETDC’s own revenue sources include sponsorships, prototype manufacturing fees charged to members using the manufacturing space, lab fees charged to members using the lab space, modest cubicle fees charged to members using cubicles, modest fees for displaying vehicles within the ETDC space, fees charged members for special events, consulting fees generated by ETDC staff for transportation consulting advice to clients, and program grants for ETDC clean transportation projects. Although the last source can be significant, grant funding is also unpredictable from a cash flow perspective. No grant funding is needed for the ETDC to meet its facility operations contribution. The other, more predictable sources of income provide more than adequate income to cover the ETDC obligation at Las Plumas. The ETDC contribution to operating costs is included in the attached budget and is estimated to be $122,400 in the first year.

3. Green Building Materials and Energy Efficient Technology Displays

Buildings are responsible for 40% of the energy consumption in the United States. Technology and materials are available to help reduce energy consumption, but are not yet in widespread use. In addition to more education, developers and contractors need to see green building materials and energy efficient products in use or on display before they adopt and use those technologies. Use of recycled and reused material for construction is also critical to meet San Jose’s zero waste goals.

The displays located within the EIC could be established so that contractors, remodeling professionals, consumers and others can see a variety of green building materials and energy efficiency products available to design, construct and remodel buildings that promote a sustainable and energy efficient environment. It is anticipated that such displays could include insulation, windows, renewable energy and roofing products, green/recycled construction materials, and lighting solutions, among others. The retrofit of the Las Plumas building will incorporate such materials and be displayed as part of a broader education component.

Both the National Association of the Remodeling Industry and Silicon Valley Energy Watch have expressed interest in assisting with displays that would showcase the latest green building materials and technologies. Local start-ups and environmental non-profits, that are synergistic with EIC uses, could be offered office cubicle space within the...
building. Their inclusion could enhance the networking occurring in the building and improve community-based environmental awareness.

**Revenue Potential:** Several organizations have discussed renting a small amount of office space at the facility to facilitate their work at Las Plumas and in Silicon Valley, and/or to place them within a vibrant clean tech and green facility. We have conservatively estimated rental income for six small office cubicles to accommodate this need and have reflected this income in the attached budget. The rental income is estimated to be $5,400 in the first year.

**CTDC Budget Risk.** Following industry best practices for incubators and innovation centers, the CTDC will actually rely on eleven different revenue lines spread over three distinct programs. This diversity of income provides safeguards to reduce the risk of budget shortfalls. For example, 75% of the ETDC staffing costs will be incurred by consultants hired to work on specific grant awards. If the grants are not awarded on time, or at all, then the consultants related to that ETDC project will not be hired. Another example of the diversity provided is that all CTDC revenues could operate at 25% of projections in a given year and CTDC operating expenses could still be met. In a similar manner, grant revenue could operate at 10% of projections, and that level of grant funding, and along with other revenue lines, would still allow CTDC operating expenses to be covered. Finally, it should be noted that completion of construction at the Las Plumas facility is at least two years away. This will allow more than adequate time for grants, sponsorships, display revenue and solar demonstration projects to be secured in advance of the opening of the facility.

**The Construction Material Reuse Store**

The Construction Material Reuse Store will be a 15,000 square foot retail outlet where quality, used and surplus building materials are sold at a fraction of normal prices. The materials sold in this type of facility are usually donated contractors and developers that wish to support reuse of building materials. This regional outlet would provide an opportunity for the community to buy relatively new and surplus construction material at fraction of the cost of new products. This local resource could allow community members to upgrade older and less energy efficient products with more efficient products. The business model described above is most similar to the Habitat for Humanity ReStore which has operations in Oakland and Sacramento. Proceeds from Habitat for Humanity’s ReStore help fund the construction of low income houses within the community. In addition, the ReStore contributes to the City’s recycling infrastructure by recycling new or nearly new usable materials back into the economy, preventing these items from entering the landfill.

**Revenue Potential:** The Reuse Store will be charged for its proportional share of facility costs based upon square footage (15,000 SF). Habitat for Humanity has operated a ReStore in Oakland for five years and has an established track record of financial sustainability. They operate 2 such stores statewide and 83 stores nationwide. Habitat has successfully covered facility charges of approximately the same amount per square
foot in Oakland and are likely willing to contribute similar costs at Las Plumas. A contribution is included in the attached budget and is estimated to be $108,000 in the first year.

**Environmental and Job Training Programs**

The education and training programs will be developed so contractors, remodeling experts and designers, as well as consumers, can be trained on the latest advances in green building materials, energy efficient lighting and sustainable building practices. The City can also use the facility to provide training on such practices to help accomplish landfill diversion goals and to help increase demand for reused and recycled construction material alternatives. The City and others can conduct green job workforce training at the facility. These trainings will occur in a facility where emerging and established clean tech companies are developing cutting edge technologies and may be able to offer internships and employment opportunities.

A number of groups indicated interest in an education and training center. For example, the City of San Jose operates the Silicon Valley Energy Watch program in partnership with Pacific Gas & Electric Company which provides 15-25 half-day and full-day classes per year in San Jose. At present, it does not have a permanent location in the South Bay for classes, which attract 30-60 contractors per session. Also, specific trainings such as lighting and other green technologies cannot be offered because the classes are held at a temporary location where the necessary equipment cannot be set-up. With a permanent location, similar classes could be held for residential homeowners.

Silicon Valley Energy Watch has also expressed an interest in the possibility of establishing an energy efficient lighting display center in the building, and the National Association of the Remodeling Industry (NARI) also expressed interest in classroom space for teaching green building classes to remodeling professionals. They currently offer such programs at hotels and holding workshops at the EIC would allow for more “hands-on” training experience. NARI has also expressed an interest in helping develop displays of green building/remodeling materials.

**Revenue Potential:** Several groups related to the types of training described here have modest space needs and indicated a desire to have office space in such a facility. We have conservatively estimated rental income for three small office cubicles to accommodate this need. As noted above, many groups pay for use of training sites now. We have included a modest revenue line in the budget for training room fees. Both items are included in the attached budget and are estimated to total $15,600 in the first year.

**Office Space for Environmental Business Cluster**

The EBC could provide incubation, or start-up, services to many of the young companies involved with the CTDC, as well as local residents wishing to start environmental companies. The Cluster may wish to consider a small satellite office to augment its downtown San Jose location.
Revenue Potential: The EBC may be able to contribute its proportionate share of facility operating expense. Because it is a small income item that has not been fully explored, it is not included as revenue in the attached budget.

Budget Estimate

Design and architectural work has not yet been completed for the Las Plumas facility, and detailed operating cost estimates are not yet possible. However, preliminary cost estimates have been developed for the purpose of providing an initial budget for planning purposes. The Department of Public Works assisted BCD in developing a preliminary cost estimate for operations.

A pro forma budget for the first three years of operation of the full 40,000 SF facility has been attached for planning purposes. We have identified five revenue lines within the budget. In addition, we have listed the expense items identified during discussion with City staff, as well as several IT related expenses that BCD believes should be provided at a facility-wide basis. We have also added a 10% contingency line for expenses items currently unidentified. The total expense budget for the first year is estimated to be $292,380, or $.61/sf/month. Based upon BCD experience with over 50 other incubation and innovation center projects, we believe the budget is representative of the likely facility operating expenses. Estimated revenues offset operating costs in each year, producing a small surplus.

In addition to covering City operating costs, it is helpful to understand how the estimated rate of $.61/sf/mo compares to local rental rates. According to the Grub & Ellis Market Research Report for the second quarter of 2009, asking rental rates for industrial rates in San Jose ran from $.48-$1.48NNN/sf/mo for R&D and Flex space. The Las Plumas facility has attributes of both types of industrial space. A review of current industrial listing of comparable industrial space shows a range in asking rental rates of $.33-.92NNN/sf/mo. In order to attract users, it is important not to charge more than existing comparable properties. At $.61/sf/mo, it appears that the Las Plumas facility would also be priced competitively within the current San Jose industrial market.

Conclusion

The San Jose Environmental Innovation Center can provide the City of San Jose and the local community with a premier education, training, innovation and demonstration facility that will promote green design and construction practices and encourage (1) use of solar and other renewable energy, (2) green fleet development and (3) adoption of energy efficiency technology. As a LEED facility, the project can demonstrate San Jose’s commitment to best practices in environmental design and construction. Finally, the combined aspects of all of these activities will create a hub of environmental and clean tech activity that will attract both businesses and residents to participate in a network of environmental activity that will serve as a demonstration of San Jose’s continued technology innovation and leadership in the clean tech and environmental sectors.
It appears that program users can cover the facility operating costs. The facility itself can also be used as a cost match for multiple federal and state grants in the future that can be developed through the programs described herein. By combining technology development, commercial demonstrations, public technology displays, green workforce training and clean tech education seminars, the City of San Jose will have developed an innovative link in their efforts to attract, facilitate and grow a clean tech and environmental sector that can both provide job diversity and help solve the climate problems for the City and the region.