
SALT LAKE CITY COUNCIL STAFF REPORT

DATE: August 8, 2006

SUBJECT: Petition No. 400-05-38 – Initiated by the Salt Lake City Mayor to approve an Ordinance Adopting Title 18, Chapter 95 of the Salt Lake City Code requiring Leadership in Energy and Environmental Design (LEED) Compliance and Certification for City-funded building projects of 10,000 square feet or larger

STAFF REPORT BY: Jennifer Bruno, Policy Analyst

AFFECTED COUNCIL DISTRICTS: City-wide

ADMINISTRATIVE DEPT: Mayor's Office
AND CONTACT PERSON: Lisa Romney, Environmental Advisor to the Mayor

NOTICE REQUIREMENTS: Newspaper advertisement and written notification to surrounding property owners 14 days prior to the Public Hearing

KEY ELEMENTS:

- A. The Administration's transmittal contains an ordinance for Council consideration to amend the Zoning Ordinance to require certain City-funded building projects to comply with and be certified within the Leadership in Energy and Environmental Design (LEED) rating system prepared by the United States Green Building Council (USGBC).
- B. The stated purpose of the proposed ordinance "...is to promote development consistent with sound environmental practices..." The proposed ordinance:
 1. Requires all commercial or multi-family residential buildings, new construction or major renovation, that receive City funds, that are more than 10,000 square feet to be designated as "Certified" according to the USGBC's LEED standards.
 2. Requires all municipal buildings, new construction or major renovation, to be designated "Silver" according to the USGBC's LEED standards.
 - "Major Renovation" is defined as affecting more than 25% of a building's square footage, and/or demolishing the space down to the shell of the structure.
 3. Excludes Library and Redevelopment Agency-funded projects from the "Applicable building project" definition. Projects funded by the Library or the Redevelopment Agency are not subject to the proposed ordinance.
 4. Creates a "High Performance Building Board" consisting of five members, appointed by advice of the Mayor and consent by the Council, serving two years each, that will hear appeals and approve exceptions or findings of "substantial compliance." Each member shall either be a LEED certified professional, or shall have substantial knowledge of other, related fields.
 5. Creates the following "outs" for a City-funded project – the Building Official (Director of the Building Services Division or designee), and either the Chief Procurement Officer or the City Engineer jointly determine, in writing, that any of the following circumstances exist:

- a) The project will serve a specialized, limited function (such as a pump station, garage, storage building, equipment area, etc);
 - b) The project is intended to be “temporary” (defined in the ordinance as intended to be in existence for 5 years or less, or any existing building that was, at the time of construction, intended to be in existence for 5 years or less);
 - c) The useful life of the project or other factors do not justify whatever additional expense would be incurred to increase the long-term efficiency;
 - d) The application of LEED standard factors will increase construction costs beyond the funding capacity for the project, or will require that the project’s scope of work or programmatic needs be diminished to meet budget constraints;
 - e) The use of LEED standard factors will create an impediment to construction because of conflicts of laws, building code requirements, federal or state grant funding requirements, or other similar requirements;
 - f) LEED factors are not reasonably attainable due to the nature of facilities or the schedule for construction;
 - g) LEED certification will violate any other federal, state or local law.
6. Provides for an appeal of the Building Official’s decision to *not* grant an exception. An applicant may submit an appeal in writing to the board within 30 days of the Building Official’s written determinations.
 7. Provides for the option of a waiver (similar to an exception). The High Performance Building Board will have the authority to grant a waiver from the proposed LEED requirements, to any project if it makes any of the following findings in writing:
 - a) Literal enforcement of the requirements will create an unnecessary hardship for the applicant that is not necessary to carry out the general purpose of the ordinance;
 - b) There are special circumstances attached to the project that do not generally apply to other projects subject to this chapter;
 - c) The waiver would not have a substantially negative affect on the Master Plans, policies, and resolutions of the City;
 - d) Any asserted economic hardship is not self-imposed;
 - e) The spirit of the ordinance will be observed.
 8. Allows for the High Performance Building Board’s decisions to be appealed, in writing, to the Mayor or the Mayor’s designee, within 30 days of the decision.
 9. Requires that all private sector developers who receive City funds for these applicable building projects submit a \$10,000 “good faith” deposit to the City, to be refunded upon the building project receiving the applicable level of LEED certification.
 10. Requires that within 30 days from receiving notice that the City will fund an applicable building project, the private sector developer will submit written proof that said project is registered with the USGBC. City funds will not be dispersed until the required deposit and proof of registration are received by the City. (*Council Staff note: Basic project information is needed to complete the USGBC registration process, but not detailed building plans. There is a \$600 non-refundable charge for registration - \$450 for members of the USGBC. Salt Lake City Corporation is currently a member of the USGBC. Please see attached LEED Registration form for further details on what kind of information is required).*
 11. Provides for an option if the USGBC does not issue the certified level required for this chapter. A private sector developer may request that the City issue a

determination of “substantial compliance.” The Building Official, and either the Chief Procurement Officer or the City Engineer must jointly determine that the developer has established the following:

- a) That reasonable, appropriate, and on-going efforts to comply with this chapter were taken;
 - b) That compliance would otherwise have been obtained but for the practical or economic infeasibility of the LEED standards or construction techniques;
 - The ordinance notes that cost increases due solely to aesthetic elements shall not constitute “unreasonable burden.”
12. Provides that if a private sector developer does not receive the required LEED certification, and does not receive the finding of “substantial compliance” described above, the developer then forfeits their \$10,000 good faith deposit, and may be assessed a penalty, up to the original amount loaned by the City. The penalty may be assessed based on a direct analysis of the 26 possible LEED design credits, on the following schedule:

Design credits the City determines the project “could have reasonable received”	Percentage of original City funds to be paid back (up to)
21 – 25 credits	25%
16-20 credits	50%
6-15 credits	75%
0-5 credits	100%

13. The ordinance is effective 90 days after the date of its publication. However the ordinance leaves the Council the option of filling in a “start date” for a defined “applicable building project.”

C. Key points from the Administration’s transmittal are as follows:

1. The petition was initiated by Mayor Anderson following his signing of an Executive Order (issued July 8, 2005, amended January 19, 2006) requiring that City-owned new buildings and major renovation projects be built using LEED standards. *(Council Staff note: the original Executive Order required that City-owned buildings be built to the “Certified” standard. On January 19, 2006, the Executive Order was amended to increase the requirement to the “Silver” standard).*
2. The primary purpose is to ensure that projects utilizing City funds are built to high performance building standards with respect to energy, water, and material resource conservation.
3. The LEED rating system is a point-based certification process for high-performance, environmentally responsible building design and operation. Points are awarded by the USGBC, based on various factors, such as proximity to public transportation, energy efficiency, erosion control, building innovation and design, indoor environmental quality, reducing construction waste, water efficiency and use of recycled materials. The number of points awarded determine the level of LEED achieved, as follows:

LEED Level	Points Needed
Certified	26 – 32
Silver	33 – 38
Gold	39 – 51

4. There are separate LEED certification standards for new construction (LEED-NC), commercial interiors (LEED-CI), and existing building upgrades (LEED-EB).
5. As of May 2005, 2,000 buildings have been registered with the USGBC for certification. An additional 216 buildings have completed certification and are rated as Platinum, Gold, Silver, or Certified.
6. The following are select LEED Certified or registered buildings in Utah:
 - Olympic Speed Skating Oval – Kearns (LEED, Certified)
 - OSHA Salt Lake Technical Center – Sandy (LEED, Silver)
 - Scowcroft Building – Ogden (LEED, Silver)
 - Big-D Construction corporate office – Salt Lake City (LEED, registered)
 - Intermodal Hub – Salt Lake City (LEED, registered)
 - Broadway Office Building – Salt Lake City (LEED, registered)
 - University of Utah Health Sciences Education Building – Salt Lake City (LEED, registered)
7. Exhibit #2 in the Administration's Transmittal (in the Planning Commission's packet section), details the technical review of costs of LEED certification. It notes that upfront costs can vary depending on the project and the site (with some aspects achieved at no cost – solar orientation, south facing windows, etc). It also notes that the stage at which the LEED concepts are introduced into the design can drastically affect costs (if LEED is considered at the outset, re-design costs are minimized). *"The Cost and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force"* (Exhibit 3) issued in October 2003 provided a now nationally-recognized cost analysis:

Level of LEED Certification	No. of Buildings	Average Premium
Platinum	1	6.50%
Gold	6	1.82%
Silver	18	2.11%
Certified	8	0.66%
<i>Average</i>	33	1.84%

- *Council Staff Note:* in the recent discussions involving the costs of a proposed Public Safety Building, the consultants estimated a premium of 13% to build to a "Gold" Standard of LEED. Admittedly the consultants were cautious in their estimate, and have communicated to the Police Department that the premium will likely be much lower. No cost premium analysis has been done for other City buildings proposed in the next few years (Fleet Facility, Fire Stations, etc).
- The Administration notes that in the case of the Intermodal Hub, which will eventually be a LEED Certified building, saves 20-25% per year in energy costs. The engineers of the Hub estimated a 10 year payback for the extra cost of construction using the LEED rating system. It should be noted that the Utah Transit Authority, pursuant to the recent Council decision, will be the owner/operator of the Intermodal Hub.

- D. The following chart shows the various costs, charged to a developer by the USGBC, associated with LEED project certification:

	Less than 50,000 Square Feet	50,000 - 500,000 Square Feet	More than 500,000 Square Feet
LEED-NC, LEED-CI, & LEED-CS	Fixed Rate	Based on Sq. Ft.	Fixed Rate
Design Review			
Members	\$1,250.00	\$0.025/Square Ft.	\$12,500.00
Non-Members	\$1,500.00	\$0.03/Square Ft.	\$15,000.00
Construction Review			
Members	\$500.00	\$0.01/Square Ft.	\$5,000.00
Non-Members	\$750.00	\$0.015/Square Ft.	\$7,500.00
LEED-NC, LEED-CI, & LEED-CS	Fixed Rate	Based on Sq. Ft.	Fixed Rate
Combined Design & Construction Review			
Members	\$1,750.00	\$0.035/Square Ft.	\$17,500.00
Non-Members	\$2,250.00	\$0.045/Square Ft.	\$22,500.00
LEED-EB	Fixed Rate	Based on Sq. Ft.	Fixed Rate
Initial Certification Review			
Members	\$1,250.00	\$0.025/Square Ft.	\$12,500.00
Non-Members	\$1,500.00	\$0.030/Square Ft.	\$15,000.00

Source: www.usgbc.org

- E. City Departments and Divisions provided comments:

1. Building Services – identified the need for staff training in order to provide specialized plan reviews associated with LEED certification.
2. Management Services – would need to include the LEED certification fee and additional building costs as a line item.
3. Economic Development – small business owners applying for the Revolving Loan Fund would need to identify the benefits of LEED and would likely need assistance with the certification process.
4. Airport – The Department of Airports supports the general ordinance and the importance of sustainability, but encourages exceptions to allow for flexibility, should the situation arise that additional expense and time for construction are not in the best interest of the City. The Airport is concerned that LEED certification may be very difficult to obtain for airport buildings because of the unique nature of airports. The costs of certification seem to be prohibitive as well. Based on the Airport's current master plan, it would cost in excess of \$40,000 in fees to the USGBC to pursue the certification process, and the upfront development costs would be \$59 to \$109 million more than the previously planned costs. The Airport contacted the project manager for the new Delta terminal and concourse in Boston, which was constructed with the sole intent of having a LEED "Certified" rating (and has received much national and international media attention as the first LEED certified airport terminal). As of July, the project manager indicated that they had still not received certifications, and because the criteria are geared towards standard commercial buildings. Because the certification committee adheres to a strict interpretation of these criteria, it has been difficult to convey to them the unique aspects related to airport facilities. (*Council Staff note: A recent search of the USGBC Certified Project List did not yet show the Delta Terminal in Boston as a certified project*).

- Note: The Administration responded to the Airport's response, indicating that the USGBC is now working on guidelines specific to airport construction, and that will ideally address these concerns.
5. Fire – The Fire Department supports this ordinance and communicates that it will be a positive feature of the City.
 6. Transportation – The Transportation Division supports the ordinance.
 7. Public Services
- F. On November 16, 2005 the petition was presented at an open house. 19 people attended, with limited representation from Community Councils and non-profit groups (the majority of attendees were architects and engineers). Twelve were in support of the ordinance, one inquired about alternatives, and six left no comments.
- G. The Planning Commission discussed the petition on two occasions.
1. On December 14, 2005, the Planning Commission voted unanimously to transmit a favorable recommendation with the following modifications:
 - Add a requirement for a \$10,000 good faith deposit
 - Add standards for review of requests for exceptions
 - Determine whether exceptions should be decided and granted by the Procurement Officer or the Board
 - Require City buildings to be “Silver” rather than “Certified”
 - Develop incentives for the private sector to obtain LEED certification, such as an expedited permitting process
 - a) Discussions included a desire to see incentives for the private sector to building LEED Certified buildings (expedited permitting), public education and awareness of LEED.
 2. On January 25, 2006, the Planning Commission discussed the Administration's revisions as a result of the original Commission meeting. The Administration included all of the above revisions with the exception of creating incentives for private sector developers to obtain LEED certification.
 - Staff clarified that incentives were not included as a part of the ordinance because of the comprehensive budget and staffing considerations that need to be addressed. Administration Staff notes in the transmittal memo to the City Council that this will be addressed as a separate but related issue.
 - The Planning Commission voted to forward a positive recommendation regarding the revised ordinance, but also voted to reaffirm that incentives for private sector LEED certification should be developed by the City.
 - a) Discussions included concern that incentives for the private sector were not included as a part of the ordinance.
 - b) The Planning Director informed the Planning Commission that an incentive program would be worked on, and the Commission would be informed of the City's progress.

MATTERS AT ISSUE:

- A. The Council may wish to re-visit two of the factors that can be used as a justification for an exemption from the proposed ordinance (B.5.d and f, above, and re-listed below). While it is prudent for the City to give the option of exemption for developers facing funding or construction challenges, the language in the proposed ordinance is fairly vague. The Council may wish to ask the Administration if there is any more specific and objective way to judge these factors (possibly a percentage threshold - if construction costs increase

beyond 25%, than the exemption is granted; or a time threshold - if construction would need to be delayed for more than *6 months* to attain LEED certification, than the exemption is granted). It should be noted that Administrative Staff contacted the Attorney's Office regarding specific number thresholds. The Attorney's Office advised against specific numbers because projects vary so considerably. The following are the factors that the Council may wish to revisit, that can be used to grant an exemption:

- The application of LEED standard factors will increase construction costs beyond the funding capacity for the project, or will require that the project's scope of work or programmatic needs be diminished to meet budget constraints;
 - LEED factors are not reasonably attainable due to the nature of facilities or the schedule for construction;
- B. The Council may wish to consider if and how the \$10,000 "good faith" deposit may negatively impact non-profit developers, who routinely seek City funding, and who generally do not have additional working capital available. The Council may wish to clarify with the Administration if the intent of the ordinance was to include non-profit developers as a "private sector" developer.
- C. The Council may wish to ask the administration if any financial analysis has been conducted to determine the additional costs/benefits to build the recently-approved new Fleet Facility, to Silver LEED standard.
- D. The Council may wish to revisit the policy basis for exempting Redevelopment Agency and Library Fund projects from the LEED Certification requirement. While there may need to be more specific exemption procedures, due to the number and various scales of Redevelopment Agency projects, the Council may wish to ask that these be revisited.

MASTER PLAN AND POLICY CONSIDERATIONS:

- A. On May 8, 2001, the Council adopted a Resolution entitled "Regarding Reducing the Demand for Electrical Power and other Forms of Energy." The resolution states:
- "NOW BE IT THEREFORE RESOLVED, that it is the policy of the City Council that Salt Lake City Corporation should set an example to the residents and businesses it represents to conserve electrical power and other forms of energy.
- BE IT FURTHER RESOLVED, that the City Council requests that the City Administration review its current policies and implement additional policies as necessary to conserve all forms of energy within its departments, divisions, and agencies, particularly during peak hours of energy use and to schedule an update for the City Council by July 1, 2001."
- B. While no adopted City Master Plans address LEED certification specifically, the following details references to energy efficiency in the various plans:
1. East Bench Master Plan (1987) – "Advertise and support energy conservation techniques such as car-pooling, home insulation, site design, etc...Require energy efficiency in new and rehabilitated housing which employs public funds...Work with residents interested in constructing greenhouses, solar panels, and other energy efficiency systems." (p. 7)
 2. Northwest Jordan River/Airport Master Plan (1992) – "Many energy saving techniques have been published in recent years identifying ways to improve energy efficiency, but they have not been widely applied to existing structures. The

- perceived cost/benefit for retrofitting for energy conservation limits its application. The City should investigate strategies supporting increased use of energy conservation techniques on a citywide basis...Energy conservation should be addressed comprehensively as a city-wide issue." (p. 8)
3. West Salt Lake Community Master Plan (1995) – "Provide for energy efficiency and conservation within the existing infrastructure of the community. Encourage energy efficiency improvements in existing structures; promote the use of energy conservation techniques in all new construction..." (p. 15)
 4. Capitol Hill Master Plan (1999) – "Improve transportation circulation and encourage transportation alternatives that reduce vehicle emissions, such as mass transit, flexible work schedules, and telecommuting." (p. 22)
 5. Sugar House Master Plan (2001) – "Reducing urban heat is of particular importance because of it affects the overall health, comfort and livability for citizens within every community. Urban heating has a direct affect on energy consumption, regional climate, air and water quality, storm water management and urban wildlife. Cool communities strategies should be incorporated into the design of new development wherever possible." (p. 65)
- C. The Salt Lake City Vision and Strategic Plan states the following goal relating to the proposed amendment: "Develop 'business friendly' licensing and regulatory practices."
- D. The City's 1990 Urban Design Element includes statements that emphasize preserving the City's image, neighborhood character and maintaining livability while being sensitive to social and economic realities.

CHRONOLOGY:

Please refer to the Administration's transmittal for a complete chronology of events relating to the proposed text amendment.

- | | |
|---------------------|--|
| • July 8, 2005 | Mayor issues Executive Order relating to City buildings. |
| • October 17, 2005 | Petition received in the Community Development Dept. |
| • November 16, 2005 | Open House |
| • December 14, 2005 | Planning Commission public hearing |
| • December 21, 2005 | Revised Ordinance request from the City Attorney |
| • January 25, 2006 | Planning Commission considers revised ordinance |
| • January 26, 2006 | Transmittal completed by project planner |
| • April 27, 2006 | Transmittal received in Council Office |

cc: Rocky Fluhart, Sam Guevara, Lisa Romney, Rick Graham, Kevin Bergstrom, Tim Harpst, Louis Zunguze, LuAnn Clark, Alexander Ikefuna, Brent Wilde, Doug Wheelwright, Cheri Coffey, Kurt Larson, Val Pope, Barry Esham, Marge Harvey, Janice Jardine, Dave Oka, Valda Tarbet

File Location: Community Development Dept., Requiring LEED Compliance and Certification for City-funded building projects of 10,000 Square Feet or larger, Mayor initiated request



LEED: LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN PROJECT REGISTRATION

INSTRUCTIONS: First login with your www.usgbc.org email address and password or create a new account in the first section below. Complete all required fields in remaining sections of the form. You can save this form by clicking "Save a Copy" in the Acrobat toolbar and complete it offline. All numeric fields should be entered without punctuations. When you are finished, click the Submit Secure Form button at the bottom of the form. Please click submit **ONLY ONCE**. Your data will be transferred over secure SSL to USGBC for automatic processing. If you chose to pay by credit card, your card will immediately be charged for the amount due as indicated in this form. You will receive email confirmation once your registration has been processed.

ACCOUNT/LOGIN INFORMATION

* Indicates a Required Field

☐ I already have a USGBC Web site account.

NOTE: If you already have an account, only enter your email address and password (twice). Do not complete the remainder of this section.

☐ Create a new USGBC Web site account.

* Email Address		* Password Forgot your password? Click here	
* Password (Verify)			
* First Name	* Last Name	* Title	* Company Name
* Street Address 1	Street Address 2	* Company Access ID (If Applicable)	
* City	* State/Province (US/Canada)	* Zip Code	* Country
* Phone	Fax	* Industry Sector	* Referral

PROJECT TYPE

* Indicates a Required Field

RATING SYSTEM TYPE	MEMBER PRICE	NON-MEMBER PRICE
LEED-NC v2.2	\$450	\$600
LEED-EB v2.0	\$450	\$600
LEED-CI v2.0	\$450	\$600
LEED-CS v2.0	\$450	\$600
APPLICATION GUIDE PILOTS	\$2000	\$3000

Please select a project type and indicate whether you are a USGBC National Member to determine your registration fee.

* Select a Rating System Type	
	\$0.00
* Are you a member of USGBC?	Amount Due

GENERAL PROJECT INFORMATION

* Indicates a Required Field

* Project Title		* Is Project Confidential?	
		* How Did You Hear About LEED?	
* Project Address 1	Project Address 2		
* Project City	* State/Province (US/Canada)	* Project Country	* Project Zip Code



LEED: LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN PROJECT REGISTRATION

PRIMARY CONTACT INFORMATION

* Indicates a Required Field

* Primary Contact First Name		* Primary Contact Last Name		* Primary Contact Title		* Organization Name	
* Address 1		Address 2		* City		* State/Province (US/Canada) * Country	
* Zip Code		* Primary Contact Phone Number		Primary Contact Fax Number		* Primary Contact Email Address	

PROJECT OWNER INFORMATION

* Indicates a Required Field

* Project Owner First Name		* Project Owner Last Name		* Project Owner Email Address		* Organization Name	
----------------------------	--	---------------------------	--	-------------------------------	--	---------------------	--

PROJECT DETAILS

* Indicates a Required Field

* Owner Type		* Project Scope		* Site Conditions		* Occupant Type	
* Owner Occupied?		* Gross Square Footage (Gross square footage of the building not including parking or outdoor facilities)		* Project Budget (Soft and hard costs not including site work, furniture, fit-out, and equipment)		* Current Project Phase	

* Project Type (Select ALL Uses that Apply):

- | | | | | |
|--|---|---|--|--|
| ☐ Commercial Office | ☐ Multi-Unit Residential | ☐ Special Needs Housing | ☐ Retail | ☐ Healthcare |
| ☐ Laboratory | ☐ Recreation | ☐ Interpretive Center | ☐ Hotel/Resort | ☐ Stadium/Arena |
| ☐ Public Order & Safety | ☐ Transportation | ☐ Daycare | ☐ K-12 Education | ☐ Higher Education |
| ☐ Restaurant | ☐ Library | ☐ Park (eg, Greenway) | ☐ Campus | ☐ Community |
| ☐ Single-Family Residential | ☐ Animal Care (eg, veterinary) | ☐ Industrial (eg, Manufacturing) | ☐ Assembly (eg, conv. center) | ☐ Financial & Communication |
| | | | ☐ Military Base | ☐ Other |

PAYMENT INFORMATION

☐ CHECK (Payable to U.S. Green Building Council) Mail to: USGBC, P.O. Box 404296, Atlanta, GA 30384-4296.

\$0.00

☐ CREDIT CARD (Your credit card information will be securely transferred over SSL to USGBC for processing).

Amount Due

Credit Card Type	Credit Card Number	Exp Month	Exp Year	Full Name as on Credit Card	Promo Code (If Applicable)
------------------	--------------------	-----------	----------	-----------------------------	----------------------------

SUBMIT SECURE APPLICATION

PRINT FORM

RESET FORM

NOTE: Please click submit only **once** to process your order. DO NOT click submit more than once unless you are notified of errors and must submit again. An invoice will be emailed to you after submitting this form. Please include the invoice number on your check.

APR 25 2006

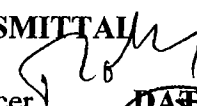
A. LOUIS ZUNGUZE
DIRECTOR

BRENT B. WILDE
DEPUTY DIRECTOR

SALT LAKE CITY CORPORATION
DEPT. OF COMMUNITY DEVELOPMENT
OFFICE OF THE DIRECTOR

ROSS C. "ROCKY" ANDERSON
MAYOR

CITY COUNCIL TRANSMITTAL

TO: Rocky Fluhart, Chief Administrative Officer  **DATE:** April 24, 2006
FROM: Louis Zunguze, Community Development Director 
RE: Petition No. 400-05-38 initiated by the Salt Lake City Mayor to approve an Ordinance Adopting Title 18, Chapter 95 of the Salt Lake City Code Requiring LEED Compliance and Certification for City-funded building projects of 10,000 square feet or larger

STAFF CONTACT: Lisa Romney, Environmental Advisor to the Mayor, at 535-7939 or lisa.romney@slcgov.com

RECOMMENDATION: That the City Council hold a briefing and schedule a Public Hearing

DOCUMENT TYPE: Ordinance

BUDGET IMPACT: None

DISCUSSION:

Issue Origin: Petition 400-05-38 was initiated by Mayor Anderson following his signing an Executive Order requiring that City-owned new buildings and major renovation projects be built using the Leadership in Energy and Environmental Design (LEED) rating system prepared by the United States Green Building Council (USGBC).

Analysis: Salt Lake City's development policies are centered on creating livable neighborhoods through alternative transportation, zero waste, recycling, climate protection, and achieving sustainability by preserving and restoring the natural environment. In support of this direction, the Mayor and City Council have implemented a number of ordinances and policies such as Walkable Communities, Recycling Programs, "e2" business promotion, the Street Lighting Master Plan, and Transit Oriented Development. The proposed LEED ordinance is an additional tool in the City's pursuit of achieving the goal of a livable Salt Lake City. The proposed ordinance would apply to building projects of 10,000 square feet or larger utilizing city funds.

The primary purpose of the proposed ordinance is to ensure that projects utilizing City funds are built to high performance building standards with respect to energy, water, and material resource conservation, thereby contributing to a cleaner and more energy-efficient community.

Master Plan Considerations: Although there are no Master Plan policies or guidelines specific to LEED certification, the City's Master Plans do address energy conservation, transportation, and reuse of contaminated sites. Examples of these policies are included in the 1987 East Bench Master Plan, the 1992 Northwest Jordan River/Airport Master Plan, the 1995 West Salt Lake Community Master Plan, the 1999 Capitol Hill Master Plan, the 2001 Sugar House Master Plan and the 2005 Street Lighting Master Plan as detailed in the attached Staff Report to the Planning Commission. Policies that support LEED Certification also include the Salt Lake City Mayor's 2001 High Performance Building Initiative and Resolution 30, Regarding Reducing the Demand for Electrical Power and other Forms of Energy, which was passed by the City Council in 2001.

PUBLIC PROCESS:

This petition was presented at an Open House held on November 16, 2005. During the Open House, 19 people came to review the ordinance and make comments. The majority of attendees were architects and engineers, with limited representation from Community Councils and non-profit groups. Twelve of the attendees commented in support of the ordinance, one inquired about alternatives, and six left no comments on the proposed ordinance.

The petition for the proposed ordinance was discussed on two separate occasions by the Planning Commission. At the first meeting, held on December 14, 2005, the Planning commission voted to transmit a favorable recommendation to the City Council to approve the proposed ordinance, subject to the following modifications and recommendations:

- Include a \$10,000 “good faith” deposit from all private sector developers who receive City funds for construction of buildings 10,000 square feet or larger. (The ordinance includes a provision for refunding deposits subject to satisfying the LEED specifications as set forth in the ordinance.)
- Require the use of the following standards in the review of requests for exceptions:
 - Literal enforcement of the LEED ordinance would cause an unreasonable hardship for the applicant that is not necessary to carry out the general purposes of the LEED ordinance.
 - The exception would not have a substantially negative affect on the Master Plans, policies, and resolutions of the City and would not be contrary to the purposes of the LEED ordinance.
 - The exception would not be granted if economic hardship is determined to be self-imposed.
- Determine whether exceptions should be decided and granted by a Procurement Officer or a Board appointed by the City Council.
- Require City-owned buildings to achieve the LEED “Silver” rating rather than the lower standard of LEED “Certified” mandated for City-funded projects.
- Develop incentives for the private sector to obtain LEED certification, such as creating an expedited permit process for LEED buildings.

At the second meeting on January 25, 2006, the ordinance was presented to the Planning Commission again as a discussion item in order to clarify the exceptions from applicability of new LEED certification requirements and that determination of substantial compliance be

decided by a Board, staffed by the Building Official or designee (see Attachment 5.A: Memorandum for the January 25, 2006 Planning Commission Meeting). At this second meeting the Planning Commission took two actions:

- Approved the clarification as presented by Staff, and
- Reaffirmed that incentives for private sector LEED certification should be developed by the City as previously recommended on December 14, 2005 (see Attachment 6: Planning Commission Minutes for December 14, 2005, and January 25, 2006).

Staff explained to the Planning Commission that providing private sector incentives is a complex issue and will need to be considered comprehensively by the Administration and the City Council as there are staffing, operational, and budgetary considerations that must be addressed. For this reason, the proposed ordinance does not contain language to address private sector incentives for LEED certification. This will be addressed as a separate but related issue by the Administration and City Council.

RELEVANT ORDINANCES:

Title 18, Chapter 95, Salt Lake City Code (Proposed)

A decision to amend the Salt Lake City Code is a matter committed to the legislative discretion of the City Council and is not controlled by any one standard. A decision to create a new ordinance, requiring LEED compliance for certain City-funded construction is a matter committed to the legislative discretion of the City Council.

TABLE OF CONTENTS

TABLE OF CONTENTS

1. Chronology
2. Ordinance
3. Notice of City Council Public Hearing.
 - A. Notice of City Council Hearing - Posting and Mailing Draft
 - B. Notice of Public Hearing Newspaper Publication Transmittal
 - C. Mailing List and Labels
4. Planning Commission Agendas for the December 14, 2005 and January 25, 2006 Planning Commission Meetings.
5. Reports to the Planning Commission.
 - A. Memorandum for the January 25, 2006 Planning Commission Meeting
 - B. Staff Report for the December 14, 2005 Planning Commission Meeting.
6. Planning Commission Minutes for December 14, 2005 and January 25, 2006.
7. Notice for the November 16, 2005 Open House and December 14, 2005 Planning Commission Public Hearing.

1. CHRONOLOGY

PROJECT CHRONOLOGY

- October 17, 2005 Petition Received.
- October 18, 2005 Petition assigned.
- October 25, 2005 Request for City Departmental comments sent.
- October 26, 2005 Notices for the November 16, 2005 Open House mailed.
- November 16, 2005 Open House.
- November 29, 2005 Notices for the December 14, 2005 Planning Commission hearing mailed.
- December 14, 2005 Planning Commission Hearing.
- December 21, 2005 Revised Ordinance requested from the City Attorney.
- January 20, 2006 Revised Ordinance completed.
- January 25, 2006 Planning Commission consideration of modifications to the Ordinance.
- January 26, 2006 City Council Transmittal packet completed by the project Planner.

2. ORDINANCE

SALT LAKE CITY ORDINANCE

No. _____ of 2006

(Enacting Chapter 18.95 of the Salt Lake City Code Requiring that City Funded Construction obtain a “Certified” or “Silver” Leadership in Energy and Environmental Design (LEED) Designation from the United States Green Building Council (USGBC) under Certain Conditions)

AN ORDINANCE ENACTING TITLE 18, CHAPTER 95, *SALT LAKE CITY CODE*,
REQUIRING LEED CERTIFICATION FOR CERTAIN CITY-FUNDED CONSTRUCTION.

WHEREAS, the City desires to promote sound environmental practices in construction work that is funded by the City; and

WHEREAS, various local stakeholders, including architects, planners, environmental consultants, professors, political leaders, energy experts, health officials, and City staff members have worked with the City extensively to review the Leadership in Energy and Environmental Design (LEED) rating system, which is a system created by the United States Green Building Council (USGBC) to provide a national standard for healthy environmental and energy efficient design; and

WHEREAS, many professionals in our region are familiar with the LEED process, which is considered to be a consensus-based national standard for developing high-performance, sustainable buildings; and

WHEREAS, at this time, the USGBC has formally adopted and promulgated three alternative certification standards, being the LEED Green Building Rating System for New Construction and Major Renovations (LEED-NC) as adopted in November 2002 and revised in November 2005, the LEED Green Building Rating System for Commercial Interiors (LEED-CI) as adopted in November 2002, and the LEED Green Building Rating System for Existing

Buildings Upgrades, Operations and Maintenance (LEED-EB) as adopted in October 2004 and updated in July 2005; and

WHEREAS, the foregoing alternative standards provide for various certifications designated as “Certified,” “Silver,” “Gold,” or “Platinum,” based on the number of specified environmental practices incorporated into a project, with “Certified” being the lowest level of certification; and

WHEREAS, LEED standards are considered to promote a healthy environment, provide long-term cost benefits through the efficient use of energy, optimize building performance, and create healthier workplaces for employees and visitors; and

WHEREAS, the City has determined to require the use of LEED standards under certain circumstances to obtain the benefits promoted by those standards.

NOW, THEREFORE, be it ordained by the City Council of Salt Lake City, Utah:

SECTION 1. Title 18, Chapter 95 of the Salt Lake City Code shall be and hereby is enacted to read as follows:

Chapter 18.95

USE OF LEED STANDARDS IN CITY-FUNDED CONSTRUCTION

18.95.010 PURPOSE. The purpose of this ordinance is to promote development consistent with sound environmental practices by requiring, subject to Sections 18.95.050, 18.95.060, and 18.95.130, that applicable building projects constructed with City construction funds obtain, at a minimum, (1) “Silver” for City owned and operated buildings, or (2) “Certified” for private building projects that receive City funds. These designations shall be from the USGBC as defined herein.

18.95.020 DEFINITIONS. As used in this chapter:

A. “Applicable building project” means the construction or major renovation of a commercial, multi-family residential, or municipal building that will contain more than 10,000 square feet of occupied space when the design contract for such project commences on or after [to be determined at time of Council consideration], 2006.

B. “Board” means the High Performance Building Board created under this chapter.

C. “Building Official” means the director of the division of building services or the designee of the director.

D. “Certified” means the level of compliance with the Leadership in Energy and Environmental Design (LEED) standards designated as “Certified” by the United States Green Building Council (USGBC).

E. “Chief Procurement Officer” means the City employee designated pursuant to subsection 3.24.040A of this code, or any successor to that section.

F. “City construction funds” means funds that are authorized to be used for construction by the City Council for use by any person or City department in order to construct an applicable building project, including, without limitation, loans, grants, and tax rebates. However, this term shall not apply to the funds of the Library or Redevelopment Agency.

G. “City Engineer” means the City employee designated pursuant to subsection 2.08.080B of this code, or any successor to that section.

H. “LEED standard” means the Leadership in Energy and Environmental Design (LEED) Green Building Rating System for New Construction and Major Renovations (LEED-

NC) as adopted in November 2002 and revised in November 2005, the LEED Green Building Rating System for Commercial Interiors (LEED-CI) as adopted in November 2002, or the LEED Green Building Rating System for Existing Buildings Upgrades, Operations and Maintenance (LEED-EB) as adopted in October 2004 and updated in July 2005.

I. “Major renovation” means work that demolishes space down to the shell structure and rebuilds it with new walls, ceilings, floors and systems, when such work affects more than twenty five percent (25%) of the building’s square footage, and the affected space is at least 10,000 square feet or larger.

J. “Silver” means the level of compliance with LEED standards designated as “Silver” by the USGBC.

K. “Temporary structure” means any proposed building that is intended to be in existence for five (5) years or less or any existing building that at the time it was constructed was intended to be in existence for five (5) years or less.

L. “USGBC” means the organization known as the United States Green Building Council.

18.95.030 BOARD CREATED. The board shall consist of five (5) members, each serving a five (5) year term, and no member may serve more than two (2) consecutive terms. All appointments of members of the board shall be made by the Mayor with the advice and consent of the City Council. Terms of initial members shall be for such periods from two (2) years to five (5) years to provide that one (1) to two (2) terms expire after two (2) years. Each member shall be either a LEED certified professional or shall have substantial knowledge of other related fields, such as architecture, construction management, engineering, finance, real estate, or

planning. Members of the board shall receive no compensation for their services, but may be reimbursed for reasonable and authorized out of pocket expenses they may incur as board members. No member of the board shall participate in the consideration of any matter in which that member has a conflict of interest prohibited by Chapter 2.44 of this code. No business shall be conducted at a meeting of the board without a quorum of three (3) members. A simple majority of the voting members present at a meeting at which a quorum is present shall be required for any action by the board. Decisions of the board shall become effective on the date that the vote is taken. The proceedings of each meeting of the board shall be recorded on audio equipment and each audio recording shall be kept for a minimum of six months. The board may adopt a system of rules of procedure under which its meetings are to be held.

18.95.040 APPLICATION. Whenever City construction funds are used for an applicable building project, such project shall at a minimum obtain a Silver certification by the USGBC in the case of a City-owned building project or Certified certification in the case of all other projects, subject to the exceptions, waivers, and determinations of substantial compliance provided for in this chapter.

18.95.050 EXCEPTIONS. The provisions of this chapter shall not apply if the Building Official and either the Chief Procurement Officer or the City Engineer jointly determine in writing that any of the following circumstances exist:

- A. The applicable building project will serve a specialized, limited function, such as a pump station, garage, storage building, equipment area, or other similar area, or a single family residence;
- B. The applicable building project is intended to be a temporary structure;

C. The useful life of the applicable building project or other factors do not justify whatever additional expense would be incurred to increase the building's long-term efficiency;

D. The application of LEED standard factors will increase construction costs beyond the funding capacity for the project, or will require that the project's scope of work or programmatic needs be diminished to meet budget constraints;

E. The use of LEED standard factors will create an impediment to construction due to conflicts of laws, building code requirements, federal or state grant funding requirements, or other similar requirements;

F. LEED factors are not reasonably attainable due to the nature of the facilities or the schedule for construction; or

G. LEED certification will violate any other federal, state or local law, including, without limitation, other sections of this Code.

A determination that an exception does not apply may be appealed to the board. Such appeal must be submitted in writing to the board within thirty (30) days of the determination.

18.95.060 WAIVERS. The denial of an exception pursuant to section 18.95.050 does not preclude an application for waiver pursuant to this section. The board shall have the authority to grant a waiver from the requirements of this chapter only if it makes the following findings in writing:

A. Literal enforcement of this chapter would cause unreasonable hardship for the applicant that is not necessary to carry out the general purpose of this chapter;

B. There are special circumstances attached to the project that do not generally apply to other projects that are subject to this chapter;

C. The waiver would not have a substantially negative affect on the Master Plans, policies, and resolutions of the City and would not be contrary to the purposes of this chapter;

D. Any asserted economic hardship is not self-imposed; and

E. The spirit of this chapter will be observed and substantial justice done.

18.95.070 APPEAL OF CITY DECISIONS.

Any private sector developer who is denied an exception, or a determination of substantial compliance, or who is assessed a penalty by the Building Official and either the Chief Procurement Officer or the City Engineer, may appeal such decision in writing to the board within thirty (30) days of the decision and shall state the basis to support the relief sought. The board shall review the circumstances of the appeal and shall issue a written determination of the receipt of the appeal within thirty (30) days consistent with the requirements of this section.

18.95.080 APPEAL OF BOARD DECISIONS. Any private sector developer denied a waiver by the board or denied an exception, or determination of substantial compliance, or has had financial penalties imposed on appeal to the board under this chapter may appeal such decision by the board in writing to the Mayor or the Mayor's designee within thirty (30) days of the decision and shall state the basis to support the relief sought. The Mayor or the Mayor's designee shall review the circumstances of the appeal and shall issue a written determination within thirty (30) days of the receipt of the appeal consistent with the requirements of this section.

18.95.090 REQUIRED DEPOSIT. All private sector developers who receive City funds for applicable building projects shall submit a ten thousand dollar (\$10,000) "good faith" deposit

with the City which shall be refunded upon the building project receiving the applicable level of LEED certification or after a determination of substantial compliance.

18.95.100 PROOF OF REGISTRATION. Within thirty (30) days from receiving notice that the City will fund an applicable building project, all private sector developers shall submit written proof that said project is registered with the USGBC. City funds will not be dispersed until the required deposit under section 18.95.090 and the proof of registration under this section are received by the City.

18.95.110 REQUEST FOR EXTENSION. If a project is not LEED certified or has not been granted a determination of substantial compliance within one (1) year after a temporary certificate of occupancy is issued by the City, then a private sector developer must file a written application with the City for an extension to obtain LEED certification. Said application must be filed with the City no later than three hundred and ninety five (395) days after the date on which the certificate of occupancy was issued by the City. The City may grant a one (1) year extension pursuant to this section and any additional extensions as may be necessary so long as a private sector developer is actively pursuing LEED certification. Extensions pursuant to this section shall begin on the date granted by the City.

18.95.120 REQUEST FOR SUBSTANTIAL COMPLIANCE. Receipt of LEED certification from the USGBC shall be conclusive evidence of the level of certification stated therein. If certification is not received from the USGBC or is not at the level required by this chapter, a private sector developer may request that the City issue a determination that the project has substantially complied with this chapter upon a reasonable demonstration that such project as constructed is consistent with the intent of this chapter and that strict enforcement of this chapter

would create an unreasonable burden in light of the needs of such project, the ability of the project owner to control cost increases, and other relevant circumstances. The request for determination of substantial compliance must contain the following information:

- A. Final LEED certification application, documentation, and response from the USGBC;
- B. An explanation of the efforts and accomplishments made by the private sector developer to achieve compliance with this chapter;
- C. An explanation of the practical or economic infeasibility of implementing certain high performance building design or construction techniques that, if implemented, would otherwise have likely resulted in certification; and
- D. Any other supporting documents the private sector developer wishes to submit.

18.95.130 DETERMINATION OF SUBSTANTIAL COMPLIANCE

The Building Official and either the Chief Procurement Officer or the City Engineer shall review within sixty (60) days of receipt of a request for determination of substantial compliance and shall approve or deny the request based on the good faith efforts of the private sector developer to comply with this chapter. In making a determination of the good faith efforts, review of the request shall include whether the private sector developer has established the following:

- A. That reasonable, appropriate, and on-going efforts to comply with this chapter were taken; and
- B. That compliance would otherwise have been obtained but for the practical or economic infeasibility of implementing high performance building design or construction techniques.

In making any such determination, cost increases due solely to aesthetic elements shall not constitute any part of a demonstration of unreasonable burden. A determination of substantial compliance pursuant to this section shall satisfy Section 18.95.040.

If the request for determination of substantial compliance is denied, the private sector developer will be deemed to have not satisfied Section 18.95.040 and shall forfeit the “good faith” deposit under Section 18.95.090 and may be assessed an additional penalty up to the amount originally funded by the City. Any penalty assessed shall be offset by the “good faith” deposit.

18.95.140 PENALTY.

Any private sector developer who fails to (1) comply with this chapter, (2) apply for an extension pursuant to section 18.95.110, or (3) receive a determination of substantial compliance, shall forfeit the “good faith” deposit to the City to cover the cost and inconvenience to the City. An additional penalty may be assessed based on a direct analysis of possible LEED design credits. Given that a total of twenty-six (26) LEED design credits are required for certification, the additional penalty shall be based on the following considerations:

A. If the City determines that a project could have reasonably received 21-25 LEED credits, then the private sector developer shall pay the City up to 25% of the amount originally funded.

B. If the City determines that a project could have reasonably received 16-20 LEED credits, then the private sector developer shall pay the City up to 50% of the amount originally funded.

C. If the City determines that a project could have reasonably received 6-15 LEED credits, then the private sector developer shall pay the City up to 75% of the amount originally funded.

D. If the City determines that a project could have reasonably received 0-5 LEED credits, then the private sector developer shall pay the City up to 100% of the amount originally funded. Failure to pay a penalty within ninety (90) days of written notice from the City shall result in a lien against the project.

18.95.150 RULEMAKING AUTHORIZATION. The Building Official and either the Chief Procurement Officer or the City Engineer are authorized to issue administrative rules under this chapter.

18.95.160 ADMINISTRATIVE INTERPRETATIONS. Pursuant to the authority granted under section 18.50.040B, the Building Official may render interpretations of this chapter. Such interpretations shall conform with the intent and purpose of this chapter, and shall be made available in writing for public inspection upon request.

18.95.170 LIMITATIONS. Nothing required under this chapter shall supersede any federal, state or local law, including, without limitation, other provisions of this Code; or any contract, grant, or other funding requirement; or other standards or restrictions that may otherwise apply to an applicable building project. This chapter shall not apply whenever its application would disadvantage the City in obtaining federal funds.

SECTION 2. EFFECTIVE DATE. This Ordinance shall become effective ninety (90) days after the date of its first publication.

Passed by the City Council of Salt Lake City, Utah this _____ day of _____,
2006.

CHAIRPERSON

ATTEST:

CHIEF DEPUTY CITY RECORDER

Transmitted to Mayor on _____.

Mayor's Action: _____ Approved. _____ Vetoed.

MAYOR

CHIEF DEPUTY CITY RECORDER

(SEAL)

Bill No. _____ of 2006.
Published: _____.

I:\Ordinance 06\LEED - 04-21-06 clean.doc

APPROVED AS TO FORM
Salt Lake City Attorney's Office
Date April 24, 2006
By Melanie Hui

3. NOTICE OF CITY COUNCIL PUBLIC HEARING

**3. A. NOTICE OF CITY COUNCIL HEARING
- POSTING AND MAILING DRAFT**

Posted _____
By _____

NOTICE OF PUBLIC HEARING

On _____, the Salt Lake City Council will hold a public hearing to consider petition number 400-05-38, a request by the Salt Lake City Mayor requiring that applicable building projects constructed with Salt Lake City funds obtain a Leadership in Energy and Environmental Design (LEED) designation from the United States Green Building Council.

The City Council is holding an advertised public hearing to receive comments regarding the petition request. During this hearing, anyone desiring to address the City Council concerning this issue will be given an opportunity to speak. The hearing will be held:

DATE:

TIME:

PLACE:

ROOM 315
City and County Building
451 South State Street
Salt Lake City

If you have any questions relating to this proposal, please attend the meeting or call Lisa Romney at 535-7939 Monday through Friday or lisa.romney@slcgov.com.

**3. B. NOTICE OF PUBLIC HEARING NEWSPAPER
PUBLICATION TRANSMITTAL**



Scott Andersen
ENCON Utah
101 South Industrial Loop Rd
Tooele, Ut 84047

David Anderson
Utah Botanical Center
4870 Old Main Hill
Logan, UT 84322

Kerry Arnold
Big-D Construction Corp
420 East South Temple, Suite 550
Salt Lake City,, UT 84111

Julee Attig
Jacobsen Construction
3131 West 2210 South
Salt Lake City,, Utah 84119

Jennifer Atwood
Tree Utah
511 West 200 South #150
Salt Lake City, Utah 84101

Gary Barker
Utah Tech LLC
2755 East Cottonwood Parkway,
Suite 100
Salt Lake City, Utah 84121

Vicki Bennett
451 South State, Rm 145
Salt Lake City, UT 84111

David Brems
GSBS Architects
325 West 200 South
Salt Lake City, UT 84101

Paula Carl
Design Interface
345 South Moffat Ct
Salt Lake City, UT 84111

Kerry Case
Utah House USU/Botanical Garden
920 South 50 West
Kaysville, UT 84037-4157

Carter Childers
Sierra Pacific Industries
1055 South 3600 West #101
Salt Lake City, Utah 84104

Curtis Clark
Clarks Energy Services Corp
4190 Highland Dr., STE 101
Salt Lake City, UT 84124

Stephen Cohen
Calder Richards Consulting
Engineers
215 South 11th East
Salt Lake City, UT 84108

Thomas Cohen
3242 South 300 West
Bountiful, Utah 84101

Angela Dean
AMD Architecture
573 7th Avenue
Salt Lake City, UT 84103

Toren Doman
JRCA
577 South 200 East
Salt Lake City, Utah 84111-3636

Allison Drinkwater-Johnson
Cooper Roberts Simonsen
Architects
700 North 200 West
Salt Lake City, Utah 84103

Mark Eldridge
Utah Energy Conservation
112 South Mountain Way Dr
Orem, UT 84058-5108

Roger Evans
445 Marsac Ave,
Park City, UT 84060

Sara Frame
ETC Group Inc
3781 South 2300 East
Salt Lake City, Utah 84109 - 3452

Mike Glenn
Utah Office of Energy
1594 West North State
Salt Lake City, Utah 84114

Vasyl Green
CCG Howells
358 South Rio Grande
Salt Lake City, UT 84101

James Harris
Waterford School
1480 East 9400 South
Sandy, UT 84093

Sharen Hauri
Utah ASLA
983 Lincoln Street
SLC, UT 84105-1437

Tom Hootman
Larson Architects
1900 Wazee Street #1539
Denver, Colorado 80202

Trent Hunt
Utah ASHRAE chapter
2817 South 1030 West
SLC, Utah 84119

Laynee Jones
HDR Engineering
3995 South 700 East
Salt Lake City, UT 84107-2152

Chamonix Larsen
AMD Architecture
573 7th Avenue
Salt Lake City, UT 84103

Denise Lind
RR3 Box A-1
Sundance, Utah 84604

Catherine Logan
EnviroWise Design
466 W. 100 South
Logan,, UT 84321



Tony Lords
Hendricksen Butler
249 South 400 East
Salt Lake City, Utah 84111-2631

Dennis Magaro
Sierra Pacific Windows
1055 South 3600 West
SLC, Utah 84104

Edward Merrill
MJSA Architects
357 West Pierpont Ave
Salt Lake City, Utah 84101

Susan Mortimer
National Energy Foundation
3676 California Ave. A117
Salt Lake City, UT 84104-6516

Davis Mullholand
CCI Mechanical
758 Redwood Rd
Salt Lake City, UT 84104

Tiffany Nelson
Milliken Carpet
8762 S. 620 E.
Sandy, UT 84070

Chelsey Newbold
Wall2Wall Floor Coverings
213 W. 4800 S., Bldg. #5
SLC, UT 84107

Tim Nordstrom
Dunn Associates
380 West 800 South
Salt Lake City, UT 84101

Vera Novak
EcoBlock
143 West 100 North
Bountiful, UT 84010

Penn Owens
GSBS
375 West 200 South
Salt Lake, UT 84101

Kathleen Packard
BNA Engineers
635 South State Street
Salt Lake City, UT 84111

Ashley Patterson
Green Building Center
1952 East 2700 South
Salt Lake City, UT 84106

Robert Pinon
MHTN Architects
450 East South Temple, Suite 100
Salt Lake City, Utah 84111-1300

Ken Pollard
Pace Pollard
256 East 100 South
Salt Lake City, UT 84111

Heather Randall
MHTN Architects
420 East South Temple Suite 100
Salt Lake City, UT 84111

Brandon Rhoads Shaw
179 E Stone Park Cir.
Draper, Utah 84020

Dave Robinson
Dave Robinson Architects
4525 Wasatch Blvd Ste 301
Salt Lake City, UT 84124

Bob Rock
Lone Peak Productions
404 North 300 West
Salt Lake City, Utah 84103

James Rohbock
Tremco
2879 East 9800 South
Sandy, UT 84111-1300

Lisa Romney
Environmental Affairs Coordinator
Salt Lake City Mayor's Office
451 South State Street #306
Salt Lake City, UT 84111

Soren Simonsen
Cooper Roberts Simonsen
Architects
700 North 200 West
Salt Lake City, UT 84103

Gaylord Smith
SLC Engineering
349 South 200 East
SLC, UT 84111

Alex Steckel
Arete Construction Inc.
175 O street
Salt Lake City, UT 84103

Neal Stevens
Power Down
4822 Holladay Blvd
Salt Lake City, Utah 84117-5442

Keith Stippich
4060 South 500 East
Salt Lake City, Utah 84107-1868

Rod Sylvester
LDS Church PFD
50 East North Temple 10th Floor
Salt Lake City, UT 84105

Kris Thorp
LDS Utah
501 East 1700 South
Salt Lake City, Utah 84105

Mike Vela
HKS Architects Inc
10 Exchange Place, Suite 200
Salt Lake City, UT 84111

Sonja Wallace
DEQ
168 North 1950 West
Salt Lake City, Utah 84116

Ivan Weber
Weber Sustainability Consulting
953 1st Avenue
Salt Lake City, UT 84103



Myron Willson
AJC Architects
703 East 1700 South
SLC, UT 84108

Theddi Wright Chappell
Phillips Edison & Company
175 East 400 South, Suite 402
Salt Lake City, Utah 84111

Philippe Wyffels
Utah Science Center
c/o 949 Millcreek Way
Salt Lake City, Utah 84106

Bob Young
U of U CA + P
375 South 1530 East Rm 2350ac
SLC, UT 85112-0370

Matt Yurick
U of U Health Sciences
50 North Medical Drive
Salt Lake City, Utah 84111

Rod Zabriskie
Dunn Associates
380 West 800 South
Salt Lake City, UT 84101-2610



KEN FUTZ, CHAIR
WEST POINTE COMM. COUNCIL
1217 NO. BRIGADIER CIRCLE
SALT LAKE CITY, UT 84116

KENNETH L. NEAL, CHAIR
ROSE PARK COMMUNITY COUNCIL
1071 NO. TOPAZ DR.
SALT LAKE CITY, UT 84116

ANGIE VORHER, CHAIR
JORDAN MEADOWS COMM. COUNCIL
1988 SIR JAMES DRIVE
SALT LAKE CITY, UT 84116

VICKY ORME, CHAIR
FAIRPARK COMM. COUNCIL
159 NORTH 1320 WEST
SALT LAKE CITY, UT 84116

MIKE HARMAN, CHAIR
POPLAR GROVE COMM. COUNCIL
1044 WEST 300 SOUTH
SALT LAKE CITY, UT 84104

RANDY SORENSON, CHAIR
GLENDALE COMMUNITY COUNCIL
1184 SO. REDWOOD DRIVE
SALT LAKE CITY, UT 84104-3325

PETER VON SIVERS, CHAIR
CAPITOL HILL COMMUNITY COUNCIL
223 WEST 400 NORTH
SALT LAKE CITY, UT 84103

JILL VAN LANGEVELD, CHAIR
GRTR. AVENUES COMM. COUNCIL
807 E. NORTHCLIFFE DRIVE
SALT LAKE CITY, UT 84103

BILL DAVIS, CHAIR
RIO GRANDE COMMUNITY COUNCIL
329 E. HARRISON AVENUE
SALT LAKE CITY, UT 84115

BILL PLASTOW, CHAIR
PEOPLES FREEWAY COMM. COUNCIL
1625 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

THOMAS MUTTER, CHAIR
CENTRAL CITY COMMUNITY COUNCIL
228 EAST 500 SOUTH, #100
SALT LAKE CITY, UT 84111

DENNIS GUY-SELL, CHAIR
EAST CENTRAL COMMUNITY
COUNCIL
P.O. BOX 520473
SALT LAKE CITY, UT 84152-0473

BRIAN WATKINS, CHAIR
LIBERTY WELLS COMM. COUNCIL
1744 SOUTH 600 EAST
SALT LAKE CITY, UT 84106

JIM WEBSTER, CHAIR
YALECREST COMMUNITY COUNCIL
938 MILITARY DRIVE
SALT LAKE CITY, UT 84108-1326

MARYDELLE GUNN, CHAIR
WASATCH HOLLOW
COMMUNITY COUNCIL
1595 SOUTH 1300 EAST
SALT LAKE CITY, UT 84105

~~LARRY SPENDLOVE, CHAIR
SUNNYSIDE EAST ASSOCIATION
2114 E. HUBBARD AVENUE
SALT LAKE CITY, UT 84108~~

ELLEN REDDICK, CHAIR
BONNEVILLE HILLS
COMMUNITY COUNCIL
2177 ROOSEVELT AVE.
SALT LAKE CITY, UT 84108

DAVE MORTENSEN, CHAIR
ARCADIA HEIGHTS/BENCHMARK
COMMUNITY COUNCIL
2278 SIGNAL POINT CIRCLE
SALT LAKE CITY, UT 84109

MARK HOLLAND, CHAIR
SUGAR HOUSE COMM. COUNCIL
1942 BERKELEY STREET
SALT LAKE CITY, UT 84105

PAM PEDERSON, CHAIR
EAST LIBERTY PARK COMMUNITY
COUNCIL CHAIR
1165 WINDSOR STREET
SALT LAKE CITY, UT 84105

MICHAEL AKERLOW
FOOTHILL/SUNNYSIDE
COMMUNITY COUNCIL
1940 E. HUBBARD AVENUE
SALT LAKE CITY, UT 84108

PAUL TAYLER, CHAIR
OAK HILLS COMMUNITY COUNCIL
1165 SO. OAKHILLS WAY
SALT LAKE CITY, UT 84108

~~MIKE ZUHL, CHAIR
INDIAN HILLS COMMUNITY COUNCIL
2676 E. COMANCHE DRIVE
SALT LAKE CITY, UT 84108~~

DOUG FOXLEY, CHAIR
ST. MARY'S COMMUNITY COUNCIL
1449 DEVONSHIRE DRIVE
SALT LAKE CITY, UT 84108

TIM DEE, CHAIR
SUNSET OAKS COMMUNITY COUNCIL
1575 DEVONSHIRE DRIVE
SALT LAKE CITY, UT 84108

SHAWN McMILLEN, CHAIR
H ROCK COMMUNITY COUNCIL
1855 SOUTH 2600 EAST
SALT LAKE CITY, UT 84108

ELIOT BRINTON, CHAIR
SUNNYSIDE EAST ASSOCIATION
849 S. COMANCHE ST.
SALT LAKE CITY, UT 84108



Downtown Alliance
Bob Farrington, Director
175 East 400 South #600
Salt Lake City, Utah 84111

Salt Lake Chamber of Commerce
175 East 400 South, Suite #600
Salt Lake City, Utah 84111

Attn: Carol Dibble
Downtown Merchants Association
10 West Broadway, Suite 420
Salt Lake City, UT 84101

Hispanic Chamber of Commerce
PO Box 1805
Salt Lake City, UT 84110

Vest Pocket Business Coalition
PO Box 521357
Salt Lake City, Utah 84152-1357

Sugar House Merchants Association
C/O Barbara Green
Smith-Crown
2000 South 1100 East
Salt Lake City, Utah 84106

Westside Alliance
C/O Neighborhood Housing Services
Maria Garcia
622 West 500 North
Salt Lake City, Utah 84116

~~Downtown Alliance
Bob Farrington, Director
175 East 400 South #600
Salt Lake City, Utah 84111~~

~~Salt Lake Chamber of Commerce
175 East 400 South, Suite #600
Salt Lake City, Utah 84111~~

~~Attn: Carol Dibble
Downtown Merchants Association
10 West Broadway, Suite 420
Salt Lake City, UT 84101~~

~~Hispanic Chamber of Commerce
PO Box 1805
Salt Lake City, UT 84110~~

~~Vest Pocket Business Coalition
PO Box 521357
Salt Lake City, Utah 84152-1357~~

~~Sugar House Merchants Association
C/O Barbara Green
Smith-Crown
2000 South 1100 East
Salt Lake City, Utah 84106~~

~~Westside Alliance
C/O Neighborhood Housing Services
Maria Garcia
622 West 500 North
Salt Lake City, Utah 84116~~

~~SALT LAKE CITY PLANNING
ATTN RAY MCANOLESS
451 South State Street Rm 406
S.L.C. UTAH 84111~~

~~Salt Lake City Planning
ATTN. Doug Wheelwright
451 South State Street. Rm. 406
S.L.C. UTAH 84111~~



20TH CENTURY LITES INC
1560 WEST 2300 NORTH
PO BOX 16313
SALT LAKE CITY UT 84116

3-B CONSTRUCTION INC
9915 SOUTH FLORENCE WAY
SOUTH JORDAN UT 84095

A 2 Z BUILDERS CONSTRUCTION &
REMODELING
PO BOX 1767
SANDY UT 84091

A A BETTER ROOFING
7330 SOUTH LAUNA ST
MIDVALE UT 84047

A J SHEET METAL
9554 SOUTH 560 WEST
SANDY UT 84070

A OK ELECTRIC
81 SOUTH 100 WEST
TOOELE UT 84074

A QUALITY PLUMB & HTNG
PO BOX 755
MIDVALE UT 84047

A R M CONSTRUCTION, LLC
4643 TINA WAY
SALT LAKE CITY UT 84107

A S A P RESTORATION & CONST
579 EAST 300 NORTH
KAYSVILLE UT 84037

A U CONSTRUCTION, INC
1045 MILLBERT AVENUE
SALT LAKE CITY UT 84106

A-SHED USA, LLC
2870 S 400 W
SALT LAKE CITY UT 84115

ABLE CONTRACTORS INC
159 WEST 1300 NORTH
SUNSET UT 84015

ACE HOME & BUSINESS IMPROVEMEN
3471 SOUTH WEST TEMPLE
SALT LAKE CITY UT 84115

ADVANCED INTERIOR SYSTEMS INC
55 WEST 2860 SOUTH
SALT LAKE CITY UT 84115

AIM BUILDERS INC
1535 East 330 S #4
SALT LAKE CITY UT 84106

ALARM CONTROL COMPANY
2166 SOUTH 900 EAST
SALT LAKE CITY UT 84106

ALDER CONSTRUCTION COMPANY
3939 SOUTH 500 WEST
SALT LAKE CITY UT 84123

ALL PRO ARTISTIC CONST LLC
5633 SOUTH TOPOWA DR
MURRAY UT 84107

ALL SEASONS MAINTENANCE INC
2445 PROGRESS DR
WEST VALLEY UT 84119

ALL SEASONS ROOFING INC
5247 SOUTH SPRING VALLEY CT
SALT LAKE CITY UT 84117

ALL TYPES ROOFING
PO BOX 70734
SALT LAKE CITY UT 84170

ALLSTATE CONTRACTING & DESIGN
585 WEST 9400 SOUTH
SANDY UT 84070

ALTA FIRE PROTECTION CO
206 WEST 3620 SOUTH
SALT LAKE CITY UT 84115

ALTA RESTORATION & REMODEL INC
14330 SOUTH 2200 WEST
BLUFFDALE UT 84065

ALTERNATIVES CONSTRUCTION
1278 EAST BRIDLE TRAIL RD
DRAPER UT 84020

ALUMINUM LOCK INC
840 WEST 1700 SOUTH #10
SALT LAKE CITY UT 84114

AMCO AMERICAN ROOFING CO
3637 SOUTH 300 WEST
SALT LAKE CITY UT 84115

AMERICAN FIRST BUILDERS INC
533 WEST 2600 SOUTH
BOUNTIFUL UT 84010

ARAGORN CONSTRUCTION L C
1329 REBECCA CIRCLE
SALT LAKE CITY UT 84117

ARAPAHOE PROPERTY MAINTENANCE
476 EAST SOUTH TEMPLE ST #177
SLC UT 84111

ARCHITECH CONSTRUCTION INC
9776 SOUTH SITZMARK DR
SANDY UT 84092

ARCHITECTURAL DESIGN WEST
230 EAST SOUTH TEMPLE ST
SALT LAKE CITY UT 84110

ARCHULETA, IVO CONCRETE
922 SOUTH 800 EAST
SALT LAKE CITY UT 84105

ARCO ELECTRIC INC
597 WEST 9320 SOUTH
SANDY UT 84070

ARCON CONSTRUCTION CO
1930 EAST ARLEN WAY
SANDY UT 84093

ARETE CONSTRUCTION INC
175 NORTH "O" ST
SALT LAKE CITY UT 84103

ARNELL-WEST INC
3441 SOUTH 2200 WEST
SALT LAKE CITY UT 84119

ARROWHEAD REMODELING
6287 SOUTH SMOKEY CIR
WEST JORDAN UT 84084

ARTHUR, JIM INC
1426 SOUTH 400 EAST
SALT LAKE CITY UT 84115

ASCENT CONSTRUCTION INC
25 SOUTH MAIN #200
CENTERVILLE UT 84014

ASHCO CONSTRUCTION INC
P O BOX 2044
SALT LAKE CITY UT 84110

ATLANTIS POOLS
1705 MERRIBEE WAY
SALT LAKE CITY UT 84121

AURORA FIRE PROTECTION INC
PO Box 171074
SALT LAKE CITY UT 84117

AVALON CONSTRUCTION INC
2985 SOUTH MAIN
SALT LAKE CITY UT 84115

B & L ELECTRIC CO INC
2295 SOUTH 2000 EAST
SALT LAKE CITY UT 84106

B P M MANAGEMENT LLC
PO BOX 510006
SALT LAKE CITY UT 84151

BABCOCK, PHILLIP L
6231 South 1280 East
Salt Lake City UT 84121

BADHAM CONSTRUCTION INC
PO BOX 540180
NORTH SALT LAKE UT 84054

BAILEY BUILDERS INC
1881 WEST 900 NORTH
LEHI UT 84045

BAILEY, BUD CONSTRUCTION INC
2330 West California Ave
SLC UT 84104

BAILEY, E K CONSTRUCTION, INC
1243 NORTH WASHINGTON BLVD
OGDEN UT 84414

BAND FIRE PROTECTION SYSTEM, INC
539 WEST 9460 SOUTH
SANDY UT 84070

BANGERTER & SONS
6052 MAJESTIC MEADOWS
WEST VALLEY CIT UT 84128

BARNES & HOGAN CONSTRUCTION
PO BOX 702
MAGNA UT 84044

BARTON, KEITH CONSTRUCTION
2 COURTSIDE LANE
SANDY UT 84092

BAS PLUMBING & HEATING
8455 SOUTH 4300 WEST SUITE D
W JORDAN UT 84088

BATEMAN BROTHERS ELECTRIC INC
3685 WEST 8850 SOUTH
WEST JORDAN UT 84088

BEACON ENG & ELECT INC
1406 SOUTH 400 WEST
SALT LAKE CITY UT 84115

BELNAP PLUMBING CO
6404 GLEN OAKS
MURRAY UT 84107

BENCHMARK RENOVATION
PO BOX 581154
SALT LAKE CITY UT 84158



BEST ROOFING LLC
376 EAST 10560 SOUTH
SANDY UT 84070

BIG BEAR HEATING & COOLING
4045 SOUTH 6780 WEST
WEST VALLEY UT 84120

BIG D CONSTRUCTION CORP
420 EAST SOUTH TEMPLE #500
SALT LAKE CITY UT 84111

BINGHAM HEATING & AIR CONDITNG
3760 WEST 3100 SOUTH
WEST VALLEY UT 84120

BIRD CONSTRUCTION (USA), INC
5525 SOUTH 900 EAST #135
SALT LAKE CITY UT 84107

BLACK KITE ELECTRIC
6867 PINE ROCK DR.
SALT LAKE CITY UT 84121

BLAND BROTHERS INC
8630 SOUTH REDWOOD RD
WEST JORDAN UT 84088

BLAZE MASTER FIRE PROTECTION
336 North 200 East
Payson UT 84651

BO CONSTRUCTION
1779 RAMONA AVE
SALT LAKE CITY UT 84108

BOARDWALK REMOD & DESIGN
1116 SOUTH RICHARDS ST
SALT LAKE CITY UT 84101

BODELL CONSTRUCTION CO INC
586 WEST FINE DRIVE
SALT LAKE CITY UT 84115

BONA SIGNS INC
1852 NORTH 1300 WEST
Springville UT 84663

BOYD ENTERPRISES UTAH LLC
3739 WEST 2270 SOUTH Unit F
WEST VALLEY UT 84120

BPM MANAGEMENT LLC
PO BOX 510006
SALT LAKE CITY UT 84151

BRODERICK, RALPH PLUMBING
626 EAST 12100 SOUTH
DRAPER UT 84020

BROKEN ARROW INC
PO BOX 580
TOOELE UT 84074

BRUBAKER CONSTRUCTION INC
PO BOX 17626
SALT LAKE CITY UT 84117

BRUNDLE & BRUNDLE INV & CONSTR
3589 WEST 500 SOUTH
SALT LAKE CITY UT 84104

BUILDERS CHOICE
8802 South 2240 West
West Jordan UT 84088

BUILDWEST, INC
PO BOX 17316
SLC UT 84117

C & F DISTRIBUTORS, INC
PO BOX 1859
SALT LAKE CITY UT 84110

C C I MECHANICAL INC
758 SOUTH REDWOOD RD
PO BOX 25788
SALT LAKE CITY UT 84125

C C TILE & REMODELING INC
2331 EAST HAWK LN
EAGLE MTN UT 84043

C D C RESTORATION & CONST, LC
130 EAST GORDON LANE
SALT LAKE CITY UT 84107

C P H RESTORATION
390 WEST 6500 SOUTH
MURRAY UT 84107

C R C CONSTRUCTION INC
7011 SOUTH 700 WEST
MIDVALE UT 84047

C R FINISHING TOUCH
216 NORTH 200 W
SALT LAKE CITY UT 84103

C.C. CARTER CONSTRUCTION LLC
1810 WEST INDIANA AVE
SALT LAKE CITY UT 84104

CACHE VALLEY ELECTRIC CO
2345 SOUTH JOHN HENRY
SALT LAKE CITY UT 84119

CALL CLIMATE SERVICE LLC
905 SOUTH FRONTAGE
CENTERVILLE UT 84014

CAMBRIA PROPERTY MANAGEMENT
PO BOX 444
SANDY UT 84123

CAMCO CONSTRUCTION INC
1106 EAST 6600 SOUTH
SALT LAKE CITY UT 84121

CAMERON & COMPANY INC
573 WEST 3560 SOUTH #1
SLC UT 84115

CARD SIGNS, INC
960 WEST 2100 SO.
SALT LAKE CITY UT 84119

CARLI, T R CONSTRUCTION C
3338 EAST CREEK ROAD
SALT LAKE CITY UT 84121

CARLSON KITCHENS, INC
2261 EAST 3300 SOUTH
SALT LAKE CITY UT 84109

CARLSTON, C V HEAT & A/C INC
164 WEST BERGER LANE
MURRAY UT 84107

CARMAN REFRIG COMM SERVICE INC
633 NORTH 300 WEST
SALT LAKE CITY UT 84103

CARRIER CORP
400 IRONWOOD DR
SALT LAKE CITY UT 84115

CASE, RON ROOF & ASPHALT PAVIN
PO BOX 70161
SALT LAKE CITY UT 84120

CAULFIELD CARPENTRY
8968 NORTH COVE DRIVE
PARK CITY UT 84060

CAVALIER PLUMBING
4222 Edward Dr
Salt Lake City UT 84124

CAZIER ELECTRIC CO INC
262 COTTAGE AVE
SANDY UT 84070

CAZIER EXCAVATING INC
132 WEST 13490 SOUTH
DRAPER UT 84020

CC TILE & REMODELING INC
1742 EAST OAKRIDGE
SLC UT 84106

CELEBRITY BUILDERS INC
6400 WEST 3200 SOUTH
WEST VALLEY CIT UT 84120

CENCO INC
45 EAST COLUMBIA AVENUE
SALT LAKE CITY UT 84107

CHAMPION WINDOW OF SLC INC
3181 WEST 2270 SOUTH
WVC UT 84119

CHAPARRAL FIRE PROTECTION
71 NORTH HWY 89
NORTH SALT LAKE UT 84054

CHAPARRAL INTERMOUNTAIN PACIFI
8680 Monroe #A
SANDY UT 84070

CHAPPELL, M H CONSTRUCTION
2092 BRENT LANE
SALT LAKE CITY UT 84121

CHATELAIN BUILDING CO
2325 NEFFS LANE
SALT LAKE CITY UT 84109

CHERRINGTONS, INC
3035 SOUTH 3600 WEST
SALT LAKE CITY UT 84119

CHRISTENSEN & GRIFFITH CO
30 SOUTH TOOEE BLVD.
TOOELE UT 84074

CHRISTIANSEN OUTDR ADV & CNST
228 BRIDGECREEK WAY
DRAPER UT 84020

CIESLAK PLUMBING & HEATING
1495 W MIDAS CREEK DR
S JORDAN UT 84095

CLARKS QUALITY ROOFING INC
334 W ANDERSON (5715)
SALT LAKE CITY UT 84107

COLORADO STRUCTURES INC
4720 FORGE RD # 106
COLORADO SPRING CO 80907

COMFORT SYSTEMS USA, INC
2035 SOUTH MILESTONE DR
SALT LAKE CITY UT 84104

	COMMERCIAL GENERAL CONTRUCTION PO BOX 51039 IDAHO FALLS	ID	83405	CONELCO-CONRAD ELECTRIC INC 2785 WEST 9000 SOUTH WEST JORDAN	UT	84088		
CONELY COMPANY 4000 S WEST TEMPLE SALT LAKE CITY	UT	84107	CONJOY ENTERPRISE INC 3820 WEST 5400 SOUTH SALT LAKE CITY	UT	84118	CONSTRUCTION PLUS 9487 SOUTH 500 WEST SANDY	UT	84070
CONSTRUCTION WEST 1197 SOUTH 800 EAST SALT LAKE CITY	UT	84105	COPIER, HENRY CONTR INC PO BOX 711562 SLC	UT	84171	COPPER STATE ELECTRIC 5180 SOUTH 300 WEST # H SALT LAKE CITY	UT	84107
COPPER TECH ELECTRIC, INC 4885 SOUTH 300 WEST SALT LAKE CITY	UT	84107	CORP OF THE PRES OF LDS CHURCH 50 EAST NORTH TEMPLE SALT LAKE CITY	UT	84150	COSTELLO COMPANY INC 1240 PRINCETON AVENUE SALT LAKE CITY	UT	84105
COTTONWOOD BUILDERS, INC 3804 HIGHLAND DRIVE SALT LAKE CITY	UT	84106	CROWNSTONE DEVELOPMENT 437 NORTH CENTER ST SALT LAKE CITY	UT	84103	CULP CONSTRUCTION COMPANY 2320 SOUTH MAIN STREET SALT LAKE CITY	UT	84115
CUSTOM CARPORT DESIGNS INC 11182 SOUTH IVY CREEK COVE SOUTH JORDAN	UT	84095	D S THAYNE, INC 1766 NORTH 400 EAST OREM	UT	84057	D Z HOME IMPROVEMENT 3648 WEST 3900 SOUTH SALT LAKE CITY	UT	84120
	DATWYLER ELECTRIC & CONST 5803 HOLLADAY BLVD SALT LAKE CITY	UT	84121	DAVIS, PAUL SYSTEMS OF CTRL UT PO BOX 5 MIDVALE	UT	84047		
DAYT CONSTRUCTION INC 410 SOUTH 10 WEST FARMINGTON	UT	84025	DELTA FIRE SYSTEMS INC PO BOX 26587 SALT LAKE CITY	UT	84126	DEWBURY HOMES PO BOX 26491 SALT LAKE CITY	UT	84126
DIAMANT ELECTRIC 6948 HOLLOW MILL DRIVE SALT LAKE CITY	UT	84121	DIMENSION DEVELOPMENT LLC 501 EAST 1700 SOUTH SALT LAKE CITY	UT	84115	DOLPHIN POOLS INC 4678 SOUTH HIGHLAND DRIVE SALT LAKE CITY	UT	84117
DOWSETT CONSTRUCTION INC 2607 EAST VERONA CIR. HOLLADAY	UT	84117	DRECHSEL, BRUCE ELECTRIC INC 2181 WEST 11400 SOUTH SOUTH JORDAN	UT	84095	DRS MOBILE HOME SERVICE 4290 SSOUTH 3150 WEST SALT LAKE CITY	UT	84119



E J MARTIN ROOFING
4199 WEST 5780 SOUTH
KEARNS UT 84118

EAGLE ELECTRIC INC
7000 S Commerce Park
Midvale UT 84047

ELECTRACOR INC
1040 WEST MARGARET AVE
SLC UT 84104

ELECTRICAL CONTRACTORS PLUS
1473 JOEY CIRCLE
SANDY UT 84092

ELLSWORTH-PAULSEN CONSTRUCT
120 NORTH CENTER
LEHI UT 84043

ENMAN CONSTRUCTION CO INC
2209 WEST ALEXANDER
WEST VALLEY CIT UT 84119

ENTELEN DESIGN-BUILD
730 PACIFIC AVE
SLC UT 84104

ENVIROL SYSTMS & CONTROL
2496 SOUTH WEST TEMPLE
SALT LAKE CITY UT 84115

ESPRIT CONSTRUCTION
1474 SOUTH 700 WEST
SALT LAKE CITY UT 84104

EVERGREENE CONSTRUCTION LC
132 SOUTH 600 EAST
SALT LAKE CITY UT 84102

EYRE ELECTRIC LLC
11538 SOUTH STATE STREET #200
DRAPER UT 84020

F I R E RESTORATIONS
5106 W LAMAR WAY
WESTVALLEY UT 84120

FALSONE ROOFING
3846 SOUTH VILLA DRIVE
SALT LAKE CITY UT 84109

FAR WEST BUILDERS
1150 SOUTH 400 WEST
SALT LAKE CITY UT 84101

FASTSIGNS OF UTAH
6570 SOUTH STATE ST
MURRAY UT 84107

FAUCET FIXERS
488 EAST 3RD AVENUE
SALT LAKE CITY UT 84103

FERRIN, R A COMP, INC
5288 HAVENWOOD LANE
SALT LAKE CITY UT 84117

FINCO BROTHERS INC
5971 WEST DANNON
WEST JORDAN UT 84088

FIRE ENGINEERING CO INC
4717 SOUTH 500 WEST
SALT LAKE CITY UT 84123

FIREPLACES, INC
248 WEST 9240 SOUTH
SANDY UT 84070

FIRETROL PROTECTION SYSTEMS
142 WEST 2260 SOUTH
SALT LAKE CITY UT 84115

FIRST ALTERNATIVE INC
2401 EXETER CIR.
SANDY UT 84093

FIRST WESTERN CONSTRUCTION
619 EAST COATSVILLE
SALT LAKE CITY UT 84105

FIX IT WRIGHT INC
2037 LINCOLN CIR
SALT LAKE CITY UT 84124

FOSS ROOFING COMPANY
2695 South 1500 East
Salt Lake City UT 84106

FOX DANIELS & BENNETT CON
3826 SOUTH 2300 EAST # 100
SALT LAKE CITY UT 84109

FURST CONSTRUCTION CO INC
5125 WEST 2100 SOUTH
WEST VALLEY UT 84120

G & I INC
1785 SOUTH 4130 WEST #J
SALT LAKE UT 84104

GARDINER BUILDERS INC
10518 S HIGHLINE CR
SOUTH JORDAN UT 84095

GARFF CONSTRUCTION CORP
2820 WEST 500 SOUTH
SALT LAKE CITY UT 84104

GARN-TEE ROOFING INC
PO BOX 714
WEST JORDAN UT 84084

GEIS ELECTRIC, INC
PO BOX 651098
SALT LAKE CITY UT 84165

GIC CONSTRUCTION
9261 PEACH BLOSSOM DR.
SANDY UT 84094

GILLIES SIGN & DESIGN, INC
1760 SOUTH REDWOOD RD
SALT LAKE CITY UT 84104

GRANITE ELECTRIC, INC
3449 SOUTH WEST TEMPLE
SALT LAKE CITY UT 84115

GREEN, WESLEY ROOFING
239 PARAMOUNT AVENUE
SALT LAKE CITY UT 84115

GREENWOOD CONST COMPANY
12637 S 265 W #100
DRAPER UT 84020

SIMPLEXGRINNELL
1272 W 2240 S #A
WEST VALLEY CITY, UT 84119

GSL ELECTRIC
8540 S SANDY PARK WAY
SANDY UT 84070

GUNN CONSTRUCTION/AIRCO HEATIN
784 EAST 8080 SOUTH
SANDY UT 84094

GUSTAFSON CONSTRUCTION INC
2638 WEST 9435 SOUTH
SOUTH JORDAN UT 84095

H & C COMPANY
5180 SOUTH 300 WEST # H
MURRAY UT 84107

H V A C CONSTRUCTION INC
694 WEST 900 NORTH
NORTH SALT LAKE UT 84054

HALSTEAD CONSTRUCTION CORP
4197 FARM ROAD
WEST JORDAN UT 84088

HALVERSON MECHANICAL, INC
2488 SOUTH 1620 WEST
OGDEN UT 84401

HARDY, J L CONSTR CORP
3586 WEST 900 SOUTH
SALT LAKE CITY UT 84104

HARRIS-DUDLEY PLUMBING CO
221 WEST 400 SOUTH
SALT LAKE CITY UT 84101

HATT PLUMBING & HEATING
14432 SOUTH CAMP WILLIAMS RD
RIVERTON UT 84065

HEATON ROOFING INC
3480 SOUTH 500 WEST
SALT LAKE CITY UT 84115

HEBERT, E D CONSTRUCTION CORP
3150 SOUTH WASHINGTON ST
SALT LAKE CITY, UT 84115

HIDDEN PEAK ELECTRIC
4586 SOUTH CHERRY ST #A
MURRAY UT 84123

HOJ ENGINEERING & SALES
3960 SOUTH 500 WEST
SALT LAKE CITY UT 84123

HOLBROOK, TODD PLUMBING &
165 WEST GREGSON AVE
SLC UT 84115

HOME-TECH, INC
PO BOX 526396
SALT LAKE CITY UT 84106

HORNE CONSTRUCTION & DEVEL CO
525 SOUTH 300 WEST
SALT LAKE CITY UT 84101

HOWA CONSTRUCTION, INC
PO BOX 2406
SALT LAKE CITY UT 84110

HUGHES, HERM & SONS INC
PO BOX 700
NORTH SALT LAKE UT 84054

HUSBAND, CHAD CONST INC
875 SOUTH CHESTNUT STREET
SALT LAKE CITY UT 84104

HY-BAR WINDOWS & DOORS INC
6417 SOUTH COTTONWOOD ST.
MURRAY UT 84107

I D ELECTRIC CO
3690 SOUTH 500 WEST #101
SALT LAKE CITY UT 84115

ICON REMODELING
3336 SOUTH PIONEER STREET
SALT LAKE CITY UT 84109

IDEAL HOMES & DEVELOPMENT INC
8464 SOUTH 4800 WEST
WEST JORDAN UT 84088

IHC HEALTH SERVICES IN
36 SOUTH STATE ST 13TH FL
SALT LAKE CITY UT 84111

IMAGE SIGN & LIGHTING
11474 TARA WOODS LANE
S JORDAN UT 84095

IMPACT SIGNS INC
2236 SOUTH 3270 WEST
WEST VALLEY UT 84119

INGERSOLL, MEL
5758 WASATCH BLVD
HOLLIDAY UT 84121

INNOVATIVE HOMES & DEVELOP
P O BOX 540373
NORTH SALT LAKE UT 84054

INTERIOR CONSTRUCTION SPEC INC
9090 S SANDY PARKWAY
SANDY UT 84070

INTERMOUNTAIN AQUATECH INC
9435 SOUTH 255 WEST
SANDY UT 84070

INTERSTATE BUILDING & PRODUCTS
3159 South 3075 East
SLC UT 84109

IRVING UNLIMITED SERVICES INC
838 E ROOSEVELT
SALT LAKE CITY UT 84105

ISAAC, JIM CONSTRUCTION
3451 SOUTH 1320 WEST #B
WEST VALLEY UT 84119

IVERSON HOMES L.C.
2225 EAST MURRAY HOLLADAY RD
HOLLADAY UT 84117

UTAH HOME BUILDERS ASSOC.
181 EAST 6100 SOUTH
MURRAY, UT 84107

IVIE ELECTRIC SERVICE
615 West 9400 SOUTH
SANDY, UT 84070

IVORY HOMES, INC
970 E WOODOAK LANE
SALT LAKE CITY, UT 84117

IVY LEAGUE BUILDER, INC
363 EAST 3300 SOUTH,
SALT LAKE CITY, UT 84115

J R REMODELING
5643 RYAN CIRCLE
SALT LAKE CITY, UT 84118

J R SETTLE ELECTRIC, INC
71 EAST 135 NORTH
OREM, UT 84057

JACOBSEN CONSTRUCTION
CO
PO BOX 27608
SALT LAKE CITY, UT 84127

JOHNSON CONTROLS, INC
2255 TECHNOLOGY PARKWAY
WEST VALLEY CITY, UT 84119

JOHNSON ELECTRIC MOTOR, INC
2925 S COMMERCE WAY
OGDEN, UT 84401

JORDAN VALLEY ELECTRIC,
INC
4225 W NIKE DRIVE, # A
WEST JORDAN, UT 84088

JUAB ENTERPRISES, INC
3872 PARKVIEW CIRCLE
SALT LAKE CITY, UT 84124

JUSTIN-CASE, INC
1436 WEST 8040 SOUTH
WEST JORDAN, UT 84088

K E SYSTEMS, INC
3959 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84107

K L R CONSTRUCTION
1983 E FOREST CREEK LANE
SALT LAKE CITY, UT 84121

K O H MECHANICAL CONTRACTORS
1273 WEST 12400 SOUTH
RIVERTON, UT 84065

KAPP CONSTRUCTION &
DEVELOPMNT
1595 W 3300 S
OGDEN, UT 84401



KBR SYSTEMS, INC
9457 SOUTH 670 WEST
SANDY, UT 84070

KEITH SUPPLY, INC
3380 SOUTH 1325 WEST
OGDEN, UT 84402

KELLER CONSTRUCTION, INC
2412 SOUTH 3400 WEST
SALT LAKE CITY, UT 84119

KENDRICK BROTHERS
CONSTRUCTION
4015 SOUTH 300 WEST
SALT LAKE CITY, UT 84107

KIDSTON ENGINEERING & CO
2304 EAST 4680 SOUTH
SALT LAKE CITY, UT 84117

KIER CONSTRUCTION CORP
3710 QUINCY AVENUE
OGDEN, UT 84403

KIM, MACKAY, INC
937 WEST 1760 SOUTH
SALT LAKE CITY, UT 84104

KIMBALL ROOFING
P O BOX 8145
MIDVALE, UT 84047

KIMCO FIRE PROTECTION INC
PO BOX 1916
OREM, UT 84059

KING CONSTRUCTION, INC
456 SEGO AVENUE
SALT LAKE CITY, UT 84111

KLR CONSTRUCTION, INC
1983 EAST FOREST CREEK LN
SALT LAKE CITY, UT 84121

KLR CONSTRUCTION INC
1983 EAST FOREST CREEK LN
SALT LAKE CITY, UT 84121

LA PORTE CONSTRUCTION
2505 SOUTH STATE STREET
SALT LAKE CITY, UT 84115

LAKE ELECTRIC, INC
3520 WEST 8600 SOUTH
WEST JORDAN, UT 84088

LAYTON CONSTRUCTION CO,
INC
9090 SOUTH SANDY PKWY
SANDY, UT 84070

LAYTON ROOFING CO, INC
14745 HERRITAGECREST WY
BLUFFDALE, UT 84065

LEAVITT RESTORATION
SERVICS, INC
4662 SOUTH 200 WEST
MURRAY, UT 84107

LEBEQUE BROTHERS
CONSTRUCTION
916 WEST SOUTH TEMPLE
SALT LAKE CITY, UT 84104

LEGACY CONSTRUCTORS
PO BOX 11525
SALT LAKE CITY, UT 84115

LEGACY SIGNS & SERVICE
1750 SOUTH 900 WEST
SALT LAKE CITY, UT 84104

LEHRMAN CONSTRUCTION
1410 EAST 8085 SOUTH
SANDY, UT 84093

LIGHTING MAINTENANCE &
SERVICE
663 WEST 4330 SOUTH
SALT LAKE CITY, UT 84123

LIVE WIRE SERVICE
2846 HARTFORD STREET
SALT LAKE CITY, UT 84106

LLOYD, TODD A
1432 EAST SHOSHONE AVE
SANDY, UT 84092

LONE PEAK ELECTRIC INC
PO BOX 1133
DRAPER, UT 84020

LONG, R J & CO
6514 WEST SUNFLOWER DR
HIGHLAND, UT 84003

LOWELL CONSTRUCTION CO
1035 SOUTH 800 WEST
SALT LAKE CITY, UT 84104

LUTTMER CONSTRUCTION
746 ASPEN DRIVE
PARK CITY, UT 84098

M S T BUILDERS, INC
2491 EAST VALLEY VIEW AVE
SALT LAKE CITY, UT 84117

MACKAY, GRANT CO, INC
250 WEST BERGER LANE
MURRAY, UT 84107

MAINLINE CONSTRUCTION, INC
1598 NORTH 352 WEST,
SUITE B
LAYTON, UT 84041

MANWILL PLUMBING & HEATING LC
385 EAST 3900 SOUTH
SALT LAKE CITY, UT 84107

MARKIM CONSTRUCTION, LLC
PO BOX 58024
SALT LAKE CITY, UT 84158

MARSALA, DUANE CONST LLC
9452 SOUTH MEDALLION CIR
SOUTH JORDAN, UT 84095

MCBRIDE, MARK H PLUMBING
5948 SOUTH 350 WEST
MURRAY, UT 84107

MCCULLOUGH ENG & CONT
1567 EAST STRATFORD AVE
SALT LAKE CITY, UT 84106

MECHANICAL SERVICE &
SYSTEMS
6906 SOUTH 300 WEST
MIDVALE, UT 84047

MERIT STRUCTURES & REST
626 WEST 7250 SOUTH
MIDVALE, UT 84047

MIDGLEY CONSTRUCTION,
INC
7644 SOUTH STATE STREET
MIDVALE, UT 84047

MIDWEST ELECTRIC, INC
40 WEST TRUMAN
SALT LAKE CITY, UT 84115

THE MUGLESTONS
4537 WELLINGTON
SALT LAKE CITY, UT 84117

NAILSETTER CONST, INC
PO BOX 9539
SALT LAKE CITY, UT 84109

NARNIA PAINT & REMDLING
3353 SOUTH MAIN, #294
SALT LAKE CITY, UT 84115

NELSON CONTRACTORS
PO BOX 571129
MURRAY, UT 84157

NEW CONCEPTS CONST, INC
31 WEST GREGSON AVE
SALT LAKE CITY, UT 84115

NEW LOOK SIDING LLC
10947 SOUTH SEQUOIA CIR
SANDY, UT 84094

NEW STAR GENERAL CONTS
2610 WEST 2590 SOUTH
WEST VALLEY, UT 84119

KEVIN NILSSON CONST
11345 SOUTH 1300 WEST
SOUTH JORDAN, UT 84095

NORTHERN ELECTRIC CO
1308 SOUTH 1700 EAST, #203
SALT LAKE CITY, UT 84108

NORTHWEST ROOFING LLC
25 SOUTH 1000 WEST
SALT LAKE CITY, UT 84104

NORTONS SIDING & WINDOWS
621 WEST 9TH AVENUE
MIDVALE, UT 84084

NORWOOD CONSTRUCTION &
REMODEL
180 EAST 2100 SOUTH, # 202
SALT LAKE CITY, UT 84115

OASIS PLUMBING, INC
1963 SOUTH BLUFF ROAD
SYRACUSE, UT 84075

ODYSSEY HOUSE, INC
68 SOUTH 600 EAST
SALT LAKE CITY, UT 84102

OKLAND CONSTRUCTION CO
1978 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

OLIVER, JIM
1053 EAST 3RD AVENUE
SALT LAKE CITY, UT 84103

OVERHEAD ROOFING
3150 SOUTH 6400 WEST
WEST VALLEY, UT 84120

P B CONSTRUCTION, INC
310 NORTH 400 EAST
CENTERVILLE, UT 84014

PACKER, TOD R HTG & AC
5940 COPPERCITY CIRCLE
KEARNS, UT 84118



PAGE ELECTRIC SVCE, INC
PO BOX 540505
NORTH SALT LAKE, UT 84054

PALMER-CHRISTIANSEN CO
2510 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

PARAGON BUILDERS, INC
1010 EAST 12340 SOUTH
DRAPER, UT 84020

PAULSEN ENG & CONST CO
IN
3075 SOUTH 230 WEST
SALT LAKE CITY, UT 84115

PEARSON, ROBERT
PO BOX 526001
SALT LAKE CITY, UT 84152

PENDLETON BUILDERS, INC
12132 SOUTH 1950 EAST
DRAPER, UT 84020

PENHALL COMPANY
1801 PENHALL WAY
ANAHEIM, CA 92803

PENTALON CONSTRUCTION
INC
132 EAST 13065 SOUTH, SUITE 175
DRAPER, UT 84020

PHILIPOOM CONSTRUCTION
5952 SOUTH WALQUIST
SALT LAKE CITY, UT 84123

PHILLIP WINSTON CONST
1645 E WASATCH CIRCLE
SALT LAKE CITY, UT 84105

PINNACLE BLDG GROUP, INC
4877 SOUTH TAYLORS PK DR
TAYLORSVILLE, UT 84123

PIONEER ROOFING COMPANY
7041 SOUTH 2700 EAST
SALT LAKE CITY, UT 84121

PLUMBING PLUS
2021 SOUTH 1100 EAST
SALT LAKE CITY, UT 84106

POWELL DEMOLITION, INC
10TH SOUTH OAK STREET, #4
MIDVALE, UT 84047

POWER & LIGHT ELECTRIC LC
1601 FOX PARK DR #8N
WEST JORDAN, UT 84088

PRECEPT PROPERTY MANG
4600 HOLLADAY BLVD
SALT LAKE CITY, UT 84117

PRIMARY CHILDRENS MEDICAL CNTR
100 NORTH MEDICAL DRIVE
SALT LAKE CITY, UT 84113

RCON INCORPORATED
1625 WEST 700 NORTH,
SUITE J
SALT LAKE CITY, UT 84116

PROGRESSIVE BUILDERS
7966 MAYOR VISTA COVE
SANDY, UT 84093

R & O CONSTRUCTION CO
933 WALL AVENUE
OGDEN, UT 84401

RAINBOW NEON SIGN CO
257 WEST 3300 SOUTH
SALT LAKE CITY, UT 84115

RAYS COMMERCIAL KITCHEN INSTL
4095 WEST PASKAY DRIVE
WEST VALLEY CITY, UT 84120

RC HUNT ELECTRIC, INC
2064 WEST ALEXANDER ST.
SUITE #E
SALT LAKE CITY, UT 84119

REAGAN OUTDOOR ADVT
1775 NORTH WARM SPRINGS RD
SALT LAKE CITY, UT 84116

REYNOLDS FIRE PROT
1952 NORTH BECK STREET
SALT LAKE CITY, UT 84116

RICHARDSON VANLEEUEWEN
CONSTRUCTION
510 SOUTH 600 EAST
SALT LAKE CITY, UT 84102

RICHINS GENERAL ENG
1568 W LAUREL CHASE CIR
RIVERTON, UT 84065

RIDGES, R A CO, INC
425 WEST 400 SOUTH
SALT LAKE CITY, UT 84101

RIGBY REMODEL, INC
3415 SOUTH 2700 EAST
SALT LAKE CITY, UT 84109



ROBBINS CENTRAL ELECTRIC
PO BOX 17897
SALT LAKE CITY, UT 84117

ROCKY MOUNTAIN MECH
3412 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

ROMNEY CORPORATION
4425 SOUTH 500 WEST
MURRAY, UT 84123

ROYAL CONST & REST, INC
4112 W HARVEST MOON DR
SOUTH JORDAN, UT 84095

ROYAL SEAL CONST, INC
3207 JUSTING ROAD
FLOWER MOUND, TX 75028

S C C CONSTRUCTION. INC
4824 WALLACE LANE
HOLLADAY, UT 84117

SALT LAKE NEIGHBORHOOD HOUSING
SERV
622 WEST 500 NORTH
SALT LAKE CITY, UT 84116

SAHARA, INC
801 NORTH. 500 WEST, #300
WEST BOUNTIFUL, UT 84087

SALMON ELECTRICAL CONTR INC
1116 WEST 500 SOUTH
WEST BOUNTIFUL, UT 84087

SALT LAKE CITY CONST CO
5139 SOUTH COMMERCE DR.
SALT LAKE CITY, UT 84107

SALT LAKE VALLEY HABITAT
716 EAST 4500 SOUTH, #N160
SALT LAKE CITY, UT 84107

SANDOVAL, A B
1715 WEST 4TH NORTH
SALT LAKE CITY, UT 84116

SAVAGE CONSTRUCTION, INC
8070 SOUTH 700 EAST
SANDY, UT 84070

SERVICE EXPERTS OF S L C
LLC
7682 SOUTH MAPLE ST
MIDVALE, UT 84047

SHAW ROOFING & GEN CONT
1182 EAST LAIRD AVENUE
SALT LAKE CITY, UT 84105

SHEET METAL SYSTEMS
12659 SOUTH 125 EAST
DRAPER, UT 84020

SHELTER CONSTRUCTION
CO, INC
851 SO. RICHARDS ST.
SALT LAKE CITY, UT 84101

SIERRA CONSTRUCTION LLC
PO BOX 571467
SALT LAKE CITY, UT 84157

SIEVERTS LUXAIRE SUNBEAM
1881 EAST 8325 SOUTH
SANDY, UT 84093

SIGNATURE BUILDERS, INC
3335 SOUTH 2070 EAST. #28
SALT LAKE CITY, UT 84109

SKYLINE ELECTRIC CO
1875 WEST 2300 SOUTH
WEST VALLEY CITY, UT 84119

SL COMMUNITY ACTION
PROGRAM
764 SOUTH 200 WEST
SALT LAKE CITY, UT 84101

SMITH & ISOM BUILDERS INC
2580 EAST 3210 SOUTH
SALT LAKE CITY, UT 84109

SMOLKA CONSTRUCTION, INC
43 A SMOKEY LANE
SALT LAKE CITY, UT 84108

SORENSEN, CRAIG F CONST
918 SOUTH 2000 WEST
SYRACUSE, UT 84075

SOUVALL BROTHERS, INC
3701 SOUTH 700 WEST
SALT LAKE CITY, UT 84119

SPECTRUM DYNAMICS, INC
2806 SOUTH 2000 EAST
SALT LAKE CITY, UT 84109

SPEIRS, ROBERT W PLUMBING
PO BOX 345
KAYSVILLE, UT 84037

SQUIRES CONSTRUCTION INC
350 SOUTH 100 EAST
FARMINGTON, UT 84025

STAKER PAVING & CONST CO
INC
1000 WEST CENTER
NORTH SALT LAKE, UT 84054

STALLINGS CONSTRUCTION
CO
5280 S. COMMERCE DR, E-150
MURRAY, UT 84107

STAPP CONSTRUCTION, INC
649 WEST 250 SOUTH
FARMINGTON, UT 84025

STEEL ENCOUNTERS
525 EAST 300 SOUTH
SALT LAKE CITY, UT 84102

STEEL SHADE
253 EAST STATE
LEHI, UT 84043

STEVENS, TOM CONST
2662 VERONA CIRCLE
SALT LAKE CITY, UT 84117

STIRLING CONSTRUCTION
15 WEST 4800 SOUTH
MURRAY, UT 84107

STREAMLINE CONSTR. DESIGN
320 WEST 200 SOUTH, #280-B
SALT LAKE CITY, UT 84101

TOM STUART CONSTRUCTION
100 NORTH 700 WEST, UNIT C
NORTH SALT LAKE, UT 84054

SUBURBAN PROPERTY MAINT
1525 SOUTH GLADIOLA
SALT LAKE CITY, UT 84104

SUGAR HOUSE AWNING / CANVAS PROD
7526 SOUTH STATE STREET
MIDVALE, UT 84047

SUNUP BUILDING CO
968 DUPLER ROAD
SANDY, UT 84094

T S ELECTRIC, INC
6220 SOUTH 300 WEST
MURRAY, UT 84107

T.H.R. CONSTRUCTION, LLC
300 EAST GORDON LANE
MURRAY, UT 84107

TEAM MECHANICAL INC
PO BOX 287
KAYSVILLE, UT 84037

TECHNICAL AIR SPECIALISTS INC
2487 SOUTH 3270 WEST
WEST VALLEY CITY, UT 84119

TEMPERATURE TECH
4850 SOUTH 500 WEST
MURRAY, UT 84123

TEMPORARY SVCS & RENTAL
P O BOX 1923
SANDY, UT 84091

TERRAN-OMNI GROUP, INC
2023 WALL AVE
OGDEN, UT 84401

THE ELM GROUP, INC
809 SOUTH 900 WEST
SALT LAKE CITY, UT 84119

THEY INC
6482 SOUTH 2520 EAST
SALT LAKE CITY, UT 84121

THIEDE CONSTRUCTION CORP
P O BOX 540507
NO. SALT LAKE, UT 841054

THOLEN, PRESTON CONST
813 WEST HOYTSTVILLE RD
COALVILLE, UT 84017

THOMPSON, M K CNST
2164 LAKELINE DRIVE
SALT LAKE CITY, UT 84109

THORNTON PLB & HEAT CO
6790 SOUTH 400 WEST
MIDVALE, UT 84047

THORUP BROTHERS CONST
3048 THORUP CIRCLE
WEST VALLEY CITY, UT 84119

TINGEY CONSTRUCTION CO
INC
301 SOUTH MAIN
CENTERVILLE, UT 84014

UTAH TILE CORP
11286 SOUTH 675 WEST
SOUTH JORDAN, UT 84095

VANKEIZERWAARD CARPENTRY
1234 SOUTH 1800 EAST
SALT LAKE CITY, UT 84108

VANNCO ARCH & CONSTR
INC
3893 WEST BETH PARK DRIVE
WEST VALLEY CITY, UT 84120



VARSITY CONTRACTORS INC
943 WEST COLMAR
SALT LAKE CITY, UT 84104

VIKING ROOFING, LLC
5136 WEST GASKILL WAY
WEST JORDAN, UT 84088

W E CORP
2770 SOUTH MAIN STREET
SALT LAKE CITY, UT 84115

W F ENGINEERING, INC
879 SOUTH 4400 WEST
SALT LAKE CITY, UT 84104

WADMAN CORPORATION
PO BOX 1458
OGDEN, UT 84402

WADSWORTH BROS CONST CO, INC
13526 SOUTH 110 WEST
DRAPER, UT 84020

CALVIN L WADSWORTH CONST
14912 S HERITAGECREST
BLUFFDALE, UT 84065

WAGSTAFF CONSTRUCTION
6300 NORTH SAGEWOOD DR, H235
PARK CITY, UT 84098

WASATCH SUMMIT CONSTRUCTION
PO BOX 441
RIVERTON, UT 84065

WATERWORKS
2394 EAST SUNDOWN CIRCLE
SALT LAKE CITY, UT 84121

WATTCO ENTERPRISES, INC
9550 NORTH 6800 WEST
HIGHLAND, UT 84003

WATTS ENTERPRISES, INC
5200 SOUTHHIGHLAND DR
SALT LAKE CITY, UT 84117

WAYMAN, C L PIPING LC
5565 W LEO PARK ROAD
WEST JORDAN, UT 84088

WEBB BROTHERS CONSTRUCTION INC
8738 SOUTH SANDY PKWY
SANDY, UT 84070

WERNLI, INC
264 SOUTH GLENDALE
SALT LAKE CITY, UT 84104

WESTERN AUTOMATIC SPRINKLER
2510 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

WESTERN DEVL & CONST
1958 EAST 900 SOUTH
SALT LAKE CITY, UT 84108

WESTERN STATES FIRE PROTECTION
1885 WEST 2300 SOUTH
WEST VALLEY CITY, UT 84119

WEYHER CONSTRUCTION CO
PO BOX 16717
SALT LAKE CITY, UT 84116

RAY WHITE ROOFING, INC
6014 BAYSHORE DRIVE
STANSBURY PARK, UT 84074

YEAGLE & SONS PLUMBING
181 LAKEVIEW
STANSBURY PARK, UT 84074

YOUNG ELECTRIC SIGN CO
1148 SOUTH 300 WEST
SALT LAKE CITY, UT 84101

JOHN ZARBOCK PLUMBING
PO BOX 65098
SALT LAKE CITY, UT 84165

ZIONS SECURITIES CORP
102 EAST SOCIAL HALL AVE
SALT LAKE CITY, UT 84111

NINIGRET
RANDY ABOOD
4750 WEST 2100 SOUTH #150
SALT LAKE CITY, UTAH 84120

Kerry Arnold
Big-D Construction Corp
420 East South Temple, Suite 550
Salt Lake City,, UT 84111

Gary Barker
Utah Tech LLC
2755 East Cottonwood Parkway,
Suite 100
Salt Lake City, Utah 84121

Paula Carl
Design Interface
345 South Moffat Ct
Salt Lake City, UT 84111

Curtis Clark
Clarks Energy Services Corp
4190 Highland Dr., STE 101
Salt Lake City, UT 84124

Angela Dean
AMD Architecture
573 7th Avenue
Salt Lake City, UT 84103

Mark Eldridge
Utah Energy Conservation
112 South Mountain Way Dr
Orem, UT 84058-5108

Mike Glenn
Utah Office of Energy
1594 West North State
Salt Lake City, Utah 84114

Sharen Hauri
Utah ASLA
983 Lincoln Street
SLC, UT 84105-1437

Laynee Jones
HDR Engineering
3995 South 700 East
Salt Lake City, UT 84107-2152

Catherine Logan
EnviroWise Design
466 W. 100 South
Logan,, UT 84321



VARSITY CONTRACTORS INC
943 WEST COLMAR
SALT LAKE CITY, UT 84104

VIKING ROOFING, LLC
5136 WEST GASKILL WAY
WEST JORDAN, UT 84088

W E CORP
2770 SOUTH MAIN STREET
SALT LAKE CITY, UT 84115

W F ENGINEERING, INC
879 SOUTH 4400 WEST
SALT LAKE CITY, UT 84104

WADMAN CORPORATION
PO BOX 1458
OGDEN, UT 84402

WADSWORTH BROS CONST CO, INC
13526 SOUTH 110 WEST
DRAPER, UT 84020

CALVIN L WADSWORTH CONST
14912 S HERITAGECREST
BLUFFDALE, UT 84065

WAGSTAFF CONSTRUCTION
6300 NORTH SAGEWOOD DR, H235
PARK CITY, UT 84098

WASATCH SUMMIT CONSTRUCTION
PO BOX 441
RIVERTON, UT 84065

WATERWORKS
2394 EAST SUNDOWN CIRCLE
SALT LAKE CITY, UT 84121

WATTCO ENTERPRISES, INC
9550 NORTH 6800 WEST
HIGHLAND, UT 84003

WATTS ENTERPRISES, INC
5200 SOUTHHIGHLAND DR
SALT LAKE CITY, UT 84117

WAYMAN, C L PIPING LC
5565 W LEO PARK ROAD
WEST JORDAN, UT 84088

WEBB BROTHERS CONSTRUCTION INC
8738 SOUTH SANDY PKWY
SANDY, UT 84070

WERNLI, INC
264 SOUTH GLENDALE
SALT LAKE CITY, UT 84104

WESTERN AUTOMATIC SPRINKLER
2510 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

WESTERN DEVL & CONST
1958 EAST 900 SOUTH
SALT LAKE CITY, UT 84108

WESTERN STATES FIRE PROTECTION
1885 WEST 2300 SOUTH
WEST VALLEY CITY, UT 84119

WEYHER CONSTRUCTION CO
PO BOX 16717
SALT LAKE CITY, UT 84116

RAY WHITE ROOFING, INC
6014 BAYSHORE DRIVE
STANSBURY PARK, UT 84074

YEAGLE & SONS PLUMBING
181 LAKEVIEW
STANSBURY PARK, UT 84074

YOUNG ELECTRIC SIGN CO
1148 SOUTH 300 WEST
SALT LAKE CITY, UT 84101

JOHN ZARBOCK PLUMBING
PO BOX 65098
SALT LAKE CITY, UT 84165

ZIONS SECURITIES CORP
102 EAST SOCIAL HALL AVE
SALT LAKE CITY, UT 84111

NINIGRET
RANDY ABOOD
4750 WEST 2100 SOUTH #150
SALT LAKE CITY, UTAH 84120



30



STAKER PAVING & CONST CO
INC
1000 WEST CENTER
NORTH SALT LAKE, UT 84054

STALLINGS CONSTRUCTION
CO
5280 S. COMMERCE DR, E-150
MURRAY, UT 84107

STAPP CONSTRUCTION, INC
649 WEST 250 SOUTH
FARMINGTON, UT 84025

STEEL ENCOUNTERS
525 EAST 300 SOUTH
SALT LAKE CITY, UT 84102

STEEL SHADE
253 EAST STATE
LEHI, UT 84043

STEVENS, TOM CONST
2662 VERONA CIRCLE
SALT LAKE CITY, UT 84117

STIRLING CONSTRUCTION
15 WEST 4800 SOUTH
MURRAY, UT 84107

STREAMLINE CONSTR. DESIGN
320 WEST 200 SOUTH, #280-B
SALT LAKE CITY, UT 84101

TOM STUART CONSTRUCTION
100 NORTH 700 WEST, UNIT C
NORTH SALT LAKE, UT 84054

SUBURBAN PROPERTY MAINT
1525 SOUTH GLADIOLA
SALT LAKE CITY, UT 84104

SUGAR HOUSE AWNING / CANVAS PROD
7526 SOUTH STATE STREET
MIDVALE, UT 84047

SUNUP BUILDING CO
968 DUPLER ROAD
SANDY, UT 84094

T S ELECTRIC, INC
6220 SOUTH 300 WEST
MURRAY, UT 84107

T.H.R. CONSTRUCTION, LLC
300 EAST GORDON LANE
MURRAY, UT 84107

TEAM MECHANICAL INC
PO BOX 287
KAYSVILLE, UT 84037

TECHNICAL AIR SPECIALISTS INC
2487 SOUTH 3270 WEST
WEST VALLEY CITY, UT 84119

TEMPERATURE TECH
4850 SOUTH 500 WEST
MURRAY, UT 84123

TEMPORARY SVCS & RENTAL
P O BOX 1923
SANDY, UT 84091

TERRAN-OMNI GROUP, INC
2023 WALL AVE
OGDEN, UT 84401

THE ELM GROUP, INC
809 SOUTH 900 WEST
SALT LAKE CITY, UT 84119

THEY INC
6482 SOUTH 2520 EAST
SALT LAKE CITY, UT 84121

THIEDE CONSTRUCTION CORP
P O BOX 540507
NO. SALT LAKE, UT 841054

THOLEN, PRESTON CONST
813 WEST HOYTSVILLE RD
COALVILLE, UT 84017

THOMPSON, M K CNST
2164 LAKELINE DRIVE
SALT LAKE CITY, UT 84109

THORNTON PLB & HEAT CO
6790 SOUTH 400 WEST
MIDVALE, UT 84047

THORUP BROTHERS CONST
3048 THORUP CIRCLE
WEST VALLEY CITY, UT 84119

TINGEY CONSTRUCTION CO
INC
301 SOUTH MAIN
CENTERVILLE, UT 84014

UTAH TILE CORP
11286 SOUTH 675 WEST
SOUTH JORDAN, UT 84095

VANKEIZERWAARD CARPENTRY
1234 SOUTH 1800 EAST
SALT LAKE CITY, UT 84108

VANNCO ARCH & CONSTR
INC
3893 WEST BETH PARK DRIVE
WEST VALLEY CITY, UT 84120



ROBBINS CENTRAL ELECTRIC
PO BOX 17897
SALT LAKE CITY, UT 84117

ROCKY MOUNTAIN MECH
3412 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

ROMNEY CORPORATION
4425 SOUTH 500 WEST
MURRAY, UT 84123

ROYAL CONST & REST, INC
4112 W HARVEST MOON DR
SOUTH JORDAN, UT 84095

ROYAL SEAL CONST, INC
3207 JUSTING ROAD
FLOWER MOUND, TX 75028

S C C CONSTRUCTION. INC
4824 WALLACE LANE
HOLLADAY, UT 84117

SALT LAKE NEIGHBORHOOD HOUSING
SERV
622 WEST 500 NORTH
SALT LAKE CITY, UT 84116

SAHARA, INC
801 NORTH. 500 WEST, #300
WEST BOUNTIFUL, UT 84087

SALMON ELECTRICAL CONTR INC
1116 WEST 500 SOUTH
WEST BOUNTIFUL, UT 84087

SALT LAKE CITY CONST CO
5139 SOUTH COMMERCE DR.
SALT LAKE CITY, UT 84107

SALT LAKE VALLEY HABITAT
716 EAST 4500 SOUTH, #N160
SALT LAKE CITY, UT 84107

SANDOVAL, A B
1715 WEST 4TH NORTH
SALT LAKE CITY, UT 84116

SAVAGE CONSTRUCTION, INC
8070 SOUTH 700 EAST
SANDY, UT 84070

SERVICE EXPERTS OF S L C
LLC
7682 SOUTH MAPLE ST
MIDVALE, UT 84047

SHAW ROOFING & GEN CONT
1182 EAST LAIRD AVENUE
SALT LAKE CITY, UT 84105

SHEET METAL SYSTEMS
12659 SOUTH 125 EAST
DRAPER, UT 84020

SHELTER CONSTRUCTION
CO, INC
851 SO. RICHARDS ST.
SALT LAKE CITY, UT 84101

SIERRA CONSTRUCTION LLC
PO BOX 571467
SALT LAKE CITY, UT 84157

SIEVERTS LUXAIRE SUNBEAM
1881 EAST 8325 SOUTH
SANDY, UT 84093

SIGNATURE BUILDERS, INC
3335 SOUTH 2070 EAST. #28
SALT LAKE CITY, UT 84109

SKYLINE ELECTRIC CO
1875 WEST 2300 SOUTH
WEST VALLEY CITY, UT 84119

SL COMMUNITY ACTION
PROGRAM
764 SOUTH 200 WEST
SALT LAKE CITY, UT 84101

SMITH & ISOM BUILDERS INC
2580 EAST 3210 SOUTH
SALT LAKE CITY, UT 84109

SMOLKA CONSTRUCTION, INC
43 A SMOKEY LANE
SALT LAKE CITY, UT 84108

SORENSEN, CRAIG F CONST
918 SOUTH 2000 WEST
SYRACUSE, UT 84075

SOUVALL BROTHERS, INC
3701 SOUTH 700 WEST
SALT LAKE CITY, UT 84119

SPECTRUM DYNAMICS, INC
2806 SOUTH 2000 EAST
SALT LAKE CITY, UT 84109

SPEIRS, ROBERT W PLUMBING
PO BOX 345
KAYSVILLE, UT 84037

SQUIRES CONSTRUCTION INC
350 SOUTH 100 EAST
FARMINGTON, UT 84025



PAGE ELECTRIC SVCE, INC
PO BOX 540505
NORTH SALT LAKE, UT 84054

PALMER-CHRISTIANSEN CO
2510 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

PARAGON BUILDERS, INC
1010 EAST 12340 SOUTH
DRAPER, UT 84020

PAULSEN ENG & CONST CO
IN
3075 SOUTH 230 WEST
SALT LAKE CITY, UT 84115

PEARSON, ROBERT
PO BOX 526001
SALT LAKE CITY, UT 84152

PENDLETON BUILDERS, INC
12132 SOUTH 1950 EAST
DRAPER, UT 84020

PENHALL COMPANY
1801 PENHALL WAY
ANAHEIM, CA 92803

PENTALON CONSTRUCTION
INC
132 EAST 13065 SOUTH, SUITE 175
DRAPER, UT 84020

PHILIPOOM CONSTRUCTION
5952 SOUTH WALQUIST
SALT LAKE CITY, UT 84123

PHILLIP WINSTON CONST
1645 E WASATCH CIRCLE
SALT LAKE CITY, UT 84105

PINNACLE BLDG GROUP, INC
4877 SOUTH TAYLORS PK DR
TAYLORSVILLE, UT 84123

PIONEER ROOFING COMPANY
7041 SOUTH 2700 EAST
SALT LAKE CITY, UT 84121

PLUMBING PLUS
2021 SOUTH 1100 EAST
SALT LAKE CITY, UT 84106

POWELL DEMOLITION, INC
10TH SOUTH OAK STREET, #4
MIDVALE, UT 84047

POWER & LIGHT ELECTRIC LC
1601 FOX PARK DR #8N
WEST JORDAN, UT 84088

PRECEPT PROPERTY MANG
4600 HOLLADAY BLVD
SALT LAKE CITY, UT 84117

PRIMARY CHILDRENS MEDICAL CNTR
100 NORTH MEDICAL DRIVE
SALT LAKE CITY, UT 84113

RCON INCORPORATED
1625 WEST 700 NORTH,
SUITE J
SALT LAKE CITY, UT 84116

PROGRESSIVE BUILDERS
7966 MAYOR VISTA COVE
SANDY, UT 84093

R & O CONSTRUCTION CO
933 WALL AVENUE
OGDEN, UT 84401

RAINBOW NEON SIGN CO
257 WEST 3300 SOUTH
SALT LAKE CITY, UT 84115

RAYS COMMERCIAL KITCHEN INSTL
4095 WEST PASKAY DRIVE
WEST VALLEY CITY, UT 84120

RC HUNT ELECTRIC, INC
2064 WEST ALEXANDER ST.
SUITE #E
SALT LAKE CITY, UT 84119

REAGAN OUTDOOR ADVT
1775 NORTH WARM SPRINGS RD
SALT LAKE CITY, UT 84116

REYNOLDS FIRE PROT
1952 NORTH BECK STREET
SALT LAKE CITY, UT 84116

RICHARDSON VANLEEUEWEN
CONSTRUCTION
510 SOUTH 600 EAST
SALT LAKE CITY, UT 84102

RICHINS GENERAL ENG
1568 W LAUREL CHASE CIR
RIVERTON, UT 84065

RIDGES, R A CO, INC
425 WEST 400 SOUTH
SALT LAKE CITY, UT 84101

RIGBY REMODEL, INC
3415 SOUTH 2700 EAST
SALT LAKE CITY, UT 84109



2a



MAINLINE CONSTRUCTION, INC
1598 NORTH 352 WEST,
SUITE B
LAYTON, UT 84041

MANWILL PLUMBING & HEATING LC
385 EAST 3900 SOUTH
SALT LAKE CITY, UT 84107

MARKIM CONSTRUCTION, LLC
PO BOX 58024
SALT LAKE CITY, UT 84158

MARSALA, DUANE CONST LLC
9452 SOUTH MEDALLION CIR
SOUTH JORDAN, UT 84095

MCBRIDE, MARK H PLUMBING
5948 SOUTH 350 WEST
MURRAY, UT 84107

MCCULLOUGH ENG & CONT
1567 EAST STRATFORD AVE
SALT LAKE CITY, UT 84106

MECHANICAL SERVICE &
SYSTEMS
6906 SOUTH 300 WEST
MIDVALE, UT 84047

MERIT STRUCTURES & REST
626 WEST 7250 SOUTH
MIDVALE, UT 84047

MIDGLEY CONSTRUCTION,
INC
7644 SOUTH STATE STREET
MIDVALE, UT 84047

MIDWEST ELECTRIC, INC
40 WEST TRUMAN
SALT LAKE CITY, UT 84115

THE MUGLESTONS
4537 WELLINGTON
SALT LAKE CITY, UT 84117

NAILSETTER CONST, INC
PO BOX 9539
SALT LAKE CITY, UT 84109

NARNIA PAINT & REMDLING
3353 SOUTH MAIN, #294
SALT LAKE CITY, UT 84115

NELSON CONTRACTORS
PO BOX 571129
MURRAY, UT 84157

NEW CONCEPTS CONST, INC
31 WEST GREGSON AVE
SALT LAKE CITY, UT 84115

NEW LOOK SIDING LLC
10947 SOUTH SEQUOIA CIR
SANDY, UT 84094

NEW STAR GENERAL CONTS
2610 WEST 2590 SOUTH
WEST VALLEY, UT 84119

KEVIN NILSSON CONST
11345 SOUTH 1300 WEST
SOUTH JORDAN, UT 84095

NORTHERN ELECTRIC CO
1308 SOUTH 1700 EAST, #203
SALT LAKE CITY, UT 84108

NORTHWEST ROOFING LLC
25 SOUTH 1000 WEST
SALT LAKE CITY, UT 84104

NORTONS SIDING & WINDOWS
621 WEST 9TH AVENUE
MIDVALE, UT 84084

NORWOOD CONSTRUCTION &
REMODEL
180 EAST 2100 SOUTH, # 202
SALT LAKE CITY, UT 84115

OASIS PLUMBING, INC
1963 SOUTH BLUFF ROAD
SYRACUSE, UT 84075

ODYSSEY HOUSE, INC
68 SOUTH 600 EAST
SALT LAKE CITY, UT 84102

OKLAND CONSTRUCTION CO
1978 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84115

OLIVER, JIM
1053 EAST 3RD AVENUE
SALT LAKE CITY, UT 84103

OVERHEAD ROOFING
3150 SOUTH 6400 WEST
WEST VALLEY, UT 84120

P B CONSTRUCTION, INC
310 NORTH 400 EAST
CENTERVILLE, UT 84014

PACKER, TOD R HTG & AC
5940 COPPERCITY CIRCLE
KEARNS, UT 84118



KBR SYSTEMS, INC
9457 SOUTH 670 WEST
SANDY, UT 84070

KEITH SUPPLY, INC
3380 SOUTH 1325 WEST
OGDEN, UT 84402

KELLER CONSTRUCTION, INC
2412 SOUTH 3400 WEST
SALT LAKE CITY, UT 84119

KENDRICK BROTHERS
CONSTRUCTION
4015 SOUTH 300 WEST
SALT LAKE CITY, UT 84107

KIDSTON ENGINEERING & CO
2304 EAST 4680 SOUTH
SALT LAKE CITY, UT 84117

KIER CONSTRUCTION CORP
3710 QUINCY AVENUE
OGDEN, UT 84403

KIM, MACKAY, INC
937 WEST 1760 SOUTH
SALT LAKE CITY, UT 84104

KIMBALL ROOFING
P O BOX 8145
MIDVALE, UT 84047

KIMCO FIRE PROTECTION INC
PO BOX 1916
OREM, UT 84059

KING CONSTRUCTION, INC
456 SEGO AVENUE
SALT LAKE CITY, UT 84111

KLR CONSTRUCTION, INC
1983 EAST FOREST CREEK LN
SALT LAKE CITY, UT 84121

KLR CONSTRUCTION INC
1983 EAST FOREST CREEK LN
SALT LAKE CITY, UT 84121

LA PORTE CONSTRUCTION
2505 SOUTH STATE STREET
SALT LAKE CITY, UT 84115

LAKE ELECTRIC, INC
3520 WEST 8600 SOUTH
WEST JORDAN, UT 84088

LAYTON CONSTRUCTION CO,
INC
9090 SOUTH SANDY PKWY
SANDY, UT 84070

LAYTON ROOFING CO, INC
14745 HERRITAGECREST WY
BLUFFDALE, UT 84065

LEAVITT RESTORATION
SERVICES, INC
4662 SOUTH 200 WEST
MURRAY, UT 84107

LEBEQUE BROTHERS
CONSTRUCTION
916 WEST SOUTH TEMPLE
SALT LAKE CITY, UT 84104

LEGACY CONSTRUCTORS
PO BOX 11525
SALT LAKE CITY, UT 84115

LEGACY SIGNS & SERVICE
1750 SOUTH 900 WEST
SALT LAKE CITY, UT 84104

LEHRMAN CONSTRUCTION
1410 EAST 8085 SOUTH
SANDY, UT 84093

LIGHTING MAINTENANCE &
SERVICE
663 WEST 4330 SOUTH
SALT LAKE CITY, UT 84123

LIVE WIRE SERVICE
2846 HARTFORD STREET
SALT LAKE CITY, UT 84106

LLOYD, TODD A
1432 EAST SHOSHONE AVE
SANDY, UT 84092

LONE PEAK ELECTRIC INC
PO BOX 1133
DRAPER, UT 84020

LONG, R J & CO
6514 WEST SUNFLOWER DR
HIGHLAND, UT 84003

LOWELL CONSTRUCTION CO
1035 SOUTH 800 WEST
SALT LAKE CITY, UT 84104

LUTTMER CONSTRUCTION
746 ASPEN DRIVE
PARK CITY, UT 84098

M S T BUILDERS, INC
2491 EAST VALLEY VIEW AVE
SALT LAKE CITY, UT 84117

MACKAY, GRANT CO, INC
250 WEST BERGER LANE
MURRAY, UT 84107



29

ICON REMODELING
3336 SOUTH PIONEER STREET
SALT LAKE CITY UT 84109

IDEAL HOMES & DEVELOPMENT INC
8464 SOUTH 4800 WEST
WEST JORDAN UT 84088

IHC HEALTH SERVICES IN
36 SOUTH STATE ST 13TH FL
SALT LAKE CITY UT 84111

IMAGE SIGN & LIGHTING
11474 TARA WOODS LANE
S JORDAN UT 84095

IMPACT SIGNS INC
2236 SOUTH 3270 WEST
WEST VALLEY UT 84119

INGERSOLL, MEL
5758 WASATCH BLVD
HOLLIDAY UT 84121

INNOVATIVE HOMES & DEVELOP
P O BOX 540373
NORTH SALT LAKE UT 84054

INTERIOR CONSTRUCTION SPEC INC
9090 S SANDY PARKWAY
SANDY UT 84070

INTERMOUNTAIN AQUATECH INC
9435 SOUTH 255 WEST
SANDY UT 84070

INTERSTATE BUILDING & PRODUCTS
3159 South 3075 East
SLC UT 84109

IRVING UNLIMITED SERVICES INC
838 E ROOSEVELT
SALT LAKE CITY UT 84105

ISAAC, JIM CONSTRUCTION
3451 SOUTH 1320 WEST #B
WEST VALLEY UT 84119

IVERSON HOMES L.C.
2225 EAST MURRAY HOLLADAY RD
HOLLADAY UT 84117

UTAH HOME BUILDERS ASSOC.
181 EAST 6100 SOUTH
MURRAY, UT 84107

IVIE ELECTRIC SERVICE
615 West 9400 SOUTH
SANDY, UT 84070

IVORY HOMES, INC
970 E WOODOAK LANE
SALT LAKE CITY, UT 84117

IVY LEAGUE BUILDER, INC
363 EAST 3300 SOUTH,
SALT LAKE CITY, UT 84115

J R REMODELING
5643 RYAN CIRCLE
SALT LAKE CITY, UT 84118

J R SETTLE ELECTRIC, INC
71 EAST 135 NORTH
OREM, UT 84057

JACOBSEN CONSTRUCTION
CO
PO BOX 27608
SALT LAKE CITY, UT 84127

JOHNSON CONTROLS, INC
2255 TECHNOLOGY PARKWAY
WEST VALLEY CITY, UT 84119

JOHNSON ELECTRIC MOTOR, INC
2925 S COMMERCE WAY
OGDEN, UT 84401

JORDAN VALLEY ELECTRIC,
INC
4225 W NIKE DRIVE, # A
WEST JORDAN, UT 84088

JUAB ENTERPRISES, INC
3872 PARKVIEW CIRCLE
SALT LAKE CITY, UT 84124

JUSTIN-CASE, INC
1436 WEST 8040 SOUTH
WEST JORDAN, UT 84088

K E SYSTEMS, INC
3959 SOUTH WEST TEMPLE
SALT LAKE CITY, UT 84107

K L R CONSTRUCTION
1983 E FOREST CREEK LANE
SALT LAKE CITY, UT 84121

K O H MECHANICAL CONTRACTORS
1273 WEST 12400 SOUTH
RIVERTON, UT 84065

KAPP CONSTRUCTION &
DEVELOPMNT
1595 W 3300 S
OGDEN, UT 84401



30

GARN-TEE ROOFING INC
PO BOX 714
WEST JORDAN UT 84084

GEIS ELECTRIC, INC
PO BOX 651098
SALT LAKE CITY UT 84165

GIC CONSTRUCTION
9261 PEACH BLOSSOM DR.
SANDY UT 84094

GILLIES SIGN & DESIGN, INC
1760 SOUTH REDWOOD RD
SALT LAKE CITY UT 84104

GRANITE ELECTRIC, INC
3449 SOUTH WEST TEMPLE
SALT LAKE CITY UT 84115

GREEN, WESLEY ROOFING
239 PARAMOUNT AVENUE
SALT LAKE CITY UT 84115

GREENWOOD CONST COMPANY
12637 S 265 W #100
DRAPER UT 84020

SIMPLEXGRINNELL
1272 W 2240 S #A
WEST VALLEY CITY, UT 84119

GSL ELECTRIC
8540 S SANDY PARK WAY
SANDY UT 84070

GUNN CONSTRUCTION/AIRCO HEATIN
784 EAST 8080 SOUTH
SANDY UT 84094

GUSTAFSON CONSTRUCTION INC
2638 WEST 9435 SOUTH
SOUTH JORDAN UT 84095

H & C COMPANY
5180 SOUTH 300 WEST # H
MURRAY UT 84107

H V A C CONSTRUCTION INC
694 WEST 900 NORTH
NORTH SALT LAKE UT 84054

HALSTEAD CONSTRUCTION CORP
4197 FARM ROAD
WEST JORDAN UT 84088

HALVERSON MECHANICAL, INC
2488 SOUTH 1620 WEST
OGDEN UT 84401

HARDY, J L CONSTR CORP
3586 WEST 900 SOUTH
SALT LAKE CITY UT 84104

HARRIS-DUDLEY PLUMBING CO
221 WEST 400 SOUTH
SALT LAKE CITY UT 84101

HATT PLUMBING & HEATING
14432 SOUTH CAMP WILLIAMS RD
RIVERTON UT 84065

HEATON ROOFING INC
3480 SOUTH 500 WEST
SALT LAKE CITY UT 84115

HEBERT, E D CONSTRUCTION CORP
3150 SOUTH WASHINGTON ST
SALT LAKE CITY, UT 84115

HIDDEN PEAK ELECTRIC
4586 SOUTH CHERRY ST #A
MURRAY UT 84123

HOJ ENGINEERING & SALES
3960 SOUTH 500 WEST
SALT LAKE CITY UT 84123

HOLBROOK, TODD PLUMBING &
165 WEST GREGSON AVE
SLC UT 84115

HOME-TECH, INC
PO BOX 526396
SALT LAKE CITY UT 84106

HORNE CONSTRUCTION & DEVEL CO
525 SOUTH 300 WEST
SALT LAKE CITY UT 84101

HOWA CONSTRUCTION, INC
PO BOX 2406
SALT LAKE CITY UT 84110

HUGHES, HERM & SONS INC
PO BOX 700
NORTH SALT LAKE UT 84054

HUSBAND, CHAD CONST INC
875 SOUTH CHESTNUT STREET
SALT LAKE CITY UT 84104

HY-BAR WINDOWS & DOORS INC
6417 SOUTH COTTONWOOD ST.
MURRAY UT 84107

I D ELECTRIC CO
3690 SOUTH 500 WEST #101
SALT LAKE CITY UT 84115



E J MARTIN ROOFING
 4199 WEST 5780 SOUTH
 KEARNS UT 84118

EAGLE ELECTRIC INC
 7000 S Commerce Park
 Midvale UT 84047

ELECTRACOR INC
 1040 WEST MARGARET AVE
 SLC UT 84104

ELECTRICAL CONTRACTORS PLUS
 1473 JOEY CIRCLE
 SANDY UT 84092

ELLSWORTH-PAULSEN CONSTRUCT
 120 NORTH CENTER
 LEHI UT 84043

ENMAN CONSTRUCTION CO INC
 2209 WEST ALEXANDER
 WEST VALLEY CIT UT 84119

ENTELEN DESIGN-BUILD
 730 PACIFIC AVE
 SLC UT 84104

ENVIROL SYSTMS & CONTROL
 2496 SOUTH WEST TEMPLE
 SALT LAKE CITY UT 84115

ESPRIT CONSTRUCTION
 1474 SOUTH 700 WEST
 SALT LAKE CITY UT 84104

EVERGREENE CONSTRUCTION LC
 132 SOUTH 600 EAST
 SALT LAKE CITY UT 84102

EYRE ELECTRIC LLC
 11538 SOUTH STATE STREET #200
 DRAPER UT 84020

F I R E RESTORATIONS
 5106 W LAMAR WAY
 WESTVALLEY UT 84120

FALSONE ROOFING
 3846 SOUTH VILLA DRIVE
 SALT LAKE CITY UT 84109

FAR WEST BUILDERS
 1150 SOUTH 400 WEST
 SALT LAKE CITY UT 84101

FASTSIGNS OF UTAH
 6570 SOUTH STATE ST
 MURRAY UT 84107

FAUCET FIXERS
 488 EAST 3RD AVENUE
 SALT LAKE CITY UT 84103

FERRIN, R A COMP, INC
 5288 HAVENWOOD LANE
 SALT LAKE CITY UT 84117

FINCO BROTHERS INC
 5971 WEST DANNON
 WEST JORDAN UT 84088

FIRE ENGINEERING CO INC
 4717 SOUTH 500 WEST
 SALT LAKE CITY UT 84123

FIREPLACES, INC
 248 WEST 9240 SOUTH
 SANDY UT 84070

FIRETROL PROTECTION SYSTEMS
 142 WEST 2260 SOUTH
 SALT LAKE CITY UT 84115

FIRST ALTERNATIVE INC
 2401 EXETER CIR.
 SANDY UT 84093

FIRST WESTERN CONSTRUCTION
 619 EAST COATSVILLE
 SALT LAKE CITY UT 84105

FIX IT WRIGHT INC
 2037 LINCOLN CIR
 SALT LAKE CITY UT 84124

FOSS ROOFING COMPANY
 2695 South 1500 East
 Salt Lake City UT 84106

FOX DANIELS & BENNETT CON
 3826 SOUTH 2300 EAST # 100
 SALT LAKE CITY UT 84109

FURST CONSTRUCTION CO INC
 5125 WEST 2100 SOUTH
 WEST VALLEY UT 84120

G & I INC
 1785 SOUTH 4130 WEST #J
 SALT LAKE UT 84104

GARDINER BUILDERS INC
 10518 S HIGHLINE CR
 SOUTH JORDAN UT 84095

GARFF CONSTRUCTION CORP
 2820 WEST 500 SOUTH
 SALT LAKE CITY UT 84104



28



COMMERCIAL GENERAL CONTRUCTION
PO BOX 51039
IDAHO FALLS ID 83405

CONELCO-CONRAD ELECTRIC INC
2785 WEST 9000 SOUTH
WEST JORDAN UT 84088

CONELY COMPANY
4000 S WEST TEMPLE
SALT LAKE CITY UT 84107

CONJOY ENTERPRISE INC
3820 WEST 5400 SOUTH
SALT LAKE CITY UT 84118

CONSTRUCTION PLUS
9487 SOUTH 500 WEST
SANDY UT 84070

CONSTRUCTION WEST
1197 SOUTH 800 EAST
SALT LAKE CITY UT 84105

COPIER, HENRY CONTR INC
PO BOX 711562
SLC UT 84171

COPPER STATE ELECTRIC
5180 SOUTH 300 WEST # H
SALT LAKE CITY UT 84107

COPPER TECH ELECTRIC, INC
4885 SOUTH 300 WEST
SALT LAKE CITY UT 84107

CORP OF THE PRES OF LDS CHURCH
50 EAST NORTH TEMPLE
SALT LAKE CITY UT 84150

COSTELLO COMPANY INC
1240 PRINCETON AVENUE
SALT LAKE CITY UT 84105

COTTONWOOD BUILDERS, INC
3804 HIGHLAND DRIVE
SALT LAKE CITY UT 84106

CROWNSTONE DEVELOPMENT
437 NORTH CENTER ST
SALT LAKE CITY UT 84103

CULP CONSTRUCTION COMPANY
2320 SOUTH MAIN STREET
SALT LAKE CITY UT 84115

CUSTOM CARPORT DESIGNS INC
11182 SOUTH IVY CREEK COVE
SOUTH JORDAN UT 84095

D S THAYNE, INC
1766 NORTH 400 EAST
OREM UT 84057

D Z HOME IMPROVEMENT
3648 WEST 3900 SOUTH
SALT LAKE CITY UT 84120

DATWYLER ELECTRIC & CONST
5803 HOLLADAY BLVD
SALT LAKE CITY UT 84121

DAVIS, PAUL SYSTEMS OF CTRL UT
PO BOX 5
MIDVALE UT 84047

DAYT CONSTRUCTION INC
410 SOUTH 10 WEST
FARMINGTON UT 84025

DELTA FIRE SYSTEMS INC
PO BOX 26587
SALT LAKE CITY UT 84126

DEWBURY HOMES
PO BOX 26491
SALT LAKE CITY UT 84126

DIAMANT ELECTRIC
6948 HOLLOW MILL DRIVE
SALT LAKE CITY UT 84121

DIMENSION DEVELOPMENT LLC
501 EAST 1700 SOUTH
SALT LAKE CITY UT 84115

DOLPHIN POOLS INC
4678 SOUTH HIGHLAND DRIVE
SALT LAKE CITY UT 84117

DOWSETT CONSTRUCTION INC
2607 EAST VERONA CIR.
HOLLADAY UT 84117

DRECHSEL, BRUCE ELECTRIC INC
2181 WEST 11400 SOUTH
SOUTH JORDAN UT 84095

DRS MOBILE HOME SERVICE
4290 SSOUTH 3150 WEST
SALT LAKE CITY UT 84119



30



CALL CLIMATE SERVICE LLC
905 SOUTH FRONTAGE
CENTERVILLE UT 84014

CAMBRIA PROPERTY MANAGEMENT
PO BOX 444
SANDY UT 84123

CAMCO CONSTRUCTION INC
1106 EAST 6600 SOUTH
SALT LAKE CITY UT 84121

CAMERON & COMPANY INC
573 WEST 3560 SOUTH #1
SLC UT 84115

CARD SIGNS, INC
960 WEST 2100 SO.
SALT LAKE CITY UT 84119

CARLI, T R CONSTRUCTION C
3338 EAST CREEK ROAD
SALT LAKE CITY UT 84121

CARLSON KITCHENS, INC
2261 EAST 3300 SOUTH
SALT LAKE CITY UT 84109

CARLSTON, C V HEAT & A/C INC
164 WEST BERGER LANE
MURRAY UT 84107

CARMAN REFRIG COMM SERVICE INC
633 NORTH 300 WEST
SALT LAKE CITY UT 84103

CARRIER CORP
400 IRONWOOD DR
SALT LAKE CITY UT 84115

CASE, RON ROOF & ASPHALT PAVIN
PO BOX 70161
SALT LAKE CITY UT 84120

CAULFIELD CARPENTRY
8968 NORTH COVE DRIVE
PARK CITY UT 84060

CAVALIER PLUMBING
4222 Edward Dr
Salt Lake City UT 84124

CAZIER ELECTRIC CO INC
262 COTTAGE AVE
SANDY UT 84070

CAZIER EXCAVATING INC
132 WEST 13490 SOUTH
DRAPER UT 84020

CC TILE & REMODELING INC
1742 EAST OAKRIDGE
SLC UT 84106

CELEBRITY BUILDERS INC
6400 WEST 3200 SOUTH
WEST VALLEY CIT UT 84120

CENCO INC
45 EAST COLUMBIA AVENUE
SALT LAKE CITY UT 84107

CHAMPION WINDOW OF SLC INC
3181 WEST 2270 SOUTH
WVC UT 84119

CHAPARRAL FIRE PROTECTION
71 NORTH HWY 89
NORTH SALT LAKE UT 84054

CHAPARRAL INTERMOUNTAIN PACIFI
8680 Monroe #A
SANDY UT 84070

CHAPPELL, M H CONSTRUCTION
2092 BRENT LANE
SALT LAKE CITY UT 84121

CHATELAIN BUILDING CO
2325 NEFFS LANE
SALT LAKE CITY UT 84109

CHERRINGTONS, INC
3035 SOUTH 3600 WEST
SALT LAKE CITY UT 84119

CHRISTENSEN & GRIFFITH CO
30 SOUTH TOOEE BLVD.
TOOELE UT 84074

CHRISTIANSSEN OUTDR ADV & CNST
228 BRIDGECREEK WAY
DRAPER UT 84020

CIESLAK PLUMBING & HEATING
1495 W MIDAS CREEK DR
S JORDAN UT 84095

CLARKS QUALITY ROOFING INC
334 W ANDERSON (5715)
SALT LAKE CITY UT 84107

COLORADO STRUCTURES INC
4720 FORGE RD # 106
COLORADO SPRING CO 80907

COMFORT SYSTEMS USA, INC
2035 SOUTH MILESTONE DR
SALT LAKE CITY UT 84104



29

BEST ROOFING LLC
376 EAST 10560 SOUTH
SANDY UT 84070

BIG BEAR HEATING & COOLING
4045 SOUTH 6780 WEST
WEST VALLEY UT 84120

BIG D CONSTRUCTION CORP
420 EAST SOUTH TEMPLE #500
SALT LAKE CITY UT 84111

BINGHAM HEATING & AIR CONDITNG
3760 WEST 3100 SOUTH
WEST VALLEY UT 84120

BIRD CONSTRUCTION (USA), INC
5525 SOUTH 900 EAST #135
SALT LAKE CITY UT 84107

BLACK KITE ELECTRIC
6867 PINE ROCK DR.
SALT LAKE CITY UT 84121

BLAND BROTHERS INC
8630 SOUTH REDWOOD RD
WEST JORDAN UT 84088

BLAZE MASTER FIRE PROTECTION
336 North 200 East
Payson UT 84651

BO CONSTRUCTION
1779 RAMONA AVE
SALT LAKE CITY UT 84108

BOARDWALK REMOD & DESIGN
1116 SOUTH RICHARDS ST
SALT LAKE CITY UT 84101

BODELL CONSTRUCTION CO INC
586 WEST FINE DRIVE
SALT LAKE CITY UT 84115

BONA SIGNS INC
1852 NORTH 1300 WEST
Springville UT 84663

BOYD ENTERPRISES UTAH LLC
3739 WEST 2270 SOUTH Unit F
WEST VALLEY UT 84120

BPM MANAGEMENT LLC
PO BOX 510006
SALT LAKE CITY UT 84151

BRODERICK, RALPH PLUMBING
626 EAST 12100 SOUTH
DRAPER UT 84020

BROKEN ARROW INC
PO BOX 580
TOOELE UT 84074

BRUBAKER CONSTRUCTION INC
PO BOX 17626
SALT LAKE CITY UT 84117

BRUNDLE & BRUNDLE INV & CONSTR
3589 WEST 500 SOUTH
SALT LAKE CITY UT 84104

BUILDERS CHOICE
8802 South 2240 West
West Jordan UT 84088

BUILDWEST, INC
PO BOX 17316
SLC UT 84117

C & F DISTRIBUTORS, INC
PO BOX 1859
SALT LAKE CITY UT 84110

C C I MECHANICAL INC
758 SOUTH REDWOOD RD
PO BOX 25788
SALT LAKE CITY UT 84125

C C TILE & REMODELING INC
2331 EAST HAWK LN
EAGLE MTN UT 84043

C D C RESTORATION & CONST, LC
130 EAST GORDON LANE
SALT LAKE CITY UT 84107

C P H RESTORATION
390 WEST 6500 SOUTH
MURRAY UT 84107

C R C CONSTRUCTION INC
7011 SOUTH 700 WEST
MIDVALE UT 84047

C R FINISHING TOUCH
216 NORTH 200 W
SALT LAKE CITY UT 84103

C.C. CARTER CONSTRUCTION LLC
1810 WEST INDIANA AVE
SALT LAKE CITY UT 84104

CACHE VALLEY ELECTRIC CO
2345 SOUTH JOHN HENRY
SALT LAKE CITY UT 84119

**4. PLANNING COMMISSION AGENDAS FOR
DECEMBER 14, 2005 AND JANUARY 25, 2006**

AMENDED

AGENDA FOR THE
SALT LAKE CITY PLANNING COMMISSION MEETING
In Room 326 of the City & County Building at 451 South State Street
Wednesday, December 14, 2005, at 5:45 p.m.

The Planning Commissioners and Staff will have dinner at 5:00 p.m., in Room 126. During the dinner, Staff may share general planning information with the Planning Commission. This portion of the meeting will be open to the public for observation.

1. APPROVAL OF MINUTES FROM WEDNESDAY, November 30, 2005.

2. REPORT OF THE CHAIR AND VICE CHAIR

3. REPORT OF THE DIRECTOR

4. PUBLIC HEARINGS

- a) **Petition 410-765** – by **Kraig Lodge**, requesting Conditional Use approval to convert “The Republican” to a private club. The property is located at 917 South State Street and is zoned Commercial Corridor (CC). (Staff – *Marilynn Lewis at 535-6409 or marilynn.lewis@slcgov.com*)
- b) **Petition 410-769** by the **Islamic Society of Greater Salt Lake** for Conditional Use approval for expansion of a Place of Worship. The property is located at 734 South 700 East Street and is zoned RMF-30. The applicant wants to utilize an existing residential structure to accommodate women’s prayer sessions and Sunday school. There is no demolition of residential structures associated with this petition. (Staff – *Marilynn Lewis at 535-6409 or marilynn.lewis@slcgov.com*)
- c) **Petition No. 400-05-31** – by **Micah Christensen** at 612 North Catherine Circle and **Tony Gomez** at 617 North Catherine Circle, requesting that Salt Lake City declare the adjacent properties addressed at approximately 615 North Catherine Circle and 1420 West 600 North as surplus property in order for the applicants to purchase the parcels and combine them with their existing properties. The applicant, Mr. Gomez, also requests that the City approve a lease agreement to allow him to improve the property located at 1480 West 600 North with landscaping. The subject parcels are excess properties obtained by Salt Lake City for the realignment of 600 North and 700 North Streets. (Staff – *Wayne Mills at 535-6173 or wayne.mills@slcgov.com*)
- d) **Petition No. 400-05-24** – by **Harrison Apartments, LLC** for a zoning map amendment to rezone the property located at 713 East Harrison Avenue from R-1/5000, Single Family Residential to RMF-35, Moderate Density Multi-Family Residential in order to demolish the existing structure and construct six individually owned town homes. The project will also require an amendment to the future land use map of the Central Community Master Plan to identify the property as Low Medium Density Residential rather than Low Density Residential. (Staff – *Sarah Carroll at 535-6260 or sarah.carroll@slcgov.com*)
-  e) **Petition Number 400-05-38** – by **Mayor Anderson** to create a High Performance Building Ordinance requiring that applicable building projects constructed with Salt Lake City funds obtain a Leadership in Energy and Environmental Design (LEED) "Certified" designation from the United States Green Building Council. (Staff – *Ray McCandless at 535-7282 or ray.mccandless@slcgov.com or Lisa Romney at 535-7939 or lisa.romney@slcgov.com*)

5. UNFINISHED BUSINESS

AMENDED

AGENDA FOR THE
SALT LAKE CITY PLANNING COMMISSION MEETING
In Room 326 of the City & County Building at 451 South State Street
Wednesday, January 25, 2006, at 5:45 p.m.

The Planning Commissioners and Staff will have dinner at 5:00 p.m. in Room 126. During the dinner, Staff may share general planning information with the Planning Commission. This portion of the meeting is open to the public for observation.

1. APPROVAL OF MINUTES from Wednesday, January 11, 2006.

2. REPORT OF THE CHAIR AND VICE CHAIR

3. REPORT OF THE DIRECTOR

- a) Initiate a petition for a text amendment to the Salt Lake City Zoning Ordinance allowing ambulance services and government facilities in the manufacturing districts.
- b) University of Utah Research Park Transportation Issues Working Group – Work program discussion and status update of the Transportation Issues Working Group established by the Planning Commission to address community council concerns regarding traffic and land use impacts related to the Research Park. The Planning Commission will discuss lifting a Planning Commission initiated hold on conditional use applications for excess building height in the Research Park.
- * c) Petition 400-05-38, by the Salt Lake City Administration requesting approval of a new ordinance to require certain Salt Lake City funded projects to be certified using the Leadership in Energy and Environmental Design (LEED) guidelines (approved December 14, 2005) –Clarification to establish that exceptions from applicability of new LEED certification requirements and determination of substantial compliance be decided by a High Performance Building Board, staffed by the Building Official or designee, to approve standards for exceptions.

4. PUBLIC NOTICE AGENDA Salt Lake City Property Conveyance Matters

5. PUBLIC HEARINGS

- a) **Petition 410-772** - H.M. Investments Retail Center – Conditional Use Planned Development Request. The H.M. Investments has submitted an application for a retail development center located at **1846 South 300 West Street**, just south of Costco in the CG (General Commercial) Zoning District. Four parcels will be combined by deed to accommodate the new retail center. The existing structures would be demolished for the development of the new center. The proposed center would be comprised of six buildings containing retail shops and food services. Two of the buildings will have drive-thru lanes. Although, the proposed uses are allowed within the CG (General Commercial) Zoning District, development of multiple buildings on a single site requires Conditional Use Planned Development approval from the Planning Commission. (Staff – Marilyn Lewis at 535-6409 or marilyn.lewis@slcgov.com)
- b) **Petition 400-05-17** – A request by the Planning Commission to analyze the feasibility of allowing additional conditional uses to be approved by an Administrative Hearing Officer. The Planning Division has analyzed the request and proposes to amend Section 21A.54 of the Zoning Ordinance to permit Public Private Utility Buildings and Structures and non-residential conditional uses to be approved by an Administrative Hearing Officer if the requested use complies with zoning ordinance regulations and is unopposed. (Staff – Wayne Mills at 535-6173 or wayne.mills@slcgov.com)

6) UNFINISHED BUSINESS

5. REPORTS TO THE PLANNING COMMISSION

**5. A. MEMORANDUM FOR THE JANUARY 25, 2006
PLANNING COMMISSION MEETING**



MEMORANDUM

451 South State Street, Room 406
Salt Lake City, Utah 84111
(801) 535-7757

Planning and Zoning Division
Department of Community Development

TO: Salt Lake City Planning Commission

FROM: Alex Ikefuna, Planning Director

DATE: January 20, 2006

CC: Project File

SUBJECT: Petition 400-05-38, by the Salt Lake City Administration, requesting approval of a new ordinance to require certain Salt Lake City funded projects be certified using the Leadership in Energy and Environmental Design (LEED) guidelines (approved December 14, 2005) - Clarification to establish that exceptions from applicability of new LEED certification requirements and determination of substantial compliance be decided by a High Performance Building Board, staffed by the Building Official or designee to approve standards for exceptions.

Requested Planning Commission Action:

The Planning Division is requesting that the Planning Commission consider administrative modifications to the proposed "High Performance Building Ordinance" that was reviewed by the Planning Commission on December 14, 2005.

Issue Origin:

On December 14, 2005, the Salt Lake City Planning Commission held a public hearing to consider a new ordinance to require certain Salt Lake City funded projects be certified using the Leadership in Energy and Environmental Design (LEED) guidelines. The ordinance is also referred to as the 'High Performance Building Ordinance'.

At that meeting, the Planning Commission reviewed and approved the draft ordinance with staff recommendations which is attached as Exhibit 1, (December 14, 2005 Draft Ordinance).

One of the recommendations approved by the Planning Commission was to "Determine whether exceptions should be decided and granted by a Procurement Officer or a Board appointed by the City Council." However, Staff omitted to make clear that the recommendation would have been a board action.

Discussion:

Since the December 14, 2005 Planning Commission meeting, Staff has met several times and is recommending that exceptions to meeting LEED certification standards be granted by the City Building Official and Chief Procurement Officer or City Engineer. Exceptions can be granted only where certain circumstances exist as listed in the attached ordinance. An appeal of the decision of the Building Official is made to a 5-member Board upon making specific findings. These findings are also listed in the proposed ordinance. The Board will also be responsible for determining "substantial compliance" where LEED certification is not achieved. Appeals of the Board's decision concerning exceptions or substantial compliance with LEED standards will be heard by the Mayor or Mayor's designee.

Another modification made to the ordinance is the addition of a section on "Rulemaking Authorization" allowing the City procurement official to make rules for requiring deposits when an application for City construction funds is filed and remedies for the City in the event of non-compliance. A copy of the proposed ordinance, as modified by Staff, is attached as Exhibit 2. Other minor changes such as a definition of a temporary structure have also been added for clarification. Given this, the Planning Commission will need to determine whether the proposed modifications are consistent with the previous recommendation.

Recommendation:

Staff recommends that the Planning Commission accept the modifications to the ordinance as proposed.

Exhibit 1
Proposed Ordinance Reviewed by the
Planning Commission on December 14, 2005

SALT LAKE CITY ORDINANCE

No. _____ of 2005

(Creating Chapter 18.95 of the Salt Lake City Code Requiring that City Funded Construction obtain a "Certified" Leadership in Energy and Environmental Design (LEED) Designation from the United States Green Building Council (USGBC) under Certain Conditions)

AN ORDINANCE ADOPTING TITLE 18, CHAPTER 95, *SALT LAKE CITY CODE*,
REQUIRING LEED CERTIFICATION FOR CERTAIN CITY-FUNDED CONSTRUCTION.

WHEREAS, the City desires to promote sound environmental practices in construction work that is funded by the City when doing so is beneficial to the work; and

WHEREAS, various local stakeholders, including architects, planners, environmental consultants, professors, political leaders, energy experts, health officials, and City staff members, have worked with the City extensively to review the Leadership in Energy and Environmental Design (LEED) rating system, which is a system created by the United States Green Building Council (USGBC) to provide a national standard for healthy environmental and energy efficient design; and

WHEREAS, professionals in our region are familiar with the LEED process, and it is considered to be a voluntary, consensus-based national standard for developing high-performance, sustainable buildings; and

WHEREAS, at this time, the USGBC has formally adopted and promulgated three alternative certification standards, being the LEED Green Building Rating System for New Construction and Major Renovations (LEED-NC) as adopted in November 2002 and revised in November 2005, the LEED Green Building Rating System for Commercial Interiors (LEED-CI) as adopted in November 2002, and the LEED Green Building Rating System for Existing

Buildings Upgrades, Operations and Maintenance (LEED-EB) as adopted in October 2004 and updated in July 2005; and

WHEREAS, the foregoing alternative standards provide for various certifications designated as “Certified,” “Silver,” “Gold,” or “Platinum,” based on how many specified environmental practices are incorporated into a project, with “Certified” being the lowest level of certification; and

WHEREAS, LEED standards are considered to promote a healthy environment, provide long-term cost benefits through the efficient use of energy, optimize building performance, and create healthier workplaces for employees and visitors; and

WHEREAS, the City has determined to join other cities in requiring the use of LEED standards under certain circumstances to obtain the benefits promoted by those standards;

NOW, THEREFORE, be it ordained by the City Council of Salt Lake City, Utah:

SECTION 1. Title 18, Chapter 95 of the Salt Lake City Code shall be and hereby is enacted to read as follows:

Chapter 18.95

USE OF LEED STANDARDS IN CITY-FUNDED CONSTRUCTION

Sections:

18.95.010 LEED “Certified” Designation Required for Certain City-Funded Construction.

A. PURPOSE. The purpose of this ordinance is to promote development consistent with sound environmental practices by requiring that applicable building projects constructed with city construction funds obtain at least a “Certified” designation from the USGBC.

B. DEFINITIONS. As used in this section:

1. "Applicable building project" means the construction or major renovation of a commercial, residential or municipal building that will contain more than 10,000 square feet of occupied space when the design contract for such project commences on or after March 1, 2006, and when not subject to an exception under this section.

2. "Certified" means the level of compliance with LEED standards designated as "Certified" by the USGBC.

3. "City construction funds" means funds that are authorized to be used for construction by the City Council for use by any person or City department in order to construct an applicable building project. However, this term shall not apply to the funds of the Library or Redevelopment Agency.

4. "City procurement official" shall have the meaning set forth in section 3.24.030 of this Code.

5. "LEED standard" means the Leadership in Energy and Environmental Design (LEED) Green Building Rating System for New Construction and Major Renovations (LEED-NC) as adopted in November 2002 and revised in November 2005, the LEED Green Building Rating System for Commercial Interiors (LEED-CI) as adopted in November 2002, and the LEED Green Building Rating System for Existing Buildings Upgrades, Operations and Maintenance (LEED-EB) as adopted in October 2004 and updated in July 2005.

6. "Major renovation" means work that demolishes space down to the shell structure and rebuilds it with new walls, ceilings, floors and systems, when such work affects more than twenty five percent (25%) of the building's square footage, and the affected space is at least 10,000 square feet or larger.

7. "USGBC" means the organization known as the United States Green Building Council.

C. APPLICATION. Whenever City construction funds are used for any applicable building project as defined in this section, such project shall at a minimum obtain a "Certified" designation from the USGBC under any LEED standard as defined herein. Notwithstanding the foregoing, the City shall not pursue certification under the LEED-EB standard for any City-owned building until a City procurement official shall have made a determination that such certification is cost-effective and otherwise appropriate for the renovation and ongoing maintenance of such building.

D. EXCEPTIONS. This section shall not apply if, in the determination of a City procurement official, any of the following circumstances exist:

1. The applicable building project will serve a specialized, limited function, such as a pump station, garage, storage building, equipment area, or other similar area, or a single family residence;

2. The applicable building project is intended to be a temporary structure;

3. The useful life of the applicable building project or other factors do not justify whatever additional expense would be incurred to increase the building's long-term efficiency;

4. The application of LEED standard factors will increase construction costs beyond the funding capacity for the project, or will require that the project's scope of work or programmatic needs be diminished to meet budget constraints;

5. The use of LEED standard factors will create an impediment to construction due to conflicts of laws, building code requirements, federal or state grant funding requirements, or other similar requirements;

6. LEED factors are not reasonably attainable due to the nature of the facilities or the schedule for construction; or

7. LEED certification will violate any other federal, state or local law, including, without limitation, other sections of this Code.

E. APPEALS. Any person or department denied City construction funds under this section may appeal such decision in writing to a City procurement official within thirty (30) days of the City's decision, and shall state the basis to support the relief sought. The City procurement official shall review the circumstances of the appeal, and shall issue a written determination within thirty (30) days consistent with the requirements of this section. The determination of the City procurement official shall be subject to review by the Mayor.

F. LIMITATIONS. Nothing required under this section shall supersede any federal, state or local law, including, without limitation, other provisions of this Code; or any contract, grant or other funding requirement; or other standards or restrictions that may otherwise apply to an applicable building project. This section shall not apply whenever its application would disadvantage the City in obtaining federal funds.

Section 2. **EFFECTIVE DATE.** This Ordinance shall become effective on the date of its first publication.

Passed by the City Council of Salt Lake City, Utah this _____ day of _____, 2005.

CHAIRPERSON

ATTEST:

CHIEF DEPUTY CITY RECORDER

Transmitted to Mayor on _____.

Mayor's Action: _____ Approved. _____ Vetoed.

MAYOR

CHIEF DEPUTY CITY RECORDER

(SEAL)

Bill No. _____ of 2005.
Published: _____.

I:\Ordinance 05\LEED - 11-21-05 draft.doc

Exhibit 2
Revised Ordinance

SALT LAKE CITY ORDINANCE

No. _____ of 2006

(Enacting Chapter 18.95 of the Salt Lake City Code Requiring that City Funded Construction obtain a “Certified” or “Silver” Leadership in Energy and Environmental Design (LEED) Designation from the United States Green Building Council (USGBC) under Certain Conditions)

AN ORDINANCE ENACTING TITLE 18, CHAPTER 95, *SALT LAKE CITY CODE*,
REQUIRING LEED CERTIFICATION FOR CERTAIN CITY-FUNDED CONSTRUCTION.

WHEREAS, the City desires to promote sound environmental practices in construction work that is funded by the City; and

WHEREAS, various local stakeholders, including architects, planners, environmental consultants, professors, political leaders, energy experts, health officials, and City staff members have worked with the City extensively to review the Leadership in Energy and Environmental Design (LEED) rating system, which is a system created by the United States Green Building Council (USGBC) to provide a national standard for healthy environmental and energy efficient design; and

WHEREAS, many professionals in our region are familiar with the LEED process, which is considered to be a consensus-based national standard for developing high-performance, sustainable buildings; and

WHEREAS, at this time, the USGBC has formally adopted and promulgated three alternative certification standards, being the LEED Green Building Rating System for New Construction and Major Renovations (LEED-NC) as adopted in November 2002 and revised in November 2005, the LEED Green Building Rating System for Commercial Interiors (LEED-CI) as adopted in November 2002, and the LEED Green Building Rating System for Existing

Buildings Upgrades, Operations and Maintenance (LEED-EB) as adopted in October 2004 and updated in July 2005; and

WHEREAS, the foregoing alternative standards provide for various certifications designated as “Certified,” “Silver,” “Gold,” or “Platinum,” based on the number of specified environmental practices incorporated into a project, with “Certified” being the lowest level of certification; and

WHEREAS, LEED standards are considered to promote a healthy environment, provide long-term cost benefits through the efficient use of energy, optimize building performance, and create healthier workplaces for employees and visitors; and

WHEREAS, the City has determined to require the use of LEED standards under certain circumstances to obtain the benefits promoted by those standards.

NOW, THEREFORE, be it ordained by the City Council of Salt Lake City, Utah:

SECTION 1. Title 18, Chapter 95 of the Salt Lake City Code shall be and hereby is enacted to read as follows:

Chapter 18.95

USE OF LEED STANDARDS IN CITY-FUNDED CONSTRUCTION

18.95.010 PURPOSE. The purpose of this ordinance is to promote development consistent with sound environmental practices by requiring, subject to Sections 18.95.050, 18.95.060, and 18.95.130, that applicable building projects constructed with City construction funds obtain, at a minimum, (1) “Silver” for City owned and operated buildings, or (2) “Certified” for private building projects that receive City funds. These designations shall be from the USGBC as defined herein.

18.95.020 DEFINITIONS. As used in this chapter:

A. “Applicable building project” means the construction or major renovation of a commercial, multi-family residential, or municipal building that will contain more than 10,000 square feet of occupied space when the design contract for such project commences on or after [to be determined at time of Council consideration], 2006.

B. “Board” means the High Performance Building Board created under this chapter.

C. “Building Official” means the director of the division of building services or the designee of the director.

D. “Certified” means the level of compliance with the Leadership in Energy and Environmental Design (LEED) standards designated as “Certified” by the United States Green Building Council (USGBC).

E. “Chief Procurement Officer” means the City employee designated pursuant to subsection 3.24.040A of this code, or any successor to that section.

F. “City construction funds” means funds that are authorized to be used for construction by the City Council for use by any person or City department in order to construct an applicable building project, including, without limitation, loans, grants, and tax rebates. However, this term shall not apply to the funds of the Library or Redevelopment Agency.

G. “City Engineer” means the City employee designated pursuant to subsection 2.08.080B of this code, or any successor to that section.

H. “LEED standard” means the Leadership in Energy and Environmental Design (LEED) Green Building Rating System for New Construction and Major Renovations (LEED-

NC) as adopted in November 2002 and revised in November 2005, the LEED Green Building Rating System for Commercial Interiors (LEED-CI) as adopted in November 2002, or the LEED Green Building Rating System for Existing Buildings Upgrades, Operations and Maintenance (LEED-EB) as adopted in October 2004 and updated in July 2005.

I. "Major renovation" means work that demolishes space down to the shell structure and rebuilds it with new walls, ceilings, floors and systems, when such work affects more than twenty five percent (25%) of the building's square footage, and the affected space is at least 10,000 square feet or larger.

J. "Silver" means the level of compliance with LEED standards designated as "Silver" by the USGBC.

K. "Temporary structure" means any proposed building that is intended to be in existence for five (5) years or less or any existing building that at the time it was constructed was intended to be in existence for five (5) years or less.

L. "USGBC" means the organization known as the United States Green Building Council.

18.95.030 BOARD CREATED. The board shall consist of five (5) members, each serving a five (5) year term, and no member may serve more than two (2) consecutive terms. All appointments of members of the board shall be made by the Mayor with the advice and consent of the City Council. Terms of initial members shall be for such periods from two (2) years to five (5) years to provide that one (1) to two (2) terms expire after two (2) years. Each member shall be either a LEED certified professional or shall have substantial knowledge of other related fields, such as architecture, construction management, engineering, finance, real estate, or

planning. Members of the board shall receive no compensation for their services, but may be reimbursed for reasonable and authorized out of pocket expenses they may incur as board members. No member of the board shall participate in the consideration of any matter in which that member has a conflict of interest prohibited by Chapter 2.44 of this code. No business shall be conducted at a meeting of the board without a quorum of three (3) members. A simple majority of the voting members present at a meeting at which a quorum is present shall be required for any action by the board. Decisions of the board shall become effective on the date that the vote is taken. The proceedings of each meeting of the board shall be recorded on audio equipment and each audio recording shall be kept for a minimum of six months. The board may adopt a system of rules of procedure under which its meetings are to be held.

18.95.040 APPLICATION. Whenever City construction funds are used for an applicable building project, such project shall at a minimum obtain a Silver certification by the USGBC in the case of a City-owned building project or Certified certification in the case of all other projects, subject to the exceptions, waivers, and determinations of substantial compliance provided for in this chapter.

18.95.050 EXCEPTIONS. The provisions of this chapter shall not apply if the Building Official and either the Chief Procurement Officer or the City Engineer jointly determine in writing that any of the following circumstances exist:

- A. The applicable building project will serve a specialized, limited function, such as a pump station, garage, storage building, equipment area, or other similar area, or a single family residence;
- B. The applicable building project is intended to be a temporary structure;

C. The useful life of the applicable building project or other factors do not justify whatever additional expense would be incurred to increase the building's long-term efficiency;

D. The application of LEED standard factors will increase construction costs beyond the funding capacity for the project, or will require that the project's scope of work or programmatic needs be diminished to meet budget constraints;

E. The use of LEED standard factors will create an impediment to construction due to conflicts of laws, building code requirements, federal or state grant funding requirements, or other similar requirements;

F. LEED factors are not reasonably attainable due to the nature of the facilities or the schedule for construction; or

G. LEED certification will violate any other federal, state or local law, including, without limitation, other sections of this Code.

A determination that an exception does not apply may be appealed to the board. Such appeal must be submitted in writing to the board within thirty (30) days of the determination.

18.95.060 WAIVERS. The denial of an exception pursuant to section 18.95.050 does not preclude an application for waiver pursuant to this section. The board shall have the authority to grant a waiver from the requirements of this chapter only if it makes the following findings in writing:

A. Literal enforcement of this chapter would cause unreasonable hardship for the applicant that is not necessary to carry out the general purpose of this chapter;

B. There are special circumstances attached to the project that do not generally apply to other projects that are subject to this chapter;

C. The waiver would not have a substantially negative affect on the Master Plans, policies, and resolutions of the City and would not be contrary to the purposes of this chapter;

D. Any asserted economic hardship is not self-imposed; and

E. The spirit of this chapter will be observed and substantial justice done.

18.95.070 APPEAL OF CITY DECISIONS.

Any private sector developer who is denied an exception, or a determination of substantial compliance, or who is assessed a penalty by the Building Official and either the Chief Procurement Officer or the City Engineer, may appeal such decision in writing to the board within thirty (30) days of the decision and shall state the basis to support the relief sought. The board shall review the circumstances of the appeal and shall issue a written determination of the receipt of the appeal within thirty (30) days consistent with the requirements of this section.

18.95.080 APPEAL OF BOARD DECISIONS. Any private sector developer denied a waiver by the board or denied an exception, or determination of substantial compliance, or has had financial penalties imposed on appeal to the board under this chapter may appeal such decision by the board in writing to the Mayor or the Mayor's designee within thirty (30) days of the decision and shall state the basis to support the relief sought. The Mayor or the Mayor's designee shall review the circumstances of the appeal and shall issue a written determination within thirty (30) days of the receipt of the appeal consistent with the requirements of this section.

18.95.090 REQUIRED DEPOSIT. All private sector developers who receive City funds for applicable building projects shall submit a ten thousand dollar (\$10,000) "good faith" deposit

with the City which shall be refunded upon the building project receiving the applicable level of LEED certification or after a determination of substantial compliance.

18.95.100 PROOF OF REGISTRATION. Within thirty (30) days from receiving notice that the City will fund an applicable building project, all private sector developers shall submit written proof that said project is registered with the USGBC. City funds will not be dispersed until the required deposit under section 18.95.090 and the proof of registration under this section are received by the City.

18.95.110 REQUEST FOR EXTENSION. If a project is not LEED certified or has not been granted a determination of substantial compliance within one (1) year after a temporary certificate of occupancy is issued by the City, then a private sector developer must file a written application with the City for an extension to obtain LEED certification. Said application must be filed with the City no later than three hundred and ninety five (395) days after the date on which the certificate of occupancy was issued by the City. The City may grant a one (1) year extension pursuant to this section and any additional extensions as may be necessary so long as a private sector developer is actively pursuing LEED certification. Extensions pursuant to this section shall begin on the date granted by the City.

18.95.120 REQUEST FOR SUBSTANTIAL COMPLIANCE. Receipt of LEED certification from the USGBC shall be conclusive evidence of the level of certification stated therein. If certification is not received from the USGBC or is not at the level required by this chapter, a private sector developer may request that the City issue a determination that the project has substantially complied with this chapter upon a reasonable demonstration that such project as constructed is consistent with the intent of this chapter and that strict enforcement of this chapter

would create an unreasonable burden in light of the needs of such project, the ability of the project owner to control cost increases, and other relevant circumstances. The request for determination of substantial compliance must contain the following information:

- A. Final LEED certification application, documentation, and response from the USGBC;
- B. An explanation of the efforts and accomplishments made by the private sector developer to achieve compliance with this chapter;
- C. An explanation of the practical or economic infeasibility of implementing certain high performance building design or construction techniques that, if implemented, would otherwise have likely resulted in certification; and
- D. Any other supporting documents the private sector developer wishes to submit.

18.95.130 DETERMINATION OF SUBSTANTIAL COMPLIANCE

The Building Official and either the Chief Procurement Officer or the City Engineer shall review within sixty (60) days of receipt of a request for determination of substantial compliance and shall approve or deny the request based on the good faith efforts of the private sector developer to comply with this chapter. In making a determination of the good faith efforts, review of the request shall include whether the private sector developer has established the following:

- A. That reasonable, appropriate, and on-going efforts to comply with this chapter were taken; and
- B. That compliance would otherwise have been obtained but for the practical or economic infeasibility of implementing high performance building design or construction techniques.

In making any such determination, cost increases due solely to aesthetic elements shall not constitute any part of a demonstration of unreasonable burden. A determination of substantial compliance pursuant to this section shall satisfy Section 18.95.040.

If the request for determination of substantial compliance is denied, the private sector developer will be deemed to have not satisfied Section 18.95.040 and shall forfeit the “good faith” deposit under Section 18.95.090 and may be assessed an additional penalty up to the amount originally funded by the City. Any penalty assessed shall be offset by the “good faith” deposit.

18.95.140 PENALTY.

Any private sector developer who fails to (1) comply with this chapter, (2) apply for an extension pursuant to section 18.95.110, or (3) receive a determination of substantial compliance, shall forfeit the “good faith” deposit to the City to cover the cost and inconvenience to the City. An additional penalty may be assessed based on a direct analysis of possible LEED design credits. Given that a total of twenty-six (26) LEED design credits are required for certification, the additional penalty shall be based on the following considerations:

A. If the City determines that a project could have reasonably received 21-25 LEED credits, then the private sector developer shall pay the City up to 25% of the amount originally funded.

B. If the City determines that a project could have reasonably received 16-20 LEED credits, then the private sector developer shall pay the City up to 50% of the amount originally funded.

C. If the City determines that a project could have reasonably received 6-15 LEED credits, then the private sector developer shall pay the City up to 75% of the amount originally funded.

D. If the City determines that a project could have reasonably received 0-5 LEED credits, then the private sector developer shall pay the City up to 100% of the amount originally funded. Failure to pay a penalty within ninety (90) days of written notice from the City shall result in a lien against the project.

18.95.150 RULEMAKING AUTHORIZATION. The Building Official and either the Chief Procurement Officer or the City Engineer are authorized to issue administrative rules under this chapter.

18.95.160 ADMINISTRATIVE INTERPRETATIONS. Pursuant to the authority granted under section 18.50.040B, the Building Official may render interpretations of this chapter. Such interpretations shall conform with the intent and purpose of this chapter, and shall be made available in writing for public inspection upon request.

18.95.170 LIMITATIONS. Nothing required under this chapter shall supersede any federal, state or local law, including, without limitation, other provisions of this Code; or any contract, grant, or other funding requirement; or other standards or restrictions that may otherwise apply to an applicable building project. This chapter shall not apply whenever its application would disadvantage the City in obtaining federal funds.

SECTION 2. EFFECTIVE DATE. This Ordinance shall become effective ninety (90) days after the date of its first publication.

Passed by the City Council of Salt Lake City, Utah this _____ day of _____,

2006.

CHAIRPERSON

ATTEST:

CHIEF DEPUTY CITY RECORDER

Transmitted to Mayor on _____.

Mayor's Action: _____ Approved. _____ Vetoed.

MAYOR

CHIEF DEPUTY CITY RECORDER

(SEAL)

Bill No. _____ of 2006.

Published: _____.

I:\Ordinance 06\LEED - 04-21-06 clean.doc

APPROVED AS TO FORM
Salt Lake City Attorney's Office
Date April 24, 2006
By Melanie King

**5. B. STAFF REPORT FOR THE DECEMBER 14, 2005
PLANNING COMMISSION MEETING**

ALEXANDER G. IKEFUNA
PLANNING DIRECTOR

DOUGLAS L. WHEELWRIGHT, AICP
DEPUTY PLANNING DIRECTOR

CHERI COFFEY, AICP
DEPUTY PLANNING DIRECTOR

SALT LAKE CITY CORPORATION

DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ZONING DIVISION

ROSS C. ANDERSON
MAYOR

A. LOUIS ZUNGUZE
COMMUNITY DEVELOPMENT DIRECTOR

TO: Salt Lake City Planning Commission

FROM: Alex Ikefuna, Director Planning Division

DATE: December 14, 2005

SUBJECT: Petition 400-05-38, by the Salt Lake City Administration, requesting approval of a new ordinance to require certain Salt Lake City funded projects be certified using the Leadership in Energy and Environmental Design (LEED) guidelines.

Attached is a proposed ordinance requiring certain new construction and building remodeling activities using Salt Lake City funds to be certified in accordance with the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) guidelines and rating system.

The LEED rating system is a point-based certification process for environmentally responsible high-performance building design, construction and operation. Points are awarded based on various factors, such as proximity to public transportation, energy efficiency, erosion control, building innovation and design, indoor environmental quality, reducing construction waste, water efficiency and use of recycled materials.

There are four levels of LEED certification: 1) Certified (26-32 points), 2) Silver (33-38 points), 3) Gold (39-51 points) and, 4) Platinum (52-69 points). The level of certification awarded is determined by the United States Green Building Council. The proposed ordinance requires that all Salt Lake City funded projects achieve at least a "Certified" level as discussed in the attached Staff report and draft Ordinance.

The proposed ordinance was routed to the applicable Salt Lake City Departments/Divisions with a request for comments on the proposed ordinance. The departmental comments are included with the attached Staff report to the Planning Commission. In addition, an Open House was held on November 16, 2005 to gather public comment. The comments from the Open House are also included with the Staff report.

Staff is requesting that the Planning Commission review the attached information, take comments from the public and forward a positive recommendation to the City Council to support the proposed ordinance.

Attachment:

1. Memorandum from the Salt Lake City Mayor's Office to the Planning Commission including the proposed ordinance and additional information relating to LEED certification.

ATTACHMENT 1
MEMORANDUM / STAFF REPORT

STAFF REPORT

TO: Salt Lake City Planning Commission

FROM: Lisa Romney, Mayor's Office at 535-7939 or lisa.romney@slcgov.com

DATE: December 8, 2005

RE: Ordinance Adopting Title 18, Chapter 95 of the Salt Lake City Code Requiring LEED Compliance and Certification for City-funded Projects of 10,000 square feet or Larger

PETITION NUMBER: 400-05-38

APPLICANT: Salt Lake City Mayor

PROJECT LOCATION: Citywide

CITY COUNCIL DISTRICTS: All

REQUESTED PLANNING COMMISSION ACTION:

This is a request by the Salt Lake City Mayor for the Planning Commission to review and forward a recommendation to the City Council regarding a proposed ordinance requesting compliance and certification to Leadership in Energy and Environmental Design (LEED) rating system prepared by the United States Green Building Council (USGBC). The proposed ordinance would apply to Salt Lake City-funded projects of 10,000 square feet or larger.

PURPOSE:

The primary purpose of the proposed ordinance is to ensure that projects utilizing City funds are built to high performance building standards with respect to energy, water, and material resource conservation thereby increasing the health and comfort of the occupants of the building.

APPLICABLE MASTER PLANS, POLICIES, AND RESOLUTIONS:

Master Plans

Although there are no Master Plan policies or guidelines specific to LEED certification, the City's Master Plans do address energy conservation, transportation, and reuse of contaminated sites. For example:

- *1987 East Bench Master Plan – "Require energy efficiency in new and rehabilitated housing which employs public funds." (Page 7)*
- *1992 Northwest Jordan River/Airport Master Plan – "Many energy saving techniques have been published in recent years identifying ways to improve energy efficiency, but they have not been widely applied to existing structures. The perceived cost/benefit for retrofitting for energy conservation limits its application. The City should investigate strategies supporting increased use of energy conservation techniques on a citywide basis. . . Land use patterns have significant impact on energy consumption. The density and arrangement of land development affect travel time and the amount of energy travel consumes. A strategy to reduce energy consumption involves containment of growth through high density. Employee opportunities, commercial facilities and/or proposed developments to implement this strategy should be located close to higher density residential areas." (Page 8)*
- *1995 West Salt Lake Community Master Plan – "Long-term solutions other than the private automobile must be pursued as alternatives to expanding the vehicular circulation system, especially in established residential neighborhoods."(Page 9)"Improve the mass transit system to encourage public use of bicycle, bus, and light-rail alternatives to the automobile. (Page 8)*
- *1999 Capitol Hill Master Plan – "Improve transportation circulation and encourage transportation alternatives that reduce vehicle emissions, such as mass transit, flexible work schedules and telecommuting."(Page 22) "Work with appropriate government agencies to ensure that cleanup of hazardous sites is undertaken" and "Work with appropriate government agencies to determine the feasibility and appropriateness of reuse of the properties once cleanup has occurred."(Page 22)*
- *2001 Sugar House Master Plan – "Reducing urban heat is of particular importance because it affects the overall health, comfort and livability for citizens within every community. Urban heating has a direct affect on energy consumption, regional climate, air and water quality, storm water management and urban wildlife. Cool communities strategies should be incorporated into the design of new development wherever possible".(Page 65) "Direct higher density housing in locations served within walking distance to transit, commercial services and parks..."*
- *2005 Street Lighting Master Plan – "Addressing the environmental issues of lighting design is seen as critically important to maintaining quality of life in neighborhoods. These issues go beyond the amount of light produced and include minimizing light pollution, enhancing the urban environment during the day by*

use of decorative poles and fixtures and at night by the provision of pedestrian level light, deterring undesirable or illegal activities, increasing safety, restricting unwanted truant light onto private property and minimizing glare, power consumption, cost and visual impacts (day and night)." (Page 3)

Salt Lake City Policies

In 2001, the Salt Lake City Mayor's Office and Planning Division launched the High Performance Building Initiative.

In July of 2005, Mayor Anderson signed an Executive Order to require City-owned and operated new construction or major renovation projects be built using the LEED-NC rating system and achieve a minimum rating of "Certified" from the USGBC.

Salt Lake City Council Resolution

In 2001, the Salt Lake City Council passed Resolution 30, Regarding Reducing the Demand for Electrical Power and other Forms of Energy. This resolution focuses on the possibility of energy shortages and the need to work with the State and other parties to address energy issues.

DISCUSSION:

Issue Origin:

In July 2005, Mayor Anderson signed an Executive Order requiring City-owned and – operated new construction or major renovation projects to be built using the LEED-NC rating system. Salt Lake City's development policies are centered on creating liveable neighborhoods through alternative transportation, zero waste, recycling, climate protection, and achieving sustainability by preserving and restoring the natural environment.

To implement these goals, the Mayor and City Council have implemented a number of ordinances and policies, such as walkable communities, recycling programs, e2 business promotion, Street Lighting Master Plan, Transit Oriented Development. The proposed LEED ordinance is an additional tool in the City's pursuit of achieving the goal of a liveable Salt Lake City.

Definition of LEED:

LEED encompasses design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in five broad areas:

- Sustainable site planning
- Safeguarding water and water efficiency

- Energy efficiency and renewable energy
- Conservation of materials and resources
- Indoor environmental quality

Background and Goals of LEED:

LEED is considered the best tool for state-of-the-art high performance building design and construction. USGBC LEED certification is the only way to document high performance building components, ensure maximum energy efficiency in buildings, and receive recognition for sustainable and innovative building design practices. Within LEED there are rating levels of Certified, Silver, Gold, and Platinum that are based on implementation of a range of activities and achievement of points within the following categories:

- *Sustainable Sites* - erosion control, density, brownfield redevelopment, proximity to public transportation, light pollution, and others (14 total points achievable).
- *Energy and Atmosphere* - building commissioning (the process of ensuring that building systems are designed, installed, functionally tested, and capable of being operated and maintained according to the owner's operational needs); energy performance; renewable energy; measurement and verification; and others (17 total points available).
- *Water Efficiency* - landscaping, wastewater technologies, and water use reduction (5 total points available).
- *Materials and Resources* - building reuse, construction waste recycling, recycled content, certified wood, and others (13 total points available).
- *Indoor Environmental Quality* - carbon dioxide, ventilation, low-emitting materials, thermal comfort, daylighting, and others (15 total points available).
- *Innovation and the Design Process* - an additional five points can be awarded in this category.

The USGBC LEED rating system is based on existing, proven technology and evaluates environmental performance by looking at all aspects of building design and construction. The guidelines, developed by the USGBC, call for building designs to be centered around energy efficiency, water efficiency, use of recycled materials, construction waste management, and indoor environmental quality.

The first version of LEED was launched in 2000. It was developed by architects, engineers, and other industry experts over a period of five years. To keep up with current technologies and meet growing industry demands, LEED has been updated to the current version, LEED-NC (New Construction) v2.2. More recently, the USGBC has developed and adopted additional LEED guidelines for Commercial Interiors (LEED-CI) and Existing Buildings (LEED-EB).

The use of the LEED rating system has penetrated 5% of the private market and 15% or more of public building projects. As of May 2005, 2,000 buildings have been registered

with the USGBC for certification. An additional 216 buildings have completed certification and are rated as Platinum, Gold, Silver, or Certified.

The USGBC determines the certification levels based on verified total points earned. The system is designed to be comprehensive in scope, yet simple in operation. Award levels are based on the number of points achieved:

LEED Platinum: 52-69 points
LEED Gold: 39-51 points
LEED Silver: 33-38 points
LEED Certified: 26-32 points

Benefits of LEED:

With the momentum behind high performance building created by the USGBC, additional evidence has been collected substantiating claims that LEED buildings are important to the health of building occupants; the sustainability of local resources such as energy, water, and landfill facilities; and to the development of a group of building professionals who are skilled in the most innovative building methods and technologies.

Based on research conducted by the USGBC, in the United States buildings account for:

- 36% of total energy use and 65% of electric energy consumption
- 30% of raw materials use
- 30% of waste output or 136 million tons of waste annually
- 12% of all drinking water consumption
- 30% of greenhouse gas emissions

The built environment has a profound impact on our natural environment, economy, health, and productivity. The LEED rating system provides the framework and tools to build in a more efficient, healthy, and ecologically responsible manner. Encouraging the use of the LEED rating system is in the City's and the public's best interest because these buildings maximize the possible environmental, economic, and social benefits of buildings in our community. Specific benefits include:

Economic Benefits

- Quantifiable monthly savings to building owners and tenants through reduced operation costs and increased operation and maintenance efficiencies; specifically, energy consumption, water conservation, and environmental waste
- Enhanced building and property asset value and business profits
- Improved employee productivity and satisfaction
- Money kept in the local economy
- Creation of new local industries and jobs
- Reduction of public infrastructure costs related to development

- Higher lease rates and property values for LEED Certified buildings compared to similar non-certified buildings

Environmental Benefits

- Minimized impact on the natural environment by enhancing and protecting natural habitats through efficient site and building design, sustainable construction practices, and low impact building materials and operational practices
- Improved air and water quality, specifically, reduced emissions from high performance mechanical systems
- Reduction of solid waste
- Conservation of energy, water, and other natural resources

Social Benefits

- Improved air, thermal, and acoustic environments
- Enhanced occupant comfort, well being and health
- Promotion of growth-management policies and programs
- Strengthened goals related to increased building density; mixed use and transit-oriented development; storm water and erosion control; brownfield redevelopment; and increased bicycle and pedestrian access
- Contributions to community health, vitality, and aesthetics, specifically, reduced automobile use, traffic congestion, and sprawl

Origin of LEED in Salt Lake City:

In 2001, the Salt Lake City Mayor's Office and Planning Division launched the High Performance Building Initiative. The goal of the Initiative was to review each of the chapters and credits in the LEED rating system and create additional credits that would address specific resource constraints. The intended outcome was to produce a Salt Lake City LEED-Plus guideline to be adopted and administered locally.

At the start of the Initiative, the LEED rating system was new to the national architectural and construction community. Only one Utah project, the Olympic Speed Skating Oval, had been LEED Certified, and the USGBC did not appear ready to update the rating system to make it more inclusive of resource constraints in the western United States.

To help craft Salt Lake City LEED-Plus, the City put together a High Performance Building Task Force. The Task Force was made up of local stakeholders, planners, architects, public health professionals, related State government employees, and City staff. Members of the task force reviewed LEED over a period of several months and recommended additional credits. The process was funded by the US Department of Energy, Utah Power, the Utah Energy Office, and the City.

The resulting High Performance Building Initiative document was lengthy and required a considerable amount of revision and editing before it could be implemented. The City lacked the required funding, and the project was put on hold.

Since that time, significant strides have been made in high performance building, both regionally and nationally. The local professional design and construction community has gained experience in applying LEED to building construction projects and has had success in reducing the upfront costs associated with high performance building.

LEED Certified projects located in Utah include:

Olympic Speed Skating Oval – Kearns, (LEED 1.0 Certified)
OSHA Salt Lake Technical Center – Sandy, (LEED 2.0 Silver)
Scowcroft Building – Ogden, (LEED 2.1 Silver)

At this time, an additional 21 Utah building projects are registered with the USGBC, including the Big-D Construction corporate office building located at 400 South 400 West in Salt Lake City.

Due to the local community's experience with LEED and the reduced need for local administration by adopting the USGBC LEED rating system, it is appropriate that the City adopt the LEED rating system instead of the Salt Lake City LEED-Plus rating system, as was originally intended.

ANALYSIS:

Department & Division Comments:

In the development of the proposed ordinance, the following City agencies were contacted: Building Services and Licensing, Engineering, Management Services, Economic Development, Public Services, Fire, Police, Public Utilities, Airport, Human Resources, Transportation, Housing and Neighborhood Development, Mayor's Office, City Council Office, Redevelopment Agency (RDA), Attorney's Office, Youth Programs, Planning & Zoning Enforcement, and Community Development.

Department and Division comments identified the need for staff education regarding the LEED rating system, inclusion of the LEED requirement in bid documents, the possible impact of LEED on the Revolving Loan Fund, and the need for careful review of the upfront costs of LEED buildings.

The specific comments received are noted below.

I. Building Services and Licensing Division

- A. The Building Services and Licensing Division (BSL) identified the need for staff training in order to provide specialized plan reviews associated with LEED certification.

an introduction to LEED to City staff and community members.

III. Management Services

- A. Management Services Division would need the engineer to include the LEED certification fee and additional building costs for any CIP-estimated projects. This will provide the City upfront knowledge of budget needs to construct a LEED building.

Olympic Speed Skating Oval – Kearns, (LEED 1.0 Certified)

OSHA Salt Lake Technical Center – Sandy, (LEED 2.0 Silver)

Scowcroft Building – Ogden, (LEED 2.1 Silver)

At this time, an additional 21 Utah building projects are registered with the USGBC.

- B. There is a need to include LEED as a line item in bid documents because there are many components to the cost of implementing LEED, e.g., architectural, sub-consultants, engineering, and building commissioning.
- C. Salt Lake City and Salt Lake County are partnering to hold a “Sustainable Building Conference” on February 23, 2006, at the Salt Palace. All key City staff will be invited to attend. The conference is designed to provide an introduction to LEED to City staff and community members.

III. Management Services

- A. Management Services Division would need the engineer to include the LEED certification fee and additional building costs for any CIP-estimated projects. This will provide the City upfront knowledge of budget needs to construct a LEED building.

IV. Economic Development

- A. The ordinance is in accordance with the City’s existing e2 business promotion program. However, education for small business owners applying for the Salt Lake City's Revolving Loan Fund (RLF) would be needed to identify the benefits of LEED and assist with the certification process.

V. Airport

- A. Overall, the language in the ordinance is fine. The Department of Airports (Airport) hopes current exceptions will be retained to allow for flexibility for certain projects, in the event that the additional expense and time of LEED certification are not in the best interests of the City.

- B. If the purpose of the proposed ordinance is to promote City building development that meets, at minimum, the LEED “Certified” standard for building construction. The LEED standards are considered to promote a healthy environment, provide long-term cost benefits through efficient energy use, optimize building performance, and create healthier workplaces for employees and visitors. The Airport agrees that all of the above are important elements that should be considered and incorporated into new building designs to the extent that they are practical, affordable, and cost effective over the life of the building.
- C. The Airport is concerned that LEED certification may be very difficult to obtain for airport buildings because of the unique nature of airports. For example, many of the credits related to sustainable sites are not attainable because building siting at the airport is dictated by proximity to taxiways and runways, which are fixed. Delta’s new terminal and concourse at Boston were designed and constructed with the intent of obtaining the LEED “Certified” rating. Delta’s project manager indicated that as of July 2005, the buildings still had not received their certifications and indicated it has been an extremely difficult process to obtain the certifications. He indicated that many of the credits are geared towards standard commercial office buildings and that the USGBC certification committee is very strict in their interpretation of the credit criteria and do not recognize some of the unique aspects related to airport facilities.
- D. It is also important to recognize that there are additional costs associated with the LEED certification process. The USGBC charges a minimum of \$750 for registration and \$1,500 for certification of buildings less than 75,000 square feet in size. These fees increase to \$3,000 for registration and \$6,000 for certification for buildings greater than 300,000 square feet in size. The fees listed above are those charged to USGBC members. (Membership for the Department of Airports would cost \$500 per year.) Based on the airport’s current master plan, it will cost in excess of \$40,000 in fees to the USGBC to pursue the certification process on the new buildings contemplated to be built as part of the master plan.
- E. There are also additional construction and consultant costs that need to be considered. Initial construction costs for a LEED “Certified” building are typically in the range of approximately three to seven percent higher than for a non-certified building. It is expected that many of these costs can be recouped over the life of the building in reduced energy costs, but this should be verified by a cost/benefit analysis during the design process.) Consultant costs are typically about two percent higher mainly because of the rigorous documentation process required to obtain certification and the need to hire an independent commissioning team to review the design documents, inspect systems installations, and complete a commissioning report. (Hopefully, some of these additional costs can be offset by the

commissioning team ensuring that mechanical and electrical systems are performing at optimal capacity.) Based on the airport's current master plan for development, it is estimated that these additional upfront costs could be in the \$59 to \$109 million range.

- F. The term "major renovation" should be defined to mean work that demolishes space down to the shell structure and rebuilds it with new walls, ceilings, floors, and electrical/mechanical systems.

Response: *LEED at the certified level has been shown to be practical, affordable, and cost effective. The Sea-Tac Airport in Seattle implemented LEED for the airport control tower, achieving Gold certification (see attachment *). The USGBC is currently working on guidelines specific to airport construction.*

Salt Lake City is a current member of the USGBC and the Airport need not pay an additional membership fee. The estimated \$40,000 in fees to document that our new airport is performing as it was designed and in a highly efficient manner is not a significant amount. However, if the overall costs of LEED design prove to be impracticable, the Airport may apply for an exemption under the proposed ordinance. (All studies indicate that the additional costs of LEED will not be impracticable.)

VI. Fire Department

- A. The Fire Department supports this ordinance. Buildings built to this standard as well as the applicable building and fire codes will be a positive feature in Salt Lake City.

VII. Transportation

- A. The Transportation Division supports this ordinance. It is consistent with their goals of energy saving as exemplified by the Street Lighting Master Plan, energy saving traffic signals, and minimization of vehicle emissions through signal synchronization.

VIII. Public Services

- A. The Public Services Department had no additional comments beyond those expressed by the Engineering Division.

IX. City Council Office

- A. The definition of "applicable building project" specifies any construction or renovation of "a commercial structure that will contain more than 10,000 square feet." Does this mean that Housing Trust Fund loans are

exempted, since the projects are primarily residential? Should this be stated under definition #2 along with the Library and RDA? If the project is mixed-use and contains more than 10,000 square feet of commercial space, does it fall within the definition?

Response: Housing Trust Fund loans are not exempted in the ordinance. Mixed-use developments also fall within the definition. LEED-NC (New Construction) can be applied to large residential projects and should be applied to all projects of 10,000 square feet of occupied space, unless otherwise exempted in the ordinance.

- B. In the "Application" section [of the proposed ordinance], how will the City Building Official be involved in the City Engineer's decision to LEED certify/upgrade existing City buildings?

Response: *This section has been changed to read, "a City procurement official shall have made a determination" to LEED certify a project. In this case, the City procurement official will forward the application to all Department and Division Directors for input on the decision.*

- C. In the "Exceptions" sections, #3 and #4 are good to have as exceptions in order to be practical, but it might be helpful to have specific numbers and thresholds, for example, what determines true "funding capacity" for a City project? Maybe if there is an X% increase over what was initially proposed to be borrowed?

Response: *The Attorney's Office advised against including specific thresholds in the ordinance because the funding capacity of each project will vary considerably.*

- D. Are there current Federal or State grant funding requirements that would conflict with the proposed ordinance, for example, CDBG?

Response: *Section F: Limitations of the proposed ordinance has been included to addresses this issue.*

- E. Have the enterprise funds or other departments involved heavily in City construction projects (Airport, Community Development, Public Services) estimated what the real cost impacts will be? Specifically, would the Airport's new terminal projects fall under "commercial development," and have they estimated costs of implementing LEED for that project?

Response: *As included in the comments provided by the Department of Airports, "based on the airport's current master plan for development, it is estimated that these additional upfront costs could be in the \$59 to \$109 million range." Other departments did not provide specific cost impacts.*

- F. Are there cost impact analysis for other major upcoming City projects (i.e. Fleet Facility, Public Safety Building, Fire Training Facility)?

Response: *Cost impact analysis has not been done for these projects.*

- G. Does this ordinance affect other City ordinances (Housing Trust Fund, Small Business Loan Fund)?

Response: *Yes, the ordinance affects all City-funded building construction projects over 10,000 square feet of occupied space that are not otherwise exempted in the ordinance.*

Community Council and General Public Comments:

A public Open House was held on November 16, 2005, from 5:00-6:30 p.m. in the Cannon Room at the City and County Building. During the open house, 19 people came to review the ordinance and make comments. The majority of attendees were architects and engineers, with limited representation from Community Councils and non-profit groups. Twelve of the attendees commented in support of the ordinance, one inquired about alternatives, and six left no comments on the proposed ordinance.

Several comments were received during the Open House. They focused on the following:

- The need for the City to have a plan to deal with projects that are built using City funds but which are not able to obtain a LEED Certification rating
- A desire to see the City require a LEED Silver rating
- A requirement that projects which obtain an exception under the ordinance be required to comply with LEED guidelines wherever possible
- A suggestion that incentives for the private sector to obtain LEED certification be included
- A proposal that the definition of "major renovation" include historic preservation projects
- An inquiry about the City's review of alternative ways of reducing energy consumption in buildings, for example, looking at the skin of the building and its orientation.

A State employee provided the following information after noting that Federal law prevents officials from supporting or commenting on local law, policy, or ordinances: "HUD has adopted a plan to advance energy efficiency in HUD funded projects. If the local application process creates an incentive for developers to incorporate energy efficiency into new projects, it would fall in line with current efforts of Utah Housing Corp. (UHC) in their tax credit applications, as well as the Olene Walker House Loan Fund which ranks energy efficient projects higher than projects that do not foster such an approach."

ISSUES FOR THE PLANNING COMMISSION TO CONSIDER:

In review of this request, the Planning Commission needs to make a finding that the proposed ordinance is consistent with current City developments, policies, Master Plans, and environmental programs. In addition, Staff recommends that the Planning Commission, as part of the discussion, address the following issues:

- The need for a plan to deal with projects built using City funds which are not able to LEED certify
- Establishment of standards for granting exceptions to the ordinance
- The question of whether the City should aim just for LEED Certification rating or demonstrate their commitment to Leadership in Energy and Environmental Design by requiring at least a LEED Silver rating for City-owned buildings

RECOMMENDATION:

Staff has determined that the proposed ordinance to use the LEED rating system in City-funded construction projects of 10,000 square feet or larger is consistent with existing, adopted Master Plans, policies, and resolutions, and furthers their implementation. Therefore, Staff recommends the Planning Commission transmit to the City Council and the Mayor a favorable recommendation to approve the proposed ordinance with the following modifications:

- Include a \$10,000 “good faith” deposit from all private sector developers who receive City funds for construction of buildings 10,000 square feet or larger
- Require the use of the following standards in the review of requests for exceptions:
 - Literal enforcement of the LEED ordinance would cause an unreasonable hardship for the applicant that is not necessary to carry out the general purposes of the LEED ordinance
 - The exception would not have a substantially negative affect on the Master Plans, policies, and resolutions of the City and would not be contrary to the purposes of the LEED ordinance
 - The exception would not be granted if economic hardship is determined to be self-imposed
 - Determine whether exceptions should be decided and granted by a Procurement Officer or a Board appointed by the City Council
- Require City-owned buildings to achieve a LEED Silver rating rather than just the LEED Certified rating mandated for City-funded projects

EXHIBITS:

Exhibit 1: Proposed Ordinance

- Exhibit 2: Technical Review of Costs and Building Codes
- Exhibit 3: Costs and Financial Benefits of Green Building
- Exhibit 4: GSA Cost Study Summary

ATTACHMENTS:

- Attachment A: Making the Business Case for High Performance Green Buildings
- Attachment B: Description of LEED Certification and LEED Guidelines
- Attachment C: Press Release: "Green Building Breakthrough: Portland Engineering Firm Shows Path to Achieving Platinum-LEED Green Building Certification on Conventional Building Budget"
- Attachment D: LEED Projects in Utah
- Attachment E: URS Corp. Press: "Government finds gold at Sea-Tac Airport"
- Attachment F: Portland Development Commission: Green Building Policy Program Guidelines

cc: Ross C. Anderson, Mayor
Rocky Fluhart, Chief Administrative Officer
Louis Zunguze, Community Development Director
Alex Ikefuna, Planning Division Director
Ray McCandless, Principal Planner
Orion Goff, Building Services Division Director
Alison McFarlane, Economic Advisor, Mayor's Office
Vicki Bennett, Environmental Programs Manager, Management Services
Ed Rutan, City Attorney
Jodi Howick, Senior City Attorney
Melanie Reif, Assistant City Attorney

EXHIBIT 1
PROPOSED ORDINANCE

SALT LAKE CITY ORDINANCE

No. _____ of 2005

(Creating Chapter 18.95 of the Salt Lake City Code Requiring that City Funded Construction obtain a "Certified" Leadership in Energy and Environmental Design (LEED) Designation from the United States Green Building Council (USGBC) under Certain Conditions)

AN ORDINANCE ADOPTING TITLE 18, CHAPTER 95, *SALT LAKE CITY CODE*,
REQUIRING LEED CERTIFICATION FOR CERTAIN CITY-FUNDED CONSTRUCTION.

WHEREAS, the City desires to promote sound environmental practices in construction work that is funded by the City when doing so is beneficial to the work; and

WHEREAS, various local stakeholders, including architects, planners, environmental consultants, professors, political leaders, energy experts, health officials, and City staff members, have worked with the City extensively to review the Leadership in Energy and Environmental Design (LEED) rating system, which is a system created by the United States Green Building Council (USGBC) to provide a national standard for healthy environmental and energy efficient design; and

WHEREAS, professionals in our region are familiar with the LEED process, and it is considered to be a voluntary, consensus-based national standard for developing high-performance, sustainable buildings; and

WHEREAS, at this time, the USGBC has formally adopted and promulgated three alternative certification standards, being the LEED Green Building Rating System for New Construction and Major Renovations (LEED-NC) as adopted in November 2002 and revised in November 2005, the LEED Green Building Rating System for Commercial Interiors (LEED-CI) as adopted in November 2002, and the LEED Green Building Rating System for Existing

Buildings Upgrades, Operations and Maintenance (LEED-EB) as adopted in October 2004 and updated in July 2005; and

WHEREAS, the foregoing alternative standards provide for various certifications designated as “Certified,” “Silver,” “Gold,” or “Platinum,” based on how many specified environmental practices are incorporated into a project, with “Certified” being the lowest level of certification; and

WHEREAS, LEED standards are considered to promote a healthy environment, provide long-term cost benefits through the efficient use of energy, optimize building performance, and create healthier workplaces for employees and visitors; and

WHEREAS, the City has determined to join other cities in requiring the use of LEED standards under certain circumstances to obtain the benefits promoted by those standards;

NOW, THEREFORE, be it ordained by the City Council of Salt Lake City, Utah:

SECTION 1. Title 18, Chapter 95 of the Salt Lake City Code shall be and hereby is enacted to read as follows:

Chapter 18.95

USE OF LEED STANDARDS IN CITY-FUNDED CONSTRUCTION

Sections:

18.95.010 LEED “Certified” Designation Required for Certain City-Funded Construction.

A. PURPOSE. The purpose of this ordinance is to promote development consistent with sound environmental practices by requiring that applicable building projects constructed with city construction funds obtain at least a “Certified” designation from the USGBC.

B. DEFINITIONS. As used in this section:

1. "Applicable building project" means the construction or major renovation of a commercial, residential or municipal building that will contain more than 10,000 square feet of occupied space when the design contract for such project commences on or after March 1, 2006, and when not subject to an exception under this section.

2. "Certified" means the level of compliance with LEED standards designated as "Certified" by the USGBC.

3. "City construction funds" means funds that are authorized to be used for construction by the City Council for use by any person or City department in order to construct an applicable building project. However, this term shall not apply to the funds of the Library or Redevelopment Agency.

4. "City procurement official" shall have the meaning set forth in section 3.24.030 of this Code.

5. "LEED standard" means the Leadership in Energy and Environmental Design (LEED) Green Building Rating System for New Construction and Major Renovations (LEED-NC) as adopted in November 2002 and revised in November 2005, the LEED Green Building Rating System for Commercial Interiors (LEED-CI) as adopted in November 2002, and the LEED Green Building Rating System for Existing Buildings Upgrades, Operations and Maintenance (LEED-EB) as adopted in October 2004 and updated in July 2005.

6. "Major renovation" means work that demolishes space down to the shell structure and rebuilds it with new walls, ceilings, floors and systems, when such work affects more than twenty five percent (25%) of the building's square footage, and the affected space is at least 10,000 square feet or larger.

7. “USGBC” means the organization known as the United States Green Building Council.

C. APPLICATION. Whenever City construction funds are used for any applicable building project as defined in this section, such project shall at a minimum obtain a “Certified” designation from the USGBC under any LEED standard as defined herein. Notwithstanding the foregoing, the City shall not pursue certification under the LEED-EB standard for any City-owned building until a City procurement official shall have made a determination that such certification is cost-effective and otherwise appropriate for the renovation and ongoing maintenance of such building.

D. EXCEPTIONS. This section shall not apply if, in the determination of a City procurement official, any of the following circumstances exist:

1. The applicable building project will serve a specialized, limited function, such as a pump station, garage, storage building, equipment area, or other similar area, or a single family residence;

2. The applicable building project is intended to be a temporary structure;

3. The useful life of the applicable building project or other factors do not justify whatever additional expense would be incurred to increase the building’s long-term efficiency;

4. The application of LEED standard factors will increase construction costs beyond the funding capacity for the project, or will require that the project’s scope of work or programmatic needs be diminished to meet budget constraints;

5. The use of LEED standard factors will create an impediment to construction due to conflicts of laws, building code requirements, federal or state grant funding requirements, or other similar requirements;

6. LEED factors are not reasonably attainable due to the nature of the facilities or the schedule for construction; or

7. LEED certification will violate any other federal, state or local law, including, without limitation, other sections of this Code.

E. APPEALS. Any person or department denied City construction funds under this section may appeal such decision in writing to a City procurement official within thirty (30) days of the City's decision, and shall state the basis to support the relief sought. The City procurement official shall review the circumstances of the appeal, and shall issue a written determination within thirty (30) days consistent with the requirements of this section. The determination of the City procurement official shall be subject to review by the Mayor.

F. LIMITATIONS. Nothing required under this section shall supersede any federal, state or local law, including, without limitation, other provisions of this Code; or any contract, grant or other funding requirement; or other standards or restrictions that may otherwise apply to an applicable building project. This section shall not apply whenever its application would disadvantage the City in obtaining federal funds.

Section 2. **EFFECTIVE DATE.** This Ordinance shall become effective on the date of its first publication.

Passed by the City Council of Salt Lake City, Utah this _____ day of _____, 2005.

CHAIRPERSON

ATTEST:

CHIEF DEPUTY CITY RECORDER

Transmitted to Mayor on _____.

Mayor's Action: _____ Approved. _____ Vetoed.

MAYOR

CHIEF DEPUTY CITY RECORDER

(SEAL)

Bill No. _____ of 2005.
Published: _____.

I:\Ordinance 05\LEED - 11-21-05 draft.doc

EXHIBIT 2
TECHNICAL REVIEW OF COSTS AND
BUILDING CODES

Cost of High Performance Building:

First costs (initial design and construction costs) of green buildings will vary significantly depending on specific project goals. While many significant design opportunities can be implemented at no additional cost (e.g., proper solar orientation, south facing windows), some features will cost more initially, both in design and material costs (e.g., high efficiency HVAC and lighting systems, thermally selective windows to reduce heat gain) but will provide an economic return over time. Higher initial costs can be recovered through lower energy, water, materials, and waste management expenses; improved health and productivity of occupants; and longer use of buildings and materials.

The architectural and construction communities estimate that additional design and construction costs for implementing green building practices through the LEED rating system could be as low as 0-3% for LEED Certified, to 10% or more for higher LEED ratings (Silver, Gold, or Platinum). In addition, the stage at which the LEED criteria are introduced into the design process can significantly affect the magnitude of additional design and construction costs. The earlier LEED is introduced, the less costly the project. This has been documented with hard data from the first 100 buildings nationwide that are currently certified.

"The Cost and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force" (Exhibit 3) issued in October of 2003 provides a recognized and trusted cost-benefit analysis.

The report looked at 33 LEED certified or registered buildings in 12 states. The report found that the average increased cost of building to LEED standards was just below 2%.

Level of LEED Certification	No. of Buildings	Average Green Cost Premium
Level 4 – Platinum	1	6.50%
Level 3 – Gold	6	1.82%
Level 2 – Silver	18	2.11%
Level 1 – Certified	8	0.66%
Average	33	1.84%

Source: USGBC, Capital E Analysis

One year later, the US General Services Administration (GSA) published the *"GSA LEED Cost Study"* (Exhibit 4). The GSA is one of several federal government agencies that require USGBC certification in all building projects. The GSA study reviewed two types of buildings: a new mid-rise federal courthouse and modernization of a mid-rise federal office building. These building types make up the bulk of GSA facility projects. The GSA study found similar cost estimates for high performance construction as the California study, but went on to look at the soft costs of LEED certification. High performance cost estimates stated in the GSA study were similar to the California study, but included an additional analysis of LEED certification soft costs.

Two types of soft costs were included in the GSA study: 1) "LEED Design Cost: Those tasks that increase the design teams' scope of work during the design and construction stages of a

project;” and 2) “LEED Documentation Costs: Those tasks associated with documenting and submitting a LEED application to the U.S. Green Building Council.”

Estimated soft costs in the courthouse analysis ranged from an increase of \$0.41 per gross square foot (GSF) to \$.80 per GSF. Using these figures the soft costs of a 262,000 GSF Courthouse with a base construction cost of \$220 per GSF would range from an additional \$107,420 to \$209,600.

Estimated soft costs in the office building modernization analysis ranged from a \$0.35 per GSF increase to \$0.70 per GSF increase. These costs increase to a 306,600 GSF office building project are similar to those of the courthouse.

Specific programmatic requirements of different buildings can have a profound impact on the cost of high performance building. The GSA study warns that the estimated costs may not reflect the cost of a high performance buildings in other agencies or regions of the Country.

The Salt Lake City Intermodal Hub (The Hub) is the first Salt Lake City owned and operated building that will be LEED Certified. Based on information from The Hub’s consulting engineers, a LEED building averages 20-25% in energy savings over standard construction. In the case of the Hub, this means a 10-year payback for the extra cost of construction using the LEED rating system and certifying the project with the USGBC.

The estimates for The Hub do not take into account intangibles such as increased human comfort, construction waste reduction, reduced impact on regional water infrastructure, and reduced energy usage by well-designed landscaping.

The USGBC expects that the cost of green building will continue to decrease as more buildings are built to LEED standards, pushing the market for sustainable building practices.

The California EPA Headquarters and the Johnson Diversey Global Headquarters buildings provide examples of the upfront cost of LEED building, the annual net savings from implementing LEED, and the Rate of Investment (ROI).

Building Code Conflicts:

1. The most obvious and significant conflict for the City is in the International Plumbing Code (IPC), as the LEED design manual awards significant points for the re-use of gray water (waste water from sinks, showers, tubs, and washing machines). However, the State Plumbing Code is amended such that gray water systems are not approved. Another example is waterless urinals and composting toilets; both garner points for LEED design but neither are approved in the State Plumbing Code.
 - a. A good example of conflicts with the IPC is the Salt Palace Expansion. Based upon the goal of a 'Gold Level' LEED building, and taking into consideration that points can be scored from only certain categories, waterless urinals were required to gain the points necessary. Waterless Urinals are not approved per the IPC.
2. Other conflicts with the State Codes are more subtle and more difficult to identify, for example, the issue of listed and approved systems/products required by the ICC. Many innovative designs that can gain points towards a high-level LEED building design are not products listed through an approved listing agency. This includes some innovative roofing material designs and structural exterior wall designs. A sod roof is one example; an exterior wall composed of straw bales or adobe, either rammed earth or non-fired adobe blocks, is another. Another example may be innovative energy-saving devices such as photovoltaic collectors and energy storage systems.

The best solution to the conflicts would be to exert influence at the State level, including legislation allowing any entity designing and building to LEED standards to be exempt from any pertinent State Codes that prohibit the use of products/materials not approved by the State's technical codes.

Despite the existing conflicts, building projects in Utah are still able to utilize the LEED rating system and achieve LEED certification. This is accomplished utilizing the provisions in the State Building code, which allow for 'alternate means and methods', and /or acceptance of 'equivalencies for compliance by the local Building Official.

EXHIBIT 3
COSTS AND FINANCIAL BENEFITS OF GREEN
BUILDING

The Costs and Financial Benefits of Green Buildings

A Report to California's
Sustainable Building Task Force

October 2003

Principal Author:

Greg Kats, Capital E

Contributing Authors:

Leon Alevantis, Department of Health Services
Adam Berman, Capital E
Evan Mills, Lawrence Berkeley National Laboratory
Jeff Perlman, Capital E

This report was developed for the Sustainable Building Task Force, a group of over 40 California state government agencies. Funding for this study was provided by the Air Resources Board (ARB), California Integrated Waste Management Board (CIWMB), Department of Finance (DOF), Department of General Services (DGS), Department of Transportation (Caltrans), Department of Water Resources (DWR), and Division of the State Architect (DSA). This collaborative effort was made possible through the contributions of Capital E, Future Resources Associates, Task Force members, and the United States Green Building Council.

October 3, 2003

Dear Colleagues,

This study, *The Costs and Financial Benefits of Green Building*, represents the most definitive cost benefit analysis of green building ever conducted. It demonstrates conclusively that sustainable building is a cost-effective investment, and its findings should encourage communities across the country to “build green.”

In August 2000, Governor Davis issued Executive Order D-16-00, establishing sustainable building as a primary goal for state construction and tasking the State and Consumer Services Agency with its implementation. Our agency established the Sustainable Building Task Force, a unique partnership among more than 40 governmental agencies, whose combined building, environmental, and fiscal expertise has produced outstanding results, including funding for this report.

Since its inception, the Sustainable Building Task Force has worked diligently to incorporate green building principles into California’s capital outlay process. Our many successes include:

- Building the first LEED Gold state owned office building in the country, the Education Headquarters Building, which is saving taxpayers \$500,000 a year in energy costs alone;
- Including sustainable building performance standards, such as energy efficiency, in over \$2 billion of state construction and renovation contracts;
- Constructing many high visibility state “leadership buildings,” which are models of sustainability, including the Caltrans-District 7 Office building in Los Angeles;
- Promoting on-site renewable energy, such as the installation of over an acre of photovoltaic panels on the roof of the Franchise Tax Board Building in Rancho Cordova – which is the largest array on any state office building in the country;
- Assisting the Chancellor of the new 10th University of California campus, UC Merced, in her goal to construct the greenest campus in the country with an initial target of LEED Silver for all construction;
- Impacting the sustainability of K-12 bond funded school construction throughout the state by providing funding and technical assistance to support the work of the Collaborative for High Performance Schools (CHPS), including the construction of 13 demonstration high performance schools; and
- Confirming through rigorous emissions testing that the careful selection of building materials in concert with environmentally responsive cleaning practices results in cleaner and healthier indoor environments.

The Costs and Financial Benefits of Green Buildings

While the environmental and human health benefits of green building have been widely recognized, this comprehensive report confirms that minimal increases in upfront costs of about 2% to support green design would, on average, result in life cycle savings of 20% of total construction costs -- more than ten times the initial investment. For example, an initial upfront investment of up to \$100,000 to incorporate green building features into a \$5 million project would result in a savings of \$1 million in today's dollars over the life of the building. These findings clearly support the work of the Sustainable Building Task Force and reinforce our commitment to build the greenest state facilities possible.

This report was funded by several Sustainable Building Task Force member agencies, including the Air Resources Board, the Department of Finance, the Department of General Services, the Department of Transportation, the Department of Water Resources, the Division of the State Architect, and the Integrated Waste Management Board. Their resources and staff support have helped to increase our collective knowledge of the true costs and benefits of green building. In addition, I would like to recognize the contributions of Undersecretary Arnold Sowell and Senior Consultant Amanda Eichel of the State and Consumer Services Agency. Their leadership, as well as their commitment to this subject, made this project possible.

With the signing of Executive Order D-16-00 by Governor Davis, California embarked on a road to sustainability. Since that time many cities, counties, and school districts, as well as the Board of Regents for the University of California, have established similar sustainable building goals. It is extremely rewarding not only to note the major accomplishments of this Task Force, including this first of a kind study documenting the cost-effectiveness of green building, but also to witness the national impact of these extraordinary interagency efforts.

Best regards,

Aileen Adams
Secretary

TABLE OF CONTENTS

Executive Summary	v
Background	v
The Issue of Cost	vi
Report Methodology and Format	viii
Conclusion	ix
Acknowledgements	x
I. Overview of Project	1
What is a Green Building?	1
LEED as the US Green Building Standard	4
LEED in California	6
II. Important Assumptions	8
Life Cycle Assessment (LCA)	8
Use of Present Value (PV) and Net Present Value (NPV)	9
Discount Rate	10
Term	10
Inflation	10
LEED as a Basis	11
A Note about Data Sources	11
III. The Cost of Building Green	12
The Problems of Determining Cost	12
National Green Building Leaders	13
A Cost Analysis of 33 LEED Projects	14
Implications for California	18
IV. Energy Use	19
The Price of Energy	20
Cutting Peak Power	22
Value of Peak Power	25
Calculation	27
Conclusion	28
V. Emissions from Energy	30
Value of Pollution Associated with Energy	30
Emissions from Energy Use	31
Estimated Costs Associated with Pollution from Power Generation	33
The Cost of Carbon: Putting a Price on CO2 Emissions	35
Assigning a Cost to Carbon	36
Conclusion	38
VI. Water Conservation	40
Current Practice in California State Commercial and Institutional Buildings	40
The Cost-Effectiveness of Water Conservation and Demand Reduction Strategies	41
Estimated Actual Cost of Water from the State Perspective	42
Conclusion	46
VII. Waste Reduction	47
Current Practice in California State Commercial and Institutional Buildings	48
The Retail Cost of Disposal and Diversion	49
Estimated Actual Cost and Benefits of Landfill Diversion	50
Conclusion	52
VIII. Productivity and Health	54

Potential Savings	54
The Building-Productivity Link	55
What Do Tenants Want?	57
Productivity Benefits for Specific Worker Control/Comfort Upgrades	60
Increased Daylighting	65
Sick Building Syndrome.....	65
Conclusion	67
Calculation	67
Note on Education	68
IX. Spotlighted Technologies and Methodologies	71
Commissioning, and Measurement and Verification	71
Underfloor Air	73
<i>Churn Costs</i>	75
<i>Conclusions</i>	76
Urban Heat Island Reduction – Cool Roofs	77
X. Insurance Benefits of Green Buildings.....	81
Insurance and Risk Management in California	82
XI. Conclusions.....	84
XII. Recommended Next Steps.....	88
General	88
Commissioning	89
Emissions	89
Energy	90
Insurance	90
Productivity and Health.....	91
Residential.....	92
Schools	92
Water	92
Waste	92
Research Opportunities for Private Sector Benefits of Green Buildings	93
Appendices.....	94
Appendix A: The LEED System	94
Appendix B: Analysis of LEED Registered Projects	96
Appendix D: Non-energy Value of Peak Demand Reduction.....	99
Appendix E: Emissions.....	100
Appendix F: Water Use in California	102
Appendix G: Water Calculations	103
<i>Weighted Average Value (WAV) Calculation</i>	103
<i>Value of Potential Water Savings – An Example</i>	103
Appendix H: Value of Waste Reduction – A State Building Example	105
<i>Note on Office Recycling</i>	106
Appendix I: Total User Costs for California State Buildings.....	107
Energy Use Calculations	108
Appendix J: Health and Productivity Gains from Better Indoor Environments.....	110
Appendix K: Insurance and Risk Management Benefits of Green Building Attributes	112
Appendix L: Annotated Bibliography	116
<i>Water Conservation</i>	116
<i>Waste Reduction</i>	118
Glossary of Acronyms	120

Executive Summary

Integrating “sustainable” or “green” building practices into the construction of state buildings is a solid financial investment. In the most comprehensive analysis of the financial costs and benefits of green building conducted to date, this report finds that a minimal upfront investment of about two percent of construction costs typically yields life cycle savings of over ten times the initial investment. For example, an initial upfront investment of up to \$100,000 to incorporate green building features into a \$5 million project would result in a savings of at least \$1 million over the life of the building, assumed conservatively to be 20 years.¹

The financial benefits of green buildings include lower energy, waste disposal, and water costs, lower environmental and emissions costs, lower operations and maintenance costs, and savings from increased productivity and health. These benefits range from being fairly predictable (energy, waste, and water savings) to relatively uncertain (productivity/health benefits). Energy and water savings can be predicted with reasonable precision, measured, and monitored over time. In contrast, productivity and health gains are much less precisely understood and far harder to predict with accuracy.

There is now a very large body of research, reviewed in this report, which demonstrates significant and causal correlation between improvements in building comfort and control measures, and worker health and productivity. However, these studies vary widely in specific measured correlations. Further, there has been relatively little work completed to evaluate specific, measurable benefits from green building design in California. Clearly, the benefits are significant and not zero, but the data supports a broad range of calculated benefits – in contrast to the more precisely measurable energy, water, and waste savings.

The financial benefits conclusions in this report should therefore be understood in this context. Energy, waste, and water savings as well as emissions reductions can be viewed as fairly precise, reasonably conservative estimates of direct benefits that alone significantly exceed the marginal cost of building green. Health and productivity benefits can be viewed as reasonably conservative estimates within a large range of uncertainty. Further research is necessary to better quantify and capture the precise savings associated with these benefits. Additional studies might include such measures as evaluating green building effects on insured and uninsured health effects, employee turnover, worker well being and, where relevant (e.g. in schools), test scores.

Background

“Green” or “sustainable” buildings use key resources like energy, water, materials, and land much more efficiently than buildings that are simply built to code. They also create healthier work, learning, and living environments, with more natural light and cleaner air, and contribute to improved employee and student health, comfort, and productivity. Sustainable buildings are cost-effective, saving taxpayer dollars by reducing operations and maintenance costs, as well as by lowering utility bills.

¹ Although this report was written with specific regard to California state buildings, data is national in scope and conclusions are broadly applicable to other types of buildings and for other public and private sector entities.

Over the last few years, the green building movement has gained tremendous momentum. The United States Green Building Council (USGBC), a national non-profit organization, has grown dramatically in membership. The USGBC's Leadership in Energy and Environmental Design (LEED) rating system has been widely embraced both nationally and internationally as the green building design standard. Public and private sector entities, including the cities of Santa Monica, San Diego, San Francisco, San Jose, Long Beach, Los Angeles, Seattle, and Portland; San Mateo County; the University of California; the Department of the Navy; the federal General Services Administration; and the states of Oregon, New York and Maryland have all adopted green building policies and clean energy standards. In addition, corporate entities, including Steelcase, Herman Miller, Johnson Controls, Interface, IBM, PNC Financial Services, Southern California Gas Company, Toyota, and Ford Motor Company, have constructed green buildings.

Recognizing the tremendous opportunity for California state government to provide leadership in the area of exemplary building design and construction methods, several years ago Governor Davis issued two Executive Orders that address the siting and building of state facilities:

- Executive Order D-16-00 establishes the Governor's sustainable building goal: "to site, design, deconstruct, construct, renovate, operate, and maintain state buildings that are models of energy, water, and materials efficiency; while providing healthy, productive and comfortable indoor environments and long-term benefits to Californians...The objectives are to implement the sustainable building goal in a cost effective manner...; use extended life cycle costing; and adopt an integrated systems approach."²
- Executive Order D-46-01 provides guidance on the process the Department of General Services will use to locate and lease space, including such considerations as proximity to public transit and affordable housing, preserving structures of historic, cultural, and architectural significance, opportunities for economic renewal; and sensitivity to neighborhood and community concerns.³

The Issue of Cost

To implement the Executive Orders, the Secretary of the State and Consumer Services Agency, Aileen Adams, formally convened an interagency Sustainable Building Task Force (Task Force) comprised of over 40 state agencies, including representatives with energy, environmental, fiscal, construction, property management, and historic preservation expertise. As the Task Force set about its implementation work, the uncertainty about the "cost" of green buildings became an issue of growing importance and increased discussions.

While there seems to be consensus on the environmental and social benefits of green building, there is a consistent concern, both within and outside the green building community, over the lack of accurate and thorough financial and economic information. Recognizing that the cost issue was becoming more and more of a prohibitive factor in the mainstreaming of green building not only within California but across the country, several members of the Task Force funded an Economic Analysis Project to determine more definitively the costs and benefits of sustainable

² State of California, Governor's Executive Order D-16-00. August 2000. Available at: http://www.governor.ca.gov/state/govsite/gov_homepage.jsp.

³ State of California, Governor's Executive Order D-46-01. October 2001. Available at: http://www.governor.ca.gov/state/govsite/gov_homepage.jsp.

building.⁴ Sustainable buildings generally incur a “green premium” above the costs of standard construction. They also provide an array of financial and environmental benefits that conventional buildings do not. These benefits, such as energy savings, should be looked at through a life cycle cost methodology, not just evaluated in terms of upfront costs. From a life cycle savings standpoint, savings resulting from investment in sustainable design and construction dramatically exceed any additional upfront costs.

It is generally recognized that buildings consume a large portion of water, wood, energy, and other resources used in the economy. Green buildings provide a potentially promising way to help address a range of challenges facing California, such as:

- The high cost of electric power.
- Worsening electric grid constraints, with associated power quality and availability problems.
- Pending water shortage and waste disposal issues.
- Continued state and federal pressure to cut criteria pollutants.
- Growing concern over the cost of global warming.
- The rising incidence of allergies and asthma, especially in children.
- The health and productivity of workers.
- The effect of the physical school environment on children’s abilities to learn.
- Increasing expenses of maintaining and operating state facilities over time.

Benefits include some elements that are relatively easy to quantify, such as energy and water savings, as well as those that are less easily quantified, such as the use of recycled content materials and improved indoor environmental quality. Prior to this report, no comprehensive analysis of the actual costs and financial benefits of green buildings had been completed, although there are a number of studies that do begin to address this very important issue.

- In October 2002, the David and Lucille Packard Foundation released their Sustainability Matrix and Sustainability Report, developed to consider environmental goals for a new 90,000 square foot office facility. The study found that with each increasing level of sustainability (including various levels of LEED), short-term costs increased, but long-term costs decreased dramatically.⁵
- A second, older study conducted by Xenergy for the City of Portland identified a 15% lifecycle savings associated with bringing three standard buildings up to USGBC LEED certification levels (with primary opportunities to save money associated with energy efficiency, water efficiency and use of salvaged materials).⁶

⁴ Funding agencies include the Air Resources Board (ARB), California Integrated Waste Management Board (CIWMB), Department of Finance (DOF), Department of General Services (DGS), Department of Transportation (CalTrans) Department of Water Resources (DWR), and Division of the State Architect (DSA).

⁵ “Building for Sustainability: Six Scenarios for the David and Lucille Packard Foundation Los Altos Project,” prepared for the David and Lucille Packard Foundation, October 2002. Available on-line at: <http://www.packard.org/pdf/2002Report.pdf>.

⁶ “Green City Buildings: Applying the LEED Rating System,” prepared for the Portland Energy Office by Xenergy, Inc and SERA Architects, June 18, 2000. Available at: <http://www.sustainableportland.org/CityLEED.pdf>.

In addition, a number of other studies document measurable benefits for enhanced daylighting, natural ventilation, and improved indoor air quality in buildings. Benefits associated with these “green” features include enhanced worker and student productivity, as well as reduced absenteeism and illness.

For example:

- One study performed by the Hescong-Mahone group looked at students in three cities and found that students in classrooms with the greatest amount of daylighting performed up to 20% better than those in classrooms that had little daylight.⁷
- A study at Herman-Miller showed up to a 7% increase in worker productivity following a move to a green, daylit facility.⁸
- A Lawrence Berkeley National Laboratory study found that U.S. businesses could save as much as \$58 billion in lost sick time and an additional \$200 billion in worker performance if improvements were made to indoor air quality.⁹

Report Methodology and Format

This report is the first of its kind to fully aggregate the costs and benefits of green buildings. Specifically, the bulk of this report reviews and analyzes a large quantity of existing data about the costs and financial benefits of green buildings in California. Several dozen building representatives and architects were contacted to secure the cost of 33 green buildings compared to conventional designs for those buildings. The average premium for these green buildings is slightly less than 2% (or \$3-5/ ft², see *Implications for California*, pg.18), substantially lower than is commonly perceived. The majority of this cost is due to the increased architectural and engineering (A&E) design time necessary to integrate sustainable building practices into projects. Generally, the earlier green building gets incorporated into the design process, the lower the cost.

A literature review conducted for this report revealed that there is sufficient data from which to construct reasonable estimates about the value of many green building attributes. Historically, both private firms and public agencies do not recognize the full financial value of green buildings. They usually acknowledge some benefits from lower energy and water use, but completely ignore or critically undervalue other, often significant, financial benefits of green buildings during the design and construction decision-making process.¹⁰ For most of these benefits, such as emissions reductions and employee productivity, there are multiple methods that can be used to derive values of benefits, as well as a large range of values that can be assigned to them. In most cases, there is no single “right” answer. Nonetheless, the report underscores that based on the body of

⁷ Hescong Mahone Group, “Daylighting in Schools: An Investigation into the Relationship Between Daylight and Human Performance,” 1999. Available at: <http://www.h-m-g.com>; Follow up studies verified the rigor of analysis and subsequent research continues to show positive correlation between daylighting and student performance.

⁸ Judith Heerwagen, “Do Green Buildings Enhance the Well Being of Workers?” *Environmental Design and Construction Magazine*. July/August 2000. Available at: <http://www.edcmag.com/CDA/ArticleInformation/coverstory/BNPCoverStoryItem/0,4118,19794,00.html>.

⁹ William Fisk, “Health and Productivity Gains from Better Indoor Environments,” summary of prior publications (see Appendix J), with figures inflation-adjusted for 2002 dollars and rounded.

¹⁰ See, for example “CEC Environmental Performance Report.” Available at: http://www.energy.ca.gov/reports/2001-11-20_700-01-001.PDF. 2003 EPR will be finalized and available in October 2003 as part of the *Integrated Energy Policy Report*.

existing data, it is possible to determine reasonable, conservative estimates of financial benefits for a range of green building attributes.

The report also reveals the need for further research and analysis. In all areas, consistently conservative assumptions were made in view of data limitations. Additional research will help to refine cost and benefit estimates and likely lead to increased financial benefit calculations for green building. Additionally, throughout the report, the reader is directed to online databases and publications for the most accurate and relevant information. In many instances, these referenced documents are available online, and URLs are provided in the footnotes.

Conclusion

The benefits of building green include cost savings from reduced energy, water, and waste; lower operations and maintenance costs; and enhanced occupant productivity and health. As Figure ES-1 shows, analysis of these areas indicates that total financial benefits of green buildings are over ten times the average initial investment required to design and construct a green building. Energy savings alone exceed the average increased cost associated with building green.

Additionally, the relatively large impact of productivity and health gains reflects the fact that the direct and indirect cost of employees is far larger than the cost of construction or energy. Consequently, even small changes in productivity and health translate into large financial benefits.

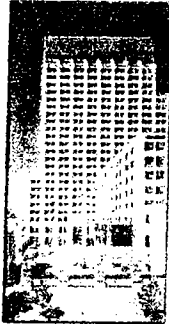
**Figure ES-1. Financial Benefits of Green Buildings
Summary of Findings (per ft²)**

Category	20-year NPV
Energy Value	\$5.79
Emissions Value	\$1.18
Water Value	\$0.51
Waste Value (construction only) - 1 year	\$0.03
Commissioning O&M Value	\$8.47
Productivity and Health Value (Certified and Silver)	\$36.89
Productivity and Health Value (Gold and Platinum)	\$55.33
Less Green Cost Premium	(\$4.00)
Total 20-year NPV (Certified and Silver)	\$48.87
Total 20-year NPV (Gold and Platinum)	\$67.31

Source: Capital E Analysis

Despite data limitations and the need for additional research in various areas, the findings of this report point to a clear conclusion: building green is cost-effective and makes financial sense today.

Thomas Properties Group
Cal/EPA Headquarters
Sacramento, CA



LEED-EB Platinum 2004

Building Statistics

Project Costs:	\$1,186,000
Annual Net Savings:	\$610,300
ROI:	1.9 years
Size:	950,000 ft ²
Building Type:	Office

Sustainable Sites

Alternative Transportation: Easy access to bus lines/light rail; Bicycle storage/changing facilities serving 7% of building occupants; 24 charging stations for alternative vehicles; Program encouraging telecommuting and carpooling.

Water Efficiency

Water Use Reduction: High efficiency fixtures, waterless urinals, and other measures reduced water use by more than 20% below baseline.

Energy & Atmosphere

Onsite Renewable Energy: 736 photovoltaic panels generate electricity that is delivered to the utility grid

Materials & Resources

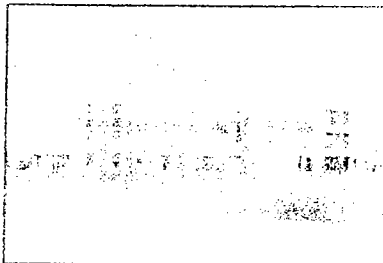
Occupant Recycling: 210 3-in-1 recycling bins are located throughout the building, helping achieve a 50% waste stream recycling rate.

Indoor Environmental Quality

Green Cleaning: Uses cleaning products that have received the Golden Seal Charter Team certification from the State of California.

As of 12.15.04

JohnsonDiversey
Global Headquarters
Sturtevant, WI



LEED-EB Gold 2004

Building Statistics

Project Costs:	\$73,800
Annual Net Savings:	\$137,320
ROI:	0.5 year
Size:	277,440 ft ²
Building Type:	Office/Lab

Sustainable Sites

Reduced Site Disturbance: Turf grass, prairie grass, and ponds cover 93% of the sites; open area.

Water Efficiency

Water Efficient Landscaping: The irrigation system serving the JohnsonDiversey grounds operates solely on captured rain and recycled site water, using no potable water in any application.

Energy & Atmosphere

Performance Measurement: Johnson Controls Metasys building automation system monitors and measures a number of building systems.

Materials & Resources

Optimize Use of Alternative Materials: Purchasing policies target the use of alternative materials including salvaged materials, recycled content, local/regional materials, and certified wood.

Indoor Environmental Quality

Controllability of Systems: JohnsonDiversey installed personal environment modules (PEM) in 93% of the total building office areas.

As of 12.15.04

Financial Benefits of Green Buildings

Summary of Findings (per ft²)

Category	20-year Net Present Value
Energy Savings	\$5.80
Emissions Savings	\$1.20
Water Savings	\$0.50
Operations and Maintenance Savings	\$8.50
Productivity and Health Value	\$36.90 to \$55.30
Subtotal	\$52.90 to \$71.30
Average Extra Cost of Building Green	(-3.00 to -\$5.00)
Total 20-year Net Benefit	\$50 to \$65

Source: Capital E Analysis

EXHIBIT 4
GSA COST STUDY SUMMARY

Executive Summary:

GSA LEED Cost Study

The U.S. General Services Administration (GSA) commissioned this study to estimate the costs to develop “green” federal facilities using the U.S. Green Building Council’s *Leadership in Energy and Environmental Design* (LEED) Building Rating System, Version 2.1. The report provides a detailed and structured review of both the hard cost and soft cost implications of achieving Certified, Silver, and Gold LEED ratings for two GSA building types, using GSA’s established design standards as the point of comparison.

The two building types examined in the study are:

1. A new mid-rise federal Courthouse (five stories, 262,000 GSF, including 15,000 GSF of underground parking; base construction cost is approximately \$220/GSF)
2. A mid-rise federal Office Building modernization (nine stories, 306,600 GSF, including 40,700 GSF of underground parking; base construction cost is approximately \$130/GSF).

These building types reflect a significant percentage of GSA’s planned capital projects over the next five to ten years.

Construction Cost Impacts

For each of the two building types, baseline construction cost estimates were developed to

reflect applicable federal design requirements, as defined in GSA’s *Facilities Standards for the Public Buildings Service* (document PBS-P100, 2003), and, for Courthouses, the Administrative Office of the United States Courts’ *U. S. Courts Design Guide*. The design standards were also used as the basis for evaluating each LEED prerequisite and credit. An analysis was performed to identify green building measures—above and beyond those included in GSA’s standards—that would likely be implemented to meet the specific LEED prerequisite and credit requirements. From these measures, cost impact estimates were developed for each prerequisite and credit, with variations defined for both the Courthouse and Office Building models. The individual credit costs were also categorized, using the following key:

1. GSA mandate (no cost)
2. No Cost/Potential Cost Decrease
3. Low Cost (< \$50K)
4. Moderate Cost (\$50K-\$150K)
5. High Cost (>\$150K)

From these individual credit assessments, overall project cost estimates were developed for 12 LEED rating “scenarios” (6 for each building type). The scenarios were defined as follows:

- *New Courthouse*. Two estimates were developed at the Certified, Silver, and Gold rating levels. At each rating level, one “low cost” and one

“high cost” scenario was defined in order to bracket the LEED costs.

- *Office Building Modernization.* Two estimates were developed at the Certified, Silver, and Gold rating levels. At each rating level, one scenario reflected a “minimal façade renovation” (window replacement, minor repairs) and the other reflected a “full façade renovation” (new cladding and façade design, new windows, new insulation). The different façade scenarios reflect one of the most significant scope variations in GSA’s modernization projects and were therefore

used as the basis for bracketing the LEED Office Building costs.

The point totals used for each rating level were as follows: 28 points for a Certified rating, 35 points for a Silver rating, and 41 points for a Gold rating. These totals are purposely 2 points higher than the LEED minimums, as it is common practice to submit additional credits to ensure that a rating is achieved (i.e., in the case that one or two credits are denied during the LEED certification process with the USGBC).

The construction cost impacts for the 12 rating scenarios are identified in Tables ES-1A and ES-1B.

TABLE ES-1A

NEW COURTHOUSE (262,000 GSF, Base Construction Cost = \$220/GSF)							
		Certified		Silver		Gold	
		1A Low Cost	2A High Cost	3A Low Cost	4A High Cost	5A Low Cost	6A High Cost
LEED CONSTRUCTION COST IMPACTS*							
	\$/GSF	(\$0.76)	\$2.18	(\$0.07)	\$9.57	\$2.97	\$17.79
	% CHANGE	-0.4%	1.0%	-0.03%	4.4%	1.4%	8.1%

TABLE ES-1B

OFFICE BUILDING MODERNIZATION (306,600 GSF, Base Construction Cost = \$130/GSF)							
		Certified		Silver		Gold	
		1B Min. Façade	2B Full Façade	3B Min. Façade	4B Full Façade	5B Min. Façade	6B Full Façade
LEED CONSTRUCTION COST IMPACTS*							
	\$/GSF	\$1.78	\$2.73	\$3.94	\$5.55	\$10.58	\$10.22
	% CHANGE	1.4%	2.1%	3.1%	4.2%	8.2%	7.8%

* Construction cost estimates reflect a reference date of October 2003 (GSA FY04) and a reference location of Washington, DC.

The construction cost estimates reflect a number of GSA-specific design features and project assumptions; as such *the numbers must be used with caution*. The cost impacts may not be directly transferable to other project types or building owners. These issues are reviewed in greater detail in the “Cost Estimate Qualifiers” section below.

Soft Cost Impacts

Soft cost impacts were defined for LEED-related tasks that were above and beyond standard GSA project requirements. Tasks were defined in two categories:

- *LEED Design Costs:* Those tasks that increase the design team's scope of work during the design and construction stages of a project
- *LEED Documentation Costs:* Those tasks associated with documenting and submitting a LEED application to the U.S. Green Building Council.

As with the construction cost analysis, soft cost impacts were defined for six Courthouse and six Office Building rating scenarios.

Soft costs were also evaluated based on two different design team approaches. In the "Expert Consultant" approach, the design team works with specialized "green building" consultants, who guide the LEED process and perform a number of LEED-specific tasks. In the "Experienced Design/Construction Team" approach, all LEED tasks are performed by the core design and construction management teams, who have previous LEED project experience.

The soft cost impacts for the twelve rating scenarios are identified in Tables ES-2A and ES-2B.

TABLE ES-2A

NEW COURTHOUSE (262,000 GSF, Base Construction Cost = \$220/GSF)						
	Certified		Silver		Gold	
	1A Low Cost	2A High Cost	3A Low Cost	4A High Cost	5A Low Cost	6A High Cost
LEED SOFT COST IMPACTS						
EXPERT CONSULTANT APPROACH (\$/GSF)	\$0.41	\$0.46	\$0.41	\$0.55	\$0.61	\$0.80
EXPERIENCED DESIGN TEAM APPROACH (\$/GSF)	\$0.43	\$0.45	\$0.44	\$0.54	\$0.56	\$0.73

TABLE ES-2B

OFFICE BUILDING MODERNIZATION (306,600 GSF, Base Construction Cost = \$130/GSF)						
	Certified		Silver		Gold	
	1B Min. Facade	2B Full Facade	3B Min. Facade	4B Full Facade	5B Min. Facade	6B Full Facade
LEED SOFT COST IMPACTS						
EXPERT CONSULTANT APPROACH (\$/GSF)	\$0.41	\$0.41	\$0.44	\$0.49	\$0.70	\$0.69
EXPERIENCED DESIGN TEAM APPROACH (\$/GSF)	\$0.35	\$0.35	\$0.38	\$0.44	\$0.59	\$0.58

As with the construction cost estimates, the soft cost estimates reflect a number of GSA-specific project assumptions. As such, *the numbers must be used with caution.*

The cost impacts may not be directly transferable to other project types or building owners. These issues are reviewed in greater detail in the “Cost Estimate Qualifiers” section below.

Cost Estimate Qualifiers

The cost impacts derived in the study are subject to a number of qualifiers, which are important in understanding how the costs may relate to other building types, building sizes, and non-GSA projects. Key qualifiers are reviewed as follows:

1. Building Program and Site Assumptions

The specific programmatic requirements of the Courthouse and Office Building play an important role in determining the applicable LEED credits and the resulting LEED cost impacts. Significantly different building types (e.g., laboratories, schools, and residential buildings) would likely develop a different overall profile of LEED credits, and might use significantly different approaches to achieve common credits.

The programmatic differences between new construction (Courthouse) and renovation (Office Building) also factor into the credit selections and resulting costs. The program for the Office Building, for example, does not include site renovation or roof replacement, based on typical GSA modernization scopes. This significantly limits the number of LEED site credits available in the Office Building model, as compared to the new construction Courthouse.

The scenarios in the study are also subject to a number of specific site assumptions (e.g., urban locations, brownfield redevelopment, no above-grade parking, large site acreage for the Courthouse based on security setbacks). As with the programmatic assumptions, these specific site characteristics determine the feasibility of a number of the LEED credits. Buildings in suburban or rural settings, for instance, would develop a different profile of credits in the Sustainable Sites category, which would result in different cost impacts in those areas.

2. GSA-Specific Design Requirements

In addition to the general programmatic and site issues discussed above, GSA’s comprehensive design criteria differentiate their projects from

many “market-rate” commercial developments. A number of GSA’s design criteria are consistent with LEED credit requirements and therefore assist their projects in earning LEED points. For the purposes of this study, these features or practices are not considered part of the LEED premium. Conversely, in a few cases, GSA’s policies and practices limit the applicability of LEED credits that might be more easily included in non-GSA projects. Some of the most significant GSA-specific criteria are listed as follows:

- *Commissioning.* GSA already requires a total building commissioning process for its projects and therefore does not consider it to be a LEED cost. For the purposes of this study, GSA’s commissioning efforts are assumed to earn both the LEED commissioning prerequisite and credit EA-3, Additional Commissioning.
- *Energy efficiency.* GSA sets energy performance targets for their buildings, which are typically more stringent than local energy codes or the ASHRAE standard 90.1-1999, which is used as the baseline in LEED. For the Courthouse, a target of 45,000 to 50,000 BTU/GSF/year was set, which translated to 1 LEED point (approximately a 17 percent improvement) under LEED credit EA-1. Similarly, the Office Building modernization started with an energy use target of 50,000 to 55,000 BTU/GSF/year, which translated to 2 LEED points (approximately a 14 percent improvement) in the minimal façade renovation case, and 3 LEED points (approximately an 18 percent improvement) in the full façade renovation case.
- *Underfloor air delivery system.* For new construction projects, GSA’s P100 (2003) encourages the use of underfloor air delivery systems in appropriate applications. In the Courthouse model of this study, an underfloor air system has been included in the base costs. The system allowed the building to earn credit EQ-2 (Ventilation Effectiveness) and assisted in earning credit EQ-6.2 (Increased Occupant Control).
- *Dedicated ventilation system.* GSA’s P100 (2003) requires dedicated outside air ventilation units for both perimeter and interior spaces. This design approach is used to provide greater

control of outside air and to maintain positive pressure in perimeter spaces to reduce the potential for moisture/condensation buildup in exterior wall assemblies. For the purposes of this study, the dedicated ventilation system was assumed to be eligible for a LEED Innovation credit.

- *Recycled-content materials.* GSA projects are required to incorporate recycled content materials, to the maximum extent feasible, as identified in the U.S. Environmental Protection Agency's (EPA) Comprehensive Procurement Guidelines (CPG). Recycled-content products listed in the CPG include concrete (with flyash or blast furnace slag), building insulations, carpets and carpet cushions, and shower or toilet partitions. The study assumes that all of the applicable CPG product types are used in the Courthouse and Office Building models, assisting the scenarios to achieve credits MR-4.1 and 4.2 (Recycled Content). It should be noted that many of the CPG products could be incorporated into non-GSA projects at no cost premium.
- *HCFC refrigerants.* LEED credit EA-4 prohibits the use of HCFCs or Halons in building-level HVAC, refrigeration, or fire-suppression systems. GSA's P100 defines acceptable HVAC refrigerants through the EPA's *Significant New Alternatives Policy* (SNAP). The SNAP alternatives currently include HCFC-22; therefore, GSA does not rule out the use of this refrigerant on any project. Because of this policy, credit EA-4 has not been included in any of the Courthouse or Office Building scenarios.
- *Green power.* LEED credit EA-6 can be earned by purchasing electricity generated from renewable resources such as wind, solar, or biomass (the credit defines the amount of electricity that must be purchased and its certification). Although GSA does purchase green power for some of its facilities, the determination is made by regional managers on a case-by-case basis. Overall, the credit was considered an operational issue outside of the scope of this study. Credit EA-6 has not been included in any of the Courthouse or Office Building scenarios.

Additional design criteria issues are reviewed in the "Individual Credit Reviews" section of the study.

3. No Programmatic Trade-offs

For the purposes of the study, no programmatic adjustments were made between the LEED and non-LEED buildings; i.e., space allocations were not adjusted, material finishes were kept consistent, glazing areas remained the same, etc. In some LEED projects, these types of programmatic trade-offs can be used to offset increases in first cost derived from high-performance building components (e.g., better quality glazings, more efficient HVAC equipment, and formaldehyde-free casework). Although this approach can be an effective means of cost control, it was purposely not pursued in the study. The intent of the study was to identify potential LEED cost impacts based on identical programmatic requirements.

The one exception to this rule that occurs in the study is in site development. As there is often a degree of flexibility to the site and landscaping programs in GSA projects, adjustments have been allowed in site paving areas, planting areas, and irrigation systems in order to achieve various LEED credits in the Sustainable Sites and Water Efficiency categories.

4. Building Size

The study has identified cost impacts for two mid-rise buildings of approximately 260,000 to 300,000 gross square feet. The scope of the study did not include an evaluation of how the costs may vary for buildings that are significantly smaller or larger than these mid-rise models. It is generally assumed that some adjustments would be required. The soft cost estimates in particular are assumed to be very sensitive to the project scale, with the \$/gross square foot (GSF) fees becoming significantly higher in smaller buildings and correspondingly lower in larger projects. The *total* dollar costs for LEED-related services are expected to level out after they cross certain "low end" and "high end" thresholds.

5. Variations in Baseline Project Costs

The building program, site assumptions, and design criteria determine the baseline project costs for the two models. The differences in the baseline costs (\$220/GSF for the Courthouse versus \$130/GSF

for the Office Building Modernization) are important to note, because they directly influence the percentage-based calculations of LEED cost impacts. For example, LEED-based measures that had similar total costs in the two projects (e.g., water-efficient plumbing fixtures, carbon dioxide sensors) have significantly different impacts as a percentage of the total project costs. It is therefore important to consider both the \$/GSF and percentage-based impacts when evaluating the overall LEED costs.

6. Costs Based on LEED Version 2.1

All credit cost assumptions are based on LEED Version 2.1, which was the current rating system at the time of the study. As LEED is a constantly evolving program, new versions are expected in the near future (versions 2.2 and 3.0 are already in progress, with projected release dates in 2005 and 2006, respectively). While the specific changes to LEED are unknown at the time of this report, it is expected that the new versions will warrant adjustments to the cost impacts derived in the study.

Because of these varying cost estimate qualifiers, simple cost extrapolations from the overall results of the study cannot be considered reliable for projects of significantly different scope or scale. However, the detailed cost breakdowns included in the study can provide a basis for other projects to evaluate LEED costs. The “apples to apples” comparisons of the Individual Credit Reviews and Cost Estimates (Section 2 and Appendices C and D) can serve as a starting point in understanding the typical scope and potential cost implications of various LEED measures. Additionally, the soft cost summaries and breakdowns included in Section 4 and Appendices G and H can provide a basis for understanding the extent and costs of LEED-related professional services.

Addressing LEED Cost Variables

The study indicates that there is an inherent degree of variability to LEED construction cost impacts. The primary factors creating this variability include the following:

1. There is no correlation between the point value of a LEED credit and its cost. There are many “no cost” and “low cost” LEED credits (such

as development density, proximity to public transportation, no irrigation systems, use of locally manufactured materials, low-VOC adhesives, low-emission carpets) that earn 1 point each. At the other extreme, the study illustrates that some credits (renewable energy, for example) can cost hundreds of thousands of dollars each—and still earn 1 point. The selection of credits used to achieve a LEED rating can therefore result in a wide range of resultant costs.

2. A range of different strategies can often be used to earn the same individual LEED credit.

Many of the LEED credit criteria are performance based rather than prescriptive. This allows design teams flexibility in defining an approach to credit compliance. Different strategies can also result in significantly different cost impacts. An example from the cost study is credit SS-6.1, Stormwater Management (Rate and Quantity), used in the Courthouse model. In the “low cost” scenarios, the credit was earned by increasing the amount of site plantings and reducing the amount of site paving. This approach actually reduced construction costs. In one of the “high cost” Gold rating scenarios, a vegetated roof system was installed as an alternative approach. The premium for the vegetated roof system was approximately \$580,000. While the vegetated roof has additional benefits and was used to earn an additional LEED credit (SS-7.2, Heat Island Reduction), it still represented a significantly more expensive approach to credit compliance.

3. The cost of some credits varies significantly based on the building type and building program.

For example, in the Office Building model, earning credit MR-7 (Certified Wood) involved a moderate cost premium (approximately \$77,000) because wood use in the building was limited (some doors and a small amount of casework). In the Courthouse model, on the other hand, the cost premium to earn the credit was almost \$600,000. The Courthouse has extensive wood finishes, including paneling, doors, casework, and fixed furnishings in the courtrooms and judges’ chambers.

4. Some credit costs vary based on region-specific or project-specific issues. Two examples illustrate this point. In some parts of the country, earning and exceeding the requirements of credits MR-5.1/5.2 (Local/Regional Materials) can be easily accomplished at no cost. In other locations, a

*These messages
are brought
to you in
partnership
with*



The Real Estate Roundtable



**Urban Land
Institute**



U.S. Green Building Council

1015 18th Street, NW, Suite 805
Washington, DC 20036

t. 202.828.7422

f. 202.828.7722

e. info@usgbc.org

w. www.usgbc.org

The USGBC's LEED (Leadership in Energy and Environmental Design) Green Building Rating System™ is a voluntary, consensus-based national standard to support and validate successful green building design, construction and operations. LEED offers third-party certification of qualifying buildings, high performance design guidelines, and professional training and accreditation services.

The federal ENERGY STAR program is a voluntary partnership among business, government and others to help organizations recognize and promote the financial value of top-performing energy-efficient products and buildings.

Indoor Quality Update, October 1996, Vol. 9, No. 10.

These and many other case studies can be found in Green Developments, a federally funded project of the Rocky Mountain Institute, 2001.

W.J. Fisk, "Health and Productivity Gains from Better Indoor Environments and Their Relationship to Building Energy Efficiency," *Annual Review of Energy and the Environment*, 25: 537-566, 2000.

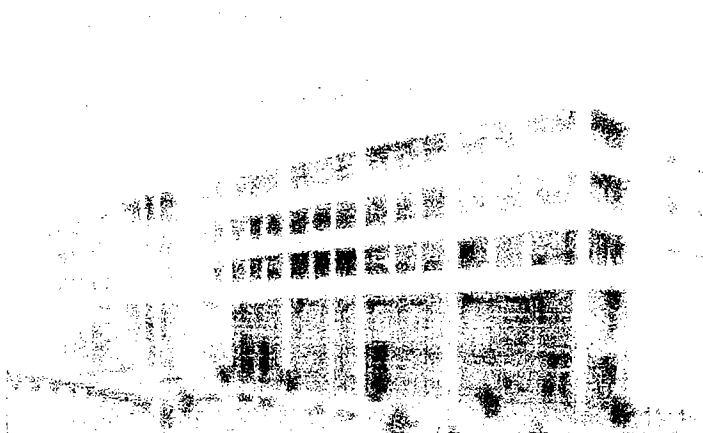
Judith Heerwagen, "Sustainable Design Can Be an Asset to the Bottom Line," *Environmental Design and Construction*, July-August 2002.

U.S. EPA, "Energy Cost and IAQ Performance of Ventilation Systems and Controls," January 2000.

Dei Williams, "Insurers Look to Wipe Clean Toxic Mold Claims," *Insurance Journal*, August 7, 2002.

David Kozlowski, "Can Green Be Gold?" *Building Operating Management*, September 2001.

*Certainly few buildings have garnered the scale of publicity of **Condé Nast's** 47-story **Four Times Square** building in Manhattan—not only for its creative array of high performance features and educational outreach efforts about the benefits of building green, but also for its record of building on time and on budget.*



“The impact of building green and the LEED Gold level certification has created local and national press in newspapers, trade magazines and TV that has truly distinguished us in the marketplace and provided us with free advertising and marketing exposure that we could not have afforded. This awareness has impacted our marketing and community relations well beyond our expectations.”

*Joe Van Belleghem
President and Chief Executive Officer
JVB Development Inc.*

*Above: The North American headquarters of **Ford Motor Company's** Premier Automotive Group in Irvine, CA, earned LEED Certification Version 2.0 in November 2001.*

Benefit Your Community

Building green is a building green initiative differentiator—for buildings, services and products. Many companies also want to demonstrate their commitment to initiatives that immediately benefit the environment, community and bottom line. A high performance green building is one of the most visible expressions of that commitment and is a timely vehicle for educating tenants, employees and shareholders about corporate values and sustainability.

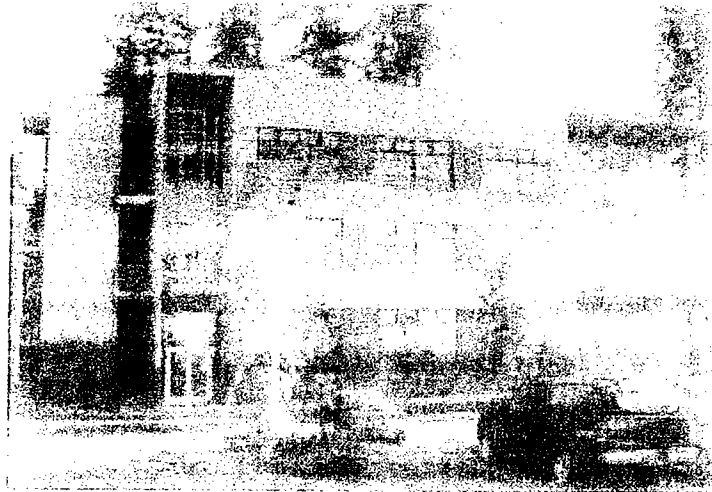
Properties that attract coverage of brown field and other infill receive attention while offering proximity to mass transit, walking, biking and shopping/ daycare services, have an automatic advantage in the race to attract top talent. They offer value to communities by reducing congestion and pollution from automobiles, by providing financial support to local transit systems and by fostering stronger neighborhoods through the creation of public spaces for civic events. In fact, many high performance buildings and their companies are welcomed as good neighbors for just these reasons.

*"High performance and ecologically-
intelligent building designs
have proven that they can deliver
tremendously profitable top line and
bottom line performances."*

*William McDonough, FAIA
Principal
McDonough + Partners*

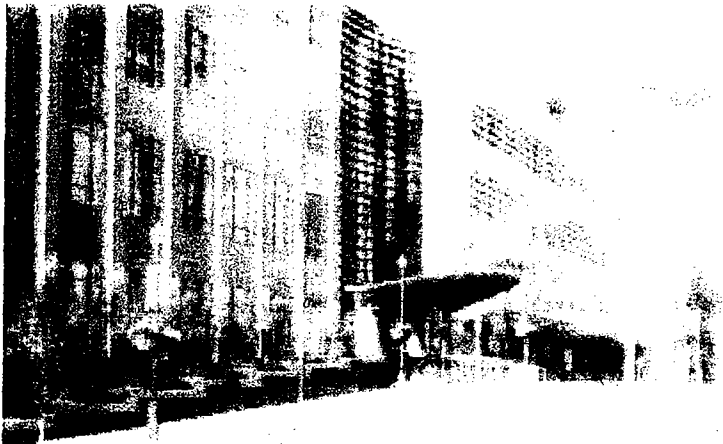
Take Advantage of Incentive Programs

With the increase in private and public benefits stemming from high performance green buildings, developers are eligible for even greater financial and regulatory incentives. New York, Maryland, Massachusetts and Oregon are on the leading edge of states offering tax credits for LEED Certified Buildings. Portland (OR) and Seattle (WA) offer grants for energy modeling, commissioning and related costs. The private Green Building Loan Fund in Pittsburgh does much the same on a loan basis. Arlington County (VA) lists preferred zoning considerations for LEED projects. Santa Barbara (CA) and Scottsdale (AZ) are some of the first jurisdictions to offer expedited permit reviews for buildings with certain high performance features. GreenSource and Kresge Foundation, provider of \$120 million in challenge grants for capital projects in 2000 is launching a leadership initiative to support design, planning and educational assistance for LEED Certified buildings.



*RTJ Partnership's Viridian Building
in Portland, OR, was awarded a
LEED Certified Version 2.0 rating on
December 11, 2001.*





"Communities benefit when corporations commit to economic, social and environmental responsibility. Our successful construction of green facilities has produced benefits for our customers, employees, shareholders and the community. We have lowered costs, increased efficiency and productivity, as well as created healthier environments in which people live and work."

Above: PNC Financial Services Group Firstside Center in Pittsburgh, PA, earned a LEED Silver Version 2.0 rating in October 2000. The 650,000-square-foot facility has received numerous awards at the local, state and national level for its role in rejuvenating a downtown section of Pittsburgh and encouraging employee use of public transportation.

Increase Property Value

Create Value for Tenants

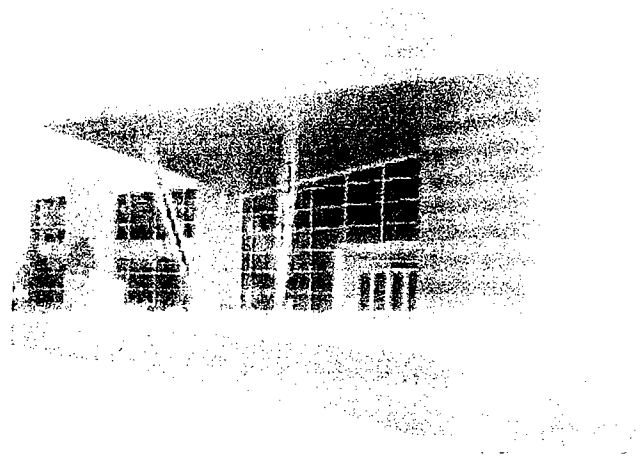
High performance fixtures translate into high value for tenants. For example, the low waste of employee relocation, which is paid for on their own, averages 25% for most commercial buildings. On average, a 100,000-sq-ft building is relocated roughly and disrupts five flexible design features combined to integrate green buildings can reduce churn costs by 90%.

Features designed to cut energy and water costs help attract tenants to the property and increase the likelihood of long-term occupancy.

According to the EPA, a tenant can save approximately 33.50 per square foot per year through no-cost management and operational strategies that cut energy use by 30 percent. The tenant's accumulated savings can represent \$50,000 or more in a five-year lease of 26,000 square feet of office space. Savings can be even higher when incorporating a variety of high performance and flexible building design components.

Pennsylvania government officials projected potential savings of \$843,750 over the life of their new LEED Gold Certified Cambria office building through flexible design technology, such as under-floor air distribution and cabling systems that cut average relocation costs by 90%.

Above, right: Herman Miller's new MarketPlace provides \$6 million in savings over what the company would have paid in a conventional 100,000-square-foot leased space. Estimated savings over the seven-year lease include a 33% reduction in building costs, a 41% cut in operating costs, and a 66% reduction in churn-related costs, resulting in total estimated operating cost savings of \$1.58 per square foot.



"We are deeply committed to sustainable architecture. Our experience has proven that these investments can also deliver significant financial returns."

*Mike Volkema
Chairman, President and Chief Executive Officer
Herman Miller*



"GSA is committed to incorporating principles of sustainable design and energy efficiency into all of its building projects. Sustainability in building design, construction and operation is fundamental to and indivisible from our core agency mission of providing a world-class workplace for the federal workers and superior value for the American taxpayer."

*F. Joseph Moravec
Commissioner, Public Buildings Service
General Services Administration (GSA)*



EPA studies indicate that indoor levels of pollutants may be two to five times higher—and occasionally more than 100 times higher—than outdoor levels. These levels of pollution are particularly notable since people tend to spend about 90% of their lives indoors.

Left: American Honda Motor Company's Northwest Regional Facility in Gresham, OR, earned a LEED Gold Version 2.0 rating in August 2002.

Reduce Liability

Clean and healthy buildings can also reduce legal claims and liabilities for the owner. *BusinessWeek's* June 5, 2000, cover story reported that "sick building" cases, often filed against building owner/operator, are becoming more and more common.

With the recent explosion in mold-related claims, insurance companies have begun to take defensive action with mold exclusion clauses and rate hikes." Some industry experts are even predicting that insurance companies will start offering lower premiums to high performance buildings."

Enhance Health and Well-Being

High ceilings and good lighting typically make workers and the busy work environment more comfortable. A new survey of 1,000 factory and office workers suggests that improvements in lighting, ventilation and acoustics, along with other features, can take advantage of various green building features to enhance worker well-being and performance. "No wonder businesses are beginning to use high performance buildings as a powerful tool for recruiting and retaining the best employees."



Above: The Steelcase wood furniture manufacturing plant in Caledonia, MI, earned a LEED Silver Version 1.0 rating in September 2001.

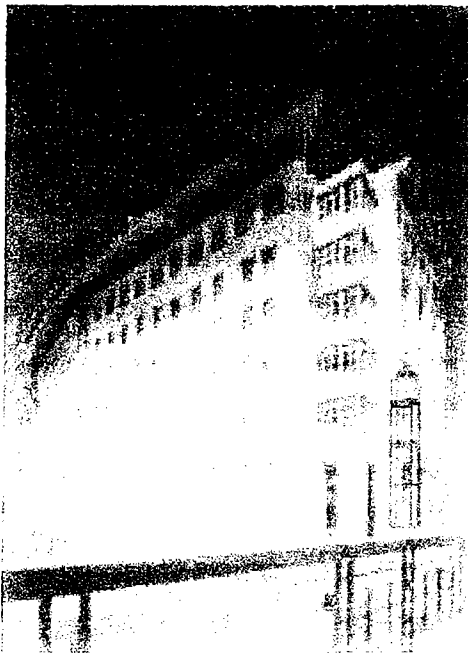
A recent Lawrence Berkeley National Laboratory study reported that feasible and commonly recommended improvements to indoor environments could reduce health care cost and work losses from communicable respiratory diseases by 9 to 20%; from reduced allergies and asthma by 18 to 25%; and from other nonspecific health and discomfort effects by 20 to 50%. The researchers also found that this would generate estimated savings of from \$17 to \$48 billion annually in lost work and health care costs.⁷

"One of our goals is to provide all of our employees with a healthy and safe work environment—whether it be in an office or manufacturing setting. This goal is exemplified in our wood manufacturing facility, the first LEED Certified manufacturing plant in the world. All paints, sealants, primers and coatings used within the plant have low VOC emissions. All paints applied throughout the building—over 24,000 gallons—are water-based. In addition, intake fans circulate fresh air throughout the building. The plant is also a tobacco-free campus."

*Jim Hackett
Chief Executive Officer
Steelcase, Inc.*

"In the design of our new headquarters, we chose to be accountable to our employees and the environment. We are also pushing for conservation of natural resources and energy in our extensive real estate investment portfolios."

*Diana Proctor
Project Manager
CalPERS*



"Using green building strategies can result in increases in occupant performance measures by 6 to 26 percent."

*William D. Browning
Founder of Green Development Services
and Senior Associate
Rocky Mountain Institute*

On average, annualized costs for personnel amount to \$200 per square foot—compared to \$20 for bricks and mortar costs and \$2 for energy costs.²

Lockheed Martin's trail-blazing 600,000-square-foot facility in Sunnyvale, CA, housing 2,500 employees is another case in point. Lockheed managers reported a 15% drop in employee absenteeism—a savings that paid for the incremental costs of the company's new high performance facility in the very first year alone.⁴

Nationwide, the value of improved productivity of office workers from indoor environmental improvements is estimated to be \$20 to \$160 billion.⁵

Left: The Whitehead Research Building at Emory University in Atlanta, GA, earned a LEED Silver Version 2.0 rating in September 2002.

Boost Employee Productivity

New investments generate greater returns than those designed to boost labor productivity.

It does. To see why, notice on a comparison of relatively operating costs for commercial buildings. Wholesome investment in soft features, such as access to pleasant views, increased daylight, fresh air and personal environment controls, can quickly translate into significant bottom-line savings for an employer.

Does available research identify the cause and effect for many of these specialized design features? Not yet. But emerging data are compelling, prompting new lines of research across the country. We can already conclude that owners and occupants will soon find that high performance green buildings provide higher quality work environment

Design for Cost-Effectiveness

High performing green buildings in addition to building owners' energy savings, also save money through reduced planning, construction, energy saving such as on-site renewable energy producing technologies, high efficiency lighting, natural daylighting, ventilation, and low-cost HVAC and other equipment.

Building owners realize significant savings during the life of a building through better materials, such as natural landscaping, water-saving equipment, low-maintenance materials, salvaged construction debris and smart building controls. With the help of these building efficiencies, green buildings can save money throughout their life cycle.

According to a 2002 EPA report, ENERGY STAR-labeled office buildings generate utility bills 40% less than the average office building. For international developer and investor Hines, efficiencies gained from its ENERGY STAR buildings are generating \$13 million in annual savings, based on a 2000 evaluation.

Right: Almost an acre of energy-generating photovoltaic panels are in operation on the roof of Arden Realty's 110,000-square-foot City Centre Office Building in Fountain Valley, CA. Arden Realty has a portfolio of 130 properties in seven major markets comprising 18 million square feet.



"We consider good energy conservation to be a sound business platform, and many of our constituencies, from Wall Street to our tenants, take note of that commitment. We own and manage almost a third of the buildings in California that are designated Energy Star by the EPA and we believe in the full deployment of on-site energy generation technologies whenever and wherever possible. It is simply good business."

*Richard S. Ziman
Chairman and Chief Executive Officer
Arden Realty, Inc.*

"It is good business to fully explore ways in which to limit environmental impact and conserve energy in the design, construction and operations phase of a building project. Our new facility in Jersey City will be state of the art."

*Timur Galen
Vice President
Goldman Sachs*



S.C. Johnson's Worldwide Headquarters in Racine, WI, incorporates green features such as personal environmental systems, a restored natural site and extensive daylighting, at a cost 10 to 15% below the U.S. average for comparable office and laboratory space. Even for projects fully loaded with high-value features, higher first costs are often recovered within the first three to five years through lower operating expenses and utility rebates for energy-saving equipment.

Left: an S.C. Johnson LEED registered project with intent to certify.

Recover Higher First Costs—If Any

Asking if a high-performance green building costs more than a conventional alternative is a little like asking which is more expensive, an efficient car or an inefficient one? The answer, of course, is that it depends on factors such as the make and model, features and driving preferences. Many green buildings cost no more to build—or even less than the alternatives—because reinforced efficient strategies often allow downsizing of more costly mechanical, electrical and structural systems.

The key is integrated design. For instance, the cost of building Johnson Controls' LEED Certified Brengel Technology Center in Milwaukee was on par with prevailing construction rates, despite numerous high-tech features like personal comfort control systems, multimedia and information tracking systems.

In April 2006, the Environment and Public Works Committee of the U.S. Senate convened a hearing to explore efforts to encourage practitioners, as well as public and private members of the U.S. Green Building Council to elevate mention of green building in public policy discussions. The hearing was moderated by U.S. Senator Christopher Dodd (D-Conn.) and featured a panel of experts in the U.S. green building movement. With a growing emphasis on economic and energy efficiency in green building, the barriers and opportunities faced, and the role of the industry and the government also invited participants to articulate the most important business reasons for redesigning and building high performance green buildings.

"We hope these concepts stimulate new thinking and spark some constructive discussions. The best sustainable designs are not just environmentally responsible. They also produce buildings where employees can thrive and productivity can soar. We call those high performance green buildings. As you can see in the next few pages, that theory is now being translated into on-the-ground and documented practice."

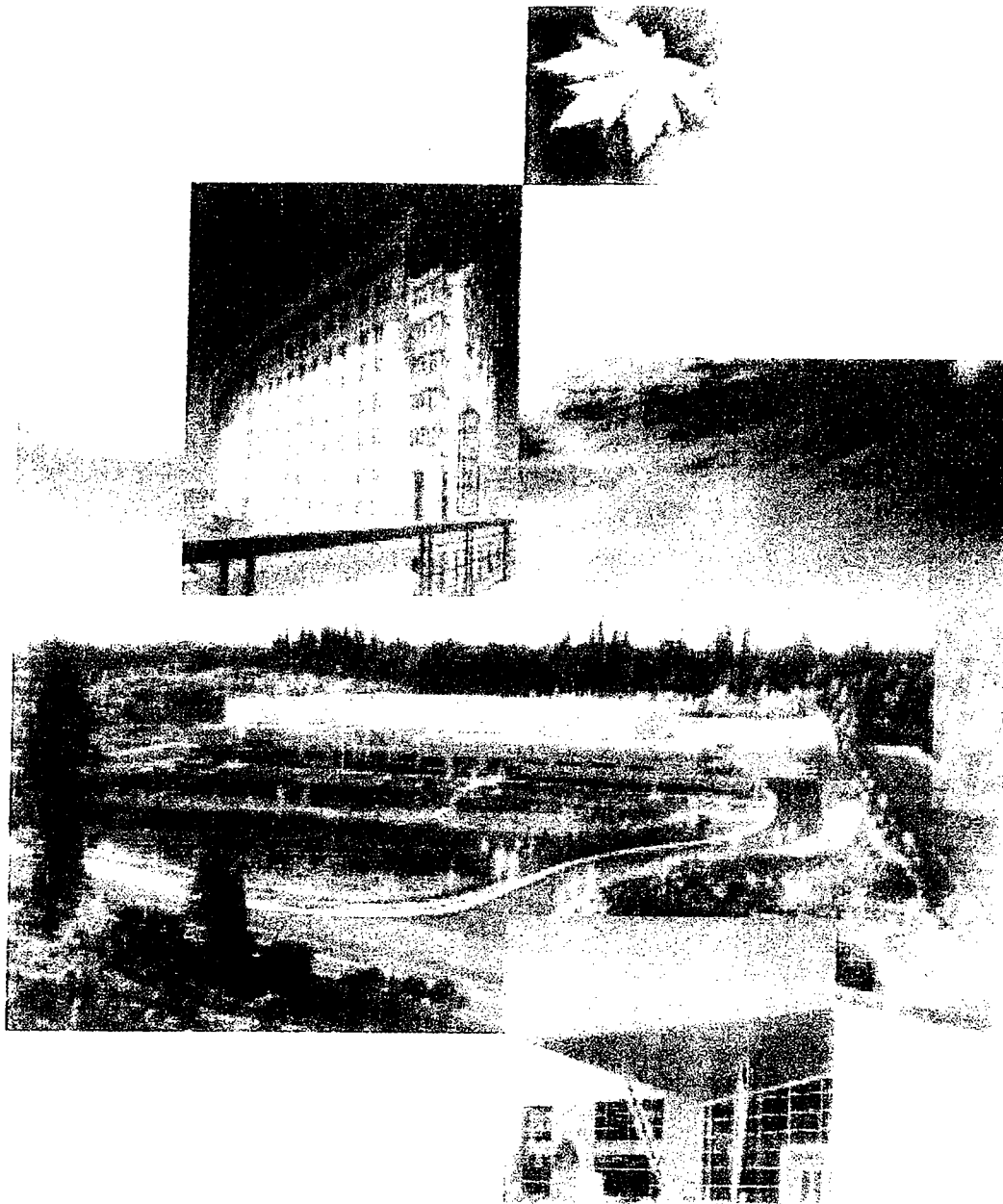
Christine Ervin
President and Chief Executive Officer
U.S. Green Building Council

"As investment builders, we have always explored and incorporated new technologies and practices to provide a better product and experience for our tenants and more value for our investors. We will continue to challenge ourselves and our clients to lead the thought process in adopting high performance standards that are both ecologically responsible and favorable to the bottom line. That's why the Senate's challenge to make this business case was both timely and compelling."

Kenneth W. Hubbard
Executive Vice President
Hines

Ten years ago, the theory of high performance "green" buildings was hard to define and the practice even more obscure. All that has rapidly changed. In just three years, 75% of all new construction projects in the United States have registered for certification under the LEED® (Leadership in Energy and Environmental Design) Green Building Rating System. From the U.S. Green Building Council (USGBC), from reflective roofs and super-efficient windows to flexible access floors and personal comfort controls, a wealth of new technologies is adding function, value and high performance to today's commercial buildings. Integrated design processes allow project teams to take full advantage of these technologies and realize the lowest cost. Thanks to LEED and other programs such as ENERGY STAR, common benchmarks, support tools and opportunities for partnering, the market demand for high performance buildings is higher than ever and public policy





Making The Business Case For High Performance Green Buildings



ATTACHMENT A
MAKING THE BUSINESS CASE FOR HIGH
PERFORMANCE GREEN BUILDINGS

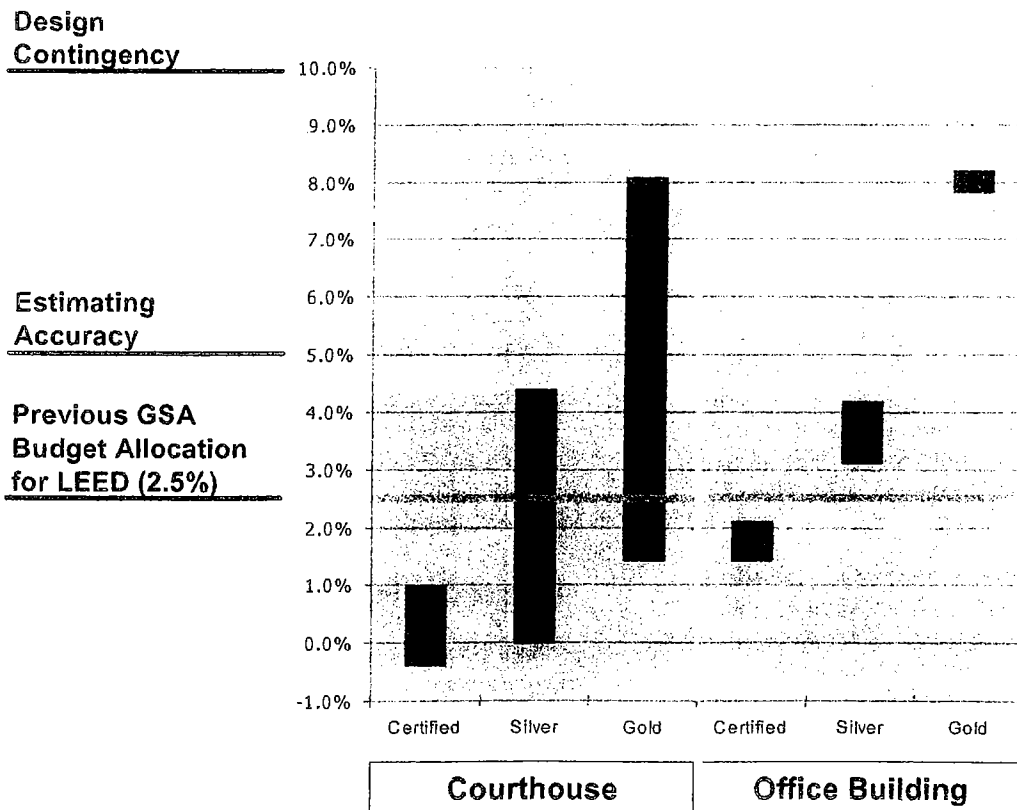
allocated a 2.5% budget increase for green building construction costs). The new budget allocation will be enough to ensure that projects can achieve LEED Certified ratings; however, project teams will be encouraged to achieve the highest level of LEED rating that is practical within the overall budget. With the revised budget allotments (which will likely vary between 2.5% and 4.0%, depending on the project), the study indicates that many Silver rated buildings should be possible, as well as occasional Gold rated projects.

The opportunity to achieve Silver ratings or higher is also supported by GSA's general project contingencies and by the accuracy allowances of the cost estimates themselves. As illustrated in **Figure ES-1**, the range of estimated construction cost

impacts for the Certified and Silver rated scenarios falls below the 5% estimating accuracy that would normally be expected of early conceptual estimates. In addition, the construction cost impacts for all of the rated scenarios, including Gold, fall below the 10% design contingency that is carried in most GSA project budgets at the concept phase. These numbers imply that in some scenarios (depending on the design solution, market conditions, and other contingency factors), a LEED rating could potentially be achieved within a standard GSA project budget (without a green building budget allowance). By including a dedicated green building allowance, the potential for GSA buildings to achieve higher LEED rating levels - with the attended benefits - is substantially greater.

FIGURE ES-1

GSA LEED Construction Cost Impacts vs. Estimating Accuracy and Design Contingency



premium may be paid to use brick, stone, or other major construction materials that are locally manufactured or sourced. A second example involves credit MR-2.1/2.2 (Construction Waste Management). Costs to earn this credit can vary significantly depending on the recycling infrastructure in the region, the experience of the contractors and construction/demolition crews, and the space constraints of the project site.

Overall, the study illustrates that when GSA projects take advantage of many “no cost” or “low cost” credit opportunities, the overall construction cost premium can be surprisingly limited, even at the higher rating levels. Under certain conditions, it is even possible for projects to show a slight cost decrease. However, when few low-cost credits are available to a project, the premiums increase significantly. The level of variability is most clearly illustrated in the Gold rating scenarios of the Courthouse model, which ranged from only a 1.4 percent premium in the “low cost” case (approximately \$3.00/GSF) to an 8.1 percent premium (almost \$18/GSF) in the “high cost” case.

By contrast, the cost premiums for the Office Modernization model showed much less variation at each rating level. This was intentional to a large degree, because the cost bracketing was based primarily on one issue (the impact of the different façade renovations) rather than on the more diverse “low cost vs. high cost” approach used for the Courthouse. The Office Building model also demonstrated, however, that when the choice of LEED credits is more limited, the cost premiums tend to be more predictable. The Office Building model had fewer credits to choose from because the scope of work did not include site renovations or roof replacement, which limited the number of applicable Sustainable Sites and Water Efficiency credits.

Beyond the issue of cost variations, the broader implication derived from the Courthouse and Office Building models is that GSA’s green building costs can be managed, and to some degree predicted, if a consistent approach is applied from project to project. A structured approach to LEED would include the following steps:

- Identify and incorporate all LEED credits that are “automatically” earned based on GSA design standards.
- Identify and incorporate those LEED credits that can be earned at no cost or minimal cost based on the particular site conditions and programmatic requirements of the project.
- Evaluate and incorporate appropriate no-cost or minimal-cost LEED credits. Examples include items such as water efficiency (plumbing fixtures) or low-emission paints, adhesives, and sealants. Many of these credits do not affect the project design but rather involve product selection and specification issues.
- Evaluate and select appropriate credits at the moderate and high-cost levels. Analysis of these credits should weigh first costs against the immediate and long-term value of the measures (e.g., lower operating costs, improved workplace environment, significant community or environmental benefits). At this level, a strong emphasis should be placed on identifying and exploiting inter-credit synergies.

An analysis of this type, performed early in the design process, can provide clear direction to a design team and help establish realistic LEED goals. In addition, the analysis can help teams identify the significant design and performance challenges for a project, which require integrated thinking and full team participation. These design-related issues often have the most significant impacts on cost and performance (e.g., approaches to daylighting, energy efficiency, stormwater management) and therefore require an early focus.

This structured approach is the basis of GSA’s *LEED Applications Guide*, the companion document to the LEED Cost Study. The *Applications Guide* provides a more detailed review of the process and issues outlined above.

Implications for GSA Projects

GSA’s P100 requires all new construction and major modernization projects to be certified through the LEED program, with an emphasis on obtaining Silver ratings. Individual client agencies may also work with GSA to pursue even higher levels of LEED certification. Using the results of the LEED Cost Study, the GSA intends to refine the amount of “sustainability” funding provided for future projects (prior to the Cost Study, GSA has

Achieve More Predictable Results

Some of life's surprises may be pleasant—but not necessarily those encountered during the design and construction process. Green building design and construction emphasizes “best of class” practices that reduce project uncertainty and risk, and enhance the final product for the customer. Green built-in emphasizes proven design and decision-making processes such as lean, iterative design, life cycle and value analysis, and energy modeling. These tools focus on the needs of the project, building, and site.

Use of green building design and construction techniques improves the certainty of project team, minimizing surprises that can lead to costly errors and ensuring delivery of buildings that perform as promised.

During the construction process, extra attention to site logistics, stormwater and waste management, use of sustainable materials, material handling and protection, and indoor air quality reduces construction impact, makes people better neighbors and leaves a building cleaner. The emphasis on commissioning in LEED Certified buildings means project teams validate that their high-performance buildings will operate as designed.

“More and more of our clients and industry partners recognize the benefits of green buildings. From our first green building, the Southern California Gas Energy Resource Center, to more than 20 projects currently LEED registered, we have seen green building move from cutting edge to mainstream.”

*Thomas C. Leppert
Chairman and Chief Executive Officer
The Turner Corporation*

“Many corporations are looking for economic returns, environmental benefits and social good from their real estate. It is more possible than ever to achieve that mix.”

*M. Arthur Gensler, Jr. FAIA
Chairman
Gensler*

"While it may be true that Wall Street looks at the returns of each quarter, in these days of diminished public confidence in corporate governance, it is becoming increasingly important that a company "gets it" in the longer term. Such a focus would consider future costs, employee well-being and our planet in general. A green building is a good way to make a long-term statement."

*James M. Seif
Executive Vice President
PPL*

In Summary:

- 1. In the event up-front costs are higher for high performance green buildings, they can be recovered.*
- 2. Integrated design lowers ongoing operating costs.*
- 3. Better buildings equate to better employee productivity.*
- 4. New technologies enhance health and well being.*
- 5. Healthier buildings can reduce liability.*
- 6. Tenants' costs can be significantly reduced.*
- 7. Property value will increase.*
- 8. Many financial incentive programs are available.*
- 9. Communities will notice your efforts.*
- 10. Using best practices yields more predictable results.*

ATTACHMENT B
DESCRIPTION OF LEED CERTIFICATION
AND LEED GUIDELINES

LEED: Leadership in Energy and Environmental Design

The LEED (Leadership in Energy and Environmental Design) Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Members of the U.S. Green Building Council representing all segments of the building industry developed LEED and continue to contribute to its evolution. LEED standards are currently available or under development for:

- New commercial construction and major renovation projects (LEED-NC)
- Existing building operations (LEED-EB)
- Commercial interiors projects (LEED-CI)
- Core and shell projects (LEED-CS)
- Homes (LEED-H)
- Neighborhood Development (LEED-ND)

USGBC member committees are actively collaborating on new and existing LEED standards. Check for periodic LEED updates.

LEED was created to:

- define "green building" by establishing a common standard of measurement
- promote integrated, whole-building design practices
- recognize environmental leadership in the building industry
- stimulate green competition
- raise consumer awareness of green building benefits
- transform the building market

LEED provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources.

www.usgbc.org

ATTACHMENT C
PRESS RELEASE: "GREEN BUILDING
BREAKTHROUGH: PORTLAND
ENGINEERING FIRM SHOWS PATH TO
ACHIEVING PLATINUM-LEED GREEN
BUILDING CERTIFICATION ON
CONVENTIONAL BUILDING BUDGET"



Green Building Breakthrough: Portland Engineering Firm Shows Path to Achieving Platinum-LEED Green Building Certification on Conventional Building Budget

Busting a key economic myth, a leading Portland building engineering firm is publishing an illustrated guide to achieving a top-rated green building on a conventional budget. Interface Engineering is releasing the book today at the GreenBuild International Conference & Exposition, the industry's major annual event, and distributing it to top architects, engineering firms, design schools and other industry leaders.

(PRWEB) November 15, 2005 -- Busting a key economic myth, a leading Portland building engineering firm is publishing an illustrated guide to achieving a top-rated green building on a conventional budget. Interface Engineering is releasing the book today at the GreenBuild International Conference & Exposition, the industry's major annual event, and distributing it to top architects, engineering firms, design schools and other industry leaders.

"Interface Engineering has achieved a green building breakthrough," said Christine Ervin, the first President & CEO of the U.S. Green Building Council and former U.S. Assistant Secretary of Energy. "Achieving such high levels of sustainability and performance at a first-cost savings will revolutionize the design of large buildings. The team has shown that top-level green design can be done with a standard budget."

Interface Engineering Inc.'s 48-page book "Engineering a Sustainable World" shares the principles and secrets behind its engineering of Portland, Oregon's "Center for Health and Healing" at the new River Campus of Oregon Health & Science University (OHSU).

The 16-story, 400,000 sq. ft. structure is on track to achieving LEED Platinum - the U.S. Green Building Council's highest ranking - upon its completion in summer 2006. It will be the first Platinum-LEED building in Portland: the most efficient, large-scale building in the Northwest and one of the greenest in the world, with a design that emphasizes the health and comfort of occupants, along with significant energy and water savings.

The net mechanical and electrical systems costs are 10 percent under the \$30 million allotted based on a conventional design.

"We're delivering champagne on a beer budget," said Andy Frichtl, Interface principal and lead project engineer. "The key to achieving more with less is integrated design. It's a different approach that means working closely and early in the process with the architect, developer, owner, and builder. Integrated design allows us to engineer individual features to serve multiple purposes, saving money and allowing for innovative solutions."

Rising on the site of a former shipyard, The Center for Health & Healing will be an anchor to a new neighborhood and the centerpiece of Oregon Health and Science University's new River Campus. The building will generate a good percentage of its own electricity. Through the engineering design, it provides:

- 61% more energy efficiency than required by Oregon code and LEED standards.
- 54% reduction in potable water use vs. a similar conventional building.
- 100% on-site sewage treatment with rainwater and wastewater being harvested for toilets and landscaping, saving 15,000 gallons a day from reaching the city's overburdened combined sewer system and cutting the owner's future water and sewer bills.
- Innovative features such as sunshades that double as solar power generators; the first large-scale on-site micro-turbine plant in Oregon to generate electricity; natural ventilation; displacement ventilation; radiant cooling; the first U.S.-use of chilled beams to replace air-conditioning in a large building; and other sustainable measures.

From the start, developer Gerding/Edlen insisted on a sustainable design that would reduce operating costs, improve occupant comfort, health and productivity, and reduce use of natural resources. Those goals meshed with the owner's mission of promoting health and the building's purpose as a mixed-use facility for wellness, medical research, clinics, surgery, and teaching.

The team realized many of its health and comfort goals as well as cost-savings by harvesting "free" resources provided by nature: harvesting rainwater that falls on the building for reuse in toilets and landscaping, allowing ample daylight and capturing the sun's energy by topping the building's 15th and 16th floors with a "Trombe wall" solar collector that assists in water heating. Conventional buildings seek to seal nature out of buildings and then rely heavily on mechanical systems to manufacture a controlled environment.

Another key factor was ample and early use of modeling - the architects and engineers modeled energy use, wind pressures, internal ventilation flow, and the movement of sunlight on the building considering current conditions and future

development of the district.

"As far as I know, this is the first book of its kind by an engineering firm," said developer Dennis Wilde of Gerding/Edlen, "Next to the architect, the engineer has the most influence over sustainable achievements. Interface Engineering is providing a service by sharing its engineering approach and allowing others to learn from the building's innovations."

Interface Engineering, Inc., which has been at the forefront of green building design in the Northwest, plans to distribute 6,000 copies of the book to architects, builders and developers, building owners, design schools and clients in an effort to spread the adoption of green building approaches. Headquartered in Portland, the company has about \$13 million in annual revenue and 110 employees in Oregon, California and Washington, making it one of the top 50 mechanical and electrical engineering firms in the U.S.

Its notable LEED-certified projects in Oregon include Ecotrust's Natural Capital Center (LEED-Gold), Clackamas High School (LEED-Silver), Marion County Courthouse (LEED-Bronze), Beaverton High School Cafeteria remodel (LEED-Certified) and Portland State's Epler Hall dorms (LEED-Silver).

Click here to request a copy of the fully-illustrated 48-page book, offered at no charge as a public service: http://www.interfaceengineering.com/portfolio/green_building/book/book_order.php

The integrated design and development team members are: owner OHSU, Gerding/Edlen Development, GBD Architects, Hoffman Construction Co. and Interface Engineering, Inc., KPFF Consulting Engineers, OTAK and Walker Macy. The total project costs are \$145 million.

To download images and a complete press kit: <http://www.interfaceengineering.com/news/press-kit.html>

###

Contact Information

Jerry Yudelson

Interface Engineering

<http://www.interfaceengineering.com>

503-382-2662

Disclaimer: If you have any questions regarding information in these press releases please contact the company listed in the press release.

Please do not contact PR Web™. We will be unable to assist you with your inquiry.

PR Web™ disclaims any content contained in these releases. Our complete disclaimer appears here.

© Copyright 1997-2005, PRWeb™. All Rights Reserved

[Terms of Service](#) | [Privacy Policy](#)

ATTACHMENT D
LEED PROJETS IN UTAH

LEED Projects in Utah

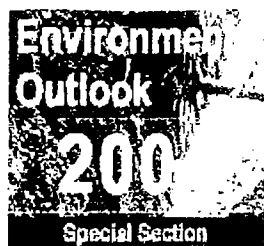
CERTIFIED PROJECTS

Olympic Speed Skating Oval – Kearns, UT (LEED 1.0 Certified)
OSHA Salt Lake Technical Center – Sandy, UT (LEED 2.0 Silver Certified)
Scowcroft Building – Ogden, UT (LEED 2.1 Silver Certified)

REGISTERED PROJECTS

Administrative Services Granite School District – South Salt Lake City, UT
Ballet West – Salt Lake City, UT
Big-D Corporate Offices – Salt Lake City, UT
Broadway Office Building – Salt Lake City, UT
Daybreak Elementary School & Recreation Center – South Jordan, UT
Draper Public Library – Draper, UT
Escalante Science Center – Escalante, UT
Granite Technical Institute – South Salt Lake City, UT
John Warnock Engineering Building – Salt Lake City, UT
Moab City Center – Moab, UT
Radius Engineering Warehouse – Salt Lake City, UT
Salt Lake City Intermodal Passenger Hub – Salt Lake City, UT
Syracuse Branch Library – Syracuse, UT
University of Utah Health Sciences Education Building – Salt Lake City, UT
U.S. District Courthouse – Salt Lake City, UT
Visitor Information Center at Daybreak – South Jordan, UT
Washington County Library – Santa Clara, UT
Westminster Health Wellness and Athletic Facility – Salt Lake City, UT

ATTACHMENT E
URS CORP. PRESS: GOVERNMENT FINDS
GOLD AT SEA-TAC AIRPORT



[Index](#)

[Surveys](#)

[DJC.COM](#)

July 27, 2004

Government finds gold at Sea-Tac Airport

By JOHN MARTIN
URS Corp.

The Seattle Terminal Radar Approach Control (TRACON) facility at Seattle-Tacoma International Airport is the first FAA project to be awarded gold LEED certification.

Gold is the second highest level in LEED's Green Building Rating System, which is a voluntary, consensus-based standard established by the U.S. Green Building Council for developing high-performance, sustainable buildings. LEED stands for Leadership in Energy and Environmental Design.

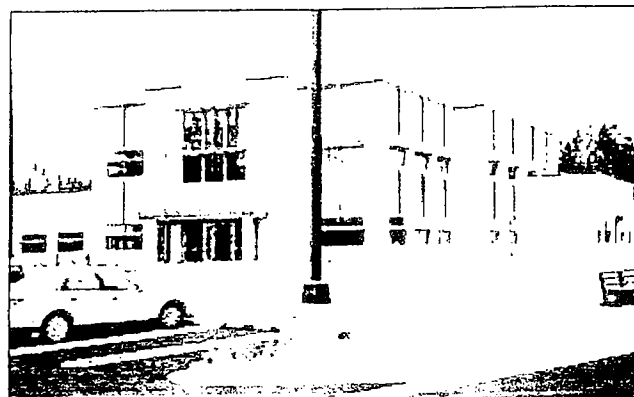


Photo courtesy URS Corp.
FAA's TRACON facility uses landscaping that is drought tolerant.

LEED provides a framework for assessing building performance and meeting sustainability goals. Based on tested scientific standards, LEED emphasizes state-of-the-art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Designed by URS Corp. and McGowan Broz Engineers (mechanical and electrical), the 51,000-square-foot TRACON facility involved extensive site work adjacent to an environmentally sensitive wetland, which made stormwater and erosion control a high priority. A large knoll in the center of the site required excavating nearly 170,000 cubic yards of soil to establish a site platform and ensure handicap-compliant access from public transportation facilities to building entryways.

The architectural design uses natural lighting, glass floors, photo sensor lighting fixtures and recycled materials. Construction methods also complied with a stringent site-specific air quality and recycling plan that resulted in 95 percent of construction waste being recycled.

Part of airport master plan

The TRACON building, which supports airport activities at Sea-Tac, is part of the airport's growth master plan. The facility provides new administrative offices, electronic/computer radar control operations, and

maintenance support spaces as part of the local and regional flight operations. The building is located west of the airport, making use of a previously developed site to minimize ground disturbance.

Specialty services provided for the project included geotechnical studies, site surveys, surface water management, access road design and electrical short-circuit studies. Also required were the design and siting of a detached generator building and prototypical guardhouse.

The design effort required the use of many sustainable concepts for all facets of the project, including site development, building materials and energy use processes. Compliance with the LEED program required efforts to be documented.

Achieving gold LEED

In order to achieve a gold LEED rating, the FAA and URS identified 14 specific design factors:

1. Use of recycled, renewable and reused building materials
2. Restricted use of toxic/hazardous building materials
3. Reduced indoor use of pollutants in building materials
4. Use of Xeriscape landscaping materials
5. Reduced site disturbance, specifically with regard to salmon habitat
6. Stormwater management of seasonal wetlands and a nearby creek
7. Water-efficient landscaping
8. Incorporating commissioning into the construction requirements
9. Measurement and verification of energy systems
10. Consideration of renewable energy sources
11. Thermal comfort of indoor occupants

The project team

URS Corp.
John Martin
project manager

Dale Anderson architect/LEED
advisor

Cindy Hirsch
civil engineer

Don Benson
landscape architect

Ahmad Asili
structural engineer

McGowan Broz Engineers
Bill Broz
mechanical engineer

Dennis Radunzel
electrical engineer

FAA
Jon Ikeda
project manager

12. Daylighting in appropriate rooms

13. Development of innovative sustainable features

14. Participation of a LEED-accredited professional

In response to these scope requirements, the project team took a proactive approach in defining opportunities to achieve the gold certification. A series of integrated team workshops was held to develop a list of specific applications, or credits, from the LEED scorecard. Participants included representatives of the user, owner and all disciplines of the design team.

Each of the LEED credits was evaluated as "easy," "moderate" or "difficult," based on the level of design effort and the construction process required to complete the credit. Items identified as easy were used and those seen as difficult were excluded. The moderate credits were reviewed and evaluated to determine which might be appropriate.

Conserving and creating energy

The best method for providing reductions in energy consumption is to make sure mechanical and electrical equipment have been sized to actual project needs and that equipment performs at optimum efficiency. This is accomplished through detailed, accurate system calculations matched to available equipment selection and the use of building commissioning to monitor and measure equipment performance. Both of those concepts were employed in the design and selection of the equipment to be used in the new buildings.

Because heavy electronic equipment with temperature and humidity controls was used, the building process loads accounted for 90 percent of the total energy-use loads. These loads are not adjustable nor can they be reduced to achieve LEED credits for the overall building energy reduction possibilities.

LEED, however, allows these energy loads to be considered as part of the baseline building requirements, which excludes them from the energy reduction calculations. The resulting energy calculations yielded a reduction in energy use of more than 10 percent over a base building scenario.

These results were achieved primarily from the use of daylighting with photocell sensors to reduce artificial lighting requirements, and displacement ventilation systems to reduce heating and cooling needs. Both systems feature individual occupant controls to maximize efficiency and improve indoor environmental quality of the occupied spaces. In addition, waterside economizers were used in the building's central chiller plant.

Preserving water and eco-system quality

The TRACON site was a residential neighborhood with single-family homes on large lots. It had minimal pavement, with one narrow, paved roadway into the interior of the property and driveways into each of the lots. The balance of the site was either left in natural growth patterns or included some landscape development.

After reviewing many other locations, the site was selected by the FAA as the optimum location for the TRACON facility. All attempts were made to protect surrounding wetlands and stormwater management features, and provide new landscaping, without hampering the physical security requirements of the occupants.

The site also offered good access to public and alternative transportation modes as well as protection of surrounding property occupants from conflict with lighting or other development features.

Limiting waste and recycling

While there was no building demolition waste, the project targeted 75 percent total salvage and recycling value from its construction materials. On-site land clearing waste was stockpiled and converted to soil and mulch. Soils removed from the site have been stockpiled offsite for use as fill for the airport's third runway. Topsoil was stockpiled on-site and re-used for plant material beds.

Products made of recycled content were specified for future use if they met the operational and functional requirements of the user. Through selection of many of the building materials, innovative concepts were used to make some of the materials serve purposes other than those typically associated with sustainable design.

Enhancing indoor air quality

Extended building commissioning and monitoring systems, as well as increased ventilation and thermal comfort controls, were used to verify that the quality of the air and temperature in occupied areas were healthy. Low VOC paints, adhesives, carpets and wood products improve these conditions by limiting the quantity of materials that can cause respiratory problems.

A psychological improvement to worker environments also is produced through access to exterior windows and direct line-of-sight visibility to windows.

LEED project results

The actual results accomplished have been documented and accepted by the USGBC as part of the LEED documentation review. Final tabulated results included:

- 33 percent water use reduction
- 14 percent energy savings
- 91 percent construction waste diversion
- 129 percent weighted average recycled content materials
- 49 percent locally fabricated manufactured materials
- 60 percent FSC-certified wood products
- 80 percent daylit spaces
- 91 percent exterior view spaces

These totals in most cases substantially exceeded the recommended levels of performance by the LEED guidelines, resulting in exemplary points being awarded as part of the innovation and design process.

While most government agencies use silver certification as the basis for their projects, the FAA made a commitment to achieve a higher standard to show what could be accomplished if the LEED process was followed from the beginning.

In addition to achieving gold certification, the project was completed ahead of schedule and within budget.

John Martin is a project manager with URS Corp. in Seattle.

Other Stories:

- Conditional closures — another cleanup remedy
- 2004: A great year for the local environment
- Getting to compliance with a systems approach
- Don't let your site be taken to the cleaners
- Salmon get a boost from technology
- Low-impact development comes to Pierce County
- Energy Star label now ready for homes
- Improving traffic flow for fish, people
- Troubling times for Hood Canal's waters
- Quick Duwamish cleanup begins with teamwork
- Contractor finds silver at new headquarters
- Guy Battle: design and build to suit your climate
- Washington tests watershed management
- Todd Pacific halts a dirty waterfront legacy
- Going green? Try calling on your contractor
- Emerald City must fight to stay green
- Seattle prepares to 're-green' 2,500 acres

- Washington's new paint law gets the lead out
- Putting a price tag on nature
- South Lake Union: a model for sustainability
- Utilities to study energy coming into homes

Find:

With: all of the words

In: All news

Depth: Last 7 days

Sort by: Score

[Top](#) | [Back](#) | [Environmental Outlook 2004](#) | [DJC.COM](#)

Copyright © 2003 Seattle Daily Journal and DJC.COM.
Comments? Questions? [Contact us](#).

Cost of High Performance Building:

First costs (initial design and construction costs) of green buildings will vary significantly depending on specific project goals. While many significant design opportunities can be implemented at no additional cost (e.g., proper solar orientation, south facing windows), some features will cost more initially, both in design and material costs (e.g., high efficiency HVAC and lighting systems, thermally selective windows to reduce heat gain) but will provide an economic return over time. Higher initial costs can be recovered through lower energy, water, materials, and waste management expenses; improved health and productivity of occupants; and longer use of buildings and materials.

The architectural and construction communities estimate that additional design and construction costs for implementing green building practices through the LEED rating system could be as low as 0-3% for LEED Certified, to 10% or more for higher LEED ratings (Silver, Gold, or Platinum). In addition, the stage at which the LEED criteria are introduced into the design process can significantly affect the magnitude of additional design and construction costs. The earlier LEED is introduced, the less costly the project. This has been documented with hard data from the first 100 buildings nationwide that are currently certified.

"The Cost and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force" (Exhibit 2) issued in October of 2003 provides a recognized and trusted cost-benefit analysis.

The report looked at 33 LEED certified or registered buildings in 12 states. The report found that the average increased cost of building to LEED standards was just below 2%.

Level of LEED Certification	No. of Buildings	Average Green Cost Premium
Level 4 – Platinum	1	6.50%
Level 3 – Gold	6	1.82%
Level 2 – Silver	18	2.11%
Level 1 – Certified	8	0.66%
Average	33	1.84%

Source: USGBC, Capital E Analysis

One year later, the US General Services Administration (GSA) published the *"GSA LEED Cost Study."* The GSA is one of several federal government agencies that require USGBC certification in all building projects. The GSA study reviewed two types of buildings: a new mid-rise federal courthouse and modernization of a mid-rise federal office building. These building types make up the bulk of GSA facility projects. The GSA study found similar cost estimates for high performance construction as the California study, but went on to look at the soft costs of LEED certification. High performance cost estimates stated in the GSA study were similar to the California study, but included an additional analysis of LEED certification soft costs.

Two types of soft costs were included in the GSA study: 1) “LEED Design Cost: Those tasks that increase the design teams’ scope of work during the design and construction stages of a project;” and 2) “LEED Documentation Costs: Those tasks associated with documenting and submitting a LEED application to the U.S. Green Building Council.”

Estimated soft costs in the courthouse analysis ranged from an increase of \$0.41 per gross square foot (GSF) to \$.80 per GSF. Using these figures the soft costs of a 262,000 GSF Courthouse with a base construction cost of \$220 per GSF would range from an additional \$107,420 to \$209,600.

Estimated soft costs in the office building modernization analysis ranged from a \$0.35 per GSF increase to \$0.70 per GSF increase. These costs increase to a 306,600 GSF office building project are similar to those of the courthouse.

Specific programmatic requirements of different buildings can have a profound impact on the cost of high performance building. The GSA study warns that the estimated costs may not reflect the cost of a high performance buildings in other agencies or regions of the Country.

The Salt Lake City Intermodal Hub (The Hub) is the first Salt Lake City owned and operated building that will be LEED Certified. Based on information from The Hub’s consulting engineers, a LEED building averages 20-25% in energy savings over standard construction. In the case of the Hub, this means a 10-year payback for the extra cost of construction using the LEED rating system and certifying the project with the USGBC.

The estimates for The Hub do not take into account intangibles such as increased human comfort, construction waste reduction, reduced impact on regional water infrastructure, and reduced energy usage by well-designed landscaping.

The USGBC expects that the cost of green building will continue to decrease as more buildings are built to LEED standards, pushing the market for sustainable building practices.

Building Code Conflicts:

1. The most obvious and significant conflict for the City is in the International Plumbing Code (IPC), as the LEED design manual awards significant points for the re-use of gray water (waste water from sinks, showers, tubs, and washing machines). However, the State Plumbing Code is amended such that gray water systems are not approved. Another example is waterless urinals and composting toilets; both garner points for LEED design but neither are approved in the State Plumbing Code.
 - a. A good example of conflicts with the IPC is the Salt Palace Expansion. Based upon the goal of a 'Gold Level' LEED building, and taking into consideration that points can be scored from only certain categories, waterless urinals were required to gain the points necessary. Waterless Urinals are not approved per the IPC.
2. Other conflicts with the State Codes are more esoteric and harder to identify, for example, the issue of listed and approved systems/products required by the ICC. Many innovative designs that can gain points towards a high-level LEED building design are not products listed through an approved listing agency. This includes some innovative roofing material designs and structural exterior wall designs. A sod roof is one example; an exterior wall composed of straw bales or adobe, either rammed earth or non-fired adobe blocks, is another. Another example may be innovative energy-saving devices such as photovoltaic collectors and energy storage systems.

The best solution to the conflicts would be to exert influence at the State level, including legislation allowing any entity designing and building to LEED standards to be exempt from any pertinent State Codes that prohibit the use of products/materials not approved by the State's technical codes.

ATTACHMENT F
PORTLAND DEVELOPMENT COMMISSION:
GREEN BUILDING POLICY PROGRAM
GUIDELINES

PDC

PORTLAND DEVELOPMENT COMMISSION

Green Building Policy Program Guidelines

Adopted by the PDC Board of Commissioners

June 22, 2005

Resolution #6262

Green Building Program Guidelines

A. Description

The PDC Green Building Program ("Program") requires developers receiving financial assistance from the Commission — and direct Commission funded construction projects — to integrate green building practices into construction projects and meet established Leadership in Energy and Environmental Design ("LEED") standards.

B. Authority

1. Resolution Number 36310 adopted by the Portland City Council on April 27, 2005, amending the Green Building Policy adopted by the Portland City Council on January 10, 2001, requires the Portland Development Commission to enforce certain development standards when providing financial assistance to various projects.
 - a) These Program Guidelines ("Guidelines") are intended to implement the responsibilities assigned to the Commission by the City Council in these actions.
 - b) Definitions contained in the City Green Building Policy (BCP-ENB-9.01) are hereby included by reference in these Guidelines.
2. The PDC Board of Commissioners by adoption of Resolution #6262 on June 22, 2005 adopted these Guidelines.

C. Development Projects Subject to These Guidelines

1. A project receiving PDC financial assistance in an amount:
 - a. $\geq$ 10% of the total project cost; **AND**
 - b. $\geq$ \$300,000

NOTE: "PDC financial assistance" shall include any:

- Loan or grant of funds directly provided by PDC.
 - Indirect financial benefit provided by PDC as the result of writing down the value of land.
2. These Guidelines further apply only to the construction or rehabilitation of a building or structure that is $\geq$ 10,000 square feet in total area **and** is part of a project meeting the criteria in Section C-1.

D. Types of Construction Within a Qualifying Project Subject to These Guidelines

1. **New Construction** — new buildings or structures for the following uses:
 - a. Commercial / Mixed-Use
 - b. Residential

c. City-Owned Buildings

2. Rehabilitation Construction — an existing building or structure that is modified, renovated or remodeled; including tenant improvements, and intended for the following uses:

- a. Commercial / Mixed-Use
- b. Residential
- c. City-Owned Buildings

E. Individual Project Requirements

New Construction	
Development Type	Green Building Standard Required
• Commercial / Mixed-Use	LEED NC ("New Construction") Silver Certification
• Residential	Greening Portland's Affordable Housing (ALL)
< 5 stories of the structure	Earth Advantage Green Certification
= 5 stories	Earth Advantage Green or LEED NC Silver based on the particular configuration of entire building
> 5 stories	LEED NC Silver Certification
• City-Owned Buildings	• LEED NC Gold Certification • "Ecoroof" or "Energy Star" approved roofing material • Operations & maintenance according to guidelines established by the Bureau of General Services

Rehabilitation	
Development Type	Green Building Standard Required
• Commercial / Mixed-Use	
o Full-building	LEED NC Silver Certification
o Partial-building	LEED CI ("Commercial Interiors") Silver and/or
o Tenant improvements	G-Rated Tenant Improvement Guide Certification
• Residential	Greening Portland's Affordable Housing (ALL)
< 5 stories of the structure	Earth Advantage Green Certification
= 5 stories	Earth Advantage Green or LEED NC Silver based on the particular configuration of entire building
> 5 stories	LEED NC Silver Certification
• City-Owned Buildings	• LEED Commercial Interiors (CI) Silver Certification; OR • G/Rated Tenant Improvement Guide Certification

F. Good Faith Deposit

In all financial assistance agreements where compliance with these Guidelines is required and not otherwise exempted, the developer will be required to provide PDC

with a deposit in the amount of \$10,000 and in the form of either a cashier's check or promissory note, as determined by the project manager, as security that the developer will make a good faith effort to comply with these Guidelines ("Good Faith Deposit").

1. The Good Faith Deposit will be returned if and when PDC has determined the developer has "complied" with these Guidelines.
2. The Good Faith Deposit will be forfeited to PDC if the developer is determined to be "non-compliant" with these Guidelines

G. Compliance

1. **Progress Reports.** According to a schedule agreed to by both parties in the financial assistance agreement, the developer shall submit an up-dated *LEED Checklist* and any additional supporting documentation to PDC indicating:
 - a. The progress towards meeting requirements of these Guidelines.
 - b. The likelihood that requirements will be met or exceeded.
 - c. Any issues or circumstances that may prevent the developer from meeting requirements.
2. **Final Report.** Within five (5) business days of receiving notification of LEED certification approval or denial, the developer shall notify and submit to PDC evidence of
 - a. LEED Certification approval; **OR**
 - b. LEED Certification denial.
3. **Determination**
 - a. If the developer's required certification is approved, the developer will be deemed to have "complied" with these Guidelines and the Good Faith Deposit will be returned.
 - b. If the developer's required certification is denied, the developer will be deemed to be "non-compliant" with these Guidelines.

H. Non-Compliance Request for Waiver

If a developer's request for certification is denied by LEED, the developer may, within 10 (ten) business days of receiving such notice, submit to PDC a "Request for Waiver" from required compliance with these Guidelines based on the "good faith effort" made by the developer to comply.

1. A *Request for Waiver* must contain:
 - a. The following documentation appropriate to the type of construction.
 - i. **Commercial:** Final LEED certification application, documentation and response from U.S. Green Building Council.
 - ii. **Residential:** Final LEED certification application, documentation and response from certification agency(s).

- b. An explanation of the efforts and accomplishments made by the developer to achieve compliance with these Guidelines.
 - c. An explanation of the practical or economic infeasibility of implementing certain green building design or construction techniques that if implemented would otherwise have likely resulted in certification.
 - d. Any other supporting documentation or information the developer wishes to submit.
2. Within 30 (thirty) days of receiving the *Request for Waiver*, the PDC Executive Director shall make a determination as to whether a Waiver should be approved or denied based on the good faith effort the developer made to comply with these Guidelines.

In order to establish the developer's good faith efforts, the documentation and information submitted by the developer with the *Request for Waiver*, and any other information obtained by PDC from the developer during design and construction, must establish that the developer:

- a. Complied with the LEED certification application process;
 - b. Submitted timely progress reports to PDC;
 - c. Undertook reasonable, appropriate and on-going efforts to obtain certification; **and**
 - d. That compliance would otherwise have been obtained but for the practical or economic infeasibility of implementing certain green building design or construction techniques.
3. If a *Request for Waiver* is approved by the PDC Executive Director, the developer will be relieved from meeting the requirements of these Guidelines, and the Good Faith Deposit returned to the developer.
4. If a *Request for Waiver* is denied by the PDC Executive Director, the developer will be deemed to have not made a "good faith effort" to meet requirements of these Guidelines and shall forfeit the Good Faith Deposit to PDC

I. Exemptions

1. **Programs.** The following programs are categorically exempt from these guidelines due to the generally small amount of financial assistance provided by the Commission.
- a) Storefront Improvement Program
 - b) Neighborhood Housing Program
- will be exempt from meeting Green Building Standards otherwise required in Section E of these Guidelines, except Greening Portland's Affordable Housing
2. **Affordable Housing Project.** A project otherwise required to follow these Guidelines, but where at least 51% of housing units are either:
- a) rental housing affordable to households at 60% area Median Family Income and have a regulatory agreement with PDC; and/or

- b) ownership housing in which sales prices are no greater than 95% of the Multnomah County average sales price **and** homebuyer incomes are no greater than 100% of the area median income.

c) **Definitions.**

- (i) **Median Family Income:** Area median income is established annually by the U.S. Department of Housing and Urban Development, or its successor agency, and applies to the year of sale for ownership units, and applies annually during the period of the PDC affordability agreement for rental units.
- (ii) **Sales Price:** a price which does not exceed 95 percent of the Federal Housing Administration mortgage maximum for a single unit in the Portland Metropolitan area as established annually.

will be exempt from meeting all Green Building Standards otherwise required in Section E of these Guidelines, except Greening Portland's Affordable Housing

3. **Individual Projects.** A project otherwise required to follow these Guidelines may be exempted from program requirements subject to the following.

a) **Exemption Criteria.** The project developer must demonstrate that complying with these Guidelines,

- (i) would burden the project with extraordinary costs affecting the economic feasibility of the project; **OR**
- (ii) is not reasonably feasible due to unique construction or reconstruction circumstances of the project.

b) **Exemption Process.**

- (i) The developer must request an exemption in writing, and provide an explanation and provide any supporting documents necessary to demonstrate the need for an exemption.
- (ii) The request is reviewed by PDC staff in consultation with the Portland Office of Sustainable Development to assess the request for exemption and make a recommendation to the PDC Board of Commissioners.
- (iii) The exemption must be approved or denied by the PDC Board of Commissioners.
- (iv) If an exemption is granted, the developer must agree to:
 - Integrate green building practices into the design and construction of the project to the maximum extent possible and feasible.
 - Provide PDC with reports during construction on the effort to incorporate green building practices into the project.

J. Administration of Guidelines

- 1. **Administrator.** The PDC Executive Director, or designee, shall be responsible for the administration of these Guidelines.

2. **Changes.** The PDC Executive Director is authorized to change or revise these Guidelines as necessary to remain current with City of Portland Green Building Policy, or implement changes to improve the administration, effectiveness or practical application of the PDC Green Building Policy.
3. **Disputes.** The Executive Director is authorized to resolve any dispute arising from the application, administration or enforcement of these Guidelines, with the exception of the PDC Board of Commissioner's decisions regarding the issuance of an exemption.

Approved: PDC Board of Commissioners; Resolution #_____

Date: June 22, 2005

**6. PLANNING COMMISSION MINUTES FOR
DECEMBER 14, 2005 AND JANUARY 25, 2006**

Petition No. 400-05-38, by Mayor Anderson to create a High Performance Building Ordinance requiring that applicable building projects constructed with Salt Lake City funds obtain a Leadership in Energy and Environmental Design (LEED) "Certified" designation from the United States Green Building Council.

At 8:08 p.m., Chairperson Noda introduced Petition No. 400-05-38, Lisa Romney, Environmental Advisor to the Mayor, and Orion Goff, Director of Building Services and Licensing. All presentations and attachments for this petition have been made a part of this record. The Salt Lake City Mayor has requested the Planning Commission to review and forward a recommendation to the City Council regarding a proposed ordinance requesting compliance and certification to Leadership in Energy and Environmental Design (LEED) rating system prepared by the United States Green Building Council (USGBC). The proposed ordinance would apply to Salt Lake City-funded projects of 10,000 square feet of occupied space or larger.

The primary purpose of the proposed ordinance is to ensure that projects utilizing City funds are built to high performance building standards with respect to energy, water, and material resource conservation; thereby increasing the health and comfort of the occupants of the building.

In July 2005, Mayor Anderson signed an Executive Order requiring City-owned and -operated new construction or major renovation projects be built using the LEED-NC rating system. Prior to the Executive Order, the Mayor and City Council have instigated a number of ordinances and policies, such as walkable communities, recycling programs, E2 business promotion, Street Lighting Master Plan, and Transit Oriented Development. The High Performance Building ordinance helps the City reach these overall goals.

LEED encompasses design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in five broad areas:

- Sustainable site planning;
- Safeguarding water and water efficiency;
- Energy efficiency and renewable energy;
- Conservation of materials and resources; and
- Indoor environmental quality.

LEED is considered the best tool for state-of-the-art high performance building design and construction. USGBC LEED certification is the only way to document high performance building components, ensure maximum energy efficiency in buildings, and receive recognition for sustainable and innovative building design practices. Within LEED there are rating levels of Certified, Silver, Gold, and Platinum that are based on implementation of a range of activities and achievement of points.

The use of the LEED rating system has penetrated 5% of the private market and 15% or more of public building projects. As of May 2005, 2,000 buildings have been registered with the USGBC for certification. An additional 216 buildings have completed certification and are rated as Platinum, Gold, Silver, or Certified.

The USGBC determines the certification levels based on verified total points earned. The system is designed to be comprehensive in scope, yet simple in operation. Award levels are based on the number of points achieved:

LEED Platinum: 52-69 points
LEED Gold: 39-51 points
LEED Silver: 33-38 points
LEED Certified: 26-32 points

Based on research conducted by the USGBC, buildings in the United States account for:

- 36% of total energy use and 65% of electric energy consumption;
- 30% of raw materials use;
- 30% of waste output or 136 million tons of waste annually;
- 12% of all drinking water consumption; and
- 30% of greenhouse gas emissions.

In 2001, the Salt Lake City Mayor's Office and Planning Division launched the High Performance Building Initiative. The goal of the Initiative was to review each of the chapters and credits in the LEED rating system and create additional credits that would address specific resource constraints. The intended outcome was to produce a Salt Lake City LEED-Plus guideline to be adopted and administered locally. The resulting High Performance Building Initiative document was lengthy and required a considerable amount of revision and editing before it could be implemented. The City lacked the required funding, and the project was put on hold.

Due to the local community's experience with LEED and the reduced need for local administration by adopting the USGBC LEED rating system, it is appropriate that the City adopt the LEED rating system instead of the Salt Lake City LEED-Plus rating system, as originally intended.

Staff has determined that the proposed ordinance to use the LEED rating system in City-funded construction projects of 10,000 square feet or larger is consistent with the existing adopted Master Plans, policies, and resolutions, and furthers their implementation. Therefore, Staff recommends the Planning Commission transmit to the City Council and the Mayor a favorable recommendation to approve the proposed ordinance with the following modifications:

- Include a \$10,000 "good faith" deposit from all private sector developers who receive City funds for construction of buildings 10,000 square feet or larger;
- Require the use of the following standards in the review of requests for exceptions:
 - Literal enforcement of the LEED ordinance would cause unreasonable hardship for the applicant that is not necessary to carry out the general purposes of the LEED ordinance;
 - The exception would not have a substantially negative affect on the Master Plans, policies, and resolutions of the City and would not be contrary to the purposes of the LEED ordinance;
 - The exception would not be granted if economic hardship is determined to be self-imposed; and
 - Determine whether exceptions should be decided and granted by a Procurement Officer or a Board appointed by the City Council.
- Require City-owned buildings to achieve a LEED Silver rating rather than just the LEED Certified rating mandated for City-funded projects

LEED Certified projects located in Utah include:

Olympic Speed Skating Oval – Kearns, (LEED 1.0 Certified)
OSHA Salt Lake Technical Center – Sandy, (LEED 2.0 Silver)

Scowcroft Building – Ogden, (LEED 2.1 Silver)

At this time, an additional 21 Utah building projects are registered with the USGBC, including the Big-D Construction corporate office building located at 400 South 400 West in Salt Lake City.

The Salt Lake City Intermodal Hub (The Hub) is the first Salt Lake City owned and operated building that will be LEED Certified. Based on information from The Hub's consulting engineers, a LEED building averages 20-25% in energy savings over standard construction. In the case of the Hub, this means a 10-year payback for the extra cost of construction by using the LEED rating system and certifying the project with the USGBC.

Mr. Goff continued the presentation and answered questions from the Planning Commissioners concerning (1) the integration of LEED requirements into the current State Codes, (2) ASHRAE – the global leader in the sciences of heating, refrigeration, ventilation and air conditioning, (3) the advantages of adopting the proposed ordinance versus adopting a more rigorous ASHRAE Standard, (4) LEED standards that would potentially guide, educate, and provide certification for a recognized standard, (5) Salt Lake City Airport's status regarding adoption of the LEED's ordinance, and (6) specific LEED guidelines for adoption dates for any City updates on related codes.

At this point Commissioner De Lay disclosed that she had received a call from Greg Hughes, State Legislature and another developer, Mr. Anderson regarding this ordinance. Their questions regarded the RDA process and the involvement of the RDA and the Library if the ordinance is adopted. Ms. Romney stated that the RDA and Library are not included in the LEED ordinance. A presentation will be given to the RDA with this ordinance, but the RDA is excluded from the adoption presently.

Hearing no further comments, Chairperson Noda opened the public hearing to comments from the public.

Mr. Soren Simonsen, past President of the American Institute of Architects addressed the Commission in favor of the ordinance. He reviewed the letter that he presented to the Commissioners and is made a part of this record.

Chris Clark, Acting Chair of the United States Green Building Council for Utah addressed the Commission, and Garth Shaw, architect with GSP Architect and LEED project manager for six LEED projects in Utah, are in favor of the ordinance.

Seeing no one else wishing to speak, Chairperson Noda closed the Public Hearing and the Commission went into executive session.

The Commissioners questioned and talked through a lack of incentives for the private sector, current certification of City employees, education and public awareness seminars, why this ordinance was presented to the Planning Commission and what it had to do with land use.

The Commissioners were in favor of expedited City permits as an incentive. Ms. Romney stated that the City Attorney did not include incentives for the public and indicated that incentives could be addressed as the project progressed. Mr. Ikefuna indicated that the Commissioners could add incentive language for the private sector when the motion is made. Mr. Ikefuna explained that anything having to do with an ordinance must be reviewed by the Planning Commission.

Commissioner De Lay wished to add an amendment that would encourage private developers, builders and citizens who are building new constructions or remodeling and not using Salt Lake City monies, to use and complete LEED certifications on any new projects. Salt Lake City would encourage green building to private citizens obtaining the LEED Certification with incentives deemed practical by the City; e.g., a faster permitting process. These encouragements would be in place within 6 months of Salt Lake City accepting LEED Certification and enacting the LEED Certification program for new construction with City money.

Motion for Petition No. 400-05-38:

Commissioner Chambless moved that the Planning Commission transmit a favorable recommendation to the Mayor and the City Council to approve the proposed ordinance with the modifications specified in the staff report. An amendment is included to encourage the LEED certified private sector to follow green building with incentives deemed practical by the City; e.g., a faster permitting process. These incentives would be in place within 6 months of Salt Lake City accepting and enacting the LEED Certification program for new construction with City money. Commissioner De Lay seconded the motion. Commissioner Chambless, Commissioner De Lay, Commissioner Diamond, Commissioner Forbis, Commissioner McDonough, Commissioner Muir, and Commissioner Scott voted "Aye". Commissioner Galli, Commissioner McDonough, and Commissioner Seelig were not present. As Chair, Chairperson Noda did not vote. The motion and amendment passed.

**SALT LAKE CITY
PLANNING COMMISSION MEETING
In Room 326 of the City & County Building
451 South State Street, Salt Lake City, Utah
Wednesday, January 25, 2006**

Present from the Planning Commission were, Chairperson Laurie Noda and Vice Chairperson Peggy McDonough, and Commissioners Tim Chambless, Babs De Lay, John Diamond, Robert Forbis, Craig Galli, Prescott Muir, Kathy Scott and Jennifer Seelig.

Present from the Staff were Alexander Ikefuna, Planning Director; Doug Wheelwright, Deputy Planning Director; Marilynn Lewis, Principal Planner; Wayne Mills, Senior Planner; and Cindy Rockwood, Acting Planning Commission Secretary.

A roll is kept of all who attended the Planning Commission Meeting. Chairperson Noda called the meeting to order at 5:47 p.m. Minutes are presented in agenda order and not necessarily as cases were heard by the Planning Commission. Audio recordings of Planning Commission meetings are retained in the Planning Office for an indefinite period of time.

A field trip was held prior to the meeting. Planning Commissioners present were Tim Chambless, Kathy Scott, and Jennifer Seelig. Planning Division Staff present were Doug Wheelwright and Marilynn Lewis.

APPROVAL OF MINUTES FOR WEDNESDAY, January 11, 2006.

(This item was heard at 5:48 p.m.)

Chairperson Noda asked for a motion to approve the minutes of January 11, 2006.

Commissioner Scott requested a correction to page ten of the minutes in the last paragraph. The change is noted below:

Commissioner Seelig and Chairperson Noda voiced their displeasure with the lack of communication with the Salt Lake City Redevelopment Agency. They asked Staff to do something to address the issue of lack of coordination with the agency.

Commissioner De Lay requested changes to page one through two, with reference to the Moss Courthouse project. She requested that the discussion with regards to "taking" the property be addressed within the minutes. Changes are as follows:

Mr. Wentworth explained that they are anticipating completion of the design process in about 1 ½ years. The site is a ½-block site to the west of the existing Frank E. Moss Courthouse bounded by Main Street and West Temple, and 400 South and Market Street. The existing Oddfellow Building on the site would be moved to the north side of Market Street and the existing Shubrick Building will be demolished.

Commissioner De Lay questioned the demolition of the Shubrick Building.

Mr. Camp stated that legislation had been passed for GSA to acquire the building and demolish it. The formal taking of the building was given to GSA although they disagreed with the suggestion. A driving force of the decision was politics.

Commissioner Muir noted a change on page four, in regards to the third paragraph. It should state the following:

*Commissioner Muir asked if the purchase would render the rear yard of the house to the south non-conforming because of the compatibility and the 40 percent **coverage** requirement.*

With the following changes, a motion was made by Commissioner De Lay to approve the minutes. The motion was seconded by Commissioner McDonough. Commissioner Chambliss, Commissioner De Lay, Commissioner Diamond, Commissioner Galli, Commissioner Muir, and Commissioner Scott voted "Aye". Commissioner Forbis abstained from voting. The motion passed.

REPORT OF THE CHAIR AND VICE CHAIR

(This item was heard at 5:50 p.m.)

Nothing to report as no meetings have been held.

REPORT OF THE PLANNING DIRECTOR

(This item was heard at 5:51 p.m.)

- a) Initiate a petition for a text amendment to the Salt Lake City Zoning Ordinance allowing ambulance services and government facilities in the manufacturing districts.

Mr. Ikefuna requested the Planning Commission correct an oversight made during the 1995 rewrite of the Zoning Ordinance to consider the inclusion of an allowance for government facilities and ambulance services in the manufacturing districts.

The Planning Commission agreed unanimously. Therefore, a petition was initiated at 5:51 p.m.

- b) University of Utah Research Park Transportation Issues Working Group – Work program discussion and status update of the Transportation Issues Working Group established by the Planning Commission to address community council concerns regarding traffic and land use impacts related to the Research Park. The Planning Commission will discuss lifting a Planning Commission initiated hold on conditional use applications for excess building height in the Research Park.

Mr. Ikefuna addressed the Planning Commission in reference to the gag order placed on conditional use applications for the Research Park area and noted progress on the Commission's request. The purpose of the Research Park Work Group was to create awareness of the growing situation of traffic in the University area. With awareness created, a progress report has been distributed to the Commissioners regarding the agencies and neighbors' proposed suggestions. Considering the progress, Mr. Ikefuna requested a lift on the current hold.

Commissioner Muir noted that the hold on petitions has served the purpose of creating awareness and should be lifted. Discussion regarding the status of the Research Park Work Group and its agenda continued between Commissioners. It was noted that there are no petitions presently waiting to be pursued in the area of the Research Park.

Commissioner Diamond opposed the lift on the hold for applications because of the awareness and progress the Research Park Work Group is completing. Since there are no present applicants, it would seem reasonable to continue working as a group to find solutions to the existing concerns of the area. Commissioner Diamond also noted that if petitions arise within the area, they should be brought to Planning Commission for further discussion while the Work Group is completing their study.

Eliot Brinton, Sunnyside East Community Council Chair, addressed the Commissioners and requested more time to create a long-term plan to appease the numerous agencies associated with the growth in the surrounding area. Mr. Brinton noted that progress has been made with the affected agencies and that two meetings will be held to discuss the short- and long-term solutions.

Discussion continued regarding the progression of the Work Group and a conclusion was reached to defer the request for a lift on the hold of conditional use applications until March 22, 2006. Work Group meetings will be held on February 13 and March 20 to prepare a recommendation for the Planning Commission meeting on March 22.

- b) Petition 400-05-38 by the Salt Lake City Administration requesting approval of a new ordinance to require certain Salt Lake City funded projects to be certified using the Leadership in Energy and Environmental Design (LEED) guidelines (approved December 14, 2005) –Clarification to establish that exceptions from applicability of new LEED certification requirements and determination of substantial compliance be decided by a High Performance Building Board, staffed by the Building Official or designee, and to approve standards for exceptions.**

Mr. Ikefuna requested that the Planning Commission consider a clarification to the proposed LEED Ordinance that was presented to the Planning Commission on December 14, 2005. The clarification is concerning whether a board staffed by the Building Official or designee appointed by the City Council should approve appropriate exceptions to LEED certification and substantial compliance, instead of a procurement officer.

Commissioner De Lay stated concern that the proposed ordinance did not include incentives for LEED certification for the private sector/home owners as previously recommended by the Planning Commission.

Mr. Ikefuna noted the concern and stated that the Community Development Department is considering the incentives that could be provided to the private sector for those who participate in the LEED certification. The proposal has budge implications and requires coordination with appropriate City departments. The Planning Staff, Mayor's Staff, Building Services and Management Services are evaluating the incentive program and how to implement it.

Commissioner De Lay requested that a summary of the amendment and motion made during the December 14, 2005, meeting regarding private/sector incentives for LEED certification be added to the minutes. The summary of the motion and amendment reads as follows:

An amendment to Petition 400-05-38 encouraging private developers, builders and citizens to use and complete LEED certification on new projects was passed. Salt Lake City will encourage green building to private citizens obtaining the LEED Certification with incentives deemed practical by the city; e.g., a faster permitting process. These encouragements will be in place within six months of Salt Lake City accepting LEED Certification and enacting the LEED Certification program for new construction with City money. The amendment was accepted and passed.

Mr. Ikefuna stated that the Commissioners can be assured that the incentive program will be developed and the Commission will be kept informed of the City's progress in formulating the program.

A motion by Commissioner De Lay to accept the clarification regarding Petition 400-05-38 to establish that exceptions from applicability of new LEED certification requirements and determination of substantial compliance be decided by a High Performance Building Board, staffed by the Building Official or designee, and to approve standards for exceptions was made. Commissioner Muir seconded the motion. Commissioner Chambless, Commissioner De Lay, Commissioner Diamond, Commissioner Galli, Commissioner McDonough, Commissioner Muir, Commissioner Scott, Commissioner Seelig, and Commissioner Forbis voted, "Aye". Chairperson Noda did not vote. The motion passed.

Reaffirmation was made by Commissioner De Lay to communicate to the City Council that the Planning Commission is in favor of the Staff and the City creating incentives to private developers/homeowners who build/modify properties using LEED certification programs within six months of accepting the LEED certification program for City projects, with possible faster permit processes.

Chairperson Noda stated that deference would be given to the Planning Director for the decision to provide a six month implementation period upon acceptance and enactment of the LEED certification program.

Commissioner Muir requested discussion amongst the Commissioners regarding the present legislative bill by Senator Al Mansell. Senate Bill 170 eliminates City Council authority of sitting in judgment on zoning changes unless the zoning change represents twenty-five percent of the acreage of the city. It was noted that for a large city this bill is counterproductive and not developer friendly. The Planning Commission considers land use when evaluating zoning changes, rather than the economic impact, allowing a distinct element to be considered when these proposed changes are requested. Commissioner Muir suggested that a letter be drafted regarding the unanimous opposition of the Salt Lake City Planning Commission to the bill.

Chairperson Noda agreed and stated that a letter should be drafted and reviewed by the City Staff, the City Attorney's office, and signed by the Commissioners.

Mr. Ikefuna noted that a letter will be drafted by Staff and distributed via email to the Commissioners. A final draft will be created once comments have been received. The letter will include the names of each of the Commissioners and will be signed by Chairperson Noda.

Commissioner Seelig requested information from Mr. Ikefuna regarding the concern of a lack of communication with the Redevelopment Agency.

Mr. Ikefuna stated that he had spoken with Dave Oka, Director of the Redevelopment Agency, and that Mr. Oka would be appearing before the Commission in February. He will share the strategic goals of 2006 for the Redevelopment Agency.

Mr. Ikefuna also provided an update on the Planning Commission retreat. Contact has been made with two individuals and the retreat should be scheduled in March or April. An update will be given at the next Planning Commission meeting, as Staff is awaiting further information from the proposed speakers.

Mr. Ikefuna also noted a copy of an article from *The Atlanta Journal-Constitution* by David Pendered. The article, Moratorium on McMansions, is duly noted as another city that has been required to conquer the situation of infill development. An executive order was issued in the City of Atlanta to discontinue the infill development that had been occurring. Mr. Ikefuna complimented the Planning Commission for helping to handle the matter for Salt Lake City.

Commissioner Seelig requested to know if the Planning Division had contacted Community Affairs in regards to the crime within the neighborhood discussed at the prior Planning Commission meeting.

Mr. Ikefuna stated that he had addressed the topic with a member of the Mayor's Office of Community Affairs.

Commissioner De Lay requested information regarding a petition initiated months ago regarding 300 West and the study of a walkable community.

Mr. Wheelwright responded that he believed that the topic had been raised in conjunction with the Lowe's street closure petition. Further research on the status of the 300 West petition would be conducted.

PUBLIC NOTICE AGENDA – Salt Lake City Property Conveyance Matters
(This item was heard at 6:24 p.m.)

None to report.

PUBLIC HEARINGS
(This item was heard at 6:24 p.m.)

Petition 410-772 - H.M. Investments Retail Center – Conditional Use Planned Development Request. The H.M. Investments has submitted an application for a retail development center located at 1846 South 300 West Street, just south of Costco in the CG (General Commercial) Zoning District. Four parcels will be combined by deed to accommodate the new retail

center. The existing structures would be demolished for the development of the new center. The proposed center would be comprised of six buildings containing retail shops and food services. Two of the buildings will have drive-thru lanes. Although, the proposed uses are allowed within the CG (General Commercial) Zoning District, development of multiple buildings on a single site requires Conditional Use Planned Development approval from the Planning Commission.

At 6:24 p.m., Chairperson Noda introduced Petition #410-772 and Marilyn Lewis.

Commissioner De Lay noted that during the introduction of a petition the Commissioners should be apprised if the petition went to subcommittee.

Ms. Lewis presented a short description of the project. She stated that the applicant is proposing to combine four un-platted lots and construct six new buildings, requiring Planned Development Approval. The subject site will contain retail shops, food services, and restaurants; all permitted uses in the CG (General Commercial) Zoning District.

A minimum of fifty percent glass façade will be used on the entire building site, to maintain a uniform feeling on the interior and exterior perimeter of the proposed development. Buildings A, B, and F have clients and will remain as proposed on the map. Because the builder has not formalized clients for buildings C, D, and E, Staff is requesting the Planning Commission approve the proposed plan and allow the Planning Director to have approval of the final adjustments made to any building configurations. Any substantial changes will need to return to the Planning Commission.

Ms. Lewis stated that based on the findings of fact, Staff recommends that the Planning Commission approve this Planned Development request with the conditions listed in the Staff Report.

Chairperson Noda opened and closed the Public Hearing as no members of the public wished to speak. The Planning Commission went into Executive Session.

Commissioner Diamond appreciated and noted that the subcommittee minutes were included in the Staff Report. He asked if Staff had made any changes to the landscaping on the west side of the proposed subject site, as suggested in subcommittee. The subcommittee had suggested landscaping along the backside of building C and on the property line, but concluded that it might alter the building size and parking lot area.

Chairperson Noda stated concern regarding the traffic on 1830 South and the impact of the Costco parking lot to the subject property. 1830 South is a congested area of traffic and has the potential for numerous accidents. Considering the subject property has three ingress/egress options on 1830 South, the traffic could become considerably worse. Commissioner De Lay noted that during subcommittee a recommendation had been made to remove as much traffic as possible from 300 West, leaving 1830 South as the only option. Commissioner De Lay also noted that 300 West is an inappropriate location for many ingress/egress movements, due to the already congested area.

Ms. Lewis noted that Transportation had deemed that the proposed ingress/egress areas would be the most controlled way to maintain a continuous flow of traffic. Mr. Russ Naylor, Project Architect, noted that the ingress/egress was further west than the existing Costco ingress/egress.

Mr. Naylor responded to the question from Commissioner Diamond regarding the landscaping along the western property line by stating that the area west of building C is anticipated to be employee parking. Mr. Naylor assured the Commission that landscaping would surround the area of the building to create a pleasing addition to the area.

Mr. Naylor stated that a possible client for building C has been determined and may only require a little over 6,000 square feet of the original property proposed. The north positioning of the building would remain, allowing a connecting lane between the parking lot on the west side of building C and the parking lot in the center of the retail shops be constructed. It is ninety percent assured that Tepanyaki (client needing only 6,000 square feet) will be the buyer.

Commissioner Diamond questioned if a connection through the west parking lot of building C would eliminate any curb cuts along 1830 South. Mr. Naylor stated that the number of curb cuts would remain even if the connection was made.

Mr. Kevin Young, SLC Transportation, noted one of the reasons why traffic is congested is due to the on-street parking on 1830 South. The option of eliminating the on-street parking is being researched. Considering the new development of Sam's Club, a new signal will be created at Hartwell and 300 West to provide another option for drivers to make a left turn. Transportation is continuing to research options to sustain flowing traffic in the area, including a center turn lane on 1830 South, but time and development will lead to further information and possible solutions.

Commissioner Diamond noted that given that information, it should be considered as a suggestion from the Planning Commission that an access for vehicles/pedestrians be created on the south end of building C (given the proposed 6,000 square foot tenant) allowing traffic to flow in front of buildings D, E, and F. This would also create a plaza space for pedestrians.

Commissioner Scott made reference to the north elevation plan found in the Staff Report and the overall look of the development and whether the look was to be a façade or have working doors.

Mr. Naylor stated that glass and entries will be located on the north side of the building, but type and location will be dependent upon the tenants. The intent is also the same for the west side of building C. Mr. Naylor noted that fenestration and glass will be placed around the subject site to create an attractive development.

Based on the Findings of fact, Commissioner De Lay made a motion to approve the Planned Development with the following conditions:

- 1. The applicant must install continuous sidewalks on 1830 South Street and 300 West Street. The applicant must coordinate with City Engineering and Transportation to set up a pre-inventory meeting of all existing public way (curb, gutter and sidewalk) conditions. Street lighting upgrades will be required. Verification of right of way**

locations may require additional dedications. A public-way permit will be needed to work within the City right of way.

2. There will be no on-street staging for deliveries, all services are to be provided on site. The site plan as shown is restricted to single unit box truck deliveries with front of store access.
3. Applicant must combine all of the lots by deed, as proposed, prior to the permit process. Right of way dedication is anticipated at the northeast corner for traffic control device, which may also be performed by deed. This dedication must be done to the satisfaction of the Engineering and Transportation Divisions' prior to the issuance of Certificate of Occupancy for any of the buildings on the site.
4. The Planning Director has final approval of the modifications to the site plan.
5. The applicant must meet all of the required parking for the uses on the final site plan.

Commissioner De Lay also noted that the minutes from the discussion conducted by the Planning Commission should be applicable to the consideration of any modifications to the final site plan. The following condition is a result of the discussion:

6. Planning Commission further requires that all facades of all buildings be fifty percent glass and contain all other aesthetic treatments. If building C is reduced in square footage it must be from the southern face. The developer will provide vehicular/pedestrian access from the west employee parking lot to the main parking lot and add additional landscaping. Developer will also attempt to provide landscaping along the western façade of building C.

The motion was seconded by Commissioner Scott. Commissioner Chambless, Commissioner De Lay, Commissioner Diamond, Commissioner Galli, Commissioner McDonough, Commissioner Muir, Commissioner Scott, Commissioner Seelig, and Commissioner Forbis voted "Aye". Chairperson Noda did not vote. The motion passed.

Petition 400-05-17 – A request by the Planning Commission to analyze the feasibility of allowing additional conditional uses to be approved by an Administrative Hearing Officer. The Planning Division has analyzed the request and proposes to amend Section 21A.54 of the Zoning Ordinance to permit Public/Private Utility Buildings and Structures and non-residential conditional uses to be approved by an Administrative Hearing Officer if the requested use complies with zoning ordinance regulations and is unopposed.

At 6:55 p.m., Chairperson Noda introduced Petition 400-05-17 and Wayne Mills.

Mr. Mills stated that presently there are two types of development requests that may be approved through the Administrative Public Hearing Process. They are:

- Applications for low power wireless telecommunication facilities that are listed as conditional uses; and
- Alterations or modifications to a conditional use that increase the floor area by 1,000 square feet or more and/or increase the parking requirement.

The review processes are the same for these types of conditional uses as for conditional uses reviewed by the Planning Commission. All City departments and affected community councils review the applications. Notification of the Administrative Hearings is the same as the Planning Commission Public Hearings. An Administrative Request can be approved once the hearing has been held and all conditions met. If the Administrative Request is contested, the Request is forward to the Planning Commission for review.

Staff has analyzed the Zoning Ordinances and proposes to allow the Administrative Hearing Officer to review all conditional uses except those that:

- Are listed as a “residential” land use in the Table of Permitted and Conditional Uses for each zoning district;
- Are located within a Residential zoning district;
- Abut a Residential zoning district or residential use; or
- Require Planned Development approval.

The Planning Staff also recommends that Chapter 21A.54 of the Zoning Ordinance be amended to permit Administrative Hearing review of Public/Private Utility Buildings and Structures that are proposed in both residential and non-residential zoning districts.

Mr. Mills stated that this petition was initiated by the Planning Commission to further allow the Commission more time to allocate for long-range planning.

Staff recommends that the Planning Commission forward a positive recommendation to the City Council to adopt the proposed zoning text amendments pertaining to Chapter 21A.54 of the Zoning Ordinance found in the Staff Report.

Chairperson Noda opened and closed the Public Hearing as no public was in attendance. The Planning Commission went into Executive Session.

Commissioner McDonough requested clarification regarding the Administrative Hearing process and the housing infill ordinance. Mr. Mills clarified by stating that the proposed amendment is for conditional uses only and is not associated with the compatible infill ordinance.

Commissioner Scott noted that some community councils are less aware than others and some applications may be approved without sufficient public input. Commissioner Muir noted that there should be additional sensitivity to the area of West Salt Lake. It was also noted that the conditional uses brought before the Commission last year were not very time consuming or contentious.

Mr. Mills noted the concern, but stated that an appeal can be made by any member of the public if they are opposed to the decision made in the Hearing within fourteen days of the decision. With reference to the time spent on these issues, Mr. Mills noted that it is important to remember the time spent in preparing for the meeting.

Commissioner Galli noted that numerous governments throughout the United States have transferred responsibilities to the Planning Staff and agrees with the proposed petition.

Chairperson Noda agreed with Commissioner Galli and considered the possibility of freeing up more time for the Planning Commission as a positive reform. Although, when community councils are not active, there should be concern and sensitivity by Staff.

Commissioner Scott referenced a citizen comment found in the Staff Report from Ms. Judi Short supporting the idea of freeing up time of the Commission. Commissioner Seelig also noted that many citizens are not made aware of the implications of petitions when they state their support or opposition. Commissioner Scott stated concern regarding the possibility of an issue passing through the process without being brought to an appropriate measure of attention.

Mr. Mills responded that he had written Ms. Short back with the proposed changes. As she has not contacted him, nor did she show up at the open house, Mr. Mills believes she is satisfied with the proposed changes.

Mr. Mills stated that the Planning Commission will be informed on the issues because of the information distributed to them via email and the City's list serve. Agendas for each meeting, including Administrative Hearings, are distributed through the list serve and should be considered carefully. If the Planning Commissioners wanted more information on the proposed project or to encourage the petition to go to the Planning Commission, Staff should be contacted and a discussion conducted.

Commissioner Diamond asked if these changes would alter any conditional uses on signage. Mr. Mills responded that presently there are no conditional uses on signage within the City.

Commissioner Muir made a motion in the case of Petition #400-05-17 in light of the comments, analysis, and findings of Staff in the Staff Report, that the Planning Commission forward a positive recommendation to the City Council to adopt the following proposed zoning text amendments pertaining to Chapter 21A.54 of the Zoning Ordinance.

1. That **Section 21A.54.020: Authority**, be amended to permit the Planning Director or designee to approve Administrative Conditional Uses;
2. That **Section 21A.54.030C: Administrative Consideration of Conditional Uses**, be amended to eliminate the phrase, "have been determined by the City to be low impact" and replace it with, "may be considered to be low impact due to their particular location."
3. That **Section 21A.54.030C3**, be added to permit the Planning Director or designee to approve (through an Administrative Hearing) all conditional uses except those that:

- a. Are listed as a “residential” land use in the Table of Permitted and Conditional Uses for each zoning district;
 - b. Are located within a Residential zoning district;
 - c. Abut a residential zoning district or residential use; or
 - d. Require Planned Development approval.
4. That Section 21A.54.030C3, be added to permit the Planning Director or designee to approve (through an Administrative Hearing) Public/Private Utility Buildings and Structures in Residential and Non-Residential zoning districts.
 5. That Section 21A.54.060D: Staff Report-Site Plan Review Report, be amended to state that staff report and site plan review report be forwarded to the Planning Director or designee for Administrative Conditional Uses.
 6. That Section 21A.54.060E: Public Hearing, be amended to state that the Planning Director or designee shall hold a public hearing in the case of Administrative Conditional Uses and shall conduct the public hearings in conformance to the Zoning Ordinance.
 7. That Section 21A.54.060G: Planning Commission Action, be amended to state that, in the case of Administrative Conditional Uses, the Planning Director or designee shall approve, approve with conditions, or deny the Administrative Conditional Use.
 8. That Section 21A.54.090: Conditions on Conditional Uses, be amended to state that the Planning Director or designee may impose conditions on Administrative Conditional Uses.
 9. That Section 21A.54.110: Effect of Approval of Conditional Use, be amended to include the Planning Director or designee in the case of Administrative Conditional Uses.
 10. That Section 21A.54.120: Limitations on Conditional Use Approval, be amended to include the Planning Director or designee in the case of Administrative Conditional Uses.
 11. That Section 21A.54.155B2: Administrative Hearing, be amended to state that the Planning Director or designee may approve an Administrative Conditional Use only if it complies with all standards in the Zoning Ordinance that regulate the particular use.
 12. That Section 21A.54.155: Appeals of Administrative Conditional Uses, be amended to state that an appeal of an Administrative Conditional Use must be based on procedural error, compliance with the standards that regulate conditional uses, or any specific standards listed in the Zoning Ordinance that regulate the requested use.

Commissioner Chambless seconded the motion. Commissioner Chambless, Commissioner De Lay, Commissioner Diamond, Commissioner Galli, Commissioner McDonough,

Commissioner Muir, Commissioner Seelig, and Commissioner Forbis voted "Aye". Commissioner Scott voted "Nay". Chairperson Noda did not vote. The motion passed.

UNFINISHED BUSINESS

(This item was heard at 7:20 p.m.)

Commissioner Scott noted a subject of concern to the Commissioners regarding the Transit Oriented District Petition. Portions of the Transit Oriented District Petition has been approved by the City Council with a large change on the proposed height restrictions. A discussion occurred when the petition was presented to the Planning Commission regarding the proposed height restriction. The Planning Commission recommended the proposed height to be at 50 feet; although, the City Council has now approved a height restriction of 75 feet, with the option of going to 120 feet on the north side of the street.

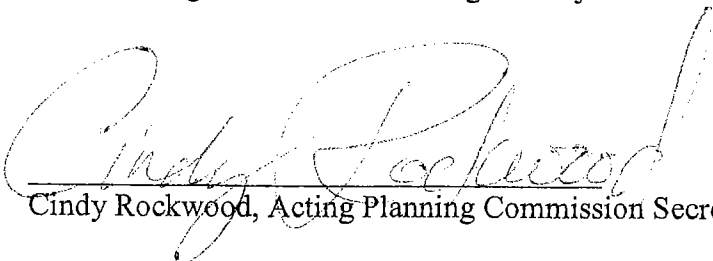
Commissioner Scott recommended that an effort be made to send a message to the City Council regarding the proposed height change and the recommended height from the Planning Commission. She requested a letter be sent.

Commissioner Galli noted that the Planning Commission may send a letter, but it should be drafted by the Chair of the Planning Commission in order to represent the appropriate jurisdiction. He noted that if someone wants to be heard in regards to a concern on an issue, the best effort is to attend the Hearing and discuss the matter with the representatives. He noted that many letters are received by the Planning Commission, but hearing the concerns directly from the individual are more helpful. He requested that more participation from the Planning Commission be directed towards large item issues of concern to the City Council.

Chairperson Noda agreed and concluded that she would attend the next City Council meeting with Commissioner Scott to discuss the concerns. Chairperson Noda also suggested that perhaps having a member of the Planning Commission attend a City Council meeting each month could help resolve some of the concerns as well as enhance the position of the Planning Commission. .

Mr. Wheelwright stated that although the month of January has not had many items on the agenda, the February meetings will have more. He informed the commissioners to be prepared for longer meetings in February.

The Planning Commission meeting was adjourned at 7:33 p.m. by Chairperson Noda.



Cindy Rockwood, Acting Planning Commission Secretary



ROSS C. "ROCKY" ANDERSON
MAYOR

SALT LAKE CITY CORPORATION

OFFICE OF THE MAYOR

October 27, 2005

NOTICE OF OPEN HOUSE

The Salt Lake City Administration has initiated petition number 400-05-38 requesting that the Salt Lake City Council create a high performance building ordinance. The purpose of this ordinance is to promote development consistent with sound environmental practices by requiring that applicable building projects constructed with city funds obtain a Leadership in Energy and Environmental Design (LEED) "Certified" designation from the U.S. Green Building Council. Applicable construction projects are projects that include over 10,000 sq. ft. of occupied building space, with specific exemptions included in the ordinance.

The Mayor's Office Staff would like to receive your input regarding this proposal prior to a future public hearing before the Salt Lake City Planning Commission and invites you to a public open house regarding this issue:

**Wednesday, November 16, 2005
Salt Lake City County Building
451 South State Street
Room 335
Between the hours of 5:00 and 6:30 p.m.**

Since it is very difficult for us to inform all interested parties about this request, we would appreciate your discussing this matter with other potentially interested parties, and informing them of the open house.

If you have any questions on this issue, please call Lisa Romney at 535-7939.

Respectfully,

Lisa Romney
Environmental Advisor to the Mayor

**We comply with all ADA guidelines.
Assistive listening devices and interpreter services provided upon 24-hour advance request.**



NOTICE OF OPEN HOUSE

Salt Lake City Mayor's Office
Attn. Lisa Romney
451 South State Street, Room 306
Salt Lake City, Utah 84111

AGENDA FOR THE
SALT LAKE CITY PLANNING COMMISSION MEETING
In Room 326 of the City & County Building at 451 South State Street
Wednesday, December 14, 2005, at 5:45 p.m.

The Planning Commissioners and Staff will have dinner at 5:00 p.m., in Room 126. During the dinner, Staff may share general planning information with the Planning Commission. This portion of the meeting will be open to the public for observation.

1. APPROVAL OF MINUTES FROM WEDNESDAY, November 30, 2005.

2. REPORT OF THE CHAIR AND VICE CHAIR

3. REPORT OF THE DIRECTOR

4. PUBLIC HEARINGS

- a) **Petition 410-765** – by **Kraig Lodge**, requesting Conditional Use approval to convert “The Republican” to a private club. The property is located at 917 South State Street and is zoned Commercial Corridor (CC). (Staff – *Marilynn Lewis at 535-6409 or marrilyn.lewis@slcgov.com*)
- b) **Petition 410-796** – by the **Islamic Society of Greater Salt Lake** for Conditional Use approval for expansion of a Place of Worship. The property is located at 734 South 700 East Street and is zoned RMF-30. The applicant wants to utilize an existing residential structure to accommodate women’s prayer sessions and Sunday school. There is no demolition of residential structures associated with this petition. (Staff – *Marilynn Lewis at 535-6409 or marrilyn.lewis@slcgov.com*)
- c) **Petition No. 400-05-31** – by **Micah Christensen** at 612 North Catherine Circle and **Tony Gomez** at 617 North Catherine Circle, requesting that Salt Lake City declare the adjacent properties addressed at approximately 615 North Catherine Circle and 1420 West 600 North as surplus property in order for the applicants to purchase the parcels and combine them with their existing properties. The applicant, Mr. Gomez, also requests that the City approve a lease agreement to allow him to improve the property located at 1480 West 600 North with landscaping. The subject parcels are excess properties obtained by Salt Lake City for the realignment of 600 North and 700 North Streets. (Staff – *Wayne Mills at 535-6173 or wayne.mills@slcgov.com*)
- d) **Petition No. 400-05-24** – by **Harrison Apartments, LLC** for a zoning map amendment to rezone the property located at 713 East Harrison Avenue from R-1/5000, Single Family Residential to RMF-35, Moderate Density Multi-Family Residential in order to demolish the existing structure and construct six individually owned town homes. The project will also require an amendment to the future land use map of the Central Community Master Plan to identify the property as Low Medium Density Residential rather than Low Density Residential. (Staff – *Sarah Carroll at 535-6260 or sarah.carroll@slcgov.com*)
- * e) **Petition Number 400-05-38** – by **Mayor Anderson** to create a High Performance Building Ordinance requiring that applicable building projects constructed with Salt Lake City funds obtain a Leadership in Energy and Environmental Design (LEED) "Certified" designation from the United States Green Building Council. (Staff – *Ray McCandless at 535-7282 or ray.mccandless@slcgov.com or Lisa Romney at 535-7939 or lisa.romney@slcgov.com*)

5. UNFINISHED BUSINESS

NOTICE OF HEARING

ARAPAHOE PROPERTY MAINTENANCE
476 EAST SOUTH TEMPLE ST #177
SLC UT 84111

Salt Lake City Planning Division
451 South State Street
Salt Lake City, UT 84111 RM

1. Fill out registration card and indicate if you wish to speak and which agenda item you will address.
2. After the staff and petitioner presentations, hearings will be opened for public comment. Community Councils will present their comments at the beginning of the hearing.
3. In order to be considerate of everyone attending the meeting, public comments are limited to 3 minutes per person per item. A spokesperson who has been asked by a group to summarize their concerns will be allowed 5 minutes to speak. Written comments are welcome and will be provided to the Planning Commission in advance of the meeting if they are submitted to the Planning Division prior to noon the day before the meeting. Written comments should be sent to:

Salt Lake City Planning Director
451 South State Street, Room 406
Salt Lake City, UT 84111
4. Speakers will be called by the Chair.
5. Please state your name and your affiliation to the petition or whom you represent at the beginning of your comments.
6. Speakers should address their comments to the Chair. Planning Commission members may have questions for the speaker. Speakers may not debate with other meeting attendees.
7. Speakers should focus their comments on the agenda item. Extraneous and repetitive comments should be avoided.
8. After those registered have spoken, the Chair will invite other comments. Prior speakers may be allowed to supplement their previous comments at this time.
9. After the hearing is closed, the discussion will be limited among Planning Commissioners and Staff. Under unique circumstances, the Planning Commission may choose to reopen the hearing to obtain additional information.
10. Salt Lake City Corporation complies with all ADA guidelines. If you are planning to attend the public meeting and, due to a disability, need assistance in understanding or participating in the meeting, please notify the City 48 hours in advance of the meeting and we will try to provide whatever assistance may be required. Please call 535-7757 for assistance.