

**Oregon Sustainability Center  
Financial Analysis**

**September 2011  
Office of Management and Finance**

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## Analysis Summary

The Oregon Sustainability Center (OSC) is a proposed \$61.7 million joint development, two-share condominium between the City of Portland and the Oregon University System (OUS). The development is a 130,129 square foot office building, the largest proposed nationwide to complete the Living Building Challenge, a certificate earned by buildings that meet net-zero energy and other stringent performance criteria. The building will meet all of its own energy and water needs on site; exclude toxic building materials, source materials locally, and strive for greater social equity than a traditional real estate development.

In August 2010 City Council passed Resolution #36808, which directed the Portland Development Commission (PDC) and the Bureau of Planning and Sustainability (BPS) to continue to evaluate the proposed building and directed PDC, BPS, and the Office of Management and Finance (OMF) to analyze the fiscal and policy impacts of entering into a commitment to pursue a joint partnership with OUS. The Resolution is attached as Appendix A. This report responds to City Council's request to analyze the OSC as a real estate investment on the part of the City of Portland. It does not consider any economic development impacts the building may produce, or other potential project benefits.

## Changes from the August 2010 Resolution

1. State of Oregon bond approval: The 2009-11 Legislature initially approved the project and funding but did not reauthorize bond approval during the 2011-13 session. The OUS 2011-2013 capital budget included a budget note requesting that OUS provide significant project documentation and analysis on the OSC. OUS has responded (Attachment B) to these concerns and will seek re-authorization for this project with a state bond limitation of \$37 million by February 2012.
2. Cost per Square Foot: Project costs are currently \$434 per gross square foot, slightly higher than the \$420/square foot target targeted in Resolution #36808. The change in preliminary cost per square foot estimate is due to: 1) changes in building systems and design (\$10/sf), and 2) an increase in soft costs because fixed costs are now divided across a smaller building footprint (\$4/sf).
3. Non-profit Commitment to Tenancy: Lease terms are in negotiation with four founding non-profits entities. Two have expressed interested in 30 year terms with no rent escalations and only operating payments in year 31 and beyond, when OUS bonds are paid off. Thirty-year tenants will also pay a proportional share of any extraordinary repairs and maintenance. Two tenants are interested in more typical lease terms at subsidized rent rates with rent escalations. In total the non-profits represent 14% of the building's rentable square footage (36% of the leasable space).

### I. Joint Ownership Proposal

OUS, the City and PDC will be the primary funding agents for the OSC. OUS and the City will share ownership and financial liability for the building. Project sources and uses are summarized below:

<b>Project Sources</b>	<b>Amount</b>
State of Oregon Article XI-F General Obligation bonds (30 year, mix of taxable and tax exempt)	\$36,183,000
OUS cash proceeds from the sale of surplus property	\$3,000,000
City of Portland limited tax revenue bonds (20 year)	\$8,247,000
PDC Tax Increment Financing	\$4,900,000
PDC land	\$3,850,000
Grants and fundraising <sup>1</sup>	\$3,015,000
Tax credits <sup>2</sup>	\$2,500,000
<b>Total sources</b>	<b>\$61,695,000</b>
<b>Project Uses<sup>3</sup></b>	
Land	\$3,850,000
Hard costs	\$38,667,000
Soft costs	\$17,860,000
Financing costs	\$1,318,000
<b>Total uses</b>	<b>\$61,695,000</b>

<sup>1</sup> \$1.5 million of this is a non-binding commitment from the Federal Economic Development Administration and involves some risk.

<sup>2</sup> New Market and Energy Trust of Oregon tax credits (total of \$2.5 million) have yet to be secured and represent some risk.

<sup>3</sup> Costs exclude any potential environmental remediation the site may require, which remains undetermined. Hard cost construction estimates are currently characterized as medium confidence level and may go up or down as final construction drawings are completed and the project nears commencement.

The City and OUS will each finance and carry exclusive liability for the portion of the building each occupies. OUS will own, but the City and OUS will share financial risk of the project's leasable space (52,011 square feet). Draft development agreement terms propose that should City subsidy be required, the project ownership share will be adjusted to reflect the City's contribution. The formula and frequency of this adjustment are yet to be determined.

The development agreement also calls for non-profits tenants to be offered special lease terms in the interest of social equity. These terms call for 30-years with no rent escalations, and expenses limited to operations and maintenance only after year 31 (when debt service is paid off). Tenants will be liable for a pro-rata share of capital repairs. These tenants are expected to occupy 13,172 gross square feet of the leasable portion of the building.

The following table summarizes building tenancy, ownership, financial liability and sources of funds by the four building components:

Tenant	Gross Square Footage	Occupancy Share	Rent Share	Ownership Share	Financial Liability Share	Sources of Funds*
OUS/PSU	41,030	31.5%	33.3%	74.3%	52.9%	\$19.5M: \$16.5M OUS tax-exempt bonds, \$1.5M OUS cash, \$790k tax credits, share of \$2 M land credit
Oregon BEST	3,613	2.8%	0.5%			\$1.7M: \$1.5M OUS cash, \$70k tax credits, share of \$2M land credit
City	33,475	25.7%	20.3%	25.7%	47.1%	\$15.8M: \$8.2M City bonds, \$4.9M TIF, \$645k tax credits, \$1.8M land credit
Leasable Space (risk share)	52,011	40.0%	45.8%			\$24.7M: \$19.7M OUS taxable and tax-exempt bonds, \$1M tax credits, share of \$2M land credit, \$3M fundraising
Total	130,129	100.0%	100.0%	100.0%	100.0%	

\* *New Market and Energy Trust of Oregon tax credits (total of \$2.5 million) have yet to be secured and represent some risk. \$1.5 million in fundraising is a non-binding commitment.*

## II. City Commitment to Tenancy

**One-time Costs.** The cost to move BPS into the OSC consists of move costs, space planning, tenant improvements, facilities project management, and BTS technology purchases and staff time. These costs are not unique to the OSC, but would be associated with any bureau move to a new facility. The estimated cost range is large at \$2.7 - \$4.5 million; this estimate is currently being vetted to reduce contingencies and better detail work scope. These costs are not currently budgeted.

**On-going Costs.** The City’s policy is that each bureau pays the full cost of the space it occupies; costs vary across City buildings significantly. OSC occupancy costs are currently estimated at \$174,000 above the current annual BPS budget, primarily due to an increase in square footage of about 4,600, plus conference center surcharge (see below). On a per square foot basis, OSC rents are projected to be slightly lower than 1900 Building rents in 2014. BPS has not currently budgeted for increased occupancy costs at OSC.

## III. Risk Share Space

The draft development agreement calls for OUS to finance and own all leasable space within OSC (52,011 gross sf, or 40% of the building) and for the City to share 50% of any subsidy this space may require (e.g. due to rent loss, vacancy or capital repairs). As such, the City is accepting a significant, long-term contingent liability in that if the OSC does not perform as expected, the City will be required to subsidize operating and debt service costs (50% of annual debt service costs = \$700,000). This liability is in addition to the debt the City will incur to fund its City-owned share of the building. In order to estimate and quantify the risk associated with this commitment, OMF has modeled a range of both project and market scenarios outlined below.

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**Vacancy and Rent risk.** Currently, leases are in negotiation for about 78% of leasable space (36,000 out of 46,000 square feet). Of this, 18,000 square feet is in negotiations with non-profits, 17,000 with a for-profit office tenant and 1,000 retail space with Umpqua Bank.

The ‘best case’ scenario requires the building opens fully leased for 10 year terms at target asking rents and that those leases are honored for the full term. In a fully recovered economic context, OSC rents would be renegotiated in year 11 at increased rates and the project would generate increasingly positive cash flows. A more moderate market context – still improved from the last decade – would result in rent declines when leases are re-renegotiated in year 11, and negative cash flows in year 11-17, requiring additional City subsidy during that time (less than \$100,000 in year 11, in undiscounted dollars, and decreasing each year). Over 30 years the project could generate close to \$0.9 million in net operating revenue (net present value of 30 year cash flow).

The ‘typical performance’ scenario assumes some vacancy (10%, or 3,300 sf) beginning in year one and continuing throughout the project. Modeling this shortage on operating income serves as a proxy for a variety of possible scenarios: slow leasing of retail space, lower than anticipated rent rates secured on remaining vacant office space, etc. In a fully recovered economic context, the project would experience negative cash flows through year 14, break even by year 15 and by year 30 generate over \$2 million (net present value of 30 year cash flow). In a market context of more moderate growth, the project realizes negative cash flow for its first 17 years. The City’s share would be roughly \$75,000 annually in the first few years, decreasing, spiking again in year 11 and turning positive in year 18. The project would come close to breaking even by year 30.

**Non-profit Tenancy Risk.** Four non-profits are currently in negotiation to lease 14% of the building (10% in 30 year leases, 4% in 10 year leases). These entities are founding partners in the building. They are however relatively higher financial risk due to small operating margins, reliance on grant funding, and historical occupancy in far less expensive Class C office space. In order to keep rents as low as possible, OUS will finance non-profit occupied space with tax-exempt bonds. If the original non-profits vacate the building, the space can only be re-leased to other non-profit entities, significantly limiting the OSC’s pool of potential tenants.

The legal risk for upholding bond covenants falls to OUS; the City will have 50% of the financial risk of carrying vacant space or subsidizing leases to other non-profit entities. If this space is vacated, PSU, or the City could expand into it. If this option is not possible, subsidy could be required to bring rents down to a rate competitive with rates paid by non-profit and public sector tenants within the University District (currently about 45% below OSC non-profit rates, a rent gap expected to decrease over time. The City’s share of this shortfall would be roughly \$100,000 in year one).

**Capital Repair Risk.** Capital repair risk describes the risk associated with funding long-term maintenance needs. The City’s policy is to set-aside 1-3% of each building’s value annually; the International Facilities Managers Association recommends 3%. BPS occupancy costs at the OSC incorporate a 1% set-aside, equivalent to a \$4.65/square foot Facilities surcharge. However, operating charges for risk share tenants – for which the City holds 50% of financial risk – include a much smaller set-aside of \$0.50/square foot (about 0.1% of the building’s replacement

## OSC Financial Analysis

cost). This introduces risk that, in the absence of rent escalations, repair bills will require additional City subsidy.

A full study to estimate the timing and size of necessary capital repairs throughout the building's lifespan has yet to be undertaken. The development team has provided a list of major building systems, their cost, and expected lifespan as a shorthand approach to estimating future capital repair needs. The building systems list indicates that the 0.1% reserve + the BPS higher reserve would be sufficient to cover the City's total repair liability; the list indicates that the capital repair risk is minimal. However, a strong caveat is that the repairs anticipated by the building systems list result in an annual set-aside need of 0.83%, far below the repair needs demonstrated by the City's existing asset inventory and below industry standards. OMF recommends that a complete capital replacement study be undertaken when design is complete, prior to the commencement of construction.

**Conference Center risk.** It is currently proposed that PSU will manage leasing for this space and operations for the exhibit and conference center (the conference center is 3,800 square feet on the second floor; the exhibit center is 1,400 off the lobby on the first floor). Project partners have advocated for including conference and exhibit space as a way to expose and educate the public on the building's unique attributes.

Current operating estimates (provided by PSU, based on similar facilities) anticipate a required annual City subsidy of roughly \$42,000 (total subsidy of \$84,000) to cover debt service, given relatively conservative occupancy rates. Required subsidy would decrease if the space attracted higher than anticipated usage.

The project has been modeled so that subsidies associated with the conference center will be added to the BPS occupancy costs (a surcharge of \$1.31 per square foot). This is included in the \$174,000 estimate of the BPS annual occupancy cost increase mentioned above. When/if the center performs above expectations, this surcharge could be removed and BPS rents lowered accordingly.

**City Cost Range Summary**

**CITY COSTS**

	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Notes</b>
<b>BPS Occupancy</b>				
One-time occupancy costs				
One-time move	\$2,652,000	\$3,630,000	\$4,512,000	One-time cost
On-going occupancy costs				
Ongoing costs	\$1,008,000	\$1,008,000	\$1,008,000	Debt service + operations + facilities surcharges. Excludes \$42,000 that will be charged to BPS for conference center (see below). \$132,000 above current BPS budget.
<b>Risk Share</b>				
Ongoing risk share				
Rents/vacancy	\$0	\$50,000	\$130,000	Low = fully occupied at asking rents. Moderate = avg. annual subsidy given 10% vacancy. High = avg. annual subsidy given 22% vacancy years (current unassigned sf).
Conference center operations	\$42,000	\$42,000	\$63,000	Based on PSU projections; high = 50% lower usage. This is a known cost and will be treated as a surcharge to BPS.
Non-profit tenancy	\$0	\$20,000	\$86,000	Moderate = short-term leases vacate in year six. High = no non-profit leases signed
Capital replacement	\$0	\$0	\$0	Appears to be \$0; full study needed
Total on-going risk share costs	\$42,000	\$112,000	\$279,000	Annual sum

**CITY SOURCES**

	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Notes</b>
One-time sources				
PDC TIF	\$4,900,000	\$4,900,000	\$4,900,000	Cash from sale of South Park Blocks URA bonds; a portion has been spent in pre-development.
PDC Land contribution	\$3,850,000	\$3,850,000	\$3,850,000	The City is credited \$1.8M of this value.
Total one-time sources	\$8,750,000	\$8,750,000	\$8,750,000	
Ongoing sources				
BPS budgeted rent	\$880,000	\$880,000	\$880,000	Budget for BPS occupancy at 1900 + Ecotrust
South Park Blocks loan repayment	\$99,000	\$137,000	\$176,000	Avg. annual income from loan portfolio with 50%, 22% and 0% bad debt allowances.
Total ongoing sources	\$979,000	\$1,017,000	\$1,056,000	

Sources includes loan repayment from nine loans to South Park Blocks URA land owners made between 2003 and 2009. A PDC-City intergovernmental agreement will direct loan proceeds to the City for use for OSC TIF-eligible expenses. The range above reflects the average annual payment through FY 2028 according to the loan schedule, with varying allowances for bad debt. A 50% allowance is the agency average; PDC has applied a 22% allowance to this portfolio. The



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actual loan proceeds anticipated in any one year vary widely, from \$17,000 to \$650,000 (with a 22% bad debt allowance).

The accuracy of the ranges presented above requires:

- Obtaining a New Market Tax Credit allocation of \$2.0 million
- Realization of the EDA's non-binding commitment to provide a \$1.5 million grant
- Construction costs, when finalized, to be at or below current (50% confidence level) estimates
- Environmental remediation costs, currently not estimated or budgeted, to be negligible

### OMF Recommendations

Should Council proceed with the project, OMF recommends that the following actions be taken:

1. Return to City Council prior to construction to report:
  - Progress in finalizing leases, whether space remains and whether rent terms achieved targets
  - Extent to which construction costs increase or decrease as estimating confidence increases
  - Extent to which site environmental remediation will be required, and cost (currently unbudgeted)
  - Extent to which uncommitted sources have been secured, including \$2 million in New Market Tax Credits and \$1.5 million non-binding EDA grantUpdate the project's financial status accordingly.
2. Commission replacement reserve study when design drawings are sufficiently evolved, so that major capital repairs can be projected against anticipated project cash flows.
3. Initiate discussions with OUS on a mechanism to address the difference between the assessed value of the land contributed to the project and the amount for which the City is credited.

OMF expects that the project will be brought back before City Council in February 2012 should the State of Oregon re-authorize \$37 million in bonds to support the project. A draft City-OUS development agreement and a bond authorization ordinance are expected at that time.

# I. Joint Ownership Proposal

## A. Square Footage Allocations

Tenant	Gross SF	Rentable SF	Share
<b>Institutional Owners</b>			
PSU	34,757	33,052	27%
OUS	6,273	5,965	5%
<i>OUS/PSU subtotal</i>	<i>41,030</i>	<i>39,017</i>	<i>32%</i>
City of Portland BPS	33,475	31,833	26%
Oregon Built Environment and Sustainable Technologies Center (BEST)/OUS Research	3,613	3,435	3%
<b>Total Institutional Owners</b>	<b>78,118</b>	<b>74,285</b>	<b>60%</b>
<b>Risk Share Leasable Space</b>			
Oregon Environmental Council	3,327	3,164	3%
Earth Advantage	9,845	9,362	8%
<i>30 year non-profits</i>	<i>13,172</i>	<i>12,525</i>	<i>10%</i>
Cascadia	2,680	2,548	2%
River Network	2,828	2,689	2%
<i>10 year non-profits</i>	<i>5,507</i>	<i>5,237</i>	<i>4%</i>
Additional office space	24,607	23,400	19%
Retail	4,794	4,559	4%
Conference Center	3,931	3,738	3%
<b>Total Risk Share</b>	<b>52,011</b>	<b>49,460</b>	<b>40%</b>
<b>Project Total</b>	<b>130,129</b>	<b>123,745</b>	<b>100%</b>

\* Of the total leasable office space, discussions are in process with a for-profit tenant for close to 17,000 square feet. If this progresses to a signed lease then 6,400 square feet would remain to be leased by project opening.

\*\* Of the total leasable retail space, Umpqua Bank has prepared a Letter of Intent to lease 1,000 square feet. If this progresses to a signed lease then roughly 3,600 square feet would remain to be leased by project opening.

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### B. Project Sources and Uses

The following list of sources and uses illustrates that the project's original fundraising goals have been met (\$5,515,000 in tax credits and grants). Fundraising goals were set at a level that would enable target rents on leasable space; these rents are ambitious but deemed achievable by the project team. If additional dollars were injected into this project they could be applied to lower asking rents for leasable space or for institutional partners, or put into a project reserve to cover potential operating losses.

#### **SOURCES**

OUS 30 year bonds	\$36,183,000
City 20 year limited tax bonds	\$8,247,000
Proceeds of South Park Blocks Urban Renewal and Redevelopment bonds	\$4,900,000
City land contribution	\$3,850,000
OUS cash	\$3,000,000
New Market Tax Credits <sup>1</sup>	\$2,000,000
Energy Trust of Oregon Tax Credits	\$500,000
Fundraising:	
Sanyo	\$1,200,000
Metro	\$40,000
Flora Foundation	\$25,000
Meyer Memorial Foundation	\$250,000
Federal Economic Development Administration <sup>2</sup>	\$1,500,000
Total	\$61,695,000

#### **USES<sup>3</sup>**

Land	\$3,850,000
Hard costs	\$38,667,000
Soft costs	\$17,860,000
Financing costs	\$1,318,000
Total	\$61,695,000

<sup>1</sup> *New Market and Energy Trust of Oregon tax credits (total of \$2.5 million) have yet to be secured and represent some risk.*

<sup>2</sup> *Non-binding commitment; some risk involved*

<sup>3</sup> *Costs exclude any potential environmental remediation the site may require, which remains undetermined.*

*Hard cost construction estimates are currently characterized as medium confidence level and may go up or down as final construction drawings are completed and the project nears commencement.*

### C. Value of City Land Contribution

At the project's inception, land value was estimated at \$1.8 million. This amount was credited to the City as part of its overall contribution towards funding the project. PDC recently completed an appraisal of the land which now shows a current market value of \$3.85 million. Its increase in value (about \$2 million) has been assigned as both a cost and benefit to the City, so it is a net neutral addition that increases the total cost of the project but results in no direct or indirect benefit to the City.

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### D. Draft OUS-City Deal Terms

Negotiation of a two-share condominium development agreement between the City and OUS is currently underway. The following summarizes both parties current understanding of the development agreement.

1. The OUS + BEST portion of the facility (44,462 gross sf) used by OUS, PSU, Oregon State University (OSU) and BEST will be the sole financial responsibility of OUS and owned by OUS. This portion of the building will be funded by \$3 million in OUS funds, OUS issued 30-year tax-exempt bonds, and tax credits (New Market Tax Credit, NMTC; Energy Trust Credit, ETC).
2. The City's portion of the facility (33,475 gross sf), used by the City's Bureau of Planning and Sustainability, will be the financial sole responsibility of the City and owned by the City. This portion of the building will be funded by a \$1.8 million land credit, \$4.9 million in revenue from the South Park Blocks URA, City-issued 20-year tax-exempt bonds, and tax credits (New Market and Energy).
3. Financial responsibility will be shared between the City and OUS for the portion of the building (52,011 gross sf) used by office and retail tenants and for a conference center. This portion of the building will be owned by OUS. This portion of the facility will be funded with a mix of OUS 30-year taxable and tax-exempt bonds, NMTC and ETC credits, and roughly \$3 million in grants.

Each year an accounting will be performed of all revenues from this portion of the facility (OLBI rents, private sector rents, retail rents or other revenues) and all costs (operating costs, debt service on the prorated portion of the OUS bonds allocated to this portion of the facility, maintenance needs and any other costs attributable to this space). To the extent that there remains a deficit it will be covered one-half by OUS and one-half by the City.

All deficits will be tracked on a cumulative basis and to the extent in future years that any profit is made on this portion of the facility it will first be used to repay any deficit payments until they are fully amortized for each party; at that point profits will accrue to the general reserves available for the entire facility. If there is a net deficit, building ownership will be adjusted to acknowledge the City's contribution. The Development Agreement will include a schedule for this accounting and a formula to translate financial contribution into ownership share (yet to be determined). Negotiations have yet to define the distribution of funds should the building's reserve account be adequately financed at some point.

OSC partners will fund/fundraise for the build out of that space (not included within the current project budget). Expenses associated with management activities will be deducted from gross revenues prior to determining the net operating income of the building and allocating any profits or losses to the ownership entities. Current operating estimates (provided by PSU, based on similar facilities) anticipate a required annual City subsidy of roughly \$42,000 (total subsidy of \$84,000) to cover debt service, given relatively conservative occupancy rates. This cost will be added to the BPS occupancy costs (a surcharge of \$1.31 per square foot). When/if the center performs above expectations, this surcharge will be removed.

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	Ownership Share	Liability Share	Debt + Equity Share	Rent Share	Occupancy Share
OUS/PSU	74.3%	52.9%	67.9%	31.3%	31.5%
BEST				0.5%	2.8%
City	25.7%	47.1%	32.0%	20.3%	25.7%
Leasable Space			<1%*	45.8%	40.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

4. Oregon Living Building Inc. (OLBI) tenants, a consortium of non-profits who originally authored the OSC vision, will be offered a 30-year lease with no rent escalations. This provision responds to the Living Building Challenge's equity component; after 30 years tenants will pay operations and maintenance costs only. As a non-owner, OLBI will not have a voting seat in the Condo Association (per Oregon law), but the association will work closely with a tenant council to ensure that building and tenant objectives are upheld. Currently two tenants are interested in this long-term lease agreement; these tenants total about 12,500 square feet (10% of rentable square footage).

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### II. City Commitment to Long-Term Tenancy: Cost of BPS Move-in & Ownership

#### A. One-Time Costs

The following table estimates a range for one-time costs associated with moving BPS from the 1900 Building to the OSC. These costs are currently unbudgeted. The bulk of these costs are standard for any bureau move to and not unique to the OSC.

One-Time Cost	Low Range	High Range	Range	Source
Move	\$64,000	\$86,000	+-15%	Facilities
Furniture, Fixtures & Equipment	\$1,800,000	\$3,000,000	+-25%	Includes tenant improvements/build out in excess of capital budget
Project Management + Space Planning	\$149,000	\$201,000	+-15%	Facilities
Technology	\$639,000	\$1,225,000	+-25%	BTS: includes 50% contingency
	\$2,652,000	\$4,512,000	+-26%	

- Move: Facilities estimate based on experience with other bureaus.
- FF&E: This number includes items outside of the building allowance such as window coverings, systems furniture, and conference room furniture, as well as any costs that exceed the \$37/sf tenant improvement allowance included in the capital budget. It reflects the fact that many building and BPS requirements are yet unknown.
- Project Management: Facilities estimate based on experience with other bureaus. Space planning would develop detailed workstation layouts to determine various configurations within the allocated square footage and floor plate.
- Technology: Technology needs were based on the document *OSC Information Technology Advisory Board Recommendations* (Feb 2011). A 50% contingency factor has been applied as recommended by the City's Budget Manual, in line with the project status (specifications still at less than 50% design, with the building's technology requirements and limitations still unconfirmed). The estimate includes 3.5% annual inflation for three years. The low range excludes \$128,600 in laptop and monitor costs, as the bureau plans to move to laptop computers whether or not it moves (but OSC requires their use).

#### B. Ongoing Cost

Assuming occupancy in FY 2013-14, BPS is profiled to pay approximately \$170,000 more in annual costs for OSC space than it currently has budgeted for space at 1900 Building + Ecotrust. This is primarily due to a 17% increase in rentable square footage (27,224 to 31,833).

As currently proposed, rent per square foot is slightly lower in OSC than in the 1900 Building. OSC rent is projected at \$33.13; this is comprised of \$19.33 in debt service and \$6.75 in operations & maintenance costs (as modeled in the project pro forma) + \$7.01 in OMF

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surcharges of capital reserves (\$4.15), General Fund Overhead (\$1.55) and conference center (\$1.31).

In 2013-14 BPS is projected to pay \$33.89 at the 1900 Building (full service, including OMF surcharges). BPS also maintains an additional \$118,000 budget placeholder for space vacated at the Ecotrust building.

Per Square Foot	Current Rent			Proposed Rent	
	1900	Ecotrust	Combined	OSC	Difference
Base Rent	\$31.50			\$19.33	
O&M				\$6.75	
Surcharged	\$2.39			\$7.01	
Total	\$33.89	\$24.84	\$32.31	\$33.10	\$0.79
Square Feet	22,457	4,767	27,224	31,833	4,609
Total Cost	\$761,000	\$118,000	\$880,000	\$1,054,000	\$174,000

The options for generating \$170,000 for this occupancy expense increase include:

- Increasing the BPS Current Appropriation Level Target
- Securing additional external revenue to cover this expense increase
- Identifying equivalent cuts within the bureau to offset this expense
- Decrease BPS square footage within OSC. Holding occupancy costs steady would require reducing BPS rentable square footage within OSC to around 26,200. Expense increases drop to \$50,000 with 27,600 square feet, approximately equal to what BPS occupied at the 1900 building + Ecotrust. BPS reports that its current space allocation (22,500 at the 1900 Building) is insufficient and unsustainable. Adjusting the BPS space commitment impacts the overall project financial performance by moving square feet into the risk share project component, which is associated with annual vacancies, rent rate risks, etc.

If BPS were to increase its square footage within the 1900 Building, the cost of additional space is similar to the OSC: on-going occupancy costs for a total of 31,833 would be approximately \$200,000 above its current budget. If BPS were to increase to 27,244 square feet rather than 31,833 square feet, costs would be \$43,000 above budget. The option of expansion within the 1900 Building rather than OSC would greatly reduce one-time move costs.

### III. Risk Share Space: City Risk Exposure

The draft development agreement calls for OUS to finance – along with grants and tax credits – and to own all leasable space within OSC (52,011 gross sf, or 40% of the building), and for the City to share 50% of any subsidy this space may require (e.g. due to rent loss, vacancy or capital repairs). Negotiation of the development agreement is currently in progress.

Current discussions call for an annual accounting in which all project revenues (OLBI rents, private sector rents, retail rents or other revenues) and all costs (operating costs, debt service on the prorated portion of the OUS bonds allocated to this portion of the facility, maintenance needs and any other costs attributable to this space) will be tallied, and any deficit will be covered one-half by OUS and one-half by the COP.

The state legislature Budget Note proposes that any project deficit be tracked on a cumulative basis and to the extent in future years that any profit is made on this portion of the facility, it first be used to repay deficit payments until they are fully amortized for each party. After that, surpluses would accrue to the general reserves available for the entire facility. Presumably at some point, if general reserves are sufficiently funded, additional surplus would go to OUS as the owner of the project's leasable space.

Discussions have proposed that if the project produces a negative cash flow, building ownership will be adjusted to acknowledge the City's contribution. The Development Agreement would need to include a schedule for this accounting and a formula translating financial contribution into ownership share (yet to be determined).

It is currently proposed that PSU will manage leasing for this space and operations for the exhibit and conference center. Expenses associated with management activities will be deducted from gross revenues prior to determining the net operating income of the building and allocating any profits or losses to the ownership entities. Current operating estimates (provided by PSU, based on similar facilities) anticipate a required annual City subsidy of roughly \$42,000 (total subsidy of \$84,000) to cover debt service, given relatively conservative occupancy rates. This cost will be added to the BPS occupancy costs (a surcharge of \$1.31 per square foot). When/if the center performs above expectations, this surcharge will be removed.

OMF has undertaken analysis to estimate and quantify potential costs to the City associated with this space. Risks have been classified in four categories: 1) Vacancy and rent rates, 2) Non-profit tenancy; 3) Capital repair/replacement costs, 3) Lease terms, and 4) Conference Center operations.

#### A. Risk Share Space: Vacancy and Rent Rates

Vacancy and rent rate risk derives from OSC's high asking rents and the possibility that Portland's office market will remain weak into the future. OSC asking rents for for-profit office tenants are \$40.25 full service equivalent (rent + NNN charges for operations, maintenance and taxes). OSC is a highly unique product without true market comparables; its innovative attributes and design may succeed in realizing the required rent premium. However, asking rents are 15% higher than current top-of-the-market asking rents of \$35.00 for new construction, and even this rent level has been realized primarily via federal government tenants, in buildings outside of the



## OSC Financial Analysis

University District, with on-site structured parking, etc. A market study has not been undertaken for the project. Two vacancy scenarios and market conditions have been modeled.

**Scenario A: Best Case.** The project assumption is that it will open fully occupied, with 10 year leases in place that include 2.5% annual rent escalations for years 6-10. Currently conversations are underway for about 24,000 rental square feet, or over 70% of the project's short-term leasable space. This best case scenario – with no vacancy until year 11 – results in an estimated 10 year positive cash flow of about \$350,000 (net present value) from general operations, excluding capital repairs.

### Scenario A, Best Case. Net Present Value of Project Cash Flow in Moderate & High-Growth Market Conditions

Year	Moderate Growth (1.5%)	1.5% Growth Cumulative	High Growth (2.5%)	2.5% Growth Cumulative
Total Operating Cash Flows				
Year 5	\$33,000	\$33,000	\$33,000	\$33,000
Year 10	\$315,000	\$348,000	\$315,000	\$348,000
Year 15	(\$408,000)	(\$60,000)	\$191,000	\$539,000
Year 20	\$15,000	(\$45,000)	\$614,000	\$1,153,000
Year 25	\$306,000	\$261,000	\$891,000	\$2,044,000
Year 30	\$637,000	\$898,000	\$1,221,000	\$3,265,000
City Liability				
Year 5	\$0	\$0	\$0	\$0
Year 10	\$0	\$0	\$0	\$0
Year 15	(\$204,000)	(\$30,000)	\$0	\$0
Year 20	\$0	(\$22,500)	\$0	\$0
Year 25	\$0	\$0	\$0	\$0
Year 30	\$0	\$0	\$0	\$0

As leases are 10 years, market conditions do not impact project revenues until year 11 when new leases are negotiated (in the absence of tenant default). Average annual vacancy (10%) is introduced in year 11. Re-leasing also brings rent risk to the project proforma. Two market conditions are profiled in the above table that generalize a range of conditions for real estate inventory with which the OSC will compete.

- Moderate growth assumes that Portland market conditions are not strong in years 1-10. Annual growth for Portland's Class A market rents is modeled at 1.5%, three times that realized in the city's depressed real estate market between 2000 and 2010 but still lower than the 1990s. In such a context, OSC rents would fall when rents are re-negotiated in year 11 to match the top-of-the-market rent in that year (a decrease of 15% from OSC year 10 rents). This scenario is not excessively conservative; it assumes that even 11 years after opening OSC can achieve top market rents. Stronger long-term rent growth is modeled in years 11-30, an average of 2.5% annually.

In the Best Case Scenario, moderate market conditions result in negative cash flow in years 11-17, requiring some City subsidy during that time (less than \$100,000 in year 11,

## OSC Financial Analysis

in undiscounted dollars, decreasing each year). Over 30 years the project could generate close to \$0.9 million in net operating revenue (net present value of 30 year cash flow).

- The high growth scenario assumes that Portland market conditions improve markedly from the most recent decade and that in year 11 (and all future points) rents are re-negotiated to allow for 2.5% annual growth.

In the Best Case Scenario, high growth negates all need for City subsidy and results in a 30 year project cash flow of over \$3 million in net present value.

**Scenario B: Typical Performance.** The following table illustrates an alternative scenario in which the project encounters a few bumps in the road. It is not a worst case scenario. In this scenario the project does not open to full occupancy but experiences an average annual vacancy rate of 10% beginning in year one. This equates to 3,300 square feet of vacant space. Modeling this 'shortage' on operating income serves as a proxy for a variety of possible scenarios: slow lease up on retail space, lower than anticipated rent rates secured on remaining vacant office space, etc. Including a vacancy assumption for year 1-10 is the only different between the Typical Performance (B) scenario and the Best Case (A) scenario.

Scenario B results in negative cash flow for the project's first 17 years. The City's share would be average \$50,000 annually in the first few years, decreasing, spiking again in year 11 and turning positive in year 18. Rents are set to cover debt service at a 1.0 ratio; with no rent escalations through year five and if rents fall in year 11 then unoccupied space results in cash flows below what is required for debt service. Anticipated lease terms call for no rent escalations in years 1-5 as a trade-off for the project's high initial asking rents.

If annual cash flow is translated into a single sum of money in today's dollars, moderate growth would mean that the project requires an additional infusion of \$316,000 to break even over 30 years (City share = \$158,000). Given the many generalizations necessitated by this analysis, this scenario essentially describes a break-even forecast. Cash flows in years 20-30 come close to compensating for short-term shortfalls, but not quite.

**Scenario B, Typical Performance. Net Present Value of Project Cash Flow in Moderate & High-Growth Market Conditions**

Year	Moderate Growth (1.5%)	Cumulative	High Growth (2.5%)	2.5% Growth Cumulative
Total Operating Cash Flows				
Year 5	(\$592,000)	(\$592,000)	(\$592,000)	(\$592,000)
Year 10	(\$288,000)	(\$880,000)	(\$288,000)	(\$880,000)
Year 15	(\$405,000)	(\$1,285,000)	\$191,000	(\$689,000)
Year 20	\$19,000	(\$1,266,000)	\$614,000	(\$75,000)
Year 25	\$309,000	(\$957,000)	\$891,000	\$816,000
Year 30	\$641,000	(\$316,000)	\$1,221,000	\$2,037,000
City Liability				
Year 5	(\$296,000)	(\$296,000)	(\$296,000)	(\$296,000)
Year 10	(\$144,000)	(\$440,000)	(\$144,000)	(\$440,000)
Year 15	(\$202,500)	(\$642,500)	\$0	(\$344,500)
Year 20	\$0	(\$633,000)	\$0	(\$37,500)
Year 25	\$0	(\$478,500)	\$0	\$0
Year 30	\$0	(\$158,000)	\$0	\$0

In a higher growth market context – with no re-setting of rents in year 11 – the project breaks even by year 15 and by year 30 generates over \$2 million in net present value.

One important caveat is that vacancy assumptions are not applied to the 12,500 square feet in negotiation for 30-year lease agreements with non-profits, since these are classified as long-term. If long-term agreements are not secured, or if they are secured but broken prior to year 30, vacancy rates and costs are impacted. Average annual vacant square feet could increase by 40% (to 4,600 square feet). In a moderate market context this increase would drive the project negative over a 30 year horizon (net present value of -\$1.7 million) and require about \$20,000 more annually in City subsidy through year 20. In a higher growth context the project breaks even by year 30.

A worst case Scenario C is not detailed within this analysis. If the project opened with more than 10% vacancy, or if rents were to fall by more than 15% in year 11, the project’s financial condition would correspondingly worsen. Between 2000 and 2011, the Fox Tower – which opened in 2000 as Portland’s premium office building – was able to realize average annual rent appreciation of less than 0.5% (experienced as built-in rent escalations with significant drops at re-leasing). If this market trend continued, in year 11 OSC rents would drop by 30%, the project would not generate positive cash flow until year 26, its 30 year cash flow would equate to -\$2.4 million in net present value, and annual City subsidies of between \$50,000 and \$150,000 would be required.

**B. Risk Share: Non-profit Tenancy Risk**

Four non-profits are in negotiations for leases corresponding to 14% of the building’s rentable square footage. These tenants contributed to the building’s original vision, its evolution and fundraising efforts. They are however relatively higher financial risk due to small operating

## OSC Financial Analysis

margins, reliance on grant funding, and historical occupancy in far less expensive Class C office space.

To meet social equity criteria and concerns, non-profit tenants are being offered discounted lease terms (\$25/sf NNN, versus \$30.50/sf NNN for for-profit office tenants), a rate accomplished via use of tax exempt vs. taxable bonds and successful project fundraising efforts. Tenants interested in 30 year terms are being offered leases with zero rent escalations over that time period and zero rent due in year 31 and beyond (tenants will pay O&M costs only). Long term tenants will also pay a proportional share of any extraordinary repairs and maintenance. These terms adhere to the building program's interest in social equity; they essentially extend some of the benefits of ownership to long-term lease holders. Currently two tenants are interested in this long-term lease agreement; these tenants total about 12,500 square feet (10% of total rentable square footage; the remaining 4% will be offered to non-profits via short-term leases).

Extending these rent terms requires financing the space with OUS 30-year tax-exempt bonds, the lowest cost debt available to the project. This poses a risk in that if the original tenants vacate the space it can only be rented to non-profit entities, significantly shrinking the pool of potential tenants. Because the current proposal calls for OUS to issue the bond for risk share space, OUS alone bears the legal risk associated with upholding the bond covenants. The City's risk exposure is financial, associated with possible rent subsidies should the space vacate prior to year 30 or should re-leasing short-term lease space prove problematic.

If additional space becomes available due to tenant vacancy then it is reasonable to assume that PSU, OUS or the City may have interest in expanding into this space. If however these parties are unable or unwilling to expand into space vacated by non-profit tenants, rents may need to be subsidized to render it affordable to non-institutional tax-exempt entities. PSU reports that typical institutional rents realized in the University District today are roughly 40% lower than those modeled for OSC non-profit tenants. If non-profit rents were to be discounted to this extent today it would translate into an annual subsidy of roughly \$172,000 (City liability: \$86,000). This is the high end of the potential cost range; subsidy would decrease in out years if the market experiences rent escalations. In the project cost summary table, potential costs associated with non-profit tenants have been modeled as zero in a low cost scenario (leases are signed, successfully re-negotiated in year 11, and occupancy is maintained). A mid-range scenario of \$20,000 in annual City subsidy, decreasing over time, models the two short-term lease tenants (total of 5,240 sf) vacated in year six when rents escalate; rent on this space would fall when renegotiated.

### C. Risk Share: Capital Repair Risk

Capital repair risk describes the risk associated with funding long-term maintenance needs. The City's policy is to set-aside 1-3% of each building's value annually; industry standards target 3%. BPS occupancy costs incorporate a 1% set-aside, equivalent to a \$4.65/square foot Facilities surcharge. However, operating charges for risk share tenants include a much smaller set-aside of \$0.50/square foot (about 0.1% of the building's replacement cost). This introduces risk that in the absence of rent escalations the building will generate insufficient cash flows to cover repair bills.

A study to estimate the timing and size of necessary capital repairs throughout the building's lifespan has yet to be undertaken. Gerding Edlen has provided a list of major building systems, their cost, and expected lifespan as a shorthand approach to estimating future capital repair needs.). For a high rise office development, a replacement reserve study would typically be commissioned when construction design drawings are substantially complete. As a more formal study has yet to be undertaken, this generalized approach allows some assessment of when significant capital repair bills may be expected and the adequacy of accumulated replacement reserves to pay those bills.

The OUS/City draft development agreement terms propose that as the management entity, OUS pays and allocates capital repair costs as follows:

1. The reserve account is applied (generated by \$0.50 surcharge on all rentable square footage; grows 2.5% annually).
2. Remaining costs are allocated on a pro-rata basis to institutional owners (BPS, OUS) and long-term leaseholders (OLBI).
3. OUS and the City split the pro-rata share of capital repair bills associated with short-term leasable space, assuming that long-term lease holders are able to pay their share. Short-term leasable space is equal to 30% of the building; the City and OUS therefore split 30% of repair bills.

The following table estimates the NPV of capital repair bills (e.g. payment of bills through year 25 would required \$5.5M in today's dollars; through year 30 would require \$7.2M). It then estimates each party's liability after replacement reserves are applied.

**Estimated Capital Repair Liability by Responsible Party**

Year	NPV of \$0.50/sf Reserves	Total NPV of Repair Bill	Minus Reserves	OUS Share (BPS)	City Share	Risk Share		City % of Remainder (50%)
						Long-Term OLBI	Remainder	
				34.3%	25.7%	10.1%	29.8%	14.9%
Year 5	\$294,000	\$0	\$294,000	\$0	\$0	\$0	\$0	\$0
Year 10	\$587,000	\$115,000	\$472,000	\$0	\$0	\$0	\$0	\$0
Year 15	\$881,000	\$540,000	\$341,000	\$0	\$0	\$0	\$0	\$0
Year 20	\$1,175,000	\$1,875,000	(\$700,000)	(\$240,000)	(\$180,000)	(\$71,000)	(\$209,000)	(\$104,500)
Year 25	\$1,469,000	\$5,507,000	(\$4,038,000)	(\$1,385,000)	(\$1,039,000)	(\$409,000)	(\$1,205,000)	(\$602,500)
Year 30	\$1,762,000	\$8,284,000	(\$6,522,000)	(\$2,237,000)	(\$1,678,000)	(\$660,000)	(\$1,947,000)	(\$973,500)

BPS occupancy costs include a \$4.15 capital repair surcharge; this is sufficient to cover the estimated \$1.4M in repair costs assigned to the City. The following table combines BPS and the City's component of Risk Share repairs and compares these with the BPS reserve fund balance. Over a 30 year period, the reserve fund appears sufficient to cover anticipated costs (about \$110,000 above costs).

## OSC Financial Analysis

### Net Present Value of Capital Repair Liability by Year vs. Capital Replacement Reserves

Year	BPS	Risk Share	Total	NPV Fund Balance
Year 5	\$0	\$0	\$0	\$614,000
Year 10	\$0	\$0	\$0	\$1,156,000
Year 15	\$0	\$0	\$0	\$1,636,000
Year 20	(\$180,000)	(\$104,500)	(\$284,500)	\$2,059,000
Year 25	(\$1,039,000)	(\$602,500)	(\$1,641,500)	\$2,434,000
Year 30	(\$1,678,000)	(\$973,500)	(\$2,651,500)	\$2,765,000

A strong caveat of this analysis is that the cost schedule generated by the building systems list profiles repair costs far below those realized in other buildings the City operates (Portland building, 1900 and the Police building). The costs estimated here are equivalent to an average annual set-aside of 0.83% of the building's replacement cost annually. The City has found that its existing inventory requires a set-aside of between 1% and 3% annually; the International Facilities Managers Association (IFMA) recommends that 3% of a building's replacement value be used each year for major maintenance projects.

#### D. Risk Share: Conference Center

Project partners have advocated for including conference and exhibit space as a way to expose and educate the public on the building's unique attributes. The OSC conference center consists of 3,800 square feet on the second floor; the exhibit center is 1,400 off the lobby on the first floor.

It is currently proposed that PSU will manage leasing for this space and operations for the exhibit and conference center. Expenses associated with management activities will be deducted from gross revenues prior to determining the net operating income of these spaces and allocating any profits or losses to the ownership entities.

Current operating estimates (provided by PSU, based on similar facilities) anticipate a required annual City subsidy of roughly \$42,000 (total subsidy of \$84,000) to cover debt service, given relatively conservative occupancy rates. Required subsidy would decrease if the space attracted higher than anticipated usage.

The project has been modeled so that subsidies associated with the conference center will be added to the BPS occupancy costs (a surcharge of \$1.31 per square foot). When/if the center performs above expectations, this surcharge could be removed and BPS rents lowered accordingly.

Risks associated with the proposal include:

- The space cannot be rented until build out is complete. This process may lag behind other building components, particularly if project partners target finishes beyond those currently budgeted.
- The subsidy set-aside generated via BPS could be insufficient, particularly in year one if build out of space lags building opening.

## OSC Financial Analysis

- This space will compete with existing conference space, both managed by PSU and others. A market study assessing the need for additional conference space has not been completed.

## OSC Financial Analysis

### IV. Additional Points: Project Risk Overview

The following table was prepared for the State Budget Note by Gerding Edlen Development and amended by OMF to reflect the City's unique concerns and perspective. It is intended to provide a holistic view of potential

<b>Risk</b>	<b>Risk Analysis</b>	<b>Risk Mitigation</b>
<b>Financial Risks</b>		
Construct cost increases	Cost estimates are currently characterized as 'medium,' a status that could warrant a 30-40% contingency.	Return to City Council to assess project financial performance when cost estimates are higher confidence.
Construction cost overruns	Like all complex capital construction projects this is a real risk that partners needs to protect themselves against contractually	Use of Guaranteed Maximum Price shifts risk to developer to the extent that project changes are not required.
Inability to secure allocation of new market tax credits	Failure would require and alternate source to be found for \$2M. City considers securing an allocation a moderate to high risk.	Gerding Edlen's experience in six projects successfully utilizing NMTC's.
Cost inflation	Increases with project delays	Move quickly to progress project while costs are known.
Bond interest rates	While current interest rates are favorable, this will be a risk until project is finances.	Assure financial projections include adequate cushion for potential of higher interest rates at time of borrowing.
Environmental remediation	It is yet to be determined whether and to what extent remediation will be required for the site. Given that the site held underground petroleum tanks, this risk is moderate to high. Costs are currently unbudgeted.	Return to City Council with updated project status after environmental testing has occurred
Contractor/subcontractor failure to perform or default	This is a risk in all capital projects	Selection process, OUS contract structure as a developer GMP, and retainage practices
Failure to lease space to cover debt service and operating costs for COP and OUS	Present until space is fully leased. Risks exist during lease-up and when leases are re-negotiated (year 11). Lack of rent growth within Portland Central City Class A office market poses risk to re-lease terms.	Aggressive tenanting efforts. Lease agreements are unsigned but in negotiation for all but 10,000 sf. 10% vacancy would require \$75,000 annually in City backstop in years 1-5.
Operating costs above those modeled	Modeled costs have not been vetted by the City or a third party; higher than anticipated costs would increase City occupancy costs,	Triple Net leases pass costs on to leaseholders (possibly within escalation cap); City



### OSC Financial Analysis

	and could add to vacancy risk and/or exceed O&M escalations caps.	would bear only its portion of these costs.
Capital replacement costs	A full capital replacement study has yet to be undertaken. The City is responsible for 47% of the building's repair bills; limited rent revenue from leasable portion of building is available to set aside for this purpose in the first 10 years.	Complete capital replacement study when building design is further progressed. Aggressive tenanting to ensure 10 year leases are signed at target rents.
<b>Technology Risks</b>		
Rooftop and Building Integrated PV	Deemed minimal by GED. Hundreds exist in the market, the design/development team has completed 14 rooftop an Building Integrated Photovoltaic systems, including OHSU Center for Health and Healing, Casey Condominium, Portland Public Schools and Portland Community College	Subcontractors with expertise can be found in Oregon.
Building integrated black/grey water treatment and reuse. (Black water = sewage, grey water = rainwater, sinks, etc.)	Deemed manageable by GED. Dozens of similar systems are in use, the team has completed 3 systems Including; OHSU Center for Health and Healing, 12 West, Vestas.	Base the system on successful projects.
Triple-glazed curtain wall systems	Deemed manageable by GED. Hundreds exist worldwide, but relatively new to the US market. The team has completed several. Skanska and Benson Industries, the project GC and glazing subcontractor have numerous triple glazed projects to their credit.	Selection of Skanska as GC, a global construction firm with experience in these systems?
Electrical Battery storage	This component is an important demonstration but does not present building risk. Sanyo is donating a 30 kWh DC battery system that will support the DC loop.	Sanyo will deploy this technology.
DC Micro-grid for all plug loads on one floor in the building, The floor will have exclusive DC current distributed for plug loads. AC will only be available for kitchen appliances and printers.	GED deemed as some risk present. New to office environments though heavily used in data centers. We are working with Intel and Cisco on the development of the DC micro-grid	Intel and Cisco will deploy this technology.
Direct/indirect solar day-lighting with LED backup	Some risk present, but only for classroom spaces. New technology, developed in Canada. The OSC is one of six pilot projects with system components paid for by Canadian Government.	OSC will be part of an international pilot; this investment is subsidized by the Canadian government.
Innovative building enclosure system	GED deemed some risk present. The OSC project team is working with an industry	GED and Skanska will work closely with product

**OSC Financial Analysis**

	sponsor who will discount systems cost and cover testing and research costs.	manufacturers to ensure success and require warranty.
Geothermal Heating and Cooling System	Deemed minimal by GED. PSU has deployed similar technology in two buildings within three blocks of the project site.	In addition to well testing and engineering, this project will leverage PSU experience with Geothermal systems.
<b>Business Risks</b>		
Failure to achieve Living Building Challenge leads to failure of project, possible tenant frustration, etc.	This is a risk recognized by the tenants and project team.	Project team is closely following requirements of the LBC. Formation of a Tenant Council to manage tenant behavior and energy usage as well as lease language that identifies penalties to those tenants that do not comply.
Tenant dissatisfaction with the building performance and/or conditions	This risk in the short-term minimal due to the close involvement of the tenants in the project. This risk may increase in out years when OSC technology may be superseded by new products. Alternatively, building conditions may become more standard in out years.	Tenants have been partners in the design of the building and understand the trade-off required and are mission driven to achieve net zero performance.
<b>Stakeholder Risks</b>		
Failure to obtain approvals from Legislature, City Council, PDC Commission, OLBI Boards, retail prospects, PGE agreements	This is a clear risk in a complex multi-partner capital project.	Mitigation through communications and governance structure, for example, Ownership and Risk Sharing agreements and Project Steering Committee. Significant changes in the partnership structure will require a reassessment of the building's feasibility. Both the City and OUS have been successful in similar partnerships.
<b>Legal Risks</b>		
Contract negotiations could fail	There is some risk in negotiating the following contracts, however, work on all of these is under way: <ul style="list-style-type: none"> <li>o Design Development Agreement</li> <li>o Condo and backstop</li> <li>o Lease agreements</li> <li>o GMP</li> <li>o Design/Build agreement</li> <li>o PGE solar ownership</li> </ul>	Both the COP and OUS system are experienced in complex capital construction projects with similar partnership arrangements, including the 1900 Building and the Recreation and Student Services Building.

## OSC Financial Analysis

### OMF Recommendations

Should City Council move forward with the OSC, OMF recommends the following:

1. Return to City Council prior to construction to report:
  - Progress in finalizing leases, whether space remains and whether rent terms achieved targets
  - Extent to which construction costs increase or decrease as estimating confidence increases
  - Extent to which site environmental remediation will be required, and cost (currently unbudgeted)
  - Extent to which uncommitted sources have been secured, including \$2 million in New Market Tax Credits and \$1.5 million EDA grantUpdate the project's financial status accordingly.
2. Commission replacement reserve study when design drawings are sufficiently evolved, so that major capital repairs can be projected against anticipated project cash flows.
3. Initiate discussions with OUS on a mechanism to address the difference between the assessed value of the land contributed to the project and the amount for which the City is credited.

OMF expects that the project will be brought back before City Council in February 2012 should the State of Oregon re-authorize \$37 million in bonds to support the project. A draft City-OUS development agreement and a bond authorization ordinance are expected at that time.

## Attachments

- A. City of Portland Resolution #36808
- B. State of Oregon budget note and response
- C. Gerding Edlen proforma
- D. Land appraisal

## SUBSTITUTE

36808

As Amended

## RESOLUTION No.

Commit to pursue a mutually agreeable partnership with the Oregon University System for the Oregon Sustainability Center, direct the Bureau of Planning and Sustainability and Portland Development Commission staff to initiate schematic design for the Oregon Sustainability Center, and direct further analysis of the proposed development by the Bureau of Planning and Sustainability, Portland Development Commission, and the Office of Management and Finance (Resolution)

WHEREAS, in September 1999, through Resolution No. 35817, the City Council directed the development of a *Green Building Action Plan* based on recommendations from the Sustainable Portland Commission's *Green Building Options Study*; and

WHEREAS, in January 2001, through Resolution No. 35956, the City Council directed City bureaus to adopt and implement *Portland LEED™ Green Building Rating System* and other approaches identified in the City's *Green Building Policy* pertaining to design and construction of new City facilities or City-funded projects; and

WHEREAS, in April 2005, through Resolution No. 36310, the City Council amended the City's *Green Building Policy* as binding policy and directed all City bureaus and the Portland Development Commission (PDC) to require certain sustainable and green standards in construction, operation and maintenance of City buildings; and

WHEREAS, in July 2009, through Resolution 36714, the City Council adopted the *City of Portland Economic Development Strategy – A Five Year Plan for Promoting Job Creation and Economic Growth*, setting the objective for continuing Portland's leadership in green building by creating the next generation built environment, through the establishment of the Oregon Sustainability Center (OSC) to foster the next wave of innovation in sustainable building and living, and directed coordination with PDC regarding implementation of the actions identified in the Strategy; and

WHEREAS, in October 2009, through Resolution 36748, the City Council adopted the Climate Action Plan, setting the goal for reducing carbon emissions by 80% by 2050, and established interim building and energy objectives to achieve zero net greenhouse gas emissions in all new buildings and homes and to ensure that new buildings can adapt to the changing climate; and

WHEREAS, the City of Portland is in the process of developing the Portland Plan, a strategic and comprehensive plan for the future growth and development of the city over the next 30 years, which will strongly influence the region's ability to prosper without relying on carbon based energy; and

WHEREAS, in 2009, PDC as the City's urban renewal and redevelopment agency selected Gerding Edlen Development to prepare a feasibility analysis for the OSC, and where the feasibility study prepared would determine whether the world's first high-density, multi-use, net zero energy, water, and wastewater building that meets the requirements of the Cascadia Region Green Building Council's Living Building Challenge could be constructed; and

WHEREAS, the City and the Oregon University System (OUS) wish to jointly develop and own the OSC, to be located on PDC property on the Portland State University (PSU) campus at the intersection of SW Fourth Avenue and SW Montgomery Street; and

WHEREAS, the City and OUS desire that the OSC would be able to deepen Oregon's green building expertise, to create local jobs, and to expand the understanding of the integral relationship between people and the buildings they occupy and operate; and

WHEREAS, the City and OUS desire that the OSC would be the home to a consortium of sustainability-focused businesses, non-profits, and researchers, making the OSC a hub for the region's economic competitiveness in sustainability and forging connections to Oregon's sustainable businesses by showcasing green building features and innovations; and

WHEREAS, the State of Oregon has approved the use of up to \$80,000,000 of State of Oregon General Obligation bonds to financially support the development of the OSC, and where OUS has received contingent tenant commitments from universities within the OUS system as well as partner non-profit and business tenants needed to support the state General Obligation bonds, has committed funds towards the completion of the schematic design phase for the OSC, and is seeking the City's partner commitment to consider moving forward with this investment in the schematic design phase of the OSC;

NOW, THEREFORE, BE IT RESOLVED, the City Council directs PDC and Bureau of Planning and Sustainability (BPS) to continue further evaluation of the OSC through the schematic design phase in which expenses for that phase would be jointly shared by PDC and OUS and with a shared understanding by project partners that the development and construction costs of the OSC would not exceed \$420 per square foot and a desired goal that the cost be significantly less; and

BE IT FURTHER RESOLVED, the City Council commits to pursuing a mutually agreeable partnership in the development of the OSC with OUS dependent on (1) the outcome of the schematic design phase and (2) further analysis to determine whether the development of the OSC can reasonably and economically achieve the stated policies and goals of the City; and

BE IT FURTHER RESOLVED, the City and OUS would have joint public ownership in the OSC, with City ownership of approximately 24,400 useable square feet of space to accommodate the needs and uses of City bureaus or offices, OUS ownership of approximately 40,000 useable square feet for OUS uses, and shared ownership and responsibility for common spaces; and

BE IT FURTHER RESOLVED, additional space at the OSC would accommodate uses of non-profit and for-profit entities who would commit to tenancy at the OSC, where the entities would be ones who share in the vision for sustainability; and

BE IT FURTHER RESOLVED, the City Council directs BPS, PDC and the Office of Management and Finance (OMF) to analyze the fiscal and policy impacts of entering into a final commitment to pursue a joint partnership with OUS based upon the following points in order to

ensure such an agreement would meet or exceed the City's interests:

- Description and analysis of the joint public ownership proposal by the City and OUS, including financial analysis of the full construction and development costs for the OSC and finalized square footage and financial assumptions; and
- Description and analysis of the City's commitment to long term tenancy and ownership, including the move-in and furnishing cost for BPS and the ongoing cost of operation, maintenance and repair; and
- Description and analysis of the partnership to jointly own, manage and share financial risks for non-City and OUS space; to determine the minimum and maximum financial risk to the City and OUS for that space; and to analyze whether the space would meet or generate returns to exceed the debt service and other expenses required for development, construction, operation, maintenance and repair for the space; and
- Financial appraisal of the value of the PDC property to be contributed to the City and OUS for the development and construction of the OSC, with a Disposition and Development Agreement to be negotiated subsequent to schematic design and PDC Board of Commissioner and City Council approval to move forward; and
- Additional points, as identified by the City to ensure that the agreement would protect the City's financial interest, ownership rights, and achieve the City's policies and goals for economic development, sustainability, and fiscal responsibility, and

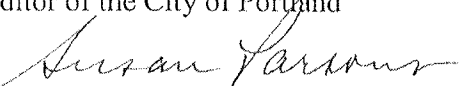
BE IT FURTHER RESOLVED, that BPS, PDC and the project team are directed to return to City Council to provide a report of the schematic design findings, including green technologies, and the description and analysis outlined above, and

BE IT FURTHER RESOLVED, that OMF is directed to return to Council at a work session within two months to provide to the Council additional information regarding City space planning and facilities needs, the current and projected costs for City space for BPS and others, and the impacts of potential moves and/or property sales, purchases, or developments on other City bureaus and agencies.

Adopted by the Council: AUG 04 2010

Mayor Sam Adams  
Prepared by: K. Schneider  
Date Prepared: August 4, 2010

**LaVonne Griffin-Valade**  
Auditor of the City of Portland

By   
Deputy

1108

SUBSTITUTE

Agenda No.  
**RESOLUTION NO.**  
Title

**36808**

As Amended

Commit to pursue a mutually agreeable partnership with the Oregon University System for the Oregon Sustainability Center, direct the Bureau of Planning and Sustainability and Portland Development Commission staff to initiate schematic design for OSC, and direct further analysis of the proposed development by the Bureau, Portland Development Commission and the Office of Management and Finance (Resolution) *of Planning and Sustainability*

<p style="text-align: center;"><b>INTRODUCED BY</b> Commissioner/Auditor: <b>Mayor Sam Adams</b></p>	<p>CLERK USE: DATE FILED <u>AUG 04 2010</u></p>
<p style="text-align: center;"><b>COMMISSIONER APPROVAL</b></p> <p>Mayor—Finance and Administration <i>Adams</i></p> <p>Position 1/Utilities - Fritz</p> <p>Position 2/Works - Fish</p> <p>Position 3/Affairs - Saltzman</p> <p>Position 4/Safety - Leonard</p>	<p style="text-align: center;">LaVonne Griffin-Valade Auditor of the City of Portland</p> <p>By: <i>[Signature]</i> Deputy</p>
<p style="text-align: center;"><b>BUREAU APPROVAL</b></p> <p>Bureau: BPS &amp; PDC Bureau Head: Susan Anderson &amp; Bruce Warner</p>	
<p>Prepared by: E. Jacobson &amp; K. Schneider Date Prepared: 7/29/2010</p>	<p><b>ACTION TAKEN:</b></p>
<p>Financial Impact Statement</p> <p>Completed <input type="checkbox"/> Amends Budget <input type="checkbox"/> Not Required <input checked="" type="checkbox"/></p>	
<p>Portland Policy Document If "Yes" requires City Policy paragraph stated in document. Yes <input type="checkbox"/> No <input type="checkbox"/></p>	
<p>Council Meeting Date <b>August 4, 2010</b></p>	
<p>City Attorney Approval</p>	

<b>AGENDA</b>
<p><b>TIME CERTAIN</b> <input checked="" type="checkbox"/></p> <p>Start time: <u>10:30am</u></p> <p>Total amount of time needed: <u>30 minutes</u> (for presentation, testimony and discussion)</p>
<p><b>CONSENT</b> <input type="checkbox"/></p>
<p><b>REGULAR</b> <input type="checkbox"/></p> <p>Total amount of time needed: _____ (for presentation, testimony and discussion)</p>

FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:		
		YEAS	NAYS
1. Fritz	1. Fritz	✓	
2. Fish	2. Fish	✓	
3. Saltzman	3. Saltzman	✓	
4. Leonard	4. Leonard	✓	
Adams	Adams	✓	



OSC Budget Note Response – FINAL DRAFT

August 25, 2011

The Honorable Richard Devlin, Co-Chair  
The Honorable Peter Buckley, Co-Chair  
The Honorable Dennis Richardson, Co-Chair  
Interim Joint Committee on Ways and Means  
State Capitol  
Salem, Oregon 97310

RE: Response to Budget Note for the Oregon Sustainability Center - Oregon University System

Dear Co-Chairpersons:

The Oregon University System (OUS) is requesting a hearing with the Interim Joint Committee on Ways and Means or appropriate subcommittee at its September 2011 meeting for the purpose of reporting on the budget note requirements for the Oregon Sustainability Center (OSC) capital project.

**Background:**

The 2009 Oregon Legislature initially approved this project. Since 2009, the project progressed with the substantial completion of due diligence, conceptual planning and schematic design. The 2011 Legislature placed the project's previously approved project and bond limitation on hold seeking additional information concerning the OSC project pursuant to a legislative budget note.

The project has many financial partners, including: OUS and its member institutions; the Portland Development Commission; the City of Portland; many private non-profit and for-profit entities; the federal government; and multiple philanthropic foundations who have agreed to lease space in, invest in, or otherwise support this project. These partners have committed significant financial and staff resources and are committed to seeing the project move forward as expediently as possible.

**Nature of the Request:**

During the 2011 Legislative Session, legislators identified multiple issues concerning the OSC project. The Ways & Means Committee itemized those issues in a budget note attached to the OUS 2011-13 capital budget. This document seeks to address those issues in an effort to earn the Joint Interim Ways and Means Committee's acceptance of this report and expedite the re-authorization of project and bond limitation for the OSC project during the February 2012 Legislative Session

**Action Requested:**

The Oregon University System (OUS) is requesting that the Interim Joint Ways and Means Committee accept the attached report addressing all the requirements of the budget note for this project.

**OSC Budget Note Response – FINAL DRAFT**

OUS is also requesting that the committee forward a “do-pass” recommendation regarding the reinstatement of both the project and bond limitations to the Legislative Assembly in February 2012 in order to avoid further delays and to re-assure its partners that this project will be re-authorized when the Legislature next meets in February 2012.

In addition, OUS requests that the Joint Interim Ways and Means Committee acknowledge that OUS plans to continue with the design of the project in the interim between the receipt of this report and the February 2012 session.

Specifically, OUS is requesting the re-authorization of a capital project expenditure limitation for this project, of \$65M, and the concomitant bond limitation of \$37M for the Article XI-F bonds. The table below shows this request alongside current project cost estimates.

	Bond and Limitation Request	Project Total Estimate
Article XI-F bonds	\$ 37,000,000	\$ 36,183,000
Other Funds	\$ 28,000,000	\$ 25,512,000
<b>Total Project</b>	<b>\$ 65,000,000</b>	<b>\$ 61,695,000</b>
Total Limitation Request	\$ 65,000,000	

This bond and limitation request differs from our current project total estimate. We intentionally make this request in order to accommodate possible interest rate fluctuations and minor changes in gifts and grants to the project between now and the time of bond issuance.

**Legislation Affected:**

The 2011-13 Legislative Session - Capital Construction Bill – HB 5005-5006

Please feel free to contact me at 541-737-3646 if you have any questions or if additional information is needed. Thank you for your consideration of this very important matter.

Sincerely,

Jay Kenton, Vice Chancellor  
Finance and Administration

Attachment

C: OUS Board President Donegan  
Chancellor Pernsteiner

OSC Budget Note Response – FINAL DRAFT



**Oregon Sustainability Center**

Response to Budget Note - Oregon University System  
August 25, 2011

## OSC Budget Note Response – FINAL DRAFT

### Executive Summary

The partners engaged in the Oregon Sustainability Center (OSC) seek authorization to build and operate one of the most resource efficient and innovative buildings in the world. The capital project, which would be built on the Portland State University (PSU) campus, is intended to serve Oregon as a center for research, education, business development and public service. It will also drive Oregon's growing sustainable industries, creating near-term construction jobs and well-paying, stable long-term jobs, and enhance the competitiveness of the state's workforce.

During the 2011 Legislative session legislators identified several issues regarding the project. Some of the issues resulted in substantive changes in the project plan, including a reduction in the rent covered by OUS to no more than one third of the project. Since the legislature last considered the project, significant new grants and gifts have been obtained, and the value of donated land has been more accurately reflected.

This document represents the project partners' effort to craft a complete response to the issues outlined in the legislative budget note including:

- The purpose and goals of the project as well as an explanation of how the project will be measured and evaluated (See Section 1);
- A business model and plan for the building including schematic design documents, schedule, financial pro forma, financing resource plan, major milestones, funding release plan, and alternatives analysis (See Section 2 and Appendix B);
- A discussion of quality control, a full risk analysis, and a plan to manage and monitor the financial investments of the project (See Section 2.C, 2.D and 2.E); and
- A financial analysis, including a look at financial risks, return rates, rent comparisons and clear case for why State of Oregon bond funding is appropriate and needed for this project. (See Section 3 and Appendix B)

The OSC project is inherently unique given the project's technical complexity and its mix of funding sources and partners. Despite the project's complexity, this document makes the case that support from the State of Oregon, in the form of bonds to be paid back from tenant rental revenues, is an investment with controllable risk and significant returns for our state.

Working as a team with private sector experts in design and green building, the project sponsors will deliver a functional and cost controlled building - and one that will be among the world's most innovative and sustainable structures. Further, the Oregon University System and the City of Portland have done the needed analysis of the risks of this project and are prepared to successfully manage and deliver the project.

## OSC Budget Note Response – FINAL DRAFT

The project partners believe the OSC will be a powerful catalyst to accelerate Oregon's transition to a more stable and prosperous economy for now and well into the future. In addition to, immediately creating construction jobs, it will provide long term employment and economic opportunities, via its research and commercialization efforts.

Specific economic benefits of the project are (see Appendix I for further detail):

- The solar energy system on the top of the building will be comprised of:
  - Photovoltaic panels that lead the industry in energy production and that use silicon manufactured by Sanyo (Salem, OR),
  - Industry-leading inverters manufactured by PV Powered (Bend, OR)
  - Racking system for mounting the solar panels manufactured by Sun Storage (Joseph, OR) using aluminum extrusions from Sapa Extrusions (Portland, OR).
- Oregon Electric Group and Interface Engineering, both in Portland, will design and deploy an experimental cutting-edge DC loop utilizing a large-scale lithium-ion battery storage system to optimize the efficiency of a the building's solar energy system.
- Charter Mechanical (Tualatin, OR) will deploy the advanced mechanical and plumbing systems in the building needed to achieve net-zero performance goals.
- McKinstry (Portland, OR) will develop the systems to allow real-time energy monitoring, fault detection, weather normalizing and other relevant methods to optimize performance.
- SERA Architects and GBD Architects, both in Portland, will design the auditorium to incorporate an innovative daylighting solution.
- InSpec (Portland, OR) will design and install the first PV project in the U.S. to utilize Sanyo's highest efficiency panels.
- Orenco Systems (Sutherlin, OR) and Lando & Associates (Portland, OR) will work with and learn from market-leading Natural Systems Inc. regarding how best to design and implement aggressive on-site water capture and reuse strategies.

Through OSC, Oregon has a unique opportunity to support some of its largest and fastest growing clean technology industry sectors and play a significant role in the global economy.

## OSC Budget Note Response – FINAL DRAFT

**1. Definition of: the purpose and goals of the project, including any business, education and research opportunities that are to be addressed; and the project success measure and criteria that will be utilized to verify that the OSC has been successfully developed and produced the projected return on investment;**

**Purpose.** The purpose of the Oregon Sustainability Center (OSC) is to strengthen and diversify Oregon's economy by constructing a world class, state of the art net-zero building. By doing so, the OSC will help Oregon businesses and workers meet the growing national and international demand for high performance services and products, convert new technologies into marketable products and create a living laboratory for advanced research. The building itself will be among the most advanced in the world – pushing Oregon firms and workers to the forefront in design, technology and construction. As a net-zero building, the OSC will provide all of the energy and water needed for the approximately 130,000 gross square feet of academic space, retail, office, conference center, and public areas. As a home for OUS education and research, the City of Portland's Bureau of Planning and Sustainability, and several non-profit and for-profit tenants.

The building will advance Oregon's competitiveness by functioning as a globally recognized hub for innovation, research, commerce, and education. It will serve Oregon by creating marketable technologies, new industries and it will equip Oregon's students with the skills needed to compete in a 21st century economy.

**Goals and Measures (See also 2.e.).** The OSC will create long term economic benefits while capturing short term returns, including:

- Goal #1 Economic Impact of Construction. The design, development, and construction team for OSC is intentionally composed of Oregon firms. Guided by The Living Building Challenge™ requirements to source materials and professional services regionally, a preliminary IMPLAN analysis (see Appendix H) considering the multiplier effect of dollars invested in the region indicates that just the construction of the OSC will generate approximately 780 direct and indirect jobs and more than \$100 million of total economic impact.

Specific economic benefits of the project are (see Appendix I for further detail):

- The solar energy system on the top of the building will be comprised of
  - Photovoltaic panels that lead the industry in energy production and that use silicon manufactured by Sanyo (Salem, OR),
  - Industry-leading inverters manufactured by PV Powered (Bend, OR), and
  - Racking system for mounting the solar panels manufactured by Sun Storage (Joseph, OR) using aluminum extrusions from Sapa Extrusions (Portland, OR).
- Oregon Electric Group and Interface Engineering, both in Portland, will design and deploy an experimental cutting-edge DC loop utilizing a large-scale lithium-ion battery storage system to optimize the efficiency of a the building's solar energy system.

## OSC Budget Note Response – FINAL DRAFT

- Charter Mechanical (Tualatin, OR) will deploy the advanced mechanical and plumbing systems in the building needed to achieve net-zero performance goals.
- McKinstry (Portland, OR) will develop the systems to allow real-time energy monitoring, fault detection, weather normalizing and other relevant methods to optimize performance.
- SERA Architects and GBD Architects, both in Portland, will design the auditorium to incorporate an innovative daylighting solution.
- InSpec (Portland, OR) will design and install the first PV project in the U.S. to utilize Sanyo's highest efficiency panels.
- Orenco Systems (Sutherlin, OR) and Lando & Associates (Portland, OR) will work with and learn from market-leading Natural Systems Inc. regarding how best to design and implement aggressive on-site water capture and reuse strategies.

Measures: Short term jobs created and economic output, including an IMPLAN analysis of actual expenditures when the project is complete.

- Goal #2 Global Leadership and Innovation. The OSC will establish Oregon as a world leader in green building technology. The OSC's international business partners have stated that construction of the OSC positions Oregon as a hub of innovation which effectively competes with other global centers in the development of clean technology. Just as Oregon gained a national reputation for having the most LEED buildings per capita, the investment in the OSC can provide similar recognition and economic impact. It will draw international attention to Oregon and the region, helping Oregon maintain its existing competitive strength and make the state even more attractive as a global provider of clean tech expertise.

The OSC will provide an anchor and a showcase for Oregon firms and universities to attract new market capital and interest, driving increased business and growth. The OSC will also be a home base for First Stop Portland, an organization that promotes business-to-business exchange and networking between local and visiting delegations. The ground floor of the OSC will serve as a public facility to welcome visitors and inform them about Oregon's industries and universities.

Measures: Increased investment in Oregon; increased trade partners; growth of the Oregon University System; growth of alternative energy, green building, and clean technology industries in Oregon; and number of national and international delegations hosted.

- Goal #3: Oregon Firms, Jobs, and Workforce Development. In addition to construction jobs, the OSC will help bring Oregon workers to the cutting edge of building technology and help Oregon firms create permanent jobs serving the economy of tomorrow as they export the skills and knowledge acquired from the project. These jobs include architects and engineers working on other high performance buildings, workers in Sanyo's Salem plant manufacturing silicon for state-of-the-art solar panels, entrepreneurs commercializing new energy management software piloted in the OSC, construction workers installing net-zero water systems using skills developed during their work on

## OSC Budget Note Response – FINAL DRAFT

OSC and building materials manufacturers developing toxin-free materials for other cutting-edge buildings.

The Brookings Institution reported earlier this year that with nearly 59,000 clean economy jobs in Oregon, this sector accounts for 3.4 percent of all jobs in the state, giving Oregon the second highest concentration in the nation. Additionally, Oregon workers in these positions earn 5.2 percent above the statewide average, and since 2003, these jobs have grown 2.2 percent annually, ten times the growth rate for all Oregon jobs over the same period. Focusing more specifically on green building jobs, PDC analysis shows that, from 2000 – 2009, employment at Portland green building firms grew by 3.3 percent annually, whereas jobs in the traditional design and construction industry Portland's contracted by 2.5 percent per year. For these reasons, Portland, Business Oregon and the Oregon Business Plan have chosen to make clean technology a priority of their respective economic development strategies.

The building aims to achieve net-zero energy and water performance, going far beyond the industry's current highest standard of LEED Platinum. It will also be the first urban scale mixed use building striving to meet The Living Building Challenge™. This challenge will require Oregon trades to become proficient in the most advanced energy and water handling systems and the use of toxin free and locally sourced construction materials.

Of the five largest and five fastest growing industry segments in Oregon's clean tech economy identified by Brookings, the OSC supports four of the largest (conservation, public mass transit, waste management and treatment, and green building materials) and three of the fastest growing (water efficient products, pollution reduction, and professional energy services) industry segments. With the growing national and international demand for sustainable buildings, these skills will translate into products and services which can be exported from the state.

Further, not only does this sector show greater growth and resilience than other sectors, but it heavily favors the middle class. Across the United States, well-paying jobs that do not require extensive education, blue collar jobs, comprise less than 43 percent of all jobs, but in Oregon, 68 percent of all jobs in the clean economy sector are blue collar jobs. As a result, the OSC provides an opportunity to support critical segments within a sector of the Oregon economy that provides higher wages, stable job growth during a recession and a high concentration of middle class jobs, helping strengthen Oregon's economy and thereby help stabilize State revenues.

The occupants of this building will also enrich Oregon's workforce. Tenants will be a unique mix of nonprofits, private firms, government agencies, and university faculty and students, providing a hub of activity and ideas for visitors, learners, researchers, and private firms alike. These tenants will employ and nurture workers, expanding Oregon's overall capacity in this growing clean technology cluster.

A special effort is being made to involve minority, women, and emerging small businesses (MWESB) in the design, development and construction of the OSC. In addition to meeting utilization goals in its construction, OSC is increasing opportunities for minority and women-owned design and engineering professionals to be involved in



## OSC Budget Note Response – FINAL DRAFT

the project. This will ensure that MWESB firms around the state will be well-positioned to earn work on current and future large-scale construction projects.

The OSC will also house a 350-seat auditorium for Portland State University students and public events. The classroom will allow thousands of students per day to benefit from the innovative environment provided by the OSC. Students and faculty will be exposed to the building's business lessons, technology innovations and monitoring techniques, informing our next generation workforce.

Measures: Growth rate of Oregon's alternative energy, green building, and clean technology industries and labor force. Educational measures can include student credit hour production enabled through the expanded classrooms and overall University enrollment. Salary ranges and the number of new jobs can also be measured annually.

- Goal #4 Research and Commercialization. The OSC will function as a "living laboratory." It will simultaneously be a fully functional building for everyday use and allow researchers and developers to test and bring to market new products and processes. Researchers within the Oregon University System, coordinated by the Oregon Built Environment & Sustainable Technologies Center, have identified a research agenda of new practices and technologies tied to the OSC building and tenant performance. Through partnership with private sector companies already actively engaged in the OSC's design and construction, the innovations that prove successful will be commercialized for use in future buildings.

Oregon University System researchers have galvanized around the opportunity to test research questions in a real-world setting. From early in the design phase, nearly 40 engineering and social scientists have developed research projects ranging from "smog-eating" concrete, to building better models for tenant energy consumption, to occupant health and performance.

Once built, the OSC will be equipped with a monitoring system to track data for the research that will inform new products and practices and help adjust the building's operating systems for greater efficiency.

Measures: Grant revenues and research expenditure by OUS faculty; partnerships developed between university and private sector R&D; increased commercialized patents and products by Oregon institutions or businesses.

- Goal #5 Education and Public Outreach. The OSC will include a large classroom and several smaller classrooms for Portland State University. It will also contain public spaces designed for education and outreach. The building's unique design, performance and cutting-edge technology will be the subject of many tours and visits ranging from K-12 fieldtrips, international delegations hosted by the World Affairs Council and visiting professional groups coordinated by First Stop Portland.

Measures: Student credit hours produced in the classrooms; visits and events; inclusion of the building media, trade publications, and academic journals.

## OSC Budget Note Response – FINAL DRAFT

### 2. A comprehensive business model and plan for the OSC that includes;

2.a. Project charter, work plan, schedule, financial plan, resource plan, milestones, funding release plan, and governance plan, and alternative options including consequences of no action.

#### 2.a.i. Project Charter.

<p><b>Project Title: The Oregon Sustainability Center</b></p>
<p><b>Project Scope:</b> The project involves the design and construction of a new facility that will function as an office for many of the collaborating partners, but also will function as a research project, educational facility and a symbol of Oregon's leadership and commitment to environmental, social and economic sustainability. In addition, it is contemplated that the project will have active uses on its ground floor, including retail operations and a public "action center" which will showcase Oregon's industries and universities. This facility is planned as an iconic destination location. It will also have classrooms, including one 350 seat classroom, and conference facilities.</p> <p>Separate from the scope of this project, the Portland Streetcar will run diagonally through the block. The costs associated with this streetcar alignment are not a cost of this project. The alignment will be managed separately by the City of Portland's Bureau of Transportation and related contractors and will cost approximately \$4M. It will be funded by the City using Connect Oregon grant monies together with City matching funds. Work on this project will occur on a concurrent schedule to maximize efficiencies during construction.</p>
<p><b>Project Sponsor:</b> The authority for this project arises from the following entities, policies or actions:</p> <ul style="list-style-type: none"> <li>• OUS           <ul style="list-style-type: none"> <li>✓ Gubernatorial directives in green energy, sustainability, LEED building</li> <li>✓ Oregon Business Development Department Strategic Plan, including building on education system strengths to commercialize research into Oregon products, updated 2009</li> <li>✓ Legislative related authority in 2009 regular session</li> <li>✓ Board of Higher Education direction to brand OUS institutions as sustainable together with more specific focus of Portland Higher Education committee recommending the establishment of a sustainability research center</li> <li>✓ Specific campus strategies               <ul style="list-style-type: none"> <li>– PSU's \$25 million Miller Grant for sustainability related initiatives and research</li> </ul> </li> </ul> </li> </ul>

## OSC Budget Note Response – FINAL DRAFT

<ul style="list-style-type: none"> <li>– OSU as one of only two land, sea, space, and sun grant research institutions in the United States</li> <li>• City of Portland <ul style="list-style-type: none"> <li>✓ Mayoral commitment to economic development and climate leadership</li> <li>✓ City Council adoption of City of Portland Economic Development Strategy, July 2009</li> <li>✓ City Council adoption of Climate Action Plan, October 2009</li> <li>✓ City Council contingent project commitment, August 2010</li> </ul> </li> <li>• PDC <ul style="list-style-type: none"> <li>✓ Lead agency in implementation of 2009 City of Portland Economic Development Strategy</li> <li>✓ Authorization of share of schematic design expenditures with OUS, August 2009</li> </ul> </li> </ul>
<p><b>Project Steering Committee:</b> The project steering committee is a Board of Directors (the OSC Board) appointed by the cognizant authorities and include representatives from the Oregon University System, Portland State University, City of Portland, Portland Development Commission, the Oregon Living Building Initiative (“OLBI”), and a liaison to the greater Portland community. As the primary owners and funders of the project, the Oregon University System and the City of Portland function in a lead role, supported by the Portland Development Commission.</p>
<p><b>Project Manager:</b> The project is a collaborative endeavor involving the Oregon University System (OUS), the City of Portland (COP), the Portland Development Commission (PDC) and affiliated non-profit organizations and private firms.</p> <p>The two lead project sponsors representing the OUS and the City are:</p> <ul style="list-style-type: none"> <li>• Mark Gregory, OUS/PSU</li> <li>• Jeff Baer, City of Portland</li> </ul>

## OSC Budget Note Response – FINAL DRAFT

### 2.a.ii. Work Plan:

To date, the OUS and PDC have entered into cost sharing agreements and contracts for the costs associated with project management, schematic design and fund raising. All contractors who have provided services to date were selected using an open and competitive procurement process with PDC, OUS, City of Portland (COP) and non-profit tenant (“OLBI”) representatives on the selection committees.

Gerding/Edlen Development (“GED”), teamed with partners including SERA and GBD architects, and multiple engineering firms, was selected to do the schematic design for the project.

In addition, GED has multiple contracts in place or in process for design team agreements, prime construction contractor, subcontractors, and material providers/research partners. These subcontractors were selected after consultation with the OSC Board. They are Oregon firms and were selected based on their experience working on high performance buildings. One of the project goals has been to drive economic benefits back to Oregon as others around the globe seek to replicate this type of advanced facility.

The contract with GED is based on a guaranteed maximum price (“GMP”) contract. If agreed by the owners group, all or a portion of the selected team could be authorized to proceed with the design and construction of the facility. All contracts executed to date were reviewed and approved by the Oregon Sustainability Center Board, Department of Justice, the Oregon University System Board and the Portland Development Commission.

### **Work Plan Agreements/Steps to Deliver and Manage the OSC:**

- Approvals and Agreements: Project management, fundraising and cost sharing agreement
  - Parties to agreement:
    - PDC
    - OUS
    - GED for project management and fund raising
  - Status – On going, but OUS share on hold due to Legislative actions
- Schematic Design Development
  - Parties to agreement:
    - OUS/PDC
    - GED
  - Status – Completed
- Intergovernmental Agreement (land and TIF transfer)
  - Parties to the agreement
    - PDC
    - COP
  - Status – Consideration for approval September 2011
- Disposition and Development Agreement (program, financing, and risk share commitments)

## OSC Budget Note Response – FINAL DRAFT

- Parties to agreement:
  - COP
  - OUS
- Status – Negotiations started; on hold until spring 2012 due to Legislative action
- Condominium Agreement
  - Parties to agreement:
    - COP
    - OUS
  - Status – Negotiations started; on hold until spring 2012 due to Legislative action
- Lease agreements
  - Parties to agreement:
    - OUS with COP review
    - OLBI non profits
    - Retail purveyors
    - Private sector tenants
  - Status – Negotiations started, LOIs signed; binding lease agreements on hold until Legislative action spring 2012
- PGE solar ownership
  - Parties to agreement
    - OUS
    - COP
    - PGE – solar array ownership/power purchase agreement
  - Status – LOI in place, On hold awaiting for Legislative authorization
- Project design – Design Development to 50% Construction Drawings
  - Parties to agreement:
    - OUS with COP review
    - GED
  - Zoning code adjustment (City/BPS led)
  - Status – On hold awaiting Legislative report September 2011
- Guaranteed Maximum Price (GMP) Design/Build Contract
  - To be negotiated once plans get to 50% construction documents (CD)
  - Parties to the agreement
    - OUS/COP
    - GED
  - Status – On hold awaiting for Legislative authorization
- Bond sales
  - Bond counsel opinions will need to be obtained to proceed with bond sales.
  - Parties to agreement
    - COP
    - OUS
  - Status – Bond counsel engaged; preliminary research and discussion completed; pending legislative approvals
- Streetcar Alignment Coordination

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- Parties to agreement
  - PDC
  - COP/Bureau of Transportation
- Contracts and Agreements
  - PDC-COP Intergovernmental Agreement
  - Design-Engineering contract (PBOT held)
  - Easement (PBOT led)
- Contractor solicitation, selection and contract (PBOT held)
- Status – On hold awaiting Legislative authorization
  
- Building Manager selection and contract
  - Parties to agreement
    - COP
    - OUS
    - Other long-term lessees
  - Status – to be selected during design development

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### 2.a.iii. Schedule:

Due to the actions taken in the 2011 Legislative session this schedule is now subject to revision.

OUS and its partners are hopeful that by working with the governor, legislative leadership and sponsors, an interim plan can be accommodated to keep the project on schedule.

<u>OSC Project Schedule</u>	<u>As Originally Planned</u>	<u>As Revised (assumes Legislative approval in September 2011 and February 2012)</u>
Completion of Schematic Design	Spring 2011	Spring 2011
PDC, COP and OUS preliminary approvals of project finances and agreements to proceed with project design	Summer 2011	Proceed with 50% Design Development – Fall 2011  Proceed with final project approvals – Spring 2012
PDC, COP and OUS final project and bond sales approvals	Winter 2011	Spring 2012
Finalization of Guaranteed Maximum Price and final design build contract	Winter 2012	Spring/Summer 2012
Groundbreaking	Winter/Spring 2012	Summer 2012
Facility Opening	Fall 2013	Winter 2013-14

The original Fall 2013 opening was important to PSU as they are in need of the large classrooms. Having the added classrooms available at the start of an academic year was ideal given their growth in enrollment. Other tenants were also counting on having the facility available as soon as possible and have been making short-term lease arrangements in their current locations in order to facilitate a move into the OSC. Further delay or uncertainty in the schedule will likely increase the project tenancy risk.

A detailed schedule can be found in Appendix A.

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### 2.a.iv. Milestones:

The following outline represents the major milestones for the project:

- Preconstruction:
  - COP approvals
  - PDC approvals
  - Disposition and Development Agreements
  - Entitlement approvals (Design review, zoning, permitting, etc.)
  - Grant approvals – Federal, other
  - Rooftop lease and utility purchase agreement approvals – PGE
  - Additional Tenant recruitment
  - Final Lease commitments from all Tenants
  - Condo agreement and financial backstop negotiation and approvals
  - OUS Board final approval
  - Contract approval for design development to 50% Construction Documents level
  - GMP negotiation, agreement and final contract approvals
  - Geothermal well conformations and approvals
  - Compliance verification for The Living Building Challenge™ requirements
  
- During Construction:
  - Code compliance inspections
  - Project management
  - Schedule and Budget tracking
  - Change order processing and tracking
  - Compliance and quality monitoring
  - Construction Coordination
    - With PGE for rooftop solar
    - With streetcar realignment
    - With adjacent PSU, Trimet, and neighborhood uses
  
- Occupancy
  - Commissioning and Building Certifications
  - Certification of occupancy
  - Move in Coordination
  - Construction Close-Out



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### 2.a.v. Financial Plan:

A summary of the project costs based on Schematic Design is listed in Appendix B. The total project cost is currently estimated at \$61,695,000. To allow interest rate and market fluctuations, bonds totaling \$37M are being requested. The financial sources to cover the anticipated project costs are listed below. OUS, City of Portland, and PDC will be the primary funding agents for this facility as follows:

<b>Amount</b>	<b>Source</b>	<b>Notes</b>
\$36,183,000 (Debt)	State of Oregon Article XI-F General Obligation bonds	Request is for \$37 million in case interest rate or other assumptions shift during design development requiring additional availability of resources. Debt service to be repaid from revenues accruing from the project in the form of rents.
\$3,000,000 (Cash)	OUS cash proceeds from the sale of the surplus Capital Center facility located at 185 <sup>th</sup> and Walker Avenues in Beaverton	The OUS Board decided to invest this surplus in the OSC in order to 1) facilitate the research components of the project; and 2) to reduce the rent obligations of the participating universities.
\$8,247,000 (Debt)	City of Portland bonds	Debt service repaid using rents charged to the City's Bureau of Planning and Sustainability or from the City's General Fund budget.
\$8,750,000 (TIF and Land)	PDC Tax Increment Financing	Includes \$4.9M TIF cash in hand and property valued at \$3.85M from the South Park Blocks Urban Renewal Area.
\$5,515,000 (Cash)	Grants, Fundraising and Incentives	<ul style="list-style-type: none"> <li>• \$2.0M Federal New Market Tax Credits *</li> <li>• \$500K Energy Trust of Oregon credits **</li> <li>• \$1.5M Federal Grant for net zero water treatment systems</li> <li>• \$250K Meyer Memorial Trust grant for construction and build out of an action/conference center</li> <li>• \$25K Flora Family Foundation grant for the educational and outreach spaces</li> <li>• \$40K Metro grant for water processing</li> <li>• \$1.2M from private firms including Umpqua Bank, Sanyo Corporation, InSpec</li> </ul>
<b>\$61,695,000</b>	<b>TOTAL CASH &amp; DEBT</b>	*** (In-kind technical services not included/see comment below)

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**\* \$2M from Federal New Market Tax Credits (Estimated by GED)** – The purpose of the Federal New Markets Tax Credit (NMTC) Program is to spur investments in operating businesses and real estate projects located in eligible census tracts. Investors receive a tax credit against their Federal income tax return in exchange for making equity investments in specialized financial institutions called Community Development Entities (CDEs). CDEs compete for NMTC allocations and identify and select projects to place their allocation. The OSC is in an eligible census tract. In addition, Gerding Edlen has been working with several CDEs who are interested in placing their allocation in the project.

**\*\*\$500K Energy Trust of Oregon Credits** - The Oregon Sustainability Center is enrolled in the Energy Trust's Path to Net Zero program, which pays 30 cents per kilowatt hour (kWh) of energy saved. The grant amount is capped at \$500,000. Based on projected energy savings, the OSC will achieve the maximum grant amount of \$500,000.

**\*\*\*In-kind Technical Services** - Not included in the total are \$100-\$400K of in-kind technical services from US Department of Energy's Commercial Buildings Partnership and the Energy Trust of Oregon's Path to Net Zero programs to support achieving and documenting net zero energy performance

### Bond Debt Coverage

As noted above, the State of Oregon and the City of Portland will use bonds to provide much of the funding needed for this project. The OUS and City of Portland bonds will be repaid by rents accruing from the project. These rents will come from the following sources (for greater detail see Appendix B Pro Forma):

OUS uses in the facility:

- Portland State University – PSU will have multiple classrooms and faculty offices in this facility and will pay rent based on its square footage usage and operating costs. In addition, PSU will host First Stop Portland and the State of Oregon Regional Solution Center. A portion of the OUS cash noted above will be applied to these costs in order to lower PSU's net effective rental rate. In addition, PSU will pay operating, maintenance and repair costs attributable to their space.
- Oregon State University – OSU plans to utilize this facility for offices for its Metropolitan Extension Services Office, College of Engineering and Institute of Natural Resources. Like PSU, OSU will pay rents based on its costs, less a portion of the OUS cash applied to these costs to lower its net effective rental rate. In addition, OSU will pay operating, maintenance and repair costs attributable to their space.

City of Portland (COP) uses in the facility:

- The COP plans to move its Bureau of Planning and Sustainability (BPS) into this facility. The costs of this space are planned to be largely financed by using the PDC TIF resources with the balance to be financed by the issuance of COP bonds. BPS will then be expected to pay rent to the City in an amount needed to repay these bonds. In addition, COP will pay operating, maintenance, repair and other costs attributable to their space.

Leased Space:

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- Non-Profit - OLBI members will have two lease options as follows:
  - Members willing to sign 30-year leases, such that their leases will terminate when the OUS/State of Oregon bonds are retired will be treated as long-term lessees in this project and will be offered a discounted rental rate based on the cost of the bonds, plus operating, maintenance and repair costs attributable to their portion of the facility.
  - Members who prefer to have “market” leases with terms shorter than the 30-year bond amortization period will have triple net market rate leases with rent escalation provisions. In addition, these tenants will pay operating, maintenance and repair costs attributable to their space.
- For Profit - Private sector and retail users will be offered triple net market rate leases with rents set to recover the full costs of any bonds debt service, operating costs, tenant improvement allowances and property taxes each year. Any tenants who are not exempt from property taxes will also pay property taxes assessed on their portion of the facility.
- BEST/Research- Best offices will be purchased, with remaining cash, for use by visiting scholars and students from its member institutions, a conference room and research spaces needed by BEST. As such rents for this space will consist only of attributable operating, maintenance and repair, as the capital costs will be financed with a portion of the \$3M OUS cash investment noted above.

All leases will be triple net leases. In addition to base rents needed to cover bonded debt service, tenants will be responsible for paying operating and maintenance costs attributable to their space in the facility. A modest building repair reserve will be maintained. A commercial property manager will be contracted to operate the facility and to calculate and collect each tenants' pro-rata share of operating, maintenance, and repair and reserve contribution costs each year. The costs of this property manager will be included in the operating costs each year and be covered by the tenants in the facility.

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### 2.a.vi. Resource Plan

Project partners have identified the following internal and external staff and consultants needed to complete this project:

<b>Task</b>	<b>Skills</b>	<b>Resource(s) Assigned</b>
Steering Committee	Project decision making body during design process	Jay Kenton, OUS Mark Gregory, PSU Lew Bowers, PDC Michael Armstrong, BPS Jeff Baer, OMF Andrea Durbin, OEC Alan Hipólito, Verde
Ownership representation – design	Project and contract management	Mark Gregory, PSU Lisa Abuaf, PDC Hillary Bounds, OUS
Ownership representation – construction	Project and contract management	Staff to be assigned, PSU Staff to be assigned, COP
Development/design	Project and contract management	Jill Sherman, Gerding/Edlen
Design	Architectural designs (SD through CD); permitting	Katherine Schultz, GBD Lisa Petterson, SERA
Construction	Contractor, sub selection and management	Steve Clem, Skanska
Engineering	Civil, Structural, MEP, Energy Modeling	OTAK, KPFF, Interface, PAE
Landscape	Landscape design (plaza, streetscape)	Nevue/Ngan
Resource development	Fundraising and tenanting	Robert Frisbee Dennis Wilde, Gerding/Edlen
Private sector outreach	Technical and research involvement	John Tydlaska, PDC Johanna Brickman, Oregon BEST
Legal	Lease & ownership agreements/ negotiation; bond counsel	COP PDC OUS counsel Bond counsel
PV system and ownership	Net zero performance requirements and third party ownership structure	PGE SANYO InSpec

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### 2.a.vii. Funding Release Plan

To date, OUS and PDC cash has been utilized to fund the project management, schematic design, and fund raising costs. In addition, PDC funded the Feasibility Study, which concluded in 2009 and is not included in the total project costs.

Should the project proceed, it is planned that OUS and PDC would continue to fund the project management, further design to 50% of construction drawings (currently estimated at \$2.45M of the total \$3.97M A & E costs). The parties have planned to enter into a Guaranteed Maximum Price design build contract once the design was at 50% of construction drawings. Once the GMP contract is in place, the cash flow needs of the project would accelerate. However, since the bonds have a carrying cost in the form of interest, it is prudent to use cash available to the project from OUS, PDC, grants, tax credits or donations first, before issuing the bonds. As expenditures accelerate the parties have discussed using bond proceeds from the sale of the State/OUS bonds and the City bonds on a percentage of total project funding basis, such that each developer invoice would be funded first with any available cash from donations, tax credits and grants in hand, and the balance from a pro-rata share of each entity's bond proceeds. These tentative agreements will be codified in agreements between the parties.

#### Project Cash Flow – Summary:

- Due Diligence and Schematic Design
  - 2010-August 2011
  - Total of ~ \$934K
- Preconstruction
  - September 2011 – June 2012
  - \$150K - \$500K per month
  - Total of ~\$ 2.461M
- Construction
  - July 2012 – December 2013
  - \$900K - \$6.7M per month
  - Total of ~\$58.3

A detailed funding release plan can be found in the Pro Forma in Appendix B.

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### 2.a.viii. Governance Plan:

#### **Governance During Project Design and Construction:**

The OUS will be the contracting agent for all contracts associated with the design and construction of the facility. Because the City of Portland will also be an owner of the completed building, both OUS and City of Portland leadership will be engaged during design and construction phases.

A project management representative from both OUS and City of Portland will coordinate construction via the developer GED.

#### **Ownership and Risk Sharing Structure:**

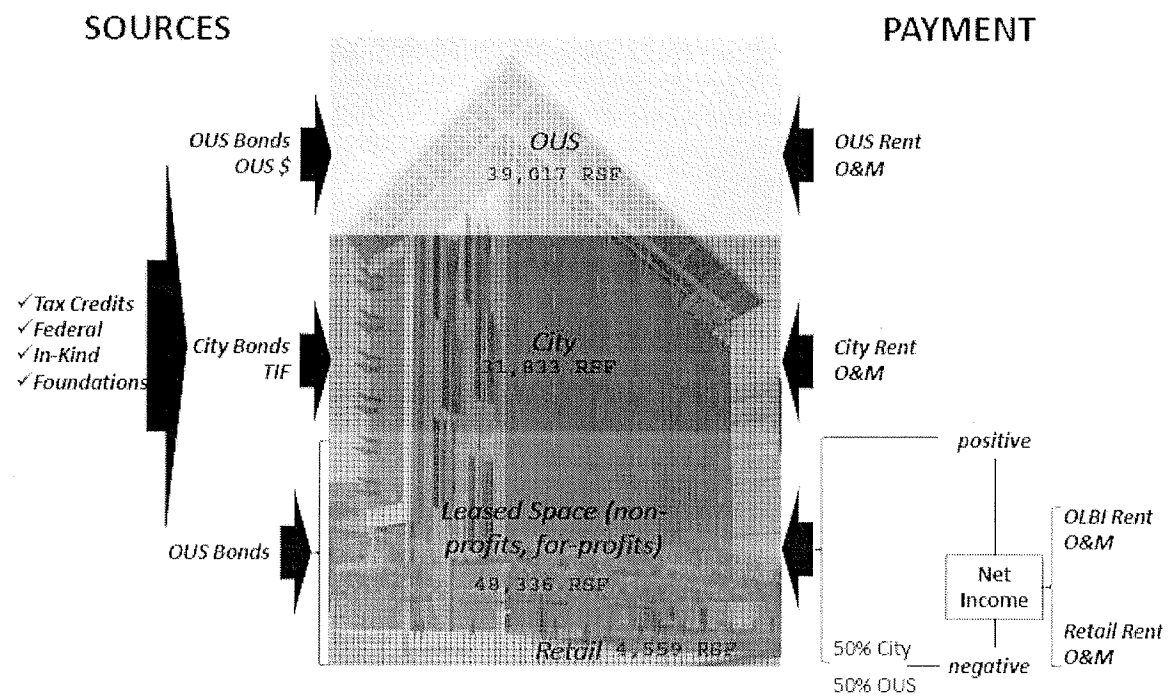
The OUS and the City of Portland will enter into a condominium arrangement for ownership of the facility. However, the project will consist of three separate components with individual or shared responsibility for each component as follows:

	<b>Rentable</b>		
	<b>Square Feet</b>	<b>Rent Paid</b>	<b>Debt + Equity</b>
OUS/PSU	31.5%	33.3%	\$ 39,183,000
City	25.7%	20.3%	\$ 16,997,000
Risk Share	42.7%	46.3%	
Subtotal	100.0%	100.0%	\$ 56,180,000
Gifts, Grants and Other			\$ 5,515,000
			\$ 61,695,000

- The OUS portion of the facility (31.5%) used by OUS, PSU, Oregon State University (OSU).
- The City of Portland portion of the facility (25.7 %) used by the City's Bureau of Planning and Sustainability for which the City of Portland will have sole financial responsibility. The City is contributing land and \$4.9M in cash to the project, thus lowering the rent paid by the City to 20.3%.
- The shared risk portion of the facility (42.7 %) is solely owned and financed by OUS. However, it is used by non-profit and private sector office tenants and other retail tenants for whom the OUS and City of Portland will equally share financial risk. This portion of the facility will be financed with OUS bonds, grants, tax credits, donations and other revenues. Each year an accounting will be performed in which all revenues accruing from the non-profit rents, private sector rents, retail rents or other revenues from the use of this portion of the facility will be attributed and all costs (operating costs, debt service on the prorated portion of the OUS bonds allocated to this portion of the facility and any other costs attributable to this space) will be attributed and to the extent that their remains a deficit it shall be covered one-half by OUS and one-half by the City of Portland each year. All deficits will be tracked on a cumulative basis and to the extent in future years that any profit is made on this portion of the facility it shall first be used to repay such deficit payments until they are fully amortized for each party and at that point shall accrue to the general reserves available for the entire facility.

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The ownership structure for this project shall be a condominium structure with the City and OUS as owners and voting members of the condo association. Thus, these parties would be the owners of the facility and will be primarily responsible for its contractual, managerial and financial operations as required in the condominium documents and law. This ownership structure is not unique. PSU and the City of Portland have two such shared condominium agreements (including the 1900 SW 4<sup>th</sup> Building and the Academic and Student Recreation Center) in place today in buildings of a similar scale.



#### Operating Governance:

From an operating standpoint, this building is unique for several reasons, including:

- tenants willingness to sign thirty year binding lease commitments
- design commitment to operating as a “living building”
- owners’ pledge to research, education and economic development agendas
- active tenant engagement required to meet building performance goals

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For this reason, we envision a governance structure that relies heavily on a Tenant Council. This council will be comprised of representation from all tenants. The Tenant Council would meet regularly to discuss energy and water utilization, planned research activities, educational programs, social equity and economic development activities. Additionally, the commercial property manager that will be selected and managed by the owners, will interact with and engage this council on building operations, annual operations and special maintenance assessments, needed repairs and other items needed to efficiently and effectively operate this facility.



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### 2.a.ix. Alternative Options, Including the Consequences of No Action:

Alternative development options, along with the pros and cons of each option, are listed below.

#### **The Recommended Option:**

*Build the building as envisioned on schedule:*

- Capitalize on the collaborative public/private partnerships that form this project.
- Benefit from faculty research that has been formulating around and reliant on this project.
- Benefit from grants secured and fundraising efforts based on this building design.
- Promote Oregon with a world class, truly innovative, net-zero building.
- Obtain maximum economic impact by utilizing all resources currently committed to hire Oregon firms, Oregon workers and otherwise buy materials produced in Oregon to the maximum extent feasible.
- Provide for Oregon's future economy through the creation new jobs and new skills through advanced construction and new technologies.

#### **Alternative Options:**

*Build a smaller version of The Living Building Challenge™ building on schedule:*

- Underutilization of the land and a highly transit accessible site.
- Minimization of leveraged partnerships.
- Lower total project costs, but increase in project costs per square foot.
- Potential loss of grants and external funding sources.
- Lower vacancy risk due to smaller building size.
- Limits opportunity for tenancy of all kind.

*Build a more limited version (LEED Platinum in lieu of The Living Building Challenge™) of the building on schedule:*

- Lower total project cost and lower project cost per square foot.
- LEED Platinum more easily attained, although not a significant achievement.
- Loss of partnership opportunities.
- Loss of funding sources.
- Less dependence on tenant behavior.
- Limited or no "innovation" promotion for Oregon or Oregon businesses.
- Loss of appeal as a public attractor.
- Likely loss of tenants for whom LEED Platinum would not be a sufficient attractor

*Delay the schedule but ultimately build the building:*

- Increased project costs by 3-5% per year, resulting in a \$1.8 - \$3.0M increase in project costs.
- Risk of higher bond rates (currently at historic lows) and capitalized interest costs
- Risk of rising rental rates
- Loss of tenants due to need to find other space
- Risk of losing grants and donations
- Impact to PSU by not providing needed classrooms

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### Consequences of No Action:

- Need to accommodate approximately 110,000 RSF of programming in other buildings to meet all tenant needs. Over 33,000 RSF would be needed for PSU alone. This space will likely require new construction costing \$12-13M because of large span classroom needs.
- Loss of \$5.5M in grants and fundraising opportunities.
- Taxpayer funds of \$1M spent on project to date would be lost, as work products would have little utility.
- Loss of land and TIF contribution of \$8.75M.
- Momentum in the collaborative partnership will likely be lost, which will hinder future endeavors.
- Six to eight non-profit and private tenants would be lost.
- Sends a negative message to the business sector that Oregon is not willing to take risks to be innovative in higher education and economic development.

**2. b. A detailed set of project diagrams that includes a comprehensive list of cost and resource estimates and the unique building materials to be used to achieve certification as a Living Building under the Living Building Challenge™.**

A detailed set of project diagrams can be found in Appendix C. These diagrams represent the completion of the Schematic Design. The project team plans to proceed with the design between the receipt of this report and the February 2012 session.

A comprehensive construction cost estimate will not be produced until the building reaches 50% Design Development. However, the construction costs estimates associated with the current Schematic Design can be found in the Pro Forma in Appendix B.

The most unique aspect about the building materials for this project is the Red List, which is a list of prohibited materials commonly used in construction. The Living Building Challenge™ states the project cannot contain any of the following Red List materials or chemicals:

- Asbestos
- Cadmium
- Chlorinated Polyethylene and Chlorosulfonated Polyethylene
- Chlorofluorocarbons (CFC's) Chloroprene (Neoprene)
- Formaldehyde, Halogenated Flame Retardants
- Hydrochlorofluorocarbons (HCFCs)
- Lead
- Mercury
- Petrochemical Fertilizers and Pesticides
- Phthalates
- Polyvinyl Chloride (PVC)
- Wood treatments containing Creosote, Arsenic or Pentachlorophenol.

There are temporary exceptions for numerous Red List items due to current limitations in the materials economy. Thus, if a product cannot be sourced or does not yet exist, it is not mandatory in order to meet The Living Building Challenge™.

In addition to the materials Red List, the location from which building materials are sourced is also a factor. The Living Building Challenge™ states that the project must incorporate place-based solutions and contribute to the expansion of a regional economy rooted in sustainable practices, products and services. Source locations for materials and services must adhere to the following restrictions:

- Heavy or high-density materials 550 km
- Medium weight and density materials 1,000 km
- Light or low density materials 2,000 km
- Assemblies that actively contribute to building performance and adaptable reuse once installed 5,000 km
- Renewable technologies 15,000 km.

As part of the schematic design process the design team sent a questionnaire to more than 350 manufacturers of products known to be needed for the project. The team received 286

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responses. Of those responses, 223 were from companies that met the requirements of the Red List without exception. Of those companies meeting the Red List, 105 also meet the appropriate sourcing imperative. An additional 34 products meet the requirements based on current exceptions that are allowed today. All manufacturers have been contacted and have been provided information on what parts of their product are on the Red List.

Of the products currently researched, only five individual products that are required for building construction did not meet either the Red List or Appropriate Sourcing Criteria. These were:

1. Fluid Applied urethane pedestrian traffic membrane: This is being used on concrete balcony decks. The design team will review alternate methods to detail balconies that use compliant products.
2. Mineral fiber acoustic batt sound attenuation blankets: The design team is working with a manufacturer to produce a compliant product.
3. Fire and Smoke stopping at rated assemblies: The design team will review alternate methods to detail chases that use compliant products.
4. Elastomeric paint at undersides of projecting balconies: The design team will review alternate ways to detail balconies that do not require paint.
5. Thermafiber Slab edge firesafing at curtainwall: The design team is working with a manufacturer to produce a compliant product.

The materials research is an ongoing process and the design team is confident that solutions will be found to meet sourcing criteria. As the design develops additional manufacturers will be contacted to widen the pool of products and systems in order to address these remaining materials issues. Also, some suppliers expressed that having their products Living Building certified would enhance their future marketing efforts.

The project construction cost estimates in the Pro Forma in Appendix B take into account all of the costs associated with meeting the Red List requirements.

A detailed list of building materials can be found in Appendix D, this list includes a column indicating whether products and materials are Red Listed and a column indicating the source location.

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### ***2.c. A quality management plan that clearly shows how quality assurance and quality controls are going to be provided.***

Project quality control, assurance, and management are key components of the OSC project oversight. Various entities will be responsible for the quality of the project throughout design and construction using the following processes:

#### **1. Overall Project Oversight and Approval Process:**

- a. Project oversight and approval will be provided by the Portland Development Commission, Portland City Council and Oregon University System Board via the following actions:
  - i. Contract and agreement review and approvals
  - ii. Funding approvals
  - iii. Approval to hire project management personnel
- b. Due diligence during the design phase including:
  - i. External engineering validation conducted by Balzhiser and Hubbard
  - ii. Design review processes required for projects in Portland
  - iii. A series of public review opportunities incorporated into the project
- c. Direct project management will be the responsibility of Gerding Edlen Development (GED)
  - i. To be supplemented through the provision of:
    1. An on-site project manager who will be employee of the Oregon University System
    2. Expertise from the architects GBD and SERA
    3. Expertise from the general contractor – Skanska
    4. Expertise from qualified subcontractors and advisors
- d. State and city building code and permit compliance
- e. City building inspections during construction
- f. Post opening oversight:
  - i. Use of tenant council and property manager to assure achievement of The Living Building Challenge™
  - ii. LEED Certification
  - iii. Berkeley National Laboratory technical support – life cycle costing validation
  - iv. Research quality control – Oregon BEST monitoring and reporting
  - v. Economic development impact – monitoring and reporting by PDC

In addition to the processes identified above, the design and construction team will work closely with GED to implement a quality control plan as follows:

#### **2. Quality Assurance/Quality Control Plan – Design Phase**

- a. Work scheduling - Weekly team meeting held with the developer, general contractor and design team and GC to review progress and schedule, as well as to analyze design decisions and budget implications. Close collaboration will ensure effective communication that will facilitate knowledge, questions and ideas to be shared and quickly analyzed and acted upon.

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- b. **Quality Control** - We will implement a detailed and hands-on review of documents at sequential milestones of completion. Documents will be reviewed by the entire team to ensure that they accurately reflect the most current design, constructability and cost decisions. This investment will facilitate completeness and accuracy of the documents and ensure the team is kept up to speed and educated with the latest information.
- c. **Cost Control** - Cost control starts with preconstruction estimating to help guide wise design decisions. Estimating is not a one-time task. Skanska commits significant efforts to knowing what things cost at all times. At each milestone, the project will be estimated from the ground up. These cost estimates will compare ongoing estimates back to the conceptual estimate, as well as other completed projects, to ensure the project is not getting off track in any phase of design development. This process puts the responsibility on the project team to come up with reliable early estimates, and enables the team to meet budget targets effectively.
- d. **Quality Assurance** - A Quality Assurance program specific to the OSC project will be crafted based on project goals and deliverables. This program will be conveyed to the entire project team at that time. At a minimum the program will include:
  - i. Regular attendance at design and coordination meetings
  - ii. Assembling a senior-level review group to review the project for design and technical issues at 50% progress in each phase
  - iii. At 90% completion of each phase the design will review conflict detection reports from our Revit drawing program using Navisworks analysis software as well as traditional multi-color plots and will perform a consistency and coordination review.

### 3. Quality Assurance/Quality Control Plan – Construction Phase

- a. **Create Project Quality Plan (“PQP”) in Preconstruction** – During preconstruction the Skanska team will create the PQP to ensure that the Owner receives a facility with the highest level of quality and craftsmanship. The PQP includes feedback and lessons learned from prior projects.
- b. **A Building Information Model (BIM) further promotes quality, safety, cost control and resource conservation** by ensuring the project is built correctly the first time.
- c. **A preconstruction conference is mandatory for every trade contractor and for every major construction activity prior to beginning work.**
- d. **Submittals** – Skanska’s team will review all material and equipment submittals to ensure they comply with requirements before being submitted to the design team. This keeps the project moving forward, avoids time consuming revisions or potential miscommunication.
- e. **Mock-ups** – The Skanska team will construct mock-ups to establish a standard of quality and to validate the design intent required for the components. They will

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also use mock-ups for code-related issues such as wall and floor penetrations for systems approval from authorities having jurisdiction.

- f. Follow-up Inspections – They will monitor ongoing work segments to assure continuing conformance. Periodically review work after the installation begins to confirm installation details and conformance.
- g. Concealed Work – The Skanska team will have a formal acceptance and documentation of concealed work prior to closure. This ensures all work that gets covered up complies with building codes and the design requirements. This includes pre-pour checklists for concrete.
- h. Special Topic Meetings – They will conduct special topic meetings to address specific project needs (weather protection, heat/humidity control, skin testing, installation coordination, mock-ups).
- i. Commissioning Start-Up and Verification – The team will develop and implement comprehensive commissioning programs, , pre-test requirements, and training. They will start-up and verify all equipment installed works as it should.
- j. Punchlist – The team will have an interactive on-going pre-punchlist program during construction and will closeout all punchlist items prior to project completion.
- k. Documentation – The team will have a formal process for documenting any non-conformance issues and correction action required.
- l. Post Construction –Because an adjustment period is necessary for OSC staff to learn the systems and their capabilities, Skanska's team will remain available to the building operators and facility managers, ensuring a quick response to any questions or issues.

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*2.d. A detailed risk analysis showing all major financial, technological, business, environmental, stakeholder, and legal risks that must be mitigated to assure project success.*

Major Risk Category	Risk	Risk Analysis	Mitigation of Risk
Financial	Cost Overruns	Like all complex capital construction projects this is a real risk that OUS needs to protect itself against contractually.	Use of Guaranteed Maximum Price shifts risk to developer
	Inability to secure allocation of new market tax credits	Working with experts in new market tax credits, we feel this risk is small. Failure would require and alternate source to be found for \$2M.	Gerding Edlen's experience in six projects successfully utilizing NMTC's
	Cost inflation/Bond Interest Rates	This is a very real risk made worse by delaying the project.	Move quickly on project while costs and rates are known
	Contractor/subcontractor failure to perform or default	This is a risk in all capital projects.	Selection process, OUS contract structure as a developer GMP, and retainage practices
	Failure to lease space to cover debt service and operating costs for COP and OUS	This is a risk made worse by delaying the project.	Careful tenant selection and financial qualification essential. Also, this risk is shared 50/50 between OUS and COP.
Technology – (Also see Appendix E-Balzhiser and Hubbard validation study which focuses on technology risks.)	Rooftop and Building Integrated Solar PV	The risk is minimal. Hundreds exist in the market, the design/development team has completed 14 rooftop an Building Integrated Photovoltaic systems, including; OHSU Center for Health and Healing, Casey Condominium, Portland Public Schools and Portland Community College	Subcontractors with expertise can be found in Oregon.
	Building integrated black/grey water treatment and reuse. (Black water = sewage, grey water = rainwater, sinks, etc.)	This risk is manageable. Dozens of similar systems are in use, the team has completed 3 systems Including; OHSU Center for Health and Healing, 12 West, Vestas.	Base the system on successful projects.
	Triple-glazed curtain wall systems	This is manageable. Hundreds exist worldwide, but relatively new to the US market. The team has completed several. Skanska and Benson Industries, the project GC and glazing subcontractor have numerous triple glazed projects	By utilizing Skanska, a global construction firm, this project will benefit from the most advanced curtain wall projects internationally.



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		to their credit.	
	Electrical Battery storage	This component is an important demonstration but does not present building risk. Sanyo is donating a 30 kWh DC battery system that will support the DC loop.	We will use Sanyo's engineering expertise to deploy this technology.
	DC Micro-grid for all plug loads on one floor in the building. The floor will have exclusive DC current distributed for plug loads. AC will only be available for kitchen appliances and printers.	Some risk present. New to office environments though heavily used in data centers. We are working with Intel and Cisco on the development of the DC micro-grid	We will utilize Intel and Cisco expertise to deploy this technology.
	Direct/indirect solar day-lighting with LED backup	Some risk present, but only for classroom spaces. New technology, developed in Canada. The OSC is one of six pilot projects. System components paid for by Canadian Gov.	We will be part of an international pilot and will benefit from the expertise of SunCentral to deploy this technology.
	Innovative building enclosure system	Some risk present. The OSC project team is working with an industry sponsor who will discount systems cost and cover testing and research costs.	GED and Skanska will work closely with product manufacturers to ensure success and require warranty.
	Geothermal Heating and Cooling System	This risk is minimal. PSU has deployed similar technology in two buildings within three blocks of the project site.	In addition to well testing and engineering, this project will leverage PSU experience with Geothermal systems.
Business	Failure to achieve The Living Building Challenge™ leads to failure of project, possible tenant frustration, etc.	This is a risk and is well recognized by the tenants and project team.	Project team is closely following requirements of the LBC. Formation of a Tenant Council to manage tenant behavior and energy usage as well as lease language that identifies penalties to those tenants that do not comply.
	Tenant dissatisfaction with the building performance and/or conditions	This risk is minimal due to the close involvement of the Tenants in the project.	Tenants have been partners in the design of the building and understand the trade-off required and are mission driven to achieve net zero performance.

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Stakeholder	Failure to obtain approvals from Legislature, City Council PDC Commission, OLBI Boards, retail prospects, PGE agreements	This is a clear risk in a complex multi-partner capital project.	Mitigation through communications and governance structure, for example, Ownership and Risk Sharing agreements and Project Steering Committee. Significant changes in the partnership structure will require a reassessment of the building's feasibility. Both the City and OUS have been successful in similar partnerships.
Legal	Contract negotiations could fail:	<p>There is some risk in negotiating the following contracts, however, work on all of these is well under way:</p> <ul style="list-style-type: none"> <li>o Design Development Agreement</li> <li>o Condo and backstop</li> <li>o Lease agreements</li> <li>o GMP</li> <li>o Design/Build agreement</li> <li>o PGE solar ownership</li> <li>o Bond sales/Bond counsel opinions needed to perfect bond sales</li> </ul>	Considerable OSC Board effort has gone and will continue to go into negotiation of equitable and prudent terms for all agreements related to this project. Both the COP and OUS system are experienced in complex capital construction projects with similar partnership arrangements.

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**2.e. An investment leverage plan that shows how financial investments will be managed, tracked, and monitored to assure taxpayers receive the promised return on investment.**

A detailed investment leverage plan, including a plan for tracking and monitoring of public investments to ensure the goals of the project are realized has been incorporated into this project via the following actions:

Investment Outcome	ROI measures	Management & monitoring plan	Lead
Building Construction and Operation	Building Use Measured by tenancy and classroom utilization	Annual tracking of building occupancy and use by Universities and property manager.	OUS; PSU (ISS); COP; Design/Development Team/Property Manager
	NOI	Annual accounting and need for backstop from OUS/City or repayment of prior years.	
	Life cycle cost of net zero systems	Quantify upfront costs of net zero systems; measure cost delta against life cycle of system and full cost analysis, including return of green energy produced and water saved due to harvesting and processing or reusing on site.	
Jobs and Workforce Development	Construction Jobs	Track short term construction jobs created and measure wages, as available, and as modeled by IMPLAN. Monitor MWESB utilization.	PDC; PSU
	Cluster industry and workforce growth	Track growth as part of OBDD and PDC economic development strategies and reporting.  Track education and training opportunities resulting from the project and on-going use of the facility	
Research and Commercialization	Leveraged research dollars	Track R&D opportunities and funding directly attributable to project and general growth trends in OUS system. Note: Murdock Trust has already invited Oregon BEST to submit a \$750,000 proposal for research instrumentation and assist in the cost of the base building management system.	Oregon BEST; PSU; OSU
	University-private sector partnerships and patents	Universities will track commercialization and patents and partnerships annually.	

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Leadership and Innovation	Investment and trade partners to Oregon universities and firms	Track business relationships grown due to project. Note: during design, Intel brokered relationship with the European GIE Consortium of companies—including Bouygues Immobilier, Siemens, Steelcase, Total S.A., Intel, Schneider Electric, and Lexmark, building global market presence for Oregon companies involved with project and encouraging partnerships with strategic-thinking European firms.	PDC; Oregon BEST
Education and Public Outreach	Student credit hours offered in OSC classrooms, public and visitor use of the facility	PSU tracks student credit hour production by classroom and the Property Manager will track public visits, rental uses of the facilities, and outreach activities	PSU and Property Manager

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- 2.f. **A comprehensive business case and options analysis. This should define the problems to be solved and business, educational, research, and economic development opportunities to be addressed;**

**Business Objective: Create a world class next generation net-zero energy building that serves as a center for OUS research and education, City of Portland planning and sustainability, private enterprise, and mission driven non-profit activity.**

The creation of the Oregon Sustainability Center (OSC) provides Oregon with a unique opportunity to forge a partnership between the City of Portland, a city renowned for its commitment to clean air and water, livable neighborhoods, and public transportation and the Oregon University System, which is strongly committed to support visionary work across disciplines, linking ecology, economics, engineering and design to create sustainable technologies and products. The creation of the OSC will allow Oregon to remain at the forefront of construction, design, and sustainable technologies innovation and enhance our state's reputation and economic competitiveness worldwide.

The OSC project will rethink how urban high-rise buildings are designed, built and operated, contributing to new models of sustainable development. It seeks to meet the standards of The Living Building Challenge™, which requires net-zero energy, water and waste and prohibits many commonly used toxic materials. The OSC will create knowledge and examples that can be replicated around the nation and the world. The OSC project partners have committed to an aggressive research agenda to be conducted by university researchers, project developers and partners in the Oregon BEST Sustainable Built Environment Research Consortium's Demonstration Test Bed.

**Cost:** The total project cost estimate based on Schematic Design is \$ 61,695,000.

A detailed project cost estimate can be found in the Pro Forma in Appendix B.

### **Benefits:**

#### ***Benefit #1: Building Construction and Operation***

As stated in Section 1, the design, development, and construction team for OSC is intentionally composed of Oregon firms. Guided by The Living Building Challenge™ requirements to source materials and professional services regionally, a preliminary IMPLAN analysis (see Appendix H) considering the multiplier effect of dollars invested in the region indicates that just the construction of the OSC will generate approximately 786 jobs across the economy more than \$100 million of total economic impact.

In operation, the building will be home to a number of uses. From one perspective, as an office building, its unique net-zero characteristics and innovative design has attracted for-profit and non-profit tenants committed to advancing Oregon's clean technology economy and the objectives of the building.

From another perspective, the building will provide PSU with much needed educational spaces. PSU is in need of more classrooms and plans to build four state of the art classrooms in this facility. One classroom alone will accommodate 350 students and will be among PSU's largest

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lecture halls. The other three classrooms will be smaller seminar rooms for upper division and graduate education. Faculty from both PSU and OSU, focused on sustainability, will have offices in this building and have frequent interaction with students.

Many of the faculty who occupy the building will be engaged in research (a full list of research areas can be found in Appendix F). The building itself will also be the subject of research in innovative use of materials and construction techniques, occupant behavior and its impact on building performance, and advanced energy and water management techniques.

The buildings impact on Oregon and the region's economy will also be a significant benefit. Beyond creating numerous construction jobs, the building will be a center for innovation and on-going research that will lead to new products and technologies.

### **Benefit #2: Maintaining Oregon Leadership and Innovation**

While LEED has been the dominant standard in the green building industry, the International Living Future Institute's Living Building Challenge™ has created an even higher standard, requiring that buildings be free of toxic materials, generate all their energy on site, use no more water than falls on the site, and treat all of the waste generated on site. With over 100 projects currently pursuing The Living Building Challenge,™, many organizations are trying to develop early expertise in building and operating the next generation of high performance buildings, similar to the early expertise Portland firms developed as a result of their early adoption of LEED. The Living Building Challenge™ may become the successor to LEED for new green building construction.

In addition to the Oregon Sustainability Center, only two other projects (the Center for Interactive Research on Sustainability in Vancouver, BC, and the Cascadia Center for Sustainable Design and Construction in Seattle, WA) are attempting to meet the Living Building Challenge in an urban setting. Urban development is traditionally denser than suburban or campus developments, thus providing additional challenges to achieving an innovative, net-zero building. At the same time, successful development of a living building in an urban setting has the greatest potential for widespread replication. Oregon's early expertise in LEED continues to bring economic benefits to the region, and firms in other cities are vying to be early experts in the next standards for commercial development. Developing the Oregon Sustainability Center provides an opportunity both to maintain that leadership position and bring other sectors of the economy under the green building umbrella and enjoy increased economic benefits.

In addition the OSC will incorporate a number of innovative products and serve as a test bed for new technologies. Many of these technologies are being developed and manufactured in Oregon and the region. Examples of innovation include:

- The OSC will be the first commercial placement in the U.S. for the most efficient photovoltaic panels in production. These panels will be combined with an innovative large scale lithium-ion battery system. The silicon ingots SANYO requires to produce these solar panels will be produced in Salem, OR, helping further establish Oregon as a manufacturer of innovative and globally-competitive products.
- The inverters that will be used on this innovative system will be manufactured by PV Powered in Bend, OR.

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- The racking for this solar energy system will be produced by Sun Storage in Joseph, OR, using aluminum extrusions manufactured in Portland.
- CertainTeed has partnered during design and is interested in providing electrochromic Sage glass to contribute to high energy efficiency, which is manufactured in Tacoma, WA.
- CertainTeed has also expressed interest in providing a new drywall product that is manufactured in Seattle. This product removes air pollution from the inside of the building, thereby improving indoor air quality over the entire life of the product.
- Ultra efficient triple glazed glass systems will be manufactured by Benson Industries of Portland.

### ***Benefit #3: Jobs and Workforce Development***

Any large scale capital project creates jobs, but the OSC will create both construction jobs and valuable skills that make the Oregon workforce among the best trained in the world. Oregon based developers, construction firms and architects are already in high demand around the world. This project will ensure Oregon continues to lead and set the bar for sustainable building. Examples of unique job and job skills creation include the following:

- Oregon Electric Group and Interface Engineering, both of Portland, OR, will design and deploy a cutting-edge Direct Current loop, utilizing SANYO's large-scale lithium-ion battery storage system and the solar energy system to create an efficient way to integrate renewable electricity generation with electronics that use DC energy, all of which may have profound implications for future building electrical systems.
- Trades will work with Sun Central Systems (Richmond, BC, Canada), who has offered to donate an integrated LED and day-lighting system that will greatly reduce electricity loads in the building's lecture hall. Oregon workers will have the opportunity to gain first-hand experience with advanced lighting technologies.
- InSpec Group of Portland, OR, will design and install the first project in U.S. to utilize the most efficient commercial solar panels available worldwide.
- Lando & Associates of Portland, OR, will work with and learn from industry-leading Natural Systems Inc. about how to design and deploy the most efficient water capture and reuse strategies yet developed.

### ***Benefit #4 Research and Commercialization:***

#### **Research**

The OSC provides opportunities for research and commercialization through improved linkages between universities and private sector. The building will serve as a true living laboratory with enhanced product monitoring and tenant engagement, which has already attracted corporate partners interested in R&D activities.

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Oregon BEST has created a beta site for these university/private sector partnerships through the Sustainable Built Environment Research Consortium. With private sector partners such as Intel, SANYO, CertainTeed, Skanska, Gerding/Edlen and ZGF Architects excited by the prospect of such a laboratory, the Consortium has already raised funds for research prior to project construction. Current Consortium research topics include:

- Alternative cementitious materials.
- Understanding tenant behavior and water use impacts.
- Integrated green development project delivery.

Future topics of interest to the Consortium, which require that the OSC be completed, include:

- Studying the operation of a DC microgrid
- How occupant comfort and behavior impact energy conservation
- Monitoring the performance of new building materials on site

The future research agenda has been developed through collaboration between the OSC project design team, the owners, tenants, and faculty from the four Oregon BEST partner universities: Oregon Institute of Technology, Oregon State University, Portland State University, and the University of Oregon.

A research committee selected research areas that focus on the alignment of research strengths and facilities, industry needs, and federal research priorities. Research projects within the agenda will carry across all phases of the design, construction, and operation of the building, and which encompass all scales of the program from materials/components to systems to building-scale to district-level.

Some research efforts are being supported by grants already received from the US Department of Energy's Commercial Buildings Partnership program and the Energy Trust of Oregon's Path to Net Zero program, both of which are providing technical services in support of achieving and documenting Net Zero Energy performance. The Institute for Sustainable Solutions at PSU, funded by a grant from the Miller Foundation, will be conducting a Life Cycle Analysis of the building, establishing the value/cost of the building in terms of the impacts it has ecosystem services as compared to a conventional building.

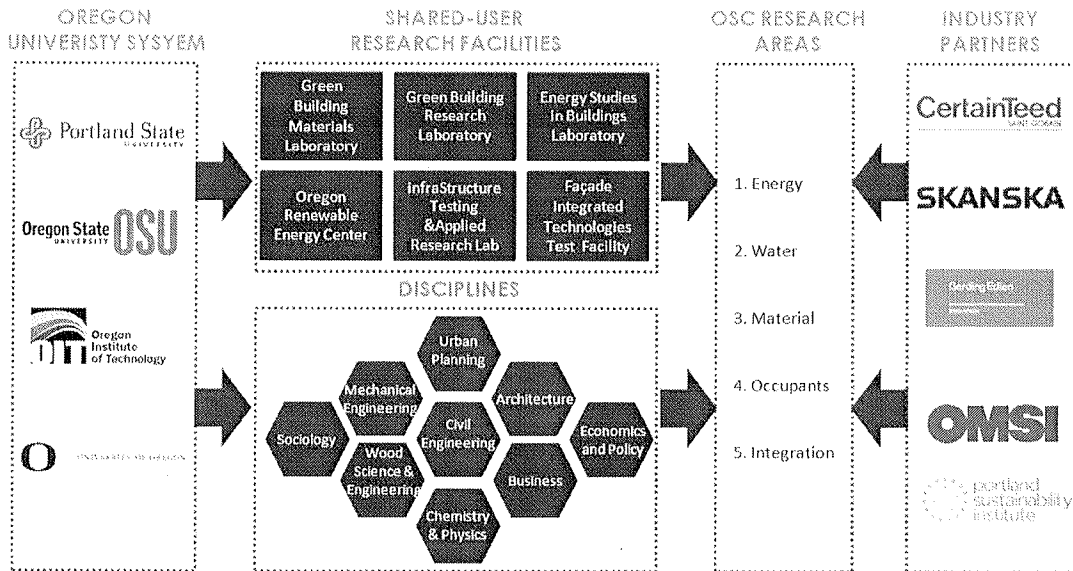
The Northwest Energy Efficiency Alliance has provided support for the first phase of design process documentation and analysis being conducted by the Architecture program at UO and Engineering at OSU. The Oregon BEST Sustainable Built Environment Consortium has committed its first investment of research funds pooled from industry partners to fund two of the proposed OSC projects: Use of Sustainable Cementitious Products in Building Components, and Monitoring Occupant Water Usage Practices to Inform Technology Selection.

In addition, the OSC will house a 1500 SF Living Laboratory Space, to take advantage of the experimental and flexible features of the building, and enabling researchers to test different conditions both side by side and over time. It will also provide an ideal environment for research groups to collaborate with each other and to connect with industry, policymakers and others from around the world who visit the OSC. This Living Laboratory will be managed by Oregon BEST, in partnership with the members of the Oregon BEST Sustainable Built Environment Research Consortium.



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The Consortium Demonstration Test Bed model for the OSC



A detailed research plan can be found in Appendix F and includes a wide range of proposed research topics organized into the following five research areas:

- 1- Net-Zero Energy Building Technologies and Strategies. (4 topics)
- 2- Water Use and Rainwater Retention. (1 topic)
- 3- Material Utilization, Waste, and Life Cycle Environmental Impacts. (4 topics)
- 4- Occupants Health and Performance. (1 topics)
- 5- Integrated Performance-Based Design, Construction, and Operation. (2 topics)

### **Commercialization**

The OSC has helped maintain existing regional competitive strengths and leadership in sustainable industries, thereby attracting new capital and interest to the Oregon market and driving business growth. Already, the OSC design and development team has met with the GIE Consortium, a multinational group of companies in Europe including Bouygues Immobilier, Siemens, Steelcase, Total S.A., Intel, Schneider Electric, and Lexmark. These meetings have resulted in early exchanges of best practices and, with the development of the OSC, show great promise as an avenue to build the global presence for Oregon and regional firms and encourage partnership opportunities between leading Portland firms and Global firms.

Specific examples of commercialization to date are as follows:

*CertainTeed Corporation* – CertainTeed has pursued advanced envelope system deployment in the building and has expressed their commitments to bring advanced solutions to the project in

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order to meet the performance requirements of The Living Building Challenge™. CertainTeed has committed to financial support through advanced product availability and pricing from both the North American Company and the Saint Gobain international parent organization. They have also committed to financial support to the R&D activities supporting the OSC and will pay for systems testing. They will participate in the Action Center.

*Murdock Foundation* – The Murdock Foundation has provided guidance and positive interaction as the OSC has prepared its grant proposal for \$750K for the sensor systems needed for the building to meeting its performance requirements. Murdock Foundation was created by the Founders of Tektronix, a company that has been a global leader in electronic analysis, sensing and measurement. The OSC anticipates a decision this fall on this application.

*A Federal Grant* - The Federal Government has provided a preliminary award of a matching grant of \$1.5 million to support the waste water treatment system of the OSC. Final details are being negotiated, and the final award is anticipated in September of 2011.

*Sanyo Corporation* - Sanyo has committed to being the Lead Energy Technology Partner in the OSC. This includes identifying the OSC as its North American Energy Products demonstration facility and bringing their most advanced solar and battery products to make the OSC a leader in on-site energy management. Sanyo has committed \$1.2M to the project, and will have the Sanyo Energy Terrace, the very visible space adjoining the OSC Auditorium, as its display and corporate sponsorship area. Sanyo and the OSC are working together on grant funding for important advances in high performance building energy systems, including peak shaving systems, battery storage systems, advanced solar deployments, and DC systems for tenant requirements.

*Intel Corporation* – Intel has signed a Research and Development partnership agreement that brings their interest in energy management to bear on the success of the project. Intel has already participated in system design and collaboration. They will be a participant in R&D through the design and implementation phases of the project, contributing research and development components to the effort.

*Portland General Electric* – PGE has signed a Memorandum of Understanding under which it will own the OSC's solar energy system, thereby reducing the construction costs of the OSC by approximately \$3 million. This will fulfill part of PGE's responsibility to attain approximately 11 megawatts of solar power by 2020. Contractual details are being finalized.

### ***Benefit #5: Education and Public Outreach***

The OSC will be the center of the largest campus in the Oregon University System. The building will include a state of the art 350 seat auditorium for PSU as well as smaller classrooms. The auditorium will be the largest teaching space on the main PSU campus and will predominantly serve the high demand undergraduate courses in the sciences, technology, business, and engineering.

The building will house faculty from PSU, OSU, and other institutions working in a cross disciplinary manner. Faculty will provide expertise from business, social sciences, earth sciences, economics, urban planning, transportation, real estate, education, public policy, engineering and other disciplines that comprise the over-arching theme of sustainability.

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PSU Students will benefit from the OSC in a number of ways. In addition to the building's example of the most innovative thinking in resource efficient design, students will be exposed to private sector and non-profit groups working within the building. All tenants have expressed an interest in creating intern and work study opportunities for students interested in sustainability. The building itself will offer classroom, conference, and public spaces for students to study and interact. The building is well situated on public transportation (both MAX and Streetcar) and will also have dedicated bike parking.

Portland Community College is actively developing a plan for the OSC to enhance the access to and quality of its "green careers" and professional training programs. Key elements of PCC's plan include locating job training resources and educational resources at the OSC to take advantage of its high transit corridor, central location, access to classrooms and other facilities to engage diverse populations throughout the region. Additionally, by having full-time staff at the OSC to provide guidance and teaching for PCC students, the OSC will provide unique opportunities to develop practical skills in sustainable design and construction of buildings, interior spaces, urban gardens, and sustainable energy and resource systems that a PCC graduate can apply directly to a job.

The Oregon State University Extension Service will utilize the OSC for several outreach and community engagement programs. Because of the statewide reach of Extension, the OSC will provide collaborative space to unite urban and rural populations around sustainability issues. The OSC will provide a link between urban and rural communities via with state-of-the-art conferencing technologies.

Youth development is a priority for metropolitan populations and the OSU Extension Service. The 4-H Youth Development program will utilize the OSC to advance understanding of sustainable living issues through established public and private partnerships that help to place youth on positive trajectories towards greater educational attainment. Links to Portland Community College and K-12 systems statewide will effectively integrate learning opportunities across educational systems through shared personal experiences and development of socially-networked online communities, leading to improved workforce readiness for this emerging Oregon population.

A sustainable food systems collaborative will utilize OSC resources to advance and resolve barriers to small farmers. The OSC can support OSU Extension Service's focus on beginning urban farmers through a space for shared innovation and incubation of new uses for urban lands. Over time, we expect this to help lead to a sustainable, regional food systems cluster that could be expanded statewide.

The building will also serve as a public education and outreach center. It will draw K-12 fieldtrips and educational visits, community events, public meetings and serve as a destination for visitors and delegations. The building will house First Stop Portland which connects global leaders with Portland's innovators in sustainability. It will have a conference center available for rent and an "Action Center" which is a public space that will highlight the sustainable industry at work in the building, its community, the City and region, and the State of Oregon.

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### **2.g. An analysis demonstrating both the technical and economical sustainability throughout the life of the project including the definition and measurements of sustainability.**

The technical sustainability of the project was originally considered in a feasibility study in 2009. The subsequent schematic design further examined the systems and technologies required to make the building function as a net zero building. To validate these findings, the OSC contracted with engineering firm Balzhiser & Hubbard who found the project to be technically feasible. The full report is available in Appendix E.

The economic sustainability is represented in the 30 year Pro Forma contained in Appendix B. The capital cost of the project is \$61,695,000. The initial annual operating expense for the project is \$868,497, which includes common area maintenance and general building repair and maintenance. In addition to the operating expenses, an annual replacement reserve of 50 cents per rentable square foot is included in the on-going project costs. This reserve, totaling \$61,873, will be set aside to replace major building systems as needed. In addition to the reserve, lease language will include the concept that all tenants may potentially need to contribute to extraordinary costs for capital repairs.

Collectively, the building operating expense and capital replacement reserve total \$930,370 in year 1 and escalates at 2.5% annually. All project expenses, including project debt, are offset entirely by the project income. The project breaks even during each of the first five years and has a positive cash flow beginning in year six.

The definition of sustainability for this building will be based on The Living Building Challenge™ and the concept of net zero energy and water consumption as measured over a full operational year. The building has been registered to achieve The Living Building Challenge™ 2.0 which has rigorous rules.

The Living Building Challenge™ requires a project to meet 20 specific imperatives within seven performance areas. For the OSC, meeting the imperatives will include the following:

- Site: The location will support a pedestrian, bicycle, and transit-friendly lifestyle.
- Water: Rainwater will be collected on the roof, stored in an underground cistern and used throughout the building.
- Energy: A solar array will generate as much electricity as the building uses.
- Health: The building will promote health for its occupants, with inviting stairways, operable windows and features to promote walking and resource sharing.
- Materials: The building will not contain any "Red List" hazardous materials, including PVC, cadmium, lead, mercury and hormone-mimicking substances, all of which are commonly found in building components.
- Equity: OSC is striving for a broad definition of social equity which includes outreach and involvement of low income communities and MWESBs.
- Beauty: Significant architecture, an innovative photovoltaic array, native plantings, a green wall, and a plaza garden that also functions as part of the water filtration system.

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As opposed to LEED, achievement of The Living Building Challenge™ is based on actual operating performance of the building in use. In order to measure the sustainability of the building an array of over 1,000 sensors will measure energy, water use, and environmental conditions in the building. Data collection and analysis is part of the research agenda of the project.

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### 3. A comprehensive financial analysis, including:

#### 3.a. A contrast of each option considered for the project including the total cost of ownership, return on investment, funding options, and financial risks to project sponsors, stakeholders, the State of Oregon, and taxpayers;

##### 3.a.i. Total cost of ownership

The capital cost of the project is \$61,695,000 with an initial annual operating expense of \$868,497, which includes common area maintenance and general building repair and maintenance. In addition to the operating expenses, an annual replacement reserve of 50 cents per rentable square foot is included in the on-going project costs. This reserve, totaling \$61,873, will be set aside to replace major building systems as needed. Collectively, the building operating expense and capital replacement reserve total \$930,370 in year 1 and escalates at 2.5% annually. All project expenses, including project debt, are offset entirely by the project income. The project breaks even during each of the first five years and has a positive cash flow beginning in year six.

A detailed project cost estimate and operating budget can be found in the Pro Forma in Appendix B.

##### 3.a.ii. Return on investment

The Pro Forma in Appendix B demonstrates that this building is self-supporting with positive cash flow beginning year six. From a pure real estate finance perspective, and assuming a 10% capitalization rate in year 30, this project will provide an Internal Rate of Return on the OUS equity estimated at 6.8%. This return is driven by the low initial cash investment, favorable public financing, and the fact that OUS will own a significant (74.3%) portion of the building free and clear at the end of 30 years.

The real returns on this investment, however, will come from the unique nature of the building and its uses and the long term economic impacts. The returns from the investment of public funds in this project are multiple. Many of these have been outlined earlier and are specifically identified in the response to question 2.e. The returns accrue in five primary ways: building construction and operations; jobs and workforce development; research and commercialization; leadership and innovation; and education and public outreach.

This project can be a game-changer for Oregon. It asserts Oregon's leadership in the economy emerging clean tech economy around The Living Building Challenge™ by branding the State as a leader in this regard. It will attract many visits to Oregon to learn about the project. Ancillary economic benefits will accrue to Oregon firms and Oregon workers from these trips. It will create construction jobs and, via its research agenda, commercialization. It will also create new opportunities for students and other who participate in its training and educational programming. It truly signals a new manner of working, living and building that respects the virtues of sustainability and the need to balance economic, environmental and social issues for the long term greater good of society.

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### 3.a.iii. Funding options

This project is already complex with multiple partners and collaborators. Using alternative financing mechanisms through the addition of added partners, private lenders, owners, or other entities would only make it overly complex. In addition, most other forms of non-public financing would exacerbate already high rents, as public financing carries a much lower rate of interest and less restrictive debt-coverage ratios.

The team has explored multiple options to finance this project, including, private bank financing, use of Federal EB-5 funding mechanisms, low-interest federal grants/loans and other public and private funding mechanisms. In all cases, these alternative scenarios increased costs to the participants, project complexity, and risks, thus reinforcing the current approach. A list of the alternative financing scenarios that were examined is summarized below.

#### Conduit bond financing

- Higher interest rate as these would be revenue bonds with a lesser rating and higher interest costs than XI-F bonds and therefore higher rents for the tenants in the facility
- Added legal agreements and transaction complexity contribute to higher legal costs
- Would necessitate establishment of a new, or contracting with a pre-existing, legal entity to receive the financing and this would come with added overhead costs each year

#### Private financing

- Higher interest rate
- Higher debt coverage ratios require higher rents putting the project out of reach for university and non-profit tenants
- Long term costs greater due to rental vs. ownership factors
- More difficult to attract grants and donations due to private ownership/financing
- Possible restrictions on research opportunities and grant funding with private ownership vs. public ownership

#### 100% COP financing

- City financing requires 20-year amortization thereby increasing rents and making it difficult for university and non-profit tenants

**OSC Budget Note Response – FINAL DRAFT****3.a.iv. Financial risks to project sponsors, stakeholders, the State of Oregon, and taxpayers;**

The project risks have been outlined in response to question 2.d.

The total debt service and annual operating costs associated with this entire project are estimated at approximately \$4.1 - \$4.7 million per annum. By contrast, the OUS total operating budget for 2010-11 was \$1.7 billion. Thus, the maximum \$4.7 million needed annually to fund this project would equate to at most 0.27% of OUS' budget, which assumes the very unlikely scenario that no revenue accrues for the project. This percentage would be further diluted when adding in the City of Portland's total expense budget. They will be a co-owner and provide 100% of the financial backstop for their portion of the premises and 50% of the backstop for the privately leased portions of this project.

Article XI-F bonds are State of Oregon General Obligation bonds, but they function like a revenue bond in that they are expected to be repaid with revenues accruing from the project being financed. That is the case with the OSC. As noted above, bonds will be repaid with tenant rents, and to the extent private tenant rents are insufficient to cover debt service and operating costs, they will be back-stopped 50% by the City of Portland and 50% by the Oregon University System.

The risk to taxpayers is extremely small. The likelihood that the repayment strategy described above would fail is remote. Failure has never occurred in the history of this bonding authority since it was adopted by the people in 1950.



## OSC Budget Note Response – FINAL DRAFT

**3.b. The plan for ensuring that at least 2/3 of rental revenues will be generated by non-State of Oregon or OUS sources;**

Based on the Budget Note, the OSC has agreed to amend the originally planned square footage allocation so that the State portion of the annual rental revenue is only 1/3 of the building total.

In order to do this, for-profit tenants are being actively recruited for the building. We anticipate the continuation of tenant recruiting during the design phase of the project. All tenants will need to sign leases prior to construction start.

Current annual rent and expenses by building occupant are as follows:

	Annual Revenue w/operating exp.	% of total
Retail	\$ 203,542	5%
PSU (large classroom and office)	\$ 1,181,693	33%
OSU	\$ 173,057	
Oregon BEST (expenses)	\$ 23,189	1%
City of Portland BPS	\$ 830,311	20%
OEC	\$ 100,442	
Earth Advantage	\$ 297,212	14%
International Living Future Institute	\$ 80,900	
River Network	\$ 85,370	
Un-leased for profit office space *	\$ 941,943	23%
Conference Center	\$ 150,478	4%
Total	\$ 4,068,137	100%

\*The un-leased portion of the project is 23,400 rentable square feet. As of August 2011 the status of tenant recruitment is as follows:

- Letters of Intent (LOIs) - Signed LOI with Umpqua Bank for approximately 1,000 square feet retail space
- Significant Discussions - PDC and Gerding Edlen have been working with several firms, including Skanska, about becoming tenants in the building.
- Preliminary Discussions - Gerding Edlen will continue to follow up with potential tenants that have previously indicated potential interest, including Portland Streetcar, Inc., Green Building Services, Capital Pacific Bank
- Additional Prospects - Gerding Edlen, PDC, and PSU are in the process of compiling a list of tenant prospects. Outreach will occur over the next few months.

## OSC Budget Note Response – FINAL DRAFT

### 3.c. Rental rate analysis and comparison with other class A office space in Portland

The OSC is being funded by a mix of cash sources, City Bonds, and State Revenue Bonds. As a result of this mix, each of the tenants has a rental rate that is computed by allocation of the debt service and cash applicable to that specific tenant. The following rental rates are currently anticipated for the tenants of the OSC:

#### Market Rate For-Profit Office Tenants

Total Rentable Square Footage:	23,400
Rent:	\$ 30.50/rsf
Expenses:	<u>\$ 9.75/rsf</u>
Full Service Rent:	\$ 40.25/rsf

#### Market Rate Retail Tenants

Total Rentable Square Footage:	4,559
Rent:	\$ 34.90/rsf
Expenses:	<u>\$ 9.75/rsf</u>
Full Service Rent:	\$ 44.65/rsf

#### PSU (using primarily State debt and some cash)

Total Rentable Square Footage:	33,052
Rent:	\$ 29.00/rsf
Expenses:	<u>\$ 6.75/rsf</u>
Full Service Rent:	\$ 35.75/rsf

#### OSU (using mix of cash and State debt)

Total Rentable Square Footage:	5,965
Rent:	\$ 22.26/rsf
Expenses:	<u>\$ 6.75/rsf</u>
Full Service Rent:	\$ 29.01/rsf

#### City of Portland (using 20 year City debt and cash)

Total Rentable Square Footage:	31,833
Rent:	\$ 19.33/rsf
Expenses:	<u>\$ 6.75/rsf</u>
Full Service Rent:	\$ 26.08/rsf

#### Oregon Best/Research (using cash)

Total Rentable Square Footage:	3,435
Rent:	\$ 0.00/rsf
Expenses:	<u>\$ 6.75/rsf</u>
Full Service Rent:	\$ 6.75/rsf

#### Non-Profit Tenants (rent cap at \$25.00/rsf)

Total Rentable Square Footage:	17,763
Rent:	\$ 25.00/rsf
Expenses:	<u>\$ 6.75/rsf</u>
Full Service Rent:	\$ 31.75/rsf

OSC Budget Note Response – FINAL DRAFT

**Conference** (self- supported through conference center revenues).

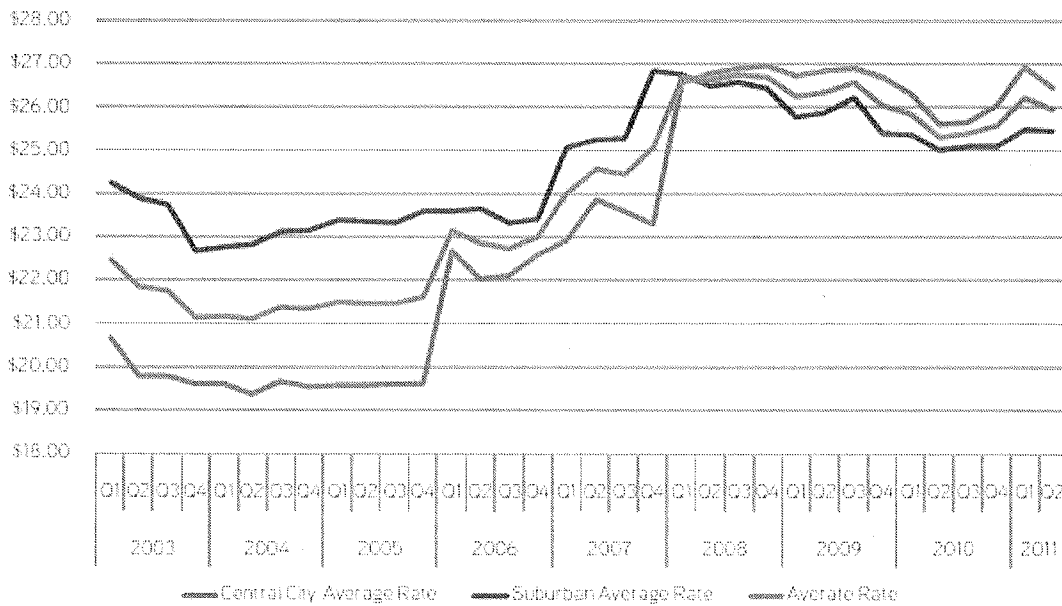
Total Rentable Square Footage: 3,738  
 Rent: \$ 30.50/rsf  
 Expenses: \$ 9.75/rsf  
 Full Service Rent: \$ 40.25/rsf

According to Colliers International – Current Average Corporate Class A Full Service Rental Rates for the Central City of Portland Oregon are as follows:

CORPORATE CLASS A VACANCY, AVAILABILITY AND RENTAL RATES (Q2 2011)

Market	Inventory	Vacancy Rate (%)	Availability Rate (%)	Average Rental Rent
CENTRAL CITY	4,938,315	8.60%	11.00%	\$26.78
SUBURBAN	2,484,731	31.40%	32.40%	\$27.77
TOTAL	7,423,046	16.20%	18.51%	\$27.19

CORPORATE CLASS A HISTORICAL RENTAL RATES



See Appendix G for full Colliers International Report on Portland Office Market.

## OSC Budget Note Response – FINAL DRAFT

Historic data indicates that the lease rates in Portland's Central Business District (CBD) have been subject to significant variation depending on overall market conditions (office supply, demand and vacancy factors) and general economic conditions. Over the eight and a half year period between 2003 and Q2 2011 rent increased by approximately 28%, an average of approximately 3.5% per year.

Based on the following examples, new construction, all of which have been LEED Gold or better, tended to command a 26% premium over this average market rate rent. Below is the analysis:

Newly Constructed Class A Facility in CBD	Associated Full Service Rent	Average Full Service Class A rent 2011 in CBD	Premium for New Construction
First and Main (2010, LEED Platinum)	\$33.50	\$26.78	25.1%
12 West (2009, LEED Platinum)	\$35.70	\$26.78	33.3%
Machine Works (2009, LEED Gold)	\$32.00	\$26.78	19.5%

Applying the historic growth rate of 3.5% to the current class A rent of \$26.78, we would expect class A rates in Portland to be at \$28.69 in late 2013/early 2014 when the OSC opens. The following table compares some of the OSC rents to the expected Class A market in January 2014.

Facility	Expected Full Service OSC Rent at construction completion in Jan 2014	Expected Full Service Class A Rent in Jan 2014	Percentage OSC Premium
OSC PSU rent	\$35.75	28.69	24.6%
OSC Not-for-profit rent	\$31.75	28.69	10.6%
OSC For-profit rent	\$40.25	28.69	40.2%

Like other new construction the OSC building will lease at a premium over the prevailing market. For OUS and non-profit tenants the rates will be similar to those they might expect in another newly constructed facility with a LEED Gold rating or better.

Rental rates for the for-profit tenants are anticipated to be above the market by 40.2%. Discussions to date indicate the overarching benefits and marketing opportunities associated with the location in the OSC will attract tenants to the building.

It is also anticipated that the reduced operating cost of being in a net zero building will offset the rental premiums over time. However, this is highly dependent of future costs such as energy and water.

## OSC Budget Note Response – FINAL DRAFT

### 3.d. A case for why funding by the State of Oregon or OUS is necessary as opposed to other potential sources.

**The funding by the State of Oregon or OUS is necessary to create financial returns and other benefits for the citizens of the State.**

The returns from the investment in this project are multiple. Many of these have been outlined earlier in the response to question 2.e. The returns accrue in five primary ways:

- The economic impact of the construction project
- Demonstrated global leadership and innovation for our state
- Longer term green jobs and workforce development
- Research and commercialization opportunities for OUS
- Education and public outreach facilities for use by students and citizens

The State Board of Higher Education has directed all institutions to embrace sustainability and become leaders in this regard. Many of OUS's member institutions have already forged a significant reputation in sustainability as evidenced by:

- OSU's commitment to earth systems as a land, sea, space and sun grant institution
- UO's green chemistry programs
- PSU's \$25M grant from the Miller Foundation for sustainability studies
- OIT's first in the nation program in sustainable engineering and renewable energy
- SOU's program in green energy
- National and international awards OUS campuses have received

This building will allow OUS to continue its successes in sustainability research and program development. Work in the building will include the use of new materials, green chemistry, low energy devices and systems, water harvesting and treatment systems, wastewater processing, social equity and other human elements relating to the interaction between high performing non-toxic materials and systems, and occupant productivity measurement and enhancement. This work will involve and benefit Oregon firms, scientists, policy makers, as well as students who will perform internships, work, and study in the facility.

The economic return and educational benefits generated by the project strongly support the use of State of Oregon bonds.

**The funding by the State of Oregon and OUS is necessary in order to make the project financially viable.**

The potential funding sources available to the project through other sources are detailed in the response to question 3.a.iii. In all cases, these alternative-funding sources increased costs to the participants and/or the project complexity, reinforcing the current approach of funding with State XI-F bonds. The alternative sources that were considered are outlined below:

## OSC Budget Note Response – FINAL DRAFT

### Conduit bond financing

- Higher interest rate, as these would be revenue bonds with a lesser rating and higher interest costs than XI-F bonds and, therefore, higher rents for the tenants in the facility
- Added legal agreements and transaction complexity contribute to higher legal costs
- Would necessitate establishment of a new, or contracting with a pre-existing, legal entity to receive the financing and this would come with added overhead costs each year

### Private financing

- Higher interest rate
- Higher debt coverage ratios require higher rents putting the project out of reach for university and non-profit tenants
- More difficult to attract grants and donations due to private ownership/financing
- Likely restrictions on research opportunities and grant funding with private ownership vs. public ownership

### 100% City of Portland financing

- City financing requires 20-year amortization thereby increasing rents, including university and non-profit tenant rents

Innovative projects of this nature require the lowest cost financing instruments available. As the first high rise living building in the world this project has a cost premium. This premium will be partially mitigated through the use of the lower rates and 30-year term bond financing available through the State of Oregon.

The financial strength that is provided by the use of XI-F bonds strongly supports their use.

### **The funding by the State of Oregon will allow OUS to receive the significant benefit of reduced risk/risk sharing from the project's other funding partners.**

The financing sought from the state is significantly reduced because this project includes \$5.5M in grants and gifts, as well as \$8.75M in land and TIF contributions. The City of Portland is also a strong financial and ownership partner, contributing \$8.2M in City bonds to the project. More importantly, the City has agreed to share 50% of the vacancy risk for all non-profit and for-profit tenants. The diversity in the financing structure provides added certainty that OUS will have the ability to meet the State's debt obligations.

If one analyzes this transaction from the State of Oregon's perspective, we note that up to \$37 million in State revenue bonds and \$3.0M in OUS cash will be used to construct a facility valued at \$61.695M. The City of Portland will share risk as a co-owner and provide 100% of the financial backstop for their portion of the premises as well as 50% of the backstop for the leased portions of this project. In other words, for those spaces owned but not occupied by OUS, the debt service risk to the State will be cut in half by the unique arrangement with the City.

As noted above, the state bonds will be repaid with tenant rents but backed by the significant financial capacity of OUS and the City of Portland. The likelihood of this repayment strategy failing is remote and in fact has never occurred in the history of this bonding authority since it was adopted by the people in 1950.

**OSC Budget Note Response – FINAL DRAFT**

The significant benefit of reduced risk/risk sharing from the project's other funding partners strongly supports the use of State of Oregon bonds.

**Conclusion:**

**State of Oregon bonds are critical to the success of the Oregon Sustainability Center and this project offers significant benefits to the State of Oregon and the Oregon University System. The funding of the Oregon Sustainability Center will leverage a unique partnership that will allow Oregon an opportunity to support some of its largest and fastest growing clean technology industry sectors and play a significant role in the global economy.**

**OSC Budget Note Response – FINAL DRAFT****Appendices**

**Appendix A – Detailed Schedule**

**Appendix B – Project Pro Forma**

**Appendix C – OSC Schematic Drawings**

**Appendix D – Detailed List of Building Materials**

**Appendix E – Balzhiser and Hubbard Engineering (BHE) Validation Study  
and BHE Validation Study - Review and Comment Log**

**Appendix F – Detailed Research Agenda**

**Appendix G – Colliers International Report on Portland Office Market**

**Appendix H – IMPLAN Analysis**

**Appendix I – Economic Impact Summary**



## Oregon Sustainability Center Final SD Design (7.5% Contingency)

## Detailed Budget

8/17/11

Project Costs		Total Cost
<b>Site And Due Diligence</b>		
Due Diligence (all except Environmental Phase II incl in PDC feasibility study, see below)		
Preliminary Geotech Report		0
Phase I Environmental		0
Phase II Environmental		0
Boundary Survey		0
Feasibility Study A&E		0
Preliminary Legal		0
<u>Civil &amp; Survey</u>		0
Sub Total		0
Site Cost		
Raw Land		3,850,000
<b>Site and DD Total</b>		<b>3,850,000</b>
<b>Construction Hard Costs</b>		
<b>GMP</b>		
Basement, Shell and Core		34,528,000
Contingency on Basement, Shell and Core and TI (2%)		610,000
General Contractor's Contingency (3%)		915,000
Materials Contingency (2.5%)		763,000
<b>GMP TOTAL</b>		<b>36,816,000</b>
Additional Hard Cost		
Office & Retail TI		3,165,000
Utility Charges		100,000
FF&E (not included)		0
Action/Conference Center Fit-out		200,000
Photovoltaics (assumes PGE payment of 4.50 per kWh)		1,600,000
1% for Art -- OUS		304,000
2% for Art -- City		192,000
Security System/Access Control		80,000
Signage		60,000
<b>HARD COST TOTAL</b>		<b>42,517,000</b>
<b>Soft Costs</b>		
Building Permit Fees	4.00% of GMP & TI Total	1,599,000
A&E for Site Core and Shell	10.79% of GMP	3,971,000
A&E for Reimbursable, MEP, OSF Exp	10.00% of A&E fee	472,000
Project overhead (including Accounting)	20 months 7,500 per month	150,000
A&E for TI	23.70% of TI	750,000
Builder's Risk Insurance (Skanska is carrying)	\$0.00 per \$1,000 of HC	0
General Liability (OUS carries)	\$0.00 per \$1,000 of HC	0
Project Supervision	18 months 10,000 per month	180,000
Title Policy for Construction		80,000
Title Policy for Site Acquisition		40,000
Legal Fees		100,000
ALTA Survey (update only)		3,000
Well Testing for Geothermal		10,000
Lighting Lab Fee		6,000
Appraisal		25,000
Testing & Inspection		
Geotechnical		80,000
Materials		100,000
Mock Ups		50,000
On Site Water Testing		100,000
Risk Mitigation		50,000
Systems Commissioning		200,000
Intern		13,000

LEED Documentation		300,000
PSU Project Management		100,000
<b>SOFT COST TOTAL</b>		<b>8,379,000</b>
<b>Contingency</b>		
Site Contingency	7.5% of Site	135,000
Development Contingency	7.5% of HC & SC	3,780,000
<b>Total Contingency</b>		<b>3,915,000</b>
<b>Developer Fee</b>		
Development Fee	3.0% all costs excluding financing	1,683,000
<b>TOTAL COST BEFORE FINANCING</b>		<b>60,344,000</b>
<b>Financing Costs</b>		
Cost of Issuance	1.5%/0.5%	305,000
Construction Interest - Senior		1,013,000
<b>FINANCING TOTAL</b>		<b>1,318,000</b>
<b>PROJECT COST</b>		<b>61,662,000</b>
Deposit to Reserve		33,000
<b>TOTAL PROJECT COST</b>		<b>61,695,000</b>

36880

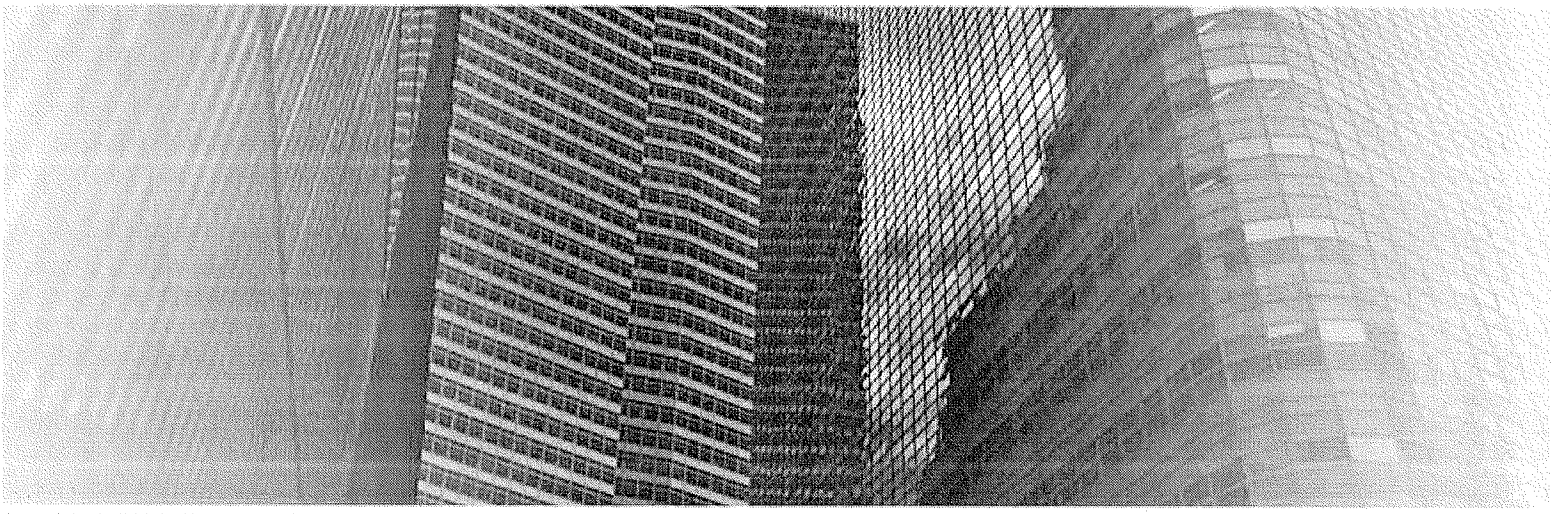
ATTACH  
D.

**APPRAISAL OF REAL PROPERTY**

**Block 153**

Vacant Land

SW 4th/SW 5th/ SW Montgomery/SW Harrison  
Portland, Multnomah County, Oregon 97201



**PREPARED FR:**

Lisa Abuaf  
Portland Development Commission  
222 NW 5th Avenue  
Portland, OR 97209

**EFFECTIVE DATE OF THE APPRAISAL:**

July 21, 2011

**REPORT FORMAT:**

Summary

**IRR - PORTLAND**

File Number: 134-2011-0233

**I**NTEGRA Realty Resources

*Local Expertise...Nationally*



**Block 153**  
SW 4th/SW 5th/ SW Montgomery/SW Harrison  
Portland, Oregon



September 13, 2011

Lisa Abuaf  
Portland Development Commission  
222 NW 5th Avenue  
Portland, OR 97209

SUBJECT: Market Value Appraisal  
Block 153  
SW 4th/SW 5th/ SW Montgomery/SW Harrison  
Portland, Multnomah County, Oregon 97201  
Integra Portland File No. 134-2011-0233

Dear Ms. Abuaf:

Integra Realty Resources – Portland is pleased to submit the accompanying appraisal of the referenced property. The purpose of the appraisal is to develop an opinion of the market value of the fee simple interest in the property. The client for the assignment is Portland Development Commission, and the intended use is for asset valuation purposes.

The appraisal is intended to conform with the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, applicable state appraisal regulations.

To report the assignments results, we use the summary report option of Standards Rule 2-2 of USPAP. Accordingly, this report contains summary discussions of the data, reasoning, and analyses that are used in the appraisal process whereas supporting documentation is retained in our file. The depth of discussion contained in this report is specific to the needs of the client and the intended use of the appraisal.

The subject is a parcel of vacant land containing an area of 0.77 acres or 33,500 square feet. The property is currently zoned Central Residential (RX), which allows for residential uses almost exclusively. For purposes of this appraisal, the site is assumed to be zoned CXd, Central Commercial, a mixed-use zone designation that permits a wide range of uses including, but not limited to; household living, retail sales and service, office, schools, colleges, and medical centers. The property is currently utilized as a surface parking lot, which is a prohibited use that is grandfathered as it predates the current zoning code.

IRR.

Lisa Abuaf  
 Portland Development Commission  
 September 13, 2011  
 Page 2

Based on the valuation analysis in the accompanying report, and subject to the definitions, assumptions, and limiting conditions expressed in the report, our opinion of value is as follows:

VALUE CONCLUSION			
Appraisal Premise	Interest Appraised	Date of Value	Value Conclusion
Market Value	Fee Simple	July 21, 2011	\$3,850,000

#### EXTRAORDINARY ASSUMPTIONS & HYPOTHETICAL CONDITIONS


The value conclusions are based on the following hypothetical conditions that may affect the assignment results. A hypothetical condition is a condition contrary to known fact on the effective date of the appraisal but is supposed for the purpose of analysis.


1. The client has requested that our appraisal be predicated on the hypothetical condition that the existing Streetcar tracks, which currently border the site along SW Montgomery and SW 4th Avenue have been relocated onto the subject site. The hypothetical assumes the site is bisected diagonally by the north and southbound tracks of the Portland Streetcar.
2. The site is zoned Central Residential (RX), which allows residential uses nearly exclusively. The client has requested that our appraisal be predicated on the hypothetical condition that the site has been rezoned from Central Residential (RX) to Central Commercial (CX), which allows a wide range of uses including residential, office and institutional. The process for the zone change is underway. According to the client, the City of Portland Bureau of Planning Services (BPS) will handle the zone change application process for the owner (PDC).

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

#### INTEGRA REALTY RESOURCES - PORTLAND

  
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