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Urban Development Journal Analysis: In this major election year, the candidates elected to federal, state and local offices will have a marked impact on urban development policies for an extended period. In the City of Portland alone, four of the five city council positions, including the mayor, are open. Surprisingly, no other university has an urban development journal such as ours, and it is therefore incumbent upon us to explore urban development issues, rather than the candidates, that should be raised in these many elections. Unfortunately, it appears that an urban development agenda has been an invisible one to most candidates.

FEDERAL ISSUES:

1. **Urban Infrastructure**: On the federal level, which candidates have raised these kinds of issues? How are we going to fix and fund a staggering backlog of under-investment in urban infrastructure and deferred maintenance of roads, bridges and railroads? Not even the collapse of the Minneapolis urban freeway bridge seems to have galvanized a major effort to remedy the problem. Traffic control systems at our airports are antiquated and not a single high-speed inter-city rail corridor exists in the wealthiest country on the planet. Where, how and when can we make these investments?

2. **New Communities:** Unlike our European and Japanese fellow developed countries, our population continues to grow faster than the replacement rate. Where should the growth occur to house our growing population? The most recent federal policy to address this issue was over 40 years ago with the New Community Development Acts of 1968 and 1970 that established the New Community Development Corporation to stimulate construction of satellite new communities as well as new towns-in-town.

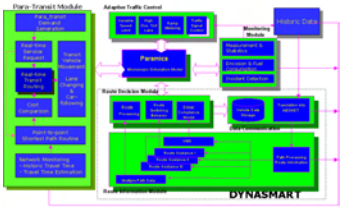
3. **Regional Development:** Detroit and Flint, Michigan, Buffalo and Syracuse, New York, and many more cities around the country do not have a shortage of available housing. Whether it is affordable depends upon the employment status of the residents. Some candidates have talked about adjustment assistance or extended unemployment for those affected by shifts in global trade and the ballooning trade deficit. Have any put forth rational policies to invest in transforming stagnant industries to those producing goods in greater demand? Why does it take an Indian company to design a $2,500 four-door sedan that gets 50 miles per gallon, better than the Prius, at a tenth the cost and could be well-suited to urban streets?

4. **Affordable Housing:** The main federal effort to stimulate production of affordable housing is the Low Income Housing Tax Credit [LIHTC] program, which produces about 50,000 units per year. Unfortunately the need is estimated at over 5 million units so that if the need stayed constant, a very unlikely scenario, the program would take 100 years to solve the problem. Moreover, the development capital soft costs are high, as are operating expenses to verify and monitor income eligibility. Which candidates are addressing more effective alternatives?

5. **Workforce Housing:** The term "affordable" has now come to mean subsidized housing. But there is a large need for housing that is not subsidized and is typically for younger workers who may earn from approximately 80% to 120% of median family income. Now termed "workforce" housing there is a paucity of development incentives to developers to build to that market segment. While local governments can award density bonuses, how can the federal government adjust its national housing policies to address these needs?

6. **Housing Finance:** The federal government through its housing finance policies, mortgage insurance, secondary mortgage markets and supervision of financial institutions has greater impact on housing markets than any other single entity. But the sub-prime lending crisis shows that the design and oversight of these programs and institutions may need substantial overhaul. How should that be done? Do any candidates articulate rational solutions?

7. **Transit Technology:** The internal combustion engine is a century old with relatively modest improvements. The Congress's objective of 35 mpg by 2020 is exceedingly modest and no hydrogen car or infrastructure is on the market. In many ways, rail technology is a 19th century solution to a 21st century problem. What "smart transit" solutions can the federal government foster? Can plug-in hybrid cars reduce oil consumption by substituting cleaner power generated during low electricity demand nighttime periods? Can cars



be equipped with intelligent driver electronic cocoons that reduce headways while preventing crashes? Can para-transit systems composed of taxis, minivans, minibuses and shuttles be stitched together into a single integrated para-transit network to reduce both traffic and parking? Can an integrated air taxi system operating from close-in general airports bypass the hub and spoke airline system with demand-generated point-to-point transit at affordable rates? Can high-speed hydrofoil pedestrian ferries re-center development along waterfronts in river cities like Portland and Vancouver? Which candidates are articulating these issues?

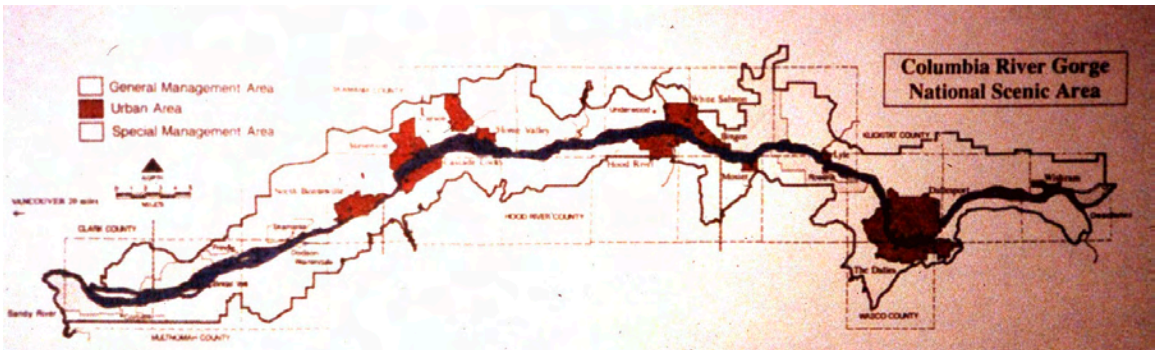
8. **Post-Disaster Redevelopment:** The hundreds of billions spent by the federal government on rebuilding cities after the increasing number of disasters recently may just be a precursor to the massive flooding and displacement that could occur after the effects of global warming raise sea levels and intensify storms. Hurricane Katrina redevelopment efforts reveal marginal understanding of the endemic problem of rebuilding in flood-prone areas. Nor does the recent flooding this winter in Washington, Oregon and California lead to confidence in redevelopment efforts reflexively supported by public officials seeking political support from displaced constituents. Is it environmental hubris to rebuild a city as much as 18 feet below sea level, surrounded by the largest inland ocean and largest river in the hemisphere as well as by one of the larger lakes, all in an area prone to hurricanes of increasing intensity? Will any candidate offer alternative urban solutions that build new communities on higher ground, at greater density, with better housing, transit and public facilities and mixed-use employment centers?

STATE ISSUES:

1. **Regional Development Strategies:** Since Senate Bill 100 passed in 1973, Oregon has focused its development efforts primarily at the urban edges. Moreover, as Metro CEO David Bragdon pointed out in the last issue of the Quarterly, the primary battles have been over the location and expansion of the Urban Growth Boundaries. Too many builders still focus on the edges while the action has been, and is likely to be, more intense at the centers. This has been largely for reasons of demographics. The Baby Boomers, and their children the Echo Boomers, are the two largest demographic groups and already account for about two-thirds of all domestic spending. In addition, both groups are at ages at which they make major housing decisions – Baby Boomers to downsize and Echo Boomers to start new households, far from the suburbs in which most of them were raised. Moreover, both groups have demonstrated a particular propensity to locate as close to vibrant, mixed-use urban areas as they can. Recent housing price statistics show gains of 7 to 8% in close-in Portland and Vancouver urban areas but declines of up to 14% in outlying areas. What this means for public policy and for the Big Look is that we need to figure out how to intensify development of close-in urban areas while we defer development at the periphery for which neither public nor private interests have the resources for large-scale infrastructure.

2. **Gorge Cities:** By a fortuitous set of circumstances, the metro area is adjacent to 13 underdeveloped cities occupying about 30,000 acres of urban land, each one of which is surrounded by a greenbelt. Moreover, almost every one of them has a spectacular waterfront on the largest river in the West and highways and railroads on each side of the river. The Columbia Gorge National Scenic Area not only exists, but there is a rudimentary governmental structure in the form of the bi-state Columbia Gorge Commission to oversee land use and development policies. What does this mean to the

Portland–Vancouver metro area? It would be in the interests of both the metro area and the 13 Gorge cities to channel some growth into the cores of those cities, intensify their growth while relieving growth pressures in the metro area and connect them better with



the metrocore via the railroads on both sides of the river. But there are parochial interests at both ends of the Gorge that cannot see the broader options. Some in the metro area are too eager to enlarge their tax bases to encourage smart growth elsewhere. Conversely, some in Gorge cities simply want to expand the UGBs to continue the low-intensity sprawl to which they have become accustomed. In The Dalles, for example, some want to expand their UGB by about 3,000 acres when more than double that amount of flat undeveloped urban land sits directly across the river in Dallesport. Which state, and bi-state candidates can articulate better solutions to these parochial development problems?

3. **Urban Consolidation:** Within the metro area, there are over 30 governmental entities including two states, four counties, two large ports and a multiplicity of cities and special districts. The major metropolitan entity, the elected Metro government, does not include Clark County, the fastest growing the metro area and home to over 400,000 people. Unlike the Gorge, there is no bi-state Congressionally-approved compact forming an entity with land-use powers even as rudimentary as the Gorge Commission. Despite the fact that all municipalities and special districts are creatures of state enabling statutes, annexations are very contentious issues that help to defy rational and coordinated planning and provision of services. Can any candidates articulate options for rational solutions to such common urban development problems?

4. **Land Banking:** Contemporaneous with the period in which Senate Bill 100 enacted the Oregon land use scheme, the American Law Institute Model Land Development Code provided for the creation of state land banks. More than three decades later, as the Oregon Big Look examines alternatives to a consensus fractured by multiple initiatives, the model of state land banks could be a very useful alternative tool. Metro has been visionary in acquiring large swaths of land for open space. Why not a state land bank that acquires urban land reserves for future urban use? Unlike the open space acquisitions, those for urban use would not require tax revenues but rather could be funded by bonds the debt service of which could be funded by the increment in the very urban land values they would seek to create. Are both candidates and members of the Task Force able to sincerely explore the potentials of a state land bank?

5. **Urban Development Corporation:** The New York State Urban Development Corporation developed more new communities, affordable housing, industrial, commercial, academic and public facilities, in a shorter period of time, than any other single development entity in this country. Its unique combination of powers, its statewide charter and the talent and resources it was

able to attract offer another model for the states of Oregon and Washington to carefully consider. Which state, and bi-state candidates can develop innovative solutions to urban development problems in both states?

6. **Multifamily Modular Housing:** In the four decades since the architect Moshe Safdie demonstrated the potential of urban multifamily modular housing with Habitat at Expo 1967, American ingenuity has languished while European progress has continued. As explained in my article below, Seattle developer Unico is taking the first steps in that direction with its research, development and demonstration of its Inhabit modular system that I call iMods. It clearly offers a system that is faster, cheaper and better in terms of structural integrity. Moreover, it has been designed to be scaleable and flexible so that it can be built on small scattered urban sites while still reaping the benefits of economies of scale essential to reduce the price of producing workforce housing. Which candidates have the knowledge and vision to reduce the impediments from zoning and building codes, work rules and financing obstacles to lead to wide-scale development of affordable multifamily modular housing?

7. **Distributed Generation:** About two-thirds of the BTU input to produce electric power at distant plants is wasted in lost heat and transmission losses. Produced at the source of consumption, transmission losses are eliminated and heat can be recaptured to heat water and air. OHSU's new health center on South Waterfront demonstrates the efficiency of using micro-turbines in this manner. Dishwasher-sized fuel cells can produce both heat, hot water and power not only for homes but also to generate electricity for plug-in hybrid cars or even hydrogen for fuel cell cars. Honda, Mitsubishi and others are developing such small, distributed home/auto power systems using hydrogen in natural gas lines as the fuel source. Which candidates can lead in the overhauling of utilities regulation, building and zoning codes, tax codes and economic development incentives to stimulate distributed generation?

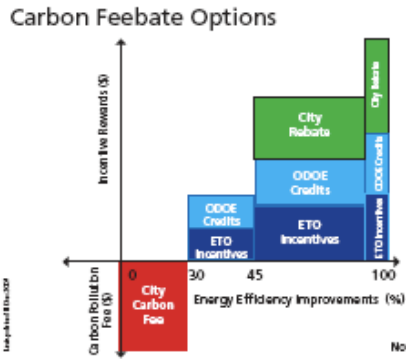
LOCAL ISSUES:

1. **Columbia Crossing:** Witnesses to the agonizingly slow and bureaucratic process to develop a solution to congestion over the Columbia Crossing I-5 Bridge surely could produce a better solution than one that has taken more than a decade, has excluded both development planning and broad-based multimodal options from its purview, and has produced a DOT-driven preference for a $4 to $6 billion replacement bridge. Which candidates are knowledgeable enough about the details of the panoply of planning, development, transportation and funding issues required to broaden consideration of the largest single infrastructure issue in the Portland/Vancouver metro area?

2. **Sustainable Development:** Few terms are as amorphous as "sustainable development" to the development community. To many it means green building ratings that simply add more costs than value. To others it means doing the right thing to save the planet regardless of cost. Both are distorted views. *Eco*nomy and *eco*logy both stem from the

Greek root "*oikos*" which means house. These are two sides of the same coin and one can have neither without the other. Progressive developers like Gerding-Edlen have shown that truly sustainable development can create more value than it costs, seeks to create buildings that generate more power than they consume and even earn revenue and profits by exporting their expertise to distant cities, like Los Angeles and Seattle. Which candidates understand how to bridge the gap between these disparate interests?

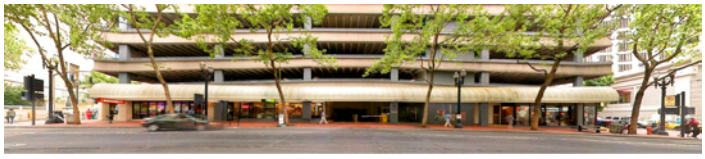
3. **Carbon Feebates:** Portland City Commissioner Dan Saltzman and his Office of Sustain-able Development have proposed a system of "feebates", a combination of rebate carrots financed by carbon pollution fee sticks, for development that exceeds, matches or fails high performance green building standards. In addition to re-ducing energy consumption and creating more healthful buildings in Portland, they hope to stimulate the creativity and commitment of the local development community in a way that will foster local economic development along with the ability of Portland developers to export their expertise and skills as Gerding-Edlen and Williams & Dame have done. Will the City Council, for which four of the five seats are open for election, and its candidates, support the feebate system?



4. **University Development:** Portland State University is not only the largest university in Oregon, it is also the largest landowner in downtown Portland with over four million square feet of space on over 44 city blocks and over 4,000 parking spaces. Its projected growth and development from 25,000 to 35,000 students in less than a decade will require enlightened development policies and creative public private partnerships on an unprecedented scale. The University of Oregon has expanded its beachhead in down-town Portland with its lease of the White Stag Building rehabbed for its occupancy. OHSU's plans for a new medical campus on South Waterfront have been set back by the removal of the liability cap on malpractice claims against the partially state-supported institution. All of these university developments require public discussion, leadership and action on the part of state, local and academic leaders on the full range of potentials and pitfalls of these growth plans. Which leaders are up to the tasks?

5. **Streetcar Expansion:** The Portland Streetcar appears to have been more successful as a development tool than as a mass transit system. As Eric Hovee will demonstrate in a article in our next issue, development within the three-block depth along the streetcar line has shown greater density and faster absorption, and that its effects within the three blocks are directly proportional to distance from the streetcar tracks. Rather than the now familiar term Transit-Oriented Developments (TODs), Hovee contends that our streetcar is really a Development-Oriented Transit system and in conflict with the Bush administration rules that favor speed and distance of the number of people moved. In fact, our streetcar reduces the number of trips needed and moves passengers more slowly than the bus system the administration's rules favor. How will candidates stand on the issue of extension of the streetcar to an eastside loop across the Broadway Bridge, down to OMSI and back across the Willamette to South Waterfront?

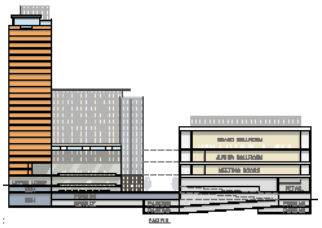
6. **Transit Mall Redevelopment:** While most public attention has been on obtaining large-scale funds to construct an extension of light rail on the Tra nsit Mall, what has been missing is a fine-grained examination of how to revitalize and redevelop the 117 block faces along Fifth



and Sixth Avenues. Now, playwright, public artist and design consultant Tad Savinar has completed that block-by-block analysis of simple things that can be done to improve the pubic-private interface along the Transit Mall. Whether it is redoing a storefront, adding an awning, changing the lighting, opening or painting blank walls, changing signs or one of many other techniques, Savinar has outlined for PDC and property owners, just what can be done with limited funds? His article below describes this in more detail. Can more significant redevelopment occur if PDC and developers can focus on redevelopment opportunities? What incentives will candidates for City Council throw into the mix?

7. **Coliseum Reuse:** Over six years ago, at a time when one developer was advocating the its conversion to an athletic center, I taught a workshop on the reuse of the Coliseum. We developed four alternative reuses for the Coliseum, each one of which was viable. Supported by 2,600 under-utilized existing parking spaces owned by the City, with some additional spaces, they included [1] a 650-room convention headquarters hotel within the structure; [2] a 540,000 square-foot Sustainable Technology Center housing up to 2,000 jobs in energy and environmental technologies; [3] a retail Urban Home Center anchored by IKEA (before it was considered for Cascade Station) and an EXPO Design Center or [4] a Memorial Arts Center housing Portland ballet, opera, symphony, drama and film institutions along with an 80,000 square-foot commercial broadcast center, 10-screen Cineplex, a 10,000 square-foot Powell's arts and music bookstore and a 15,000 square-foot terrace restaurant overlooking the Willamette River and downtown Portland. Six years later, the City has not pursued a single one of these five alternatives, or any other alternative. Which candidates will resurrect any of these options or pursue others?

8. **Headquarters Hotel:** Metro is now the locus of decision-making for a potential headquarters hotel for the Oregon Convention Center (OCC). Advocates say a headquarters hotel is needed to help ensure viability of the OCC. Public ownership and subsidies have been issues that have generated a backlash among existing hoteliers. Public activists are concerned about priorities for public spending. Some economists question the validity of projections about the feasibility of capturing forecasted shares of a market that grows more competitive with the construction of additional convention centers and headquarters hotels, in many cases subsidized by other cities. Others note that a headquarters hotel cannot likely survive on convention business alone and question whether a headquarters hotel in that location can capture the business and leisure traveler markets needed to reach viability. How will candidates for office judge all these factors and what judgments would they make?



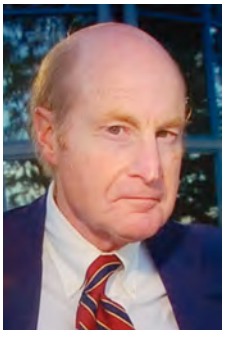
9. **PDC Revitalization:** In recent years, the independence and budget authority of the PDC has been diminished by assertion of City Council prerogatives. Once led by PDC Commissioners who were primarily developers chosen for their development expertise, now not a single developer sits on the Commission. Several urban renewal districts within which tax increments have financed large bond issues are about to expire. Authority to acquire private property by condemnation for the purpose of sale to other private owners for development is now limited by changes in reaction to a Supreme Court decision. Newly elected city council members will need to address how to revitalize the PDC, increase its development expertise, augment its resources and refine its goals. Public-private dealmaking is a challenging art not susceptible to traditional governmental decision-making. In this issue describing a case study of Vanport Square,

PDC Director of Development and development manager Bernie Kerosky, a former student of mine, show just how hard it is to achieve. How do city council candidates stand on these issues?

10. **Accelerated Mixed-Use Zoning:** Single-use zoning is less than 84 years old in Portland. By definition, zoning land for a single use reduces its ability to accommodate different uses and any mixture of them. Urban growth boundaries in the Portland/ Vancouver area restrict the supply of urban land in order to reduce urban sprawl. Some argue that the boundaries should simply be expanded to accommodate growth. But with two-thirds of spending controlled by aging Baby Boomers and their children, the Echo Boomers, and with each at a period in their lives when they are making major housing decisions and expressing a preference for close-in urban mixed-use environments, does it make sense to expand at the periphery? Do any candidates support the alternative of expanding large areas of existing urban land for mixed-use zoning?

11. **Urban Density Bonuses:** In addition to mixing uses, accommodating substantial numbers of new residents will require increasing urban densities. Multiple tests of visual preference analyses show that it is not density *per se* to which many people object, but rather in-artful density. With its Living Smart (Skinny House) and Courtyard Housing Competitions, the City of Portland has dipped a toe into design waters but scarcely into development. And the relatively low-density nature of these solutions belie the significant increases in density they can accommodate that can still be urbane. What kinds of urban density bonuses can be crafted to reward developers to try new approaches to projects? Which candidates understand these issues, can articulate them in simple terms to the public and can lead to their development?

Urban Development Issue Explanations: We have outlined these urban development issues to help guide all the members of the development community to carefully examine, and cross-examine, the federal state and local candidates from our Portland/Vancouver metropolitan area in the nine months that remain until election day, and the many shorter periods until the primaries in both states. In addition, as reporters prepare their stories on the candidates, we hope that they will choose to investigate and report on these issues, which are too often neglected in favor of the stories about the horse races and opinion polls. And as the candidates prepare their positions and speeches on all outstanding issues, it is our hope that they do so in detail on these urban development issues that too often are neglected because of their greater complexity. Please contact me via email at machtw@pdx.edu with any questions, comments or suggestions for new articles.



Respectfully yours,

William P. Macht

Professor Will Macht
Editor, Center for Real Estate Quarterly
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Special appreciation for the financial support of the OAR and RMLS and the assistance of these organizations.

From Habitat to Inhabit: Inhabit Module "iMods" For The Creative Class

Professor William P. Macht, Associate Director, Center for Real Estate
Editor, Center for Real Estate Quarterly, Urban Development Journal

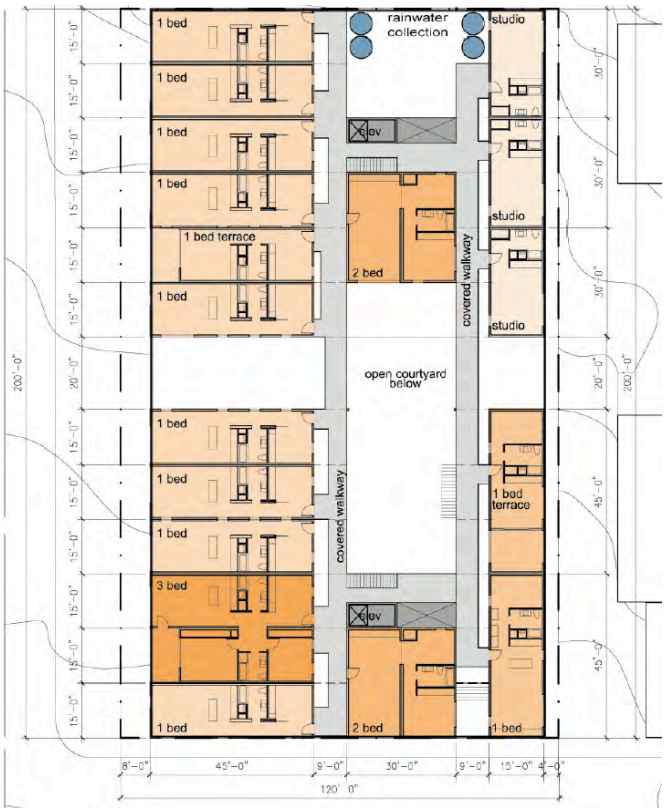
Over 41 years ago, architect Moshe Safdie designed and built a 10-story pyramid of cantilevered concrete box modular units for Expo 1967 in Montreal. The flat roof of one was the large deck of the one above it and it became the iconic image of mass-produced modular multi-family housing. Two years later, then Secretary of Housing & Urban Development for President Nixon, George Romney, Mitt Romney's father, started Operation Breakthrough with intent of producing modular multi-family housing at large volume and lower cost in factories similar to his industrial experience as the CEO of American Motors. Four years later, after Romney resigned, Nixon pulled the plug with an indefinite moratorium on the §236 subsidies necessary to stimulate production. Multi-family modular efforts in the U.S. have been small and sporadic since then while European efforts have advanced. *[See* Moho Modules Modernize Manchester, W. P. Macht*, Urban Land, Feb 2007 pp. 114-117].*

Now, Seattle-based Unico Properties has built a demonstration model of two units of wood-frame multi-family housing modules, branded "Inhabit", which it plans to develop at densities of about 150 units to the acre in projects of about 75 units each on multiple urban infill sites in Seattle, Portland and other markets. Unico has carefully crafted its approach to be able to develop a scaleable strategy that is large enough that it can cost-effectively benefit from efficient large-scale production, yet compatible with smaller urban infill sites that can attract young professional echo boomers. For these target markets, its designs

stress the kind of clean, modern, urbane, stylish and green designs that have attracted these younger demographic groups to Dwell magazine.

Scalability & Flexibility

Important objectives of the design were to make the units both scaleable and flexible so that they could be assembled in multiple ways at various scales. Though it may appear counter-intuitive, the key to accomplishing both objectives was to make the modules a standard size. Seattle architecture firms HyBrid and Mithun jointly designed a module that is 15 feet wide by 45 feet long. The 675-square foot module can house a single unit or be joined with others to create larger ones. They can be placed either side-by-side or end-to-end. The three-to-one proportion permits three units on one side of a double-loaded corridor to equal a single one perpendicular to it. That means that the units can fit on sites as narrow as 35-feet or as wide as 95 feet and still achieve double-loaded efficiency. The insertion of open courtyards can vary the design.



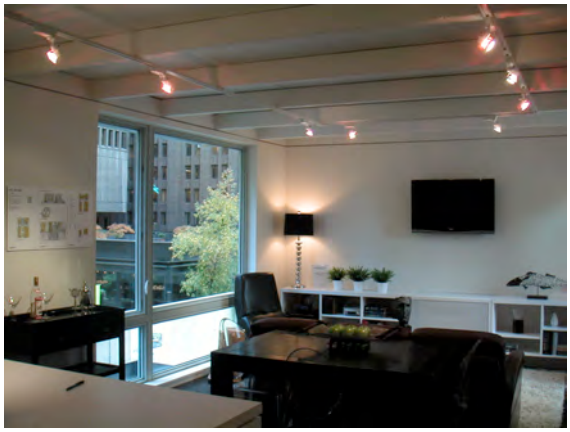
Another configuration uses the same-sized modules places in single or double-loaded configuration, end-to-end, in the shape of a capital "E" with courtyards between the wings. This design maximizes the light and air coming into units with glass walls along the long sides. More similar to the Moho multi-family modules built in Manchester, England, such designs still can achieve high density without losing cost effectiveness because their modular construction produces full exterior walls on all four sides. Exterior staircases can be used to vary the exterior, expand the units and eliminate the need to heat and cool interior hallways.

The 45-foot long dimension neatly divides the structural system into three 15-foot bays. That means that a single module can be as small as 450 square feet, yet can also be enlarged with its own spacious 15-foot by 15-foot, 225 square foot covered outdoor living room deck. In temperate climates with winter rains, like Seattle and Portland, that outdoor living space is far more commodious and usable than the typical Juliet balcony normally associated with

competitive housing. One of the model units constructed for Unico is just this type of unit with a full 15-foot long wall of full-height sliding glass doors leading to the deck from the living-dining area. The effect is to give the unit a lightness and openness on three sides expanding the visual and livable space beyond its small size. That outdoor living room could also be glazed on the open sides to create an openable sunroom for greater versatility.

Other floor plan layouts can make the units as large as a 1,200 square foot, three-bedroom unit with a covered terrace. Intermediate units are a 525 square-foot, one-bedroom unit with a 12-foot by 15-foot terrace, the standard 675 square-foot, one bedroom unit and a 900 square-foot, two-bedroom unit with the two bedrooms in a 15-foot by 30-foot module.

The wooden modules can be stacked as high as five stories over parking. Their solid unit construction can help to span parking bays. Key to their efficiency is that the bathroom and kitchens in each type stack immediately over units below, eliminating extra and special plumbing runs. In-wall air-to-air HVAC heat pumps eliminate heating ducts.



A clever technique produces greater variety and lower costs by exposing and painting the ceiling joists of a lower unit, then gluing and screwing its sheetrock ceiling at the factory to the floor of the unit above it. That technique adds almost a foot of height to the lower unit while simplifying the finishing of the ceilings.

Higher Density, Low-Rise Urban Infills

Impressive densities can be obtained even stacking the units only four stories high over a podium above a parking level. On an urban 24,000 square-foot Seattle site 200 feet long and 120 feet wide, HyBrid and Mith-un were able to get 18 units per floor with 100 percent of them in a single-loaded configuration around a 48-foot wide, 95-foot long open courtyard surrounded by covered, but open, walkways. Still the plan achieves a density of over 130 units per acre.

The unit mix can vary to incorporate studios, one, two and three-bedroom units. If a fifth floor were added, densities would rise to over 163 units per acre, yet still be in a low-rise, infill location.

On another 20,480 square feet site, 128 feet by 160 feet, there are 19 units per floor on only four floors producing a density of 162 units per acre. Yet the efficiencies are higher than typical garden apartments because there are no internal common area hallways that are more costly to build and need to be heated and cooled.

Not only is this system flexible in that it can be configured differently on different sites yielding different sized units, it is also scaleable. Multiple small infill sites can be acquired, each one of which need contain relatively few units. However, factory construction capitalizing on the economies of large scale can be realized lowering overall capital costs.

For example, four disparate sites smaller than half an acre each could house over 300 units. The impacts of that approach can be enormous. Relatively few sites in good close-in locations in many cities, including Seattle and Portland, are available as large as two acres. Many more, smaller sites are available for infill projects. And the smaller the project, the more attractive it is to the creative class of young professionals that is an important target market. Fewer of them choose to be located in a large suburban scale apartment project.

Wooden Modules Vs. Shipping Containers

One of the most unusual characteristics of the Inhabit project is the methodical way in which Unico organized the research and development process. HyBrid came to the attention of Unico because of its extensive work with shipping containers that it calls "Cargotecture". A shipping container is the quintessential standardized module established by the International Standardization Organization, [ISO] that sets standards in many businesses and technologies. The most common are 40 feet long by 8 feet wide and 8.5 high. Any one of them can be stacked above another up to ten high, even the 53-foot units that cantilever over the 40-foot posts. They can be and are shipped easily by ship, barge, rail or truck and can support over 60,000 pounds. As long as the enormous U.S. trade deficit continues, there is a surplus of used containers in ports like Seattle and Portland because it is usually cheaper to build new ones in China than ship empty ones to it. Therefore, used ones can be bought for less than $1,200 or a cost of $3.75 per square foot for a welded, water-tight steel shell.

Unico retained HyBrid to compete to design modules using containers in a friendly competition against Mithun, which agreed to design wood-framed modules. To make the competition as

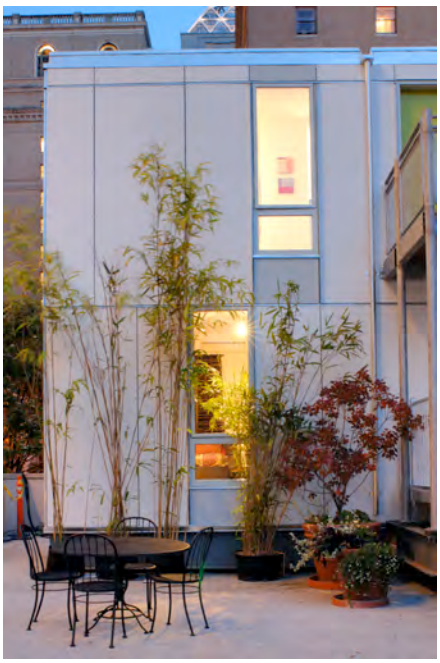
useful as possible, Unico also retained the Bellevue-based contractor RAFN, which builds

multi-family housing and commercial projects, to provide cost estimates at each step for both building systems. While Unico will not release the proprietary results of the million-dollar exercise, it concluded that the costs of each method were remarkably close. What will be enlightening for readers are the kinds of considerations, advantages and disadvantages of each system and the types of factors one must weigh in making judgments as to which best fits a particular kind of situation.

For example, with respect to transportation on highways, the 15-foot, wide-load wooden modules need lead and trail pilot cars fore and aft of the module-bearing truck and trailer, a more complicated and expensive operation that involves three drivers, special permits, special licenses and time-of-day travel restrictions. In many cases the width or weight requires re-routing for such things as bridge load maximums, clearances at bridges, turning radii, etc. Modular shipping trucks are towing beds that are expensive. Each of four re-locatable axles is suspended on independent hydraulics, and each time one ships a module one may need to build disposable cribbing onto the trailer bed to meet the model being shipped.

By contrast, containers can be moved by any semi-truck and trailer and a single driver. Containers can be shipped one-high by road, two-high by train, or 11-high by ocean container ship, whereas wooden modular units can only be shipped one-high by road or barge or strapped at the top level of container ships.

However, wooden modules are fully finished when brought to the site, whereas containers need to be joined at the site, requiring more onsite labor. And since containers are just over half the width of wooden modular unit, they can require twice the crane lifts and twice the crane time at the site. "There are twice the connections with twice the cargo boxes for the same built area, and button-up at the site takes longer with Cargotecture", says HyBrid architect, Joel Egan. "Access to the internal connections can be difficult and while it can be designed at the front end using wooden modular units, with containers there are no ceiling joists to grab onto and the floor joists' alignment takes front-end planning with the supplier", Egan notes. However, the size and strength of containers makes them easier to move, store and stage at the site. In addition, if the market will accept an industrial chic appearance, containers need no siding, unlike wooden modules.



Gaskets between stacked units must be planned in either prefab building system. Linear length of gaskets drives the cost, in labor, materials, detailed design and inspection. For containers, obviously twice the gasket lengths equal twice the labor, twice the materials, twice the inspections, and twice the intensity of the detailing based on liability and

durability concerns.

According to Egan, "The bottom line is that cost comparisons between Cargotecture and wood modular units are relative to the building shape and size and the developer's need for custom-sized or diverse spaces. They cannot be tied directly to cost per square foot. The building height, size, and form generate which building system should be used, as well the value gained from a speedy construction or installation of a building".

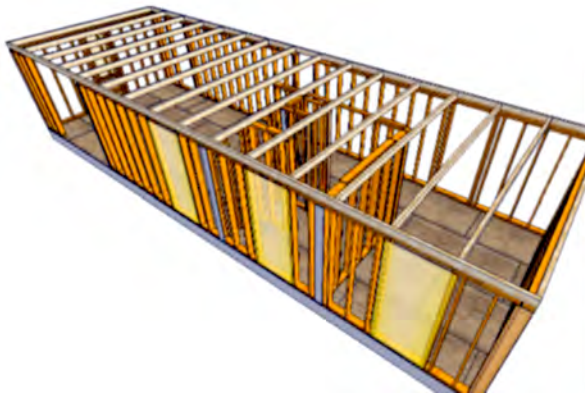
Since containers can be stacked higher than wooden modules, they may be more suited to taller structures. Says Egan, "Cargotecture is a good fit for buildings whose proportions are taller than they are wide, for skinny lots and for movable buildings. They are extremely durable as movable buildings. They are an overt symbol of sustainability. As a subset of the steel shell module they are also good for buildings which are six to nine stories tall. The taller they are, the better they pencil out against wood." The embodied energy, materials and labor to build the containers are re-used, which is greener than recycling that requires even more energy.

As the developer, Unico weighed other factors in deciding to rule out shipping containers. According to Jonas Sylvester, Unico's Vice President, for Investments, the biggest issue was who manufactures the retrofit and build-out for containers. "None of the existing plants was tooled for the containers, so in practice a container retrofit shop would have to meld the two containers together and then we'd have to figure out how to make our own ad-hoc manufacturing facility", Sylvester said. While that was feasible, "we would need to use the exact same subcontractors to build out the interiors as are charging high prices for site-built housing and we'd only get the real savings with cheaper labor in an existing plant".

Sylvester contended that Unico could not buy cheaper used containers because the potential that some might have been used for transport of hazardous materials could open up potential future liability. If containers needed to be new, they would be more expensive and less eco-friendly since one would not be capturing the embodied energy and labor and reusing the steel materials. Sylvester also said that "by the time we retrofitted the containers for heat transference, noise reduction, seismic requirements etc, we were effectively building a new box within the container". But perhaps the deciding factor in his assessment was that while costs came in close to the wooden modules, market acceptance would be more problematic for a large run of units.

Nearby Multifamily Modular Factory

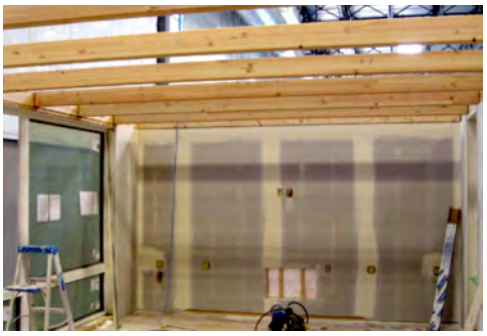
Clearly, the recent completion of a 125,000 square-foot Transform, LLC factory in Burlington, WA, less than an hour away from Seattle, was important to Unico's decision. Transform's chairman and CEO, William Maris, explains how his factory uses state-of-the-art German equipment to rationalize and accelerate the building process.



Computers in the equipment can read the three-dimensional CAD files [computer assisted design] and translate them into the CAM [computer assisted manufacturing] for the optimizing saw, and other robotic equipment, which guides the machinery to precisely cut and assemble components to reduce waste.

A framing station uses automated nail guns, nail plate presses and multistage drills and routers to assemble walls in full lengths, horizontally. Floors and ceilings are assembled on rolling platforms at separate stations. Licensed plumbers and electricians install plumbing and wiring in easily accessible open sections. Insulation is easily applied. Walls are run through a multi-function bridge that nails, screws, glues and staples sheathing to them.

Since most work is done horizontally, men and machines use the force of gravity to improve quality with easy access without ladders. Then sliding ceiling cranes lift walls onto the floor platforms. Sheetrock compound and tape are applied in a closed environment that captures dust from sanding and fumes from painting. Flooring, windows, cabinets, fixtures and appliances are installed in nearly finished modules which are shrink-wrapped for transport to the site. The model units screwed fiber cement board siding at the site rather than the factory, but future projects may reverse that.



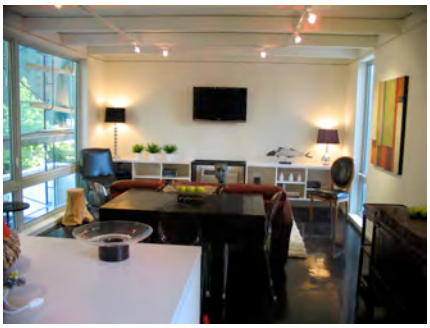
Unico CEO Dale Sperling says that units can be permitted in only six days from the state Bureau of Labor & Industries, as opposed to about 150 days from the City of Seattle. Factory housing is governed by statewide codes. Inspections are typically done by the same inspectors, who are very familiar with the process and can inspect many units at a time at the factory, in dry weatherproof surroundings. Transform says it can build several units in a day. Shipment can occur on a just-in-time basis whenever the site is ready to receive units. Therefore theft, vandalism and weather damage is virtually eliminated.

Cost Savings

Somewhat surprisingly, cost estimates for wooden modules, containers and stick-built construction were relatively close. However, since the Inhabit project has not yet gone into the production phase beyond the demonstration model units, economies of scale have not yet been tested. But it is erroneous to think that cost savings will come primarily from actual construction. According to project manager, Robert Miranda, Unico conservatively projects overall cost savings of 5-12 percent for the first project and will improve over time.

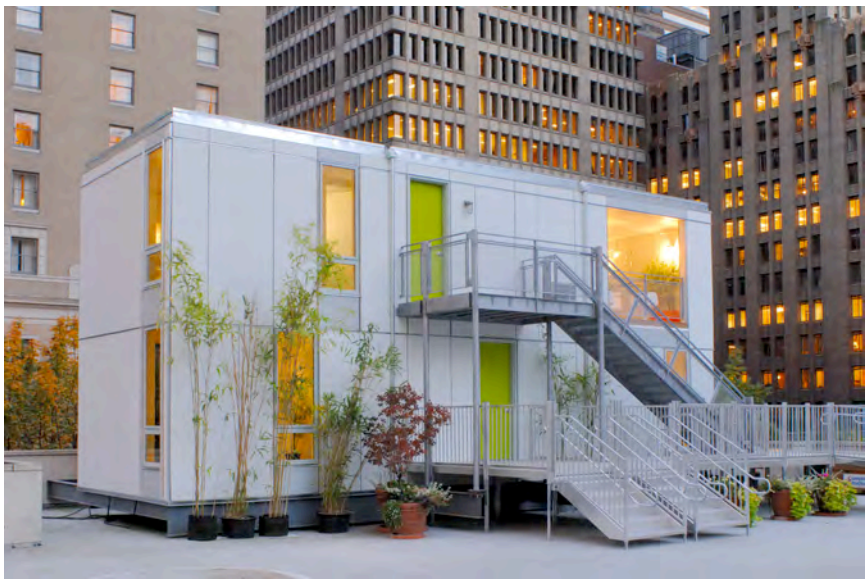
Savings come from a combination of soft, hard, and financing costs. Since an entire system has been designed, soft costs for planning, design and engineering can be reduced. The speed of construction can reduce development time by at least six to eight months which reduces construction financing carrying costs. Since onsite construction time can be drastically

shortened, each project can be completed earlier and phasing need not delay occupancy. Quality improvements using all clean and dry materials can reduce construction defect liability claims, which should reduce insurance costs.



Since units must be built more sturdily to withstand movement through travel on highways, and since materials are more firmly attached with redundant fastening systems applied with pressure from heavy machines, future damages from earthquakes, wind and rain should be reduced. Moreover, the entire system is designed to brand the name "Inhabit" so marketing costs can be lower and stretch further. For all these reasons, leasing income can begin more quickly, effectively reducing total development costs from conception through lease-up.

Developing modular systems can also change financing. Unlike typical onsite building, construction lenders cannot place liens on completed portions at the site. However, Unico seeks institutional lenders for complete debt and equity financing that can effectively eliminate the distinction between construction and permanent lending. Because of the short construction time, days and weeks, not months, Sperling expects that housing manufacturers will float working capital costs, much like other industries.



Because Unico is primarily a commercial developer and owner that builds to hold projects long-term, it is much more comfortable developing a long-term rental rather than a sale project. It also has long relationships with institutional lenders and investors. In fact, CEO Sperling says that he got involved in trying to develop workforce housing "out of naked, self-interest". Sperling explains that many long-term commercial tenants in primary central business districts were moving to secondary or suburban markets because their employees could no longer afford to live in the city. "Unico determined that an affordable workforce housing solution is essential to a viable, vibrant, sustainable urban community", opined Sperling.

Sperling said that construction costs are rising faster than rents, which are set by the market and not by the developer, so the nub of the problem was to drive those costs down while holding rents constant. Unico targets creative class workforce renters making 80 percent to 150 percent of median income. "If we could build to a positive spread over the cost of debt, then, Unico can hold these assets long term instead of selling to take advantage of near term cap rate compression", he noted. Like many long-term developer/owners for generations, Sperling contends that real estate is a cash flow tool that rewards holders and penalizes short-term speculators.

Urban, Modern & Green

So Sperling targeted the tech-savvy echo-boomer generation that populates so much of the Seattle and Portland workforce that he says wants to live urban, modern and green. The units are constructed with engineered wood floors, energy efficient fiberglass-framed windows and heat pumps, dual-flush toilets, recycled rubber flooring, and decking made of recycled plastic and cellulose. Kitchens feature efficient tall refrigerators only 24 inches wide, and bathrooms have single-unit ventless combination front-loading washer-dryers. Flat roofs will hold a green

roof system to further reduce storm water runoff and there is minimal on-site waste or pollution because the units are built in a factory. Unico will seek LEED certification from the U.S. Green Building Council for its branded "Inhabit" developments.

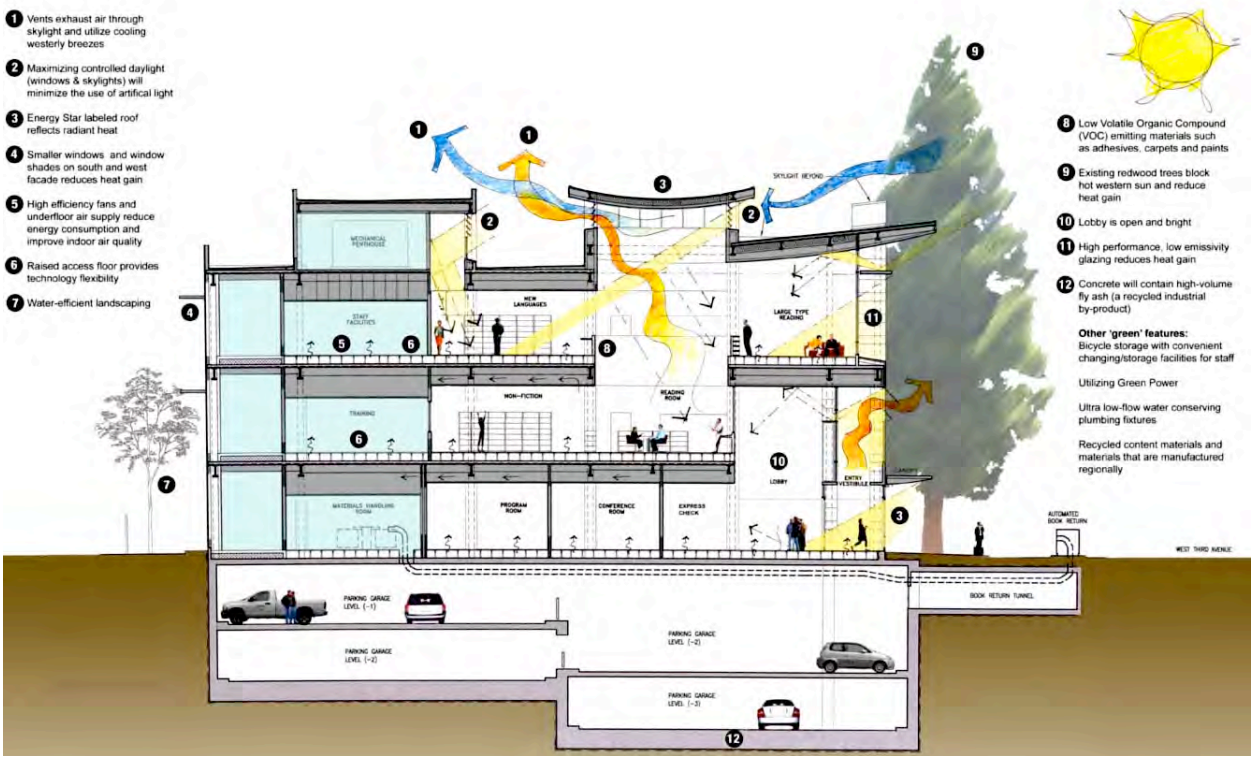
Sperling notes that the iPod typifies those early adopters he seeks, and inside his modules an integrated computer system controls the lights, heating and cooling, and audio and video systems. But in a larger sense, the Inhabit modular system units might be called "iMods" because they are urban, modern and green --- and if Sperling has his way, affordable. While Unico's "Inhabit" branded plan is not on the scale of Operation Breakthrough, because it has been carefully crafted by a long-term, savvy developer owner/ investor over a period of four years, it may be more successful, and the development community need not wait another forty years to realize the potential of factory-built multi-family modular housing units.

Photos by Mithun, Juan Hernandez & Will Macht

Portland's High Performance Green Building Policy

Peter Hurley, Green Building Manager, City of Portland Office of Sustainable Development

Think green building only works for large commercial projects like the OHSU Center for Health and Healing or Gerding Edlen's Brewery Blocks? Take another look. Kevin Cavenaugh's two-story "Ode to Roses" building in the Beaumont-Wilshire neighborhood is low-cost and high-performance. Home to Fife restaurant and second-floor offices, Kevin completed the 5,500 square-foot project for $137 per square foot while achieving a Silver Leadership in Energy and



Environmental Design (LEED) rating from the US Green Building Council. Using integrated design rather than expensive add-on systems, Cavenaugh's building improved energy efficiency by 41% with no additional design and construction costs, saving money on utility bills and cutting global warming pollution generated by burning coal, oil and natural gas to heat, cool, light and power buildings.

Taking a cue from Portland's progressive developers, the City of Portland is proposing a new draft high-performance green building policy with a choice of carbon "feebate" options. Intended to spur both economic and energy efficiency, the policy rewards private innovation and prices carbon pollution.

In 2000, Portland was one of the first cities in the country to mandate that all new city buildings meet LEED Silver green building standards. In 2005 the City Council raised the bar to LEED Gold. For years, Portland architects, engineers and green building consultants have been honing their expertise on public and private green building projects.

We are now reaping the benefits of this early adoption of green building standards. The majority of Los Angeles' green condominium projects were designed and engineered by Portland firms. Los Angeles money is paying for Portland living-wage jobs because of the expertise we developed following Portland's 2000 mandate.

> "We first began to incorporate green, high performance standards into our projects because we thought it was the right thing to do.
>
> We have learned over the last 10 years that it is also a great business strategy. We have not only improved overall profitability, but also expanded our business operations dramatically in part because of our environmental commitment".
>
> *Dennis Wilde*
> *Gerding-Edlen Development*

High performance green buildings also increase the number of local, living-wage jobs. The study *"Economic Im-pacts from Energy Trust of Oregon 2006 Program Activities"*[1] points out that when we cut building energy use we save millions of dollars, some of which is spent for local goods and services, boosting the local economy. In 2006 alone, Energy Trust of Oregon's energy efficiency savings and spending pro-grams produced over 400 local jobs.

Children and workers also gain from high performance green buildings: kids in green schools perform better on tests and workers in green buildings are sick less frequently and have higher morale, according to three recent studies: *"Daylighting in Schools – An Investigation into the Relationship Between Daylighting and Human Performance,"*[2] *"Greening America's Schools: Costs and Benefits"*[3] and *"Green Buildings, Organizational Success and Occupant Productivity."*[4]

But do green buildings pencil? According to a November 2007 study of 223 Class A office buildings (*"Does Green Pay Off",* November 2007 by Norm Miller, Jay Spivey and Andy Florance, "Owners and managers of ENERGY STAR rated buildings can expect $2 per square foot greater rents, 2% higher occupancy rates and $0.54 per square foot lower energy-related operating costs compared to traditional buildings" and "have sale prices 30% per square foot higher than traditional buildings." At a six percent capitalization rate, $1.00 in lower operating expenses or higher rents equals $16.67 in additional capital value. Green building greens buildings' capital values.

Maybe green building is a smart investment in California, New York and Seattle, but in Portland? Six months ago JP Morgan Chase & Co paid a record $292 million for three of the Pearl District's Brewery Blocks, stunning local real estate experts with its high sale premium. Chris Graham, vice president of acquisitions for JPMorgan, said "The environmental sustainability of the project is certainly an added value."

Dennis Wilde is a developer at Gerding-Edlen Development, the local firm that took a major risk to develop the Brewery Blocks. "We first began to incorporate green, high performance

[1] EcoNorthwest, October 2007
[2] Lisa Heschong, Heschong Mahone Group, July 21, 1999
[3] Gregory Kats, *Capital E*, October 2006
[4] Judith Heerwagen, *Building Research and Information*, 2000

standards into our projects because we thought it was the right thing to do. We have learned over the last 10 years that it is also a great business strategy. We have not only improved overall profitability, but also expanded our business operations dramatically in part because of our environmental commitment", said Wilde. Gerding-Edlen now has more LEED registered and certified buildings than any other private developer in the US.

Buildings are responsible for forty percent of Portland's global warming pollution. We face an ethical choice: we can build and upgrade to more energy efficient buildings or we can continue business-as-usual, producing far more than our share of global warming pollution. Climate change may be the greatest economic, environmental and ethical challenge we will face the remainder of our lives. The climate is changing far more rapidly than predicted just a few years ago. Increasingly severe hurricanes, heat waves, insect infestations and melting ice are leading to profound economic and human damage. Climate change requires both global and local solutions, particularly when the US federal government has been unwilling to act.

Jobs. Health. Climate. All powerful reasons to build green. But other cities are starting to race past Portland: Boston, Washington, D.C., San Francisco and Los Angeles require many new commercial, as well as governmental, buildings, public and private, to meet the US Green Building Council's Leadership in Energy and Environmental Design (LEED) standards.

Commissioner Dan Saltzman and the Portland Office of Sustainable Development have developed a draft *"High Performance Green Building Policy"* for public discussion and Council consideration in the first half of 2008.

The policy has three major elements:

A. Voluntary incentives, technical assistance, project recognition and workforce training.
B. Three high-performance building options for new construction.
C. Performance ratings and upgrades for existing buildings.

Elements of the policy would apply to most new and existing buildings in the city. The policy would be phased in over one to two years to allow builders and developers time to incorporate the new policies into their project plans.

A. Voluntary Incentives, Technical Assistance, Project Recognition and Workforce Training

For those who want to build green, the policy includes the financial incentives described below as well as permitting assistance. City Commissioners will consider expanding the Process Management Group that helps medium-sized commercial projects move more quickly through the permitting process. Commissioners will also consider adding Green Building Specialists to the City Development Review Center so that permit applicants can get more information on how to incorporate green features into their projects. The City would also recognize builders and developers' green building projects on City websites and printed materials so that potential buyers and tenants can know which Portland buildings offer which green benefits. City staff would expand consumer education to build demand for green homes and commercial buildings. The City would also provide support for workforce training to build the most highly skilled green workforce in North America.

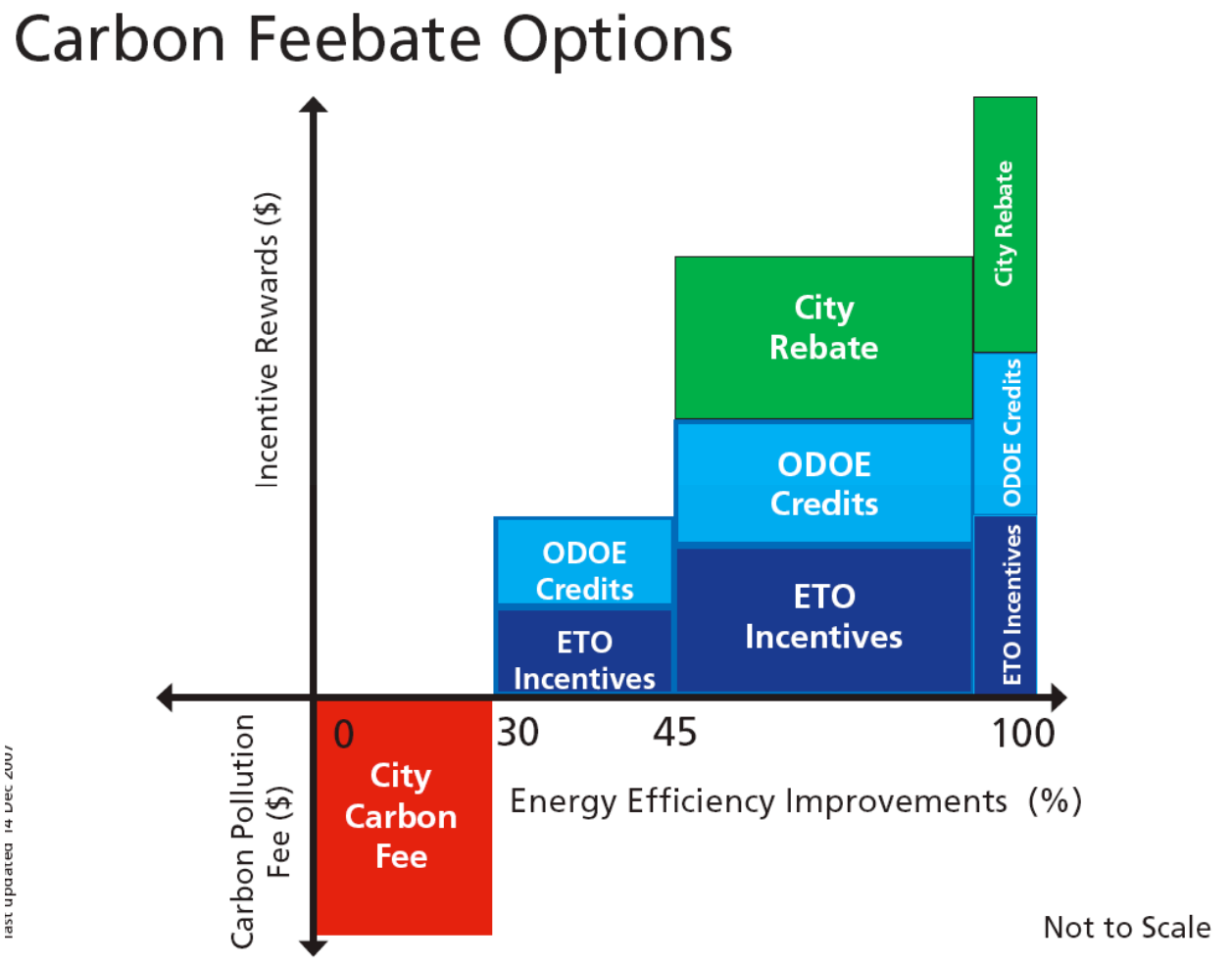
B. Three Carbon Feebate Options for New Construction

For new homes and commercial buildings, the policy seeks to reduce global warming carbon pollution by 30% with a financial incentive program that supports projects that incorporate energy efficiency measures. The program relies on third-party certifications that verify practices and help projects qualify for additional financial incentives from the Energy Trust of

Oregon and tax credits from the Oregon Department of Energy. As shown in the chart above, three "carbon feebate options" would be available to builders of new homes and developers of commercial building projects:

The Options:

1. Build to a high performance green building standard that includes energy performance 45 percent better than minimum 2007 Oregon energy code, and receive a carbon reward check (financial incentive) from the City of Portland.
2. Build to a high performance green building standard that includes energy performance 30 percent better than the minimum 2007 Oregon energy code, and avoid a carbon pollution fee.
3. Build to the current minimum code and pay a one-time carbon pollution fee.



The Metrics:

The carbon reward and the carbon pollution fee would be calculated using three factors:

1. The amount of energy used per square foot (Energy Use Intensity, or EUI) compared to Pacific Northwest buildings with similar uses;

2. The number of years of projected carbon emissions before a major remodel (30 years for commercial buildings and 50 years for residential buildings);

3. The cost per ton to reduce carbon pollution, recently estimated by the International Panel on Climate Change to average $12/ton.

How much would the carbon pollution fee and the carbon reward be? Developers could see a carbon reward or a carbon fee of approximately $1.70 - $2.00 per square foot. For example, the OHSU Center for Health and Healing, which is 60% more energy efficient than the current Oregon energy code, could receive a carbon reward of just under $500,000 for its superior performance.

Another example would be the 101,000 square-foot Oregon Clinic building, which is 25% more efficient than the current Oregon energy code, so its carbon pollution fee would be reduced from approximately $200,000 to $30,000.

A 2,000 square-foot single family "High Performance Home" would receive a $1,000 carbon reward from the City, while a 2,000 square-foot home built to the April 2008 Oregon energy code would pay approximately just under $2,000 to mitigate its carbon pollution.

Performance above the Oregon energy code would be verified by meeting a third-party standard, such as those promulgated by the U.S. Green Building Council's LEED, Earth Advantage, the New Building Institute's Core Performance or Green Globes.

Cities such as Boston, Washington, D.C., San Francisco and Los Angeles mandate that developers build to a specific green building standard, usually Leadership in Energy and Environmental Design (LEED) Silver or Gold. Instead, the Portland proposal takes a more free market approach: the three carbon feebate options put a price on carbon (global warming) pollution, then lets builders and developers choose among the three options, two of which include financial incentives.

For decades we didn't pay a penny to dump raw sewage and industrial toxics into the Willamette. Today, we don't pay a penny to dump global warming carbon pollution into the atmosphere, but society as a whole is starting to pay very high prices for this pollution. In 2003, for example, over 10,000 people died in a massive heat wave in southern Europe that climate scientists linked to the recent decade of global warming.

From an economic perspective, it makes sense to put a fair market price on global warming carbon pollution, and then to allow builders and developers decide whether they want to pay the fee or reduce the pollution and receive a reward, just as now we pay to treat sewage water before releasing it back into the Willamette and Columbia.

The carbon feebate options program is intended to significantly reduce future carbon emissions and energy costs using a market-based pricing approach that other cities do not offer. And constructing green, energy-efficient buildings produces both economic and environmental benefits year after year for decades.

C. Performance Ratings and Upgrades for Existing Buildings

A building performance rating helps prospective buyers and tenants make informed decisions by disclosing how different buildings compare with respect to energy consumption, stormwater runoff and water efficiency. Under the policy, home sellers would disclose to potential buyers the home's performance using a simple, standardized home rating system. Similarly, for existing commercial buildings, owners would disclose building performance ratings to allow potential buyers or tenants to have more information upon which to make decisions and to encourage buyers, builders and developers to voluntarily improve building performance. The

new construction carbon fees could be used to provide additional financial incentives for high performance commercial building renovations that increase a building's energy performance by 30 percent or more. The policy could also reduce global warming pollution from commercial buildings by requiring lighting, HVAC, other upgrades, and/or building retro-commissioning at time of sale, lease or permit.

Taken together, the new construction carbon feebate options and existing building upgrades will improve the quality and performance of Portland's buildings, providing building owners a competitive advantage in a difficult real estate market, while making Portland's building supply more attractive to future employers and employees.

Yes, But…

Following are the four questions I've heard most frequently, along with my responses.

What impact will the policy have on housing affordability?

Energy Star homes are 15% more efficient than those built to minimum code. The energy savings reduce monthly bills. The initial investment pays back relatively quickly in reduced energy, water and sewer expenses, improved comfort and healthier air quality. The Portland Development Commission is coordinating discussions with affordable housing developers on how they can achieve the carbon pollution waiver or reward

Why propose a carbon pollution fee? Hasn't the voluntary approach been successful?

The current Energy Star standard is voluntary, and it has about 7% of new home market in Oregon after four years. At that rate, it would take 56 years to meet Energy Star's modest standard. We need to gain the jobs, health and climate benefits more quickly, using proven options like LEED and Energy Star.

Why charge builders for carbon pollution? Why not charge everyone?

Building energy users (you and I) already pay a three percent "public purpose charge" on our electricity bills. The funds are used for energy efficiency incentives, such as those provided by Energy Trust of Oregon. There is currently no such fee for new building construction to encourage more energy efficient buildings

How would the policy cut stormwater runoff, water consumption and solid waste?

Gaining a carbon feebate options waiver or reward would require most buildings to meet a green building standard, such as Leadership in Energy and Environmental Design (LEED), Earth Advantage or ASHRAE 189. These standards include measures to reduce stormwater runoff, water consumption, solid waste and vehicle trips.

When selling or leasing a commercial building, or selling a home, the seller/lessor would disclose energy and stormwater features of the building, allowing potential buyers or tenants to consider performance in making consumer decisions and encouraging energy and stormwater upgrades.

We Want You

OHSU's Center for Health and Healing, Gerding-Edlen's Brewery Blocks and Cavenaugh's Ode to Roses are just three Portland buildings showing what can be accomplished by smart, creative developers. Should the City incentivize, encourage and require more?

As a real estate professional, what legacy do you want to leave? Could the high performance green building policy be an opportunity to raise the bar, leave a legacy of smarter kids, healthier workers and to do our part to slow the pace of global warming?

The policy is still very much a draft. We have deliberately left many questions unanswered so that you - developers, builders, realtors, architects and neighbors – can help shape this policy to reflect your values, knowledge and creativity.

What kind of high performance green building policy will quickly and effectively improve building performance and leave Portland a healthier place to live, work and learn? Please share your thoughts and questions with Portland's Green Building Team. We will soon post a "policy design challenge" at http://www.portlandonline.com/osd/index.cfm?c=45879 where you can submit your recommendations to make the policy more effective, fair and efficient.

Transit Mall Revitalization: Block By Block

Tad Savinar, Urban Design Consultant & Eric Jacobson, Portland Development Commission

When the Portland Transit Mall was completed over 25 years ago there was no Internet. There was no Pearl District, no Saks, no Portland Streetcar, no Eastside Esplanade and no Starbucks. Our citizenry was less mobile, less fashionable, less technical and less caffeinated. All this was not necessarily bad, just different. As our city has grown in size, our citizen's reach has grown and that has caused the city's services and opportunities to grow as well. We are now more mobile, more worldly and, perhaps most important of all, more aware of what a gem this little city really is. And, as we stand poised to add another few miles of light rail infrastructure to connect downtown more efficiently to the region, there is no better time than this to explore ways in which diverse partnerships can be harvested to improve the vitality, safety, economy and livability of Portland's Transit Mall.

Three Legs Are Better Than One

In a city increasingly crisscrossed with light rail and streetcars, the planned light rail extension through downtown has been viewed as an opportunity, not an end in itself. Converting 5th and 6th Avenues through downtown from the tired and undesirable "bus mall" into a modern, bustling shopping district would take more than tracks and trains. They alone would not fix the poorly lit storefronts, the blank walls, or the deferred maintenance on a number of buildings that, collectively, made portions of the Transit Mall uninviting. Certainly, the 8.3 mile, $557 million I-205/Portland Mall Light Rail Project, led by Tri-Met and connecting Clackamas County and downtown Portland with high-capacity MAX service, and connecting Union Station to Portland State University (PSU) within downtown, is the cornerstone of the effort. Nevertheless, this project could only succeed if it was paired with two other critical components: (1) a long-term approach to maintenance, security, and programming, and (2)

small- and large-scale redevelopment efforts to take advantage of the 30,000+ transit riders anticipated along the Mall upon the scheduled opening of MAX service in September 2009. Thus, the three legs of the revitalization stool – light rail, maintenance/security/programming, and redevelopment - were put into place through a partnership between Tri-Met, the Portland Development Commission (PDC), and Portland Mall Management, Inc. (PMMI). PMMI is a non-profit organization formed to provide guidance for the intersection of the public and private interests along the Transit Mall. PMMI is governed by a Board of Directors and oversees security, maintenance, and programming along the Mall.

Urban Redevelopment, One Block at a Time

The third leg of the stool, redevelopment projects, demanded a new approach. Major urban redevelopment projects are under construction in the downtown core, including the full block redevelopment of Macy's/The Nines Hotel, and the quarter-block redevelopment project for a new Marriott Hotel at NW 6th Avenue and Oak Street. These large-scale projects, and other major public-private projects still under discussion, will significantly boost the vitality of the Transit Mall. While there is value in large parcel redevelopment strategies for our downtown core, these efforts needed to be paired with an improvement program that looked at the Mall in 20-foot increments. Rather than focusing on 40,000-foot floor plates and vertical development, this program would look at the city in the scale of a conversation one might have with a friend while walking down the street. Rather than focus solely on multi-million dollar public-private partnerships that could take years to come to fruition, this program looked at small-scale, relatively low-cost improvements that could be made in a matter of months. It is at this scale that the small and often overlooked details such as a fresh coat of paint, a well-lit storefront, and a restaurant spilling out onto the sidewalk can make or break the urban experience. From this thesis, the Block By Block (BBB) Project was developed during the Final Design phase of Tri-Met's Portland Transit Mall Revitalization Project, managed by Shiels Obletz Johnsen (SOJ). The overall goal of the project was to encourage and facilitate private property improvements during the two-year Transit Mall construction period so that, upon the commencement of MAX service in September 2009, the public and private improvements collectively would maximize the benefits of the investment in the light rail extension.

The BBB Program study area includes properties within a half block of 5th and 6th Avenues between PSU and Union Station.

Block By Block Program

The first step in the BBB Program was for Tad Savinar, under contract to Tri-Met, to develop a photographic and urban design conditions inventory for each of the 117 blocks along the new light rail corridor on 5th and 6th Avenues between PSU and Union Station. Secondly, he developed a "tool kit" which could be applied to the blocks to improve them – new awnings here, better lighting there, public art to fix a blank wall or sidewalk cafes adjacent to already operating restaurants. Some of these

improvements could be made by Tri-Met within the right-of-way as part of the light rail improvements, while others would require action by private property owners.

The next step was for SOJ, Tri-Met, and PDC to explore opportunities for PDC's existing grant and loan programs within designated Urban Renewal Areas (URAs) to be used to target private property improvements along the Mall. In response, PDC aligned its popular Storefront Improvement Program (SIP) and newly established Signage and Lighting Improvement Program (SLIP) to serve properties along the length of the Transit Mall and budgeted $1.7 million for fiscal years 07-08 and 08-09.

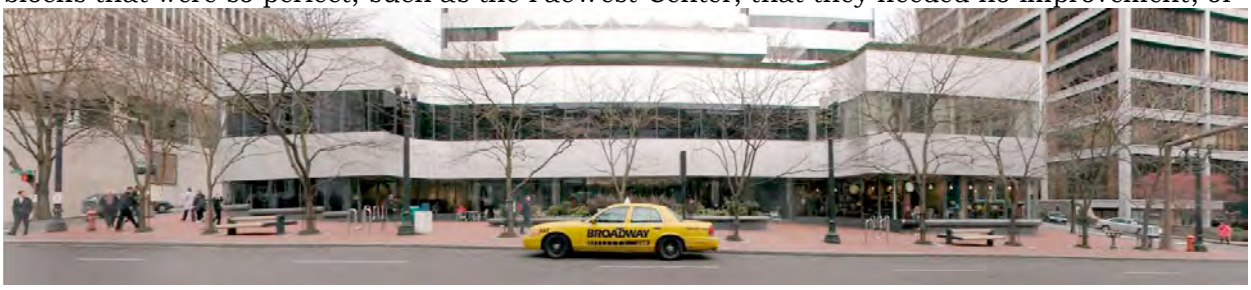
Through the SIP and SLIP programs, property owners and tenants are typically eligible for grants up to $32,000 with a minimum $8,000 cash match. PDC adopted modifications to these programs specifically for the Transit Mall to allow larger grants of up to $128,000 with a minimum $32,000 cash match for properties that have more than 100 feet of transit mall frontage. PDC's efforts were intended to target investments and encourage improvements to private buildings to coincide with the light rail construction period.

Tri-Met has advanced $256,000 for some design fees and administration of the BBB. PDC has earmarked $1.7 million for improvements and design fees. In a perfect world this could leverage about $8 million in private investment, but we will have no way of knowing until at least 2009.

The final and ongoing step in the BBB Program has been to proactively work with private property owners to investigate design solutions to specific properties. Savinar, under contract to Tri-Met and armed with a PDC contract to hire architects and designers, has taken a hands-on approach to seek out and solicit property owner interest and agreement to make improvements to their properties. Architects and designers are hired to develop concepts as to how a particular storefront might be improved or how a particular block face might be revitalized. These concepts and grant eligibility are reviewed with the property owner and PDC staff, and as necessary, with staff from the city's Bureau of Development Services (BDS) and the Regional Arts and Culture Council (RACC) to identify criteria that must be addressed through the design process in order to streamline the approval process. The last step is for property owners to proceed with improvement projects and, where PDC financial assistance is desired, to submit SIP and SLIP grant applications to PDC.

The Numbers

Out of the 117 block faces, Tri-Met was able to address and improve urban design issues on 31 blocks by modifying design elements within the project's construction drawings. There were 21 blocks that were so perfect, such as the PacWest Center, that they needed no improvement, or



others, such as undeveloped blocks like Block U and R adjacent to the Greyhound Station in Northwest, that needed more attention than could be provided through the BBB Program. That left 67 blocks within which to focus the BBB Program. In the past year, Savinar has had 96 face-to-face meetings with property owners about 46 individual holdings and the improvements that could be made. Savinar has contracted with designers to prepare conceptual designs for about 25 buildings to date to illustrate the benefits of the improvements to the building and

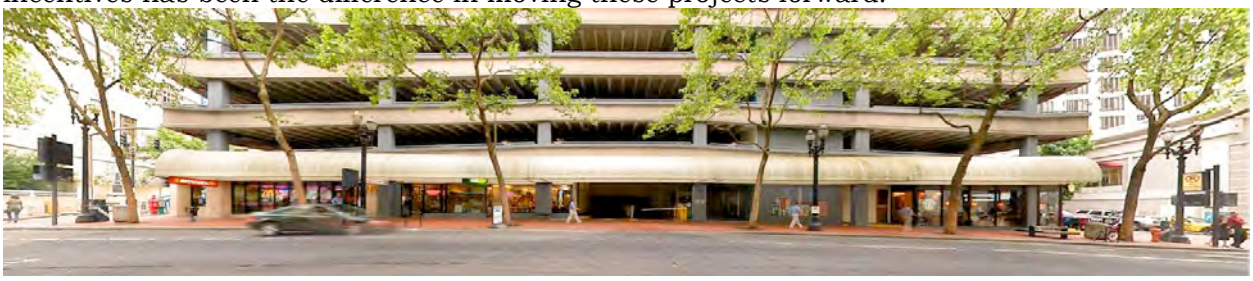
business owners. In some cases the improvements are under way with some financial assistance from PDC. In others, the owners have chosen to make the improvements without seeking funding from PDC. To date, eight SIP/SLIP grant applications have been submitted, and more are expected over the next year.

The BBB Program has had a hand in a number of improvements that will contribute to a revitalized Transit Mall in the coming years. These projects include:

The Roseland Theater's boarded up windows and dilapidated canopy marquee will soon be replaced in part due to technical and financial assistance from the BBB Program. Drawings by Jeremy Cogsdill.

- Assisting the Roseland Theater owner replace plywood storefront bays with glass storefront windows and a deteriorating canopy marquee with a new, lighted marquee sign along NW 6th Avenue between Burnside Street and NW Couch Street;
- Working with Unitus Plaza property owners to identify ground-floor building modifications to activate and improve accessibility to the vacant ground floor space at NW 5th Avenue and NW Columbia Street;
- Introducing a service door for the Porto Terra restaurant at the Hilton Executive Tower at NW 6th Avenue and NW Taylor Street to enhance the restaurant's ability to provide outdoor seating;
- Working with PSU and other property owners to install public art on blank walls; and
- Working with owners of the Key Bank Building at SW 5th and Washington to replace an awkward and setback plaza with a new storefront structure that will activate the streetscape.

The BBB Program assisted owners of the Key Bank Building at SW 5th and Washington consider replacing the inset plaza with a new storefront system to activate the streetscape. Drawing by Deca Architecture. The combination of proactive technical assistance and financial incentives has been the difference in moving these projects forward.



Final Thoughts

There were two very simple goals for this program: 1) to facilitate fine-grained improvements within the public right-of-way and for private properties that would promote a vital streetscape environment to coincide with the opening of the Transit Mall; and 2) to streamline the review and construction process for the owner whenever possible.

The BBB Program represents an innovative approach to revitalization in response to this once-in-a-generation opportunity to re-brand the Transit Mall and recreate 5th and 6th Avenues through downtown as vibrant, bustling, and inviting public spaces. While it is still too early to reach conclusions on the effectiveness of the program overall, the success of this program so far has been due to an alignment of strategic goals and programs between Tri-Met, PDC, PMMI, SOJ, and BDS and the efforts of a tightly knit team to carry out the project. With more than a year-and-a-half before the first trains run down 5th and 6th Avenues, there remain a number of opportunities for individual, small-scale improvements to enhance the vitality of the Transit Mall and downtown as a whole. If successful along the Transit Mall, the BBB Program could represent a new approach to revitalization that could be applicable to other neighborhoods in need of a focused revitalization strategy and someone to focus on the small details.

Public/Private Commercial Condominiums: The Vanport Square Case

Cheryl Twete, Director of Development, Portland Development Commission
Bernie Kerosky, Vanport Square Project Manager, Portland Development Commission

Vanport Square is a 40,000 square feet commercial condominium development on NE Martin Luther King Jr. Boulevard [MLK] in Portland that resulted from an innovative public–private partnership between the Portland Development Commission, developers Marco Properties and the Portland Family of Funds.

When completed in the spring of 2008, Vanport Phase I will contain 16 commercial condominiums ranging in size from 1,000 to 5,000 square feet. The developers were successful in marketing units to primarily local, small businesses. The diverse mix of establishments that will occupy Vanport includes restaurants, retailers and professional services.

The project is located on the 5200 block of NE MLK the King neighborhood of Portland. The developers renovated the 25,000 square-foot former Marco Manufacturing building, added an on-site plaza with water feature and constructed a new 15,000 square-foot mixed use building on the northeast corner of the site to bring the total development up to approximately 40,000 square feet. Parking for the project totals 69 spaces and is located behind the buildings on the west side of the site. . The on-site parking is augmented by 25 on-street spaces along NE MLK, NE Sumner and NE Emerson streets.

The project is located on a 70,000 square foot site with approximately 350 feet of frontage along NE Martin Luther King Jr. Boulevard, a major north/south arterial for northeast Portland. The site is zoned EX (Central Employment). This designation permits a wide variety

of office and retail uses. The EX designation allows for a maximum floor area ratio (FAR) of 3 to 1 and a maximum height of 65 feet. With 40,000 square feet of leasable space on a 70,000 square-foot site, the final FAR was 0.57. The parking ratio for the project is 1.7 parking spaces per 1,000 square feet of leasable space, which is low by suburban standards but on the generous side compared to other commercial developments along NE MLK and is consistent with public policy for this commercial transit corridor.

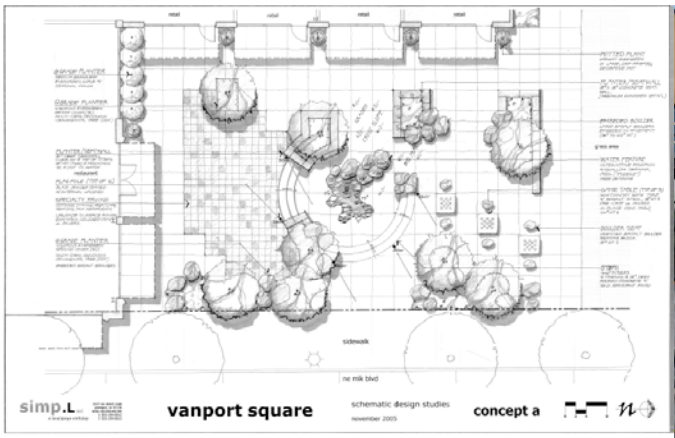
Vanport Square Design

The two buildings that comprise the project differ in age and character but complement each other quite well. The former Marco Manufacturing building began its life as an auto dealership shortly after World War II. When PDC acquired the property for $1,107,000 in 2000, it was in active use as a manufacturing facility.

The exterior walls of the Marco building are reinforced foundation block. The developers repaired and seismically reinforced the walls as well as painted them in various earth tones to provide visual diversity along the 250-foot length of the building. Metal canopies were added along the façade to provide character and protection from the elements. Large windows were added that reach from the floor to above the canopies to provide natural light into the condominium units. In addition to the large windows, several units are equipped with skylights for additional natural lighting.

Another compelling feature of the Marco Building is the wooden bow trusses. The trusses were sandblasted to remove multiple layers of chipping paint revealing the underlying hardwood.

The new 15,000 square foot, three-story, mixed–use building is steel beam construction with a brick façade. The canopies and large windows of the Marco Building were extended to the mixed-use building to provide continuity. The key feature of the mixed-use building is the three-story clock tower perched above the elevator shaft and stairwell. The clock tower, along with the marquee on the Marco Building, creates a unique landmark along NE MLK.



A defining feature of the project is a 3,000 square-foot plaza that is situated between the renovated Marco building and the new, three-story mixed-use building. The plaza contains a water feature surrounded by large and small quarry stones that also serve as benches. The developers envisioned the plaza as an amenity to the project and the surrounding community and hope that it will serve as a public gathering place.

The developers are anticipating that the project will be awarded a Leadership in Energy and Environmental Design (LEED) Gold certification by the U.S. Green Building Council.

Project Team

Vanport Square was made possible by a public/private partnership between the Marco Properties, the Portland Development Commission (PDC) and the Portland Family of Funds. Marco Properties is a partnership between local developers Ray Leary and Jeana Woolley. PDC is the City of Portland's Urban Renewal Agency. The Portland Family of Funds is a Portland-based investment firm with extensive experience in brokering New Markets Tax Credit transactions.

Origins

Vanport has its origins in the King Neighborhood Development Strategy of April 2000. This extensive community visioning effort helped defined the development vision and strategy for a three-block, commercial corridor along NE MLK between NE Alberta and NE Kilingsworth streets.

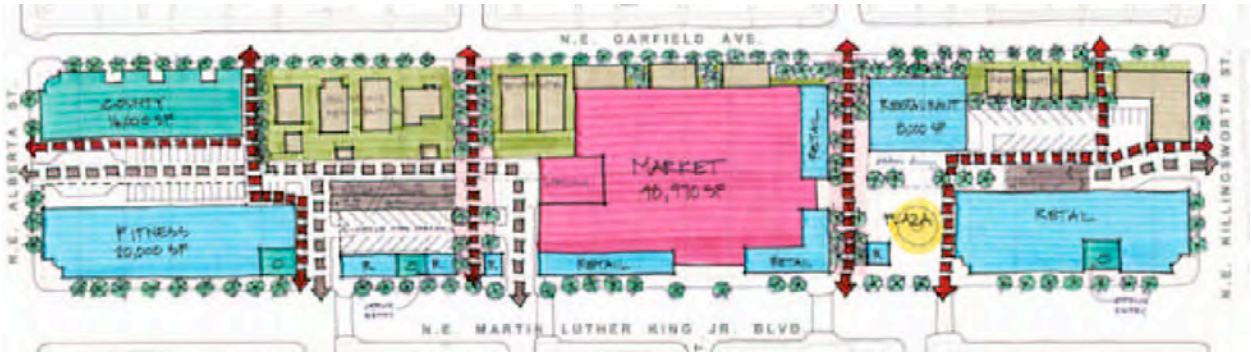
This section of Portland was once part of a thriving commercial district serving Portland's African-American community, among others. Unfortunately, in the early 1970s, this area began to loose its vitality as new investment flowed into expanding suburbs and other sections of the city. The King Neighborhood Strategy was one of several efforts by PDC aimed at leveraging investment to North and Northeast Portland and to restore its commercial vitality. Key components of the strategy were to encourage a dynamic mix of uses that provide neighborhood services, entertainment, goods with opportunities for locally-owned businesses and family-wage employment for North/Northeast Portland residents.

The King Neighborhood Development Strategy led to a Request for Development Proposals (RFP) in August 2001. The RFP asked developers to submit proposals for a project that included the entire three blocks (approximately 5 ½ acres) between NE Alberta and NE Killingsworth streets. At this time, PDC had assembled about half of the property in the target development site with the remainder held by private residences and Multnomah County.

On the recommendation of a citizen's selection committee in December 2001, PDC awarded the project to a development team comprised of North Portland developer Ray Leary and the Gerding-Edlen Development Company, LLC..

The name Vanport was chosen for the project to pay tribute to the victims of 1948 flood that destroyed the Vanport community in what is now Delta Park. The community was comprised predominately of African Americans, many of whom migrated to Portland in the 1940s seeking employment in the shipbuilding industry during World War II. Many survivors of the flood migrated to the area of Northeast Portland now known as the King Neighborhood.

Between 2002 and 2004, the development team attempted to launch a large-scale project of over 300,000 square feet anchored by a grocery store. The concept also included neighborhood retail and a housing component. However, an economic recession, poor commercial real estate market and decisions by predominant grocery chains to either expand elsewhere or renovate stores did not allow a large-scale development to materialize.



In 2004, the developers and PDC decided to take a multi-phase approach to Vanport, developing each of the three blocks independently as the market recovered. The first phase would be the redevelopment of the former Marco Manufacturing building on the middle block between NE Sumner and NE Emerson. The decision to start with this block was based on the fact that all parcels were assembled under the ownership of PDC and there was interest in this site from an anchor tenant, the Vesta Corporation. In 2004, Vesta was located in downtown Portland and needed another location to expand operations. They were interested in occupying 25,000 square feet in the former Marco building with the remaining 10,000 to 15,000 square feet leased to small businesses.

At this time, Gerding-Edlen decided to take a different role in the project and act as advisers to the core team of Ray Leary and Jeana Woolley. Also in 2004, the Portland Family of Funds (PFF) joined the development team. PFF would provide financing for the project through New Markets Tax Credits (NMTC). The NMTC program was authorized by the Congress in 2000 and is intended to facilitate job-creating investment in low income or commercially distressed neighborhoods. PFF was awarded an allocation of tax credits in 2004 and chose the Vanport project for a portion of their allocation. A Disposition and Development Agreement (DDA) was reached between the developers and PDC in December 2004 that called for a project anchored by Vesta. Unfortunately, in April 2005, Vesta decided not to move forward with the transaction.

Commercial Condominiums

After three years of intense, but unsuccessful, efforts to develop a large-scale project anchored by a major commercial tenant, PDC and the developers re-evaluated the development concept and approach for Vanport Square.

This re-evaluation lead to the following conclusions:

1. The commercial real estate market in this area was not ready to support a national chain or other large credit retail or office tenant.

2. Current lease rates on NE Martin Luther King Jr. Boulevard would not support the high-end construction and design standards envisioned by the community.

3. A market niche was unfilled for commercial condominiums targeted to small businesses.

4. A strategy of targeting local, small businesses for condominium ownership would meet the public goals for the project and be commercially viable.

5. Top quality design standards and affordability for small businesses could both be achieved through using NMTC credits to lower the debt service to the condominium buyers.

The following public goals were realized through this concept:

1. **Facilitate wealth-creation through business ownership**. Owning their places of business will allow the condominium owners to gain equity through long-term appreciation of their units.

2. **Retain and expand businesses**. The Vanport project will allow 16 small businesses to expand and/or stay in Portland, thus expanding the tax base and providing goods and services to the community.

3. **Provide jobs**. In addition to the business owners, an additional 40 to 50 jobs will be created, many paying a "family wage", defined as paying two times the Oregon minimum wage of $7.80 per hour.

4. **Provide a catalyst for additional private investment.** The success of Phase I on the middle block has led to a privately financed transaction on the South block between NE Alberta and NE Sumner that is anticipated to move forward in 2008.

5. **Remove visual blight.** The three blocks along NE Martin Luther King Jr. Boulevard are in the process of being transformed from an eyesore to something of which the community and city can be proud.

In July 2005, the PDC Board of Commissioners authorized PDC staff to negotiate a new development agreement with Vanport Partners. In April 2006, PDC and the developers executed the new development agreement for Phase I and in September 2006, the developers purchased the land for Phase I from PDC for $500,000 and commenced development of Vanport Square Phase I. Construction on the core and shell was completed in November 2007. In December 2007, 10 of the 16 small businesses took possession of their units and commenced their owner/tenant improvements. It is anticipated that most of the 16 establishments will be open for business by May 2008. Some of the businesses that will be a part of Vanport Phase I are:

- Old Town Pizza - a family restaurant
- Living Color – beauty supply store
- Laura Carey Design – graphic arts and business branding

- The Kaiser Group – real estate development
- Horn of Africa – east African cuisine
- Tran All State Insurance – insurance broker
- Rick Harris CPS – accounting and financial services
- Avita – business consulting
- Norell Design – graphic arts
- Cascade Energy – energy efficiency engineering services

In addition to the businesses listed above, the developers and their real estate broker are in the process of negotiating or finalizing purchase agreements for the remaining six condominium units. It is anticipated that these units will be sold by the end of March 2008.

Project Financing and Costs

The Vanport Square project was financed through a combination of sources including: a loan from PDC, NMTC equity, condominium buyer equity, developer equity and tenant improvement loans from Albina Community Bank and Wells Fargo. The project cost, excluding tenant improvements, was approximately $9.6 million or $266 per square foot based on 36,100 leasable square feet. The sources and uses of project funds are illustrated below.

Sources of Funds	**Amount**		**Uses of Funds**	**Amount**
PDC Loan	6,558,000		Land	500,000
Tax Credit Equity	2,004,000		Hard Costs	6,850,000
PDC Plaza/Infrastructure Funding	283,000		Soft Costs	1,420,000
Condo Buyer Equity Deposits	600,000		Commissions/Fees	549,000
Developer Equity	157,000		Plaza/Infrastructure	283,000
Total Sources	**9,602,000**		**Total Uses**	**9,602,000**

The average cost of a condominium to the buyers was $253 per square foot. The buyers were required to deposit 6% of the purchase price in cash and self-finance all tenant improvements above a $10 per square foot allowance provided by the developers. The remaining 94% of the condominium purchase price was financed through a 30-year loan with MARCO/PNMF SUB-CDE, LLC, a Community Development Entity (CDE), organized by the Portland Family of Funds with a long-term interest rate of 3%.

The use of NMTCs allowed an interest rate below one available at a commercial bank, thus facilitating the development of an emerging niche in a challenging commercial real estate market. For the first 10 years, buyers face some restrictions on sale and transfer and allowable uses for the condominiums due to NMTC regulations and PDC requirements. For example, NMTC regulations restrict certain businesses such as gambling facilities, alcohol for sale for off-site consumption, massage parlor and others. Furthermore, PDC requires that the business occupy at least 50% of the condominium space. This allows the buyers to sub-lease space until their businesses grow into the unit.

The direct cost of the project was approximately $470,000 more than the buyers paid. Construction costs had escalated substantially since the project was approved by the PDC Board in March 2006, and existing sales contracts with buyers made it difficult to pass these costs onto buyers. Rather than eliminate the plaza and its public amenities and forgo public goals of promoting minority, women and emerging small business contractors, the cost difference was borne in part by the developers through a reduced development fee and the balance by PDC.

Each unit is delivered as a "vanilla shell" with an individual HVAC unit, smooth concrete floors, and insulated demising walls between condominium units. Utility hook-ups are provided to each unit with the buyers required to route electrical/data, heating/ventilation and water within the unit. Utilities are metered separately for each condominium. Internal demising walls are also the responsibility of each owner. The investment made by owners in tenant improvements and furniture, fixture and equipment varies widely given the types of businesses purchasing condominiums but range from a low of $40/ square foot up to $225/square foot.

Before

After

Next Steps

Vanport Square will be a phased project. With the first phase nearing a successful completion, the developers are hoping to capitalize on their momentum by moving forward in 2008 with a 40,000 to 45,000 square-foot commercial center on the adjacent block to the south. This project is planned to be anchored by a 30,000 to 35,000 square foot health club and 7,000 to 10,000 square feet of leaseable neighborhood retail space.

In addition to the commercial development, the developers are pursing the concept of for-sale row houses or town houses on the west side Phase I project site. The row housing would provide a visual buffer between the adjacent neighborhood and the Vanport Square condominium project.

Lessons Learned

- Do not get too far ahead of the market since that can impair the chances of success.
- Balance public goals and aspirations with market realities and keep community stakeholder expectations in line with market realities.

- Perform a thorough analysis of the market and the demographics of the area and projected trends before executing development agreements.
- Do not underestimate the challenges of redevelopment in an area of the city currently experiencing a shortage of private commercial investment.
- Leverage the experience of professionals working in the neighborhood.
- Engage the community, get input and gain support.
- Do not be afraid to re-evaluate your initial assumptions and plans – be flexible.
- Be aware that catalytic projects that push the market and that have multiple public goals will require extra time and effort from the development team. The sometimes sizeable public investment, can pay off in the long run with an expanded tax base, additional private investment and jobs.
- Develop techniques for shared appreciation of commercial condominiums subsidized by PDC to earn funds to reinvest in new community projects.

Housing Market Analysis

By Karen Thalhammer, Certificate of Real Estate Development Graduate Student & Oregon Association of Realtors [OAR] Fellow

Portland Remains Stable

In Portland, the housing market continues to soften, however Portland stands with Seattle and Charlotte, N.C. as the last three cities in the US to claim positive annual appreciation. Through November 2007, Portland experienced a 16 percent decrease in single family building permits compared to a 29 percent decrease nationally. However, the decrease in the number of multi-family permits was greater the national average. Also, Portland had a 35 percent decrease in the number of existing detached sales compared to 22 percent nationally.

Median Home Values of Existing Detached Homes

	U.S.	West	Portland/Vancouver MSA
December 2006 Median Price	$221,000	$356,000	$275,000
December 2007 Median Price	$207,000	$316,000	$277,000
% Change in Median Price	-6.5%	-11.2%	1%
% Change in Number of Sales December 2006-2007	-21.6%	-25.4%	-34.8%

Source: National Association of Realtors(December 2007) and RMLS (December 2007)

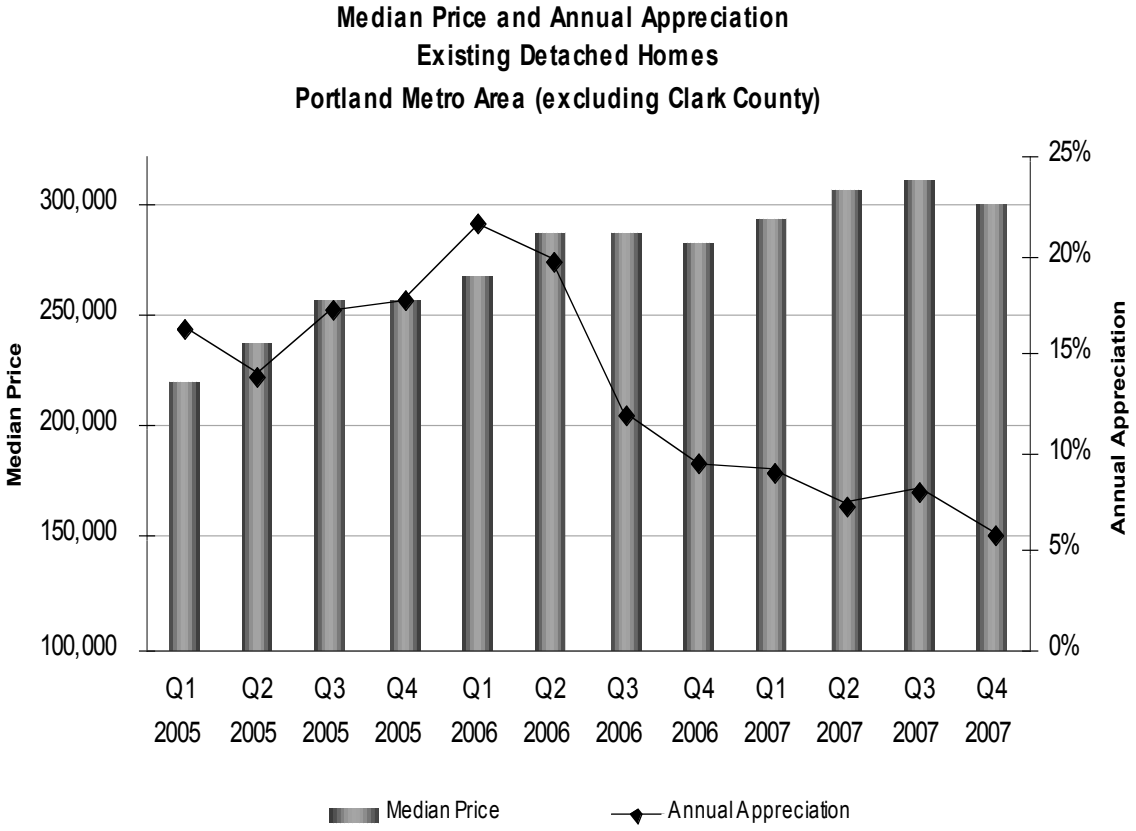
Building Permits Issued Year to Date (thousands)

	Single-Family			Multi-Family		
	Nov 06	Nov 07	% Change	Nov 06	Nov 07	% Change
UNITED STATES	**1,302.9**	**929.8**	**-29%**	**419.1**	**372.6**	**-11%**
OREGON	19.45	15.52	-20%	6.11	5.19	-15%
Bend OR	2.93	1.51	-48%	0.20	0.21	1%
Corvallis OR	0.17	0.10	-43%	0.05	0.02	-66%
Eugene-Springfield OR	1.19	0.99	-17%	0.46	0.39	-17%
Portland-Vancouver-Beaverton OR-WA	9.65	8.08	-16%	5.02	4.18	-17%
Salem OR	1.16	1.04	-10%	0.36	0.46	27%
Medford OR	1.04	0.99	-5%	0.16	0.10	-38%

Source: National Association of Home Builders (November 2007)

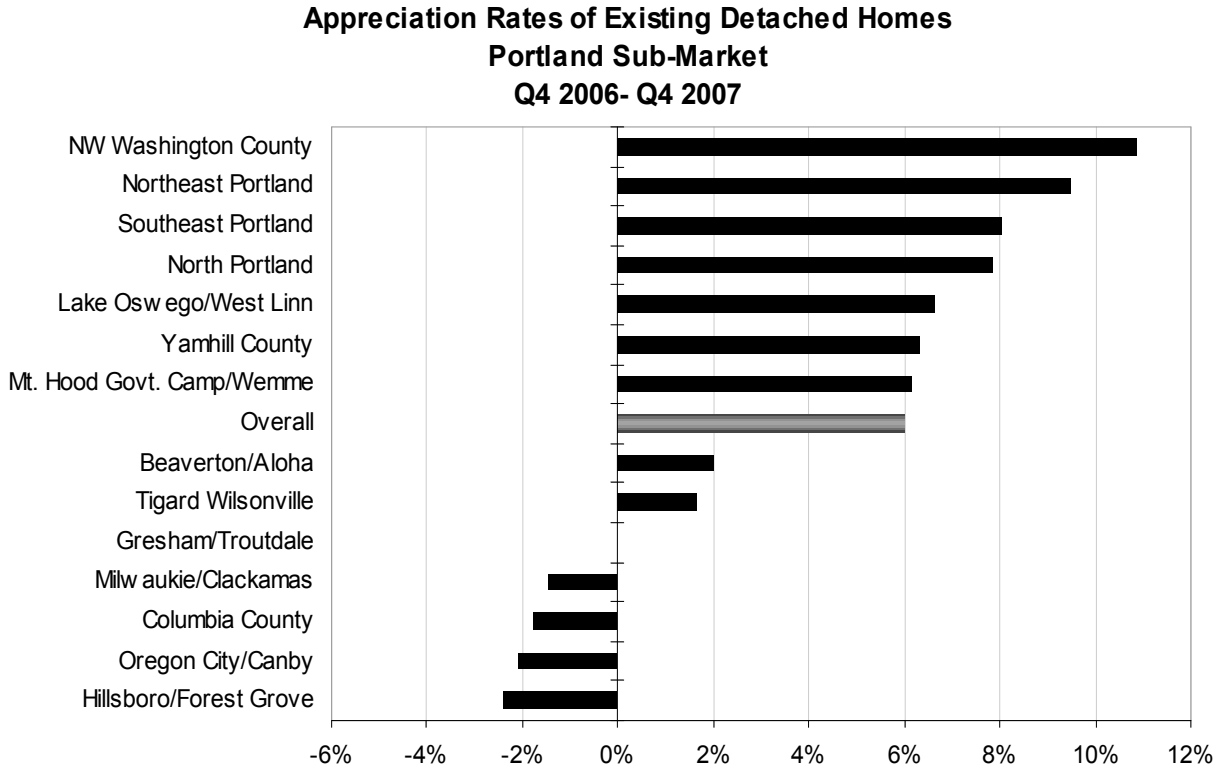
Portland's reprieve from the national housing debacle may be due in part to the high quality of life that continues to attract newcomers, a diverse economy, and a low rate of sub-prime foreclosures. Additionally, the Urban Growth Boundary has limited housing production and prevented the new housing surplus experienced nationally.

In the fourth quarter of 2007, the median price of an existing detached home declined four percent from the third quarter to $300,000. [1] Historically, median housing prices have taken a slight dip in the fourth quarter. Therefore annual appreciation is a better gauge of long-term trends. While still remaining positive at six percent annual appreciation, rates have been declining since a peak of 22 percent in the first quarter of 2006.

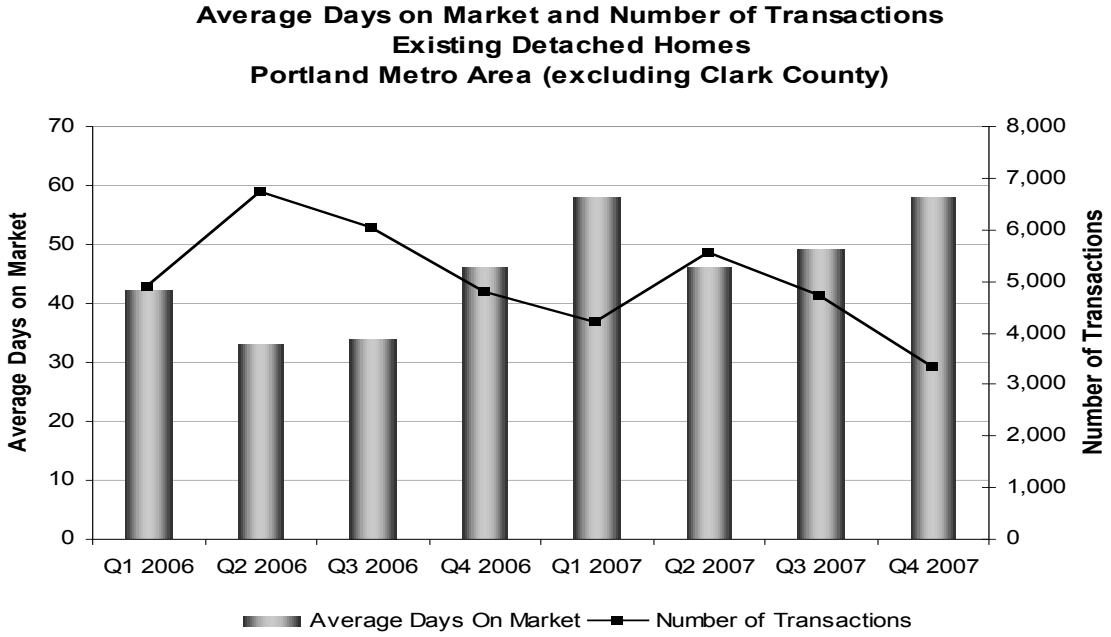


Inner city neighborhoods of North, Northeast and Southeast Portland continue to have higher rates of annual appreciation then the suburbs of Beaverton, Tigard, and Gresham. Milwaukie, Hillsboro, and Oregon City experienced depreciation this past year.

[1] All data for Portland was compiled from RMLS (December 2007)



The fourth quarter of 2007 saw only 3,300 sales of existing detached homes, only half the number of sales compared to the peak in the first quarter of 2006. The average existing house took 58 days to sell compared to only 33 days in the second quarter of 2006

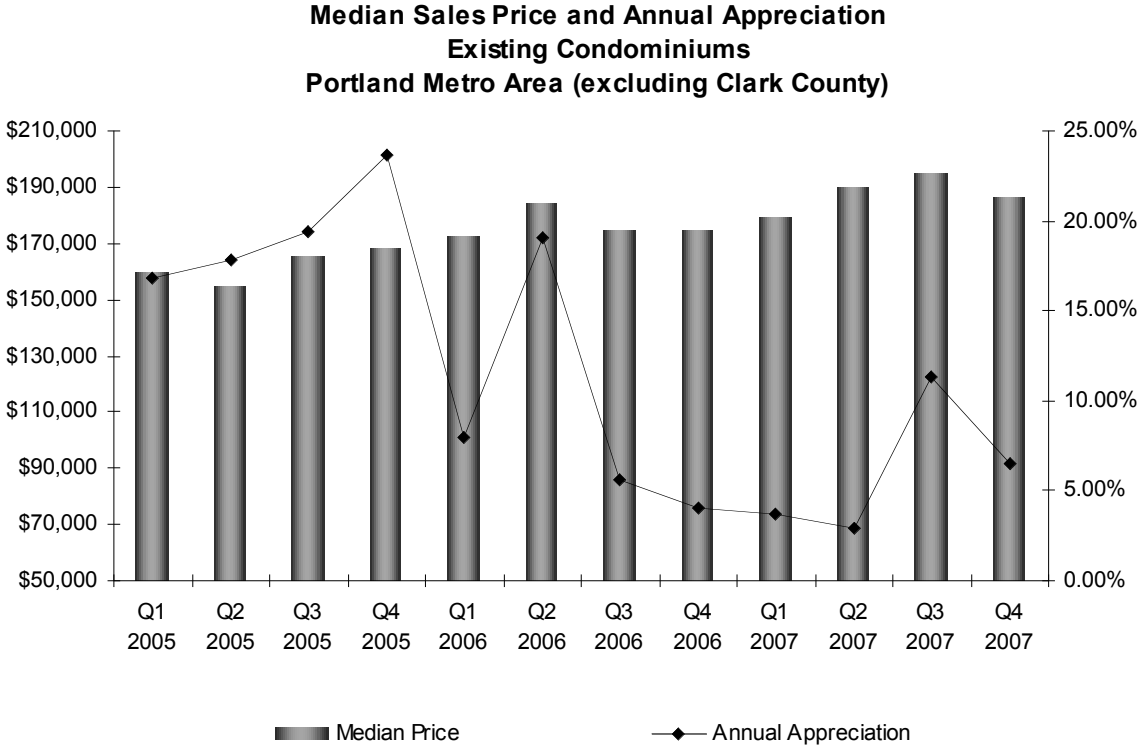


When comparing the median sales price of new, detached homes, it is important to remember that figures can be greatly skewed by the type of product that comes online within a given period. That said, new housing prices have been more volatile then existing prices. This is primarily because developers with a large quantity of new housing units have high carrying and marketing costs and therefore need to sell their product more quickly than an individual owner of an existing house who has the option of waiting for the market to improve. Over the past year, the median price of a new detached house fell eight percent or $30,000 to $350,000.

Median Sales Price of New Detached Homes
Portland Metro Area (excluding Clark County)

	Q4 2006	Q4 2007
Lake Oswego/West Linn	$959,000	$888,541
West Portland	$566,900	$640,000
NW Washington County	$524,950	$548,355
Tigard Wilsonville	$484,950	$460,000
Milwaukie/Clackamas	$538,300	$435,000
Beaverton/Aloha	$407,785	$369,000
Overall	**$379,500**	**$350,000**
Hillsboro/Forest Grove	$382,742	$345,000
Gresham/Troutdale	$307,810	$325,000
Oregon City/Canby	$385,000	$304,958
Northeast Portland	$286,000	$279,950
Columbia County	$251,900	$279,900
Yamhill County	$323,750	$275,000
Southeast Portland	$294,500	$266,950
North Portland	$251,725	$255,000

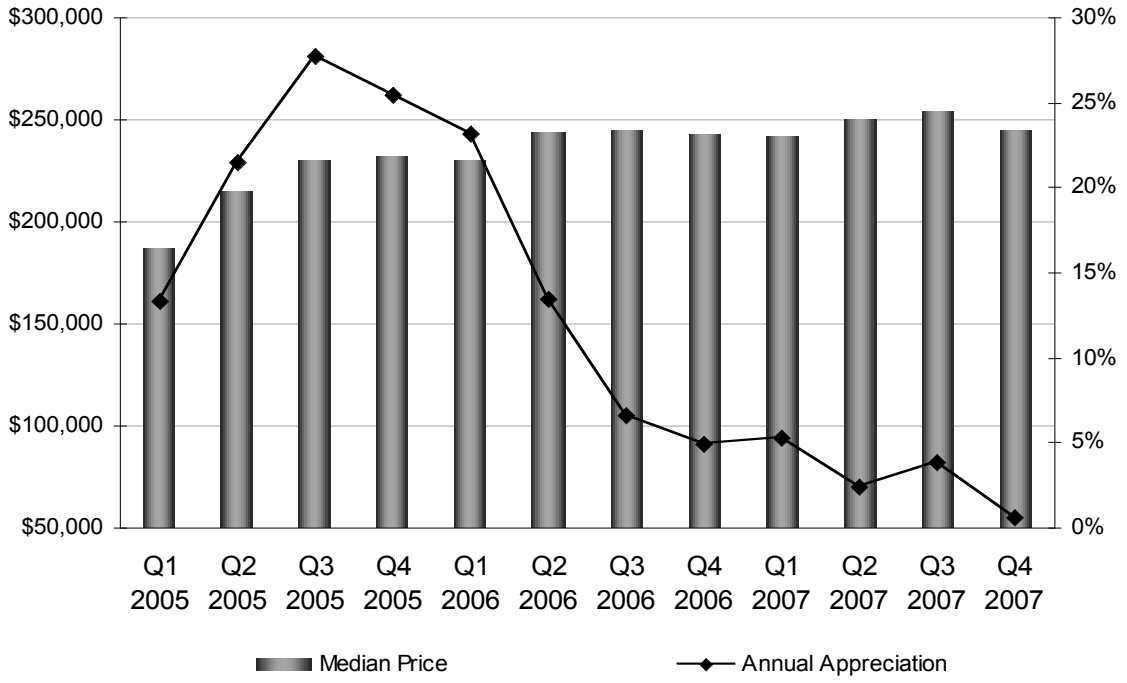
The median existing condominium sold for $186,000 in the fourth quarter of 2007. Annual appreciation rates have dropped sharply since the forth quarter of 2005 and hit a low of three percent in the second quarter of 2007. This past quarter, the median price of existing condos increased six percent annually. Median sales price of a new condominium remained even at $240,000 when compared to the forth quarter of 2006.



Vancouver More Volatile

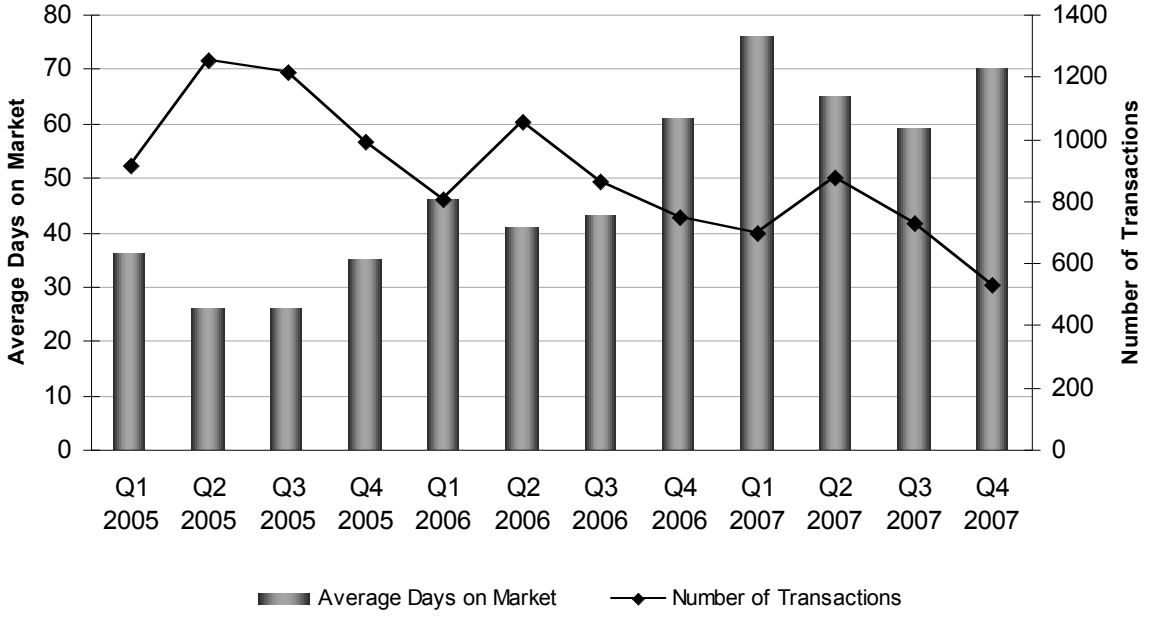
Vancouver single-family detached housing appreciation rates are slipping faster then the rest of the Portland metropolitan market. In the last quarter of 2007, the median price of an existing home in the City of Vancouver was $245,000.[2] Prices have hovered around $250,000 since the second quarter of 2006. Vancouver reached the climax of its appreciation rise sooner then Portland in the third quarter of 2005. The peak was also higher then Portland's appreciation peak with an astonishing 27 percent. Since then, annual appreciation levels have declined from those highs in Vancouver, and this past quarter saw only a one percent increase. The number of existing detached units sold continues to decline and fell from 750 in the fourth quarter of 2006 to 530 last quarter.

Median Price and Annual Appreciation
Existing Detached Homes
Vancouver

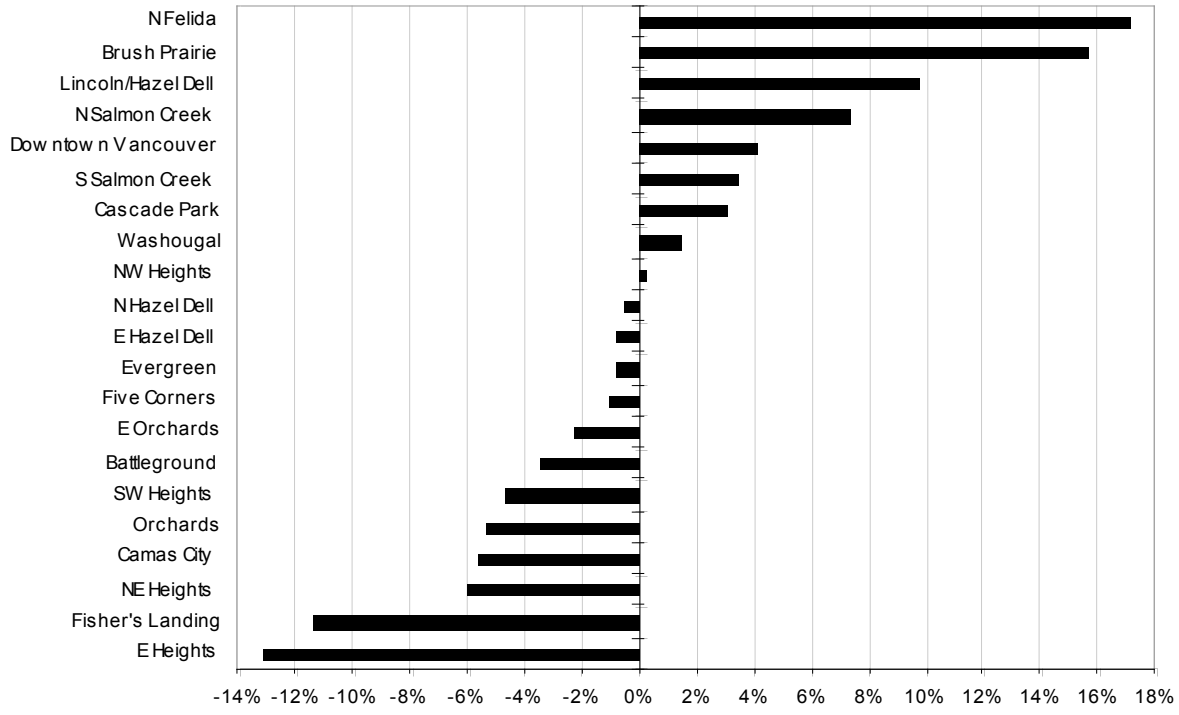


[2] All data for Vancouver was compiled from RMLS (December 2007)

Average Days on Market and Number of Transactions
Existing Detached Homes
Vancouver



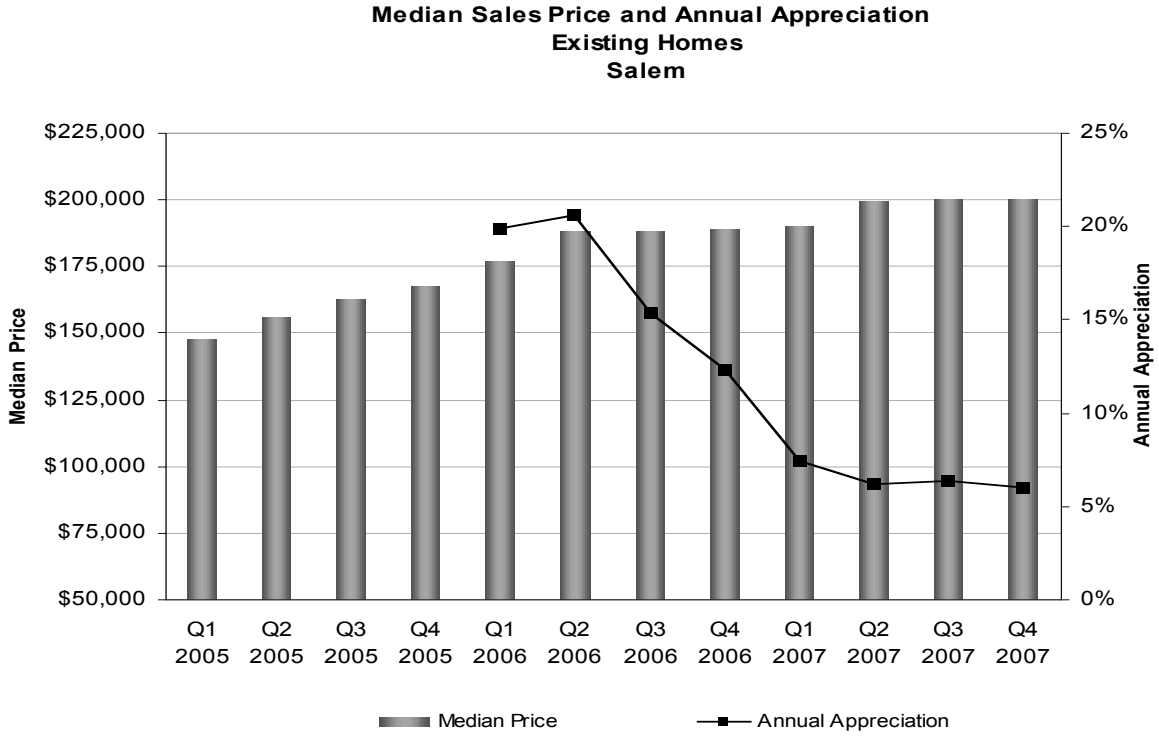
Appreciation Rates of Existing Detached Homes
Clark County Sub-Markets
Q4 2006- Q4 2007



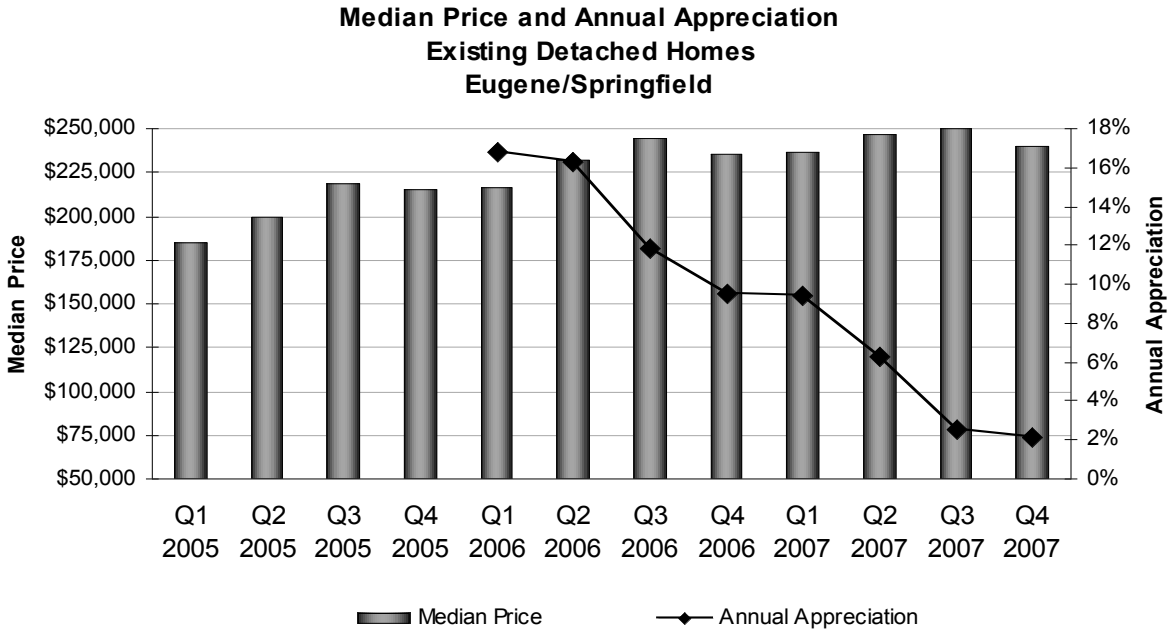
Note: Submarkets in Clark County with fewer then 10 sales are excluded.

Salem Stays Course

For the third straight quarter existing home sales in Salem hovered at the $200,000 mark and annual appreciation has been steady at 6 percent.[3] Salem hit its appreciation peak in the second quarter of 2006 at 21 percent. The number of transactions has rapidly declined to 380 this past quarter and the average existing house remains on the market for 100 days. Salem continues to lead the Polk-Marion County area in terms of appreciation rates, but Keizer continues to command a slight premium over Salem. Marion and Polk County (excluding Salem and Keizer) both experienced depreciation this past year. Further down the Willamette Valley, the reverse seems to be true with higher appreciation rates in Lane and Benton County then in Eugene/Springfield this past year.



[3] Data for Salem, Keizer, Marion County, Polk County, Benton County and Linn County was compiled from Willamette Valley MLS (December 2007). Data for Eugene/Springfield and Lane County was compiled from RMLS (December 2007)



Median Sales Price and Annual Appreciation
Existing Homes
Willamette Valley

	Q4 2005	Q4 2006	% Change Q4 2005- Q4 2006	Q4 2007	% Change Q4 2006- Q4 2007
Benton County	$206,500	$235,000	13.8%	$267,000	13.6%
Lane County	$190,000	$205,493	8.2%	$223,500	8.8%
Salem	$168,000	$188,700	12.3%	$200,000	6.0%
Linn County	$133,000	$148,965	12.0%	$154,000	3.4%
Eugene/Springfield	$214,700	$235,050	9.5%	$240,000	2.1%
Keizer	$184,700	$201,481	9.1%	$204,950	1.7%
Polk County	$158,250	$179,050	13.1%	$175,950	-1.7%
Marion County	$164,950	$189,950	15.2%	$186,600	-1.8%

*Marion and Polk County excludes Salem and Keizer. Lane County excludes Eugene/Springfield.

Office & Industrial Market Analysis

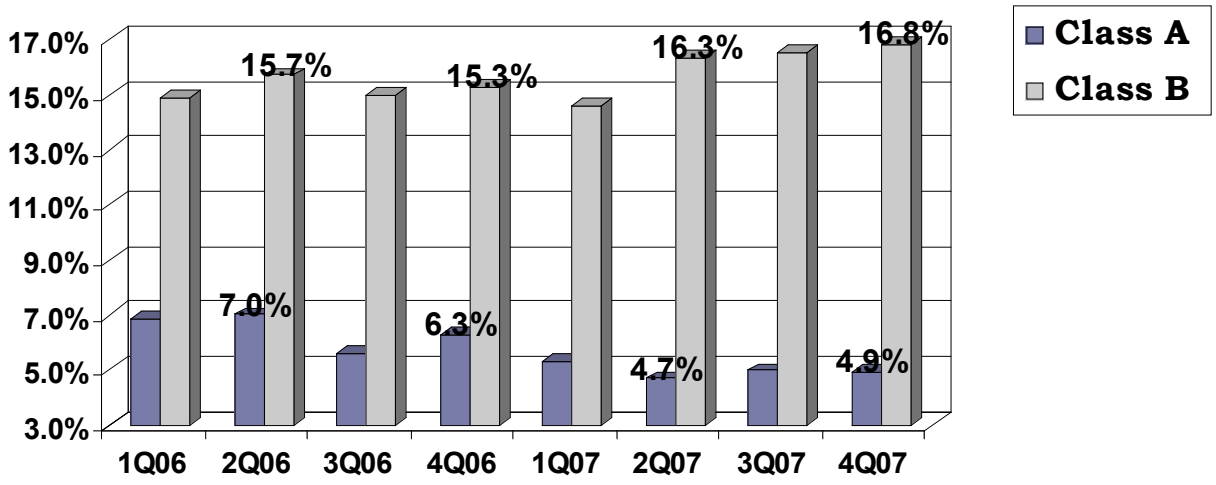
Greg LeBlanc, RMLS Fellow, MBA & Certificate of Real Estate Development Student

Positive Portland Office Market

As the national economy sputters, the Portland Class A market office market continues to remain stable while vacancy in the Class B market remains high. The year 2007 was one of the best years for the metropolitan Portland Class A office market in the last decade. Favorable market conditions were highlighted by low vacancy rates and high rent growth, which are most pronounced downtown. However, an air of caution hangs over the local economy as local participants worry about the possibility of a national recession and the effects in the metro region.

The regional fallout related to the home mortgage and finance implosion appears to be under control for now. Portland's housing market has been among the best performing markets in the country with prices still appreciating in many areas. The metro area has a modest presence of residential mortgage employers in local office space, which has allowed the market to absorb some turmoil related to this industry. Statewide, Oregon's unemployment rate increased from 5% at the end of the third quarter to 5.7% in December. The state added 900 payroll jobs in December, which followed gains of 7,500 and 3,500 jobs in November and October, respectively. The hardest hit sector was construction, losing 5,100 jobs in December. This loss was over twice the normal seasonal loss for construction jobs. Despite the sizable decrease in construction jobs, Oregon still managed to gain 26,700 jobs in 2007, a gain of 1.6%.[1]

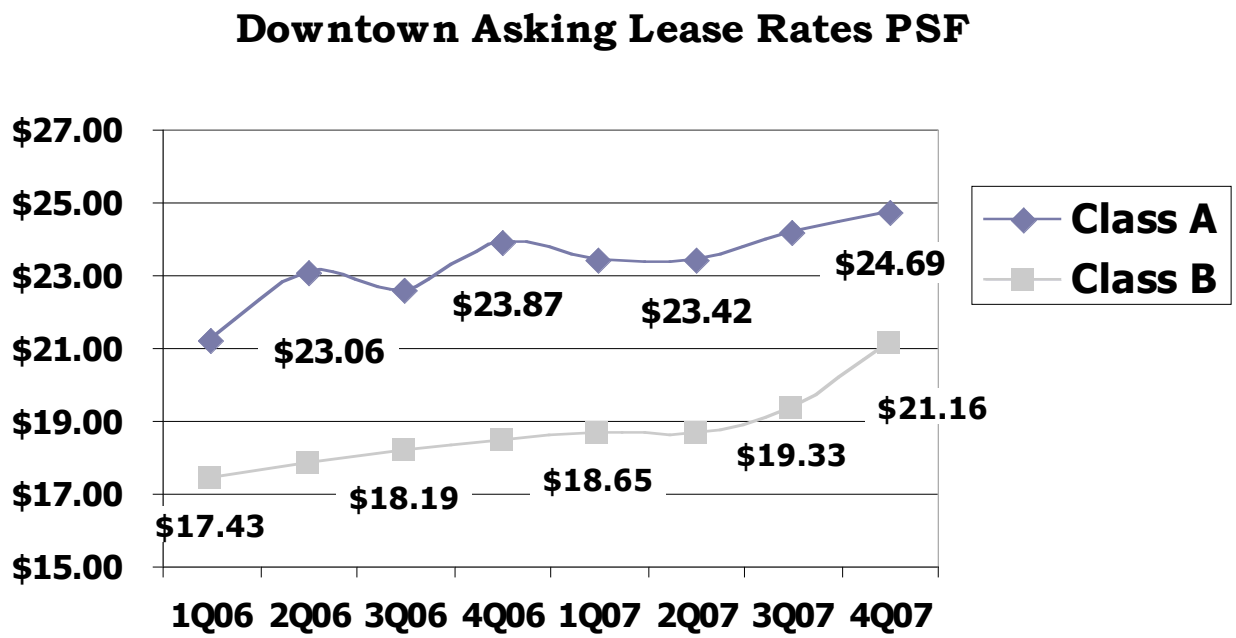
Portland Downtown Office Vacancy



**Sources: CB Richard Ellis, Inc. and Grubb & Ellis, Co., January, 2008.*

[1] Employment data obtained from the State of Oregon Employment Department January 14, 2008 press release, http://www.qualityinfo.org/pubs/pressrel/0108.pdf.

Market-wide, the regional office vacancy is at median rate of 11.6%. The big news is the lack of Class A inventory downtown, which now shows a median vacancy rate of 5.1% based on a survey of Portland real estate brokerage firms. The tight inventory has resulted in sizable rent increases where the median Class A rent now tops $25 per square foot, a 5.6% increase over the past year. The lack of Class A inventory in downtown Portland is now causing less desirable Class B space to command higher rents. CB Richard Ellis reports that CBD Class B space experienced the largest rent increase of any submarket for the fourth quarter, increasing almost 9% to $21.16.[2]



**Sources: CB Richard Ellis, Inc. and Grubb & Ellis, Co., January, 2008.*

If demand remains stable, the current pricing climate downtown is unlikely to change in the next year or two since the market supply will need to await until the completion of the First and Main building. This addition will add 346,500 square feet of Class A space downtown, but the building will not be complete until early 2010. The other significant downtown project in the works, Tom Moyer's mixed-use Park Avenue West, will have 323,000 square feet of Class A office in addition to three floors of retail and 85 condominium units. The building has yet to break ground and it's unlikely that the construction will be completed before 2010.

When the new buildings do finally come online, market rent rates are expected to be in the $33+ per square foot range in order to accommodate the cost of construction, provided office demand remains stable and new inventory in suburban markets does not lure downtown office tenants. In the meantime, tenants looking to renew leases or move to new space can expect rent increases of up to 20% due to the inventory shortage.[3]

[2] CB Richard Ellis, MarketView Portland Office Fourth Quarter, 2007.
[3] Grubb & Ellis, Office Market Trends Portland, Fourth Quarter 2007.

Slower in the Suburbs

Outside of downtown it's a different story as vacancy rates have crept up to 14.5% from 10.7% a year ago. Suburban absorption for the year is also down over 40,000 square feet, a 10% decline.[4] Most of the rate increases in the suburban market are attributed to west side submarkets. One surprise has been the vacancy increases in the Kruse Way corridor. This area typically leads the way in leasing absorption, low vacancy and high rents. Over the last two quarters, the Kruse Way corridor has been affected by the loss of some mortgage lenders and loan originator tenants and the loss of high profile tenants like Motorola and the Oregon State Bar. The latter recently sold a building they built in 1986 and purchased over 68,000 square feet of Opus Northwest's Fanno Creek Place in Tigard.[5]

Major ownership changes on Kruse Way occurred in 2007 when the large private equity firm, the Blackstone Group LP, purchased holdings from Equity Office Properties Trust (EOP) in February, 2007. Two months later, in April, Shorenstein Properties LLP acquired the EOP portfolio in Portland from Blackstone, which included 19 office buildings (over 1.6 million square feet) on Kruse Way, as part of a $1 billion transaction. During Blackstone's brief period of ownership, they "re-sized" the buildings in the EOP portfolio to include more square footage for common areas like lobbies and hallways.[6] This effectively increases the rental rates by shifting the costs of the common areas to the base lease rate.

Whether or not this change has had any effect on the loss of tenants remains to be seen. Matthew Cole, Senior Vice President of Shorenstein, acknowledges that their Kruse Way property vacancy rates are a bit higher than the 5% - 7% vacancy rates typically seen in this submarket over the last seven to ten years. However, Shorenstein views the current increase in vacancy as a temporary condition related to the loss of tenants dependent on the mortgage lending business. Cole points out that current property tours are on pace with early 2007 tours and that Shorenstein recently signed leases with financial firms, insurance companies and start-ups. Current lease rates are averaging between $25 and $34 per square foot, full service. Shorenstein is confident that the quality of the buildings, the location and the diversity of tenant mix will sustain the Kruse Way market in 2008. Should there be a more pronounced economic downturn this year, Shorenstein believes that other Class A office spaces in outlying west side areas will feel the pinch before Kruse Way.

As for other areas of the suburbs it's not all bad news. The Sunset Corridor, still trying to recover from the overbuilding that occurred during the dot-com boom, reported a net absorption of over 500,000 square feet for the quarter. Farmers Insurance leasing of 100,000 square feet at the Sunset Corporate Park led activity in this submarket and Nike's leasing of 40,000 square feet at the Woodside Corporate Park added to the mix. The quarterly gain was not enough to bring a positive balance of year-end absorption to the Sunset Corridor, which finished down 24,000 square feet and a vacancy rate of over 22%.[7]

Across town, the eastside performed well, absorbing over 81,000 square feet for the quarter. According to Cushman Wakefield, the close-in SE submarket performed well in the last quarter

[4] Cushman Wakefield, Marketbeat Portland Office Report, Fourth Quarter 2007.
[5] Tims, Dana, "Oregon Bar Gets New Home Due To Old Digs", The Oregonian, January 25, 2008.
[6] Culverwell, Wendy, "Robust Downtown Attracts Office Investors, Developers", The Portland Business Journal, January 25, 2008.
[7] Cushman Wakefield, Marketbeat Portland Office Report, Fourth Quarter 2007

of 2007, decreasing vacancy over 600 basis points from last quarter to 13.0%.[8] Overall, eastside asking rents now average $23.65 and vacancy stands at 11.3%.

Fourth Quarter Office Market Trends[9]

	CB Richard Ellis	Cushman & Wakefield	Grubb & Ellis	Norris, Beggs & Simpson	Median
Market-Wide Vacancy	**10.8%**	**11.7%**	**11.5%**	**12.8%**	**11.6%**
Previous Quarter	10.9%	11.5%	11.7%	N/A	**11.5%**
Fourth Quarter 2006	11.2%	12.6%	11.7%	13.0%	**12.2%**
Downtown Vacancy (Class A & B)	**8.0%**	**9.4%**	**8.2%**	**10.1%**	**8.8%**
Previous Quarter	8.2%	9.2%	8.3%	10.3%	**8.8%**
Fourth Quarter 2006	8.8%	10.7%	9.3%	10.7%	**10.0%**
Downtown Class A	**4.9%**	**4.9%**	**5.3%**	**5.5%**	**5.1%**
Previous Quarter	5.0%	5.9%	5.2%	5.9%	**5.6%**
Fourth Quarter 2006	5.3%	6.3%	5.9%	6.9%	**6.1%**
Downtown Class A Asking Rents	**$24.68**	**$25.79**	**$25.57**	**$24.22**	**$25.13**
Previous Quarter	$24.17	$25.27	$25.14	$24.22	**$24.68**
Fourth Quarter 2006	$23.03	$23.87	$23.80	N/A	**$23.80**
Suburban Vacancy	**13.4%**	**13.9%**	**14.8%**	**14.5%**	**14.2%**
Previous Quarter	13.4%	13.7%	13.8%	14.9%	**13.8%**
Fourth Quarter 2006	13.7%	14.6%	13.4%	14.7%	**14.2%**
Suburban Class A Vacancy	**N/A**	**14.4%**	**14.6%**	**N/A**	**14.5%**
Previous Quarter	N/A	13.7%	10.5%	N/A	**12.1%**
Fourth Quarter 2006	N/A	12.9%	8.6%	N/A	**10.7%**
Suburban Class A Asking Rents	**N/A**	**$24.38**	**$24.25**	**N/A**	**$24.32**
Previous Quarter	N/A	$23.79	$24.34	N/A	**$24.07**
Fourth Quarter 2006	N/A	$22.80	$22.84	N/A	**$22.82**

[8] Ibid.

[9] Source: CB Richard Ellis (CBRE), Cushman & Wakefield, Norris, Beggs and Simpson, and Grubb & Ellis(January 2008). Vacancy rates above include subleases except those reported by CBRE. CBD figures include close-in neighborhoods, except Class A figures reported by CBRE. Class A suburban figures reported by Grubb &Ellis reflect Kruse Way and Washington Square only. All rents are full service. All other suburban figures include Vancouver.

The Pearl District, Next Office Frontier?

Tightening lending standards present a challenge for developers interested in constructing speculative developments, especially for downtown. It will be instructive to see if developments can lure financial and professional service tenants north of Burnside. One such development, The Lovejoy by Unico, is a mixed-use two block development 11 blocks north of Burnside at NW 13th Avenue and Lovejoy Street. The development features a Safeway supermarket and 85,000 square feet of office on one block, and a 252 unit apartment/townhome tower on the other. Both parcels will have retail on the bottom floors. The building has managed to attract the Ater Wynne law firm, which is currently leasing space in the KOIN Center. This is interesting considering that many law offices with a significant litigation practice prefer to stay close to the courts in downtown. As the city discusses adding additional development to the northern River District, enticing office tenants may be key to diversifying the current retail, urban residential mix that dominates the area.

Planned Development North of Burnside

Building	Total sq. ft.	Address	Owner	Developer	Description
Block 90	40,000	322 NW 14th Ave.	Ampersand Holding, LLC	Parallel Development	3-story historic renovation offering first floor retail, office on floors 2-3, and condos on the penthouse. Completed late 2007.
White Stag Hirsch-Weiss Building	133,000	70 NW Couch St.	White Stagg Block, LLC	Venerable Properties	Renovation of three historic buildings (White Stag, Bickel Block, Skidmore Block) into one building. University of Oregon School of Architecture is the anchor tenant. Building Completion in January, 2008.
The Lovejoy	82,843	NW Lovejoy & NW 14th Ave.	Unico Properties	Unico Properties	Part of a two block development where one building will consist of a Safeway supermarket on the bottom floor with 4 levels of parking and 3 floors of office space above. Completion is scheduled for June, 2008.

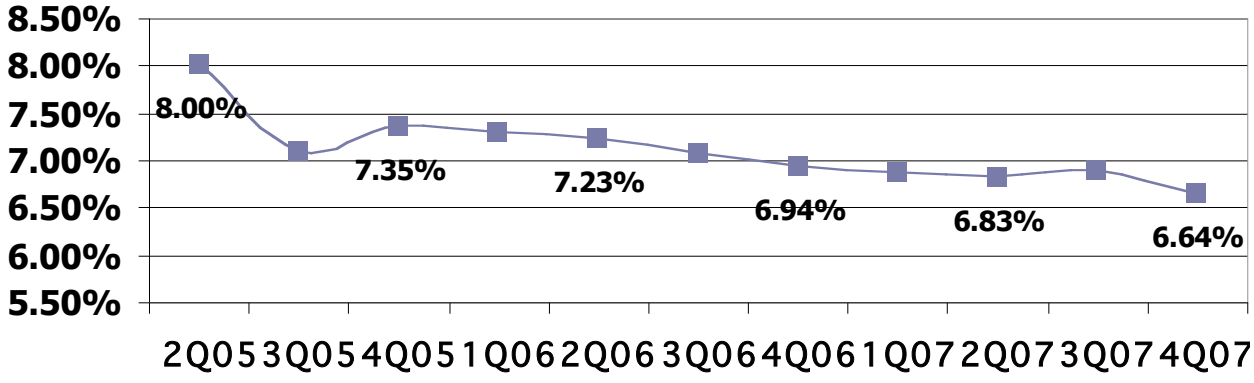
Machine Works Block	66,000	1115 - 1123 NW 14th Ave.	Jackson Machine Works, LLC	Albert Solheim	9-story mixed-use building with 4 levels of office space, 3 levels of parking, and 2 levels of fitness. Completion for February, 2009
1417 NW Everett St.	200,000	1417 NW Everett St.	Gerding-Edlen	Gerding-Edlen	Proposed building, stated completion for 2010.
One Waterfront Place	238,060	1201 NW Naito Parkway	Winkler Naito Development	Winkler Naito Development	12-story office building with 4 levels of parking. Ground breaking scheduled for June, 2008.

*Sources: Cushman Wakefield and Grubb & Ellis, Inc., January, 2008.

2008 Outlook

In the current economic environment, lenders are requiring investors and developers to bring more cash to the table. Nationally, lenders are scrutinizing projects more closely by requiring evidence of solid cash flow, tenant quality and management over the simple expectation of value appreciation. Here in Portland, investors are willing to invest locally as evidenced in the December 2007 purchase of the 522,000 square foot Pacwest Center by Ashforth Pacific, Inc. for $161.5 million. At nearly $309 per square foot, this purchase eclipsed the 2005 sale of the ODS Tower as the most expensive Class A office sale on a square footage basis in Portland history. At the time of this writing, the capitalization rate for the Pacwest Center purchase was not known, but the well respected Korpacz Real Estate survey shows that cap rates in central business districts across the country continued to fall, albeit a much more modest pace. Korpacz reports fourth quarter 2007 national cap rates for business districts at 6.64%. Another survey conducted by Real Capital Analytics reported that the cap rates for central business district office had increased to 5.87% from 5.76% in November.[10]

National Capitalization Rates for Downtown Office Properties



[10] Wall Street Journal, "Some Cap Rates Inch Up", January 30, 2008.

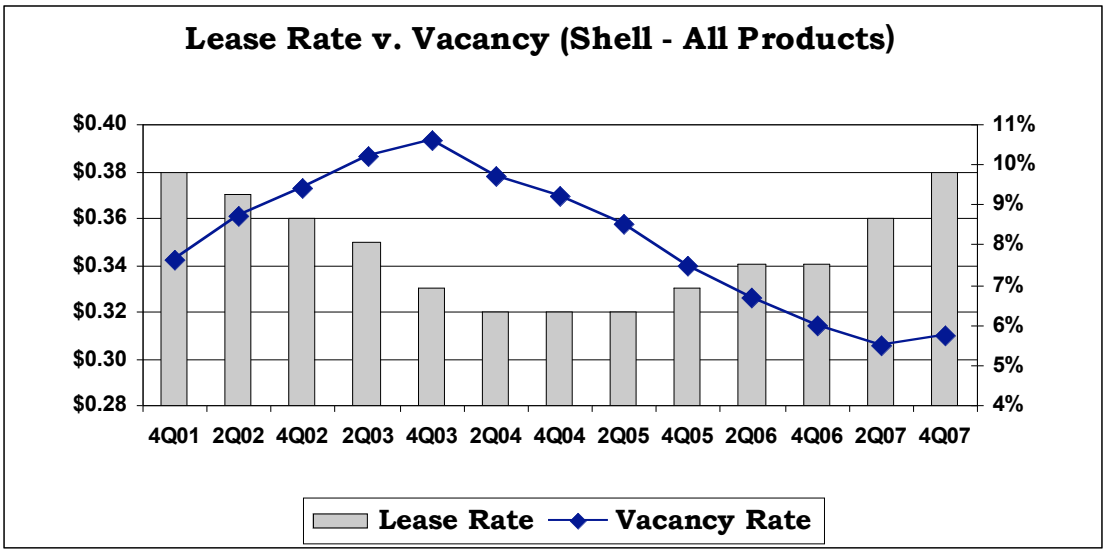
Despite the prospect of cap rates edging up, the current office market for Portland appears relatively stable and well positioned for 2008. Portland's reduced exposure to the subprime mortgage crisis reflects favorably on the region. National economists are noticing. Grubb & Ellis, the Chicago-based real estate services firm, recently released a ranking of the top 10 most attractive markets for office, industrial, retail and multifamily investment for 2008. In this list Portland ranked as the eighth best office and the tenth best retail market out of 55 national metropolitan areas considered in the survey.[11] Areas hit hard by residential foreclosures were downgraded, as it was reasoned that such foreclosures could lead to local recession and the eventual loss of value for commercial properties.

[11] Forsyth, Jennifer, "Predictions for '08 Get Subprime Treatment", Wall Street Journal, January 2, 2008.

Industrial Market Indicators

	CB Richard Ellis	Cushman & Wakefield	Grubb & Ellis	Median
Market-wide Vacancy	**5.2%**	**5.6%**	**5.2%**	**5.2%**
Previous Quarter	5.6%	5.0%	5.3%	5.3%
Fourth Quarter 2006	6.1%	6.2%	6.3%	6.2%
Warehouse/Distribution	**N/A**	**5.3%**	**N/A**	**5.3%**
Previous Quarter	N/A	4.3%	4.8%	4.6%
Fourth Quarter 2006	N/A	5.4%	5.4%	5.4%
R&D/Flex Vacancy	**N/A**	**6.3%**	**7.0%**	**6.7%**
Previous Quarter	N/A	9.2%	7.3%	8.3%
Fourth Quarter 2006	N/A	11.2%	9.4%	10.3%
Asking Monthly Shell Rates	**$0.38**	**N/A**	**$0.42**	**$0.40**
Previous Quarter	$0.37	N/A	$0.41	$0.39
Fourth Quarter 2006	$0.35	N/A	$0.37	$0.36
Asking Monthly Flex Rates	**$0.85 to $1.05**	**N/A**	**$0.83**	**N/A**
Previous Quarter	$0.85 to $1.05	N/A	$0.81	N/A
Third Quarter 2006	$0.65 to $1.05	N/A	$0.74	N/A

**Sources:* *CB Richard Ellis, Cushman & Wakefield, and Grubb & Ellis (January 2008). Warehouse and Distribution figures for Cushman & Wakefield include manufacturing space which represents one-fifth of warehouse/distribution space. Cushman & Wakefield and CB Richard Ellis's 2006 numbers from Q3. All rents are NNN.*



Source: CB Richard Ellis, MarketView Portland Industrial, Fourth Quarter 2007