THE COST OF AFFORDABLE HOUSING DEVELOPMENT IN OREGON

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Disclaimer

This report synthesizes roughly a year of work, discussion, and study by the Cost Efficiencies Work Group assembled by Meyer Memorial Trust. The report does not reflect the personal opinion of any one Work Group member, but rather Meyer staff's attempt to capture a rough consensus of the outcome of the Group's work, as well as perspectives and opinions shared by experts outside of the Group. Any errors, omissions or other shortcomings should be attributed to Meyer, and not to the members of the Work Group.

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Executive Summary

The cost of new affordable housing has been a topic of intense scrutiny recently as the need for affordable housing across Oregon continues to significantly outpace the current system's ability to deliver additional units. Many people have questioned why costs for publicly subsidized affordable projects are as high as they are, and whether there are ways to significantly reduce the cost of new affordable housing.

Meyer Memorial Trust convened the Cost Efficiencies Work Group to answer questions like these. Meyer recruited sixteen experts from development, construction, finance, and related fields and charged this Work Group with three major tasks:

1) To create a clear and concise summary of key factors affecting the cost of developing affordable housing;
2) To identify opportunities – whether policy and systems changes, or innovative approaches to design, construction, and financing – to deliver affordable units at a lower cost; and
3) To advise Meyer on pilot or demonstration projects to test new approaches to affordable housing development.

This report synthesizes the results of this work over the last year. The full report engages a wide variety of topics in detail – and the details and nuances are important – but the key results are summarized below.

Summary of Key Findings

1. *Comparing costs between different housing projects is difficult and complex – and often misleading.*

Simple comparisons (for instance, dividing the total development cost of a project by the number of units) will almost always be highly misleading. A meaningful comparison must take into account an array of large and small factors: the cost of land in different locations, type of construction, any non-housing space, size of the units, etc. For this reason, we declined to try to specify a reasonable target for what an affordable project "should" cost. There are simply too many variables, and too many dynamic factors affecting costs to make a simple number meaningful.

2. *Subsidized affordable housing differs from market rate development in fundamental ways that tend to add cost; affordable projects balance the needs and interests of residents, developers, public funders, and lenders and investors.*

Affordable housing is a specific and unusual niche in real estate development, premised on the basic fact that the tenants can't pay the full cost of their housing. Long-term affordability – i.e. restrictions on rents and on rent increases over time – drives a housing model fundamentally dependent on public subsidies, and one which brings a string of additional (and not always obvious) costs that aren't faced by market rate housing developers.

Affordable housing projects tend to be small, complex real estate deals, and the interests and requirements of the many parties involved – developers, public funders, lenders and investors all tend to add incrementally to the cost of development. Public funding also brings with it a number of requirements that tend to add to costs (prevailing wage requirements, green building standards, etc.), and other costs stem from private lenders and investors hedging their risks in ways that don't apply to market rate developers.

3. *Affordable housing provides more than just a place to live.*

Affordable housing usually includes features and services meant to support residents' well-being, which are not common in market rate housing. This larger mission, not just to house people, but to help people with an array of issues (including health needs, early childhood, financial literacy, employment, etc.) affects how the housing is designed and constructed, and adds costs a market rate developer does not take on. Not every affordable project includes intensive services, but each does more than simply house people.

4. *The current delivery system for affordable housing prioritizes other goals over the lowest possible upfront costs.*

Nonprofit and for-profit developers of affordable housing are skilled and experienced professionals, making prudent decisions within a complex and challenging framework. However, that framework does not prioritize lowest initial cost. Holding down costs is less important in the competition for funding for new affordable projects than other factors, including: alignment with other public goals, quality and durability, long-term financial sustainability, and providing appropriate resident services.

5. *Public and private funders could do more to expedite funding processes and help reduce unnecessary costs, but dramatic reductions are probably unattainable without new, more flexible sources of funding.*

There are some opportunities to reduce costs (explored in more detail in the Recommendations section below), and public funders could choose to emphasize cost efficiency over other goals. But dramatic reductions will be challenging, given the factors documented in this report that tend to add costs to publicly subsidized affordable projects.

Any strategies to deliver significant cost reductions probably also require a departure in the way projects are funded. Reliance on federal Low Income Housing Tax Credits (LIHTC) – the major source of funding for low-income housing – has led to a system that has evolved toward essentially mandatory higher costs to limit risk to private sector partners and create high quality, attractive and durable housing.

The Work Group is skeptical that costs in affordable housing projects can be radically lower without compromising their long-term viability, the interests of residents, and the ability to attract needed private investment. However, new strategies to test models that don't rely on established, complex subsidies would be worth trying. An exclusive focus on lower initial costs at the expense of higher long-term maintenance and utility costs could be counterproductive. But with new funding from the state or from local governments that promote simpler, more cost-efficient projects, developers could be rewarded for finding ways to keep costs down consistent with broader housing goals.

Summary of Recommendations

1. *Funders should reward cost-efficient development without compromising other important goals like long-term affordability and financial sustainability.*

Public funders can and should use their leverage to encourage cost-efficient development in a thoughtful way. While there is little reason to believe that costs can be reduced *dramatically* without compromising other priorities, quality development at a lower cost is attainable, and the expertise and creativity to bring projects in for less money lies with development teams themselves.

2. *Funders should revisit funding processes and criteria for ways to align and coordinate requirements to reduce unnecessary complexity, delay and uncertainty.*

The Work Group understands that better coordination and alignment is difficult in practice, as different funding partners have different priorities and report to different decision makers, but recommended some specific areas where public funders could aim to reduce unnecessary complexity, delay and uncertainty.

3. *Lenders and investors should explore alternatives to capitalized operating reserves.*

Lenders and investors typically require an affordable housing developer set aside six months of operating costs, on a project-by-project basis, as a buffer against unexpected vacancies or other operating losses. This capitalized operating reserve can amount to several hundred thousand dollars on a typical project, and because it is rarely drawn upon, amounts to a highly inefficient use of capital. The Work Group strongly felt there were sound risk management approaches (managing operating reserves on a portfolio basis, or hedging with an insurance-like pool) that better deploy scarce capital.

4. *Developers and funders should identify ways to promote more cost-effective acquisition of existing housing.*

Bringing down rents on existing market rate housing is one lower-cost strategy for increasing the supply of affordable housing. Acquisition by nonprofits prepared to manage housing for the long term at affordable rents still requires public subsidy, but can usually be done for significantly less than the cost of new construction. Financing for such deals can still be challenging, and it's important to attend to life cycle costs and adequate capitalization; the Work Group called out the need for more attention to encouraging these kinds of projects.

5. *The Oregon Bureau of Labor and Industries (BOLI) should better align its prevailing wage practices with the needs of affordable housing.*

While the Work Group was strongly supportive of the intent behind prevailing wage requirements, the Group recommended two specific changes in BOLI's enforcement of Oregon prevailing wage requirements (Approving "split determinations" for mixed use projects, and issuing more timely and reliable guidance on wage determinations for "prevailed" projects).

6. *Local governments should revisit the impact of design review and other public requirements on housing affordability.*

This is a complex policy area, but the Work Group believes that local jurisdictions (especially those facing intense market pressures driving up housing costs) should look at how land use, zoning, and permitting affect affordability, and consider whether there are ways to expedite more affordable

multifamily development (market rate and affordable) without compromising important public policy goals.

7. *All interested parties should support the search for new, more flexible sources of capital for development.*

As discussed above, so much of what adds costs to affordable housing projects is driven by the complexity of the financing package for each deal, and the costs inherent in obtaining and reconciling multiple sources of subsidy. The State's recently approved $40 million in general obligation bonds is a welcome example of the kind of potentially less cumbersome funding that could open some alternative models.

Along the same lines, as a next phase task of the Cost Efficiencies work, Meyer Memorial Trust proposes to form a Financial Innovation Work Group to look at specific strategies to engage new and different resources, including more private capital, in affordable housing development.

I. Introduction

The cost of new affordable housing has been a topic of intense scrutiny recently as the need for affordable housing across the state continues to significantly outpace the current system's ability to deliver additional units. Many people have questioned why costs for publicly subsidized affordable projects are as high as they are, and whether there are ways to significantly reduce the cost of new affordable housing.

This discussion is not a new one – containing the cost of development has been a recurring topic in affordable housing circles for years. But housing affordability has taken on new urgency around Oregon in the last few years as:

- Rents and housing prices have risen dramatically in many parts of the state;
- Federal resources for local communities to support housing and community development have diminished; and
- A growing economy has led to more households seeking housing, through in-migration and new household formation (e.g. younger adults or other housemates moving out on their own).

The result of all of this is a growing gap between supply and demand, particularly in certain areas of the state, which is especially acute for low-income households.

At the same time, people inside and outside the affordable housing industry have pushed for attention to cost-efficient development, and making as many units as possible available with existing resources:

- Legislators and other elected officials
- State and local government funders
- Housing advocates and social service providers
- Developers and others

Meyer Memorial Trust saw an opportunity, as part of its Affordable Housing Initiative (see http://www.mmt.org/access-affordable-housing), to bring new attention to the challenge as a neutral convener able to draw out candid assessments of the challenges and opportunities around delivering quality housing at a lower cost. Housing experts and stakeholders urged Meyer to take on this challenge as part of the Affordable Housing Initiative in order to better inform the field of affordable housing development and assist decision makers (including funders and elected officials) with understanding the complex trade offs involved in cost efficiency questions.

Meyer solicited applications in summer 2014 to participate in a Cost Efficiency Work Group, and selected sixteen experts – nonprofit and for-profit – with a variety of backgrounds relevant to affordable multifamily housing development, including contractors, architects, lenders, and consultants as well as developers. In regular meetings between October 2014 and summer 2015 the Work Group took up three major tasks posed by Meyer:

1) To create a clear and concise summary of key factors affecting the cost of developing affordable housing;

2) To identify opportunities – whether policy and systems changes, or innovative approaches to design, construction, and financing – to deliver affordable units at a lower cost; and
3) To advise Meyer on pilot or demonstration projects to test new approaches to affordable housing development.

During this period, Meyer staff met with many stakeholders familiar with the challenges of affordable housing development, including for-profit and nonprofit multifamily developers, public funders, lenders, and other experts. The Work Group also invited several outside experts to share their thoughts on specific issues like construction and design, financial and regulatory barriers, etc. This report synthesizes the results of this work over the last year.

Several intensive and impressive studies from around the country have covered similar ground, including *Bending the Cost Curve* by Enterprise and the Urban Land Institute's Terwilliger Center for Housing (See the *Additional Resources* section). Our intent was not to duplicate or re-create that work, but to build on it, and focus on what decision makers in Oregon can do differently to reduce unnecessary costs and deliver more housing.

II. Affordable Housing Development in Context

Affordable housing is a specific and unusual niche in real estate development. As a real estate deal, each affordable project is a challenge primarily because restrictions on rents (and on rent increases over time) limit revenue to developers and owners in ways that tend to lead to higher upfront costs.

What is "affordable housing"?

"Affordable housing" in this report refers to housing intentionally developed such that tenants at specified incomes (generally below 60% of the Median Family Income) pay no more than 30% of their income for rent and utilities.

At the same time, affordable housing is never just about housing. Affordable housing usually includes features and services meant to support residents' well-being, which are not common in market rate housing. This larger mission, not just to house people, but to help people with an array of issues (including health needs, early childhood, financial literacy, employment, etc.) affects how the housing is designed and constructed, and adds costs a market rate developer does not take on.

Market Rate vs. Affordable Housing: Two Different Financing Models

In a typical market rate development, the financing package pairs equity from the developer (or investors backing the developer) with debt repaid over time from rents; rents are limited by what the market will bear, and the amount of debt is scaled according to the net cash flow expected from rents. Developers can get paid for the risk they assume in a number of ways, generally either profiting over time through rents collected or upon selling the project at a profit. When a property requires an infusion of new capital (to replace or repair major building systems like the roof, etc.), the owner pays for that out of accumulated cash flow from rents.

Affordable housing development is a very different kind of investment strategy, with fundamentally different goals (see Figure 1). Instead of looking for a financial return on a specific timeline, affordable developers usually intend to maintain the housing as affordable indefinitely – knowing that expenses may well outstrip revenues along the way.

Figure 1: Market Rate vs. Affordable Housing: Two Different Business Models



The Affordable Housing Development Puzzle: Rents, Debt, and Funding Gaps

In a typical affordable project, the long-term cap on both rents and increases in rent over time creates two distinct issues:

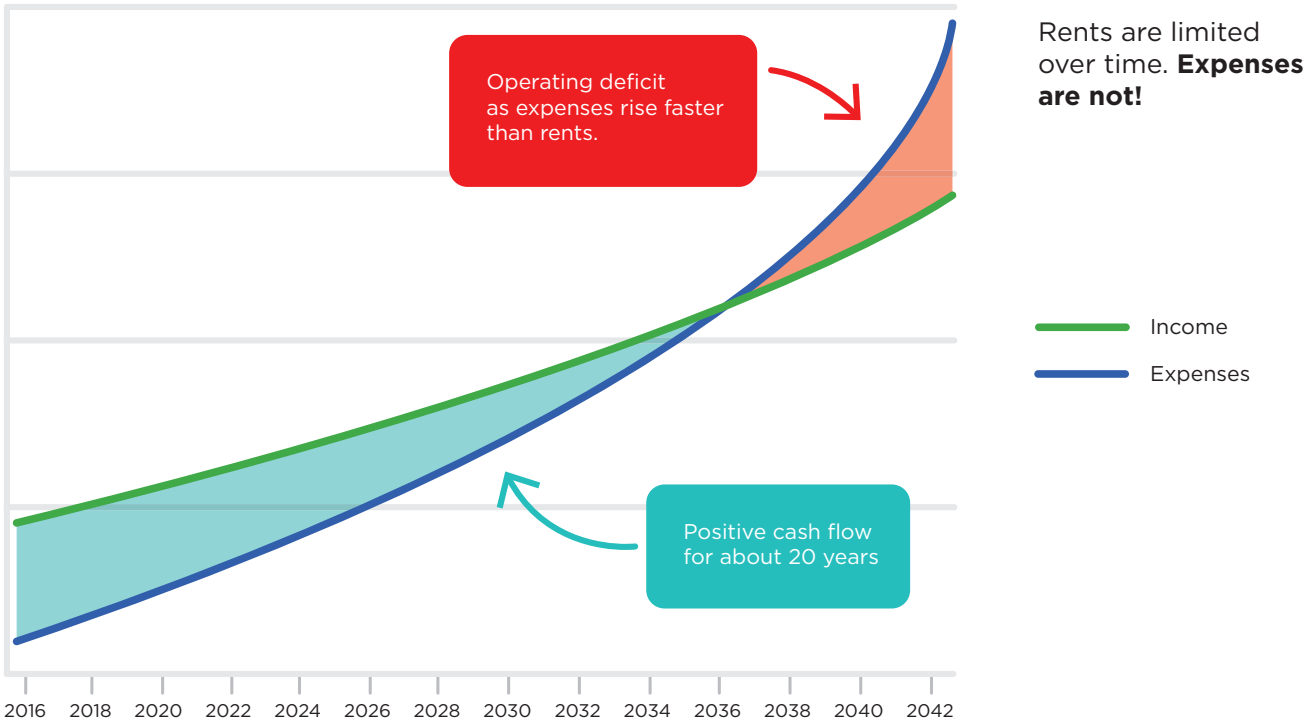
Initial funding: When a project is designed around achieving affordability at a specific income below what the market provides, limiting rents reduces the debt the project can repay, which creates a funding gap that has to be filled by some other source, typically (multiple) government subsidies. *A project serving those with very low incomes probably can carry no debt* – affordable rent for a household on SSI Disability, for instance, won't even pay the operating costs for a project. This means the funding gap tends to be bigger to reach affordable rents for tenants with the lowest

incomes. Some households at very low income levels also require intensive (and expensive) services to stay in housing. Serving very low incomes – which is called out as a priority by many public funders – requires large upfront subsidies by definition.

Operations and recapitalization: The second area where rent limits affect upfront costs relates to providing for long-term expenses. When a property owner's costs rise – for instance energy and water costs – market rate housing can pass that cost on to tenants. Affordable projects generally expect that costs will rise faster than revenue, because they can't increase rents to match (see Figure 2). This tends to increase the initial funding gap, because developers have to further limit debt on the project to cover that eventual future operational deficit. In addition, lenders require setting aside operating reserves to cover unexpected shortfalls; in a market rate project, the developer or owner manages that risk in other ways.

Affordable rents often don't generate sufficient resources for the kind of major recapitalization described above, leading to a need for strategies to limit or delay the need for new capital. In addition, lower rents relative to the market mean that an affordable rent-restricted property tends to have a lower valuation at the point when major improvements are needed, which further limits how much can be borrowed, and often leads to a need for further subsidy to make up for the lack of private capital the property can leverage. Two typical strategies around these recapitalization challenges both tend to raise upfront costs: building to a higher level of durability (delaying the timing of recapitalization), and setting aside replacement reserves (cash saved over time to cover major improvements).

Figure 2: Capped rents vs. unlimited expenses over time, showing how affordable projects can see these cross in the out years. The exact point where these lines cross depends on the level of affordability, i.e. sooner for rents affordable to very low incomes.



NOTE: this is an illustration of a typical dynamic, not data from a specific project

Social Return on Investment

While private for-profit developers building market rate housing may have a number of goals in mind, financial return on investment is doubtless a primary consideration. An affordable project must also be designed to stay financially viable over time, but nonprofit housing developers often build several other core concerns into the conception and design of a project:

- A mission to serve those not able to obtain housing affordable to them on the market;
- A plan for providing services appropriate to the residents (including sometimes populations with a need for specialized services related to health conditions or disabilities); and
- An intent to help improve or revitalize the surrounding neighborhood

Affordable housing tends to provide more than just a place for people to live, but consciously includes features and services meant to support residents' well-being, broadly conceived. Increasingly, funders, nonprofit developers and advocates for low-income people understand stable affordable housing is a *platform* for a variety of other basic needs. Recent studies confirm that low-income households with steady access to affordable housing (avoiding multiple moves and the stress that comes from uncertainty over making the rent) have better outcomes in education, health, and long-term economic prospects.

The Cost of Taking a Government Dollar – Federal Tax Credits

Because of the structural funding gap between costs and revenue, affordable housing development is dependent on public subsidies – typically several different sources – and is therefore highly regulated and constrained in ways that don't apply to market oriented housing. This reliance on public funds accounts for much of what the Work Group identified as the *additional* costs attached to affordable development.

While an affordable project typically has multiple funding sources, and may benefit from several different kinds of public subsidies (including state and local funds), federal Low Income Housing Tax Credits (LIHTC) play a crucial role as the most significant source of outside equity in many projects, especially those seeking to make rents affordable to those at very low incomes. In brief, the LIHTC program allows private investors to earn a tax credit in return for investing in affordable housing; the program leverages more than $100 million in outside private financing for Oregon affordable housing projects annually.

Competing for 9% Credits: 9% LIHTC funds[1]are awarded by the state's housing finance agency, Oregon Housing and Community Services (OHCS), through a process called the Notice of Funding Availability (NOFA). Several features peculiar to this funding tool tend to impact the cost of affordable housing: the application process is technical, cumbersome, very competitive – and costly in and of itself. A developer may spend as much as $40,000 crafting an application, and OHCS is only able to fund perhaps a third of the highly-rated projects they receive in a given year. This leads to a dynamic in which affordable developers may return to OHCS with annual attempts to get a project funded, for a second, or third, or even a fourth time.

[1]In this report "tax credits" generally refers to 9% federal LIHTC. There are also 4% federal credits, which are awarded on a noncompetitive basis to projects meeting the program requirements. These provide less equity than 9% credits, and generally therefore are less useful for developers filling a deep gap for new construction. The state also awards its own low-income housing tax credits, which are included here under "other" public funding.

For all the added cost and effort that comes with LIHTC, it allows affordable developers to leverage roughly three dollars for every Oregon state and local dollar in a project, and there is no ready substitute for the credits, which are the most significant source of public subsidy for affordable housing, especially for projects at the lowest income levels. It speaks to how critical 9% credits are in affordable development that the cost and effort of multiple annual applications is seen as worthwhile.

The state's funding decision can turn on a margin of one or two points in OHCS' scoring framework, which feeds another dynamic that developers sometimes call the "beauty contest": in attempting to craft a proposal that will score more highly (and just as significantly, attract good terms from other funders, including lenders and local government), there is pressure to bring in design ideas that go above and beyond the simplest, most basic housing, whether it's through innovative "green" features, an especially attractive design with higher-quality materials, or programming and services that help the project stand out in the fierce competition for funding. This pursuit of additional points tends to drive up costs in the absence of strong incentive for cost efficiency, especially since prevailing in the "beauty contest" typically makes the difference between being able to proceed with a project or bringing it back to re-apply for funding again in a year.

Complexity: The need to assemble multiple funding sources – averaging more than half a dozen in a typical project, and more than 20 in some projects – leads to very complex deal structures with many partners. Tax credit deals will have (at minimum) a tax credit investor, a lender (often more than one), OHCS, and local funders, along with any other private grant funding. This complexity itself adds to costs, as each partner brings a different set of requirements that tend to increase the total cost of the project for legal, accounting, inspections, and studies.

Put a bit more bluntly: every partner tends to add a layer of legal review and negotiation to a given project, and has some incentive to err on the side of risk aversion, even when that risk aversion means more cost to the project through one more study, one more round of document review, etc.

The need to assemble a complex funding package, including waiting for public funding processes which only happen at certain times of year (and sometimes applying through multiple rounds), means that affordable projects often take several years from start to finish. The length of the development process itself can add to the cost of a project through holding costs associated with land that's not generating revenue, exposure to increases in construction costs that may throw a project out of balance, and other costs that come with not being able to move as quickly as a market rate developer can.

<u>The Cost of Taking a Government Dollar – Non-housing Social Goals</u>
Government subsidies tend to add to the cost of projects beyond the kind of "red tape" dynamics described above. Public subsidies carry with them an array of other social goals that increase costs:

- Potentially more than a dozen rigorous federal review processes (depending on the project location and other factors) triggered by federal subsidies like the HOME program, including: environmental protection and endangered species, Uniform Relocation Act requirements, consultation with tribes regarding impact on sites with religious and cultural significance, environmental justice, and others
- Prevailing wage requirements – accepting public subsidies can trigger federal or state prevailing wage requirements (sometimes both) that increase labor costs (see Section V below)
- Several local jurisdictions in Oregon have adopted contracting goals or targets meant to assist MWESB (minority, women and emerging small business) for projects assisted with public funds

- Some public funds trigger workforce training or local hiring requirements
- Sustainability/green features – funders have different expectations for sustainability-related features, some formally or informally encouraging achieving a specific standard such as LEED Platinum
- Urban renewal/neighborhood revitalization expectations – housing projects are often seen as key elements in larger community development or neighborhood revitalization efforts, and developers can be asked to assist with broader goals beyond housing (parks, specific retail services or neighborhood amenities, etc.)
- In addition to nonprofit developers' own mission driven intentions to do more than simply housing people, public funds tend to come with requirements or incentives to promote resident services or other amenities above and beyond what market rate housing would provide.

Members of the Work Group recognize and support the value of these requirements and expectations, and did not advocate waiving or rejecting these goals. But they did emphasize that these social goals tend to create additional costs not faced by market rate developers, without a funding source to defray those costs.

In effect, these public requirements tend to load non-housing costs onto the underlying real estate deal. While the cost of any one requirement may not be overwhelming, layering numerous other goals on projects can end up significantly increasing the total cost of development, and contributes to the perception that affordable housing costs more than it should. It's important to bear in mind then, that public funds are paying for more than simply building housing (and they are helping cover costs not generally required of market rate developers).

A Note About Scale

One critical (but not obvious) factor worth highlighting that tends to put affordable projects in an unfavorable light is the lack of economies of scale: subsidized affordable housing projects are typically built to a smaller scale than comparable market rate projects, largely because subsidies are not available to individual projects at a level that would finance larger projects. Several types of costs – especially soft costs – don't rise in proportion to the number of units being built. Spreading those fixed costs over fewer units than a large market rate project will contribute to a higher per-unit total cost.

Legal fees are a good example. Spreading $75,000 in legal fees over a 40-unit affordable project means nearly $1,900 *per unit* just for legal costs. That same $75,000 over 150 units amounts to $500/unit (and as we describe, the complexity of affordable projects tends to add to soft costs like legal).

Increasing the size of affordable projects would lower per-unit costs. Larger projects are not a panacea, however:

- In less urban parts of Oregon, a larger development may not be appropriate or may be seen as more risky
- Larger scale projects would require more subsidy per project, which means fewer projects would be funded (OHCS currently caps tax credits per project at $890,000)

III. Comparing Costs – Complexity & Nuance Matter

Comparing costs between different kinds of projects is difficult and complex – and often misleading. As the Group heard from multiple experts, projects vary widely on so many important details beyond the developer's control that real care is required to create meaningful cost comparisons.

Simply dividing the total development cost of a project by the number of units is almost always a recipe for trouble. A fair comparison has to take into account factors such as:

- Cost of land (and any other challenges related to the site itself – such as environmental issues or off-site improvements – that impacted the final cost)
- Nature of construction – low rise wood frame construction will cost less than a taller concrete and steel building with an elevator
- Presence of any non-housing space, including commercial/office space in a mixed-use building or any non-rentable common area
- Unit mix (number of bedrooms) and unit size (square feet) affect costs, depending on the metric you use (see sidebar on "What's the Right Metric?")
- Lifecycle costs: decisions meant to minimize long-term operating costs or the need for recapitalization over time may increase upfront costs but still be "cost efficient" from a long-term perspective

In a presentation to the Work Group by Heather Bunn from Rafn Construction regarding two projects her firm built in Seattle, we learned that comparing project based on per-unit, per-bedroom, or per-square foot costs can show quite different measures of the cost of a project. While there is no one right way to compare costs, a meaningful comparison would capture nuances like this.

This is why the Group declined to try to specify a reasonable target for what an affordable project "should" cost. There are simply too many variables, and too many dynamic factors affecting costs to make a simple number meaningful.

What's the right metric for comparing costs?
Members of the Work Group suggested that the relevant point-of-comparison for affordable projects might not be total cost per se, but the amount of public subsidy required, computed per-bedroom instead of per-unit. A fair way to handle lifecycle costs requires even more thoughtfulness, and some suggested looking at the amount of subsidy in a project on a "per-bedroom-year" basis, taking into account the length of the period of affordability a subsidy is purchasing.

IV. Understanding Cost Drivers: Soft Costs

Recommendations: Soft Costs

1. *Lenders and investors: Explore alternatives to capitalized operating reserves.*
2. *All parties: Support the search for new, more flexible funding sources of capital for development.*
3. *Funders: Revisit funding processes and criteria for ways to align and coordinate requirements to reduce unnecessary complexity, delay and uncertainty.*
4. *OHCS: Explore ways to offer early review/vetting of projects.*
5. *Housing Funders and Services Funders: Better align planning and funding for services supporting affordable housing.*

Recommendations highlighted in bold are identified as "Key Recommendations" in the Executive Summary.

Developers distinguish "hard costs" (the actual cost of labor and materials involved in constructing the building) from "soft costs" (other costs associated with completing the project that aren't directly related to construction). Soft costs – including architecture and engineering, interest and other financing costs, legal costs, accounting and other consultants, and the developer's fee – are where affordable housing differs most from market oriented development.

Larger Soft Costs

As we saw in the "Affordable Housing Development in Context" section, the current system for delivering housing at below its market cost tends to add a variety of soft costs that don't apply to market rate development. The Work Group spent much of its time working through these soft costs with an eye toward identifying unnecessary costs and opportunities to reduce costs that might be higher than necessary.

Some of the larger line items in soft costs are the developer fee, architecture, legal costs, and required reserves.

Developer Fees. The developer on an affordable housing project typically budgets for a fee of 15% of project costs. The fee essentially represents compensation for the work and risk of bringing a project to completion, and represents much of the financial reward to the developer/owner in an affordable project where rents are limited over time.

Some critics call out developer fees as one factor unnecessarily driving up the cost of affordable housing, arguing that there's little incentive to curb fees, and that they don't necessarily correspond with the level of risk and effort demanded by a specific project. This is a sensitive issue for nonprofit community development corporations (CDCs) doing affordable development, who see these fees as a crucial source of revenue to fund predevelopment on future projects, resident services, and other important operations that don't have dedicated funding. It's worth pointing out that as the federal government launched programs like Community Development Block Grants and the HOME program, CDCs were explicitly called out as vehicles for implementing those programs, and especially for creating new housing in a sustainable, locally driven fashion.

Nonprofit developers argue that *any* developer (for-profit or nonprofit) building a rent restricted project would seek a similar fee, to compensate for the inability to profit over time through rising rents and property values. In addition, affordable developers point out that the entire developer fee is not always paid in cash to the developer; developer fees are often deferred until a project generates enough cash flow to pay off the fee, and can be reduced by unanticipated expenses during construction.

While there may be specific situations or projects where fees are larger than justified, in general, we accept the affordable developers' arguments that the fees are generally not out of scale, and are important for sustaining a network of highly skilled nonprofit developers committed to quality affordable housing. Pressure on the developer fee could threaten the ability of CDCs to deliver on resident services and long-term stewardship of their housing assets.

Architecture/Design Fees. Some argue that affordable developers could do more to hold down architecture and design costs, either by negotiating harder on fees or by building less elaborate (and ideally even re-usable or adaptable) designs that require fewer billable hours. We see no easy way to evaluate these arguments, and the Work Group did not generally see trimming architecture fees as a path to significant savings. We discuss design and quality tradeoffs below in more detail in Section VI.

Legal Fees. Affordable projects' complex, multiparty financing packages tend to involve much more legal review than a market rate project. Several interviewees stressed the lack of cost discipline among partners when it comes to legal fees, and suggested that OHCS (or other public funders) could impose a hard cap that would curb a tendency to excessive legal review of minor tweaks to documents. Whether or not a cap is the right approach, we agree that it's difficult to identify a public benefit commensurate with the extensive legal review that can get rolled into a project's costs.

Alternatives to Capitalized Operating Reserves

Multifamily projects can run a deficit if expenses are higher than expected, or vacancies cut into revenues from rents. Market rate developers manage this risk of operating deficits typically out of cash on hand (and can spread risk across multiple projects), but lenders and investors typically require an affordable developer to build in a large cash cushion called an operating reserve. Including that money – usually six months of operating expenses – in the financing package for development increases the gap developers need to fill, and inflates the apparent cost of affordable housing.

The Work Group unanimously felt that operating reserves were an inefficient use of capital, and that with some effort and creativity lenders and investors could agree to more of an insurance-like approach to managing this risk.

Trimming Other Soft Costs: Complexity, Delay, and Uncertainty

In addition to those large line items, much of the higher load of soft costs borne by affordable projects comes from efforts by partners (including lenders, investors, and public funders) to manage risk. In addition to typical consultant expenses any developer might incur, these partners tend to require additional studies, analyses and inspections, along with a non-trivial cost burden in the form of ongoing compliance and reporting to each funding partner, which owners must plan to fund.

The multiplicity of funding sources introduces other subtle pressures that can increase costs, in the form of opportunities for conflict between partners, and delay and uncertainty as issues arise and require the involvement of multiple parties to resolve. New sources of subsidy, especially if they were deep enough to allow projects to proceed with fewer total sources, could help chip away at these kinds of soft costs.

Reining in soft costs will be challenging. As we saw in Section II above, affordable housing development tends to involve additional costs just to secure financing – a primary example being the cost of competing for 9% tax credits. In this environment, public funders have a particular responsibility to ensure that their requirements, standards, and processes are not contributing to rising cost pressures.

OHCS in particular is in the midst of revising its funding processes and criteria, including intensive outreach with stakeholders. In a similar vein, the agency has hired Novogradac & Company to do a third-party evaluation of OHCS' policies and procedures, comparing results in Oregon with practices of other state housing finance agencies.

The Work Group understands that better coordination and alignment is difficult in practice, as different funding partners have different priorities and report to different decision makers, but

recommended some specific areas where public funders could aim to reduce unnecessary complexity, delay, and uncertainty:

- Seek out opportunities to align and coordinate funding processes, priorities, and criteria with other funders (cities, counties, redevelopment agencies, etc.) and promote better coordination and cooperation between funders assisting the same project
- Re-examine discretionary requirements about minimum unit sizes, required appliances and other amenities, etc. that unnecessarily limit developers' flexibility to reduce costs
- Agree to share required documents (appraisals, studies, etc.) wherever possible to reduce duplication
- Engage with affordable developers in a cooperative, flexible, and problem solving spirit consistent with the funders' stewardship of scarce public resources
- Streamline and standardize post-award reporting and compliance as much as possible

In general, the Work Group felt that greater flexibility for developers, within the broad parameters defined by the various funding sources, would allow them to creatively solve design and construction challenges at a lower cost, while meeting the intent of public funders.

Aligning Services Resources and Programs with Housing

Both housing providers and service providers understand the importance of coupling access to stable, affordable housing with reliable services, especially for vulnerable populations with specific service needs. However, the State Department of Human Services, OHCS and other funders could better align planning and funding for services to support a shared interest in successful outcomes for affordable housing residents. Competitive processes for housing subsidies often reward projects with strong links to appropriate services, but it essentially falls on the developer to identify providers and funding sources for these services. Coordinating and planning for services tends to increase costs that get included in the housing development budget (and paid for with housing dollars).

In response to feedback from housing providers and others, Meyer is actively supporting projects around the state to test better approaches to aligning housing and services programs, and anticipates awarding grants totaling up to $900,000 in 2015-16 to support pilot efforts demonstrating the potential for better outcomes through sustained coordination between the two.

V. Understanding Cost Drivers: Hard Costs

Recommendations: Hard Costs

6. *BOLI: Align prevailing wage practices with the needs of affordable housing, specifically:*
   a. *Develop clear, predictable guidance around receiving a split wage determination, such that only work on the commercial space is subject to commercial wage rates, and the residential portion of an affordable project pay according to the residential rates.*
   b. *Assist affordable housing projects with more timely and reliable guidance on which rates will apply to particular projects.*
7. *City of Portland: Increase dollar threshold triggering workforce training.*

On the hard cost side, the Work Group concluded that it was reasonable to expect costs to be more or less comparable to market rate construction, with some caveats. Building the same kind of project, to the same level of quality, *should* cost about the same.

There are some important nuances here. As described above, public requirements can increase costs, most notably when it comes to prevailing wage requirements. Depending on funding sources, affordable housing projects can be required to satisfy federal prevailing wage ("Davis-Bacon") rules; more commonly, projects receiving public subsidies above $750,000 are subject to the State of Oregon's prevailing wage rules, administered by the Bureau of Labor and Industry (BOLI).

Work Group experts generally agreed that meeting BOLI requirements added about 10% to the hard costs of a project. However, in the case of a mixed-use project including ground floor commercial uses, BOLI typically holds the entire project to the significantly higher *commercial* BOLI wages (in effect, treating a three-story stick-built apartment building the same as a high-rise office building made of steel and concrete). Commercial BOLI rates can add as much as 20% to construction costs over a non-prevailing wage project.

The Work Group also recommended that BOLI consider how it could provide affordable projects with more timely and reliable wage determinations (the list of the minimum "prevailing" wages that contractors and subcontractors working on the project must match or exceed). Projects that begin with cost estimates based on one wage determination can sometimes find themselves required to comply with a new determination late in the development process that can throw the budget out of balance.

Two other workforce related requirements impact hard costs. Workforce training requirements apply to contracts above $200,000 in the City of Portland (which some on the Work Group felt was too low), and some local jurisdictions require or strongly encourage plans to increase participation of Minority, Women and Emerging Small Businesses (MWESB) in publicly assisted projects.

Members of the Work Group strongly supported the intent and social benefits of these requirements, but discussed some subtle ways in which these can increase costs. Requirements like prevailing wage, workforce training and MWESB can limit the pool of potential contractors and subcontractors available to work on publicly subsidized projects. Documenting compliance with these kinds of programs requires a certain level of training and infrastructure, and many firms prefer to work on private projects without the extra "red tape." Especially in a busy construction market, a more limited pool of contractors can drive up costs by limiting effective competition.

VI. Understanding Cost Drivers: Quality and Design

Recommendations: Quality and Design

8. *Local governments: Revisit the impact of design review and other public requirements on housing affordability.*
9. *All parties: Consider ways to achieve high quality at a lower upfront cost.*
10. *Developers and funders: Explore a streamlined approach to "green-building" certification.*

Quality and design issues span hard and soft cost categories, and embrace some trade-offs that relate directly to the challenge of holding down costs.

Each of the partners in an affordable housing project expects a high level of quality and durability – in some cases a higher standard than cost conscious market rate projects may deliver. Quality matters for residents, for owners, and for the neighborhood. Nonprofit developers expect to own and maintain the property indefinitely, and choose features and materials with an eye toward durability and lower maintenance. Lenders and investors also demand high quality to mitigate their risk. Whereas market rate housing allows for a variety of strategies around quality and re-capitalization, public funders in Oregon require 30 or even 60 years of durability.

Much of this is driven by lessons learned from past practice. In the early 1990s, a focus on driving down upfront costs (as well as some specific issues with construction practices and materials) led to a series of publicly subsidized projects that had developed major construction and design-related problems and required early re-capitalization. The Work Group felt strongly that projects should be funded, designed, and built such that they did not require additional public resources for at least 20 years.

Still, high quality might be attainable at a lower cost. Specific decisions on materials and design can have a meaningful impact on bottom line costs (as we were reminded by the presentation from the Rafn Company on their projects in Seattle – which traced specific decisions that led to higher or lower costs). Some argue that attractive and durable affordable housing can be built at a lower cost by aiming for more standardized, less complex, designs (both building designs and site plans). While most members of the Work Group were cautious about what they saw as compromising on high quality and durability, other experts questioned whether the current system has lost sight of cost containment opportunities, and fails to push hard enough on costs given the scarcity of resources.

There's some evidence that a variety of intersecting pressures (neighborhood resistance to affordable housing, design guidelines in some cities, preferences of owners, lenders, and investors, and the "beauty contest" side of competing for funds) combine to produce design decisions that are less cost-sensitive than they should be.

<u>Design Review</u>

Both market rate and affordable multifamily development must comply with design review in larger Oregon cities, and other public requirements that can add costs to the project design. But members of the Work Group believe that neighborhood pressure and a general bias against affordable housing sometimes lead to affordable projects being held to a higher (and more expensive) standard than other kinds of development, and that these can cause delay and modifications that threaten the viability of a project. In the worst case scenario, hostile neighbors can abuse the public involvement processes of Oregon land use rules to impose costly re-designs or even scuttle a project.

Land use and urban design aspirations are sometimes inconsistent with the realities of affordable development; for instance, requiring mixed use in areas where the market won't support new commercial development, imposing parking minimums and off-site upgrades that may not meet a genuine need in the foreseeable future, and excluding cost-efficient building materials that can be compatible with an attractive design.

Parking requirements are a particular challenge for multifamily developers, especially on urban sites that can't meet parking minimums with surface parking. Parking in garage structures or underground can cost as much as $60,000 per space, and unlike market rate developments, affordable projects have no way to recover that cost from tenants.

Design review, especially in the City of Portland, can easily drive up costs, and the development gap that must be filled with public subsidies, through something as simple as a blanket prohibition on cost-effective materials like "HardiPlank" siding.

This is a complex policy area, but the Work Group felt that local jurisdictions (especially those facing intense market pressures making housing rapidly less affordable) should look at how land use, zoning, and permitting affect affordability, and consider whether there are ways to expedite more multifamily development (market rate and affordable) without compromising important public policy goals. Other jurisdictions (including Vancouver, Washington) have approval processes that allow developers more flexibility and more certainty without degrading the urban environment with poorly designed projects.

"Green" Certification

Sustainable or "green" practices are strongly supported within affordable housing, and partners are increasingly interested in documenting the green bona fides of their project. However the prestige attached to high profile green certification programs like Leadership in Energy and Environmental Design (LEED) comes at a cost – completing the certification process for LEED is relatively expensive, and even less costly alternatives like Earth Advantage add non-trivial expense to projects. There was some interest among the Work Group in exploring a much simpler, streamlined approach to "green-building" certification tailored to affordable multifamily development in Oregon. What Group members had in mind was essentially a short checklist of design features or materials choices that promote shared values around sustainability:

- Higher quality materials for long-term durability and low-maintenance
- Design features and appliances that deliver cost-effective energy and water efficiency
- Promoting resident health through smart decisions about air quality, eliminating toxic construction materials, etc.

VII. Other Cost Efficient Strategies

Recommendations: Other Cost Efficient Strategies

11. Funders: Reward cost-efficient development without compromising other important goals like long-term affordability and financial sustainability.

12. Developers and funders: Identify ways to promote more cost-effective acquisition of existing housing.

13. Funders, Lenders and Investors: Allow developers more flexibility to achieve lower costs.

We have attempted to document and illustrate the array of constraints that structure the work of affordable housing developers, and tend to make projects more expensive. Those constraints are

real, but the urgency of the affordable housing shortage in Oregon should undercut any impulse toward complacency. Where are there other opportunities to stretch the resources we have to achieve our collective goals around housing?

Rewarding Cost Efficiency

Keeping in mind everything this report has discussed about how issues of complexity, scale, risk management, and quality drive the design and financing of affordable housing projects, it becomes apparent that the system prioritizes a number of other goals over lowest upfront cost. Long term durability, financial risk, neighborhood acceptance, residents' well-being, and political considerations around widely sharing a small pool of public subsidy all tend to push projects to decisions that can raise costs.

Several people we interviewed insisted that lower cost can and should be a higher priority. Some members of the Work Group warned about the consequences of a push for low-cost development, particularly if it led the system to repeat past mistakes. The Work Group considered – and rejected – several potential approaches to lowering costs, including focusing exclusively on achieving the lowest upfront development cost over other considerations like lifecycle costs, durability, social equity, and other benefits.

Still, we think quality development at a lower cost is attainable, and that the expertise and creativity to bring projects in for less money lies with development teams themselves. While *dramatic* cost reductions are probably out of reach given the constraints described above, stretching public subsidies further would get more units in service.

Public funders can and should use their leverage to encourage cost-efficient development in a thoughtful way. In response to ongoing concerns about rising costs, OHCS and other funders have made changes in recent years aimed at containing costs; both OHCS and the City of Portland's Housing Bureau, for instance, have introduced cost standards into their funding decisions that attempt to define a ceiling for allowable costs.

Still, funding decisions by OHCS and other public funders place relatively less weight on efficient use of funding relative to a host of other factors in their rating systems. Incentivizing lower cost development needs to be done with some subtlety and care to avoid requiring more capital later to address issues with quality and durability. But we believe there is a path to bringing down costs, by allowing developers more flexibility to adopt design and construction strategies that allow them to achieve their goals (and those of their funders) for less subsidy.

Acquisition (and Rehab) of Existing Market Rate Housing

We heard from a number of experienced voices who argued that more should be done to promote cost-effective acquisition of existing housing. While helping a nonprofit buy and fix up an older complex doesn't add to the absolute numbers of available housing units, bringing more units into the pool of those with long-term rent restrictions is meaningful, and can usually be done at a lower cost than building new units.

Members of the Work Group support this strategy with some caveats. No one was ready to say we should never support building new units, even though they can be more expensive. There are good reasons to add to the stock of affordable housing with new construction, not least adding affordable choices in more desirable locations where there isn't available stock for acquisition and rehab.

Some warned that the true cost of acquisition isn't necessarily significantly lower from a lifecycle perspective. After taking into account rehab/repair costs necessary to get a comparable useful life, bringing buildings up to code, and relocation of existing tenants, building new might be a better call in some cases.

Specific suggestions from the workgroup to support cost effective acquisition and rehab focused on the need for funding targeted to this strategy, specifically including financing for longer terms than typically available for acquisition and rehab. Some argued too for a more flexible and realistic approach to meeting rehab needs and long-term affordability would make this a more appealing alternative to new construction (e.g. not requiring a roof replacement when the existing one has 10 years to go – but plan for and fund reserves to meet that need at a later date).

A Larger Role for For-Profit Developers?

Some might suggest "turning the private sector loose" on the problem of developing lower cost housing. Much of the work of affordable housing development in Oregon is carried out by nonprofits formed to develop and operate affordable housing (both nonprofit community development corporations and local housing authorities). There are a few for-profit developers that have developed strong expertise around affordable housing (and a portfolio of rent regulated units), but in general for-profit developers in Oregon have not found it worthwhile to master the intricacies of using subsidies like tax credits.

It would be worth exploring ways to encourage more for-profit-led production of affordable housing, but it's not clear to the Work Group how for-profit developers would do the same work less expensively. Using the available public funding sources will necessarily entail grappling with the same additional requirements identified above that follow public money and tend to increase costs. And while a for-profit developer might have lower overhead than a nonprofit CDC, it's not obvious that they would choose to take a lower developer fee, given the limited opportunity to profit from rent restricted housing.

Still, flexible funding and an emphasis on low cost could lead to units with a lower upfront cost. An example in East Portland is Home First Development (see below), which has partnered with Portland Habilitation Center to complete 178 units (with another 189 units in the pipeline) at a cost significantly lower than that seen in a typical multifamily project.

An Experiment with Lowering Costs: Home First Development

The challenge posed by Home First to the prevailing model of affordable housing development has fueled a useful and interesting conversation about factors driving the cost of development, and their path to a lower-cost model effectively illustrates some of the themes of this report about barriers to achieving lower upfront cost.

This effort has been funded by Portland Habilitation Center (PHC), a local nonprofit focused on the needs of people with disabilities. PHC has contracted with Home First to build projects that PHC then owns and operates as affordable housing. Three defining features of the Home First model make it very different from typical affordable housing development:

1) Home First has avoided taking a government dollar, instead drawing funding essentially from one private source
2) Their model is focused on delivering a finished product at a specific price point (derived from target affordable rents PHC aims to achieve)
3) The model leverages PHC's balance sheet and risk tolerance

The unique financing takes many of the costs we've discussed above off the table:

- Speed and simplicity are critical advantages – with one funder supplying ready cash, they can move quickly through acquisition, predevelopment, and construction; their soft costs are much lower as a result (and they do not face the same compliance and reporting burden a subsidized project would)
- With no government compliance or additional subsidy related regulation, they are able to draw on a pool of contractors and subcontractors that might not necessarily work on a typical affordable project, and they push all their partners hard on costs
- Pursuing a different business model, Home First has agreed to take a lower fee than most developers would.

Some caveats are important when comparing Home First's projects with other projects aiming at similar rent levels:

- There are some real costs not reflected in Home First's expenses; property management and asset management costs are covered by PHC for example, and don't show up in Home First's accounting
- Some argue the product is significantly different than CDC-built projects, which are built to a high standard of long-term durability, and typically include features like community rooms, onsite managers, and resident services
- Unlike a tax credit project, Home First isn't leveraging outside resources; once PHC exhausts the pool of equity they've dedicated to this project it's not clear this approach can be scaled up or replicated

Any attempt to emulate or extend a model like Home First's with government funds is likely to re-introduce some of the costs they've avoided – prevailing wages, compliance and reporting, etc. Still, the acute shortage of affordable housing demands new tools like the Home First model, and there is interest in the CDC community in what can be learned from their work.

VIII. Innovation in Finance, Design, and Construction

Recommendations: Innovation in Finance, Design, and Construction

14. *All parties: Consider allowing or promoting newer market proven approaches to housing that wouldn't currently be funded.*
15. *Local governments: Consider where the entitlements and permitting process pose unreasonable barriers to different housing models that expand affordability and choice.*
16. *All parties: Explore innovative construction methods that could lower costs, including modular or factory-built units.*
17. *Meyer Memorial Trust: Fund predevelopment work on one or more pilot projects to demonstrate new thinking around finance, design, or construction.*

As the gap between affordable housing and supply widens, we urgently need new thinking around lower costs. While the affordable housing industry throughout the state has become increasingly sophisticated, experienced, and creative in working within a very complex and constricted environment, the subsidies essential to housing affordability don't reward truly innovative approaches to housing.

The Work Group considered briefly a number of "cutting edge" ideas for design and construction of affordable housing, and several people studying innovative housing approaches shared their insights with the Work Group and with Meyer. While time did not allow a thorough evaluation of all of these ideas, several seemed well worth pursuing further. To that end, Meyer is preparing a Request for Proposals, anticipated for release in November 2015, explicitly to encourage predevelopment work around innovative approaches to design, finance, and construction.

<u>Finance and Innovation</u>

Access to capital is a major barrier to innovation; understandably, lenders and investors tend to direct their capital to proven models with clear precedents and track records. As we've seen, new affordable housing in Oregon is built to a high quality standard that is intentionally indistinguishable from market rate housing, and to some extent that's driven by funding: affordable housing developers are beholden to funding sources that are not notably interested in innovative concepts in housing.

Market-rate housing seems more open to innovation – specifically in the case of "micro-apartments" and the "Apodments" described below – as builders and developers in housing markets with very high rents can attract funding to try new approaches that wouldn't currently be allowed with existing public subsidies. Some of the most interesting new thinking around housing options – including co-housing, cottage homes sharing one lot, and tiny homes – is not necessarily oriented around affordable housing per se, but re-thinking settled assumptions about what "home" could look like is a useful exercise for the affordable housing industry.

Affordable housing advocates will need to identify other, more risk-tolerant sources of funding to prove innovative concepts in housing before banks will routinely lend on different models of housing design and construction.

A different flavor of innovative finance is to mix affordable units and market rate units in the same project. Mixed-income projects would seem to allow for a cross subsidy within the same building, where higher rent market rate units in effect help fill the development finance gap (and operating gap) for the rent restricted affordable units. Market oriented for-profit developers understandably are reluctant to forgo income through rent restrictions. Nonprofit developers indicated that mixed-income projects were rare in Oregon both because the market rate units would need to rent for very high incomes to make up for lost tax credit equity, and because nonprofits generally saw owning and operating market rate housing as outside their mission. It may be worth encouraging more mixed-income housing as a model (especially as rents rise in Portland and other high-cost Oregon markets) if these challenges can be overcome.

Regulatory and Legal Barriers to Innovation

It's not just a shortage of risk-tolerant capital that restrains innovation in housing: federal, state, and local regulations and other policy commitments also tend to restrict what is considered acceptable housing. A full catalog of barriers to innovation is beyond the scope of this report, but a few key points will illustrate the general theme:

- Federal funding sources impose a definition of acceptable housing that foreclose some less costly approaches to housing (e.g., the Housing Quality Standard requiring that each unit include its own living room, kitchen, and bathroom)
- Court cases like the US Supreme Court decision in *Olmstead v. L.C.* have complicated some approaches to housing people with disabilities and other special needs – limiting choice and concentrating housing for those with special needs will not pass muster
- Some local jurisdictions limit development of approaches to adding affordable infill in settled single-family neighborhoods such as accessory dwelling units
- As we discussed in Section VI, local standards around design review, parking requirements, etc. can hinder innovative approaches to development, by setting a high bar for what counts as acceptable "housing"

Still, the market is seeking out niches that are pushing some of these boundaries, and demonstrating demand for kinds of housing that have been excluded over time from established neighborhoods.

Innovative Design and Construction

In terms of the impact of design, two obvious approaches for lowering costs are:

- Build smaller units (allowing more units in the same footprint and within the same building envelope)
- Build units with shared bathroom and kitchen facilities

In some ways these strategies reprise a once common form of housing called Single Room Occupancy (SROs), which concentrated small sleeping areas in hotel-like buildings with shared bath and kitchen facilities.

Whereas SROs and other comparable low-cost housing options like boarding houses fell out of favor at some point, Portland has recently seen the leading edge of concepts born in high rent markets like Seattle, including very small "micro-apartments" (some reportedly under 200 square feet). This is well under the OHCS guidelines for minimum floor areas for projects receiving state funding (which specify 350 square feet for studios and 600 square feet for one bedrooms).

A related strategy (sometimes combined with very small units) is to share facilities like kitchens and even bathrooms. Seattle's "Apodments" illustrate one approach for squeezing as many units as possible into a very small footprint.

While these strategies may make sense in very expensive markets, and we'd be reluctant to rule out any reasonable strategy to promote more housing opportunity, it's worth noting that these approaches are probably only viable for single adults or at most couples (but not families), and are unlikely to be widely adopted in the affordable housing arena without some significant changes in the regulatory and financing frameworks most affordable developers work within.

A Different Approach to Construction: Modular/Factory-Built Housing
Some experts advising the Work Group argued that the world of residential construction has been remarkably insulated from the kind of "disruptive" technological advances seen in most other parts of the economy. Houses and apartment buildings are constructed today in a fashion that would be largely familiar to an early twentieth century building crew.

Advocates of factory-built housing argue that one way to bring construction into the 21st century is to build major components – wall systems, or even entire self-contained units – in a purpose-built facility on a kind of assembly line. In theory, modular construction can deliver multifamily housing that looks like traditional on-site stick-built housing at a lower cost and higher quality, by taking much of the work of construction off-site, into a climate-controlled factory incorporating the latest in automation and efficiency.

Modular housing has yet to make significant in-roads into residential construction in Oregon, despite a healthy level of interest from many parties. At least one modular affordable housing project has been completed in Oregon: NAYA's Kah San Chako Haws in Southeast Portland. NAYA's project served as an important test case, but as a very small-scale (nine units) prototype, it did not shed much light on whether widespread adoption of factory-built housing would be cost-competitive.

While the potential of modular construction to deliver significant cost savings has not been definitively established, there are some generally recognized advantages, including a compressed on-site building schedule (allowing for a significant reduction of the impact of construction on the neighborhood), opportunities to reduce defects and ensure quality in a factory setting, and potentially better building performance (in terms of acoustics, insulation, and air infiltration).

Some of the recognized challenges to establishing modular/factory-built housing as a viable alternative to site-built housing involve establishing and maintaining a reliable pipeline of demand to bring down per-unit costs, as well as transportation/logistical challenges (the cost and risk of long-distance delivery of units, and limits on size of units that can be delivered by truck).

Outside the Box – Literally: Very Low-Cost Approaches to Shelter
Our project focused primarily on durable, long-term forms of housing, essentially limiting our discussions to housing options likely to attract reliable funding from existing, ready sources of capital, both public and private.

At the same time, the Work Group looked briefly at some radical approaches to delivering at least a minimum of decent shelter at a much lower cost. While these options might not find a place in the repertoire of permanent affordable housing, the void between oversubscribed shelter beds and available affordable housing argues for at least examining the real costs and benefits of any ways

we can help people find shelter, safety and dignity without waiting for the next round of LIHTC-assisted apartments.

Some notable attempts to prove the viability of very low-cost approaches include:

- Techdwell urban building systems – easy to assemble, stackable units including basic bath and kitchen options
- "Katrina cottages" first built as low-cost but attractive and durable alternatives to FEMA-supplied trailers in the wake of Hurricane Katrina
- Converted shipping containers, pioneered in a variety of cities around the world
- Eugene's Opportunity Village and Emerald Village projects

These approaches have their own questions and challenges to overcome, particularly in terms of siting and land use issues, and it may be that a full accounting of all-in costs to scale up these approaches (and a better understanding of the limitations of these approaches to shelter) would drive developers back to more traditional approaches.

Still, to dismiss these ideas out of hand because they are unproven, difficult to finance, and might have other logistical and regulatory barriers, seems short-sighted given how far away we are from helping every Oregon household find a decent, safe, and affordable place to spend the night.

IX. Next Steps

Meyer initiated this work to support real options for increasing the supply of affordable housing in Oregon. In addition to sharing this report and continuing to participate in this conversation around the state, Meyer plans to:

1) Promote and support further work on Recommendations of this report, including:
   a. Investigating whether a streamlined approach to "green-building" certification is worthwhile and feasible;
   b. Supporting and advising on public funders' ongoing work to evaluate funding processes and criteria;
   c. Continuing to support efforts to better align affordable housing and services throughout Oregon; and
   d. Supporting efforts led by the Network for Oregon Affordable Housing to revisit operating reserves with lenders and investors

2) Form a Financial Innovations work group, bringing together the best ideas for attracting more private capital to investments in affordable housing.

3) Support innovative approaches to design, construction, and finance of affordable housing through a Request for Proposals in November 2015; this RFP will support predevelopment leading to construction (supported by anticipated follow-on capital grants from Meyer) by 2018.

In all of this work, Meyer is keenly interested in aligning with other key players, including state and local funders, and we will actively explore partnerships to test and explore new approaches to affordable housing.

X. Additional Resources

Other studies of the cost of affordable housing development:

Enterprise / ULI Terwilliger Center for Housing:
Bending the Cost Curve on Affordable Rental Development
http://www.enterprisecommunity.com/resources/ResourceDetails?ID=0084014
Bending the Cost Curve: Solutions to Expand the Supply of Affordable Rentals
http://www.enterprisecommunity.com/resources/ResourceDetails?ID=0086703

Common Ground, *Affordable Housing In The Era Of Scarcity: Strategies For Doing More With Less*
http://commongroundwa.org/NHMI/documents/Common_Ground-Affordable_Housing_Strategies_Report_Fall_2012

California Housing Finance Agency, Affordable Housing Cost Study
http://www.hcd.ca.gov/housing-policy-development/docs/finalaffordablehousingcoststudyreport-with-coverv2.pdf

Competitions and pilot projects addressing costs:

The McKnight Foundation and Minnesota Housing co-hosted the *Minnesota Challenge to Lower the Cost of Affordable Housing*: http://www.mnchallenge.com/

Enterprise Community Partners and Deutsche Bank jointly sponsored the *Lowering the Cost of Housing Competition*: http://loweringcost.com/about-the-competition/

Regulatory Issues:

Sightline Daily series on "Legalizing Inexpensive Housing": http://daily.sightline.org/blog_series/legalizing-inexpensive-housing/

Parking as a cost driver: http://daily.sightline.org/2013/08/22/apartment-blockers/

Modular / Factory-Built housing:

NAYA's Kah San Chako Haws:
http://nayapdx.org/services/housing/kah-san-chako-haws/
http://emmonsmodular.com/

University of Washington/Skanska Innovation Grant report on Modular Housing:
"Modular Prefabricated Residential Construction: Constraints and Opportunities"
http://cm.be.washington.edu/Documents/Final%20Report_%20Skanska_08082013.pdf

Texas Grow Home Project:
https://texasgrowhome.files.wordpress.com/2010/01/photobook-2.pdf

Pre-fabricated housing included in the Atlantic Yards project in New York:
http://www.nydailynews.com/life-style/real-estate/new-factory-shows-pre-fab-fab-article-1.1485558

Micro-Apartments, ADUs, aPodments, Tiny Homes, and other new housing models:

Micro-apartments:
http://www.oregonlive.com/front-porch/index.ssf/2013/11/micro-apartments_of_200_to_300.html

Katrina Cottages:

http://mississippirenewal.com/info/dayAug23-06b.htmlhttp://www.placemakers.com/2015/08/10/remember-that-katrina-cottages-thing-whatever-happened-to-that/

Accessory Dwelling Units (ADUs):
http://accessorydwellings.org/

aPodments:
http://apodment.com/

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