

Courtyard Housing

A Catalogue of Designs
and Design Principles

Courtyard Housing

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school districts and other community partners in developing a
comprehensive approach to retaining families with school-age
children and attracting new families to Portland's neighborhoods, as
well as responding to the challenges faced by the school districts.

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Introductory REMARKS

Mayor Tom Potter:

I AM PLEASED TO PRESENT the Portland Courtyard Housing Design Competition Catalogue, highlighting the winning designs from the competition. I am particularly satisfied to note that the focus of so many of these designs is first and foremost on people and community.

These designs provide solutions for how higher-density housing can meet the needs of families with children, while providing new opportunities for community interaction and contributing to environmental sustainability. I urge community members, including neighbors, builders, and designers, to take a close look at the designs and principles in this catalogue. They provide lessons for creating new housing that will help us accommodate some of the additional million people anticipated in the Portland region over the next couple decades in ways that do not compromise Portland's cherished livability.

Congratulations to the winners! I would like to thank all of the competition participants for their hard work and for sharing ideas that will be invaluable in our ongoing ef-

forts to ensure that, as Portland grows, we remain a family-friendly city with thriving, livable neighborhoods.

Commissioner Erik Sten:

In 2006, Portland launched the Schools, Families, Housing Initiative, through which the City of Portland has been working with Portland's school districts and other community partners to address challenges faced by our school districts and families. I am excited by the possibilities highlighted by the winners of the Portland Courtyard Housing Design Competition, a part of this broader initiative and one of its early outcomes.

The winning designs present solutions responsive to the challenge of fostering a family-friendly city in our varying neighborhoods. For inner areas that have been losing families with children, the designs serve as models for higher-density housing that can provide additional opportunities for ownership housing appropriate for families with children. For other neighborhoods that have seen increases in the numbers of families but where higher-density housing often provides little useable outdoor space, these designs

Continued on page 7

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provide solutions for how to provide more livable family housing arrangements and play space for children.

These courtyard housing designs will not solve all our housing and school enrollment problems by themselves, but they are an invaluable part of a much broader mix of strategies. I look forward to seeing the influence of the winning designs on the new housing being built in Portland's neighborhoods.

Planning Director Gil Kelley:

The Portland Courtyard Housing Design Competition is a great example of the many ways the Planning Bureau is tackling important issues in the community – in this case using design to inspire, rather than regula-

tions to require, innovative solutions.

The range of ideas that emerged from the competition is wonderful. The winning designs highlight how livable density can be achieved as Portland continues to grow. These courtyard housing designs highlight that density does not have to mean losing opportunities for outdoor space, and, as some of the designs prove, can provide larger outdoor spaces than possible with the private yards of conventional detached housing. Courtyards not only can provide space for play, but places for trees and other vegetation that enhance living environments for all people. The designs in this catalogue show how courtyard housing, a common sight in Portland's older neighborhoods, can be revived and reinterpreted as a housing option that can contribute to meeting today's needs.

Key competition parameters

Housing Types

The competition brief asked entrants to provide attached houses, detached homes, or duplexes arranged around a common open space; and called for configurations conducive to ownership housing. The common open spaces could be one of two courtyard types (or a combination):

1) Common Green: A landscaped courtyard that provides pedestrian access to the adjacent housing units. Common greens are also intended to serve as a common open space amenity for residents.

2) Shared Court: A courtyard-like street designed to accommodate – within the same circulation space – access for pedestrians and vehicles to adjacent properties. Shared courts are intended to be designed so that vehicles are treated as “occasional visitors” into space that gives priority to pedestrians and community activities. Both of these options reflect Portland zoning code provisions that facilitate ownership housing at higher densities by allowing housing units on separate lots to front onto courtyards that serve as access tracts.

Zoning and Density

This competition focused on courtyard housing at densities appropriate for Portland's R2 and R1 multidwelling zones, which are medium-density zones intended for housing unit densities ranging from 17 to 44 units per acre. These zones serve as the

predominant multifamily zoning in neighborhoods outside Portland's downtown and have accommodated a large portion of the city's new housing production. These zones are typically located adjacent to or near transit lines and stations, serving as a key part of Portland's strategy of concentrating new development near transit facilities.

Site Types and Neighborhood Context

This competition focused on challenges related to the small sites typical of infill development opportunities in Portland. The competition's two submittal categories were based on two different site configurations: **1) an Inner Portland Infill Site** (a 100'-wide by 100'-deep “double” lot, 4-10 units allowed) typical in neighborhoods originally platted during the Streetcar Era (prior to the Second World War) and **2) an Eastern Portland Infill Site** (95'-wide by 180'-deep, 7-17 units allowed) representative of neighborhoods located primarily east of 82nd Avenue, mostly annexed to Portland since the 1980s. The Streetcar Era neighborhoods are characterized by a fairly regular pattern of residential lots approximately 50'-wide by 100'-deep. Residential areas in the eastern Portland neighborhoods have far less consistent lot and block patterns than the Streetcar-Era neighborhoods with lots in multidwelling zoned areas that are relatively large but disproportionately deep (often less than 100' wide, but 200'-300' deep).



Background

THE CITY OF PORTLAND sponsored the Portland Courtyard Housing Design Competition for two primary reasons: to promote courtyard housing as an additional infill housing type for Portland's neighborhoods, and to explore how courtyard housing might serve as a higher density housing type appropriate for families with children. An impetus for the latter is that multifamily and other higher-density housing types now constitute the majority of new housing being built in Portland. This highlights the need for new models of family housing, especially if higher-density housing is to attract families with children to Portland's neighborhoods.

Competition participants were invited to submit designs for courtyard housing that could provide solutions to several key challenges:

- How can courtyard housing be designed to serve as an attractive and affordable option for families, especially those with children?
- How can courtyards serve as useable outdoor space while also providing environmental sustainability benefits, act as a setting for community interaction while respecting privacy needs, or serve as a pedestrian-oriented space while also accommodating cars?
- How can courtyard housing avoid a purely inward focus and contribute to Portland's tradition of street-oriented urbanism?

Held in 2007, the competition attracted 257 entries from

around the globe: 196 in the Inner Portland Infill category and 61 in the Eastern Portland Infill Category. All entries were evaluated anonymously by a distinguished jury of design and development professionals. This catalogue showcases the jury's selection, consisting of the top four designs in each of two competition categories, plus additional commendation recipients. The public was invited to view all the submissions and to vote for their favorite designs online and during a series of open house events, resulting in over 1,800 votes cast. This catalogue includes four "People's Choice" designs chosen through the online balloting, as well as two designs selected during the public open house events (two of the People's Choice winners were also selected by the jury). All of the entries and the competition brief, which describes in detail the competition parameters, can be viewed on the competition website: www.courtyardhousing.org.

In selecting the winning projects, the jury recognized that site design is key. Once an effective site design is created, a variety of architectural styles and roof forms can be used. Site design was the first thing jurors considered and is an element that viewers of the designs in this catalogue can draw useful lessons from that transcend the specifics of the designs. Juror Michael Pyatok suggested that 80% of the problem is site design, 15% is unit design, and only 5% is architectural style. While many designers may argue that style is intrinsic to the overall solution, the reality for this competition was that styles could easily be adapted to different site and unit designs. In the end, the architectural style was not terribly relevant to the jurors.



Image from Entry I-159:
Shared courtyard

Goals^{and} principles

*The goals and principles described on the following pages summarize
the best design concepts developed by the competitors*

DESIGN COMPETITIONS have multiple intentions – they allow for the examination in a creative way, of solutions to a pending problem or issue; they seek specific solutions that can be replicated or built; and they identify a variety of the best ideas that, ideally, can be translated to numerous projects in the future. However, the majority of design competitions simply document the winning schemes as chosen by a design jury, and in some cases, comments by jury members give some sense of why a specific scheme was chosen for a particular form of recognition.

In many instances, the catalogue of winning entries sits on a bookshelf or on the coffee table of one of the winners. The dilemma often is, how does anyone examining the catalogue understand what are the most important ideas in any scheme? How does one recognize the importance of specific design concepts if they are not explicitly stated? How does one understand that the stylistic vocabulary in a specific design may be secondary to a larger set of ideas regarding a variety of social and behavioral factors as form determinants? How, therefore,

can a competition be useful in informing readers of the competition catalogue as to the importance of specific ideas?

These questions were raised in the early discussions involving city staff, the competition advisory group, and the competition consultants. In order for the competition to be useful to a variety of interested parties (e.g., city staff, developers, architects and landscape architects), it became evident that a new approach was needed to identify the most important ideas generated in the competition solutions. It was therefore determined that principles and diagrams representing the best conceptual ideas from the competition submittals would be a desirable outcome of the competition. In this approach, conceptual ideas documented by the resulting set of principles would be relevant in the future for a variety of different sites and conditions. The principles that are the focus of this section are a summary of the best principles developed by the competitors. The winning schemes embody many of these principles in their designs. While it was difficult to extract a comprehensive set of diagrams for all the principles, we have included some representational images that best illustrate some of the important principles.

Competition jury

Cynthia Girling, ASLA, is a Professor and Chair of the Landscape Architecture Program in the School of Architecture and Landscape Architecture, University of British Columbia. Throughout her career; working in the private, public and academic practice of landscape architecture, Girling has focused on open space design at several spatial scales — yards, neighborhoods, and open space systems. She is co-author of several books including *Skinny Streets and Green Neighborhoods: Design for Environment and Community* and *Yard Street Park: the Design of Suburban Open Space*.

Sam Grawe is the editor of *Dwell* magazine. He graduated from Colgate University in Hamilton, N.Y. with a degree in art and art history. Prior to working at *Dwell*, Grawe worked for The Burdick Group, where he wrote museography for Churchill Downs' Kentucky Derby Museum. He has also written for *Wired* and *Nylon* magazines.

Clare Cooper Marcus is Professor Emerita in the Departments of Architecture and Landscape Architecture at the University of California at Berkeley, where she taught from 1969 to 1994. She is the principal of Healing Landscapes, a consulting firm that specializes in user-needs analysis related to the programming, design and evaluation of outdoor spaces in healthcare settings. She is the co-author of numerous books, including *Housing As If People Mattered: Site Design Guidelines for Medium-Density Family Housing* and *People Places: Design Guidelines for Urban Open Spaces*.

Nancy Merryman, FAIA, is a principal in the Portland design firm Robertson Merryman Barnes Architects. Her design work has resulted in numerous award-winning projects and her experience includes planning, programming and design work for a broad range of urban and civic projects including church facilities, performing arts projects, higher education and multi-family housing. She served on the Portland Design Review Commission and is on the Board of Directors for the Boys and Girls Clubs of Portland. She has served on the board of the Columbia River Girl Scouts and the Architects Council of Oregon.

While not every design receiving some form of recognition by the jury had a complete set of useful principles and diagrams, most of the winning schemes have a clear set of design intentions expressed in relevant conceptual principles and diagrams. Those schemes that did not indicate principles or proposals that simply had representational diagrams of what was designed typically did not do well. It is our hope that the following principles summarize the best ideas in the design of meaningful courtyard housing and will serve as the basis for future built projects in the City of Portland. This is by no means an exhaustive list of principles, nor are these stand-alone. Rather, many of the principles work together to create courtyard housing that would respond to the needs of residents and serve as positive contributions to neighborhoods.

The design principles that emerged from the competition are categorized into five general goals: 1) create versatile courtyards; 2) build functional homes; 3) use sustainable solutions; 4) make interior/exterior connections; and 5) respond to the context. Not incidentally, these goals are closely related to the design criteria that guided the competition judging. In illustrating these principles on the following pages, we have primarily used images from projects that did not receive awards so as to broaden the range of solutions represented in this catalogue.

1. Create versatile courtyards

Courtyard housing allows for appropriate use of scarce urban space by providing shared outdoor spaces that can meet the needs of families with children, serve as a gathering place for residents and their cars, and provide stormwater management and other environmental benefits. The courtyard environment can also be a compelling urban place. These courtyards can contribute to a strong sense of community while providing safety and security for all residents. The best courtyards in the competition were visibly and physically connected to as many individual units as possible. Proposals generally focused on two types of courtyards: **shared courtyards** and **common greens**. (See pages 14-15)

2. Build functional homes

In this competition, entrants demonstrated how courtyard housing can achieve functionality for a variety of household types, including families with children. Many designs were sensitive to the unique needs of today's diverse families, accommodated a variety of physical abilities, adapted to changing household composition and changes in the developmental needs of family members, and balanced competing demands for privacy and community. These are important criteria given that in today's society, the traditional nuclear family is no longer the dominant household type. To be functional, the better proposals had **identifiable homes** designed to accommodate **household variety**. Designers developed **adaptable plans** with **defined circulation** and they provided residents with either **covered parking** or **parking gardens** and **personal storage spaces**. (See pages 16-17)

3. Use sustainable solutions

In a world of diminishing natural resources and increased populations, it is imperative that all new residential developments be designed with sustainable practices in mind. Designs should recognize the importance of sustainability at the building and site scale through the use of sustainable technologies, resource conservation, and energy efficiency. Recognizing the benefits of compact development at the community and regional scale, designs should also provide adequate densities that maximize the number of units without compromising livability. Principles in this category dealt with passive design strategies that **captured light** and allowed for **natural ventilation**. **Green roofs** were also quite popular as a way of enhancing sustainability.

Additionally, most of the proposals also recognized the importance of specifying **sustainable building materials** and **sustainable landscaping**. (See pages 18-19)

4. Make interior/exterior connections

Courtyard housing projects should address the relationship between indoor and outdoor spaces in a way that balances community orientation with privacy needs, as this balance is a central design issue for housing oriented to shared courtyards. To promote a strong sense of community, engagement with the street, a safe and secure environment, and compact design to assist in issues of sustainability and affordability, it is imperative that all units have a positive relationship between the interior and exterior. Inward-focused units do not encourage sociability, limit sustainable living options, and reduce safety and security of the shared outdoor spaces. Buildings should engage the landscapes they are part of and not be objects in a landscape. As many submittals demonstrated, this can be done with **transitional spaces**, **direct outdoor connections**, and **private outdoor spaces**. And the courtyards and units benefit when residents can **provide eyes on open spaces**. (See pages 20-21)

5. Respond to the context

Infill sites are embedded within an existing urban fabric and proposals should respond appropriately to the neighborhood context. New buildings should promote a positive contextual response that is respectful of local building heights and setbacks. It is more important to establish meaningful design practices based on promoting good community design, than it is to simply replicate existing massing and forms. In this competition, award-winning proposals were successful at **engaging the street** and designers provided for homes that responded to **neighborhood patterns** of the older areas of Portland that are zoned for higher densities than already exist. In respect to the existing development, many of the proposed homes were also designed with **appropriate massing and scale**. (See pages 22-23)

Competition jury

(Continued from page 12)

David E. Miller, FAIA, is a founding partner of The Miller|Hull Partnership and Chair for the Department of Architecture at the University of Washington, where he is a tenured professor of architecture. Miller|Hull is a fundamentally design oriented firm, emphasizing a rational design approach based on the culture, climate and building traditions of a place. In addition to over 165 awards for design excellence, the firm received the 2003 AIA Architecture Firm Award. He is the author of *Toward a New Regionalism*.

Michael Pyatok, FAIA, is a principal of Pyatok Architects and a Professor of Architecture at the University of Washington. His practice serves non-profit organizations, private developers, government agencies and universities in building market-rate and affordable housing, mixed-use developments and community facilities. His firm has won over 120 local and national design awards for his housing designs. In 2007, he was named by *Builder Magazine* as one of the 50 most influential people in the US housing industry. He is co-author of *Good Neighbors: Affordable Family Housing*.

Loren Waxman began purchasing, renovating and trading real estate after graduating from Lewis & Clark College in Portland. Waxman & Associates, Inc. is a Portland development firm recognized for its "community friendly" approach to neighborhood development. He recently served eight years on the Portland Design Commission. He now specializes in properties with impediments to redevelopment including land use and environmental issues.



Images from entries I-102 (above) and E-018 (below).

Design with purpose

Shared courtyards

Outdoor space is too valuable to waste at higher densities. As part of the site plan, it is essential that designers minimize the amount of site area designed solely for vehicle maneuvering, given that vehicles pass through such space for only a few minutes each day in the case of small housing projects.

Whenever possible, designers should create vehicle maneuvering areas that function as multipurpose space. This consideration is why the jurors tended to favor shared court designs (such as the top three Inner Site winners), rather than ones that had green

courtyards with separate vehicle access.

This is why they also liked the vehicle area “play courts” present in some of the winning designs. More successful proposals placed shared courtyards directly adjacent (physically and visually) to all units. In addition, many of the winning shared courtyard designs prioritized the pedestrian through the use of human-scale paving materials, such as brick, landscaping, and through the overall design. Another approach is to design parking areas with a graceful canopy of trees, screened by plantings, and surfaced with permeable paving.





Image from entry I-133



Image from entry I-156

Common greens

Although shared courts were generally the more successful solutions presented, courtyard housing for families should include some “people only” courtyard space or “common greens” where cars are excluded. This is especially important for the safety of small children. Common greens, which are landscaped courtyards, can serve a variety of community functions, such as common open space, gardens, child play areas, and recreational areas. They should be centrally located to all units. Landscaped courtyards can also serve a valuable environmental role in providing opportunities for stormwater management. In many proposals, common greens worked well in conjunction with shared courts designed to serve as an expansion of the people-only courtyard space when not in use by cars.



Image from entry I-080

Form *and* function

Identifiable Homes

A significant problem with multi-family housing is the tendency for individual units to be absorbed anonymously into the composition of the whole, which makes it very difficult for families to identify with their own home. Winning submittals dealt with this problem in a variety of ways — by providing detached single-family homes on very small parcels, by making attached units look distinctive through roof forms, massing, and entries, and by siting units around courtyards of varying scales. These approaches would allow residents to feel a greater connection to their home since individual units could provide an identifiable image through separate expression of each unit by the use of materials, massing, color, etc. These designs were also notable because the spatial composition of the building facades clearly expressed individual units and those units had identifiable separate entrances and entry walks.

Household Variety

While there is a strong need for family housing, families today may have only one adult. Additionally, many neighborhoods are fairly homogeneous and may not provide the full range of hous-

ing types that reflect our current household needs. Adult children living at home with parents, older residents, singles, adults sharing units to reduce housing costs, and shared housing for seniors are all very common practices. To provide housing for a variety of household types, some of the most compelling solutions provided a variety of unit types and sizes on each site, including studios, one, two and three-bedroom homes. In addition, many entrants recognized the need to provide units that will accommodate residents with physical disabilities. Where children's play areas were provided, the best designs placed larger family-oriented units adjacent to the play areas.

Adaptable Plans

Many homes built today cannot effectively accommodate changes in family sizes, physical abilities, incomes, and ages. Given that an important attribute of sustainability is the ability to meet today's needs as well as tomorrow's, designs that allow for adaptability over time play a role in sustainability. In this competition, the jury was especially drawn to projects that documented ways in which living arrangements could change over time. Several proposals incorporated rooms that could accommodate a

variety of potential uses, not just one use such as a “bedroom.” This included, for example, places that could easily be a study, den, bedroom, guest bedroom, or home office. For two story units, a few winning proposals placed a bedroom and bathroom on the ground floor to accommodate the needs of an elderly or disabled individual.

Defined Circulation

In small units like many of the ones proposed for this competition, the area for circulation oftentimes limits the usefulness of rooms. Walkways cut through living areas, kitchens become passageways, and dining areas are little more than hallways. If designers consider ways in which a plan may be furnished, this may at least get them thinking about defining circulation areas. The competition brief asked entrants to show typical furniture arrangements which the jury could use to see how interior spaces could actually be used, accessed, and bypassed. In public areas (living rooms, dining areas, and kitchens), the best proposals had circulation routes that passed by, rather than through, the furnishings. In private areas (bedrooms and bathrooms), circulation patterns can be used to help maintain privacy. For example, in many of the winning proposals it was easy to see how residents could access bedrooms and bathrooms without going through a living room, dining room, or kitchen. Similarly, the winning entries did not require residents to go through a bedroom to get to the only bathroom in a unit. A unique need with non-traditional households is to provide access to the private area without going through the public space of the unit. A few proposals placed entries in locations that allow for residents to go directly into either the public space or the private space.

Covered Parking

On-site parking is often a key priority for families, but presents a significant challenge in the design of higher-density infill projects. Many of the successful designs provided covered parking that was directly adjacent to the units, providing convenient access for residents. Covered parking took the form of attached garages, carports integrated into the design, and parking spots covered by part of the building. Underground parking is an option that makes very efficient use of site area and optimizes opportunities for useable courtyard space, but was generally seen by the jury as cost prohibitive for moderate-income housing. Unless the densities were quite high, this type of parking would typically not work in Portland in the foreseeable future.

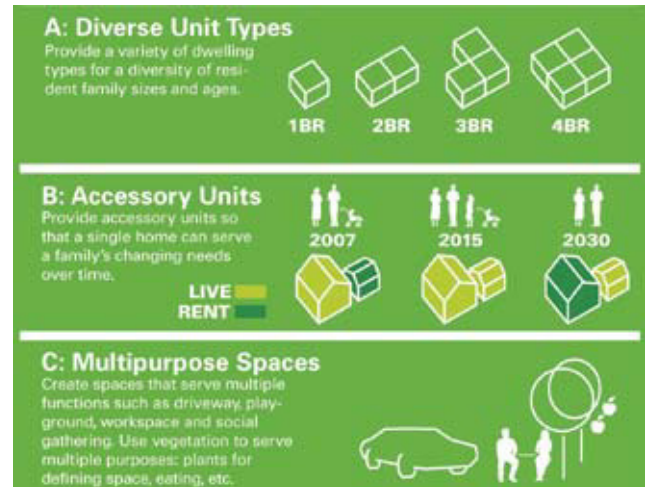


Image from entry I-199

Nevertheless, a few proposals with higher than average densities that fared quite well in the review process did incorporate some type of underground parking. Typically, the parking was about a half level down, which allowed for a podium with courtyard and units raised above the street by a half level, which was seen as a positive feature.

Parking Gardens

Another approach to parking was to consolidate the parking in lots. Unfortunately, many of these lots were no more than a patch of asphalt. These places were neither attractive additions to the landscape nor were they effective useable outdoor spaces for anything other than parking.

While the advantages of direct access to individual units disappears with this approach, in some cases the design of off-street parking worked quite nicely when the parking lots were designed as “parking gardens.” It was as if you were parking in a park instead of a lot. These parking gardens were covered by a graceful canopy of trees, screened from the units by appropriate landscaping, located in a way to minimize curb cuts, and, where possible, had direct access to unit entries. The best solutions also parked the cars on permeable paving that could double as play space when the cars were gone.

Personal Storage Spaces

Especially for family housing, it is important to provide convenient storage space for bulky items, such as bikes, strollers, and yard equipment. Such storage is particularly needed if private garages are not provided.



Image from entry E-139: Southern Exposure

Environmentally aware

Captured Light

Units that have little respect for the orientation of the sun or the desirability of balanced natural light are not very pleasant places to live nor are they efficient in terms of energy use. In this competition, proposals that recognized the importance of natural light and the benefits of passive solar design were received positively by the jurors. The designers of these proposals recognized that direct solar gain can contribute to both livability and a reduction of heating loads in the winter. To achieve the best possible advantages of capturing direct sunlight, many of the proposals provided at least one public room (e.g., living, dining, kitchen)

with a southern exposure. However, in the summer, south facing glazing should be protected by appropriate sun shading devices on the exterior in order to reduce the summer heat load (i.e., horizontal on southern orientations and vertical fins or a combination of horizontal and vertical sun shading devices on east and west orientations). Additionally, many plans placed deciduous trees to block the summer sun and allow winter solar access.

Natural Ventilation

With Portland's mild summers, units with adequate natural ventilation do not need air conditioning, which requires signifi-

cant amounts of energy to operate. To eliminate the need for air conditioning in hot weather, the best proposals designed units with natural ventilation patterns that maximized air circulation from cross and stacked ventilation. Moreover, while building codes may allow for mechanical ventilation of many individual rooms in a unit (e.g., bathrooms and kitchens), the use of operable windows for light and ventilation can reduce energy usage as well as provide a more attractive environment. This was a strategy used by most of the winning entries.

Green Roofs

Roofs are perhaps the most underused elements in residential design. While the traditional pitched roof has many aesthetic and practical benefits, it is difficult to incorporate sustainable strategies other than solar or PV panels. While many entries used flat roofs solely out of aesthetic preference, those proposals that used flat roofs for other purposes were well-received. Some of these proposals used vegetated, “green” roofs to provide additional insulation, minimize water run-off, and reduce the urban-heat-sink effect.

Sustainable Building Materials

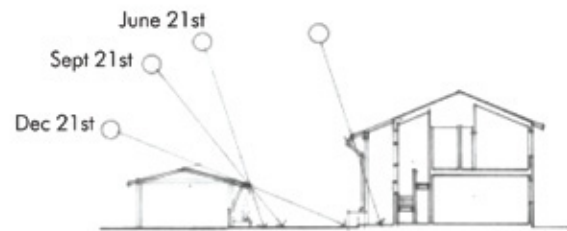
Many entries incorporated sustainable building materials and practices such as high-efficiency windows and doors, recycled and environmentally-friendly materials, and low-maintenance materials to reduce energy use and to maintain a sustainable environment. A few proposals specified the use local materials to minimize transportation costs or used photovoltaic and solar hot water systems integrated into appropriate roof designs. And to reduce the urban-heat-sink effect, the more successful courtyards minimized hard surfaces such as concrete and asphalt.

Sustainable Landscaping

Landscaping can provide a functional role extending far beyond simply providing aesthetic benefits. In this competition, many of the entrants recognized the importance of integrating sustainable landscapes into their proposals. For example, most proposals incorporated ways to retain rainwater on site using bio swales, porous paving materials, or retention ponds. And many entrants specified low-water usage plant materials to keep water consumption down in the summer months. Several proposals even considered the use of grey water to water plants and gardens in summer months. There is a proactive aspect to sustainability that the jury considered important. For instance, the jurors



Image from entry E-015



Shadow studies on June, September and December 21st demonstrate courtyard is filled with south facing sunlight for most of the year

Image from entry I-159

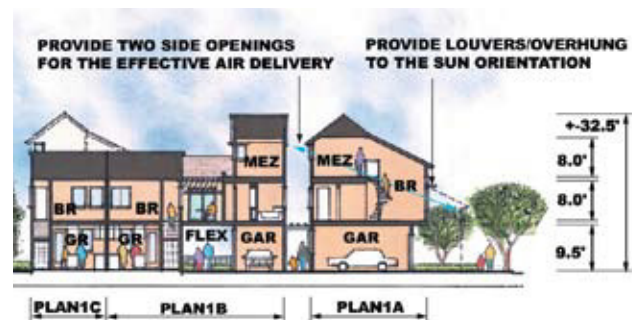


Image from entry I-006

awarded commendations to a few projects that promoted on-site food production. And those projects that designed parking areas as gardens instead of lots were very much appreciated - instead of planting trees in a parking lot, park in a grove of trees.



Image from entry I-057

Staying connected

Transitional Spaces

A major issue addressed by the jury was the importance of transitional spaces between interiors and exteriors. To eliminate potential privacy problems, the most successful proposals used a hierarchy of transitional spaces from private to semi-private to semi-public to public. These transitions were made with porches, stoops, balconies, and front-door gardens. These zones helped to insure that window coverings would not always be required for privacy. Hence, units with these transitional spaces could have an outward-focus orientation to provide eyes on common open spaces without compromising privacy. Transitional spaces, landscape buffering, or change in floor heights, also helped block direct views from common areas and the street into the units. Indoors, the more public spaces such as kitchens, living and dining areas in winning entries were adjacent and easily accessible to the outdoor transitional areas. When needed, some proposals used additional buffers such as landscaping to insure privacy of all units.

Direct Outdoor Connections

A frequent drawback of multi-family housing is the discon-



Image from entry I-098

nect between the unit and landscape when units are stacked above ground level. Who likes to walk down a double-loaded corridor, into an elevator, out a lobby, and, finally, into a playground? This competition called for densities that would support a direct connection from the unit to the landscape. All the successful submissions figured out how to make this connection workable. Simply put, the better proposals had a direct ground-floor connection to

the courtyards or street. Designs that had most units perched a level above the courtyards, which typically results in less use of courtyard space by residents, did not fare as well.

Private Outdoor Spaces

While not specifically a requirement of the competition, the jury appreciated proposals that provided some private outdoor space. In addition to common courtyards, many units in the winning proposals had a private outdoor space that was in addition to transitional areas such as front porches or patios. These small gardens, yards, decks, or patios increase the livability of small units and afford residents a welcome degree of choice in their environments.

Eyes on Open Spaces

Open spaces, like courtyards, streets, and sidewalks, that are not visible from the units are less likely to benefit from surveillance by residents. This type of surveillance has security benefits as well as livability benefits. Parents, for example, are more likely to let their children play in courtyards if they can be seen from inside the house. To promote safety and security, many proposals placed at least one public room (e.g., living, dining, or kitchen) in a way that either faced the street or a courtyard. To insure that all units are part of the courtyard community, several proposals with units at the front had a public room that faced both the street



Image from entry I-146

and the courtyard. The investment in shared courts and common greens offers returns beyond the functionality of the areas themselves. They can be considered “borrowed landscapes” that make smaller or compact units seem larger and more livable. To accomplish this, several designs positioned windows and doors in units to take advantage of views to adjacent landscaped areas. In proposals with separate courtyards for different uses (e.g., parking, play areas, common greens), more successful proposals placed as many units as possible with views onto the separate courtyards.



Image from entry I-133: Covered roof decks as outdoor spaces.



Image from entry I-159

Keeping things in context

Engaging the Street

A key objective of the competition was to explore ways in which courtyard housing could continue the Portland tradition of street oriented urbanism. Unfortunately, in many developments, garages, curb cuts, and blank walls dominate the street frontage, departing from this tradition and compromising the pedestrian environment.

In this competition, many proposals effectively engaged the street, providing a positive relationship between the public realm

of the street and sidewalk and the more private realms of the buildings on the site.

This was done by having some units with either direct access through walkways from the sidewalk to the units or by the use of public rooms of the units looking onto the street. This principle was also facilitated by minimizing the number and width of curb cuts for automobiles, avoiding locating garages and other parking areas along the street frontage, and by orienting doors and windows to the street instead of blank walls.

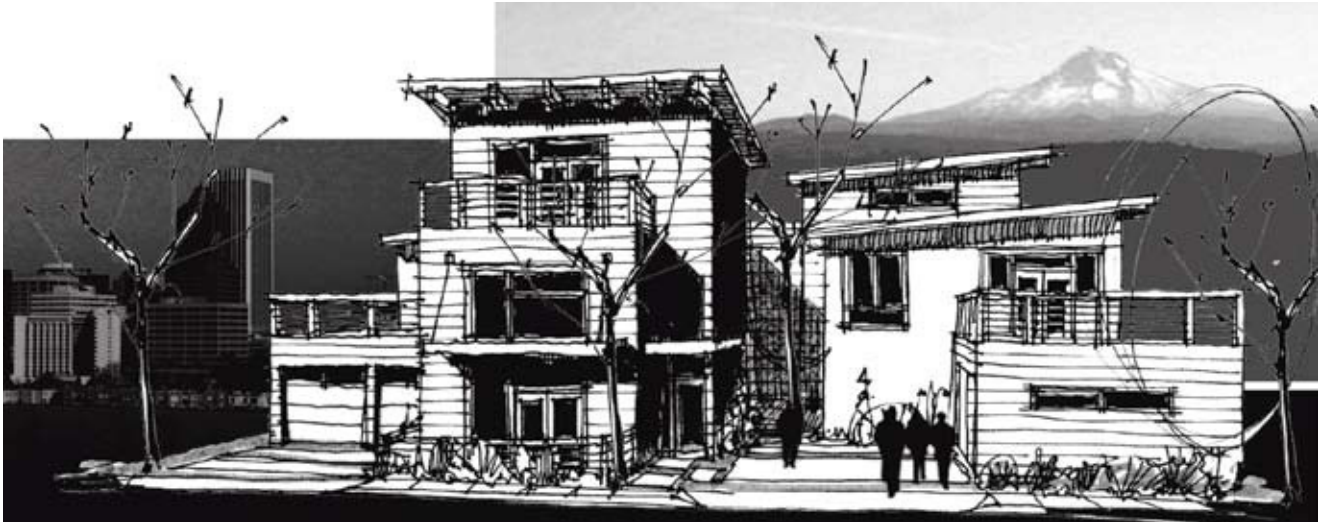


Image from entry I-117

Neighborhood Patterns

The medium-density zones where courtyard housing is most appropriate are generally intended for development that is compatible with the single-family housing that predominates in most Portland neighborhoods.

Courtyard housing provides unique opportunities to use building placement, massing, and landscaping to continue neighborhood patterns. The successful proposals submitted in this competition used a range of strategies to reflect neighborhood street frontage patterns. Many designs were divided into building forms that continue street frontage patterns typical of single family neighborhoods, avoiding the wall-like effect of rowhouses, and sometimes featured very house-like end units that would fit seamlessly into many neighborhoods. Some submittals used street frontage setbacks and landscaping to continue the “green edge” of front yards and gardens typical of most Portland residential neighborhoods. Other approaches utilized courtyard space to provide trees and other plantings that can help blend into neighborhoods

where lush vegetation is a key part of neighborhood character.

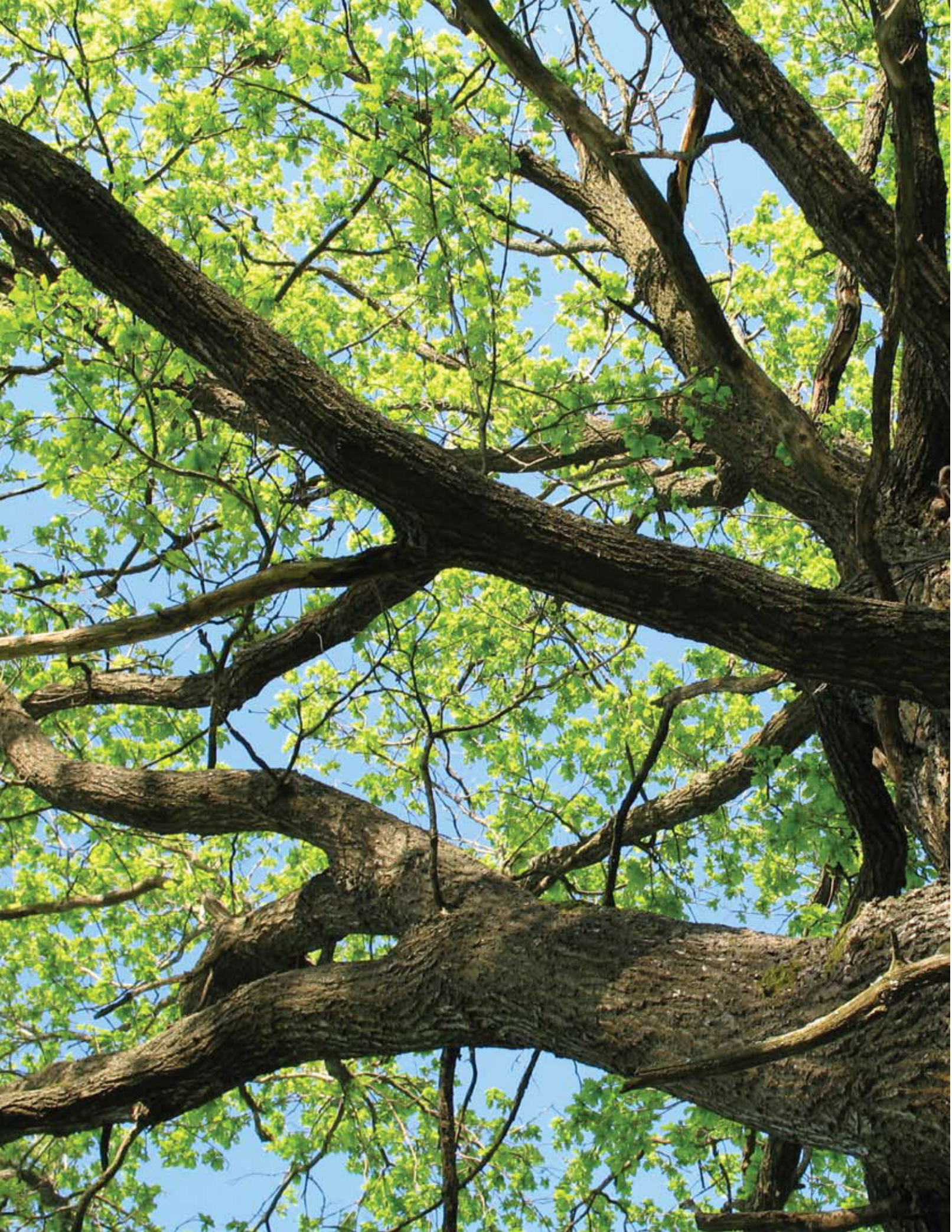
Appropriate Massing and Scale

Designing higher density multi-family housing to respond to the predominant building scale of many neighborhoods is challenging. Many of the proposals successfully reduced their appearance of size and height by careful use of building massing, such as by stepping back upper levels, incorporating top floors within roof dormers, varied massing, or by limiting tall building height to small portions of the site. Notably, some of the winning designs proved that significant densities can be achieved for family housing while keeping to a two-story height.

Another consideration regarding building scale is the impact on solar access, views, and the privacy of neighbors. The designers of many of the proposals successfully sculpted their designs in response to such considerations, using setbacks and height changes to allow for ample light into the courtyards as well as into neighboring properties.



Image from entry I-054



INNER PORTLAND INFILL CATEGORY

Top Winners

Honor Award Winner

This proposal clearly reflects the intent of the courtyard housing design competition. Six clearly buildable units front an elegantly paved shared court that ends in a small landscaped commons. Cars are tucked between the units and have easy access to the kitchens through a small private patio. The two end units have entries and windows facing the street, which is a simple but necessary adjustment to the repeated plan. The house-like massing of the end units and their front yards are responsive to typical neighborhood street frontage patterns. All the units have small yards along the shared court that act as transitional spaces. The units, which can be owned outright, work well for a variety of family types. Ground floor kitchen and living areas overlook the shared court. Nonetheless, no proposal was perfect. The master bedroom, for example, has no direct access to a bathroom and the half bath on the ground floor opens directly to the kitchen. While neither flashy nor over designed, this entry recognizes that successful housing design integrates site and unit design into a seamless whole. As juror David Miller noted, this project is “A very elegant solution that provides really great exterior spaces for both the common courtyard as well as the semi-private garden/porch terraces for the individual units. The scheme is affordable and buildable — a great demonstration project for developers.”

Merit Award Winner

This proposal wraps six units around a very nicely developed shared court that integrates mixed- and car-free space, which the jury recognized as a great strength of the proposal. An aspect detracting from the design was the street elevation. In fact, the lack of articulation and harsh street presence almost cost this project an award. However, the courtyard elevation was seen as quite attractive. One lament by several jury members was that this elevation was not the street elevation. What was quite remarkable about the proposal was the extremely well thought out “future-proofing” of the project. The designers clearly showed how the units could be reconfigured to meet the needs of multiple generations. This was the story the jury wanted to be heard and one of

the key reasons the project won an award. But this adaptability did not come at the expense of livability within the units.

Citation Award

This shared court proposal received praise from most of the jury for its careful handling of the car, impressive density (eight units with surface parking), well-designed floor plans, and successful transition spaces. The tuck-under parking was also recognized by the jury as a strength because it provided convenient car storage that could also serve as protected play/multiuse areas when the cars are gone or in lieu of parking. One of the only drawbacks was hard to see at first. After careful consideration of the entire proposal, several jury members began to question the amount of street frontage devoted to automobile storage and access. The designers deftly concealed the parking behind a street wall and plantings — but in the end this sacrificed active street edges that could have contributed to the larger neighborhood.

Honorable Mention

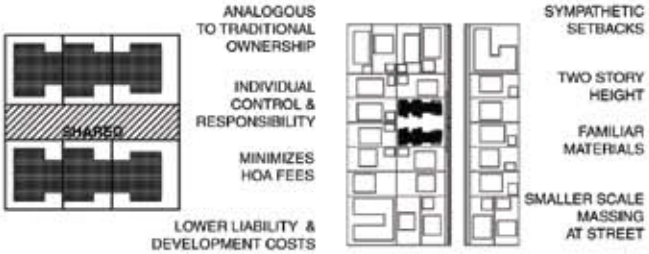
This design, with quite compelling drawings, generated significant discussion and initial disagreement among the jury. Some jurors liked that the fact that the courtyard gave visually to the neighborhood and that the principle diagrams went beyond the site to show how the design could contribute flexibly to emerging neighborhood patterns. Other jurors felt that, as shown, the “private gardens” fronting the units along the courtyard would not function as effective claimed transition space. In addition, the lack of a barrier between the main courtyard and public sidewalk was seen as drawback to an otherwise excellent design. The courtyard needed some separation for the safety of small children and so that it could clearly read as belonging to the residents (rather than as a public pocket part). As Michael Pyatok noted, a short fence with a gate could give the needed distinction between public street and semi-public courtyard. Jurors also noted that the rear vehicle-maneuvering area was designed to also serve as a play court, making efficient use of site area.

Jury comments on commendation winners on page 58

PORTLAND
COURTYARD HOUSING: INNER PORTLAND INFILL SITE

INDEPENDENT STRUCTURES ON FEE SIMPLE LOTS, FORM A SHARED COURT. THIS MULTI-USE SPACE, PERMEABLY PAVED, TERMINATES IN A SHADED COMMON GREEN; A VEGETATED INFILTRATION BASIN, APPROPRIATE SETBACKS & SINGLE FAMILY SCALED MASSING MERGE WITH THE NEIGHBORHOOD. FAMILIAR MATERIALS, ALBEIT IN MODERN FORMS, ADD DOMESTIC SCALE. DOORYARDS DEFINE TERRITORY. SEPARATING PUBLIC FROM PRIVATE. MODESTLY SCALED & SIMPLE, THE HOMES FORM A VARIETY OF SPACES THAT FOSTER PRIVACY AND SECURITY. CHILDREN PLAY ON PRIVATE PATIOS, FRONT PORCHES, THE SHARED COURT OR COMMON GREEN, ALL WITHIN VIEW AND EARSHOT OF THE HOME. ENVIRONMENTALLY APPROPRIATE TECHNOLOGIES & MATERIALS FOSTER A SUSTAINABLE LIVING ENVIRONMENT FOR FAMILIES TO FLOURISH.

Project Data:
6 Home (28 du/ac) - Site Coverage 4,650 sq.ft. (47%) - Total Area 6,800 sq.ft - Hgt 22.5 ft.
(4) 3 Bedroom Homes @ 1,200 sq.ft. each + (2) 2 Bedroom Homes @ 1,000 sq.ft. each

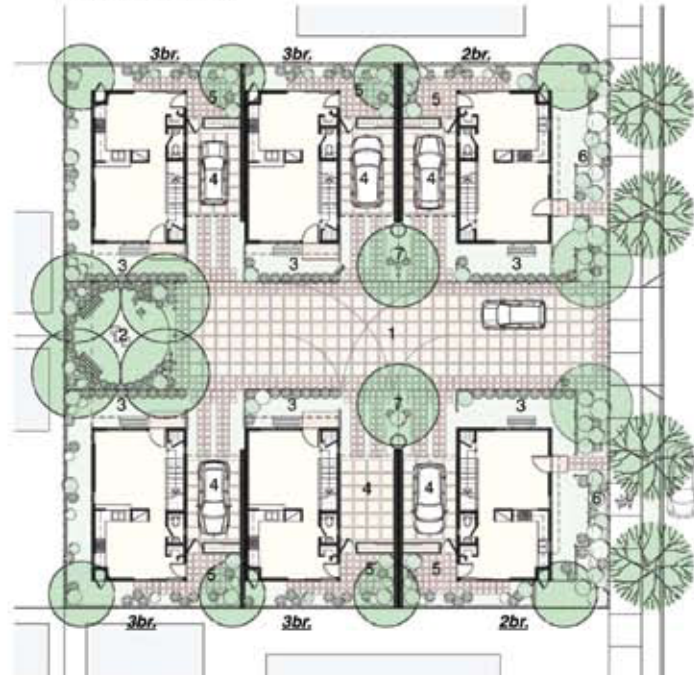


Fee Simple *Neighborhood Compatibility*



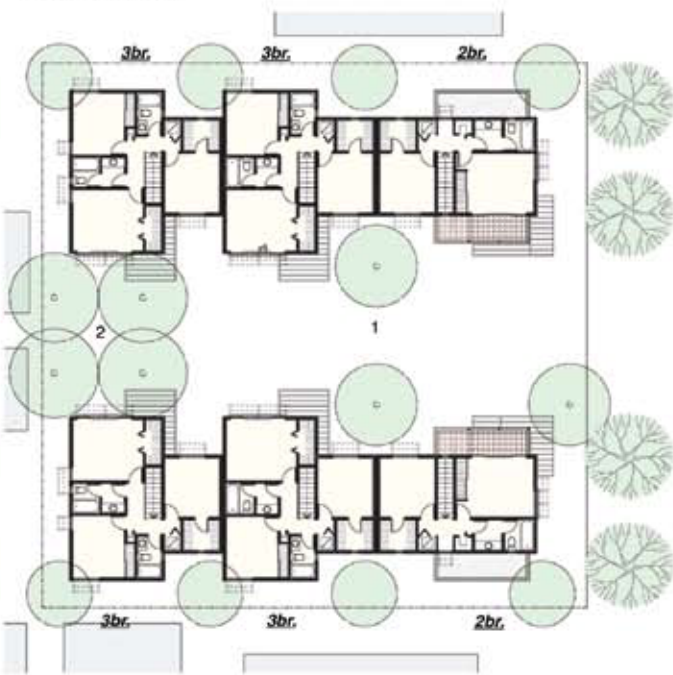
Aerial View

Site / First Floor Plan



- Site Plans Legend**
- 1 SHARED COURT - PERMEABLE PAVING
 - 2 COMMONS / PLAY AREA - VEGETATED INFILTRATION BARRIER
 - 3 DOOR YARD / PORCH - WITH INFILTRATION PLANTERS
 - 4 CARPORT / OUTDOOR ROOM - PLAY AREA WHEN CARS ARE AWAY
 - 5 PRIVATE PATIO / YARD - WITH TREES & BIO-SWALES
 - 6 VEGETATED BIO-SWALE / BASIN
 - 7 RAINWATER COLLECTION BARRELS

Second Floor Plan



- Floor Plans Legend**
- A FRONT PORCH
 - B LIVING ROOM
 - C KITCHEN / DINING
 - D W.C.
 - E UTILITY CLOSET
 - F STORAGE
 - G CARPORT/OUTDOOR RM.
 - H BEDROOM
 - I BATH
 - J LINEN
 - K STACKED LAUNDRY
 - L DECK
 - M PANTRY
 - N DESK ALCOVE
 - O DOOR YARD
 - P PATIO

PRIVATE PATIOS/
YARDS

SEMI-PRIVATE
DOORYARDS

PUBLIC
STREET

SEMI-PRIVATE
DOORYARDS

PRIVATE PATIOS/
YARDS

MODEST SIZE

SIMPLE
FORM
& DETAIL
APPROPRIATE
TECHNOLOGY
EFFICIENT
SYSTEMS

TERRITORIALITY
OUTSIDE & IN

OBSERVABLE
EXTERIOR SPACES
VISUAL & ACOUSTIC
SEPARATION
VARIETY OF
SPACES & USES

UTILIZES EXISTING
INFRASTRUCTURE

ENERGY
EFFICIENCY
STORM WATER
MANAGEMENT
RECYCLED/
RENEWABLE
MATERIALS



Open Space Hierarchy

Affordable by Design

Privacy & Security

Sustainability



Shared Court PERMEABLE PAVING TERMINATES AT OPEN SPACE

Common Area DOUBLES AS A VEGETATED INFILTRATION BASIN



Section Legend

- 1 SHARED COURT
- 2 DOORYARD/PORCH
- 3 CARPORT/OUTDOOR RM.
- 4 PRIVATE PATIO
- 5 VEGETATED BASIN
- 6 LIVING ROOM
- 7 KITCHEN / DINING
- 8 BEDROOM
- 9 PHOTO VOLTAIC PANELS
- 10 VEGETATED BIO-SWALE



Site Section

0' 8' 16'

Front Porch TRANSITION FROM PUBLIC TO PRIVATE



Three Bedroom Home:
First Floor



Second Floor



0' 4' 8'

Two Bedroom Home:
First Floor



Second Floor



0' 4' 8'

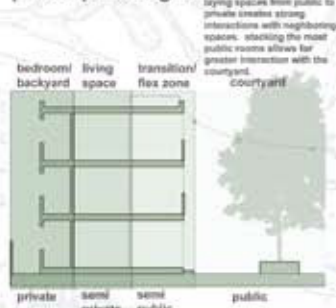
107624224-15

innerportland infill lot 100' x 100' 6 units

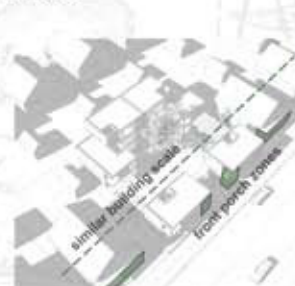
	street unit	corner unit	center unit	project total
Number	2	2	2	6 (+)
Footprint	733	655	688	4152
Coverage				42%
Floors	2	2	3	
Total sf	1486	1310	2064	9680
Height	24	20	30	

COMMUNITY: a clear demarcation of the communal area, separated from street and dwellings.
PRIVACY: the in-between layer can be fine-tuned for the desired degree of (dis)connection.
SUSTAINABILITY: building evolution over time, enabled by circulation in the in-between layer.
 Variable unit sizes and uses, with very minor building fabric changes. Possible unit count between 6 and 18, or can include other uses.
ACCESSIBILITY: all ground floors include bedroom.
AFFORDABILITY: modest floor areas, any construction type (including conventional), surface parking.
DEVELOPER OPTIONS: rental, fee-simple or condo ownership; unit count and mix can vary to suit.

public/private gradient



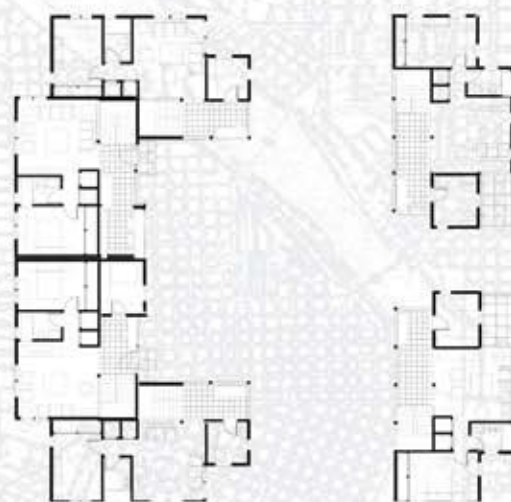
context



court > yard > house



G
ground floor



S
second floor

EW
section east-west



1078181544-51

COURTSIDE

inner portland infill site

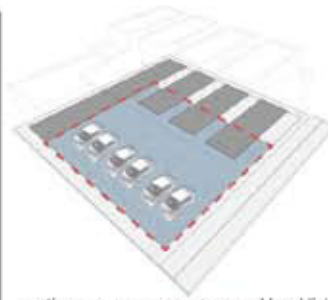
concentrates outdoor space into one contiguous court
defines both **shared** and **private** use areas
creates covered and open areas for **year-round** uses
concentrates parking to maximize at-grade living areas
all individual living areas front court
sectional ground variation for use and water management
constructed from a **repeatable**, family sized, building type
carved for daylight and views
flexible program and inhabitation strategies
building heights maximize daylight
story and program variation (demographic variation)

unit	sq. ft. in	sq. ft. out
A	2028	386
B	2028	386
C	2028	386
D	1796	322
E	834	173
F	1588	146
G	830	106
H	917	114
8 units	12049	2019

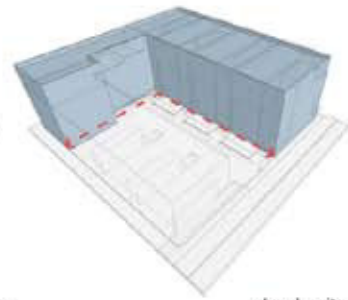
site coverage = 5806 sq. ft.

= 58 %

max. height = 34 ft.



contiguous open space + ground level living



edge density



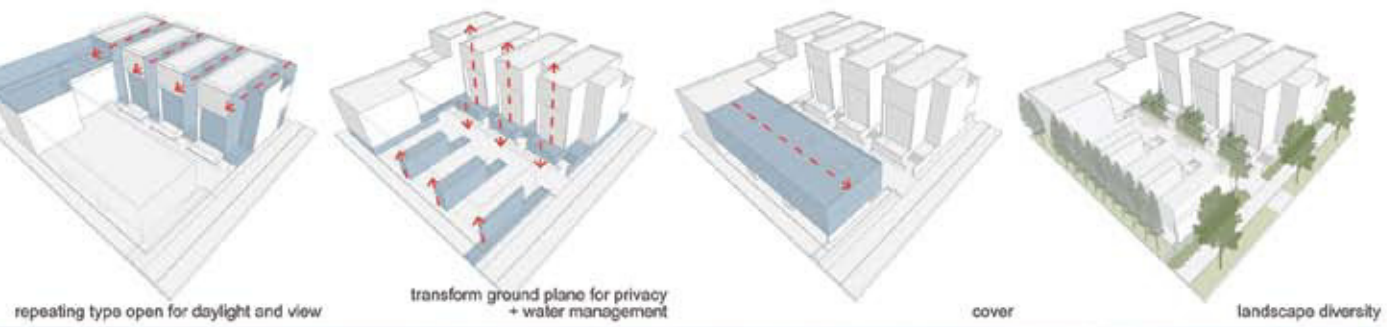
△ courtyard level plan

0.3 10 20



second level plan

107728958-sE



third level | roof plan



107728958-sE

INNER PORTLAND INFILL SITE THE PORTLAND 4-SQUARE HOUSE AND LOT SYSTEM

unit A (3-bedroom primary unit - west): 1,702 s.f.
unit B (3-bedroom primary unit - west): 1,702 s.f.
unit C (3-bedroom primary unit with flex space- north): 2,230 s.f.
unit D (3-bedroom primary unit - north): 1,755 s.f.
unit E (1-bedroom attached unit): 581 s.f.
unit F (1-bedroom loft unit): 652 s.f.

total s.f.: 9,317 s.f.
building coverage: 37% of lot

max. height: 31'-9"
total number of units: 6



THE AMERICAN FOURSQUARE is an archetype of the American house. Well-known in Portland, the foursquare has inspired a new prototype for the courtyard housing concept: the Portland 4-square house and lot system. This system provides a contextually sensitive and sustainable approach to integrating higher densities into existing Portland neighborhoods.

PORTLAND 4-SQUARE HOUSE AND LOT SYSTEM is based on the simple division of the square lot into 4 equal sections: a common green, a shared court, and 2 housing areas. This configuration maximizes green space while providing highly functional and flexible housing units, incorporating a diversity of housing types, establishes large multi-functional (semi-connected) courts, and successfully integrates parking requirements. The 4-square system, with a potentially extensive network of courts and greens, enhances the pedestrian environment for the inhabitants and the neighborhood, provides a strong street orientation, and includes a large amount of usable outdoor space.



PEDESTRIAN VIEW



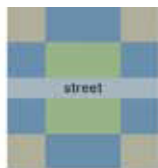
SITE/FIRST FLOOR PLAN

PLAN LEGEND

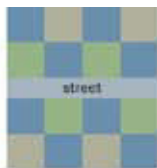
- A** 3-bedroom Primary Unit
- B** 3-bedroom Primary Unit
- C** 3-bedroom Primary Unit with third floor unfinished/flex space
- D** 3-bedroom Primary Unit
- E** 1-bedroom Attached Unit
- F** 1-bedroom Loft Unit
- 1** Sidewalk/easement/street
- 2** Common Green
- 3** Gazebo
- 4** Community Garden
- 5** Private Garden
- 6** Private Patio
- 7** Shared Court w/ landscaped border, four-square, hopscotch, and basketball courts
- 8** Bike/Stroller Storage
- 9** Stairs to Units E & F
- 10** Garages for Primary Units
- 11** Driveway
- 12** Unfinished/Flex Space



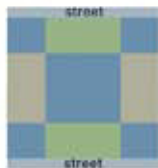
THE 4-SQUARE SYSTEM can be inserted into an existing site, or be patched together in a variety of patterns with other 4-square lots (see options at right) to create larger shared greens and linked courts. The arrangement of the individual squares is highly flexible and can be modified based on the number of available lots, neighborhood context, or desired unit configuration.



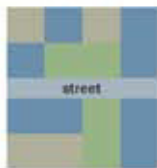
street



street

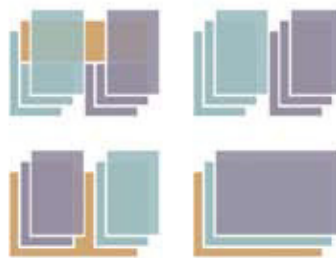


street



street

ADAPTABILITY is a hallmark of the 4-square housing prototype. Units can be sized and arranged in a variety of ways to respond to the desired density and mix of housing types. Single-floor accessible units could be provided at ground level with multi-story units above. Mother-in-law suites integrated into single-family homes could provide rental income for homeowners. The carriage house could be phased or multi-storied to increase density. The plans below illustrate four 3-bedroom primary units and two 1-bedroom units.



SUSTAINABILITY is an integral component of the 4-square system. Large greens promote natural storm-water management, permeable pavers are used at paths and drives, abundant windows provide natural lighting, LEED standards guide construction, and a community garden is available to residents.



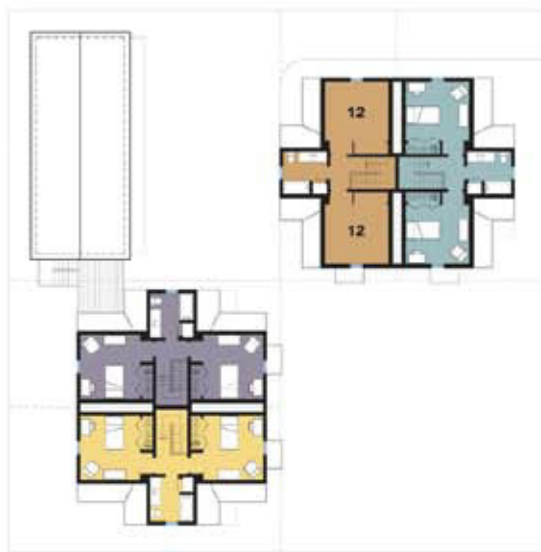
AERIAL PERSPECTIVE



STREET ELEVATION



SECOND FLOOR PLAN



THIRD FLOOR PLAN

E1078271456-Tp

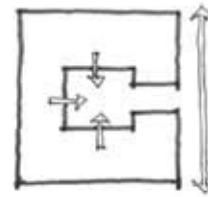
Family Matters: a Good Neighbor for Inner Portland

This condominium proposal seeks to maximize the utility of shared exterior spaces and connect with and play a positive role in the neighborhood at large. Organized around four primary shared spaces, the project provides a place for all ages - from toddlers to teens and parents as well. Quiet and controlled, **The Backyard** is a shared garden space. Primarily hardscape, **The Court** provides a central social space with a variety of uses. Facing the street, the **Family Room** is perfect for meetings, shooting pool or watching the game. It could also be leased out to the neighborhood for community events. **The Stoop**, like the steps of a brownstone or front porch of a single family home, provides a place to hang out and watch the world go by.

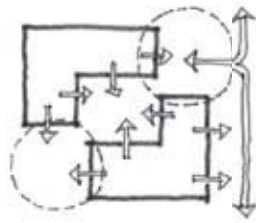
Project Areas:
 Parking - 3540 s.f.
 Common Space - 1,035 s.f.
 Residential Interior - 10,395 s.f.
 Residential Exterior - 905 s.f.

Unit	Interior	Exterior	#Bdrm
1A	1585	56	3
1B	1856	51	3
1C	1475	100	2
1D	1190	86	3
2A	1345	113	3
2B	1164	102	2
2C	704	114	1
3A	1180	177	3

Building Footprint = 5,951 s.f. = 59.5% lot coverage
 Total number of Units = 8; Maximum height = 45'



The typical Portland courtyard solution is inward focused and disengaged from the street.



View from street



Parking Plan



First Floor Plan

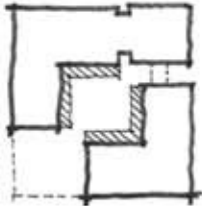


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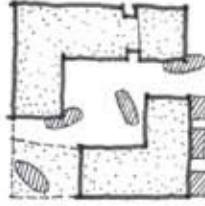
We propose a new model - one built around multiple spaces and focused both inward and out, providing privacy while engaging the neighborhood.



The scheme is built around a series of public and semi-public spaces - *The Stoop, The Family Room, The Court and The Backyard.*



Light is precious. The interior walls of the courtyard are clad in a light colored/highly reflective brick that will bounce reflected sunlight around the courtyard space increasing the ambient light levels.



Green roofs filter and reduce storm water runoff. Storm water planters handle roof overflow as well as runoff from all on site paved surfaces.



Teenagers hang out on *The Stoop* or shoot pool in the *Family Room*



Units open to *The Court* - the social center for its residents



Young children play in the safe confines of *The Backyard*



Aerial view showing eco-roof

Sun Study - June 15th: The building has been shaped by the sun. The massing allows sunlight to flood the interior court throughout the day. →

A typical building section shows that the ground floor is raised several feet above street level. This mimics the neighborhood context and creates a necessary buffer from the street. Parking slips underneath the raised court resulting in less excavation. ↓



Second Floor Plan



Third Floor Plan



Fourth Floor Plan
1076311251-B7

FAMILY ROOM

INNER PORTLAND INFILL SITE

Program and Layout: 6 dwelling units are provided. See floor plan for sizes. Unit sizes and layouts are designed to meet the needs of the three generations: children, parents and grandparents. Parents with children can live in larger units B, D, E, and F, and grandparents in smaller units A and C, which are one-story flats. Units A/B and units C/D are designed as pairs, where grandparents can live in units B and D next to their families in units A and C respectively. See diagram A.

Courtyard: Designed as a "common green". A separate parking court near the street avoids conflicts between children and cars. The courtyard is surrounded by living spaces on the ground and second level. Operable sliding or folding doors on both levels open units to outside and promote interaction. A row of trees are positioned to shade the courtyard but not garden plots. See diagram B.

Scale: At 2 stories, the building is not taller than typical houses. Building height varies from 15'-4" to 20'-0". From the street, the scale and rhythm of the neighborhood is maintained by dividing the building into two masses – one for every 50' of property frontage. See diagram C.

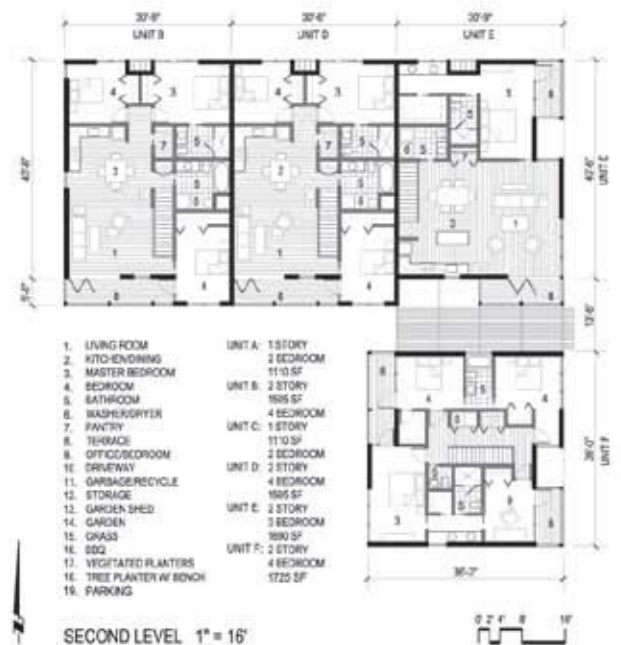
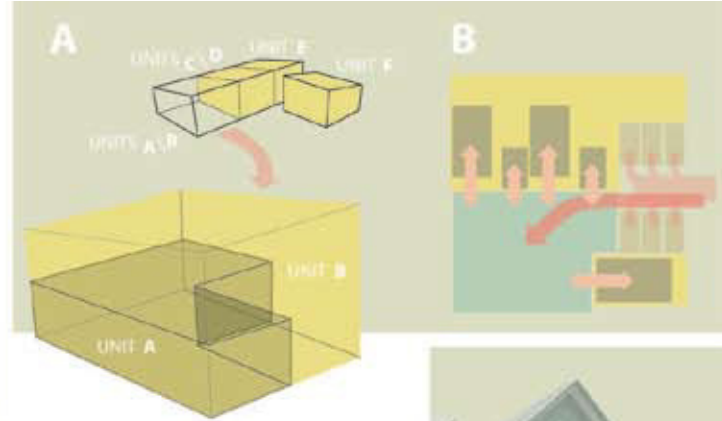
Sun and Weather: Building and courtyard are oriented SW for maximum sun exposure. Louvered sun screens, roof overhangs and balconies provide shading. Skylights provide natural light in the interior. Water collected on the roof is directed to vegetated planters. Grass-crete and open-joint pavers set in sand provide hard surfaces for driving and walking, and minimize water run-off. See diagram D.

Construction: The simple building form is economical to build and the shed roof has few conditions where water might intrude. Construction is typical wood frame over a concrete slab on grade. Exterior cladding is a rain screen system. 1x8 cedar planks with 1/4" spacing are nailed to vertical sleepers over a water barrier and sheathing. The roof is standing seam steel metal.

Zoning: This building is designed for an R2 zone which allows 5 units maximum on a 100' X 100' lot. 5 units, a 20% increase, are allowed. Per ZC Section 33.120.265.C a 10% increase is allowed when 20% of the units are 3 bedrooms or more and another 10% when sound insulation is provided.

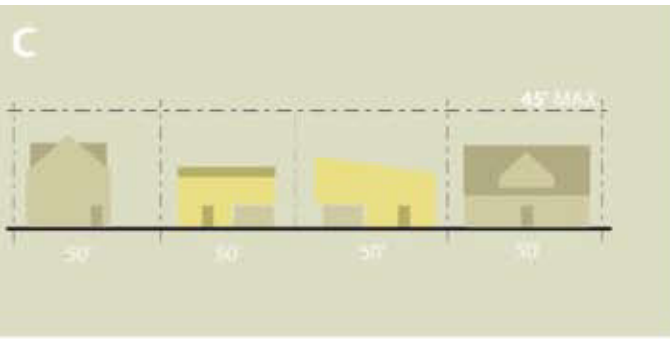
Ownership: Providing separate land parcels, while an attractive ownership option, limits achieving efficiencies necessary to make higher density living comfortable. This is condominium ownership.

Data: Total indoor living area is 6645 SF. Lot coverage is 55%. Maximum height is 20'-0".



- 1. LIVING ROOM
- 2. KITCHEN/DINING
- 3. MASTER BEDROOM
- 4. BEDROOM
- 5. BATHROOM
- 6. WASHROOM/RYER
- 7. PANTRY
- 8. TERRACE
- 9. OFFICE/STORAGE
- 10. DRIVEWAY
- 11. GARBAGE/RECYCLE
- 12. STORAGE
- 13. GARDEN SHED
- 14. GARDEN
- 15. GRASS
- 16. DOG
- 17. VEGGIE PLANTER W/ BENCH
- 18. TREE PLANTER W/ BENCH
- 19. PARKING

- UNIT A: 1 STORY
- UNIT B: 2 STORY
- UNIT C: 1 STORY
- UNIT D: 2 STORY
- UNIT E: 2 STORY
- UNIT F: 2 STORY



1076251634-Sg

CONTAINER COURT VILLAS

New options for affordable urban living arise with dynamic presence in a 10 home, 4 villa-unit cluster focused on an interactive court, opening to a welcoming street fore-court. Recycled shipping containers, modified, joined, stacked, form structural enclosure of units. Containers span open parking below, allowing resident use of court. Brightly painted steel is offset by soft textures of wood decks, trellises, grass-crete pavers, eco-roofs and gardens, creating a happy, inviting place for all. Variety in unit sizes provides for diversity of resident types.

DATA: R-1 zone, 10 dwelling units
 2 - 1 BR + 1 Ba @ 512 S.F.
 2 - 2 BR + 2 1/2 Ba @ 1152 S.F. duplex
 4 - 3 BR + 2 Ba @ 1232 S.F.
 2 - 4 BR + 2 1/2 Ba @ 1600 S.F. duplex

Total enclosed area: 11,456 S.F.
 Site coverage: 58 % = 42% open
 + 1950 S.F. roof gardens
 Average height of pitched roof: + 43' - 6"

1 BUILDING ORGANIZATION

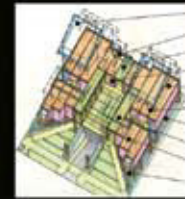
- 4 VILLA STRUCTURES FRAME COURTYARD
- SETBACK AND SCALE RELATE TO STREET CONTEXT
- COURT EXTENDS INTO OPEN LOGGIA, BRIDGES & STAIRS
- COURT OPENS HORIZONTALLY & VERTICALLY TO EXTERIOR



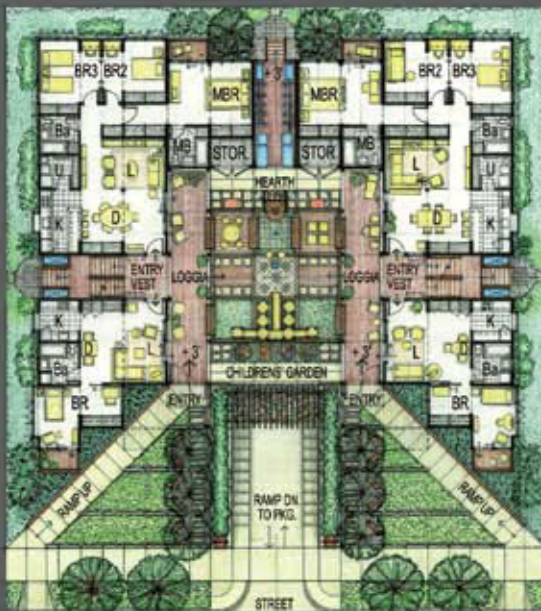
individual balconies
 common functions
 4 levels: 3 units
 loggias and open front porch
 open stair and mech. chase
 apt. entries off court
 courtyard activities
 3 levels: 2 units
 bridge and trellis transition
 vehic. ramp with steps up

2 BUILDING COMPONENTS

- RESUED ISO STEEL SHIPPING CONTAINERS
- DURABLE, SAFE, ADAPTABLE, MATERIALS AS BUILDING SYSTEM
- JOIN, STACK, CUT OPEN, STRUCTURE THEM AS NEEDED
- DIVERSIFIED MASS PRODUCTION - ACCESSORY SYSTEMS



PV options on roof
 wind turbine option
 eco-vegetation rooftop option
 shared storage module
 cont. stacked: integral struct.
 cont. structure: joined
 cont. spans open parking
 cont. deck: loggia and entry
 cont. applied: cut to length
 cont. doors: support balcony



1 SITE PLAN - LEVEL 1

GROUND FLOOR UNIT MIX

- (1) 3 BR: 1232 S.F.
- (1) 1 BR: 512 S.F.
- (1) 3 BR: 1232 S.F.
- (1) 1 BR: 512 S.F.



2 FLOOR PLAN - LEVEL 2

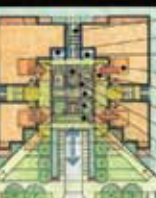
SECOND FLOOR UNIT MIX

- (1) 3 BR: 1232 S.F.
- (1) 2 BR DUPLEX, LOWER: 512 S.F.
- (1) 3 BR: 1232 S.F.
- (1) 2 BR DUPLEX, LOWER: 512 S.F.

3 SOCIAL COURT DESIGN

MAXIMIZED RELATION OF COURT AND UNITS

- ALL UNITS HAVE COURTYARD VIEW AND ACCESS
- COURT ALLOWS MULTIPLE FAMILY ACTIVITIES
- COURT CIRC. CREATES CONTINUOUS VISUAL CONTACT

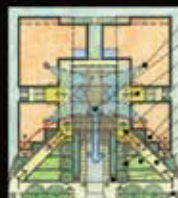


recycling, bikes, meters
court maint. & stor.
children's equip. closet
court access through L.R.
family porch in loggia
community hearth
group activities areas
hard play, ride / skate
soft play, slide / hang
children's garden

4 PUBLIC / PRIVATE DOMAIN

PUBLIC FORECOURT TO PRIVATE COURTYARD

- BUILDING FACADE EMBRACES STREET FRONTAGE
- COURT ELEVATION AT +3 ABOVE ST. DEFINES "PLACE"
- TRANSPARENT BUT SECURE RELATION OF SPACES



resident eyes on court
views in - out / up - down
open access entry points
secure entry gate
unit and balc. forecourt views
siting areas invite interaction
stepped native plant yard
ramp up to entry gates
project identity pylons
main floor ADA accessibility

5 PARKING, STOR., MECH.

CONTAINERS SPAN OPEN PARKING AREA

- LEVEL SUNKEN 4.5' ALLOWS AIRFLOW AND DAYLIGHTING
- OPEN SPANS ALLOW MINIMIZED IMPACT FROM COLUMNS
- FUNCTIONING HERE ALLOW RESIDENT USE OF COURT ABOVE



containers span parking
low retaining wall - open air
prefab resident stor. units
1 car per unit, + extra space
open stairs up or to grade
mech. unit near chase
child safe pedestrian zone
court framing / slab above
water retention area
vehic. / ped. access to st.

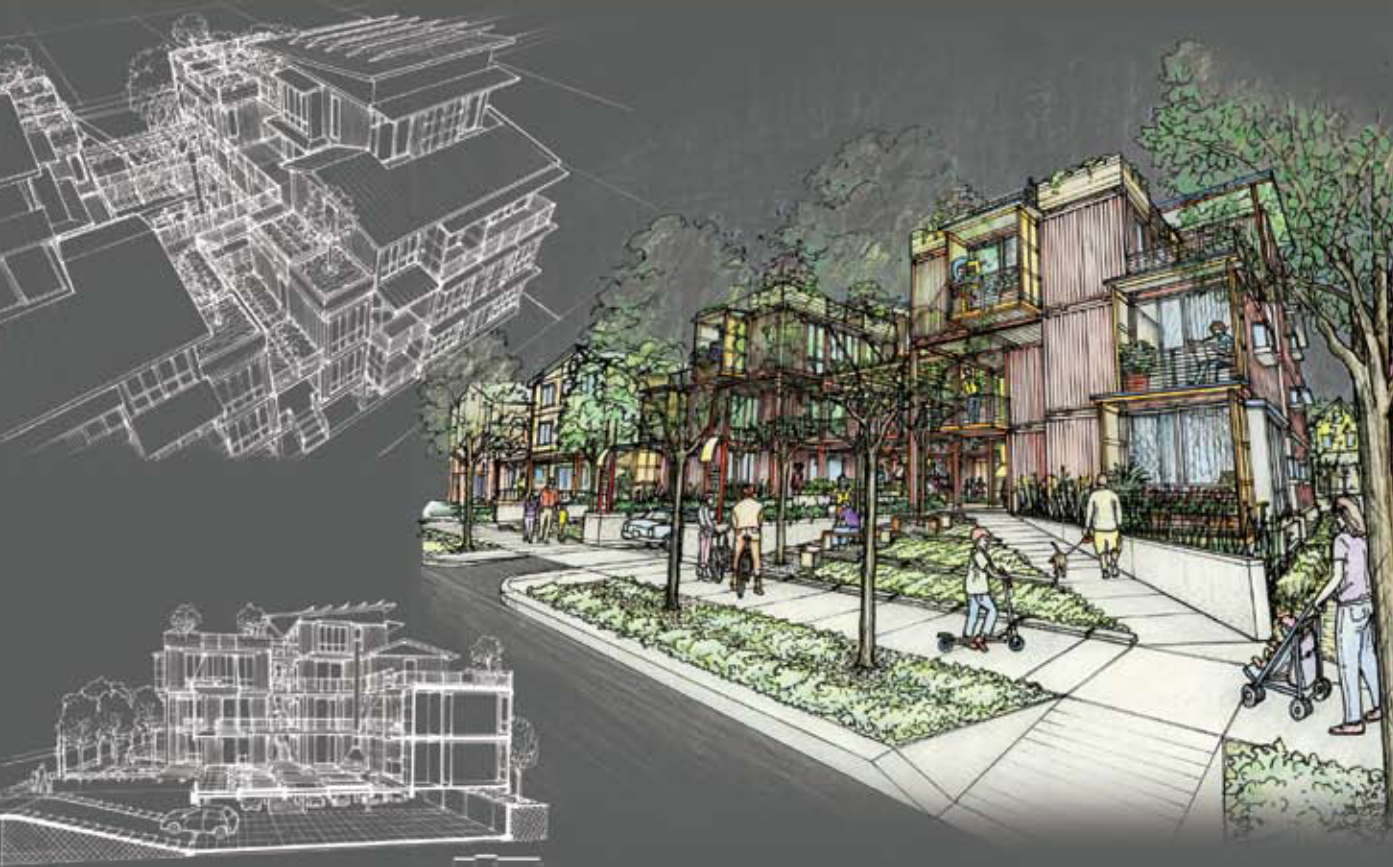
6 ENVIRONMENTAL DESIGN

CARBON MINIMIZED BY MODULAR SYSTEMS

- CONTAINER USE CAPTURES UNUSED EMBODIED ENERGY
- PREFABRICATED BLDG "UNITS" WITH RENEWABLE MATERIALS
- ECDROOFS, SOLAR ARRAYS, WATER FILTRATION STRATEGIES



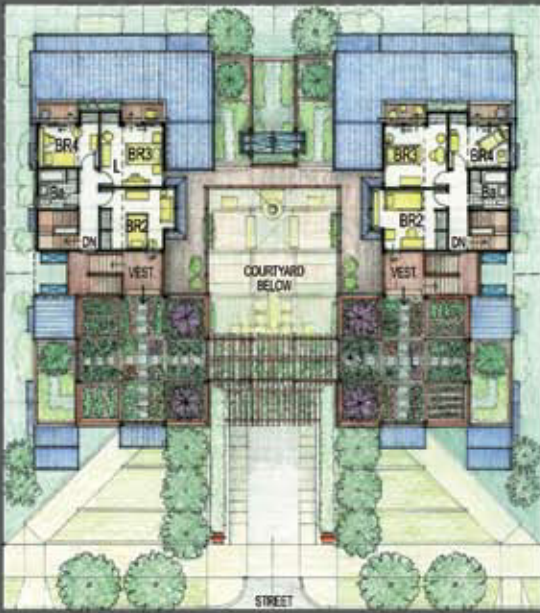
stepped vegetated roof
wind turbine option
PV / solar thermal options
permeable court paving
loggias / trellises give shade
roof "eco-farm" gardens
reclaimed wood and gravel
natural vent. cross breeze
on-site water retention
native plants "xeriscape"



FLOOR PLAN - LEVEL 3

THIRD FLOOR UNIT MIX

- (1) 4 BR DUPLEX LOWER 1024 S.F.
- (1) 2 BR DUPLEX UPPER 640 S.F.
- (1) 4 BR DUPLEX LOWER 1024 S.F.
- (1) 2 BR DUPLEX UPPER 640 S.F.



FLOOR PLAN - LEVEL 4

FOURTH FLOOR UNIT MIX

- (1) 4 BR DUPLEX UPPER 576 S.F.
- ECO-FARM ROOF GARDEN 576 S.F.
- (1) 4 BR DUPLEX UPPER 576 S.F.
- ECO-FARM ROOF GARDEN 576 S.F.

107721336-P3

CATEGORY: INNER PORTLAND INFILL SITE

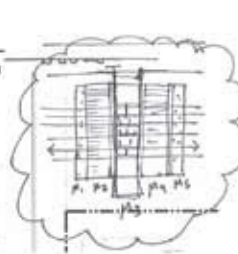
LIMINAL YARD

PROJECT DATA:

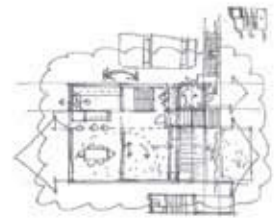
TOTAL UNITS:	6
MAX. UNIT HEIGHT:	41'-6"
TOTAL COVERED AREA:	4,825 SF
LOT COVERAGE:	48.25%
TOTAL BUILDING AREA:	12,089 GSF

UNIT	FLRS.	BEDRMS.	AREA
A	2	1	1,063 GSF
B	4	3+	2,538 GSF
C	3.5	3	2,020 GSF
D	3	3	1,890 GSF
E	4	3+	2,538 GSF
F	3.5	3	2,020 GSF

This project proposes a community of six condominium townhomes, "woven" together by a series of parallel landscape "ribbons" which span the site and define a central, organizing courtyard. The ribbons consist of various natural and man-made urban surface materials, allowing the south-oriented courtyard to support a broad range of activities and programs, including children's playspace, recreation, gardening, and community events. The ribbons also form the basis of a storm water management and rain harvesting mechanism – their various porous and/or perforated surfaces allow run-off to collect in channels and cisterns integrated below the court's walkways and parking.



PROGRAM + MATERIALS "RIBBONS"



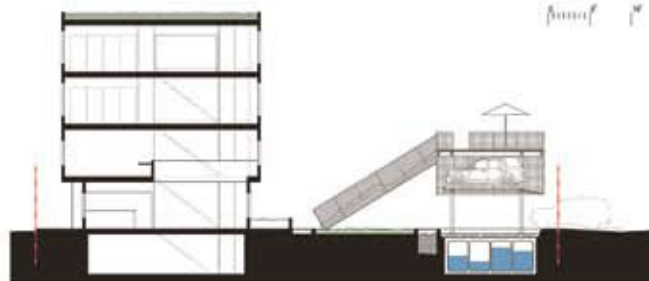
THRESHOLDS



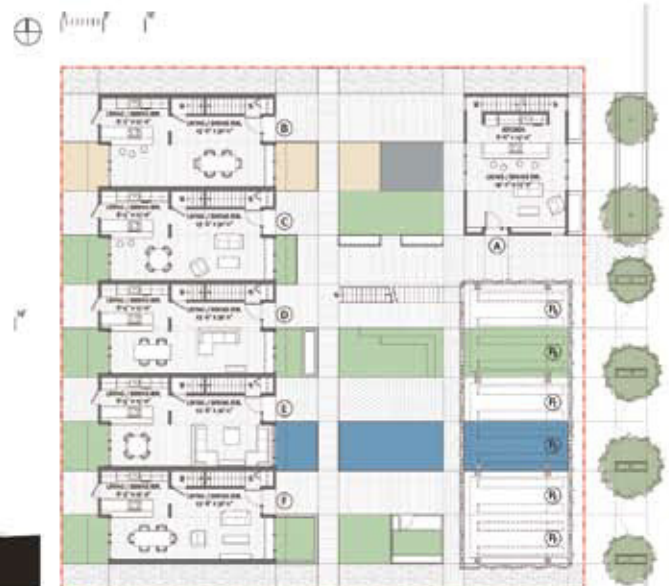
OVERHEAD VIEW OF COURTYARD, PARKING, EVENT PAVILION AND UNITS.



RIBBONS OF PROGRAM AND MATERIALS ARE INTERWOVEN TO PROMOTE VARIOUS USES WHILE PROVIDING A CENTRAL, COHESIVE COMMUNITY SPACE.



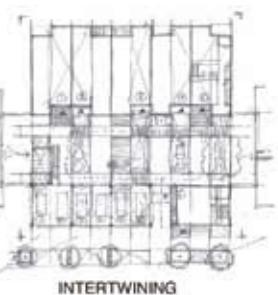
EAST-WEST SECTION



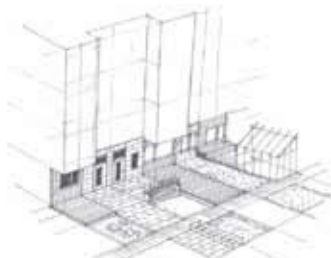
GROUND FLR. PLAN / SITE PLAN



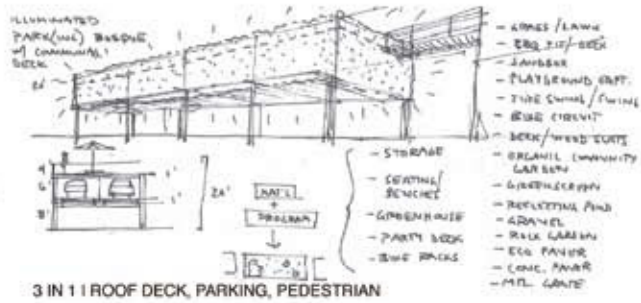
1077151819-yg



INTERTWINING



MATERIALS FOLD TO DEFINE THRESHOLDS + BOUNDARIES



LED BEHIND A 'GREENSCREEN' CANOPY, DOUBLE WIDE AUTO LIFT STOWS THE CAR WHILE MAXIMIZING PEDESTRIAN AREAS ABOVE AND BELOW.



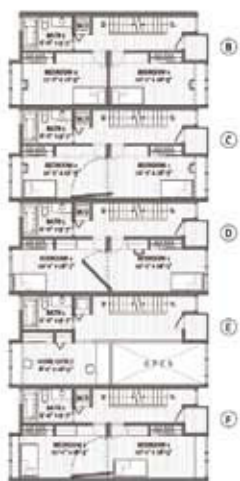
TRADITIONAL THRESHOLDS ARE MAINTAINED WHILE TEMPORARY THRESHOLDS ARE ALSO ACHIEVED.



PLAY SERVICES ARE MIXED WITH PROGRAMMATIC 'GREEN' ELEMENTS. A CLOSED CIRCUIT CONNECTS NEIGHBORS WHILE ALSO ALLOWING BIKES, TRIKES, AND BIG WHEELS TO CIRCULATE.



STORMWATER MANAGEMENT, ORGANIC GARDEN, AND GREEN HOUSE.



SECOND FLR. PLAN



THIRD FLR. PLAN



FOURTH FLR. PLAN

1077151819-yg

courtyardhousing

+ INNER PORTLAND INFILL SITE

In your typical urban infill condition children are often left with few options when it comes to space to play. The goal of our design proposal is to remove the car from the equation. By depressing the parking level slightly below ground level and elevating the shared courtyard we create a safe, semi-private condition where children and residents can freely play and interact with each other. A grand stair breaks up the building mass and connects the inner courtyard space to the rest of the community at street level. The courtyard design creates a balance between hard surfaces and soft landscape allowing numerous activities to occur in the space. Rainwater filters down through the permeable surface and is collected for irrigation and flushing toilets. The centralized cluster of trees helps to screen views of the bedrooms between the units and offers areas of shade within the courtyard. Rooftop decks extend the livable area of each unit, providing a private outdoor space for the occupants. Each rooftop terrace is covered by a photovoltaic roof, that provides energy and shelter from inclement weather.

Total Project Size: 4,859 s.f. footprint
Building Coverage: 49 %
Total Units: 7 units + 2 accessory
Max. Unit Height: 33'-0"
Ownership: Condominium with HOA to maintain courtyard and parking

Unit Types:

- (2) Unit A**
3 BR/2.5 BA + Romper Room
1,859 SF
- (2) Unit B**
3 BR/2.5 BA
1,443 SF
- (1) Unit C**
2 BR/2.5 BA + Home Office + Roof Deck
1,554 SF
- (2) Unit D**
2 BR/2.5 BA + Accessory Unit + Roof Deck
1,836 SF



TYPICAL INFILL CONDITION



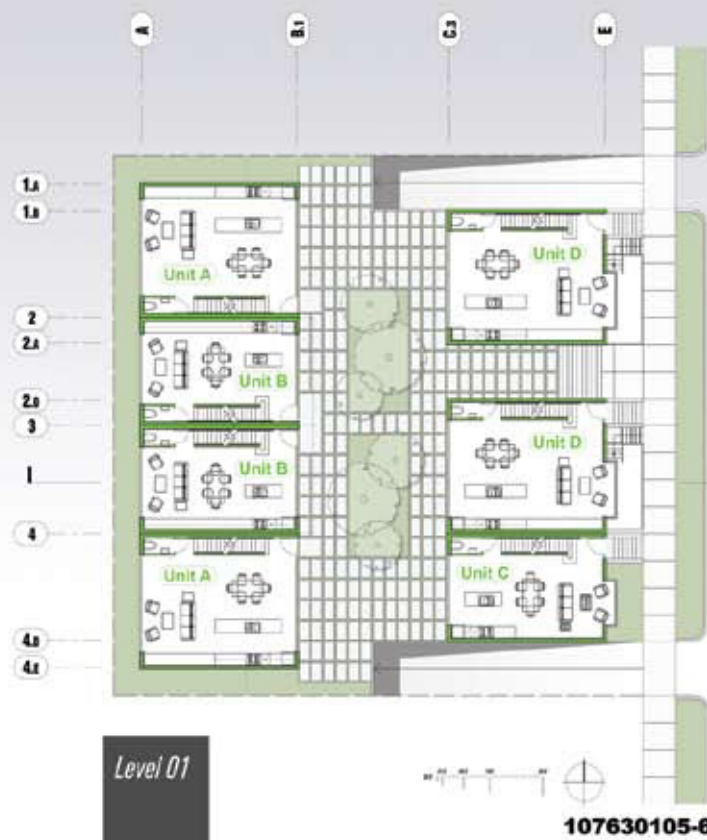
GOAL: REMOVE THE AUTOMOBILE FROM PLAY SPACES



RESULT: FAMILY FRIENDLY COURTYARD HOUSING



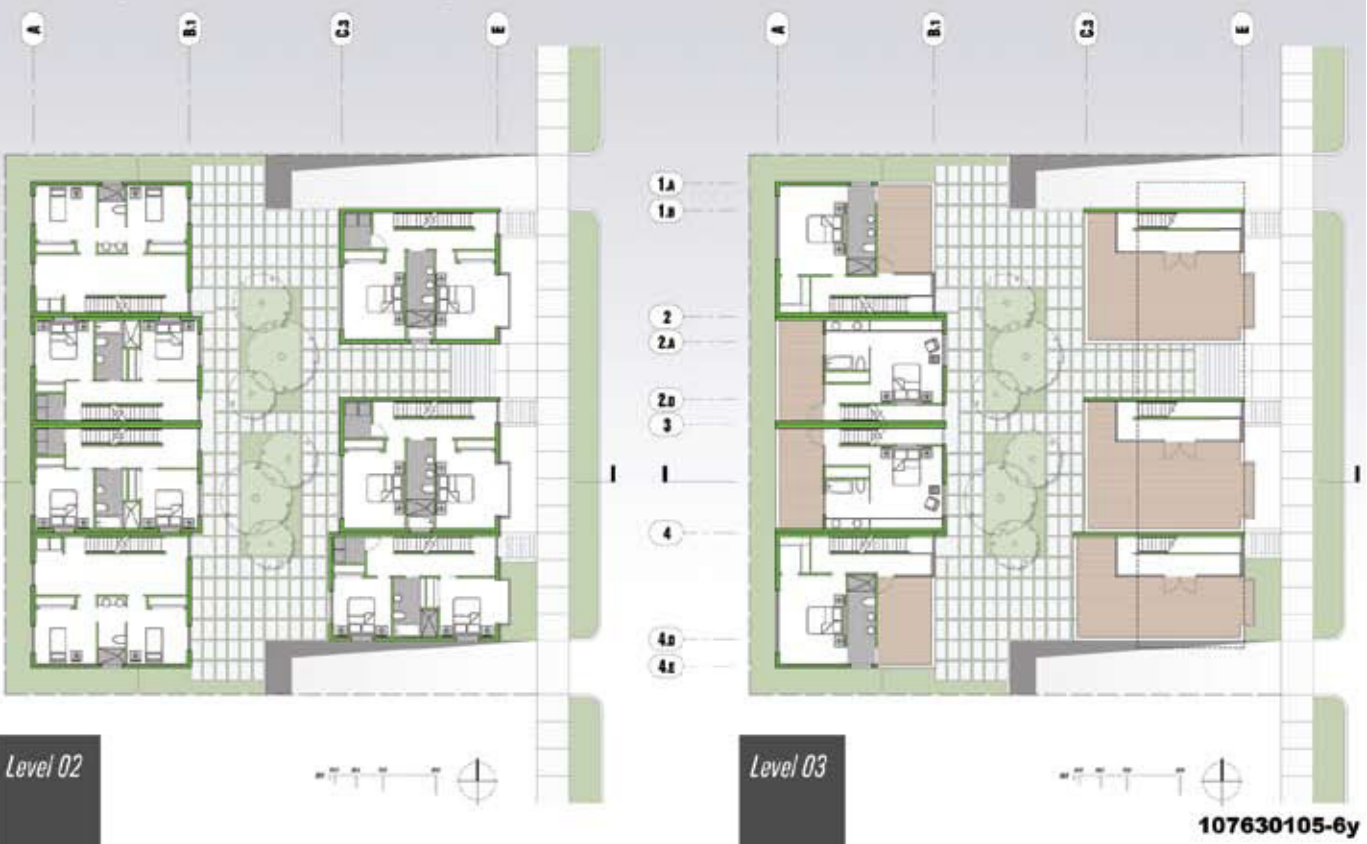
Level B1



Level 01



courtyardhousing

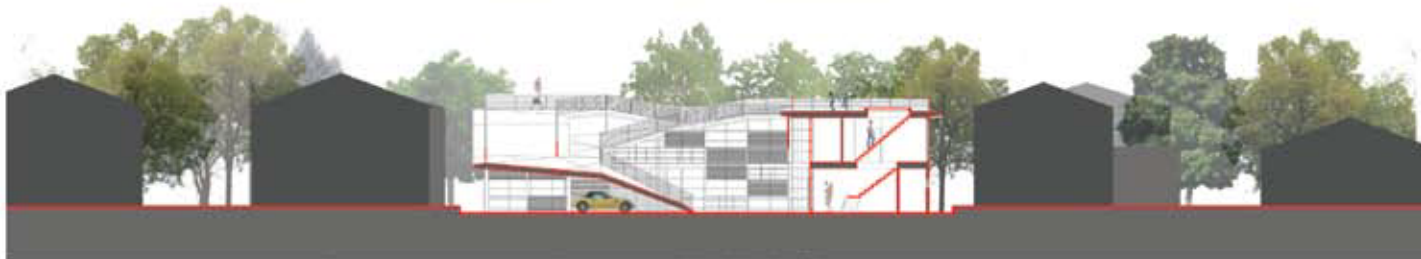
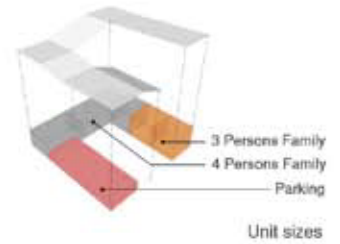
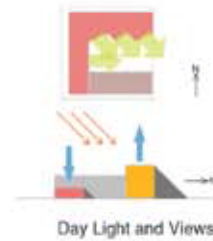


Communal Rooftop

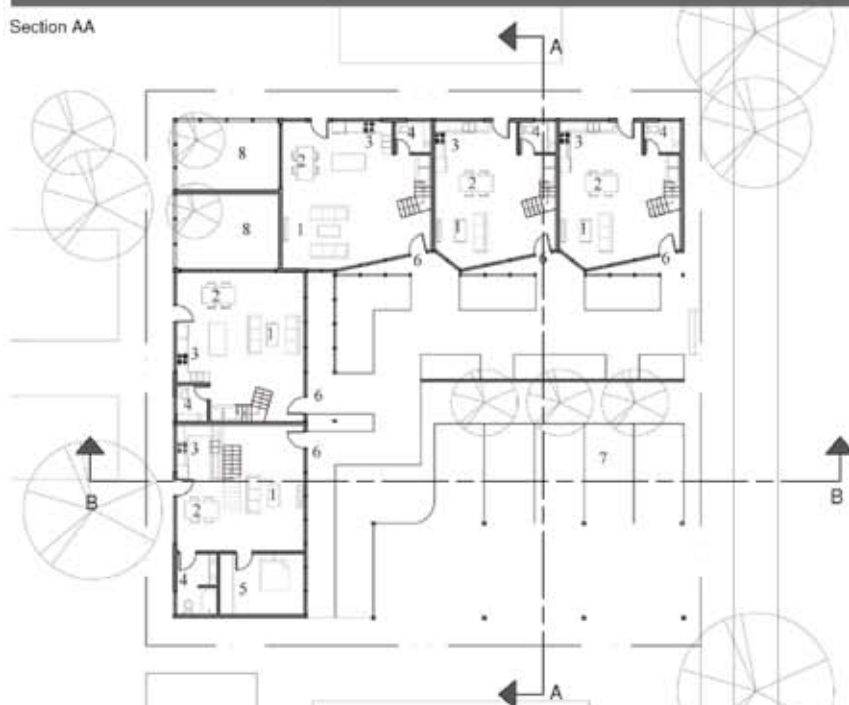
Inner Portland Infill Site

The concept of the design is the accessible roof to maximize the public and communal space for the tenants. The housing forms a C shape configuration with the opening faces the street to invite views to the units. The south side of the C is lowered to increase the amount of sun light entering the courtyard and the parking is fitted beneath it. The roof rises up from the ground and flings across the entire C. It becomes the extension of the courtyard space. The roof is also a rain water collector to direct runoff to the cistern underground and redistribute to the units for non-portable applications.

Percentage of Building Coverage:	5,881 sq ft 58.81%	Type A: 1,184 sq ft	Type C: 1,619 sq ft
Maximum Building Height:	21 ft	Type B: 1,736 sq ft	Type D: 1,300 sq ft
		Total Square Footage: 5,839 sq ft	



Section AA

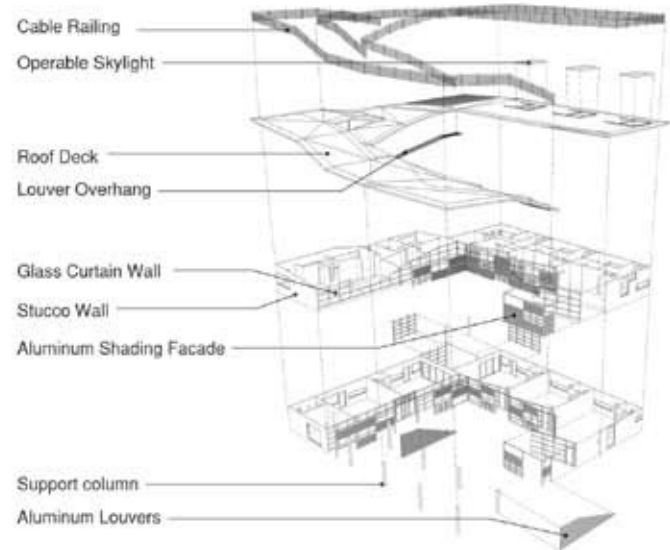
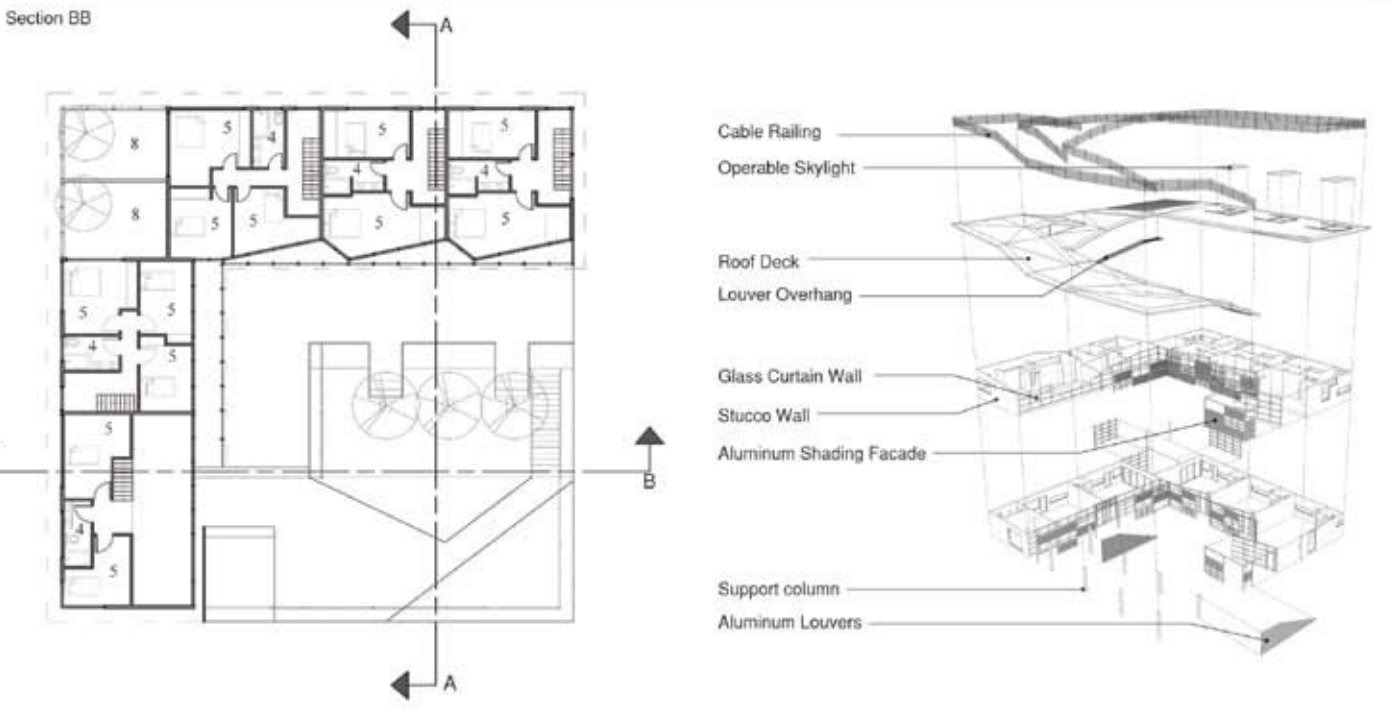
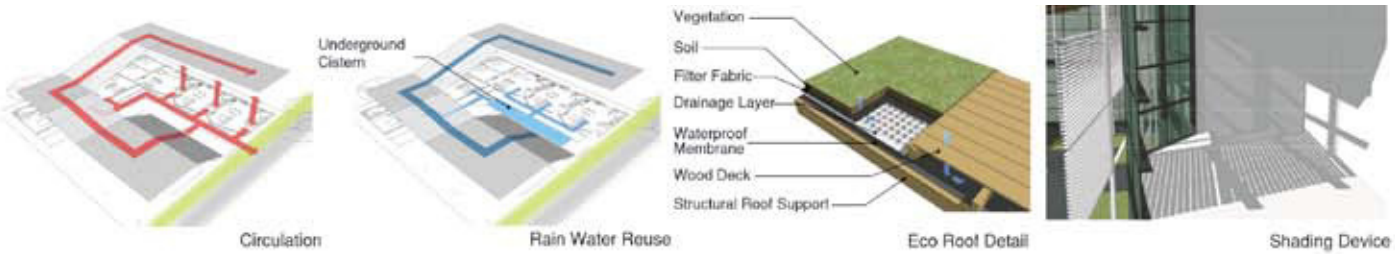


Floor Plan Key

Scale: 1/16"=1'

1. Living Room
2. Dining Room
3. Kitchen
4. Bathroom
5. Bedroom
6. Entry Area/Patio
7. Parking
8. Private Courtyard





INNER PORTLAND INFILL SITE

COMMON GROUND

units: 8 units (35 units/acre)
flex unit: 1,530 gsf (3-4 br, 2 ba)
sky unit: 1,178 gsf (3 br, 1.5 ba)
shop unit: 1,160 gsf (2 br, 2 ba)
total building area: 10,827 gsf
site coverage: 52%
max. building height: 36'-0"
far: 1.08
cars: 8 spaces

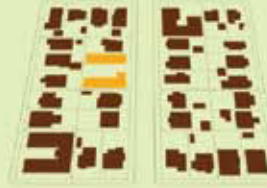
proposes a group of urban condominium homes surrounding a shared courtyard—an outdoor living room where families can meet and gather. Common Ground extends to its neighbors in the form of a public entry garden and low-intensity commercial spaces. The project's attention to sustainable principles contributes to the common good of the City of Portland.

Common Ground utilizes the ground as a multi-use area. Parking, play, circulation, stormwater control, drought-tolerant landscaping, overlapping territories, and public/private thresholds all are part of this space.

In addition, this project is grounded: design decisions are made with economic and technical feasibility in mind.

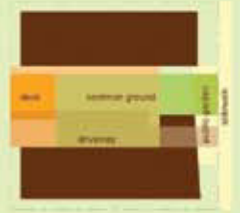
DENSIFYING GENTLY

The courtyard housing typology allows new residents to move in while respecting the established patterns of neighborhood development and lifestyle.



DEFINING SPACES

Spatial thresholds and varied uses define levels of public, semi-public, and private space.



COURTYARD PERSPECTIVE



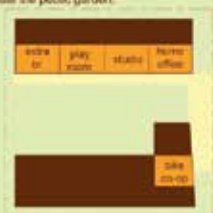
LEVEL 1 PLAN



LEVEL 2 PLAN

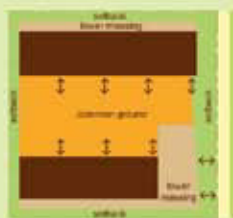
MIXING USES

Several units have a flex space that can be used for a work area, play room, or an extra bedroom. Flex spaces at the street can be used for low-intensity commercial activity (e.g., home office, DIY bike repair co-op) to help activate the public garden.



BEING NEIGHBORLY

Play areas, an outdoor kitchen, and a shared deck help build connections between neighbors. Setbacks and lower massing at edges allow the building to fit in with the low-density context.



MANAGING WATER

Water from roofs and surface runoff is diverted to a cistern for irrigation and graywater use, or to bioretention. Permeable paving slows infiltration. A seasonal waterfall and stream acts as a play feature.



LIVING LIGHTLY

Common Ground does its part to live lightly by conserving resources, creating on-site energy, and minimizing the burden on public infrastructure. The project is designed to achieve a LEED for Homes Platinum rating.

LOCATION + LINKAGES	10
SUSTAINABLE SITES	13
WATER EFFICIENCY	10
INDOOR ENVIRONMENTAL QUALITY	12
MATERIALS + RESOURCES	20
ENERGY + ATMOSPHERE	27
HOMEOWNER AWARENESS	1
TOTAL (out of 108 possible points)	93
PLATINUM RATING	

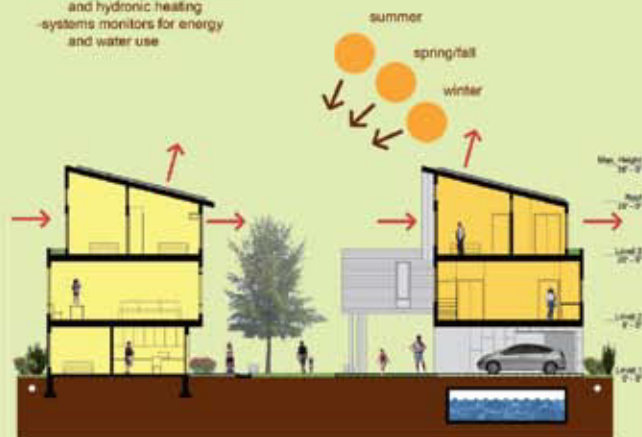


STREET PERSPECTIVE



LEVEL 3 PLAN

- low-energy appliances and lighting
- healthy non-toxic materials
- natural through ventilation
- stack ventilation at stair skylight
- photovoltaic panels
- solar hot water panels for DHW and hydronic heating
- systems monitors for energy and water use



NORTH/SOUTH SECTION

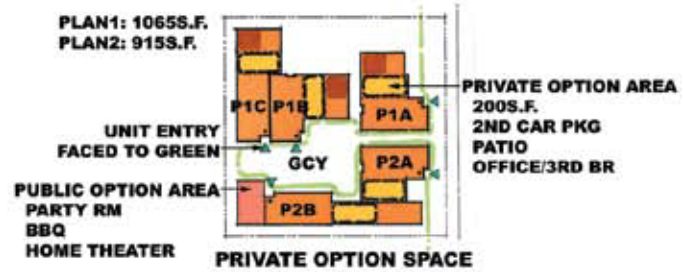
107841038-Sm

CATEGORY: INNER PORTLAND INFILL SITE
TITLE: GROWING COMMUNITY
ADJUSTABLE FOR VARIOUS LIFESTYLES W/ KIDS

DESIGN PRINCIPLE:
 GREATER ROOM CONCEPT
 USABLE OPTIONAL SPACES
 REGIONAL BUILDING STYLE
 SAME SCALE TO NEXT BLDG
 SIMPLE FORM
 AFFORDABLE PRODUCT
 ENERGY PERFORMANCE
 VARIETY OF OPENSACE

DATA:
PROJECT SUMMARY
 SITE AREA: 0.23 ACRES
 UNIT NUMBER: 5 HOMES
 DENSITY: 21.8 DU/AC
 BUILDING TYPE:
 2 STORY + MEZZANINE
 TOWNHOMES

PLAN1: 10655.F.
 PLAN2: 9155.F.



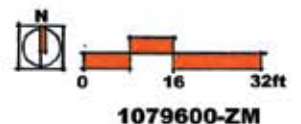
1.GREEN COURTYARD VIEW (FROM WEST)

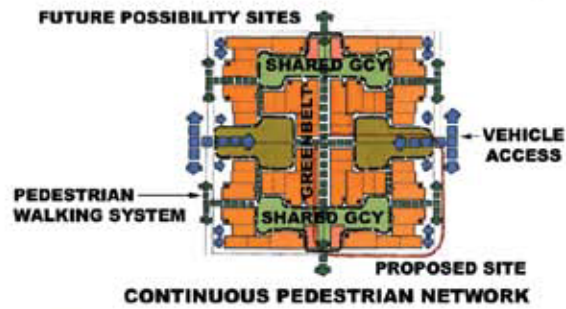


2.FRONT STREET VIEW (FROM SOUTH-EAST)



SITE PLAN / FIRST FLOOR PLANS

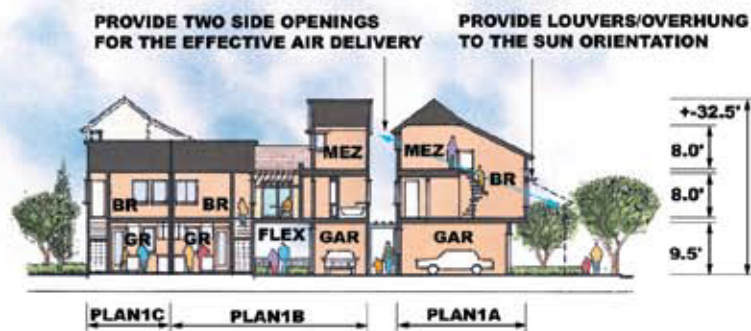




3.GREEN COURTYARD ELEVATIONS



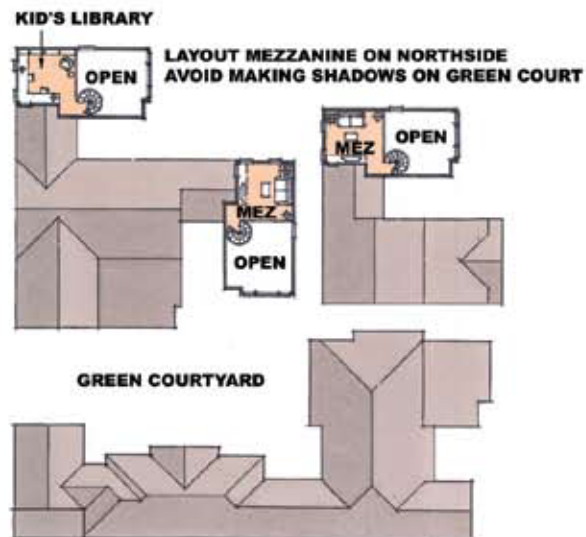
4.FRONT ELEVATIONS (EAST)



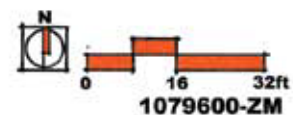
5. SECTION



SECOND FLOOR PLANS



MEZZANINE FLOOR PLANS



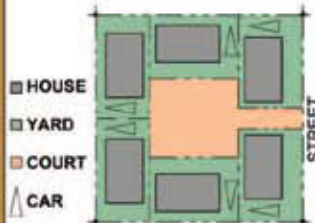
COURTYARD HOUSING FOR FAMILIES INNER PORTLAND INFILL SITE

TOTAL UNITS:	6	TOTAL SF ON SITE:	8958 SF
MAIN FLOOR SF:	543	BUILDING COVERAGE:	34%
TOTAL UNIT SF:	1493	MAXIMUM HEIGHT:	± 31'

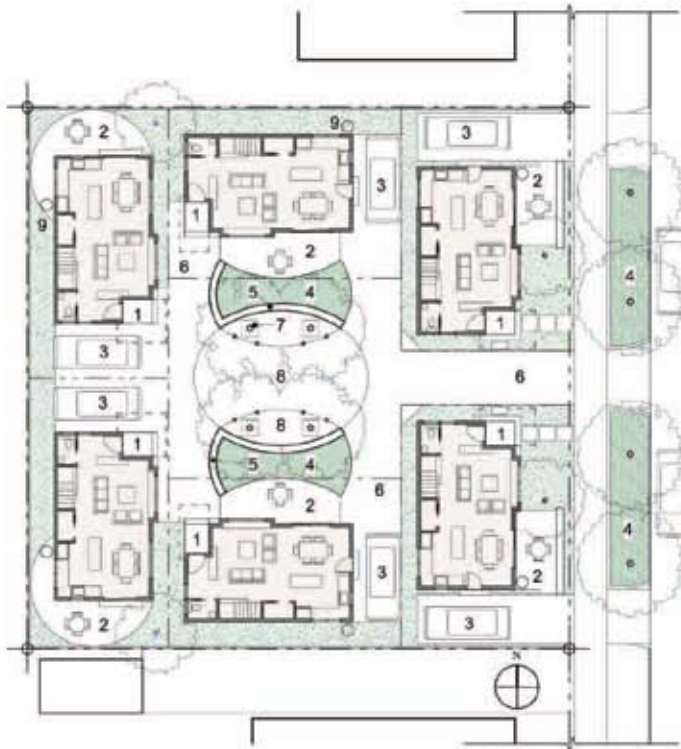
This proposal provides six separate compact but functional residences for families, each on their own lot. The traditional gable roofed massing allows the project to become part of the fabric of a typical Portland neighborhood while modern proportions, materials, and floor plans make it appropriate for today. The main living spaces are at the ground level so that child play can easily spill outside with indoor supervision. The project allows for parking on site, close to each residence, without letting the car dominate the space. The design of the court provides room and opportunities for creative play. Low walls and trees act as climbing structures and a large area of smooth concrete allows for bike riding, chalk art, roller skating, and ball play.

VERSATILE COURTYARD

This courtyard provides automobile circulation and stormwater management while still letting children's play dominate.



FUNCTIONAL HOMES



SITE PLAN

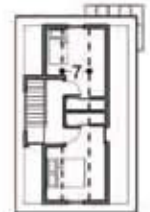
1. ENTRY STOOP
2. SEMI-PRIVATE PATIO
3. PARKING
4. STORM WATER PLANTER
5. 24" HIGH WALL
6. PERVIOUS PAVING
7. DECIDUOUS TREES W/ BOLLARDS
8. SMOOTH CONCRETE FOR PLAY
9. RAIN BARREL, TYPICAL



1. ENTRY
2. POWDER
3. WINDOW SEAT
4. MECHANICAL



5. FUTURE BATH
6. LAUNDRY



7. EDGE OF 7'-0" CEILING

SUSTAINABLE SOLUTIONS



Stacked ventilation

Narrow house = cross ventilation & natural light

Recycled content and rapidly renewable materials

Applied sunshades depending on orientation

INTERIOR/EXTERIOR RELATIONS

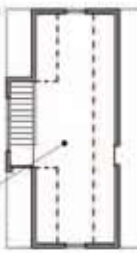
Each unit has a semi-private usable outdoor area as well as access to the semi-public courtyard. Stormwater filtration areas provide a buffer that allows residents to comfortably keep their blinds open and eyes on the courtyard.



PRIVATE
BUFFER
SEMI-PRIVATE
SEMI-PUBLIC

AFFORDABILITY

- Density
- Modest house size
- Minimal excavation
- Simple massing
- Repetition of plans
- Attic and Master bath could be left unfinished initially allowing owners to add on as needed.



Unfinished Attic for office, playroom or bedrooms

CONTEXTUAL RESPONSE



Windows and balcony provide visual interest
Living areas & front door at ground level

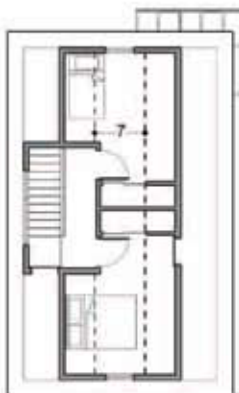
Unit massing, gable roof & setbacks match single family



SECTION LOOKING WEST



SECTION LOOKING NORTH



FLOOR PLANS

1. ENTRY
2. POWDER
3. WINDOW SEAT
4. MECHANICAL
5. FUTURE BATH
6. LAUNDRY
7. EDGE OF 7'-0" CEILING

1077281648-Fq

Murraymead Court

Seven residential units will surround a "Common Green" courtyard to serve as a safe and private outdoor living area for families and guests. The courtyard entry will embrace the neighborhood and the residential structures will be comparable in height to existing, adjoining dwellings. The five rear units will have separate, fee-simple parcel ownership. The two front units above the parking spaces will each have fee-simple parcel ownership providing vehicle access/storage easements to the remaining five unit owners. All unit owners will commonly own the courtyard, driveways and landscaped areas.

Project Data

Number of Units: 7
Unit Square Footages:

Max Building Height: 34'
Unit A: (2) 1,350 sq. ft.
Unit C: (1) 1,300 sq. ft.

Lot Coverage: 50%
Unit B: (2) 1,050 sq. ft.
Unit D: (2) 1,520 sq. ft.

context map



integrate

overall plan



live

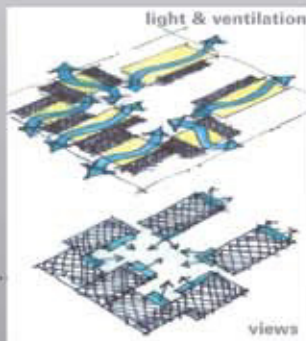


section

view looking west

Design Elements

- All residents will enter their individual units from the courtyard and dwelling living areas will have views to the courtyard. This will enhance interaction between neighbors and create a protected play area for children.
- The courtyard will extend to the public right-of-way by a series of terraced steps and a gently sloped walkway. A series of landscape architectural elements, such as planters, will serve as catchments for roof storm water drainage. These catchments will complement side yards, the courtyard and the walkway and steps.
- The parking areas are accessed by two side yard "alleys" completely separated from the pedestrian courtyard and providing buffers for adjoining, existing dwellings.



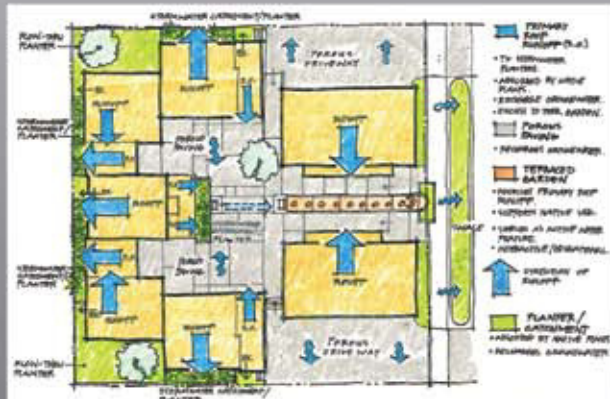
light & ventilation



entry

views

siting



site / ground floor

precedents



water feature



native vegetation



pavers



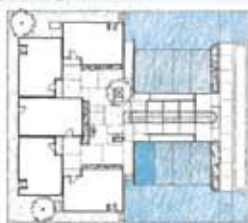
play

green space



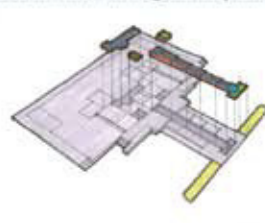
grow

parking / access



park

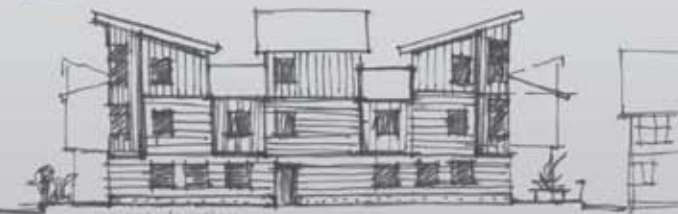
stormwater management plan



rain



sectional view in courtyard looking northwest



west elevation



south elevation



first floor



second floor

precedents



parking pavers



courtyards



1076311132-3n

ELEVATED LIFESTYLES

INNER PORTLAND INFILL SITE

Conceptually the courtyard and it's vertical green screen' represent Portends relationship to its mountainous surroundings. On a microstate, the courtyard is presented to the neighborhood as a sculptural element that is both useful and attractive. By elevating the courtyard, emphasis is placed on the importance of community gathering. A secondary courtyard on the Northwest corner is smaller in scale and more spatially defined to accommodate the children.

Site Footprint = 10,000 sqft Bldg. Footprint (2) = 3,330 sqft.
 34% Bldg. Coverage (2 units per bldg.)
 Unit Net = 1,663 sqft. Maximum Height = 43'



Elevation 01

Section



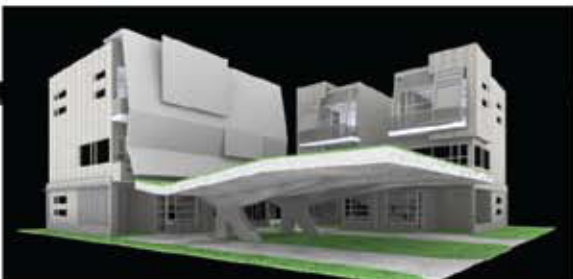
Site Plan



1079151657-zr



Elevation 02



Second Floor Plan



Third Floor Plan

1079151657-zr

INNER PORTLAND INFILL SITE

GARDEN COURT

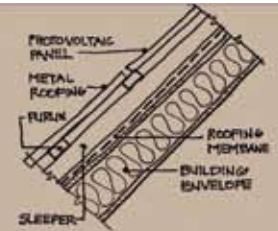
Six units (three 3-bedroom and three 4-bedroom) are proposed in a shared court configuration. A 23-foot wide court with 11-foot garage doors allows easy auto maneuvering. The builder can choose either condominium or "fee-simple" ownership. Three-bedroom units are 1,570 SF with a 250 SF garage and a 280 SF roof garden. Four-bedroom units are 1,680 SF with a 250 SF garage and a 340 SF roof garden. Lot coverage is 53%. Maximum building height is 32 feet.

Flexibility and sustainability guided the design process. Standard wood framing or structural insulated panels may be used. Exterior finishes are cement plaster below with cement fiber siding and trim above. Heating is radiant hot water with a "breadbox" solar pre-heater. The roof is configured to accept 200 SF of photovoltaic solar panels per unit.

1. PRE-SERVE 50' LOT PATTERN AT STREET
2. VARY SET BACK AT PROPERTY LINE
3. USE VERNACULAR FORM
4. MAINTAIN 2% STORY MAX. FACADE



Neighborhood Context



Solar Harvesting



East Elevation at Streetfront



Section looking West



South Elevation at Court Interior

Legend

1. Photovoltaic Panels
2. Corrugated Metal Roofing
3. 3x4 Wood Purlins (or Galv. "Z" Metal with wood outriggers)
4. 4x4 Wood Sleepers (or Galv. "Z" metal with wood outriggers) over floor membrane
5. Building Envelope - Insulated wood framing or structural insulated panels
6. Green Roof over ±5" growing medium with paving stone terraces set by owners
7. Outdoor kitchenette
8. 2" Lightweight Concrete Flooring - colored, polished & scored w/ radiant heating loop embedded
9. Exposed wood floor framing
10. "Bread Box" solar hot water pre-heater
11. 42"x 60" space at bottom of stair to accommodate future inclined chair or platform lift
12. Private cistern - overflows to bio-swale
13. Bio-swale
14. Oil separator under pavilion
15. Storm drain to oil filter
16. Pavilion with photovoltaic panels for site lighting and pump filtered water to bio-swales
17. Interior ventilating transoms
18. Louvered vents with insulated shutters
19. Roof Garden
20. "Creative Room"
21. Stair Hall
22. Bedroom
23. Closet
24. Bathroom
25. Garage
26. Living Room
27. Kitchen-Dining
28. Front Porch
29. Back Hall
30. Private Garden
31. Shared Court
32. Place for Community Design in Colored Concrete
33. Open air "Tea-house"

4' 8' 16' 32'



Site Plan & Ground Level Floorplans

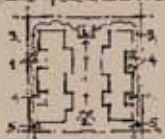


2nd Level Floorplans

4' 8' 16' 32'

10777048-T6

1. PRE-RETENTION & RETENTION OF SITE
2. SURFACE DRAINAGE & TO ST. SEWERMANHOLE
3. BIODIVERSITY
4. CATCHMENT OVERFLOW TO FOOTWALK
5. DRAINAGE W/ OVERFLOW TO STREET



MINIMIZE STORM RUNOFF

Rain Water System

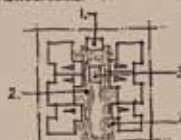
1. PROVIDE 2' LANDING AT DOWNRISE
2. PROVIDE STRUCTURAL BACKING AND ROUGH ELECTRICAL FOR FUTURE INCULCATED 1. FT



PROVIDE FOR MOBILITY OVER TIME

Accessibility

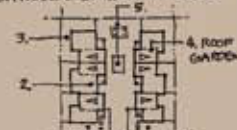
1. VERSITILE PAVILION FOR PLAY OR RELAXING
2. PAVING PATTERN EXTENDS PORCH
3. OWNER-DESIGNED CONCRETE "CARPET"
4. WALK DEMARKED BY PAVING PATTERN



VERSITILE COURTYARD

Providing Mobility

1. CREATE CORNER LOT FACADE AT ENTRANCE
2. ORIENT LIVING AREAS & PORCHES TO COURT
3. PROVIDE PRIVATE SPACE AT GRADE
4. PROVIDE PRIVATE RETREAT SPACE
5. PROVIDE GATHERING PLACES



BALANCE COMMUNITY & PRIVATE SPACE

Shared Court



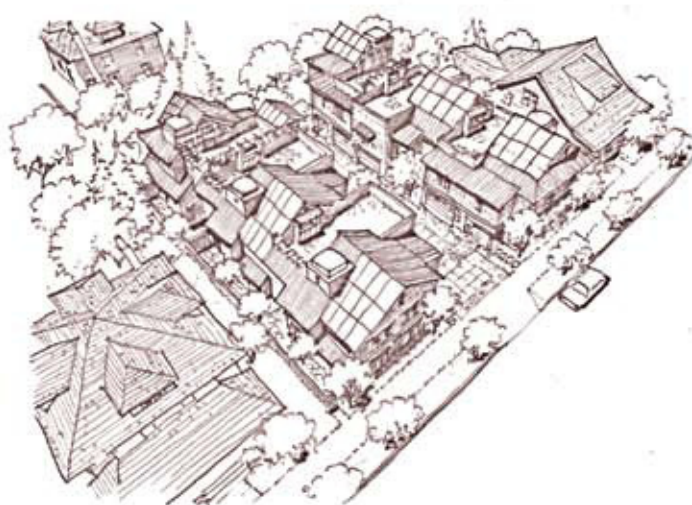
View from Teahouse



Pedestrian View at Sidewalk



Ground Level Floorplans with Roof Gardens



Bird's Eye View

10777048-T6

Jury comments on inner site commendation winners

Note. numbering is for identification only and has no bearing on relative merit

Commendation 1. This proposal challenged the idea of surface parking. Cynthia Girling made the case that while underground parking may not be affordable now this could be a relevant model in the not-too-distant future. With eight units, including five three-bedroom units, the economics may work in the near future for basement parking. Also, the proposal's massing works well, according to David Miller. "I really like the idea of a four story building with a two story wrap."

Commendation 2. The common green works remarkably well in this scheme. Five of the six units have generous views from a variety of spaces to the green. The green also supports shared gardens. As Nancy Merryman noted, "The project has a nice separation of courtyard and street – this scheme takes maximum advantage of the courtyard." David Miller said that the project has "great solar access to a very good courtyard with a vegetable garden." The drawback is on the street, where roughly half of the street frontage is given to parking.

Commendation 3. In this entry, shipping containers helped the designers achieve a remarkable ten units. When determining the award level for most projects, jury members were looking for a fatal flaw. Unfortunately, the flaw in this one is the overly grand entry into the sunken parking garage. Ramps like this are rarely an asset for residential streets and this one is no exception. The grand scale is accentuated by the diagonal sidewalks, which turn what could be useable outdoor space into little more than circulation space.

Commendation 4. This scheme challenged the conventional thinking about courtyards. By integrating car-lifts into the proposal, the designers nearly doubled the useable outdoor space without the expense of below grade parking.

Commendation 5. David Miller argued that, "This is beautiful architecture." Elevated main floors, stoops along the street edge, bay windows, deep overhangs, and compatible materials help integrate the proposal into Portland's context. With seven units and two accessory units, the density may help support the proposed basement parking. Nevertheless, Michael Pyatok was generally not supportive of schemes with underground parking – the excavation, retaining walls, and ventilation may jeopardize any hope of affordability in today's economic climate.

The proposal did have a few flaws. The courtyard design lacks meaningful detail and the units accessed off of the courtyard have little real transition space. In addition, as Cynthia Girling noted, "The streetside entry stoops are a bit harsh." This project also was selected for a People's Choice Award.

Commendation 6. The innovative car court made this project stand out. By wrapping the parking with an elevated green, this project reconsiders the role of a courtyard and connects it to all other aspects of the design.

Commendation 7. This is one of the few plausible eight-unit proposals that fits within the context of Portland's lower density inner neighborhoods. The massing fits in along the street and the ample unit plans allow for a variety of family types. The jury selected the project for a commendation primarily because of its unique arrangement that allowed for both a shared court and common green.

Commendation 8. Clare Cooper Marcus loved this "handsome courtyard." It recalls courtyard housing of the 1920s and 1930s. The street frontage is certainly compatible with the Portland context and the units work for a diversity of households. But at just five units, the density was less than many other proposals. And as Michael Pyatok noted, the proposal has "three garage doors on the street."

Commendation 9. Imagine single-family detached housing designed at nearly 24 units per net acre. That is the beauty of this proposal. In addition to a clearly livable density, all the units have adjacent parking, entry transitions, and semi-private patios arranged around a nicely detailed shared court. The style fits in with typical patterns of development and the units would be easy to build and modify. One jury member noted that these would "sell like hotcakes."

Commendation 10. Tucked behind and between the seven units in this proposal is a well-developed courtyard. The units are thoughtfully designed and include entry foyers, adequately sized kitchens, and compelling master suites. Commenting on the style, Michael Pyatok noted that the proposal "is contemporary but still has scale." And Clare Cooper Marcus acknowledged that the project "would fit in the neighborhood." Loren Waxman added, "One fault is that it is auto dedicated." This is perhaps the proposal's near fatal flaw. Garage walls and driveways take up nearly 75% of the street frontage, which is a major drawback.

EASTERN PORTLAND INFILL CATEGORY

Top Winners

Honor Award

An amazingly well detailed courtyard captured the interest of the jury. Very few proposals succeeded in designing compelling outdoor and indoor spaces, which is why this project did so well. The social and ecological attributes of the courtyard are clearly described and drawn. The parking area in the front functions more like a small park. The commons house, while not part of the program, provides an attractive face to the neighborhood as well as a useable place for the residents. The units were obviously designed with an attention to changing household compositions. And they do not sacrifice livability for flexibility. As juror David Miller said, “This is a sophisticated landscape solution with a solid courtyard scheme.”

Merit Award

With seven units, this proposal has room for a shared court, a pedestrian-only court, front porches, and even small private yards. This variety provides an unusual and quite welcome degree of choice missing in many proposals. Kitchens, living rooms, and flex rooms overlook the shared court and five of the seven units benefit from attached garages. Two units have bedrooms on the ground floor, which responds to the program’s call for accommodating a diversity of family types, which may include family members who would not be able to negotiate stairs. The style is quite appropriate for the Pacific Northwest, but the arcade’s solid roof would limit south light to the courtyard during part of the year. Nancy Merryman noted, “the units are quite elegant, with light on three sides and south facing exposure.”

Citation Award

Although the unquestionably modern style generated ample discussion and some disagreement, the jury unanimously praised the plan for its sensitive siting that carefully blends transitional spaces at both levels, two shared courts, and the private realm of the units. End units along the street incorporate comfortably scaled porches that provide a needed transition from public to private. David Miller said, “This is one of the few projects in the group that successfully deals with the street.” Cars disappear into attached garages. And stoops and porches add life to the shared courtyard. The main concepts are also nicely presented in the diagrams. The courtyard’s textural richness, however, was not well represented in the ground floor plan.

Honorable Mention

While not remarkable in terms of the architecture, the proposal’s site plan makes a significant and contextually appropriate response to the neighborhood. Michael Pyatok said, “This proposal has a certain believable quality with good site planning and a lot of life in the courts.” Two units with porches face the street and shield the other six units, which frame two quite livable courtyards. The simplicity of the buildings responds to the program’s call for affordability. The shared court provides access to attached carports, which will be appreciated in Portland’s wet winters. The unit plans provide a skillful variety of layouts for a range of family types and they enliven the site with kitchens, dining areas, and living areas overlooking the courtyards.

Jury comments on commendation winners on page 78

Courtyard Housing: HOUSING IN RESPONSE TO THE HUMAN LIFE CYCLE

Category: East Portland Infill Site

Our vision is to provide courtyard housing for children and families that fosters a sense of community, wholeness and well-being. We wish to provide children with the opportunity to witness the diversity of family composition, the connectedness of multiple generations, the wisdom of a transformable environment, and the values of sustainable living.

Our built environment should reflect our attitude as a society to learn from the past, understand the present and challenge the future. Therefore, our housing and communities must be dynamic, flexible and able to fulfill a multitude of purpose and function for all abilities. It is imperative that our environment educates by example, building affordable, healthy, stable and sustainable communities.

Data

Square Footage

Unit A 1661 ft²
Unit B 1331 ft²
Gatehouse 706 ft²
Cycle/Recycle 256 ft²
Total lot coverage 7,046 ft² / 17,100 ft² = 41.2% building coverage
Maximum height 27 feet
Total # of units: 8 primary units, which can each be subdivided for a total of 16



A Sustainable Community for

- Human Sustainability:** Support multi-generational living and opportunities for meaningful interaction.
- Economical Sustainability:** A home's layout is easily modified when the need arises, reducing remodeling costs and increasing marketability.
- Social Sustainability:** By designing flexibility into homes, one home remains appropriate for multiple life transitions. This promotes aging-in-place and contributes to more stable and sustainable communities.
- Cultural Sustainability:** Flexibility of housing enables continuity of cultural values, family structures and social fabric.
- Environmental Sustainability:** The built community should be an example, an educational tool and a means of shared dialogue with the neighborhood.
- Ecological Sustainability:** Strive to reflect balance, wholeness and connectivity in our community environment.



Street Frontage Elevation



Street frontage features a sliding gate and screen fence with low wood panels (to 3' ht.) with taller steel frame, presenting a porous, pedestrian-scale screen for neighbors. Cars stopping to open gate before entering makes for a safer pedestrian zone.



Interior Courtyard Looking West



View into Common Green



Sliding wood panels provide options for more privacy at unit decks



Birdseye View from South

Rainwater Re-use and Stormwater Treatment Train

Rainwater from roofs used for laundry, toilets



Cleansed water contributed back to Willamette watershed

Central 'well': solar pump irrigates gardens with collected rainwater; overflow goes to central channel and helps cleanse parking runoff

Quiet seating/play area with sandbox or other soft play surface

Evergreens to site in with neighborhood context and break down scale of denser development

Bioswale planted with sedges and rushes cleanses pollutants from parked cars, look for teaching watershed health

Colored patterns in paving indicate priority of play space over vehicles

Parking Bays: Hardy groundcover and permeable paving with gravel joints allow storm water infiltration

Shared deck space with room for covered seating/outdoor eating

Geometry of path based on sunpath diagram (educational landscape)

Fruit trees, vegetables, berries, flowers and herbs

Educational play opportunities arise along fence-line, i.e. murals, niches for hiding and finding objects, hollow pipes for making music, etc.



Shared Court: a place for games, bicycles and shared community events such as block parties, movie nights, theatre or farmers' markets

Curb cut-outs allow water from street to flow into rain garden

Sliding gate at driveway

Dedicated fire-car parking space

Entry gate for residents/access to mail room

Entrance to gatehouse for community functions

Rainfall garden with seasonal inviting passersby

Demonstration greenroof

At-grade decks with cisterns for greywater use below

Rain/Wind Sculpture stores water below ground, pump resurfaces water for interactive play

Braided river channel waterplay/scape mimics overland flow patterns

Quiet viewing garden for community and guests

SITE PLAN

1/16" = 1 foot

Concept images: From "In the Hands of Wisdom" by Penny Bauer, in Angeles Arrien, *The Second Half of Life: opening the eight gates of wisdom*. Boulder: Sounds True, 2005. / Herbert Dreisselt, Dieter Grau and Karl H.C. Ludwig, eds. *New Waterscapes: planning, building and designing with water*. Berlin: Birkhauser, 2001. / and Lars Jeds.

1077161832-AJ



All Ages and Households, . . .

Design should promote compatibility between people and their housing. The average household composition is becoming increasingly varied as our society becomes more diverse. The traditional household makeup has expanded to include:

- Nuclear families with children
- Elderly relatives and extended families
- Unrelated adults
- Caregivers
- Home businesses



All Changes,

- **Human Life Cycle:** The amount of space that a household requires changes over time.
- **Economic:** By allowing the dwelling to be divided in a number of ways, space can be rezoned as needs evolve and/or serve to generate income.
- **Social:** The dwelling accommodates the diverse needs of a variety of family units, as well as allowances for disabilities, transitions or creative living solutions.

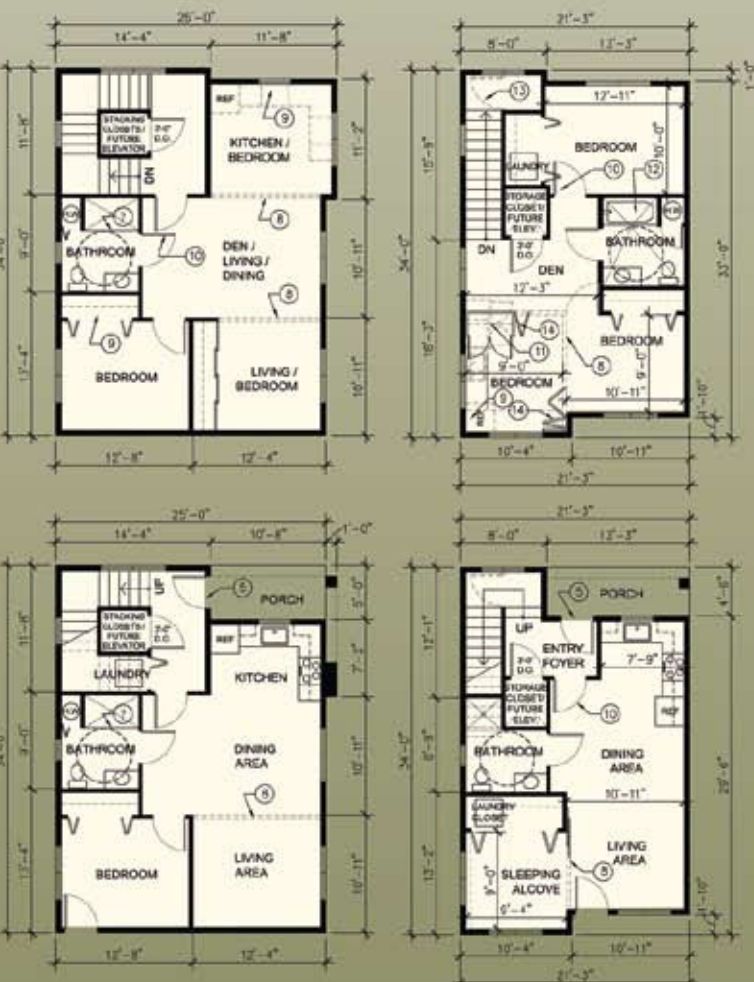


And All Abilities.

- **Universal Design/Human Centered Design:** The rapidly aging American population and longer life expectancies are leading to a greater number of people with physical disabilities.
- By embracing the full spectrum of the Human Life Cycle, we can expand upon the traditional scope of Universal Design. This approach to designing environments results in homes that can better accommodate people's changing situations, varying spatial requirements and varying abilities.



FLEXIBLE DWELLING UNITS



CONDOMINIUM OWNERSHIP STRUCTURE - details:

- Each household owns title to their individual housing unit
- Condominium association manages and maintains shared courtyard, pathways, community buildings

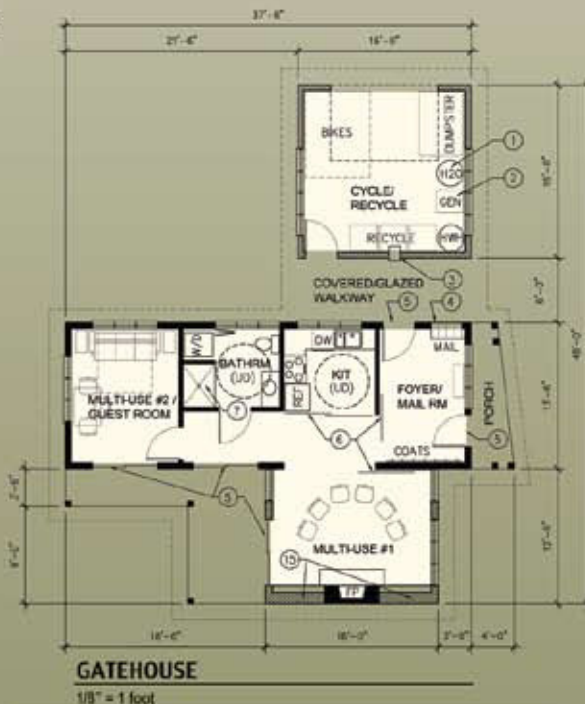
CONDOMINIUM RATIONALE:

- Quicker development period without lengthy subdivision process compared to fee simple development
- Greater flexibility for design and lifespan changes
- Provides governance structure for community amenities such as shared garden, barbeque, bicycle storage, and tool shed

GATEHOUSE / DEMONSTRATION HOUSE / SAFE HOUSE:

The Gatehouse is a place of welcome for both residents and neighbors. It is the front face to the neighborhood and therefore is low profile and residential in scale. It incorporates Universal Design throughout, and if the need arises, it can be:

- Income-generating by means of rentable meeting spaces for the community HOA
- A caretaker's residence
- A daycare or after school drop-in center
- Shared home-office center
- A Demonstration House for sustainable practices such as green building materials, passive solar, green roof and greywater recycling systems
- A place of social interaction and education
- Flexible, multi-functional
- A Safe House, providing the community and neighborhood with a place of emergency shelter.



Key Notes:

- Emergency water supply
- Emergency generator
- Paper recycle slot
- Two-way access
- Zero threshold
- Surface mounting sliding doors
- Curbless shower
- Optional flexible wall
- Roughed-in future kitchen
- Three-ft. doors, typ.
- Moveable closet
- Removable tub on curbless shower
- Optional secured door
- Folding partition
- Tromb wall



1077161832-AJ

EASTERN PORTLAND INFILL SITE

A FAMILY'S DREAM HOME! Close to town without the usual sacrifices.

This community of homes focuses on family features, larger floor plans, private yards, common open space, convenient parking and storage while promoting first cost affordability through appropriate density, conventional construction and lower life cycle costs through energy efficient design, daylighting and renewable onsite energy. The special features of this development include:

- Generous Shared Court - a safe play area for activities better served by hardscape
- Common Green - a safe play area for activities best accomplished on grass. This area also serves as part of the rain water management system
- Covered Arcade - a sheltered common area for socializing, playing and connecting to the greater community
- Green Entry Courts - a transitional space from public to private
- Private Yard or Deck - a contained and private outdoor space for family use for each home
- Flex Room - art studio, office, or multigenerational living space

PROJECT DATA

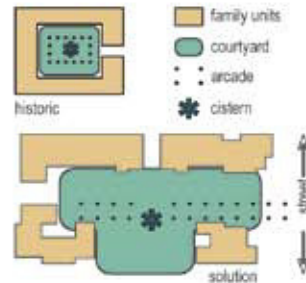
40% Lot Coverage

Maximum HI = 33 ft

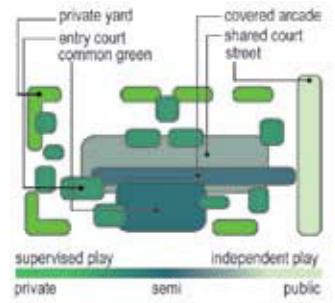
No. of Units = 7

Unit A: 1522 SF
Unit B/ Br: 1561 SF
Unit C: 1577 SF
Unit D/ Dr: 1903 SF
Unit E: 1583 SF

Total: 8146 SF
(includes garage)



COURTYARD RE-DEFINED



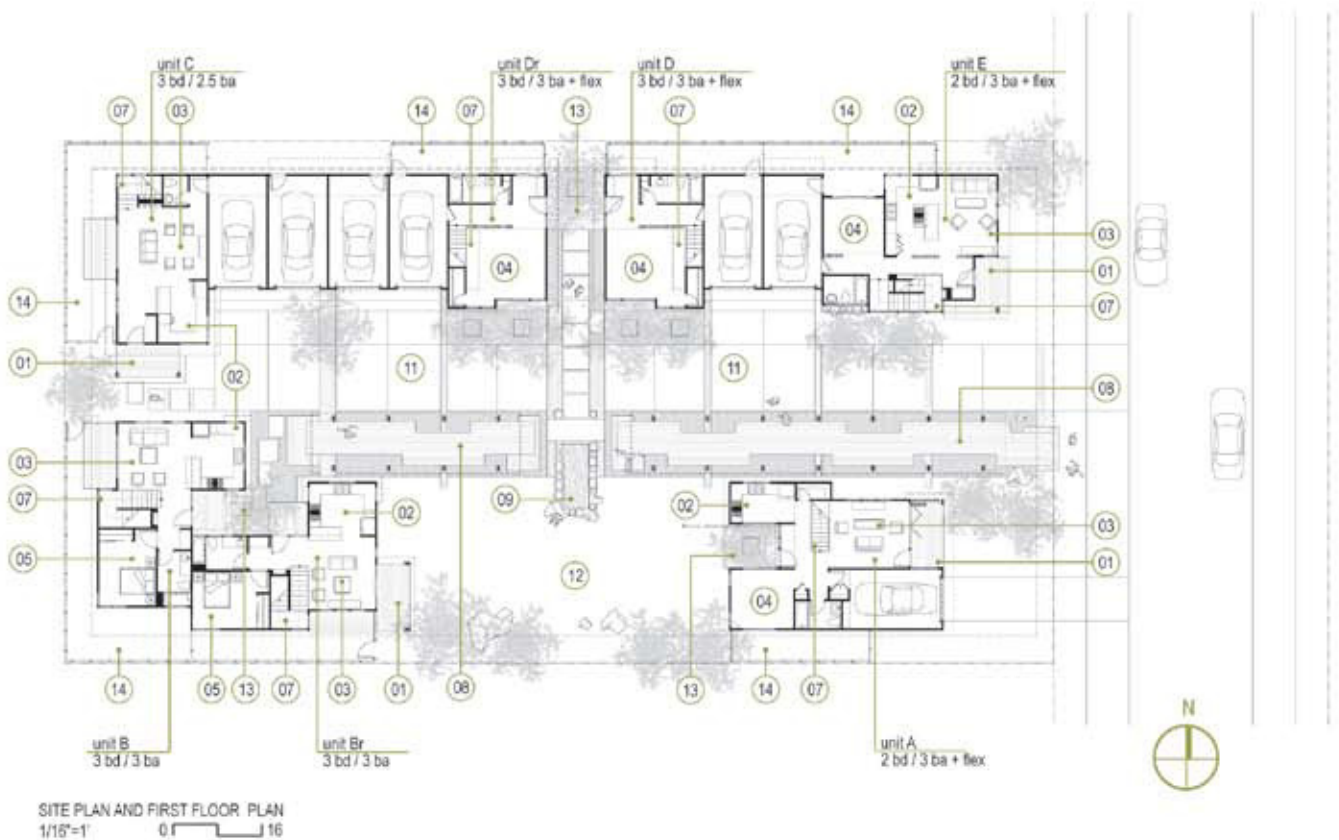
FAMILY FRIENDLY FEATURES - OPEN SPACE

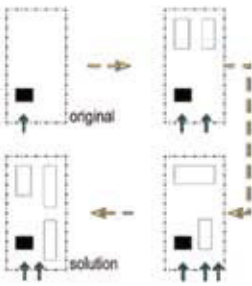


COURTYARD VIEW LOOKING NORTH

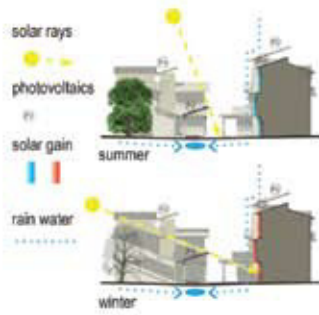


STREET VIEW LOOKING NORTH

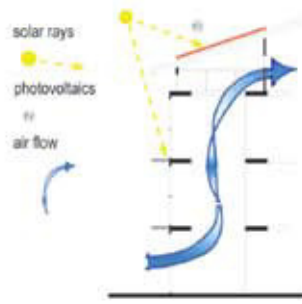




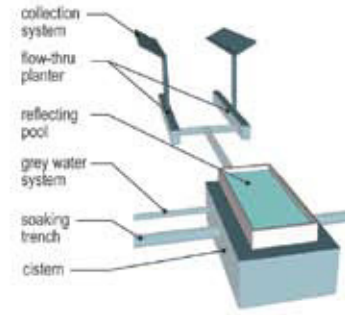
DENSITY PATTERNS OVER TIME



SOLAR RESPONSE



LIGHT AND VENTILATION TOWER



RAINWATER HARVESTING/ MANAGEMENT



cedar shingle



wood decking



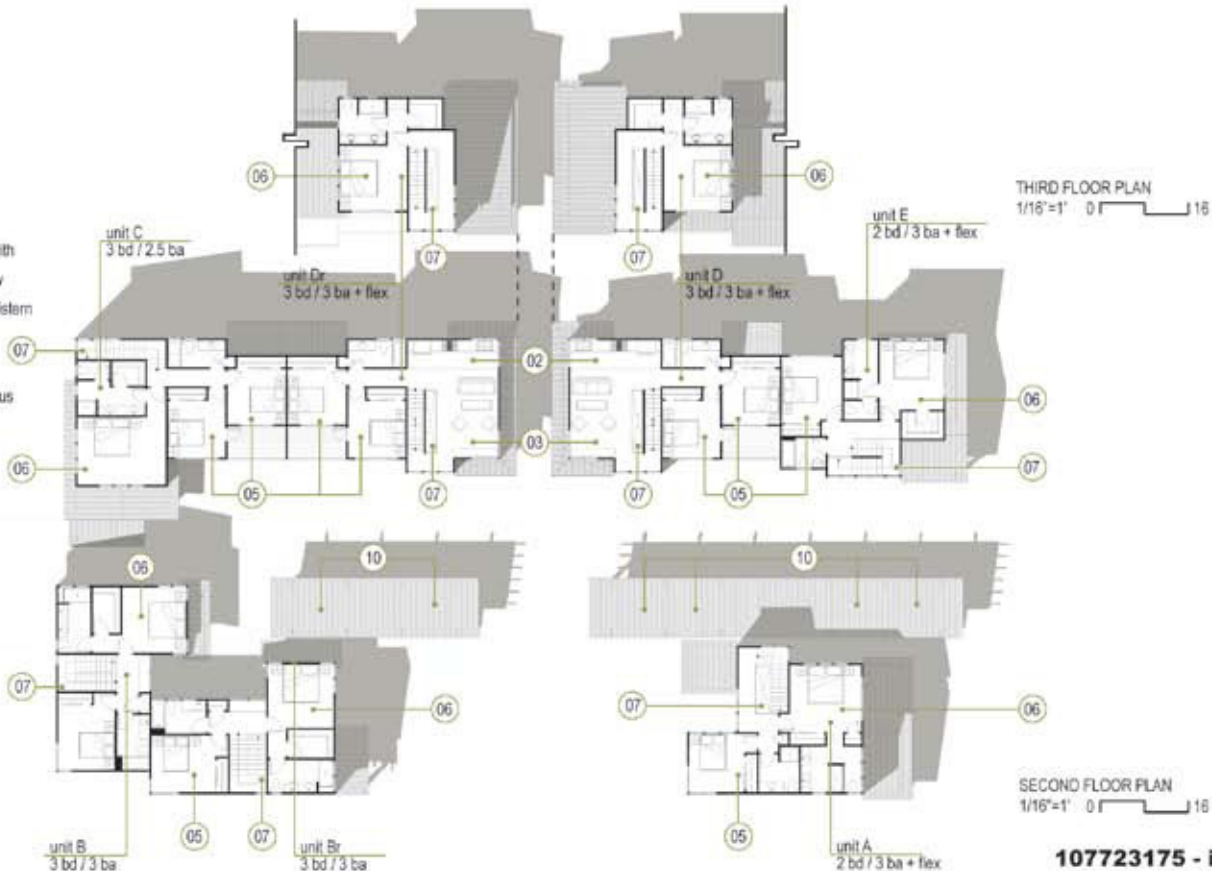
stone



permeable hardscape

VIEW ALONG COMMUNITY ARCADE

01. front porch
02. kitchen
03. living
04. flex room
05. bedroom
06. master bedroom
07. stair tower
08. community arcade with soaking trench below
09. reflecting pool with cistern below
10. photovoltaic
11. shared court - pervious pavement
12. common green
13. entry court
14. private yard



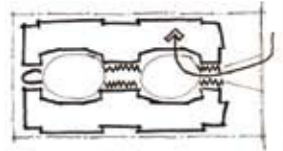
Family Matters: a New Model for East Portland

Eastern Portland neighborhoods are a disjointed mix of single family homes, irregularly subdivided lots, and multi-family infill developments. They feel like places in transition, with little in the way of context or clear urban pattern. This proposal seeks to set a better example for infill development that not only contributes to a pedestrian-friendly streetscape, but is more compatible with lower-density semi-urban neighborhoods and also provides **a better, safer environment for families.**

Floor areas: street end units = 1,910 s.f.; other units = 1,725 s.f. (includes garages)
 Total area = 14,170 s.f. (includes garages)
 Building footprint = 8,924 s.f. (0.52% lot coverage)
 Total number of units = 8
 Maximum height = 24'

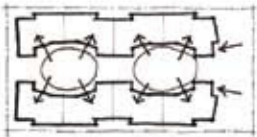


Typical Eastern Portland multi-family developments do not contribute to a lively public street scene, with entrances facing new internal streets meant strictly for cars.

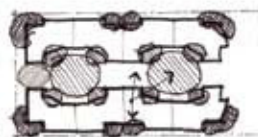


This proposal's **shared common space** accommodates pedestrian and play activity as well as vehicle access to garages. Narrow, single-width passages between courts, textured paving, and dense planting help to slow car traffic.

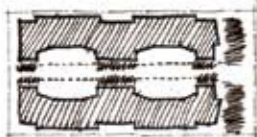




Individual units have **access from the central court**, while street-end units have their primary entrance facing the public street. The central court is divided into two large spaces, each providing access to four units.



A **variety of outdoor spaces** is provided, creating different types of play spaces, suitable for different age groups; the semi-public shared central court, semi-private stoops at unit entrances, and private protected yard spaces for each unit.



Green roofs filter and reduce stormwater runoff, which is then directed to water gardens and swales to manage stormwater on site.



The project fits into Portland's strong tradition of using **brick in multi-family residential architecture**.



View from the street

Interior

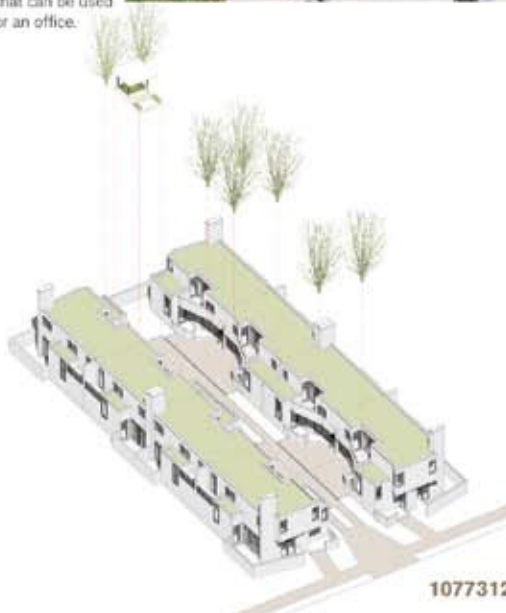


- ↑ End units have stoops and entrances that address the street, contributing to a pedestrian-friendly environment along the public street frontage.
- ← Outdoor spaces are observable from kitchen and living areas, allowing for supervision of children at play.
- A combination covered stage, sandbox, and social area at the end of the common court is shared by all the units.
- ↓ All eight units have three bedrooms, 2.5 baths, and a bonus room that can be used as a tv room, a bedroom, or an office.

Covered play/social space



Second Floor Plan



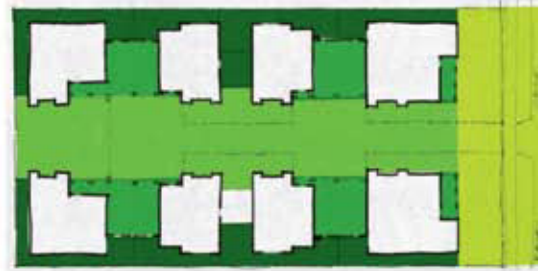
107731218-u8

EASTERN COMMON

Eastern Portland Infill Site, R2 Zoning

To create a variety of functional, affordable homes for families, this proposal utilizes highly conventional materials (single hung windows, cement-board siding, composition shingles and a brick veneer base), carports (in lieu of finished garages) that dually function as covered outdoor auxiliary spaces and two-family buildings (which have simpler building code requirements than multifamily buildings).

8 Homes:	(2) Type A, (4) Type B, (2) Type C
Type A	1,351 enclosed sqft (3 bedrooms, 2 baths, 2 floors)
Type B	1,890 enclosed sqft (4 bedrooms, 2.5 baths, loft, 3 floors)
Type C	1,486 enclosed sqft (4 bedrooms, 3 baths, loft, 2 floors)
Lot Coverage:	46.8% (includes porches and carports)
Building Area:	13,234 enclosed sqft Max. Height: 31'-9" at Type B



Public to Private
A courtyard community featuring a range of open spaces: open carports and covered porches that expand shared court and green allowing flexible and creative inhabitation of the range of public, semi-public, semi-private and private outdoor opportunities (left).



SHARED COURT ELEVATION



LEGEND

- | | | | |
|---------------|--------------------------|--------------------------|--|
| 1 Front Porch | 5 Carport | 9 Computer Loft/Playroom | 13 Laundry |
| 2 Living Room | 6 Private Patio | 10 Shared Court | 14 Stormwater Planters |
| 3 Dining Room | 7 Bedroom | 11 Common Green | 15 Drivable, permeable lawn adjacent to paving |
| 4 Kitchen | 8 Bathroom/Half Bathroom | 12 Playscape | 16 On-Street Parking |

SITE PLAN / FLOOR 01



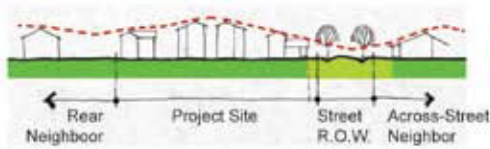
Type C



Type C

107819133-qe

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diagram)

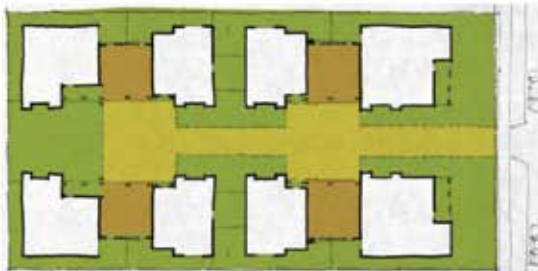


Context

Recognizes the bungalow scale which dominates Eastern Portland, providing a single-story presence along the street front, three stories in the middle of the site and returning to the two-story single-family scale at the rear (diagram above)

Pedestrian / Vehicular Allocation

Treating the car as the occasional visitor, the shared court is designed to function as a multivalent space for varied activities, supporting pedestrians first. Paved, planted, lawn and drivable turf areas allow a range of uses (right diagram)



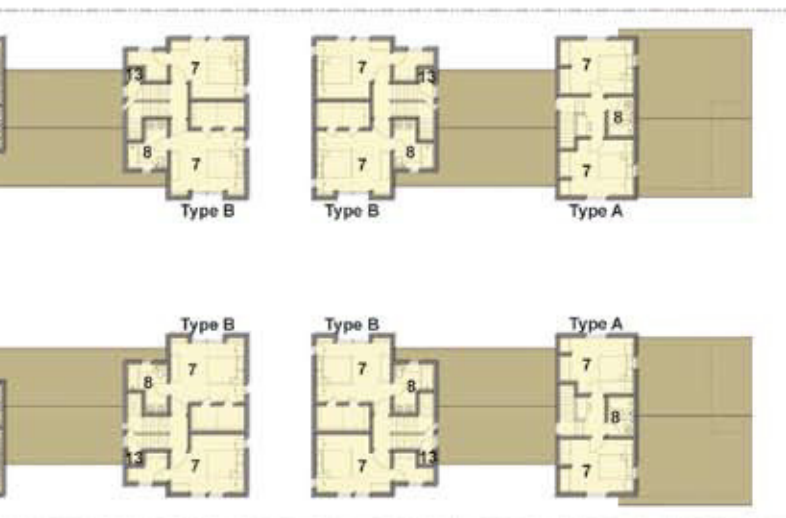
STREET PERSPECTIVE - FACING WEST



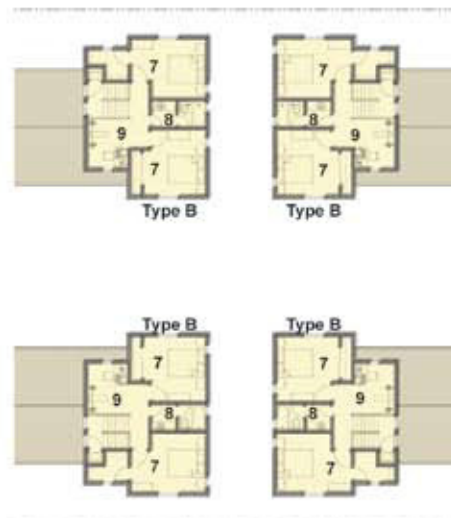
STREET ELEVATION



SHARED COURT PERSPECTIVE - FACING EAST



FLOOR 02



FLOOR 03

107819133-qe

9100 SF AVAILABLE ON
GROUND FOR PLANTING

WATER COLLECTION ON ROOF
AND THERMAL MASS PROVIDED
BY 22541 CUBIC FEET OF CONCRETE
FOR PASSIVE HEATING AND COOLING

1021 SF OF GLAZING TO
MAXIMIZE DAYLIGHTING AND
NATURAL VENTILATION

ELEMENTS



SOUTH ELEVATION



COMMUNAL KITCHEN



COURTYARD

The Community Kitchen will provide an alternative to restaurant dining or to shopping and preparing a home-cooked meal from scratch. While this concept has been proven to save time and make home-cooked meals significantly easier to prepare, there are also numerous additional benefits to the community. For example, this common kitchen will reconnect the consumer with local farms and fisheries through Community Supported Agriculture (CSA). In addition, in keeping with the CSA model the approximately \$64,000 per year in profit generated by the Community Kitchen would allow it to partner with local food producers in order to negotiate fair pricing that benefits both the producer and consumer. Through these partnerships our community will once again celebrate the area's local bounty, while reducing the food's embodied energy and promoting sustainable and organic farming. In fact, the approximately 9100 SF of planted roofs, terraces, and ground plane in our design will allow for a substantial yield of fruits and vegetables right on site, with the added benefit of reconnecting urban consumers to their food systems.



LEVEL 3



107721938-dm

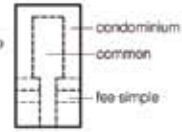
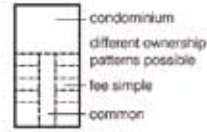
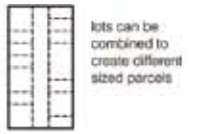
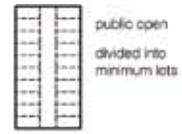
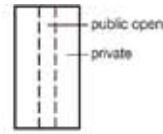
MULTNOMAH MEWS

CATEGORY: Eastern Portland Infill Site

NARRATIVE: We wished our scheme to maintain flexibility, both of ownership and of demographic patterns. To this end, our site plan allows for both fee-simple and condominium ownership within the same basic parcel. We feel that this mix of strategies will entice different types of buyers to the same complex, which will result in a more varied social composition. Furthermore, demographic diversity is built into the floor plans, for most units have a studio apartment at the ground floor. This additional living space is intended to house relatives or, in an effort to make units more affordable for moderate-income families, the studio could be rented to other potential occupants.

PROJECT DATA: Total Project Square Footage: 9898 s.f.; Project Lot Coverage: 51% (8696 s.f.); Total Number of Units: 12

UNIT AREAS AND HEIGHTS: A-1: 1807 s.f. (42'-6"); A-2: 1731 s.f. (42'-3"); A-3: 1751 s.f. (42'-3"); B-1: 1892 s.f. (41'-8"); B-2: 1258 s.f. (33'-0"); C-1: 1459 s.f. (28'-5")



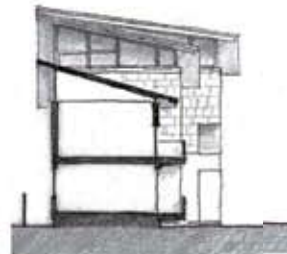
A variety of subdivision methods available to create different patterns of ownership and density.



PERSPECTIVE LOOKING AT COURTYARD FROM GROUND



PERSPECTIVE LOOKING INTO COURTYARD



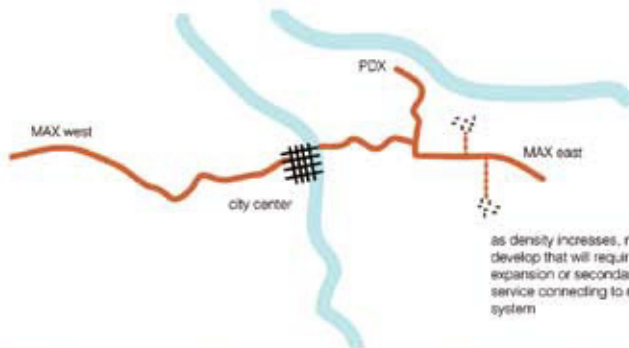
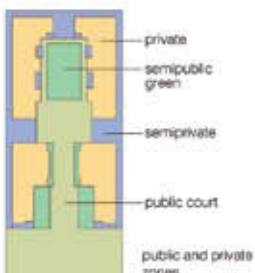
TRANSVERSE SITE SECTION LOOKING WEST



SITE AND FIRST FLOOR PLAN AT 1/16" = 1'-0"



REGISTRATION # 1077171450-3K



as density increases, nodes develop that will require expansion or secondary service connecting to rail system



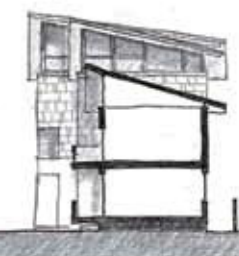
- A roofs oriented to allow for solar heating or installation of photovoltaic panels
- B clerestories allow good ventilation and night flushing
- C orientation protects against cold winter winds and collects warm summer winds
- D roofs harvest rainwater for irrigation



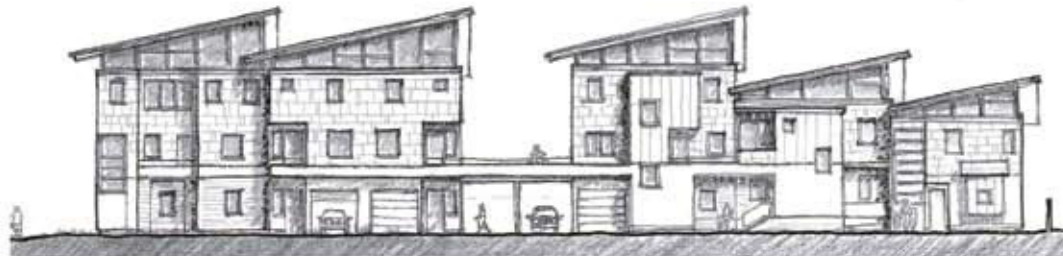
TO MEWS FROM STREET



PERSPECTIVE LOOKING INTO COURTYARD FROM BALCONY



EAST AT 1/16" = 1'-0"



SITE ELEVATION LOOKING SOUTH AT 1/16" = 1'-0"



EARLY SKETCH OF BUILDING MATERIALS



SECOND AND THIRD FLOOR PLANS AT 1/16" = 1'-0"



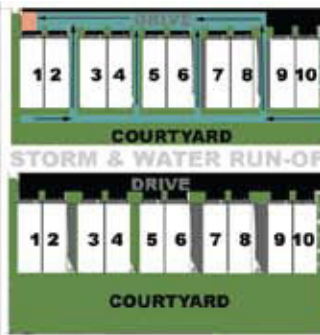
REGISTRATION # 1077171450-3K

ECO BOARD WALK

EASTERN PORTLAND SITE 5 DUPLEXES
 PORTLAND COURTYARD HOUSING COMPETITION 10 UNITS
 Mid-Block Site

TOTAL SQ FT PER UNIT : 1,400
 LOT COVERAGE: 50%

100 WORDS



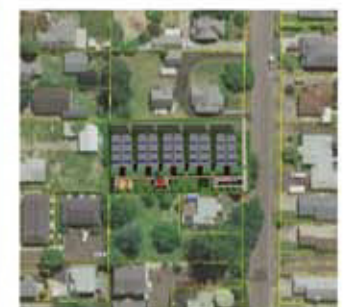
PERSPECTIVE FROM STREET

COURTYARD VS DRIVEWAY

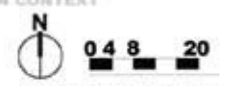
PLAZA



COURTYARD



SITE IN CONTEXT



SITE PLAN

10772129-3J

COMMENDATION



PLAY AREA



BRIDGE



GARDEN



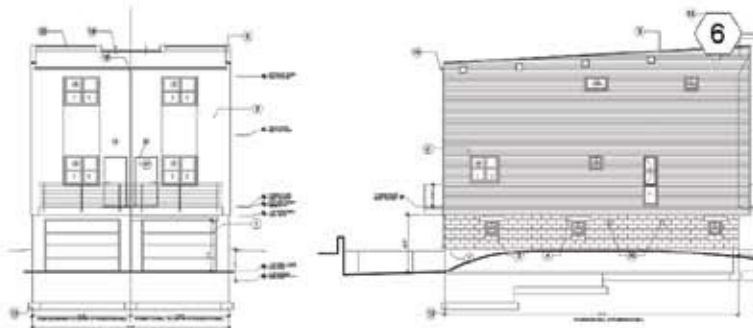
SOLAR PANELS

MATERIAL KEY

- | | | | |
|--|--|---|---|
| 1 SPLIT FACE CONCRETE BLOCK | 6 PREFINISHED 20 GAGE METAL PANEL TO MATCH WINDOW CONCRETE BLOCK (BELOW GRADE) | 11 3'-0"X6'-8" WOOD DOOR WITH LITE | 16 WOOD TRIM AROUND WINDOWS TYP. |
| 2 WOOD SIDING | 7 CONCRETE BLOCK (BELOW GRADE) | 12 12' X 20" FOOTING (MAINTAIN R.O.F. @ 48" MIN. BELOW GRADE) | 17 W. P. LIGHT FIXTURE |
| 3 8" SILL BLOCK | 8 STEEL BRIDGE | 13 12"X8" PREFINISHED METAL VENT | 18 PREFINISHED GLITTER & DOWN SPOUT (MATCH ROOF VENT) |
| 4 8" PRECAST LINTEL | 9 FLASHING | 14 PAINTED STEEL RAILING | 19 (MATCH EPDM) |
| 5 PREFINISHED METAL CORING TO MATCH WINDOW COLOR | 10 EXHAUST VENT (DRYER/FURN.) | 15 SLOPE AS REQUIRED | 21 WRAP MEMBRANE UP AND OVER PARAPET WALL (TYP.) |



TRANSVERSE SECTION



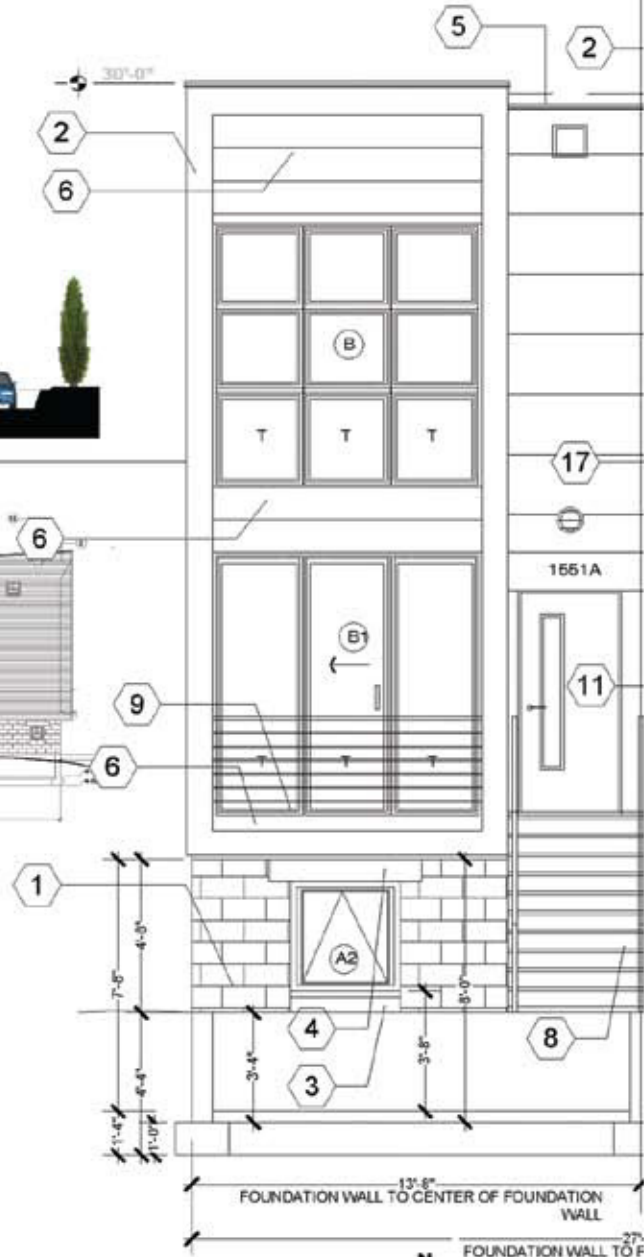
TYPICAL ELEVATIONS



- | | | |
|---------------------|------------|-----|
| LL | 1ST | 2ND |
| A. BEDROOM | E. POWDER | |
| B. LIVING / FAMILY | F. M. BATH | |
| C. KITCHEN / DINING | G. LAUNDRY | |
| D. M. BEDROOM | H. GARAGE | |

3 BEDROOMS 2.5 BATH 1 CAR GARAGE, ROOFTOP SOLAR PANELS

TYPICAL FLOOR PLANS



N
0 4 8 20
10772129-3J

Spatial Diversity with Malleable Modules

Category Option: Eastern Portland Infill Site

The conceptual scheme is built upon a set of three compact building types with four characteristic courtyard spaces that are compatible with the neighborhood scale and context. Building footprints with varying aspect ratios are employed as a versatile, customizable "kit of parts" to arrive at diverse open space and circulation alternatives. Stacking two cars using parking lifts transforms the space otherwise occupied by cars into usable open space. The inclusion of stacked flats with elevator allow for greater accessibility. At the same time, more than 80% of the units have at least three bedrooms, thus catering to families with children. The above unit modules can be easily re-configured depending on variations in site dimensions and specific programmatic needs of a medium/high density infill development.

UNIT TYPE SUMMARY

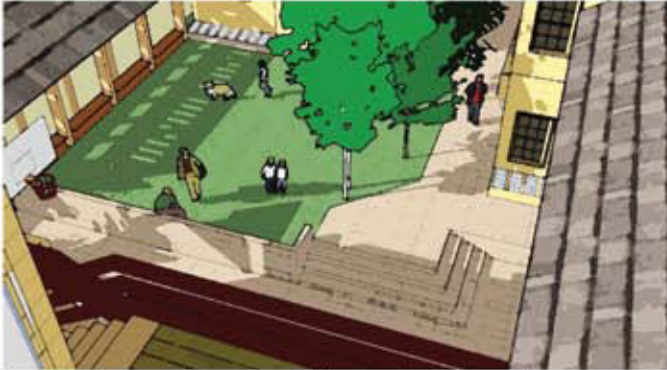
TYPE A 4-plex Walk-up Townhomes : 2 Stories : Building Hx 42' (top of ridge)	
Unit 1 & 2 : 1,580 SF : 2 Bed / 2 Bath + Office/Play Space	
Unit 3 & 4 : 1,480 SF : 3 Bed / 2 Bath + Deck	
Walk-up : 2nd & 3rd Floor	
TYPE B Duplex Walk-up : 42' Building Hx (top of ridge)	
Unit 1 & 2 : 1,550 SF : 2 Bed / 2 Bath + Office/Play Space	
Unit 3 & 4 : 1,480 SF : 3 Bed / 2 Bath + Deck	
Walk-up : 2nd & 3rd Floor	
TYPE C Stacked Flats with Elevator Access : Building Hx 42' (top of ridge)	
Unit 1,2,3,4 : 1,220 - 1,240 SF : 2 Bed/2 Bath Flat	
Unit 5,6 : 1,600 - 1,750 SF : 3 Bed/3 Bath Townhome	

OPEN SPACE SUMMARY

- Green Court 1 (approx. 28' x 38') - Common Green, Kids Play Area, Barbecue, Outdoor Party Space
- Green Court 2 (approx. 10' x 27') - Playground
- Equipment/Swings/Totals
- Paved Strip - Basketball Hoop/Tripping / Roller Skating
- Parking Court (24' x 80') - Storage street with semi-permeable stone pavers, shared by cars and pedestrians accessing community garden

GROUND COVERAGE

Type A	1,700 SF
Type B	900 SF
Type C	3,200 SF
Carport	1,250 SF
Total	6,850 SF (40% Ground Coverage)



Shared common green adjacent to paved play area and pergola covered walkway



Tot-lot / Green Court 2 - View from vehicular driveway



Parking Court adjacent to Stacked Carport with Community Garden above



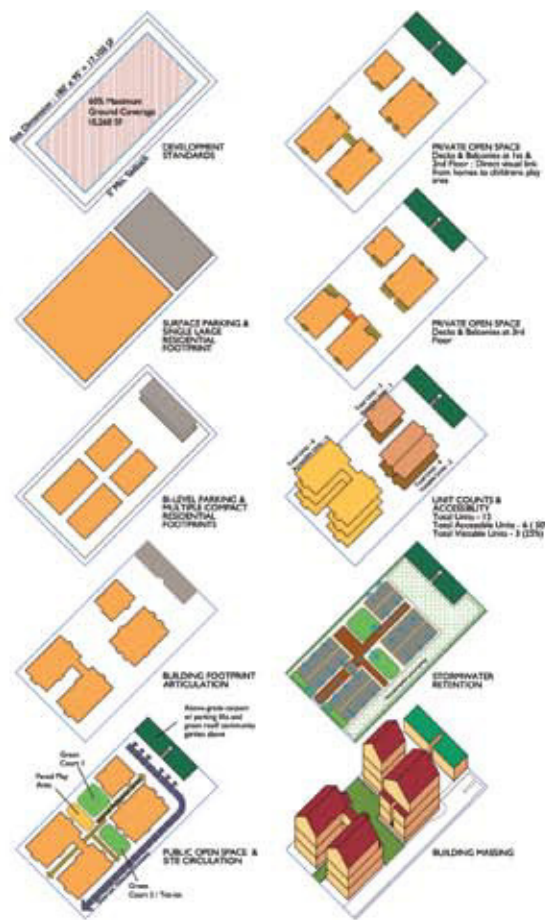
Internal Pedestrian Street - Courtyard vistas framed by connecting deck & pedestrian bridge.



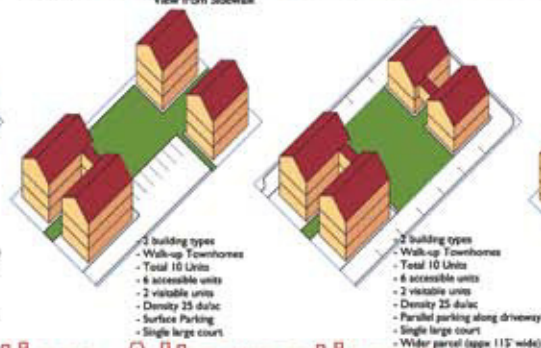
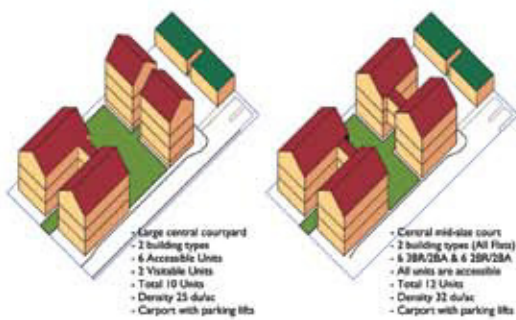
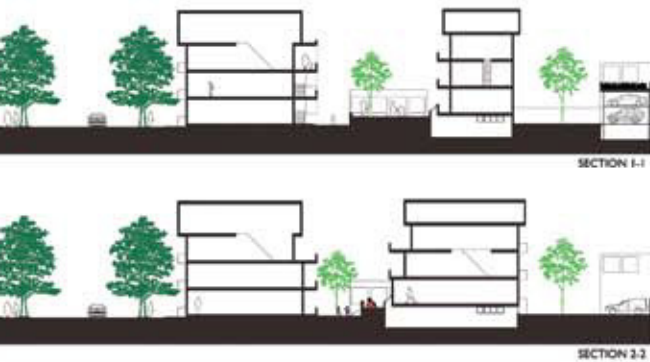
Site Plan at Ground Level



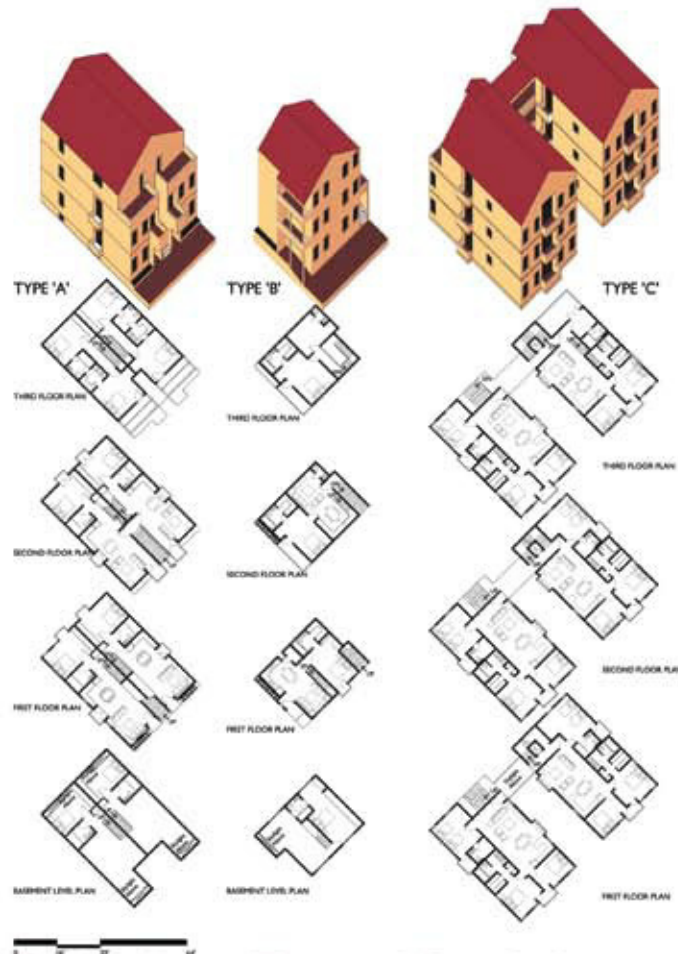
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Conceptual Layers



Courtyard Configuration Alternatives



Building Type Modules



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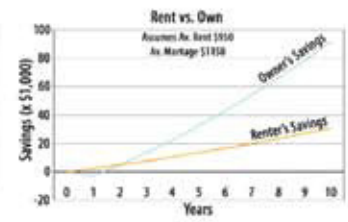
Eastern Portland Infill Site (95' x 180')

BABYLON TWELVE Hanging Courtyards of Portland

The BABYLON TWELVE hanging courtyard prototype provides opportunities for upward mobility of moderate-income families by capturing the architectural embodiment of the transition between an apartment and a single-family detached house. Most middle income families with children are forced into a perpetual state of limbo due to high rent on large apartments, making it impossible to save for a down payment on a home. BABYLON TWELVE is comprised of fee-simple three story semi-detached family homes with a commonly owned courtyard suspended above a parking court. By increasing the density through a compressed and reconfigured version of all the amenities normally associated with single-family detached houses, BABYLON TWELVE offers a hybrid and affordable path towards attaining the "American dream."

Unit Types	2 Bedroom	3 Bedroom	4 Bedroom	Total
Number of Units	3	6	3	12
Unit Sizes	1,345 sq. ft.	1,615 sq. ft.	1,790 sq. ft.	19,095 sq. ft.

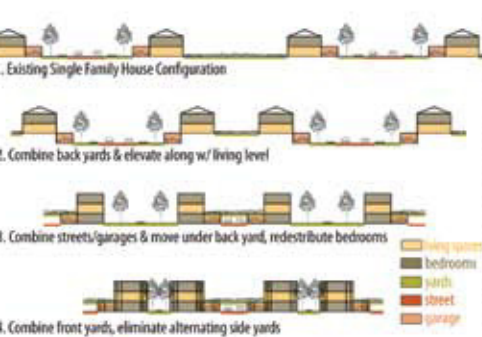
Maximum Building Height	36 ft	Parking	12 spaces
Lot Coverage	32% units only	(67% units w/ courtyard)	



Home Ownership

One of the key attributes of upward mobility is real estate ownership. Real estate, unlike automobiles or other manufactured goods, has the potential to appreciate in value, especially over long terms. However, a family in Portland making the median income with an average amount of debt cannot afford a single family home within the city limits. BABYLON TWELVE brings home ownership into reality for these families without having to leave the city.



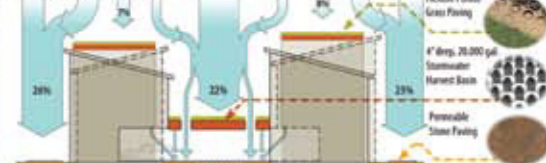


Density

This densified configuration blurs the difference between a front yard and a back yard, between inward and outward orientation, between front and rear entrance. The hanging courtyard prototype retains visual and physical porosity through vertical and horizontal slits between units and parking. Growth of this housing prototype within city blocks would result in a rich urban fabric, with alternating multilevel bands of buildings and gardens interconnected through a web of pedestrian walkways and low density parking courts.



Stormwater Management



Parking Daylight Intensity Levels

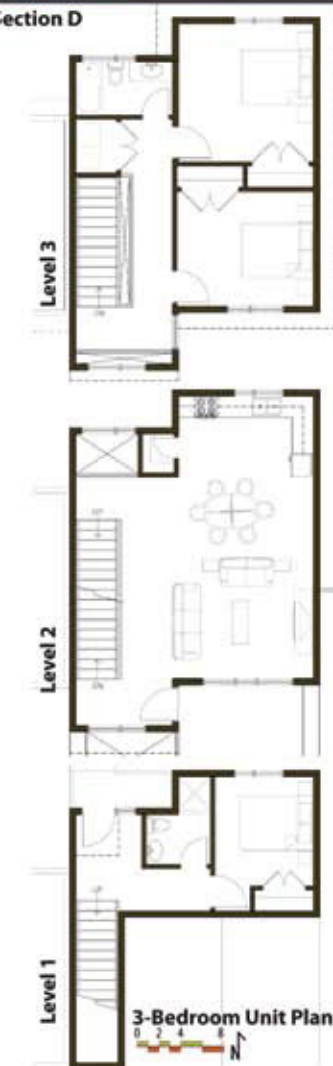


Sustainability

Stormwater is distributed evenly around the building into porous surfaces. Harvesting basins provide gravity fed rain water for toilet flushing and irrigation. In addition the parking court is naturally lit and ventilated.



Section D



Registration No.
1076271621-5X

Jury comments on eastern site commendation winners

Commendation 1. The outstanding feature of this project is the proposal for a series of gardens as part of the courtyard. Cynthia Girling captured the sense of the jury, “This one is all about food and food security and that is an important contribution.” But the project also challenges the very nature of the enclosed courtyard scheme. In praising the scheme, Michael Pyatok said, “This project has a graciousness to the public realm – it is really a commons on the corner.” This view was echoed by Clare Cooper Marcus. The green does make a significant contribution to the public realm, which was an important principle in the competition. In addition, the quantifiable benefits detailed in the principles are impressive. But the unit plans are underdeveloped and the style has the characteristic graphic flaw of many proposals featuring contemporary styles – the images, for example, ignore the realities of mullions, operable windows, and door frames.

Commendation 2. The notable feature of this proposal was the combination of a shared court or “mews” and the pedestrian courtyard. This combination takes maximum advantage of the long site and provides a welcome variety of outdoor rooms. However, Michael Pyatok said, “this is a compelling image but I’m not sure if the plans work.” It was, in fact, hard to understand the third floor plans from the information provided. A few minor problems with the plans did make the jury hesitate. When ground floor bedrooms are provided, for example, designers should at least provide showers in the adjacent bathrooms. And bathroom doors should not open onto dining areas or kitchens. This was a common mistake made by many entrants. Additionally, some jurors did not like the lack of ground-level living space along the public street frontage (just garages and stairways), which compromised the orientation to the public street.

Commendation 3. This proposal generated significant debate among the jury. Is it a courtyard scheme? How should courtyard projects address the street? Is an extruded plan, which has economic advantages, appropriate for a long site? In the end, the strong argument made by this project was for a side courtyard. David Miller advocated for this project and said, “This is an elegant scheme – the south facing garden space would be quite successful.” Loren Waxman, in highlighting the great strength and the great weakness of this proposal, said “This project is so unique – the solution is compelling but the end unit should open to the street.” As another juror said, “the end really needs help.” While the plans work well and the tuck under parking would be quite desirable, the face to the street is not well developed. Had the end unit addressed the street, with some type of transitional space, this project would have been better received by the entire jury. The lesson here is that designers should not simply extrude plans. Plans need to be adjusted to the specific context.

Entrant contact information

Inner Portland Infill Category

1. Honor Award

Keith Rivera and Kristin Anderson
Santa Barbara, California, USA
acme.arch@cox.net
Entry #1112

2. Merit Award

Peter Keyes, Lucas Posada, Kai Yonezawa,
and Tyler Nishitani
Eugene and Portland, Oregon, USA
pkeyes@uoregon.edu
Entry #1175

3. Citation Award

Steven Bull, James Steel, and Dan Rusler
Seattle, Washington, USA
steveb@workshopad.com
Entry #1098

4. Honorable Mention

Donald Rattner, Andrew Friedman,
Nathaniel Brooks, Krystof Nowak, and
Catherine Popple
New York, New York, USA
drattner@thecivilstudio.com
Entry #1048

Commendation 1

Christopher Keane and Steve
Dangermond
Portland, Oregon, USA
chris@keanedesignstudio.com
Entry #1014

Commendation 2

Armin Quilici and Schuyler Smith
Portland, Oregon, USA
Arminquilici@yahoo.com
Entry #1003

Commendation 3

John Baymiller, Michael Hahn, Matthew
Miller, and Will Macht
Portland, Oregon, USA
jbaymiller@mac.com
Entry #1064

Commendation 4

Ho-San Chang and Sven Schroeter
Moorestown, New Jersey, USA
hchang@taodesign.com
Entry #1191

Commendation 5 and People's Choice

John Munn and Brendan O'Grady
Dallas, Texas, USA
munstudio@gmail.com
Entry #1058

Commendation 6

Matthew Clapper and Hoi Wang Chan
Lawrence, Kansas, USA
hwchan@ku.edu
Entry #1163

Commendation 7

Amit Price Patel and Kevin Markarian
Oakland, California, USA
amitpricepatel@yahoo.com
Entry #1131

Commendation 8

Takashi Hoshina and Tomoko Hoshina
Irvine, California, USA
takahoshina@cox.net
Entry #1006

Commendation 9

Tara Doherty
Portland, Oregon, USA
taparat15@earthlink.net
Entry #1179

Commendation 10

Ken Kios, Gary Miniszewski, Jeff Ovington,
Monica Jones, and Eeshoo Rehani
Portland, Oregon, USA
mojones@lrsarchitects.com
Entry #1090

People's Choice

Josh Spoerl, Steven Scoggins, Stephen
Oakes
North Richland Hills, Texas, USA
SJScoggins@yahoo.com; Sothe4th@
yahoo.com
Entry #1145

People's Choice

Detlev Peikert, Koje Tanaka, Bonnie
Sangster, Scott Hopkins, and Jason
Campbell
Santa Barbara, California, USA
gondon@peikertgroup
Entry #1054

Eastern Portland Infill Category

1. Honor Award

Emory Baldwin, Shirley Tomita, Masumi
Saito, Lara Normand, Jocelyn Freilinger,
Shawna Sherman, and Clara Berridge
Seattle, Washington, USA
emory@zai-inc.us
Entry #E012

2. Merit Award and People's Choice

Matthew Goyke, Steven Gangwes, Morris
Onishi, Ethan Levine, and Rhonda Goyke
Honolulu, Hawaii, USA
rgoyke@greensandinc.com
Entry #E043

3. Citation Award

Steven Dangermond and Christopher
Keane
Portland, Oregon, USA
steve@dangermondarchitects.com
Entry #E004

4. Honorable Mention

Matthew Priest and Jerome Burgos
New York, New York, USA
matthewpriest@earthlink.net
Entry #E003

Commendation 1

Erin Vali, Antonia Kwong, and Wendy
Andringa
Brooklyn, New York, USA
evali@ulteriorimode.com
Entry #E005

Commendation 2

Matt Shoor, Matthew Gottsegen,
Norman Cox, Chris Reinhart, Mikheil
Aronishidze, Michael Livingston, Jamie
Alexandrino
New York, New York, USA
mlivingston@fgca.com
Entry #E022

Commendation 3

Nicolas Cascarano, Harry Van
Oudenallen, and Brittany Radlinger
Milwaukee, Wisconsin, USA
arquitectura@sbcglobal.net
Entry #E010

People's Choice

Ganesh Ramachandran
Brighton, Massachusetts, USA
purpleganesh@yahoo.com
Entry #E017

People's Choice

Emily S. Kociolek, Krzysztof Kociolek
Portland, Oregon, USA
emily@architecturaobscura.com
Entry #E006

Entrant Contact Information For Images Illustrating Design Principles

Page 10: Entry 1159 (Roxana Vargas-
Greenan; Berkeley, California; roxana@
vargasgreenan.com)

Page 14: Entry 1102 (Juan Ignacio Azpiazu;
Phoenix, Arizona; jia@ar-in.com); E018
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