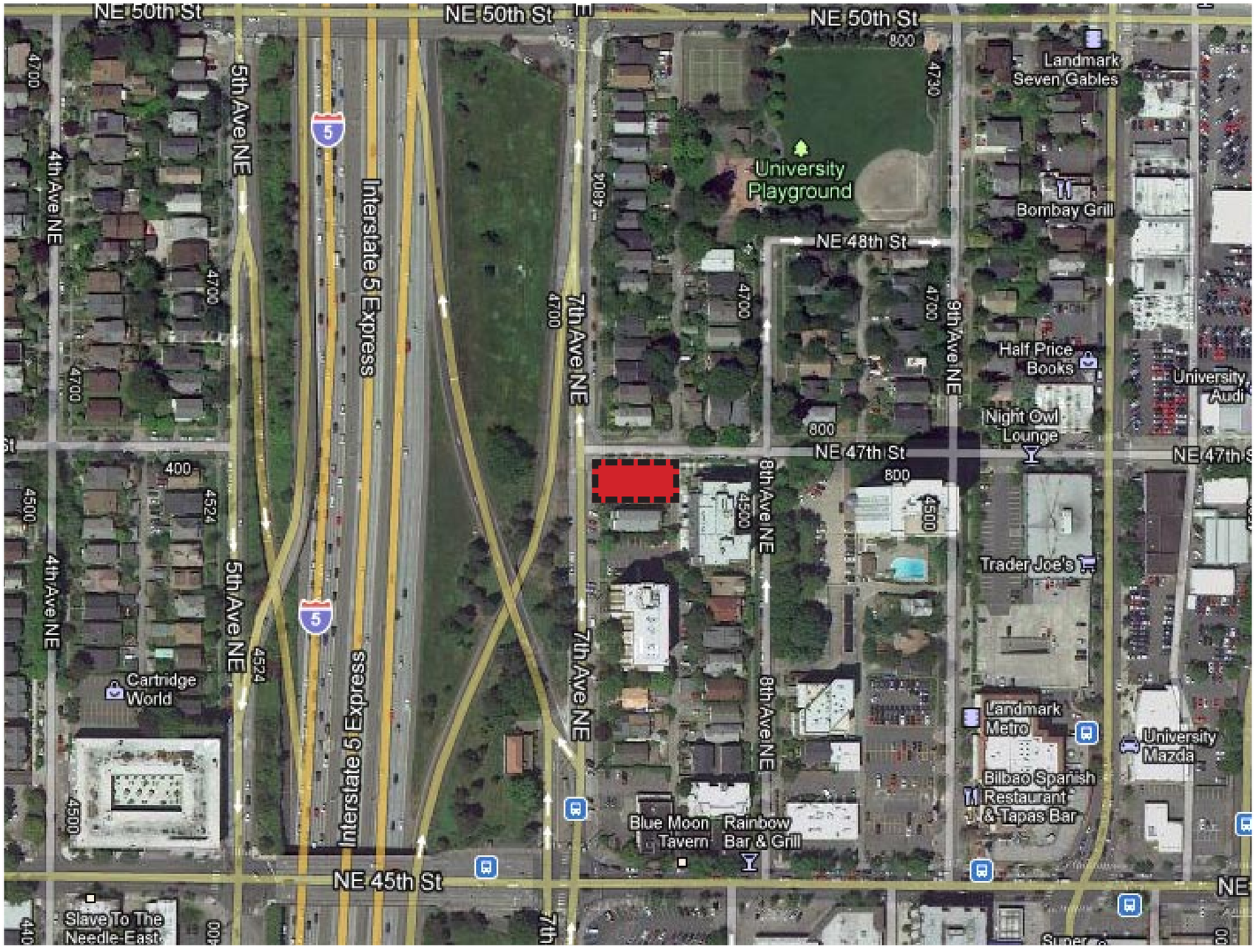

47+7

4558 7th Avenue NE

Early Design Guidance

November 7, 2011

Land Use Permit
Project# 3012744

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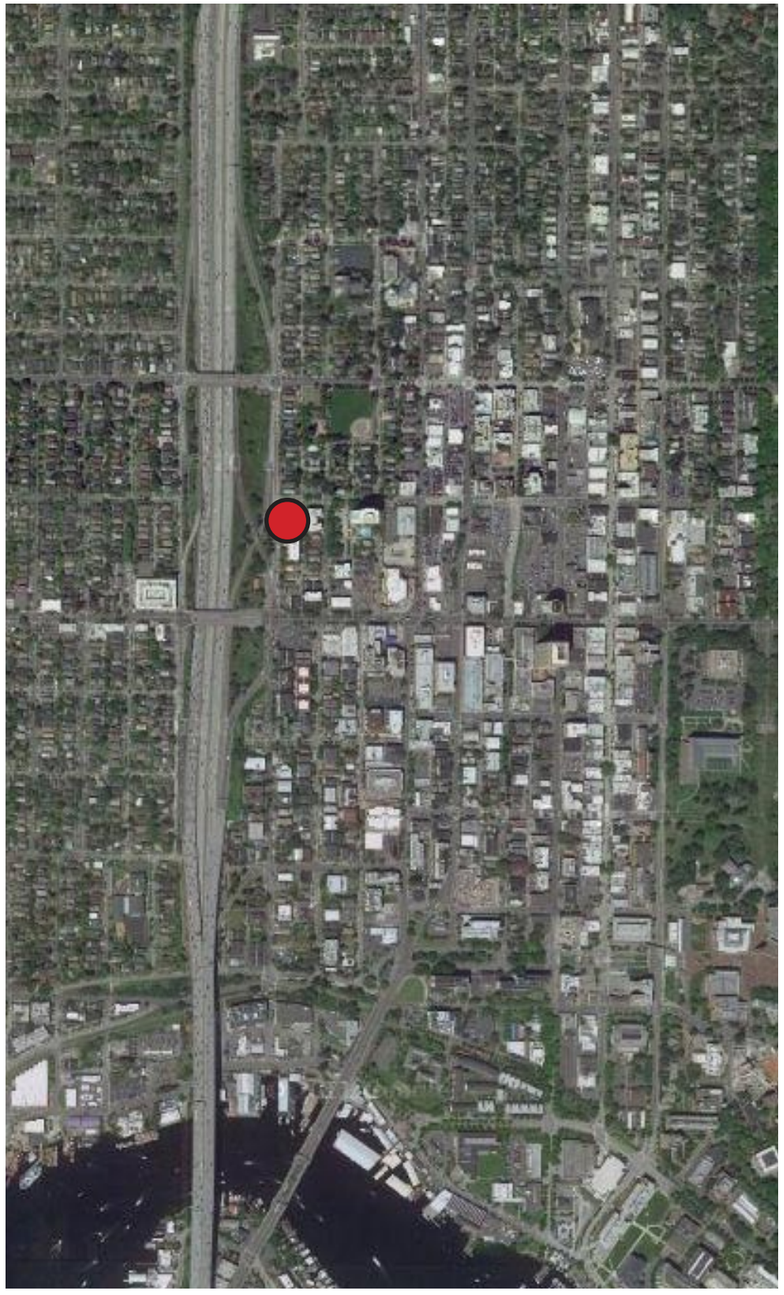


Development Objectives

The intent of the proposed project is to build a residential structure that optimizes use of the site under zoning and land use regulations and to create high-quality, highly efficient residential units that takes advantage of the site's proximity to the university and the excellent transportation, retail, and recreation facilities in the neighborhood.

Residential units

The objective of the development is to build between 24 and 29 units of housing, in a mix that could include studios, one-bedroom, and two-bedroom units.

Parking

Depending on design alternative, the objective is to provide between two and five surface parking spaces.

No parking uses or driveways will face onto 7th Avenue NE or NE 47th Street. All surface parking spaces provided will be accessed from the alley.

Development Objective Summary

6-Story Building	Approximately 60' tall
Residential Units	Between 24-29
Parking	Between two and five

High-Priority Design Guidelines

A-3 Entrances Visible from the Street At least one building entrance, preferable the main one, should be prominently visible from the street.

Proposed design alternatives have a unified entrance either along NE 47th Street or along 7th Avenue NE, but residential units and open walkways provide 'eyes on the street' for 47th, 7th, and the alley.

A-5 Respect for Adjacent Sites Special attention should be paid to projects in zone edge areas…to ensure impacts to Lowrise zones are minimized.

Proposed design alternatives feature stepped patios and landscaping along NE 47th Street to soften building edge adjacent to lowrise residential. Limited glazing along east and south façades protect privacy of adjacent building users.

A-7 Residential Open Space The ground-level open space should be designed as…[an] occupiable site feature. Open space should reinforce positive streetscape qualities and provide a transition between public and private realms; provide for the comfort, health, and recreation of residents; and increase privacy and reduce visual impacts to all neighboring properties.

All ground-floor units in the proposed design alternatives have semi-private terraces approximately 18" above sidewalk grade. Landscaping along the east and west property lines provide buffer zones between the building and the sidewalk and alley, and provide a noise and visual barrier to I-5.

A-10 Corner Lots Buildings on corner lots [are encouraged to] orient to the corner and adjacent street fronts. Consider providing special building elements distinguishable from the rest of the building, such as a tower, corner articulation, or bay windows.

The proposed design alternatives include the potential for green walls or other distinctive color and material finishes on corners and opaque façades.

B-1 Height, Bulk, and Scale Compatibility The proximity of lower intensive zones to higher intensive zones requires special attention to potential impacts of increased height, bulk, and scale. The design and siting of buildings is critical to maintaining stability and Lowrise character.

The proposed design alternatives include landscaped zones and terraces between the building and the lower-density zone to the north. Building elements, materials and glazing patterns can break down the mass of the building to an appropriate scale.

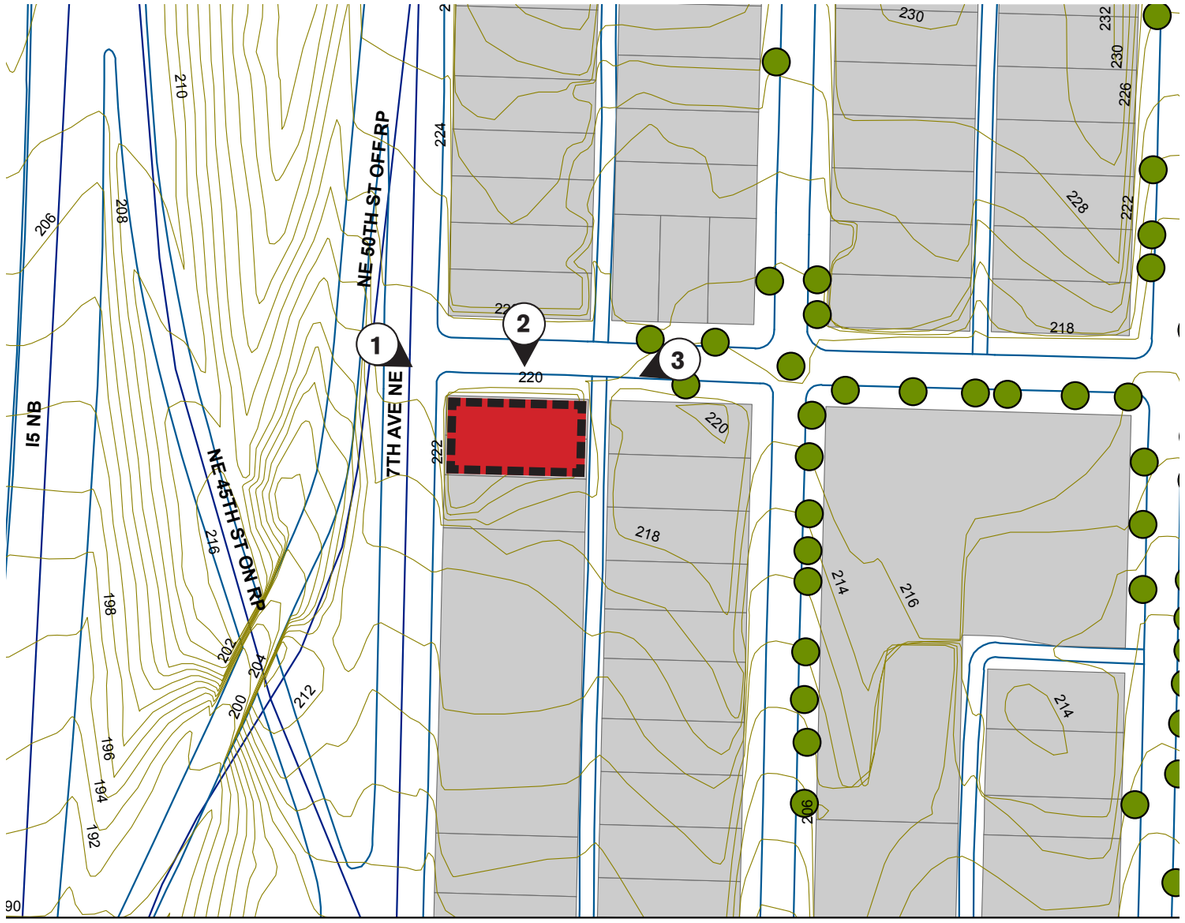
C-1 Exterior Finish Materials New buildings should emphasize durable, attractive, and well-detailed finish materials.

The proposed design alternatives all utilize concrete, glass, and steel as primary exterior materials, and opaque wall sections will be clad with materials that complement the overall architectural character of the building.

D-4 Design of Parking Lots Near Sidewalks When adjacent to residential zones, surface parking lots adjacent to sidewalks should be screened with shrubs and double rows of street trees for a more sheltered, residential feel.

All proposed design alternatives include surface parking along the alley - this parking is screened from 47th and the lowrise zone to the north by building elements or landscaped zones, in addition to street trees.

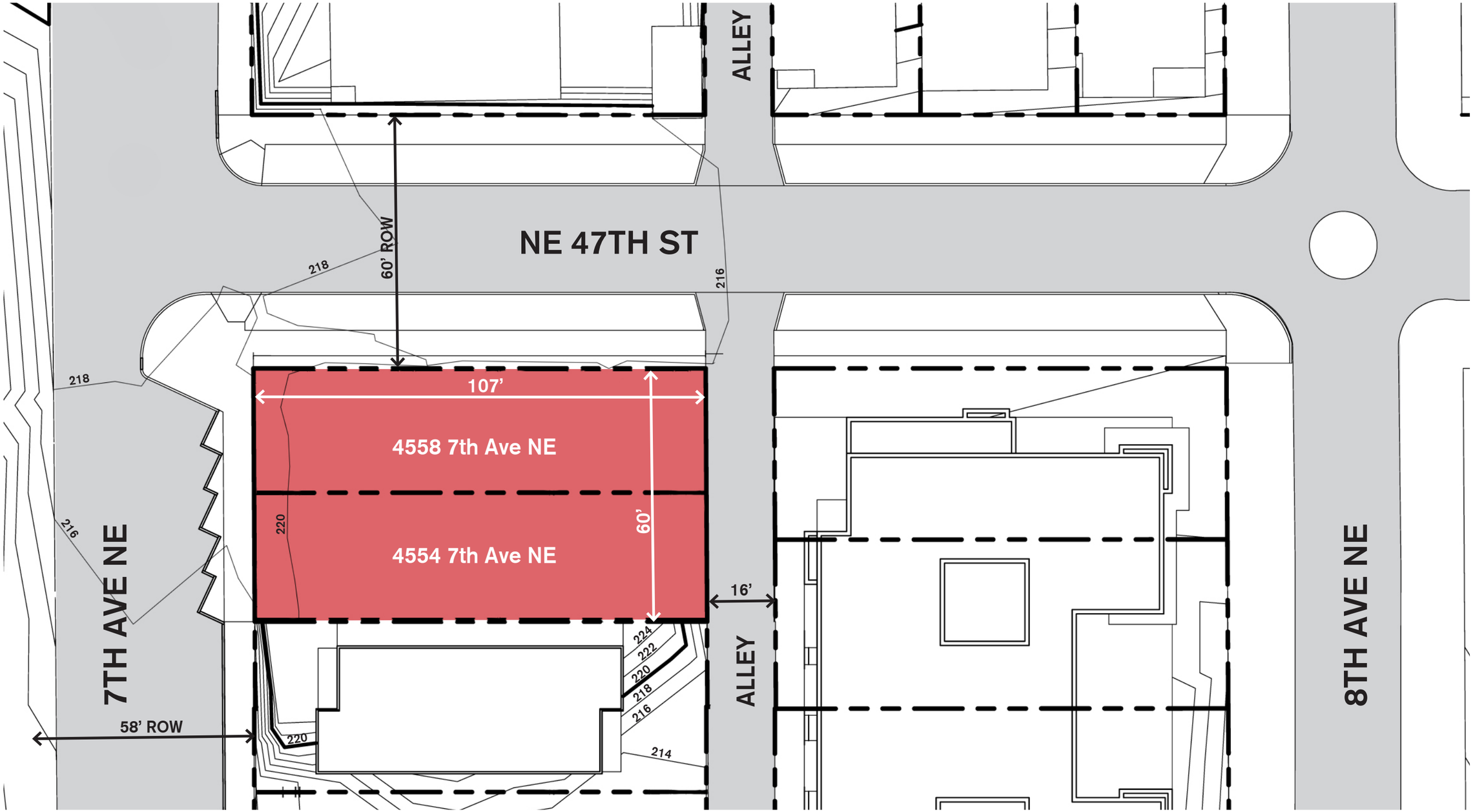
Site Analysis - Existing Site Information



The site is located at the southeast corner of 7th Avenue NE and NE 47th Street. 7th Avenue NE is a minor arterial. The site is comprised of two parcels, both currently empty. Two single-family houses were demolished as part of a previous permit.

The site is at the border between an MR zone and an L1 zone. The properties within the MR zone are progressively being redeveloped to take advantage of the zone – the property to the east of the project, Duncan Place, has been redeveloped in the last few years and is representative of the level of potential development in the zone. The L1 zone to the north of the site is dominated by single-family houses and smaller multifamily developments.

Existing Site Plan



Site Analysis - Zoning and Code Analysis

Land Use Code Analysis

Structure Height Limit SMC 23.45.514

Base height limit: 60 feet Table B for 23.45.514

Setbacks

Front and side setbacks from street lot lines - 7 foot average, 5 foot minimum

No setback required if courtyard abuts the street (min 30% of width of frontage or 20' wide, 20' deep)

Rear setback - 15 feet from a rear lot line that does not abut an alley or 10' from a rear lot line that abuts an alley

Side setback at interior lot line - 7 foot average, 5 foot minimum to 42 feet;
10 foot average, 7 foot minimum above 42 feet height

FAR Table B for 23.45.510

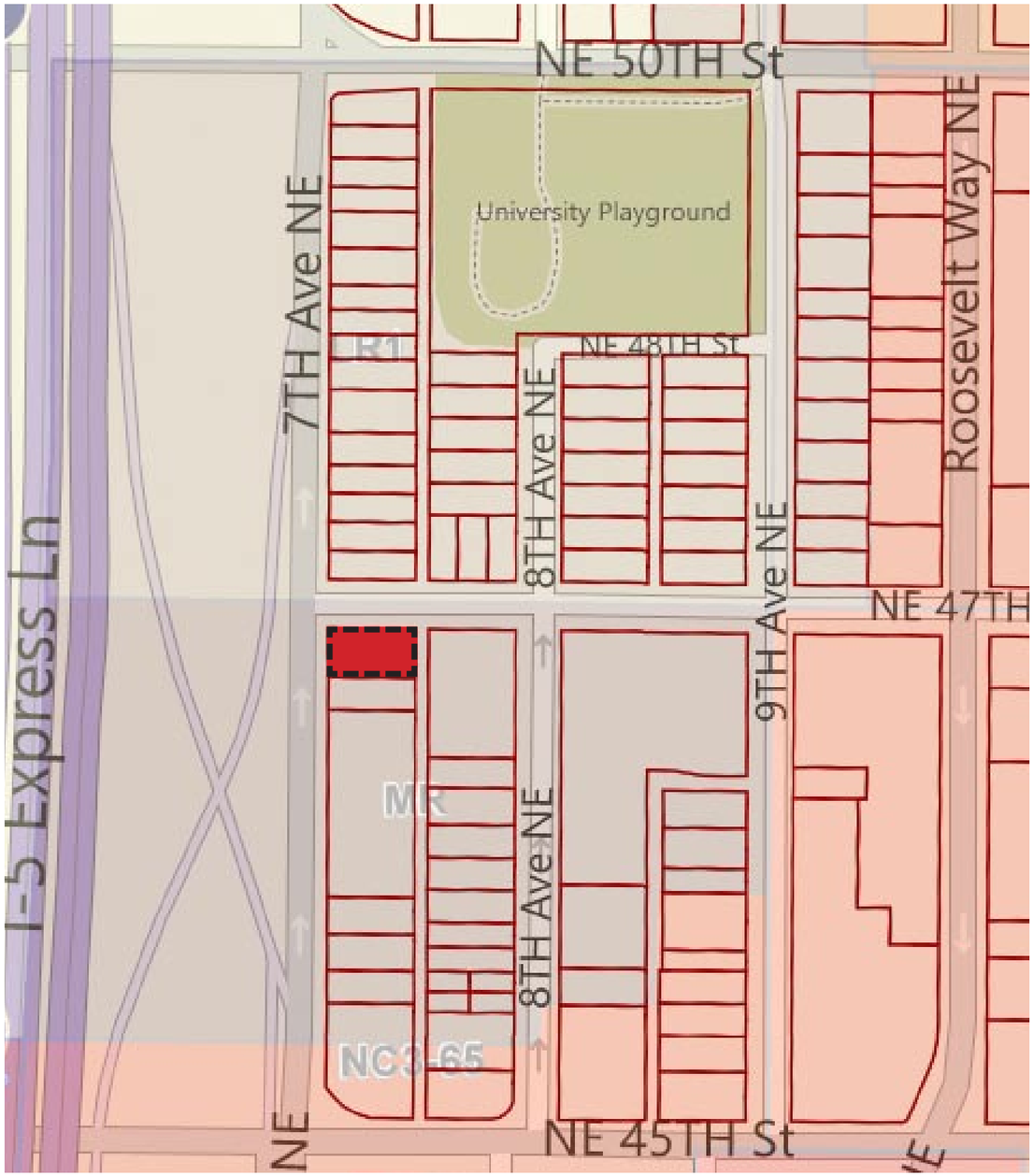
Base FAR = 3.2

Max FAR = 4.25

Underground stories exempt from FAR limits

Parking Table B for 23.54.015

No minimum requirement in commercial or multifamily zones within urban villages, if residential use is within 1,320 feet of a street with frequent transit service. (NE 45 Street is a frequent transit street, approximately 600 feet from the site)



MR Zone
University District Northwest
Urban Center

Urban Design Analysis - Views and Uses

Views

The site has open views to the north – Interstate 5 is below the surrounding topography, and buildings in LR1 zoning to the north are relatively low-rise. Because these uses are unlikely to change significantly in the near future, these views are relatively secure. To the southwest, the I-5 corridor provides a view corridor, but existing buildings to the south and east of the site limit views.

Surrounding Uses

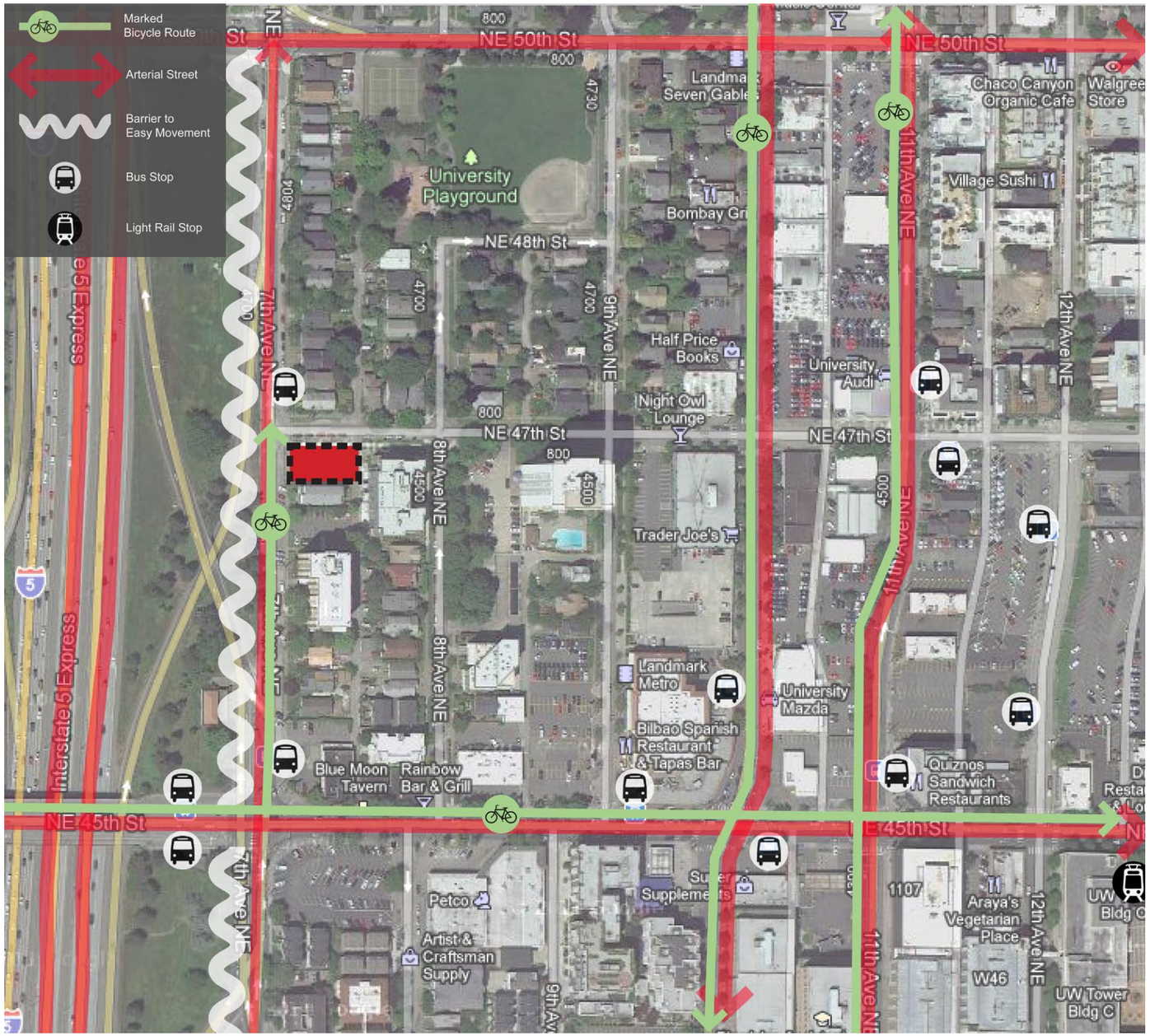
The immediate context primarily consists of residential uses. South and east of the site, midrise residential buildings dominate, with some single-family houses remaining, although these are being replaced to take advantage of zoning. Buildings north of the site are primarily single-family and small multi-family structures.

There are major commercial corridors along NE 45th Street and Roosevelt Avenue NE/11th Avenue NE. The commercial uses along these streets are primarily lowrise retail and services, with several large auto dealerships (with large surface parking areas) along Roosevelt and 11th Avenues NE. The area also has some office uses, especially south of NE 45th Street nearer to the University.

A park and playfield, the University Playground, is one half block north of the site. This park includes a ballfield, playground, and tennis courts.

1. Duncan Place Condominiums
2. The University Plaza
3. University West/Seattle Housing Authority
4. 4258 8th Avenue NE Condominiums
5. Blue Moon Tavern
6. FedEx Office
7. Metro Cinemas
8. Trader Joe's/AAA
9. University Playground

Site Analysis - Access Opportunities and Constraints



Access Opportunities

Vehicular Access

- The site faces onto 7th Avenue NE, a minor arterial, and NE 47th Street, a non-arterial street. 7th Avenue NE is a one-way street – southbound traffic must use 9th Avenue, two blocks east. An alley runs north-south adjacent to the property – most properties use the alley for parking access, although a considerable number of pedestrians also use the alley.
- Roosevelt Avenue NE and 11th Avenue NE form the principal north-south arterial couplet in the area. NE 45th and NE 50th Streets are both principal arterials.
- The Interstate 5 right-of-way lies to the west of 7th Avenue NE – NE 47th Street ends at this right of way. Vehicular and pedestrian crossings of I-5 are at NE 45th and NE 50th Streets. Freeway access is convenient – both northbound and southbound freeway access is available from NE 45th and NE 50th Streets.

Bicycle Access

- Roosevelt Avenue NE and 11th Avenue NE are significant north-south bicycle streets, although bicycle use is common on many streets in the neighborhood. NE 45th is marked with sharrows in both directions.

Transit Access

- The neighborhood is very well served by bus service, primarily along NE 45th Street and University Way. Bus service connects the University Community to the rest of the city and the region.
- Sound Transit Light Rail will serve the area starting in 2020 or 2021. At or near this time, light rail service will connect from Northgate to SeaTac, and from downtown Seattle to downtown Bellevue and Redmond. The nearest light rail station will be at Brooklyn Avenue NE and NE 45th, approximately 0.4 miles from the site.

Pedestrian Access

- The consistent street grid through the area makes pedestrian access convenient. With the exception of 7th Avenue NE, all streets in the neighborhood have sidewalks on both sides. I-5 constrains pedestrian movement to the west – access across the freeway is at NE 45th and 50th Streets.

Access Constraints

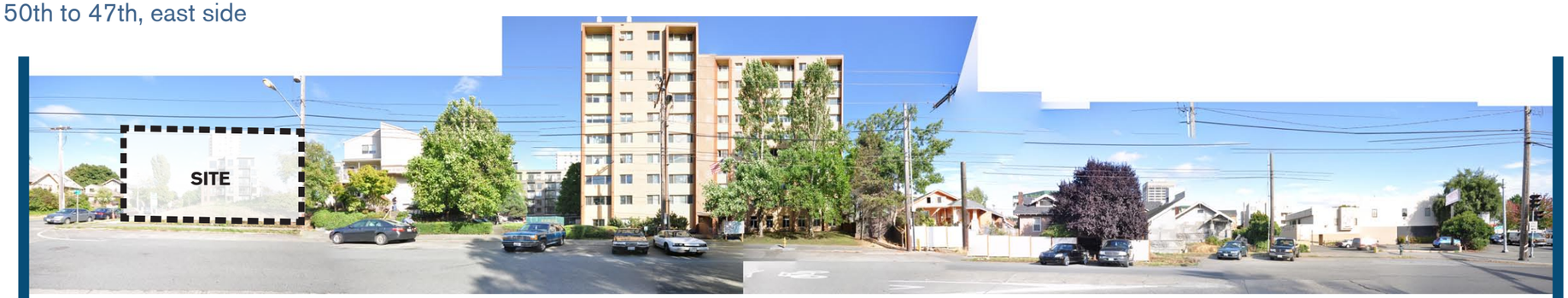
- Interstate 5 divides the University Community from Wallingford – there are limited connections across the freeway and the wide right-of-way is a psychological barrier, especially for pedestrians.
- • The very high traffic volumes on Interstate 5 and NE 45th Street impact access for all users.

NE 50th St

1

NE 47th St

7th Avenue NE, 50th to 47th, east side

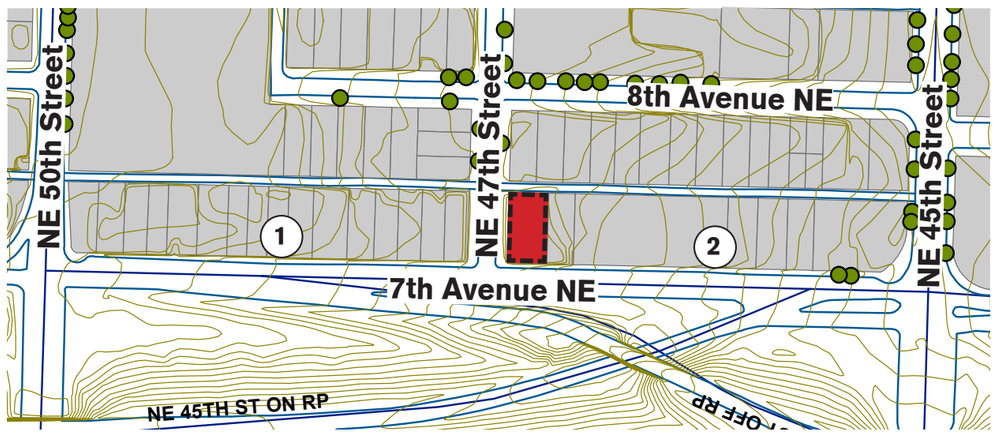


NE 47th St

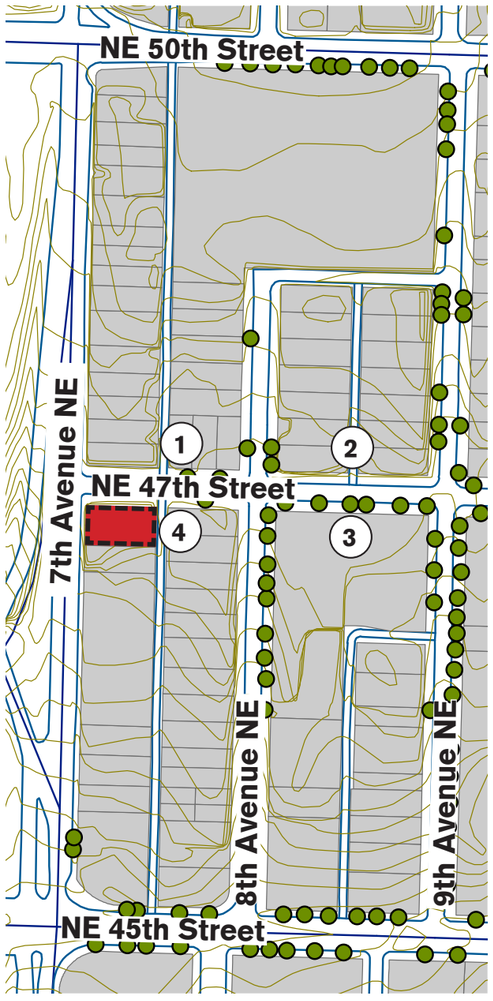
2

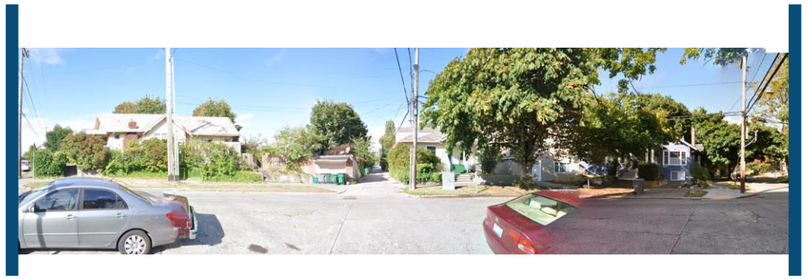
NE 45th St

7th Avenue NE, 47th to 45th, east side

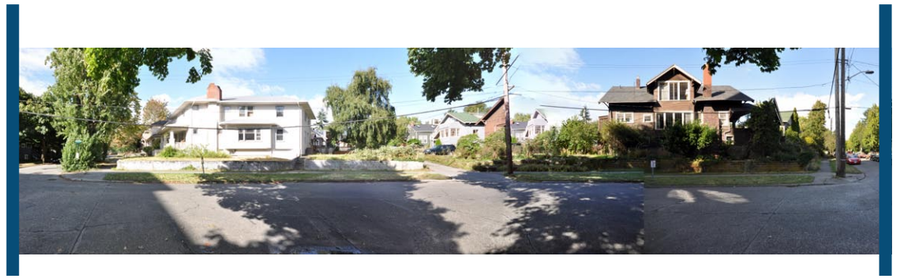


Urban Design Analysis - Streetscapes



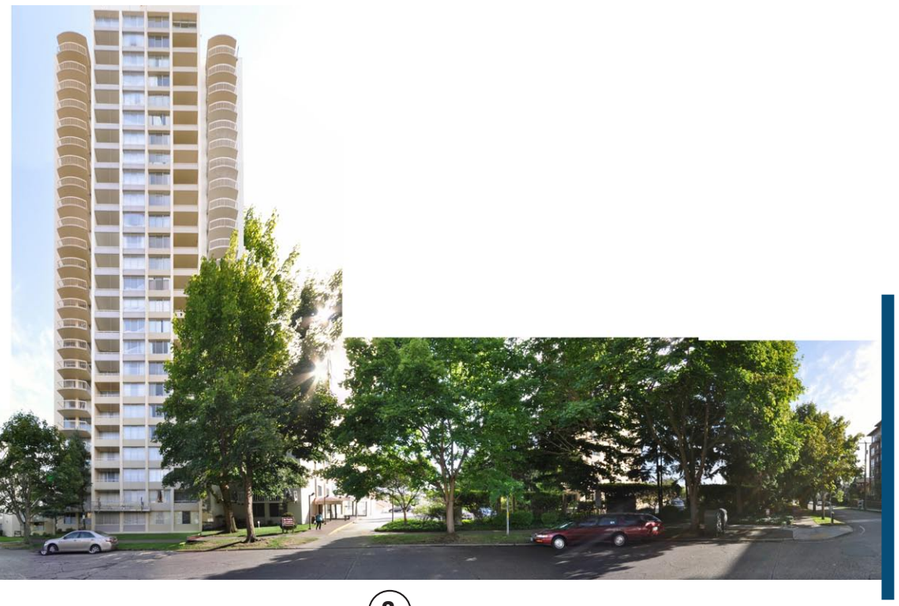


7th Avenue NE (1)

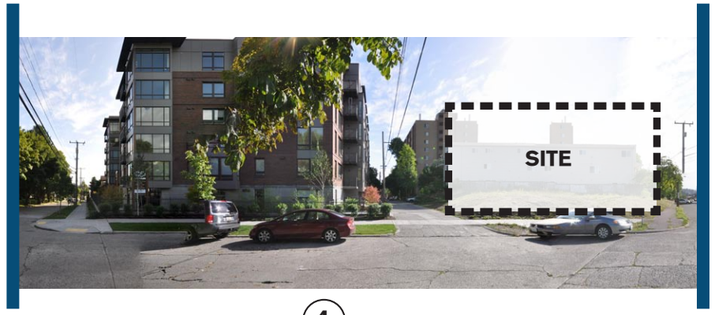


8th Avenue NE (2) 9th Avenue NE

NE 47th Street, north side



9th Avenue NE (3) 8th Avenue NE



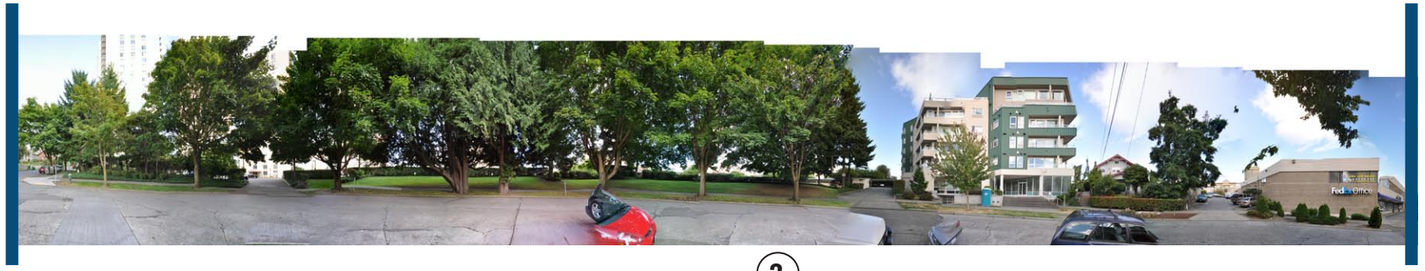
(4) 7th Avenue NE

NE 47th Street, south side

NE 48th St

1

NE 47th St



2

NE 45th St

8th Avenue NE, 48th to 45th, east side

NE 45th St

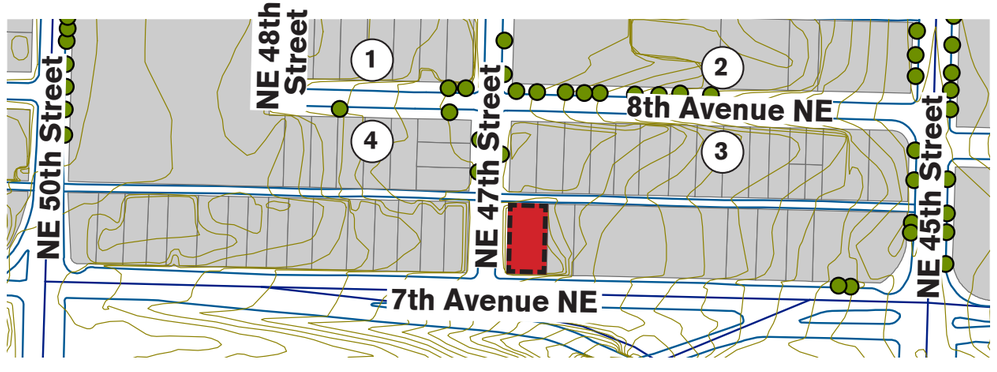
3

NE 47th St

4

NE 48th St

8th Avenue NE, 45th to 48th, west side



Urban Design Analysis - Design Cues

1. Duncan Place Condominiums
Building mass is softened through street-level setbacks, material changes, and landscaped edges.

2. Ellipse Apartments
Landscaping, grade change, and railing provide separation between at-grade units and street. Exposed concrete structure is used as an integral element of façade.

3. Union Bay Lofts
Exposed walkways and structure provide visual interest and reduce mass of building. Bold colors work to make building identifiable from nearby freeway.

4. Poplar Hall
Quality materials and detailing help make simple building mass approachable and human-scaled.

5. 8th Avenue Apartments (in Design Review)
New project will continue streetwall along NE 8th and use landscaping to relate to street edge.

6. 4535 12th Avenue NE (in Land Use Permitting)
Strong building elements and forms help break down building mass of an otherwise simple building envelope.

Previous Design Review Proposal

Development Objectives

- 6-story building
- 24 units - studio, one-bedroom, and two-bedroom units
- 24 underground parking spaces on 2 underground levels

The current development proposal is generally similar: 6 stories and between 24 and 29 units, with potential unit mixes that include studios, one-bedroom, and two-bedroom units. The current proposal includes between 2 and 14 parking spaces, depending on massing alternative and on costs and development analysis.

Design Objectives

- Design that acknowledges the edge conditions of Interstate 5 to the west and low-rise residential zoning to the north
- Creating a viable, sustainable, and livable experience
- To serve as a case study for well-designed, small lot urban development
- A modern, rational design with simple, well-detailed volumes, and large glazed areas on the north façade
- Modern industrial aesthetic and clean, open interiors
- Irregular glazing patterns, material changes, and landscaping that breaks down mass, protects the inhabitants from noise and solar glare, and provides visual interest from I-5

The current proposal follows a similar set of design objectives: To create a new model of urban residential living - using quality materials, very fast construction, and a clean, modern design that maximizes livable space and daylighting while minimizing waste and inefficiencies. The proposal responds to its site by focusing views to the north, providing transitional spaces between the building and the lowrise zone to the north, and minimizing impacts from I-5.

Introduction to Sustainable Living Innovations

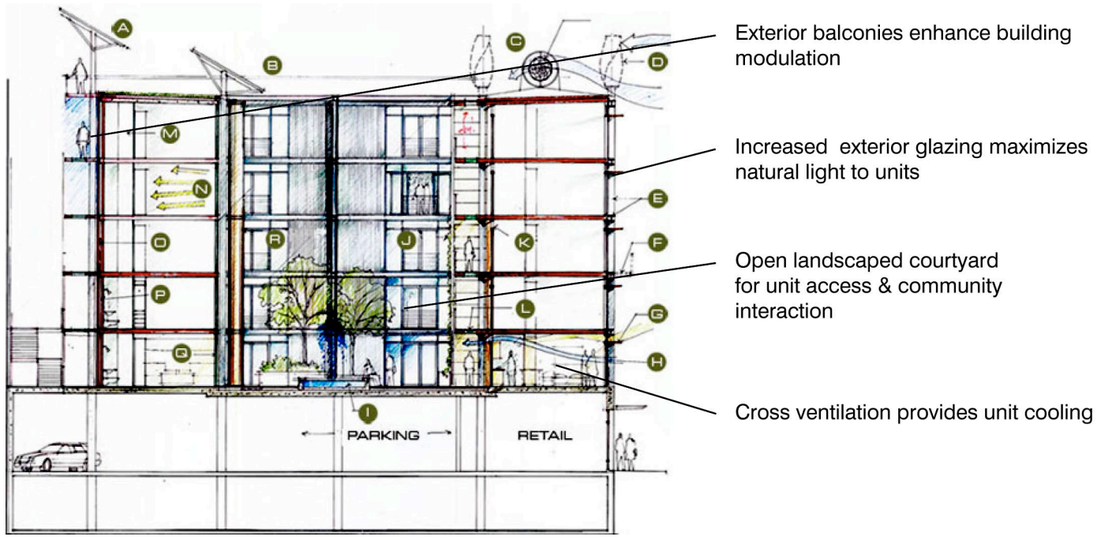
Why a Componentized Approach?

This component approach is a collaboration of a group of architects, structural engineers, and general/mechanical contractors working to create a flexible and customizable housing product that is scalable for low, mid, and high-rise structures. Sustainable Living Innovations (SLI) is a proprietary and patent-pending building system that combines an external steel structure with post-tensioned concrete floor slabs and pre-assembled wall units. The SLI system delivers a building product that is more sustainable, more efficient, and higher quality than traditional wood-frame construction.

The SLI system approach of fabricating high-quality and durable components off-site (complete with plumbing, wiring, and finish materials) coupled with a unique structural system accommodates faster construction which is less wasteful, and delivers a quality lifestyle experience to residents at a price that is competitive with current construction methods.

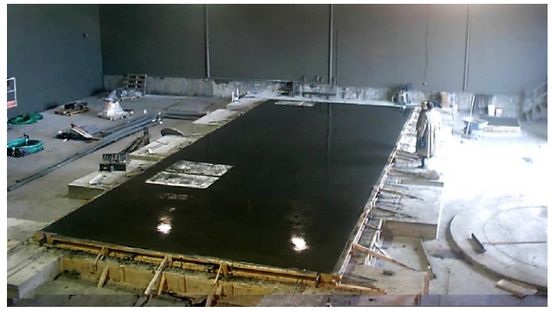
The SLI Concept

Beyond the component approach to construction, the SLI concept includes a shift in thinking about the ideal configuration of multi-family housing in an urban context. Rather than a typical double-loaded corridor layout, the SLI configuration uses a single-loaded layout accessed from exterior walkways surrounding an open interior courtyard. This creates several advantages (including enhanced sustainability) by providing cross-ventilation and an abundance of natural light for units; a greater sense of community created by units with a front door on a landscaped courtyard where residents can interact on a daily basis; and a fine-grained, human-scale interior environment.

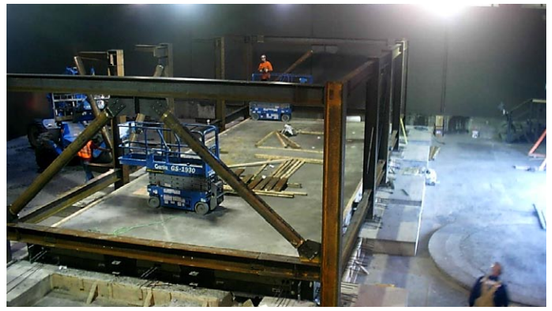


Testing the SLI system at full scale

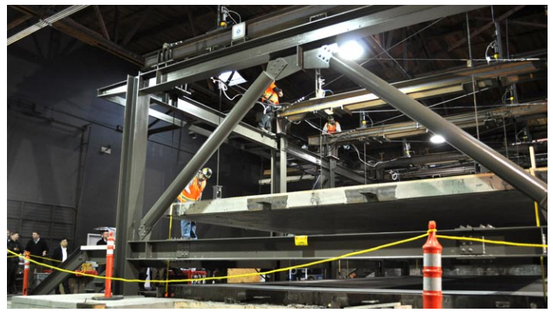
In order to display the advantages of the building system, a full size mock-up of two units was constructed in a warehouse in south Seattle. The process not only demonstrated the feasibility of the building system, but also showed the unique character of the building interior and exterior configurations.



1. Post-tensioned concrete floor slabs poured over foundation

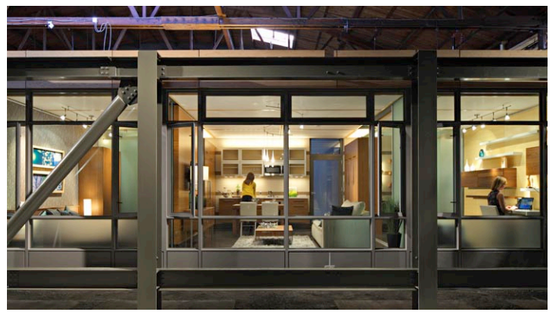


2. Supporting steel structure erected around floor slab

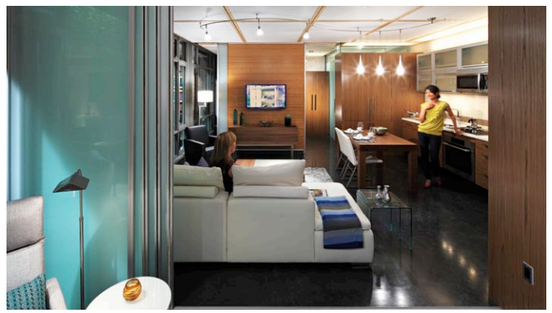


3. Roof slab lifted into place using bridge construction methods

4. Roof slab anchored to steel structure in final position



5. Exterior façade of completed unit with full glazing set behind the exposed structural steel frame



6. Open plan configuration of the completed interior

Sustainable Living Innovations - Opportunities

Building Configuration

The efficiencies of the SLI system come from the use of a regular grid of exposed steel structural elements at the exterior of the building. The façades of the building units are typically set back approximately 18" from the front face of the steel structure, allowing the units to be configured in various combinations within the structural grid. This setback of the unit façades inherently provides a dynamically changing pattern of light and shadows across the building face.

The use of a steel structure and concrete lift slabs for roofs and floors allows for very fast and efficient erection on site, but it does not limit the ability to modulate the building façades.

Façade Character

The configuration of the SLI system, with interior walls facing a semi-private courtyard, provide the opportunity for a full-height glazing system at the exterior façades. This configuration allows views deep into the building, while interior blinds create a façade that is constantly changing in appearance.

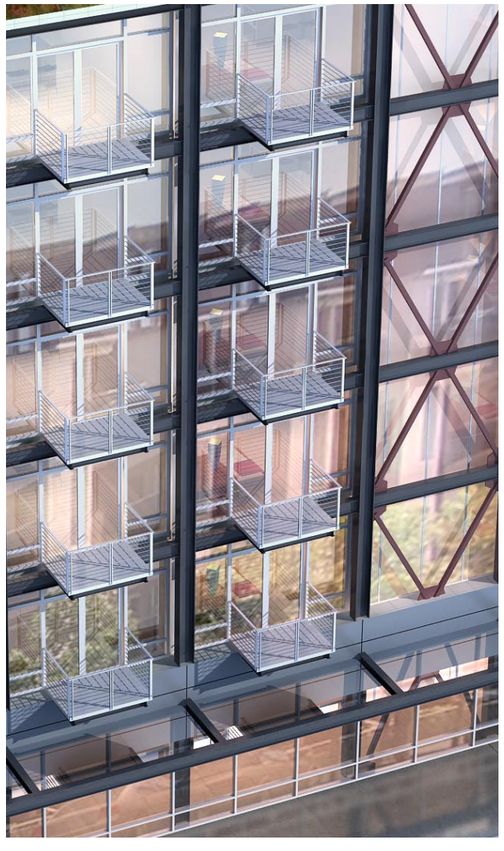
The SLI system is extremely flexible. The system is designed to accommodate almost any exterior material, and the hierarchy of building elements provide a great opportunity for a color palette that is both expressive and rational.

- Aluminum glazing wall system can include colored, fritted, or obscure glass. Solid panels can be used in place of glazing, arranged in any configuration and finished in any color.
- Solid end walls and utility walls can be designed with rainscreen or shingle cladding, using composite panels, metal panels, cement board, or other finish materials.
- Interior walkways can have integrated or freestanding planter boxes, green screens, and a variety of railing materials.
- Bay window elements in various configurations can be incorporated into unit plans.
- Projecting unit balconies attached to the structural steel frame can enhance building modulation.
- Shading devices in the form of rolling screens, vertical or horizontal fins and exterior Venetian blinds can be attached to the structural steel frame to enhance building modulation and create an ever changing façade.

Efficient and Sustainable Design

The great advance of the SLI system is its efficiency and durability of construction, which directly contribute to its sustainability. Every element of the building has been rethought and re-imagined to create a truly sustainable design.

- Steel and concrete construction creates a durable building (80 -100 year life). This longer building life saves energy and carbon generation associated with rebuilding a typical building every 30 to 50 years.
- Efficiency of construction lowers costs allowing the use of more sustainable and long-lasting materials.
- Open unit plan configurations provide flexibility for future market viability ensuring extended building life.
- SLI building configurations are typically 10-20% smaller than a typical wood-frame configuration, reducing embodied carbon in materials and energy use for heating and cooling.
- Factory construction provides efficient use of material transportation resources and maximizes reuse and recycling of materials.
- Off-site fabrication shortens construction time and reduces construction trips to the site.
- SLI buildings are designed to be LEED Silver or greater.
- Unit configurations are wide and shallow maximizing opportunities for daylighting and passive ventilation.
- Landscaped courtyards provide opportunities for evaporative cooling and stormwater management.



Architectural Design Consultant

Established in 1988, CollinsWoerman is a full-service architecture, planning and interior design firm specializing in innovative and sustainable solutions. Our team of 80 professionals offer a strategic advantage by integrating diverse expertise into creative collaborations and inventive partnerships with our clients.

CollinsWoerman has its roots in the planning and design of facilities using alternative methods to traditional design processes. Its founders developed and refined the concept of Team Build—at the time, a revolutionary process of integrating design and construction by including the owner and the general contractor as members of the design team.

With the design and delivery of over 4,000 residential units in concrete and steel construction in the last five years.

MEP Consultant

For nearly fifty years, McKinstry's commitment to fostering long term client relationships and providing transformative thought leadership in the built environment has made us an industry-leading Design, Build, Operate, and Maintain (DBOM) firm. Headquartered in Seattle, Washington, we also offer our high performance design build, energy and facility management services in more than 20 states.

Our professional staff and trades people provide a broad range of construction, design, electrical, and facility services including mechanical/electrical engineering, construction, architectural metals, 24/7 service and maintenance, energy/LEED consult and onsite facility management. From design, pre-construction, and commissioning to service operation, special projects, and facility management we deliver innovative, bottom line solutions with an eye on sustainable best practices "For the Life of Your Building."

Construction Consultant

Established in 1956, Lydig Construction has built a reputation as a provider of premier preconstruction and general contracting services for multiple project types throughout the state.

Lydig is committed to the values of fairness and honesty and provides excellent craftsmanship with loyal and professional employees. They will provide innovative and sustainable construction and work with the entire design team to deliver a project that exceeds the customer's expectations.

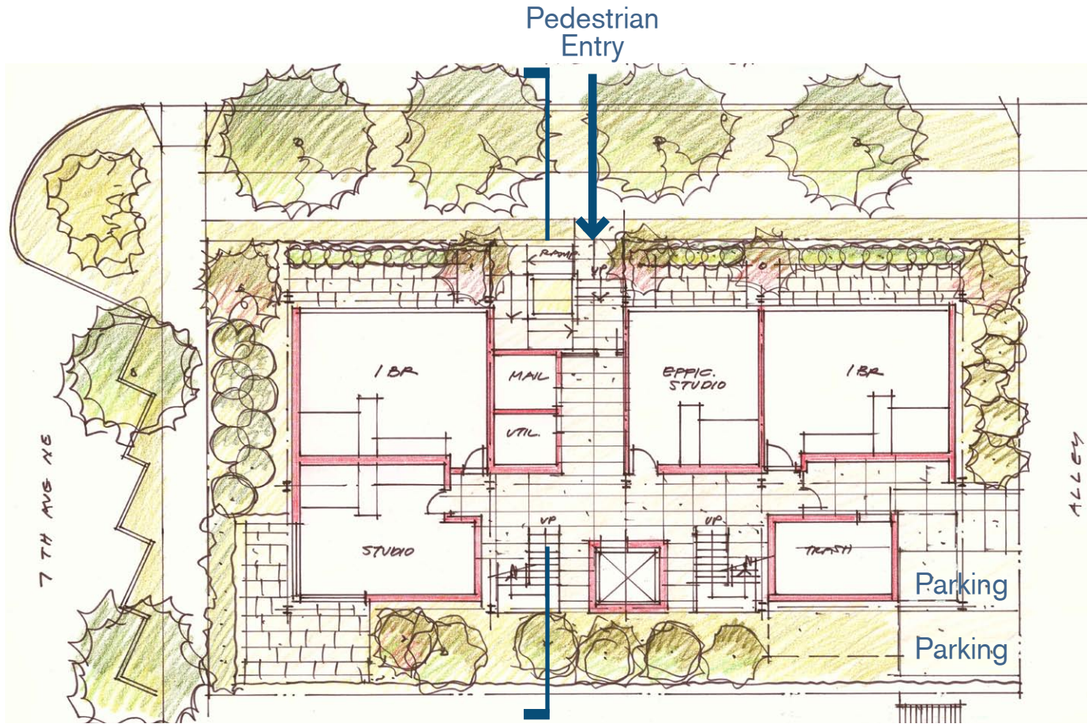
Lydig is looking forward to the challenge of working "outside the box" on this modular building approach to affordable and long-lasting multi-unit housing.

Structural Engineering Consultant

DCI Engineers is an innovative civil and structural consulting engineering firm that provides some of the most cost efficient engineering solutions for today's construction environment. With six offices throughout the United States, DCI is headquartered near Seattle in Bellevue, Washington. With more than twenty years of experience, DCI Engineers' commitment to innovative engineering is constantly pushing us to explore new avenues of superior design, while maintaining our client's needs as our top priority.

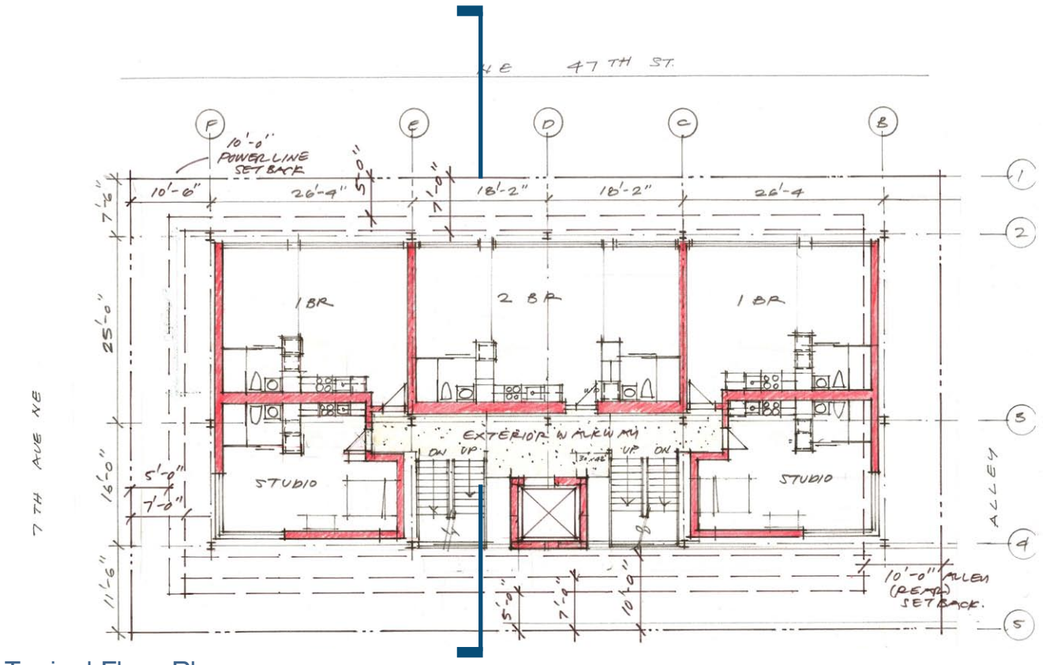
DCI's fundamental philosophy is to operate as a united design group committed to exploring new and creative engineering solutions, as well as, remaining at the forefront of industry advances. We remain steadfast in our commitment to produce unparalleled solutions while still providing our clients with a variety of options.

Massing Alternative 1



Ground Floor Plan

0 10' 20' 40'



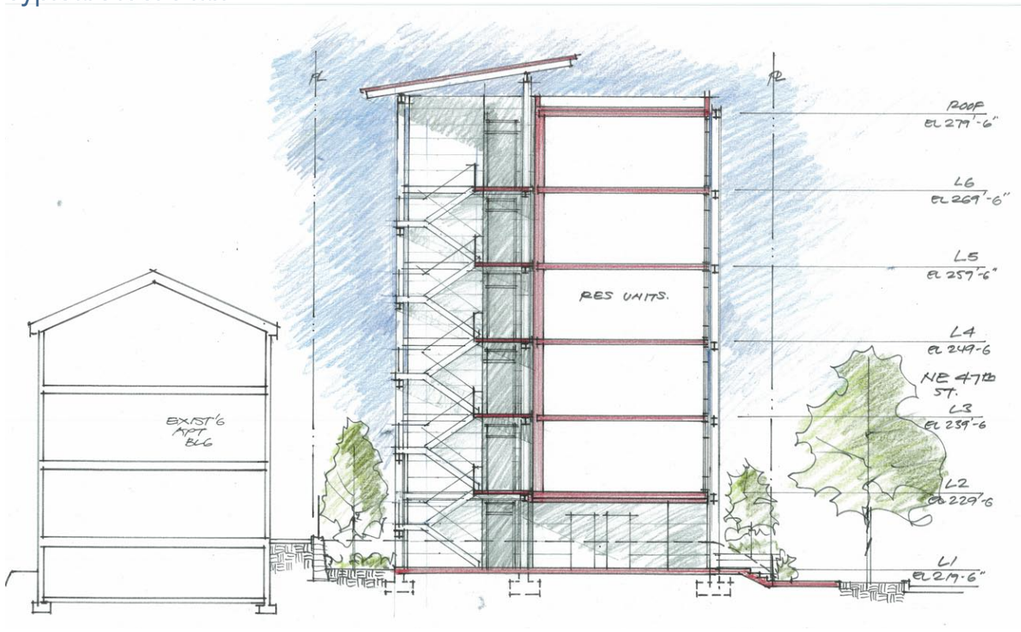
Typical Floor Plan

Description of Alternative 1

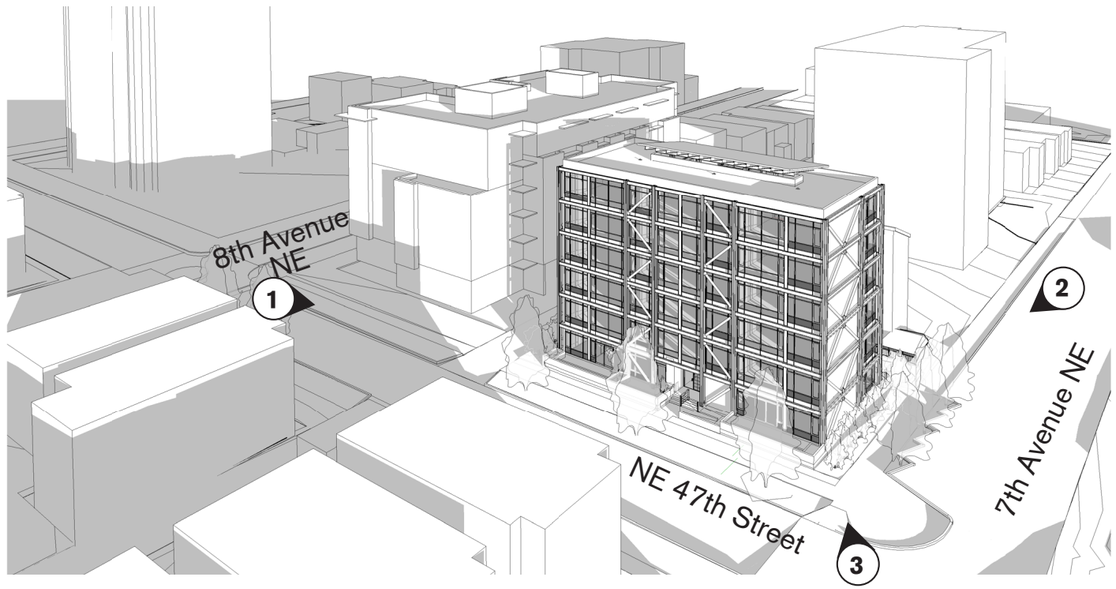
This alternative arranges the building mass as a C, with units facing north, southwest, and southeast around an open-air hallway with open stairs. The building is six stories above grade, with four units at ground level and five units per floor on typical floors. The primary pedestrian entry is on NE 47th Street, and surface parking and an alternative pedestrian entry are accessed from the alley. Ground floor units all have semi-private terraces 18" above the sidewalk. An angled canopy covers the shared hallway above the sixth floor, with the potential for mounting solar collectors for hot water or electricity.

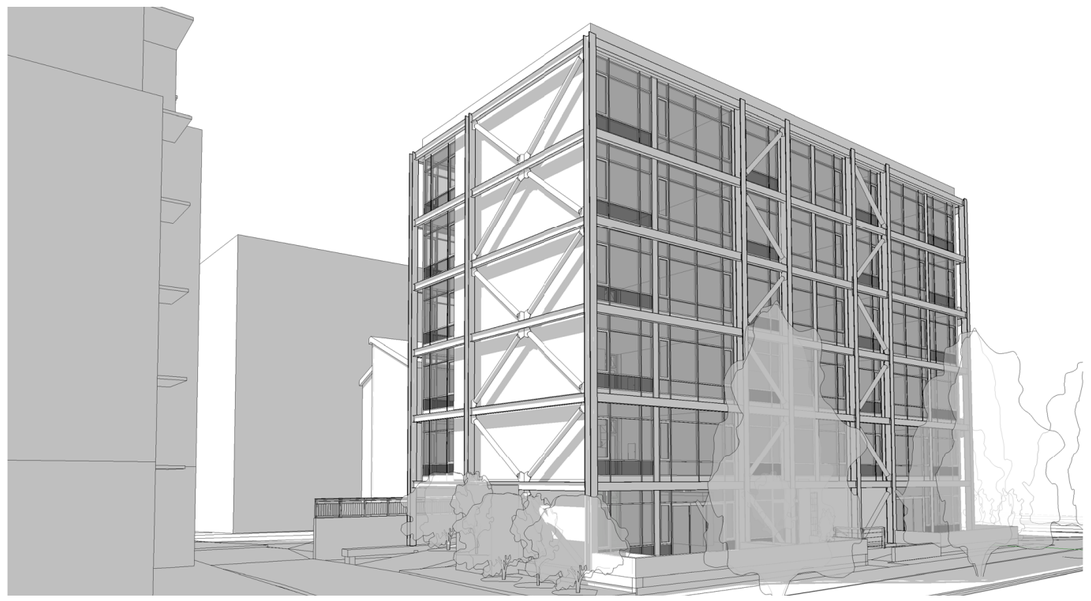
Design Departures

The building encroaches on the alley setback by approximately three feet.

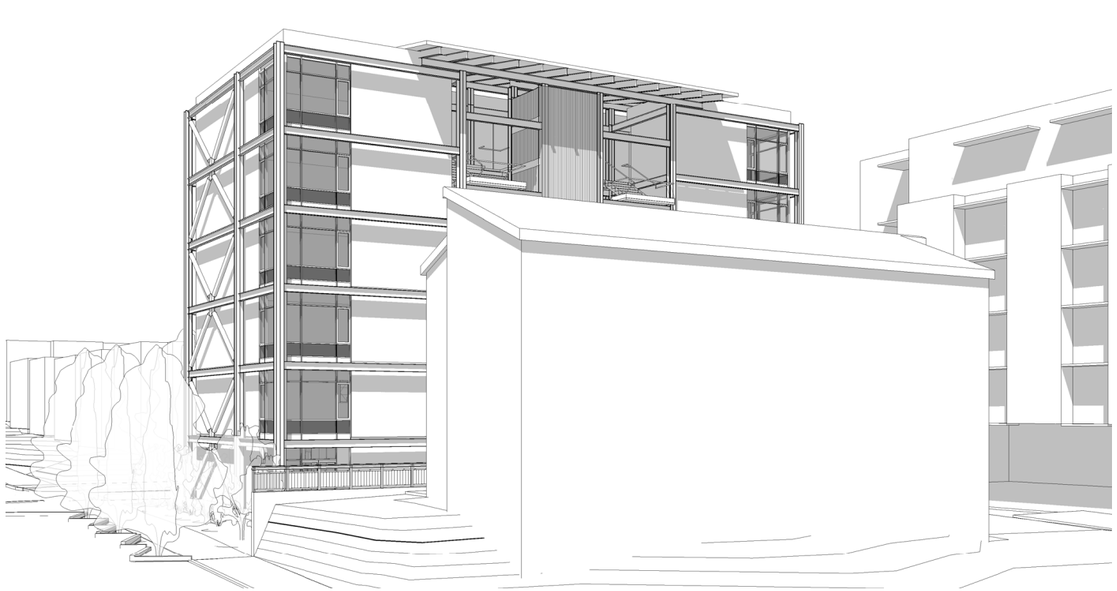


Building Section





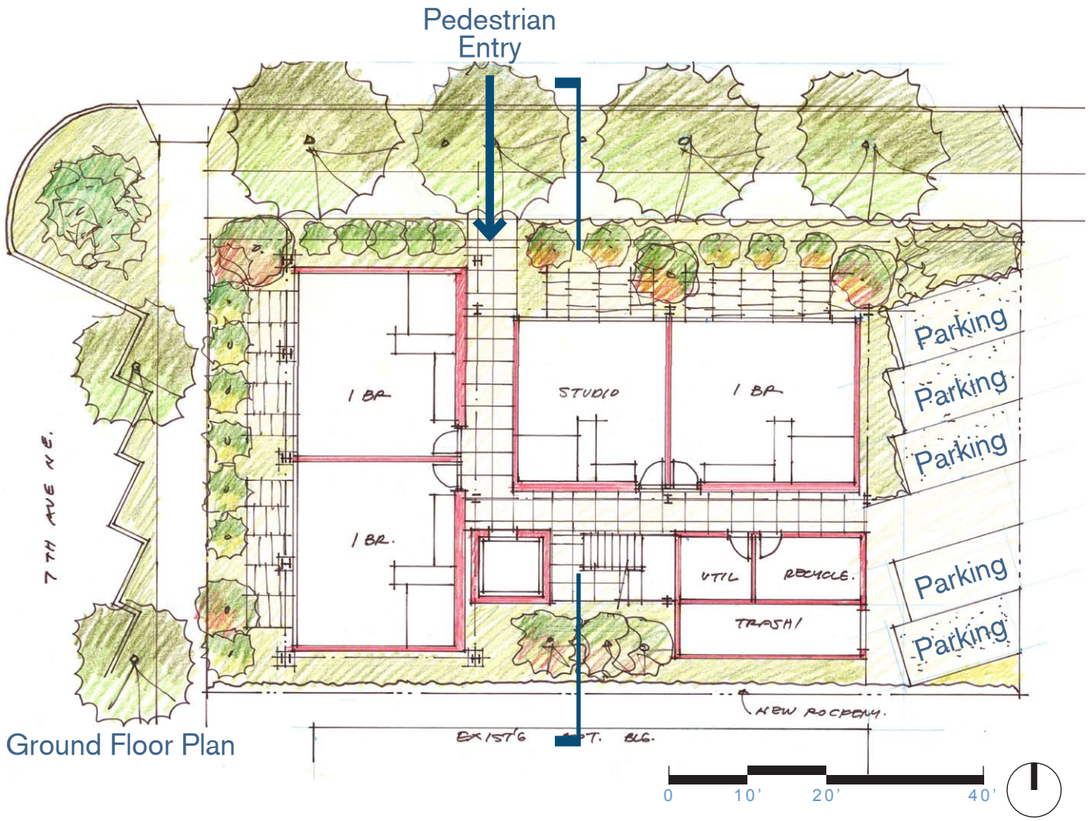
1 View from corner of 8th Avenue NE and NE 47th Street



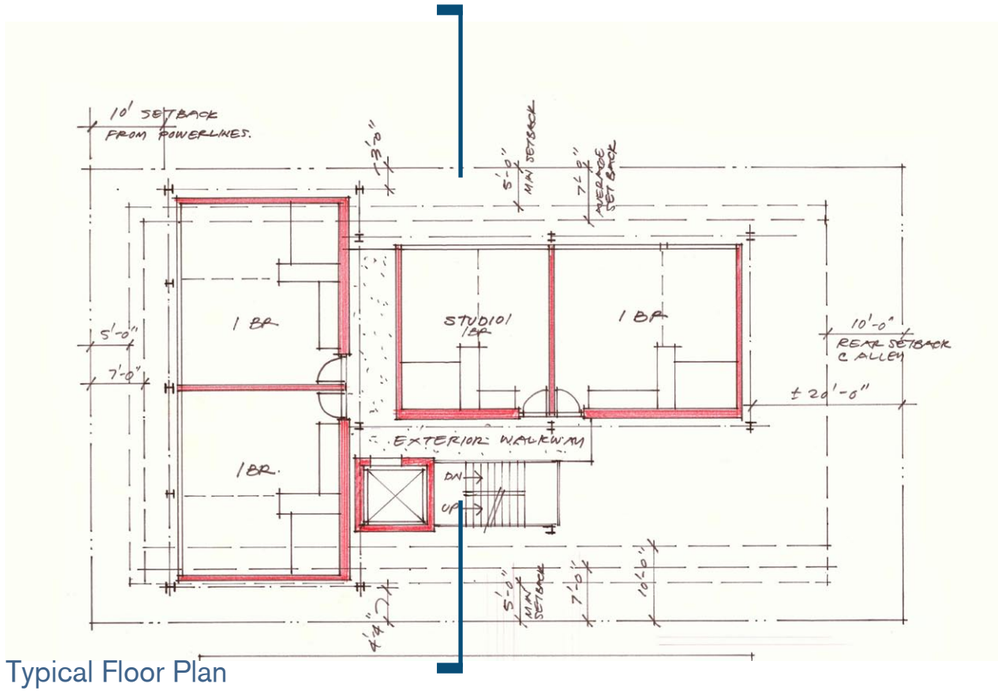
2 View from 7th Avenue NE looking northeast

3 View from 7th Avenue NE looking southeast

Massing Alternative 2



Ground Floor Plan



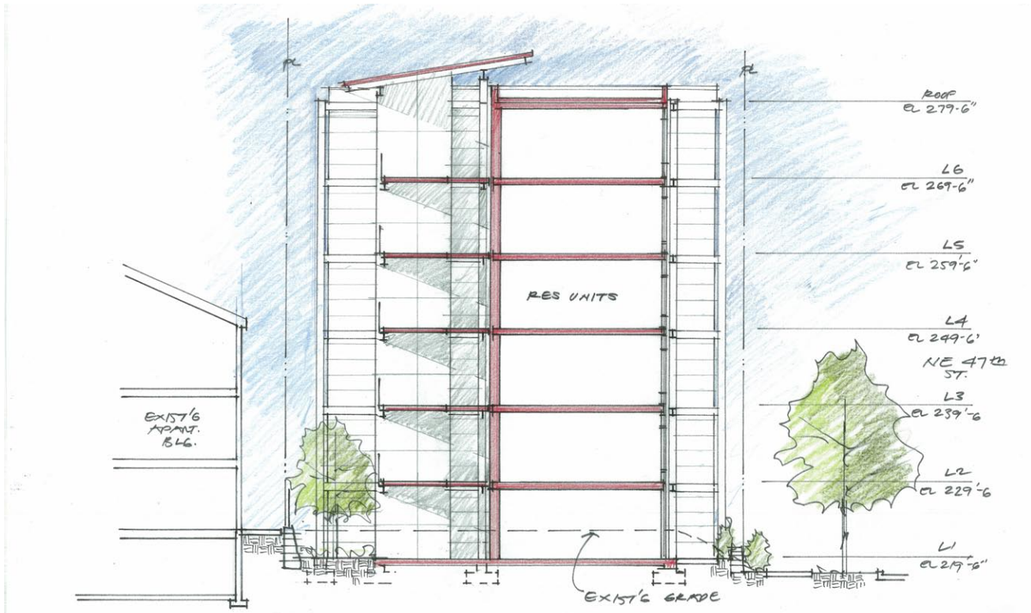
Typical Floor Plan

Description of Alternative 2

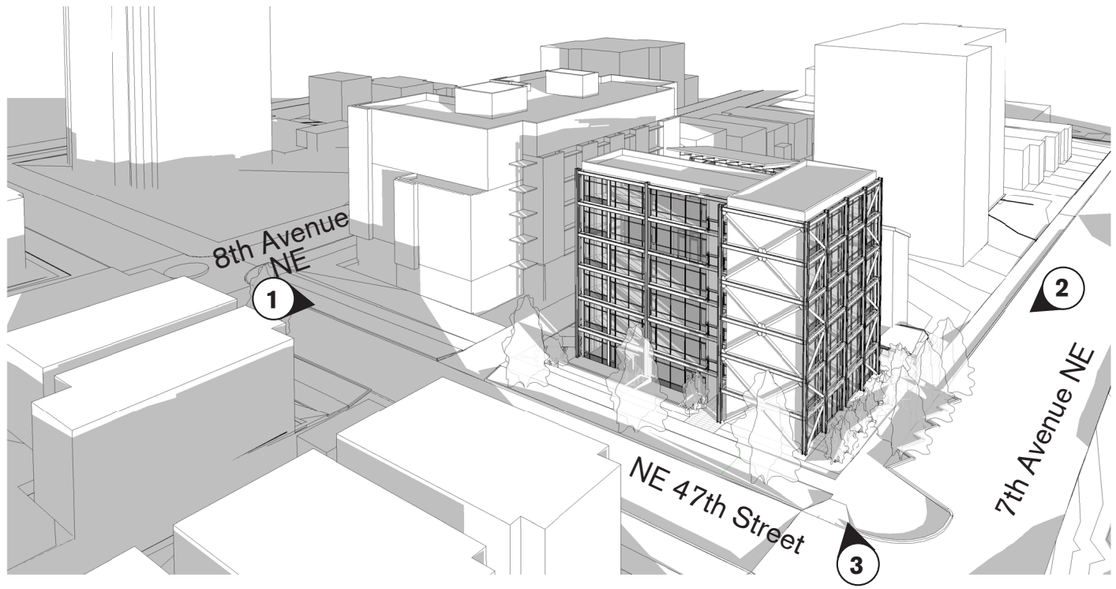
This alternative arranges the building mass as a T, with two units per floor facing north, and two units per floor facing west. A separation between pairs of units creates the main pedestrian entry on NE 47th Street. The building is six stories above grade, with four units per floor on all floors. The primary pedestrian entry is on 7th Avenue NE, with 5 surface parking spaces and an alternative pedestrian entrance accessed from the alley. Ground floor units all have semi-private terraces 18" above the sidewalk. An angled canopy covers the shared hallway above the sixth floor, with the potential for mounting solar collectors for hot water or electricity.

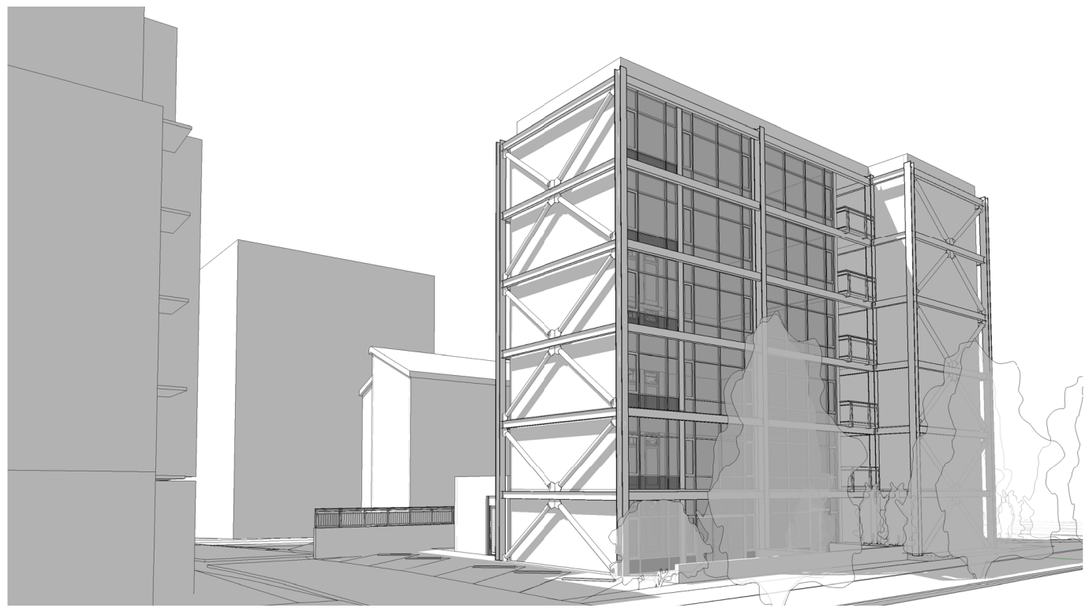
Design Departures

The building encroaches on the required front setback by approximately two and a half feet.
The building encroaches on the required side yard setback by approximately three feet.

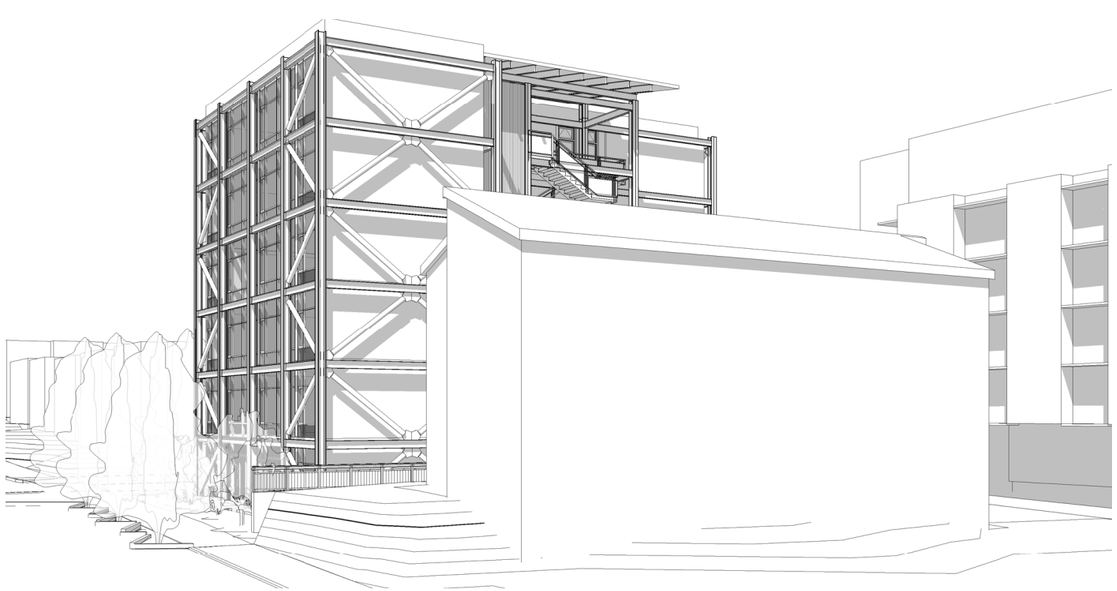


Building Section

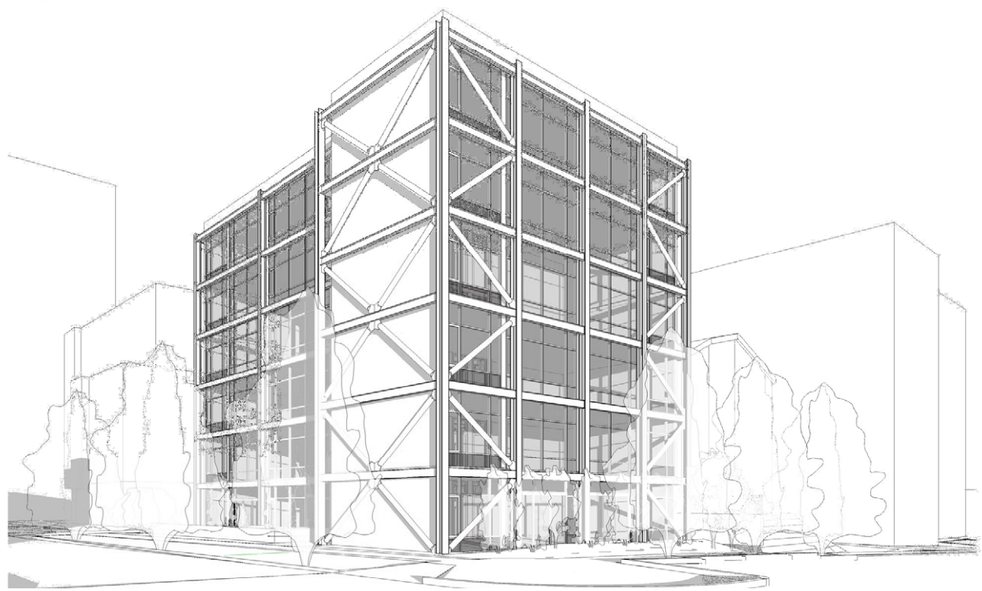




1 View from corner of 8th Avenue NE and NE 47th Street

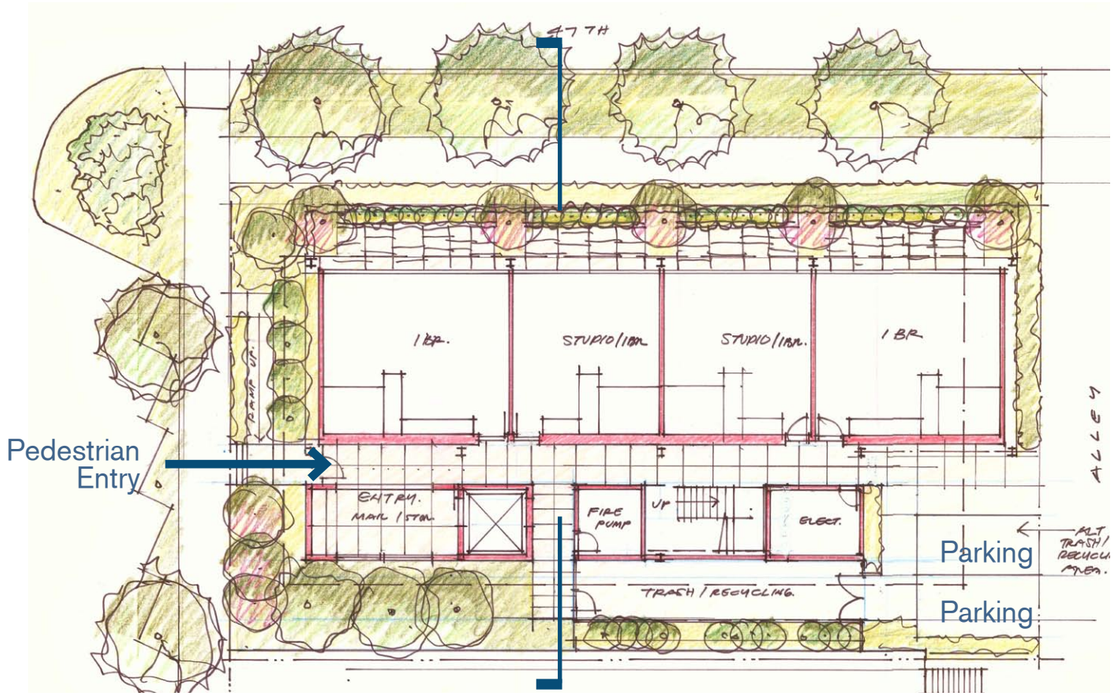


2 View from 7th Avenue NE looking northeast



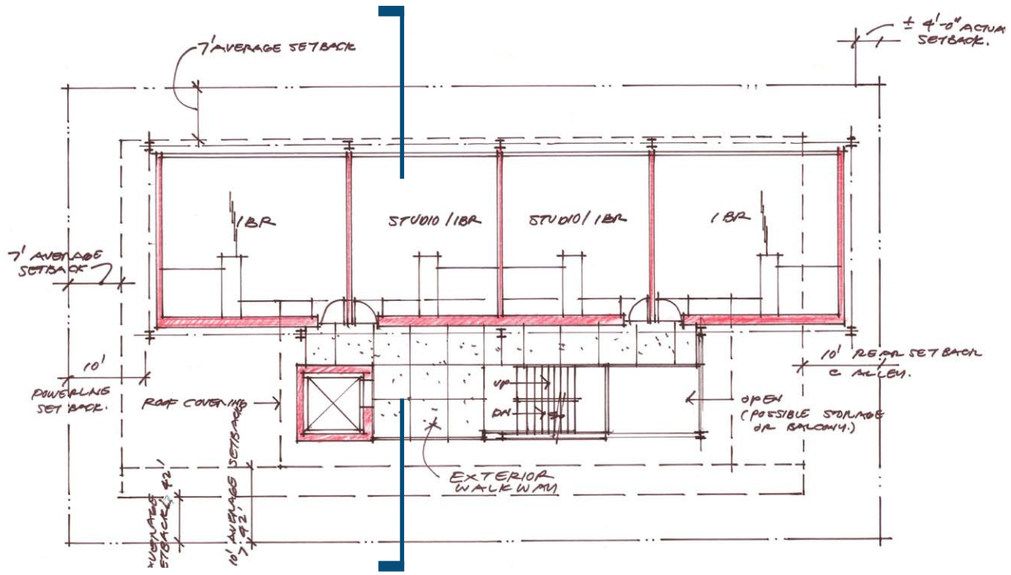
3 View from 7th Avenue NE looking southeast

Massing Alternative 3 - Preferred



Ground Floor Plan

0 10' 20' 40'



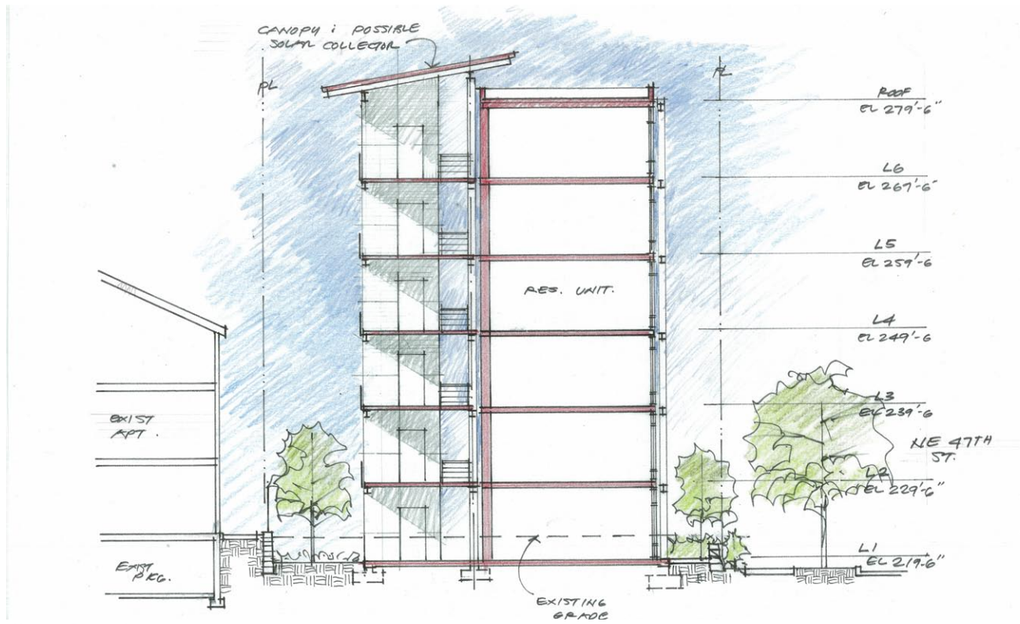
Typical Floor Plan

Description of Alternative 3

This alternative arranges the building mass as a single bar, with all units facing north. A secondary bar consists of the elevator, open stairs, and open hallways. The building is six stories above grade, with four units per floor on all floors. The primary pedestrian entry is on 7th Avenue NE, with two surface parking spaces and an alternative pedestrian entrance accessed from the alley. Ground floor units all have semi-private terraces 18" above the sidewalk. An angled canopy covers the shared hallway above the sixth floor, with the potential for mounting solar collectors for hot water or electricity.

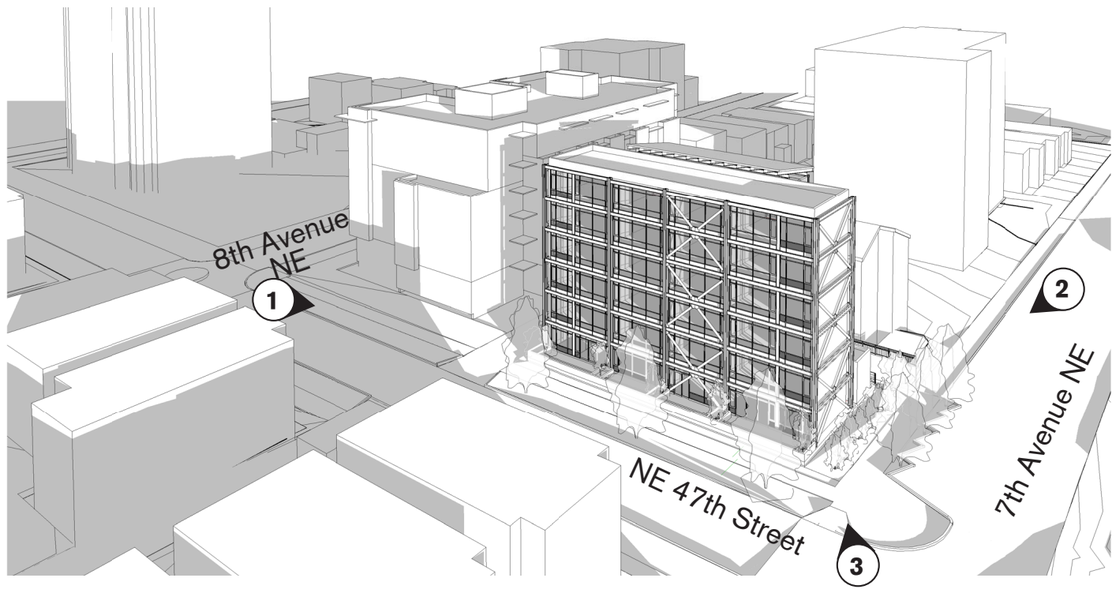
Design Departures

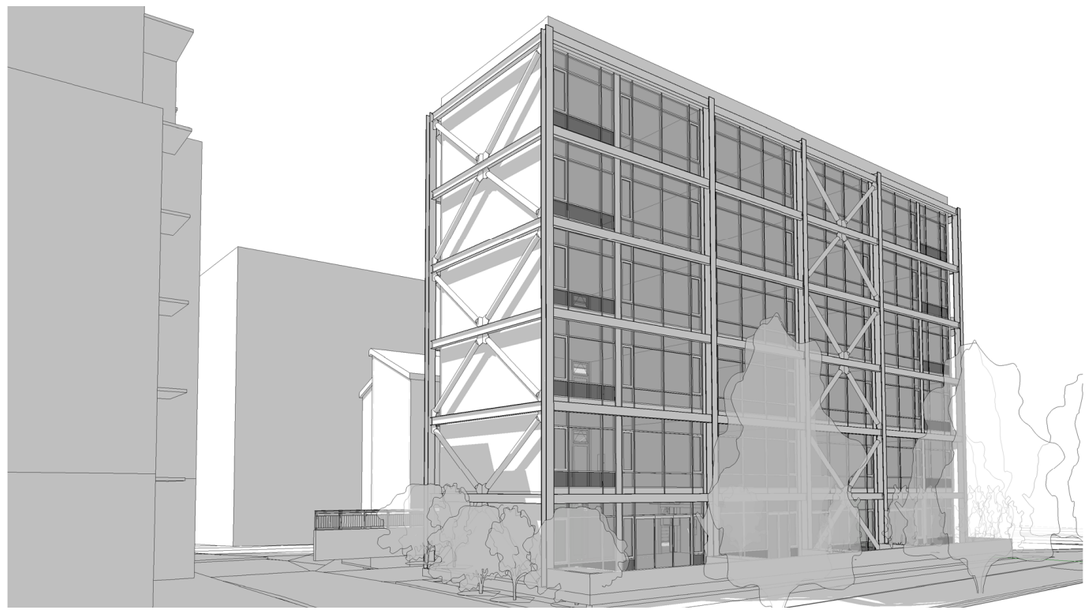
The building encroaches on the required alley setback by approximately six feet.



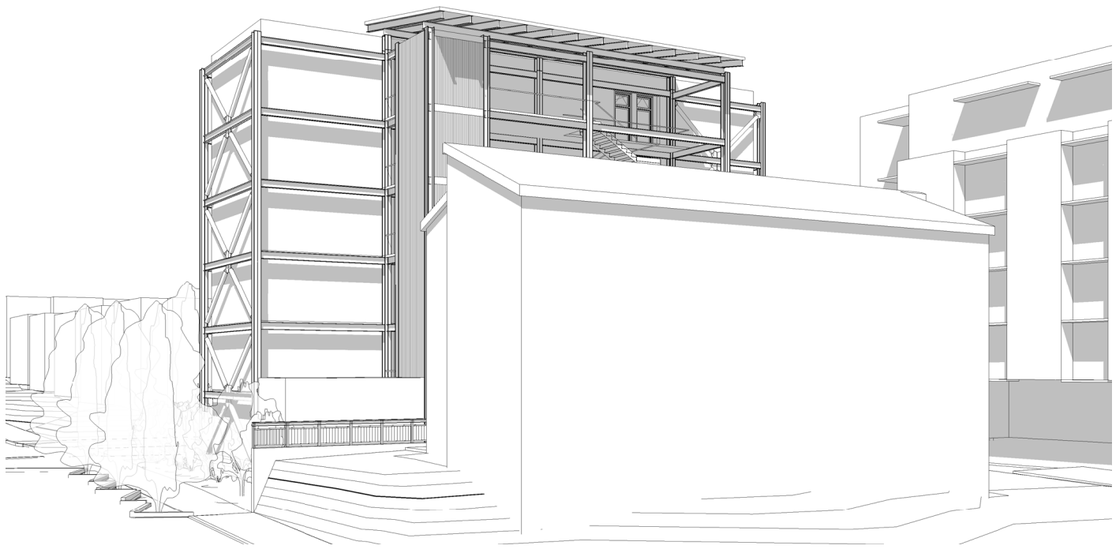
Building Section

Massing Alternative 3 - Preferred

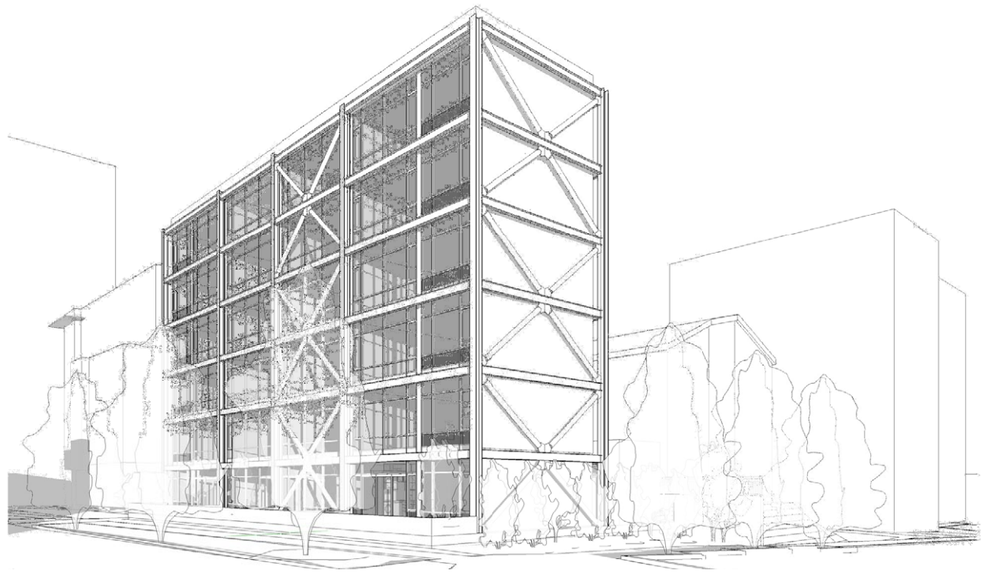




1 View from corner of 8th Avenue NE and NE 47th Street



2 View from 7th Avenue NE looking northeast



3 View from 7th Avenue NE looking southeast

Massing Alternatives - Pros and Cons

Alternative 1

Pros

- Maximizes number of units on the site
- Most units have views to north
- C-shaped plan shields unit entries from freeway noise
- Pedestrian entry from 47th

Cons

- Some units face freeway and alley
- Complicated construction
- Largest mass
- Encroaches into alley setback

Alternative 2

Pros

- Mass is broken into 2 distinct pieces - major modulation along 47th
- T-shaped plan shields unit entries from freeway noise
- Pedestrian entry from 47th

Cons

- Fewer units
- Half the units face freeway
- More difficult construction
- Least efficient hallway
- Presents partial blank façade to lowrise residential zone to north
- Encroaches into front and side setbacks

Alternative 3 - Preferred

Pros

- Most efficient construction
- All units have views to north
- No units face freeway
- Opportunity for entry patio in sunny location
- Narrowest mass - fewer impacts on neighbors to east and south

Cons

- Fewer units
- No pedestrian entry from 47th
- Encroaches into alley setback

Circa Green Lake

Seattle WA

Four-story, 205-unit mixed-use project on a highly visible site adjacent to Seattle's Green Lake Park. The project has three levels of residences over a level of pedestrian-oriented neighborhood retail, a series of live-work spaces, and residential units clustered around ground-level courtyards. The design provides two levels of below-grade parking.

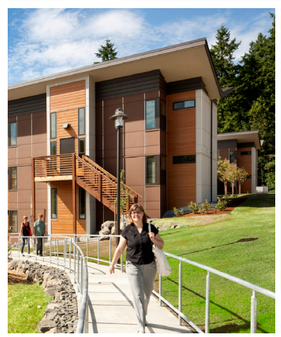
Bastyr University Student Housing Village

Kenmore WA

Project has been certified LEED for Homes Platinum by the USGBC. Bastyr Student Village has been awarded the 2010 LEED for Homes Project of the Year in the "Outstanding Multifamily" category by the USGBC.

11 three-story cottage-style buildings, each with 12 rooms, for a capacity of 132 students.

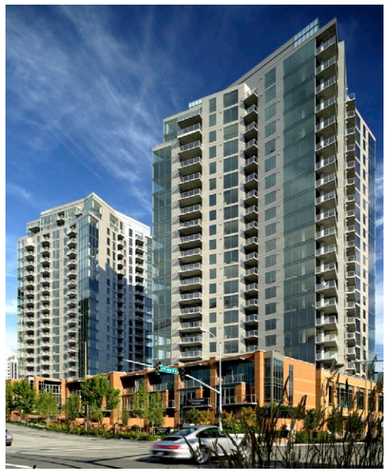
The first major new construction on Bastyr's Kenmore campus; it is a low profile, low impact development sensitive to a beautiful natural site.



CollinsWoerman Project Examples

Washington Square

Bellevue WA



1.6 million sf of occupied space in a full-block program
540,000 sf of residences, 270,000 sf of hotel, 480,000 sf of office,150,000 sf of retail, 650,000 sf of senior living, and 900,000 sf of below-grade parking
Completed in 2008.

2200

Seattle WA

550,000 sf mixed-use project with retail, residential and hotel, 261 residences,160-room Pan Pacific Hotel and 50,000 sf Whole Foods Market.
Other retailers include: Bank of America, Bella Cleaners, Cloverhouse, F.K. Kirsten Tobacconist, Kelley-Ross Pharmacy, Scraps Dog Bakery, Seva Home, and Starbucks
Completed in 2006
Project sold 90% of its properties one month after opening