



UW Department of Architecture  
Undergraduate Design Studio

Fire Station 38  
Adaptive Reuse Research

**FIRE STATION # 38**





## Overview of Research:

Neighborhood Description

Fire Station 38 Description

Reuse Analysis and Precedents

Initial Programming Concepts

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January 28, 2009

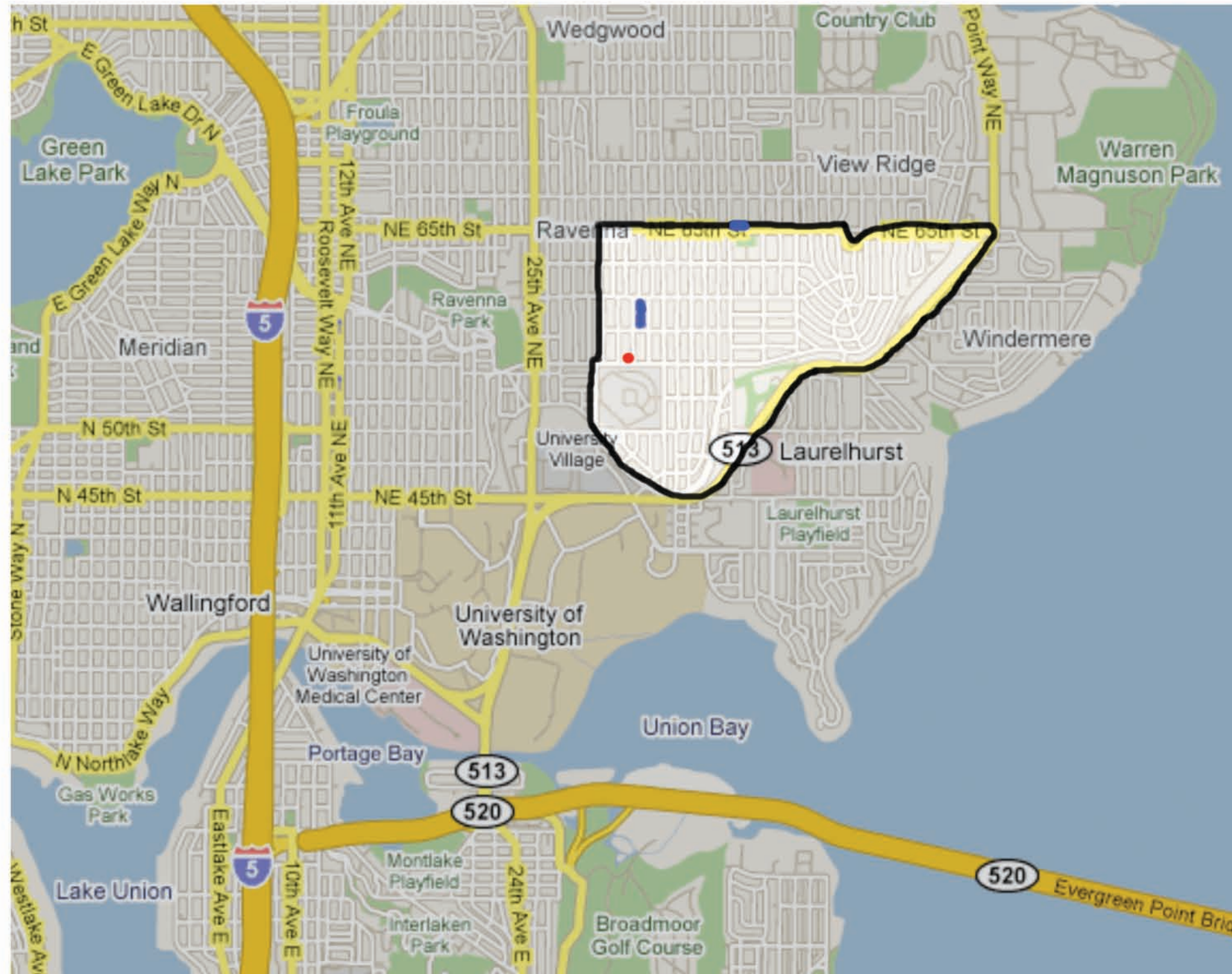




Study Area  
Neighborhood  
Amenities  
Land Use  
Zoning Requirements  
Demographics

## Neighborhood Description





Area known as the Bryant-Ravenna Neighborhood

Bounded by 65th Street NE on the north, Sandpoint way on the east and south, and 30th Ave NE on the west

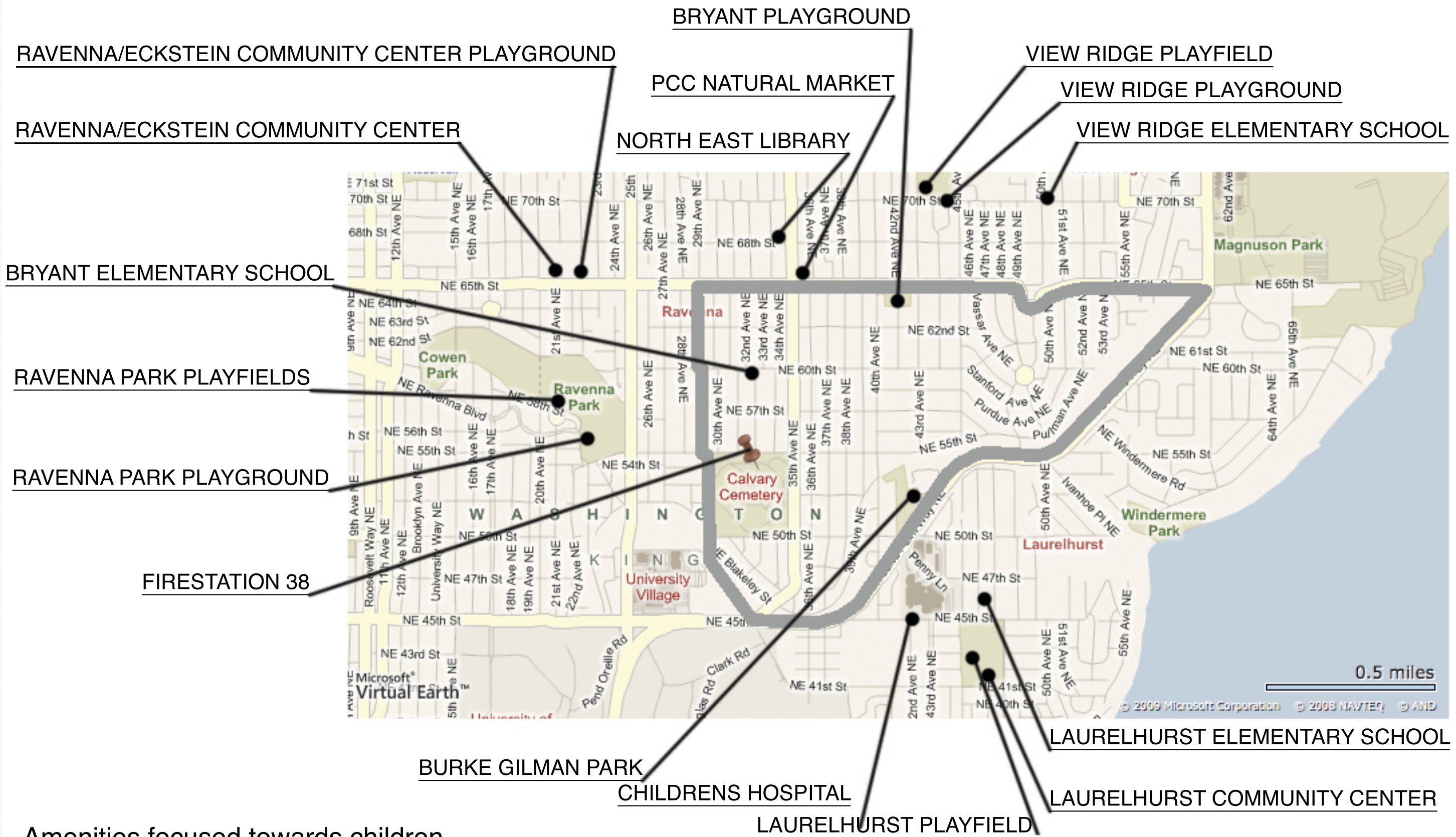
Coincides with census tract #42

Neighborhood is residential with some commercial

Some community landmarks include  
PCC  
Fire Station 38  
Bryant Elementary School

## Neighborhood Study Area





Amenities focused towards children  
predominate

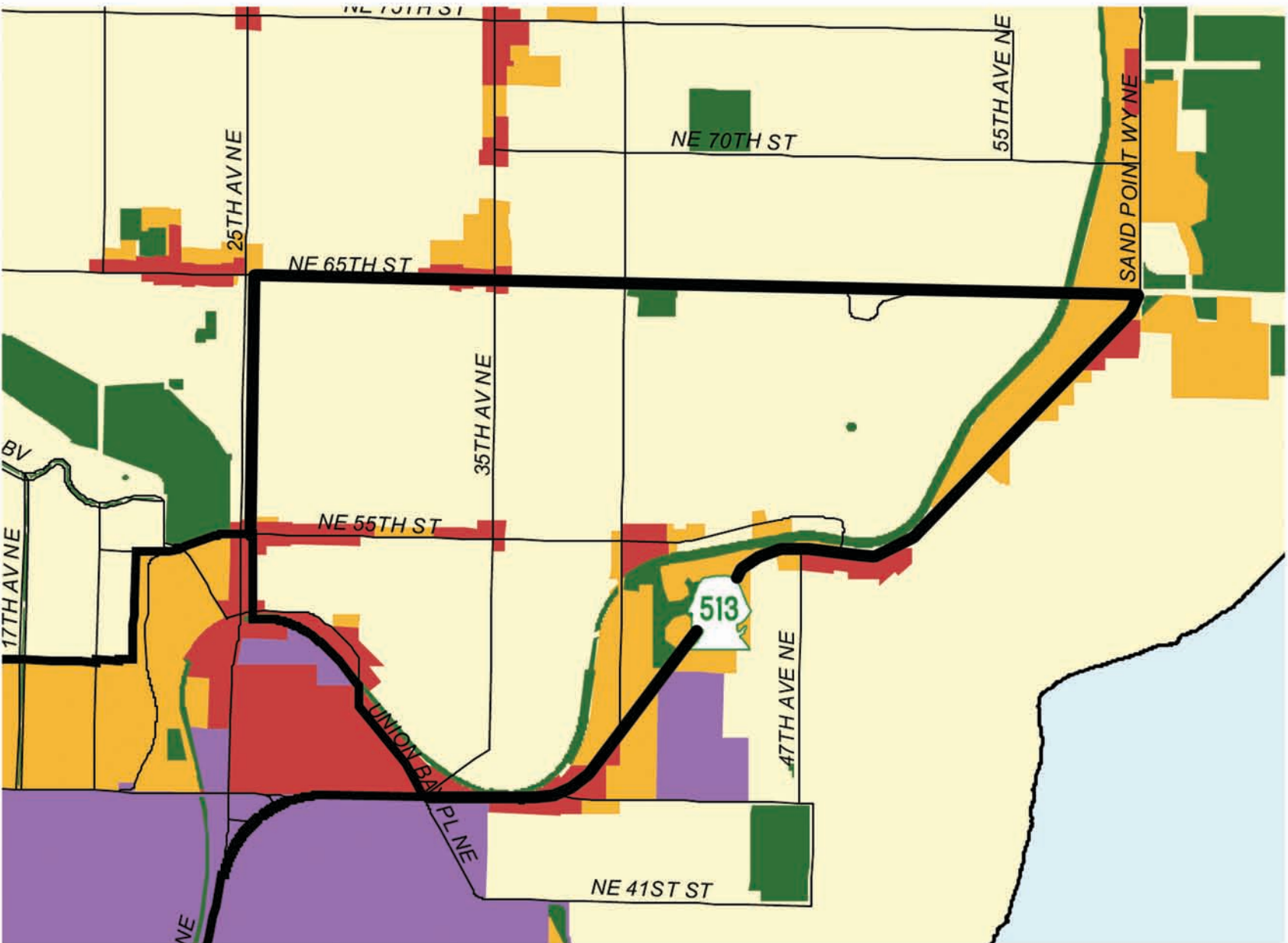
## Neighborhood Amenities





# Future Land Use Map

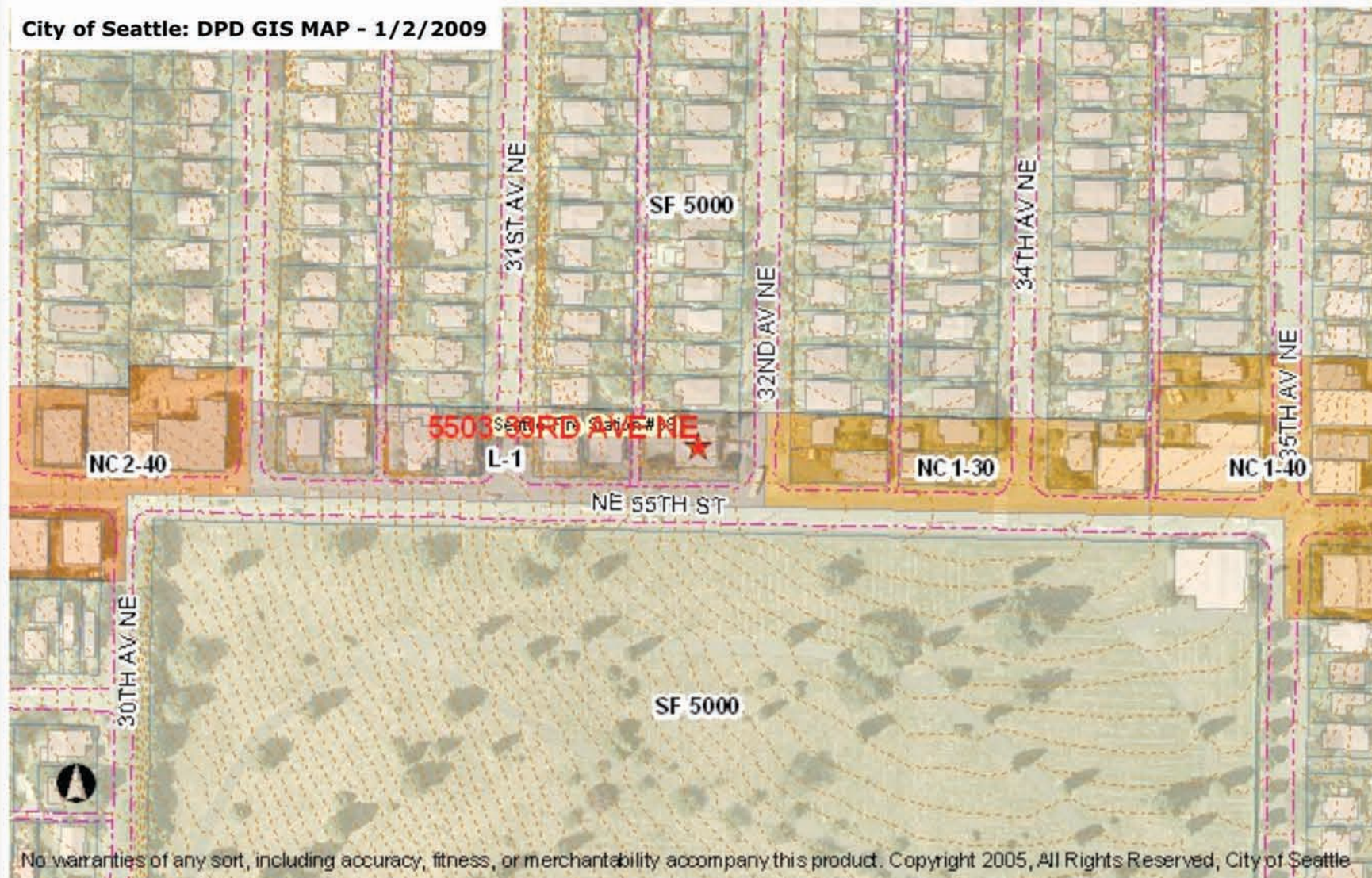
- Legend**
- U Urban Center
  - H/R Hub / Residential Urban Village
  - Manufacturing / Industrial Center
  - City-Owned Open Space
  - Single Family Residential Areas
  - Multi-Family Residential Areas
  - Commercial / Mixed Use Areas
  - Downtown Areas
  - Industrial Areas
  - Major Institutions



The Fire Station is located on a street mainly zoned for commercial usage but surrounded by residential areas

## Study Area Land Use





#### NC1:

- Small-scale retail with apartments above
- 10,000 square foot maximum usage for retail
- Prominent pedestrian entry for residential at least 4' above, or 10' from, sidewalk
- Parking at rear/side/within or off site within 800'

#### NC2:

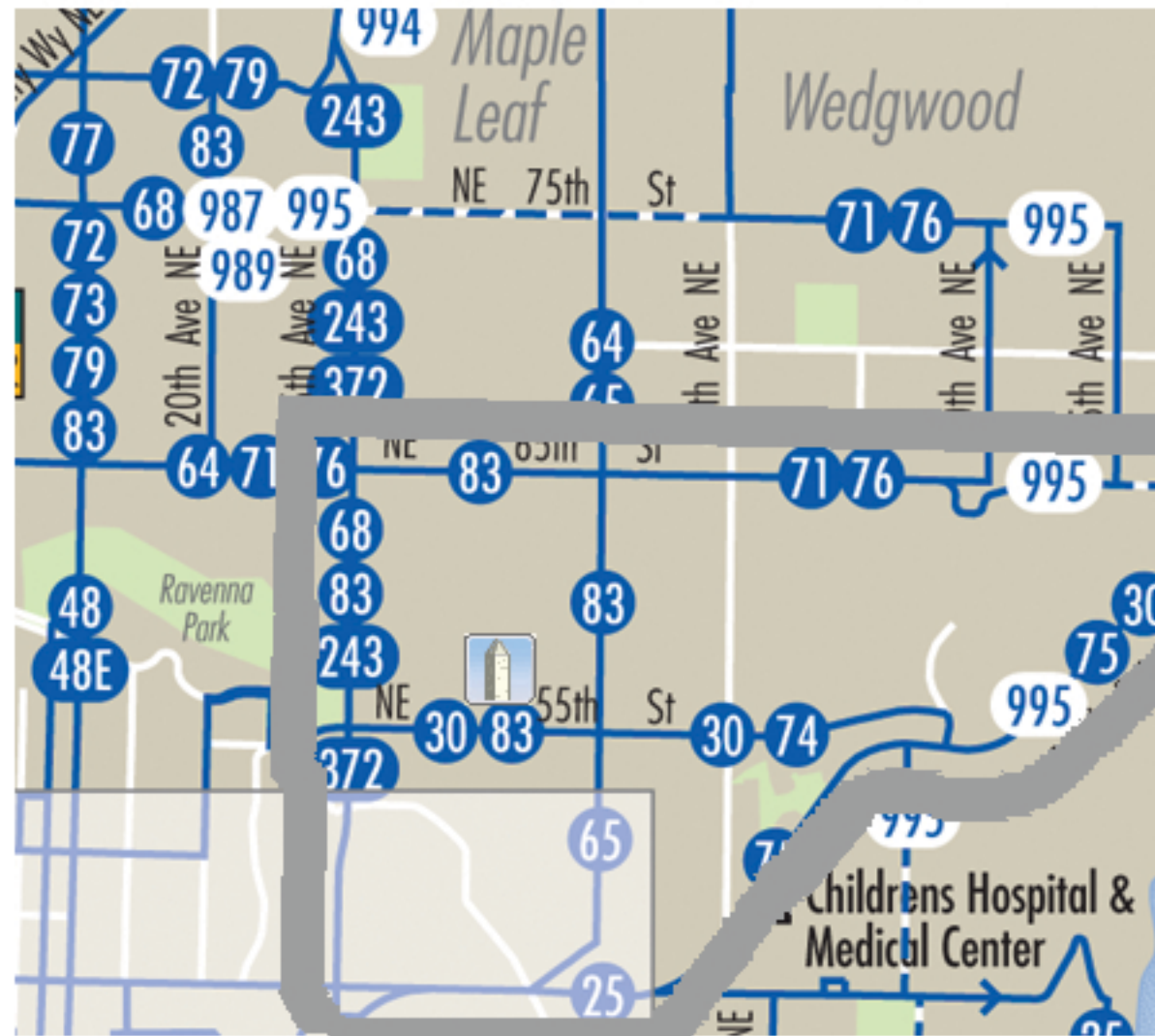
- Medium-scale retail with apartments above
- 25,000 square feet maximum usage for retail
- Parking at rear/side/within structure or off site within 800'

#### L1:

- 40 percent maximum lot coverage (50 percent for townhouses)
- Side setback 5'
- 15'20' rear setback, 20 percent of lot depth
- Front setback average of neighboring setbacks, minimum 5'
- Height limit 10' pitch roof plus 25' maximum

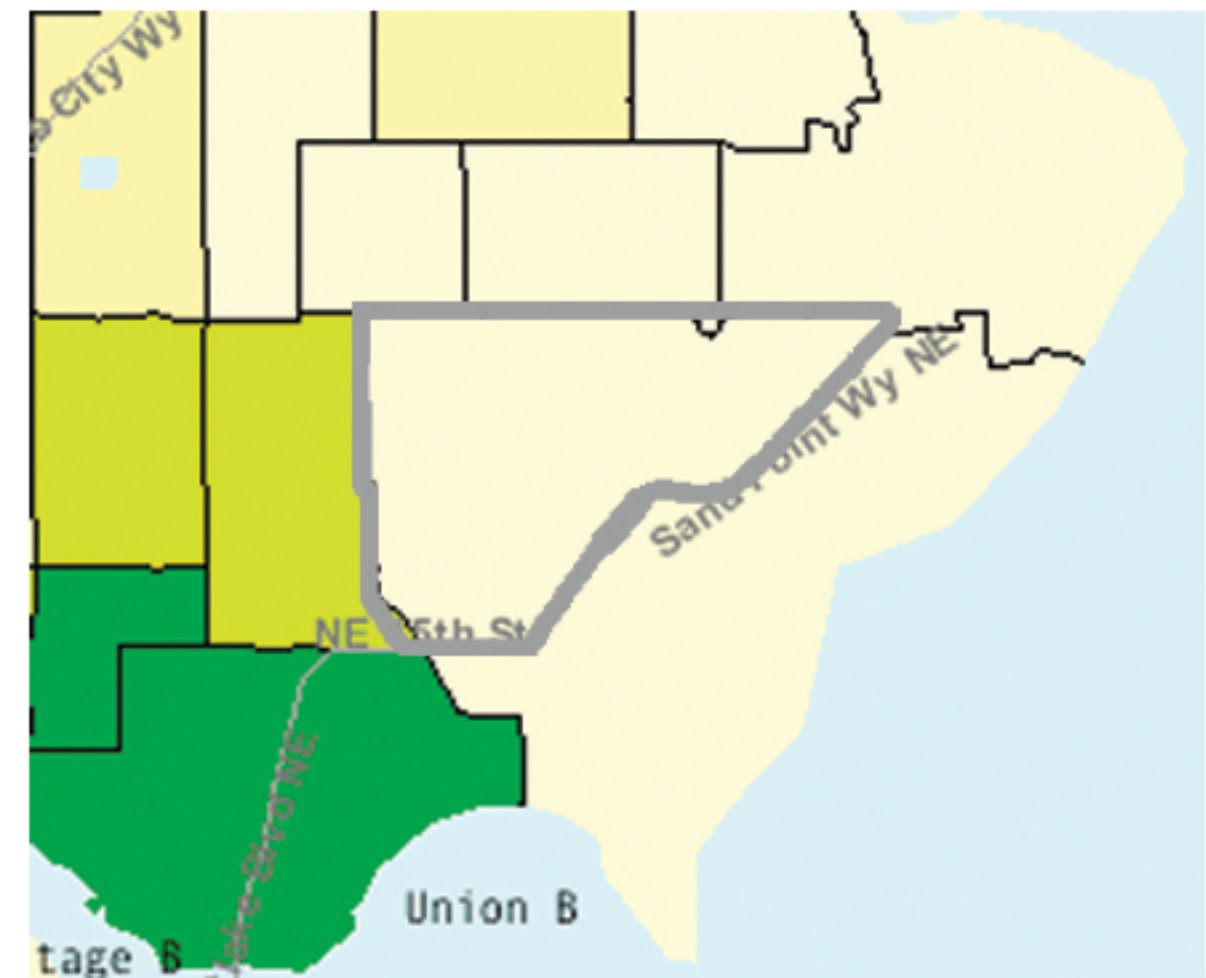
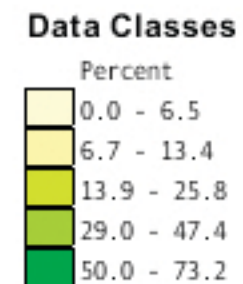
## Study Area Zoning Requirements





AREA TRANSIT MAP

## PERCENT NO VEHICLES



Study Area is well served by public transportation  
Bus routes that stop at FS 38 include:

- The 30, connecting Sand Point and Seattle Center
- The 83, a night owl connecting the University and Ravenna

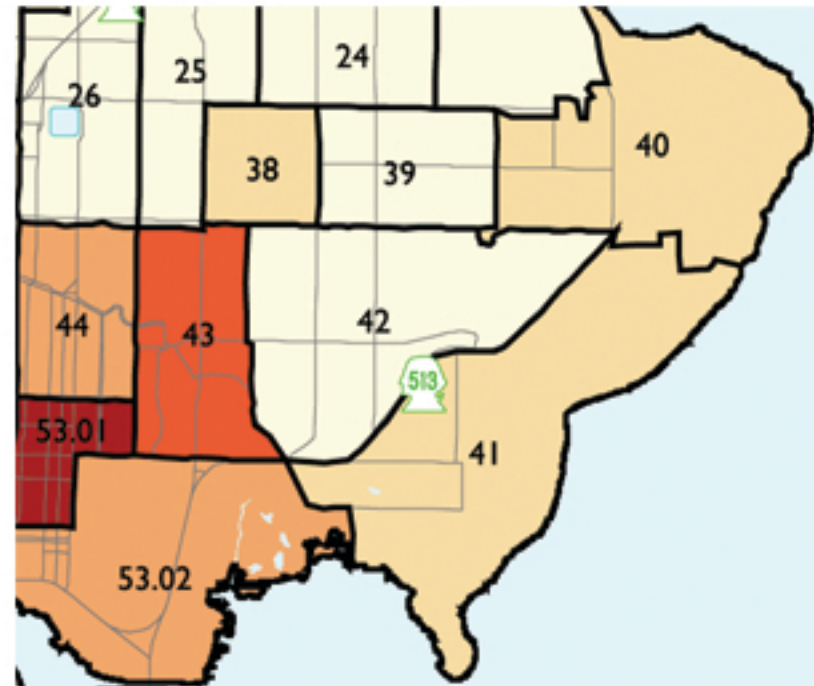
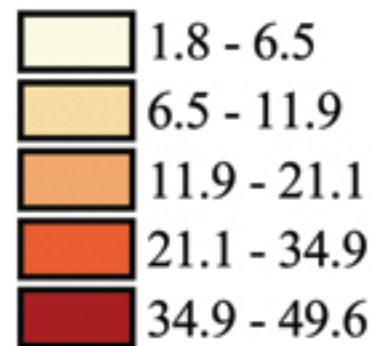
However, nearly all homes have a private vehicle

## Study Area Transportation

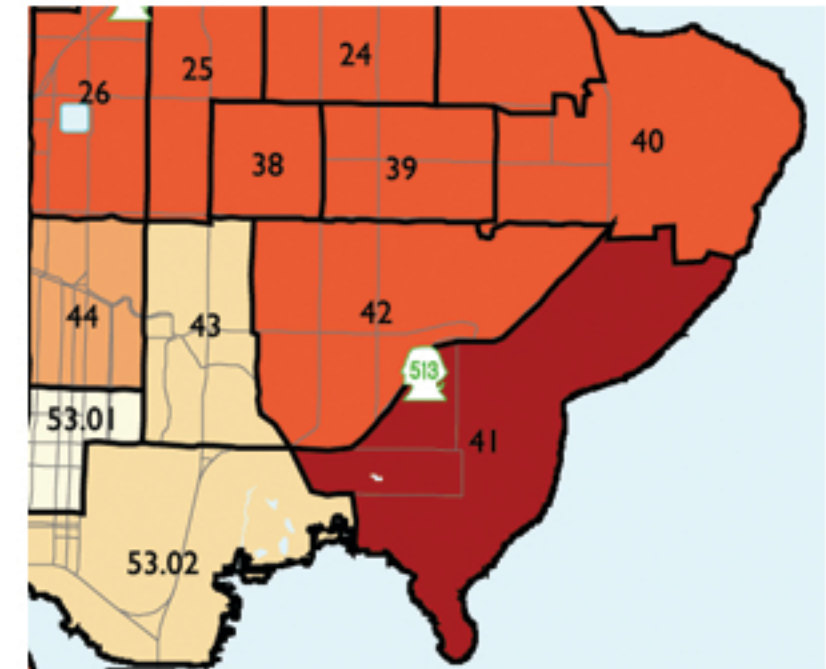
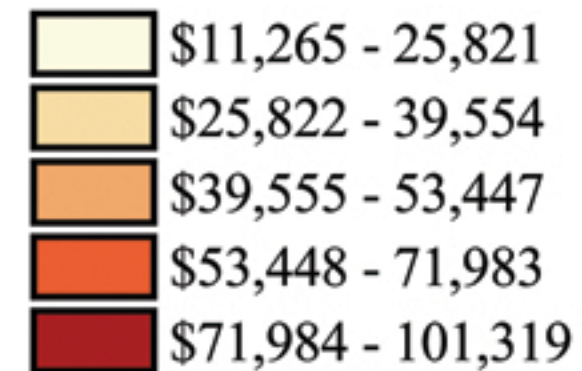




Percent of Individuals Living Below Poverty Level (1999)



Median Household Income (1999)



People in the study area are fairly well-to-do and educated.  
Median Household income is \$65,136 with a mean of \$85,077  
Just 5.3 percent of individuals and 3.5 percent of families live below the poverty line. Especially low in comparison to the adjacent areas

71 percent of people 25 and older have a college degree

## Study Area Demographics

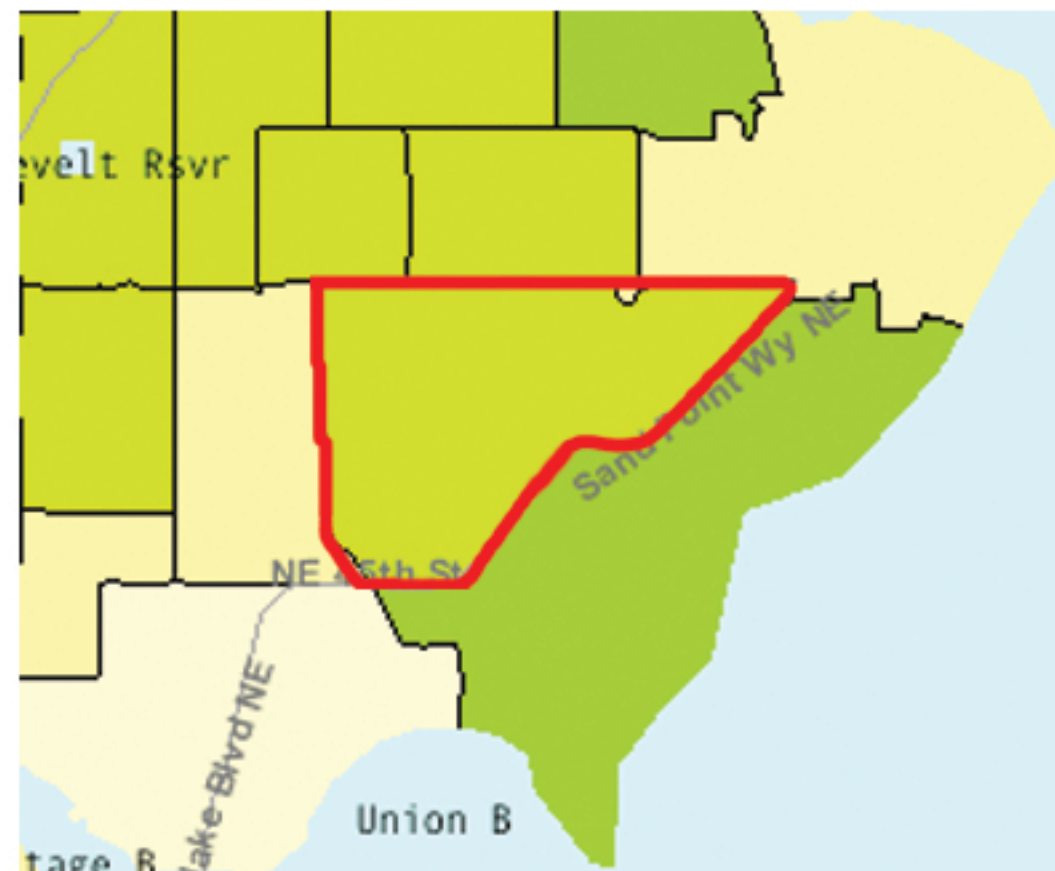




## HOUSEHOLD SIZE

### Data Classes

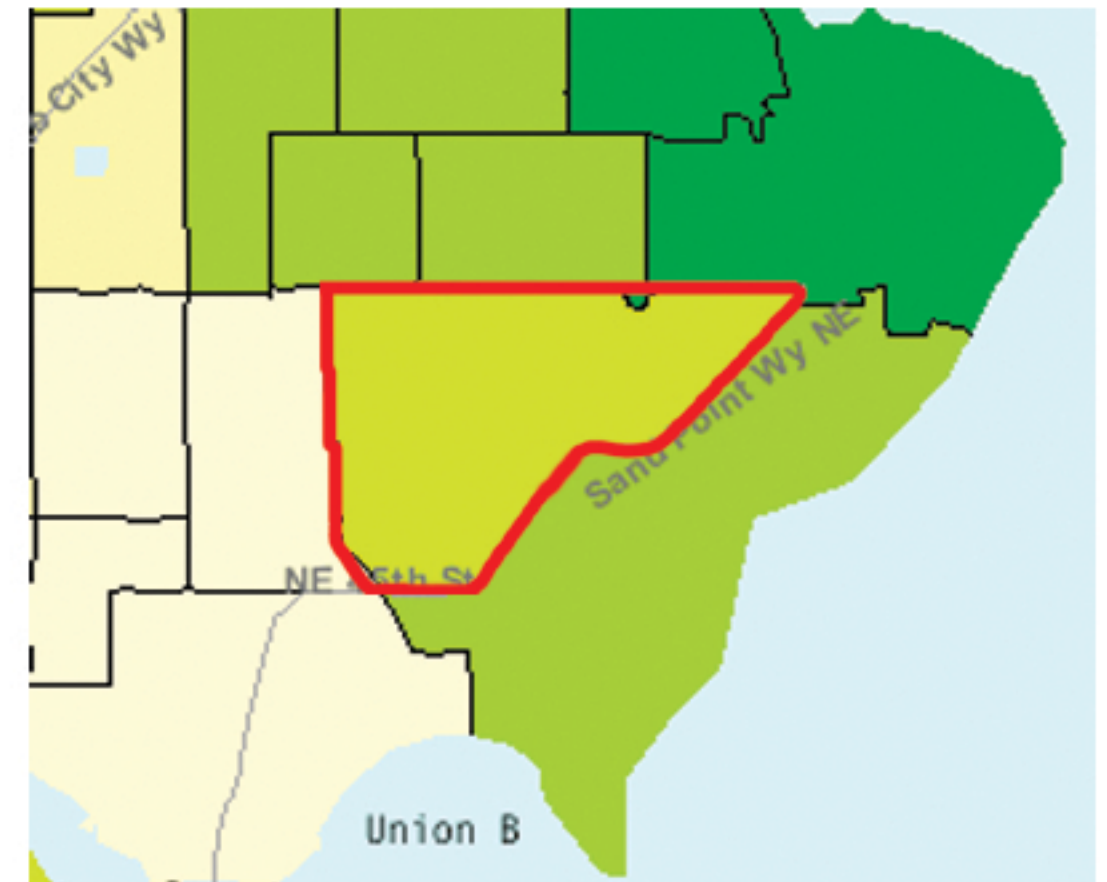
Persons	
1.24 - 1.65	
1.70 - 2.08	
2.09 - 2.40	
2.43 - 2.80	
2.87 - 3.35	



## MEDIAN AGE

### Data Classes

Years	
20.5 - 28.7	
29.2 - 33.9	
34.0 - 37.3	
37.4 - 41.2	
42.0 - 46.8	



The average household size is 2.3 people

The average family size is 2.82 people

The median age is 37.8 years old

## Demographics (Continued)





Family oriented neighborhood with a strong sense of community

Wholesome, tree lined streets with several playgrounds nearby

Residents describe it as “Quintessential Seattle” and “Down to earth”

## Bryant-Ravenna Neighborhood





Is located on 60th Street and 33rd Avenue,  
one block north of FS 38  
Is an important historic landmark  
For a Seattle elementary school, has one of the highest cores of  
parent volunteers  
Has a high degree to community involvement.  
Has a rich after-school program available to all elementary-age  
students in the area  
Is near other elementary schools- Laurelhurst and View Ridge  
Elementary

## Bryant Elementary School





Has family restaurants, unique specialty shops, and other neighborhood services

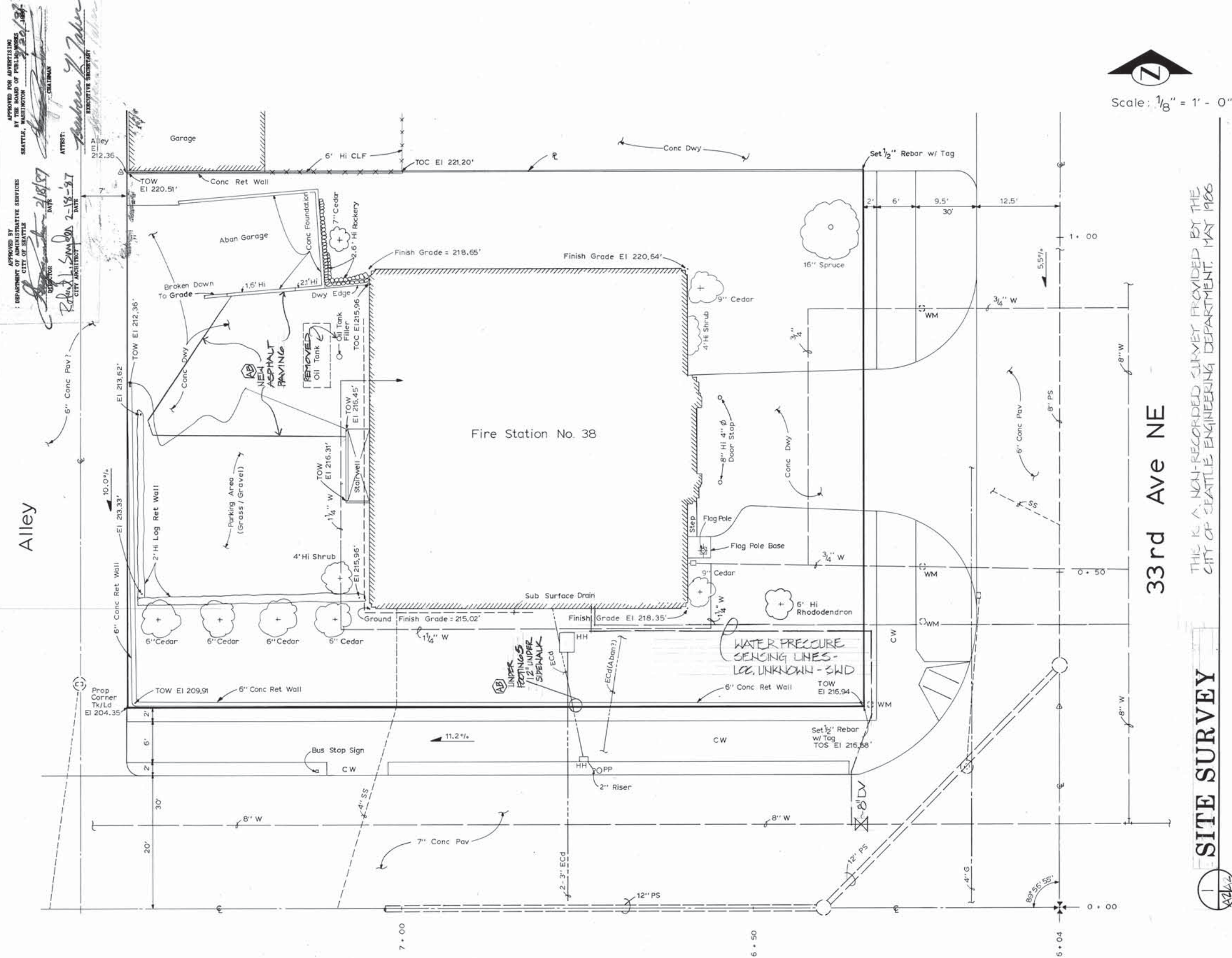
Major bus routes run along 55th St and 35th Avenue NE, including stops directly in front of FS 38

Includes neighborhood commercial NC-1 and NC-2

**55th Street NE & 35th Avenue NE**

**FIRE STATION # 38**





# Building Construction

## Site Characteristics

## Building Elevations

## Site Plan

## Structural Analysis

# Fire Station 38 Description





Built in 1930

Designed by George Stewart  
Worked for several firms in Seattle and the city's Building  
Department

Renovated in 1987 by Tonkin/Koch Architects

Changes included remodeling the basement handball court  
into a gym, renovated kitchen and dormitories, new  
windows and doors in original locations

## Building Construction





Site Dimensions: 80 ft wide, 112 ft deep

Property Size: 8960 square ft (.21 acres)

On a corner site with 55th Street NE to the south and 33rd Avenue NE to the east

South side of site overlooks the Calvary Cemetery, offering views of the University district

Has a concrete retaining wall along the south end of the site, which rises from grade as the site slopes

The wall reaches a maximum height of 5' 6" at the southwest corner

## Site Characteristics





Combines Mission Revival and Stripped Classicism styles

Mission Revival components include stucco walls and deeply recessed openings

Classic Revival design components include a strong sense of the building base, and use of symmetry in composition

The block, stepped massing calls references Art Deco

Design is similar to other fire stations in the Seattle built in the 1920s and 1930s

Very few buildings in Seattle exhibit this restrained mission revival style, in part because of the minimal building during the depression era

## Architectural Characteristics





FRONT OF BUILDING



NORTH SIDE OF BUILDING



EAST ELEVATION WITH CONTEXT - 33RD AVENUE NE



## Building Elevations

**FIRE STATION # 38**





SOUTH BUILDING SIDE



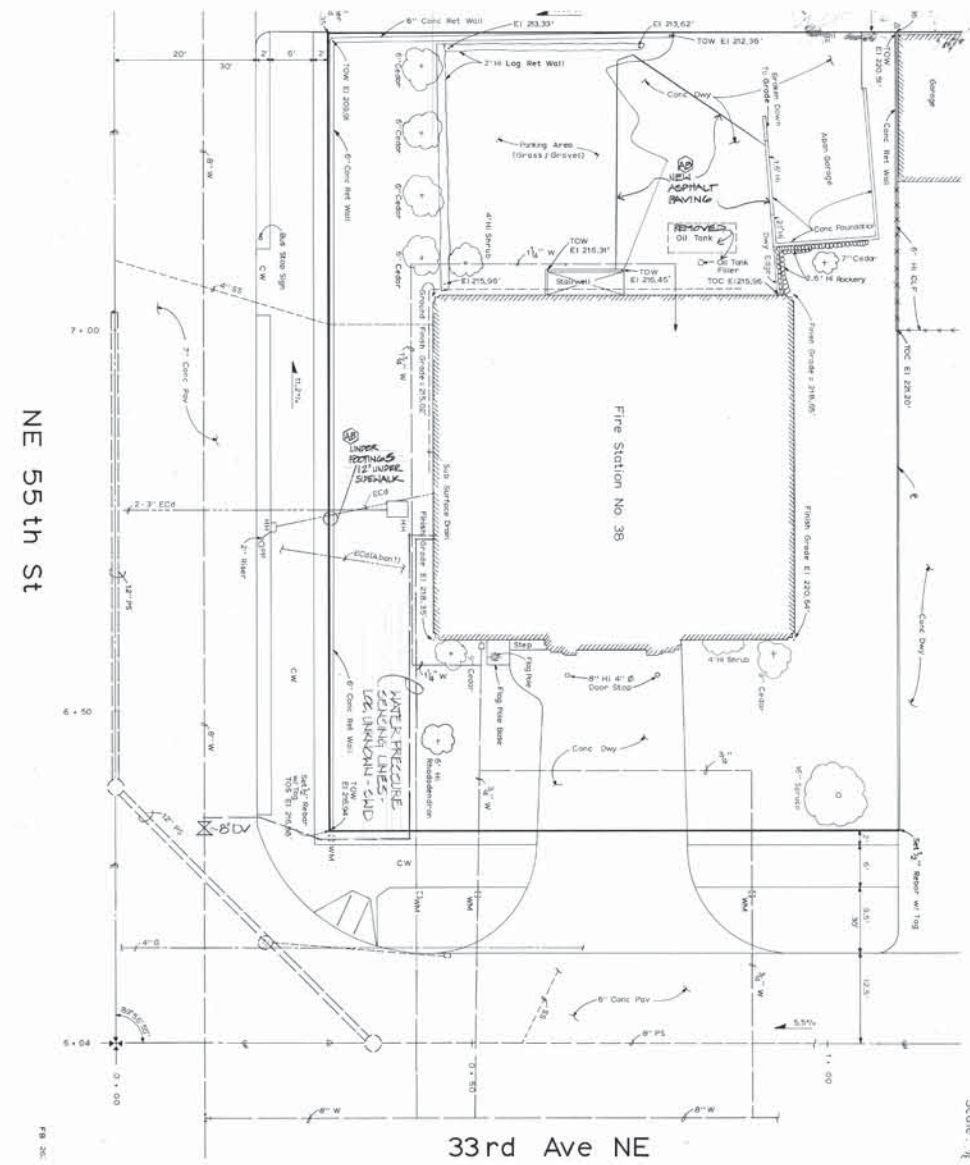
ALLEY ELEVATION



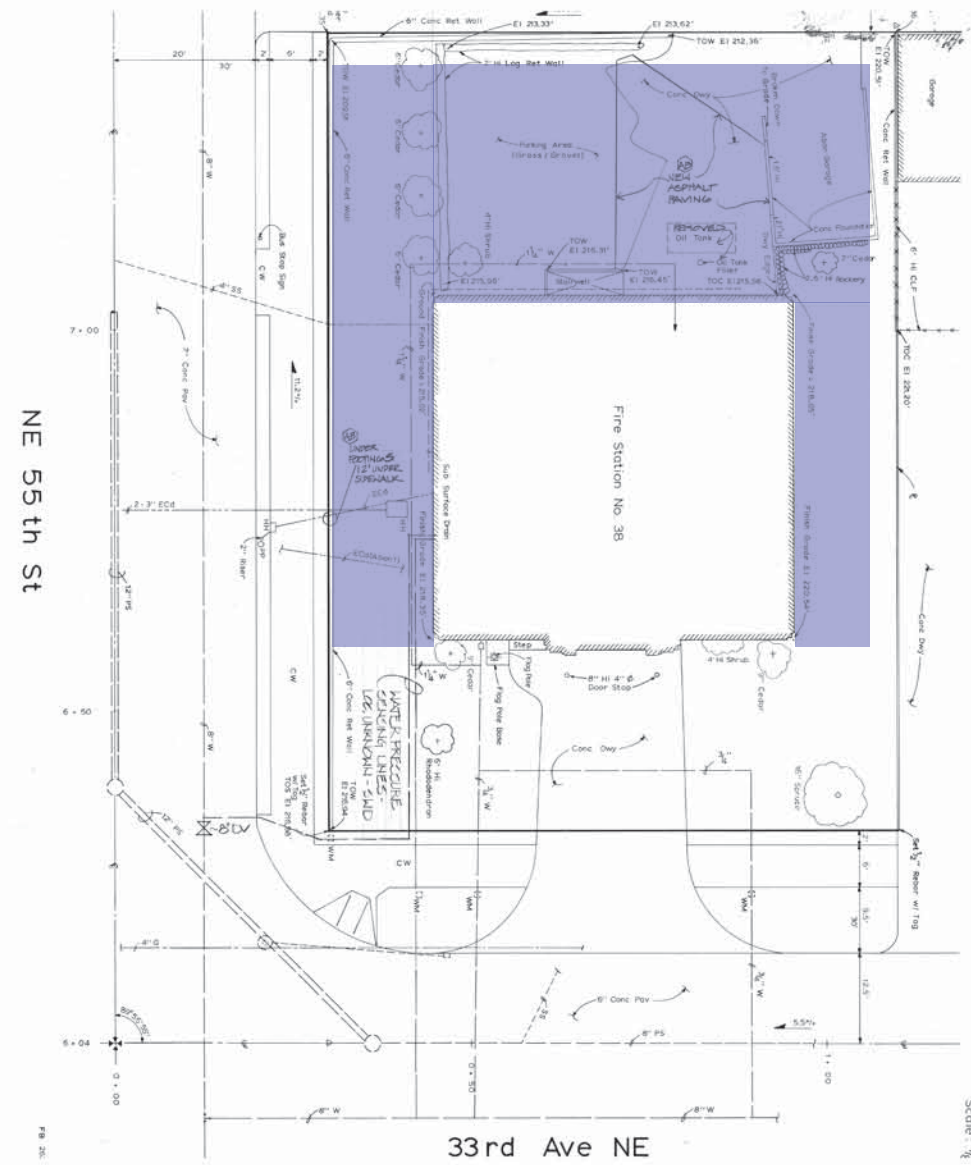
SOUTH ELEVATION WITH CONTEXT - 55TH STREET NE

## Building Elevations





EXISTING SITE PLAN



POSSIBLE AREA OF IMPROVEMENT

Assuming re-zoned to NC-1-30, the building could extend to the property line

The retaining wall on the site currently lies on the property line

## Site Analysis

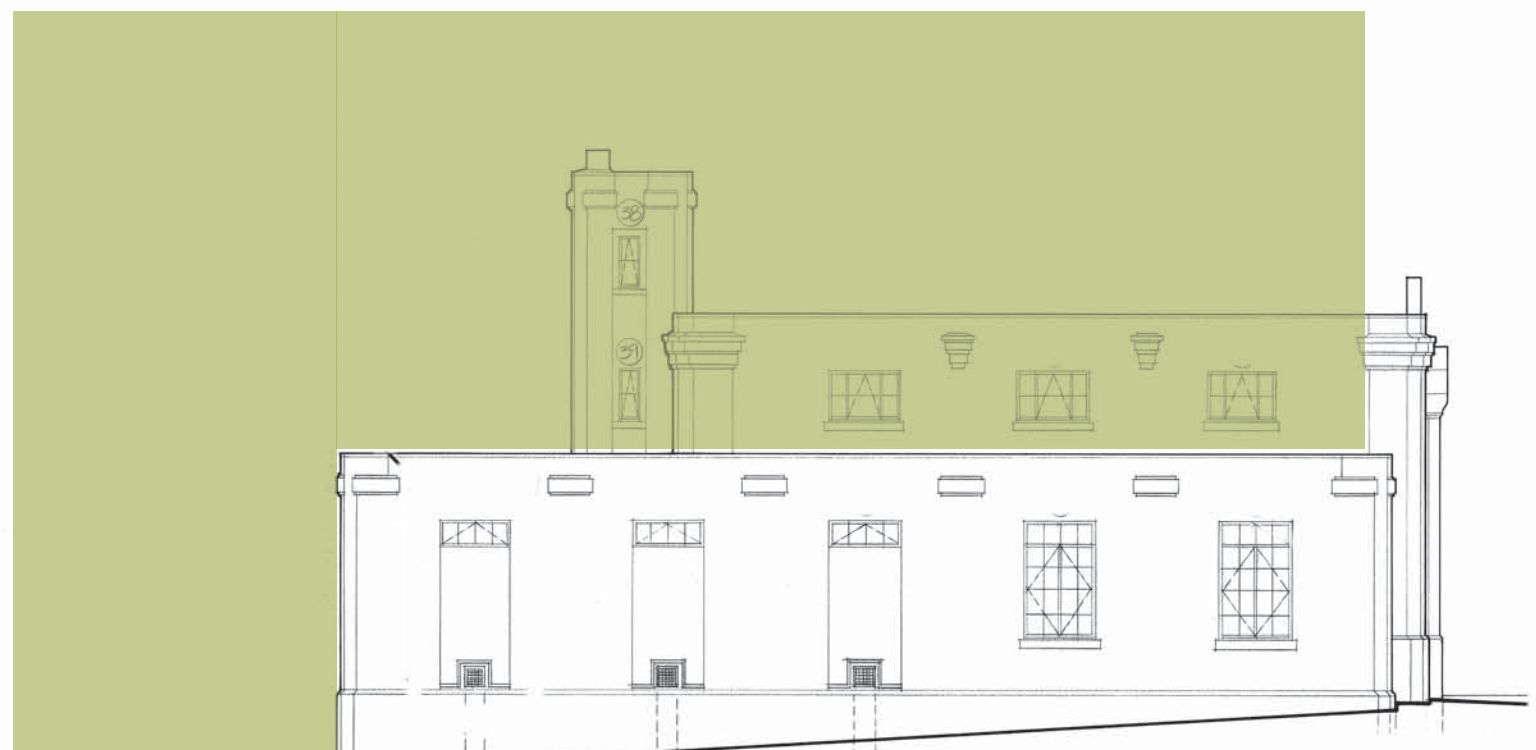




The green represents the possible area for new construction if rezoned to NC-1-30. The façade will remain the same due to its Landmark Designation status.



EAST ELEVATION POSSIBLE AREA OF CHANGE



SOUTH ELEVATION POSSIBLE AREA OF CHANGE



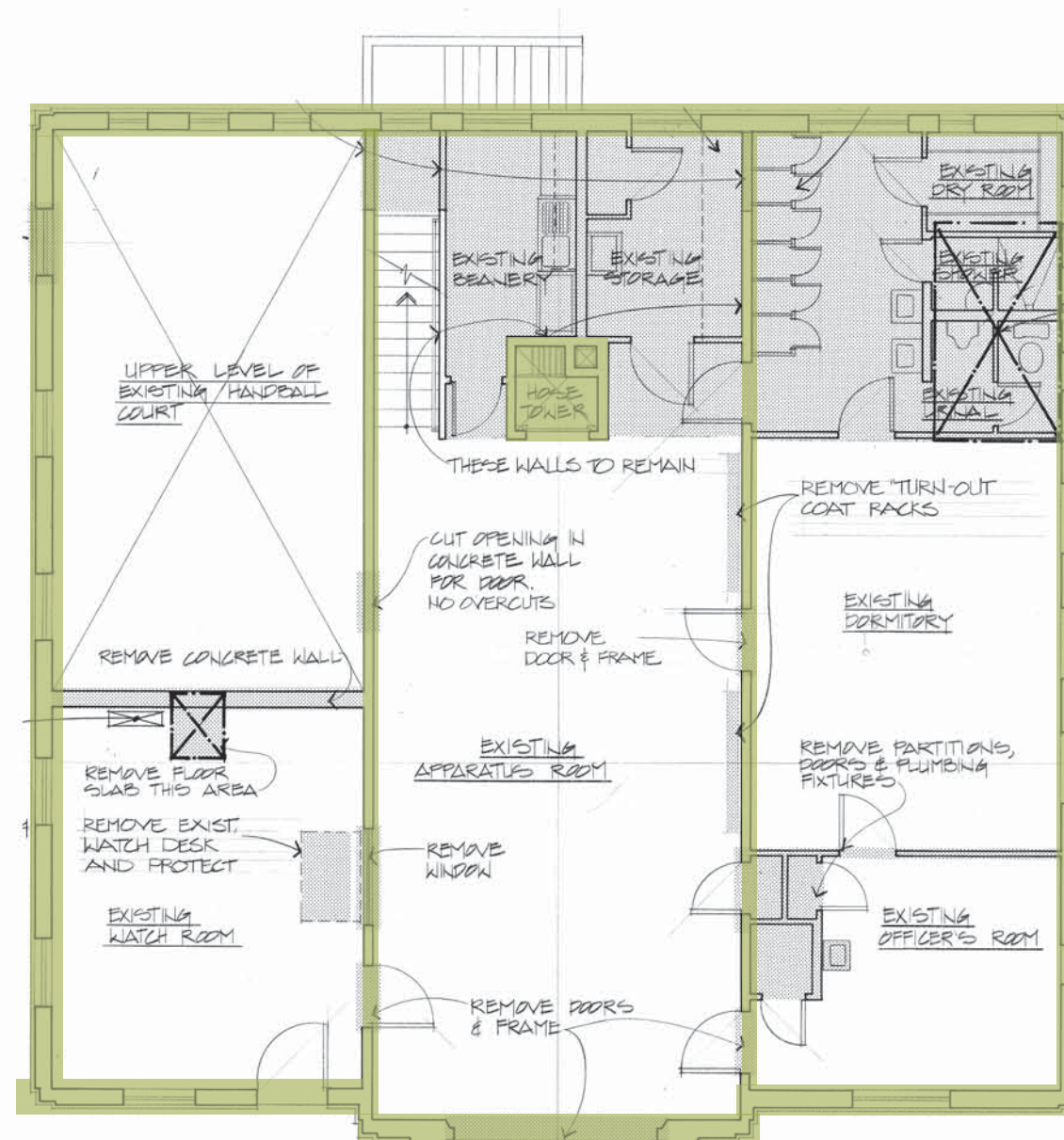
WEST ELEVATION POSSIBLE AREA OF CHANGE



NORTH ELEVATION POSSIBLE ARE OF CHANGE

# Potential Building Envelope





Structural walls shown shaded

## Structural Analysis





Strengths and Opportunities

Weaknesses and Threats

Case Studies/Precedents

Initial Programming Concepts

## Reuse Potential Analysis

**FIRE STATION # 38**





Single family neighborhood with a very strong sense of community

55th St and 35th Avenue NE has small retail and restaurants, as well as major bus lines

Numerous nearby elementary schools and lots of families with children

Several playgrounds and parks nearby for kids

Many neighborhood amenities

Community Spaces in neighborhood like PCC on 65th Street and pea patch in Burke Gilman Playground

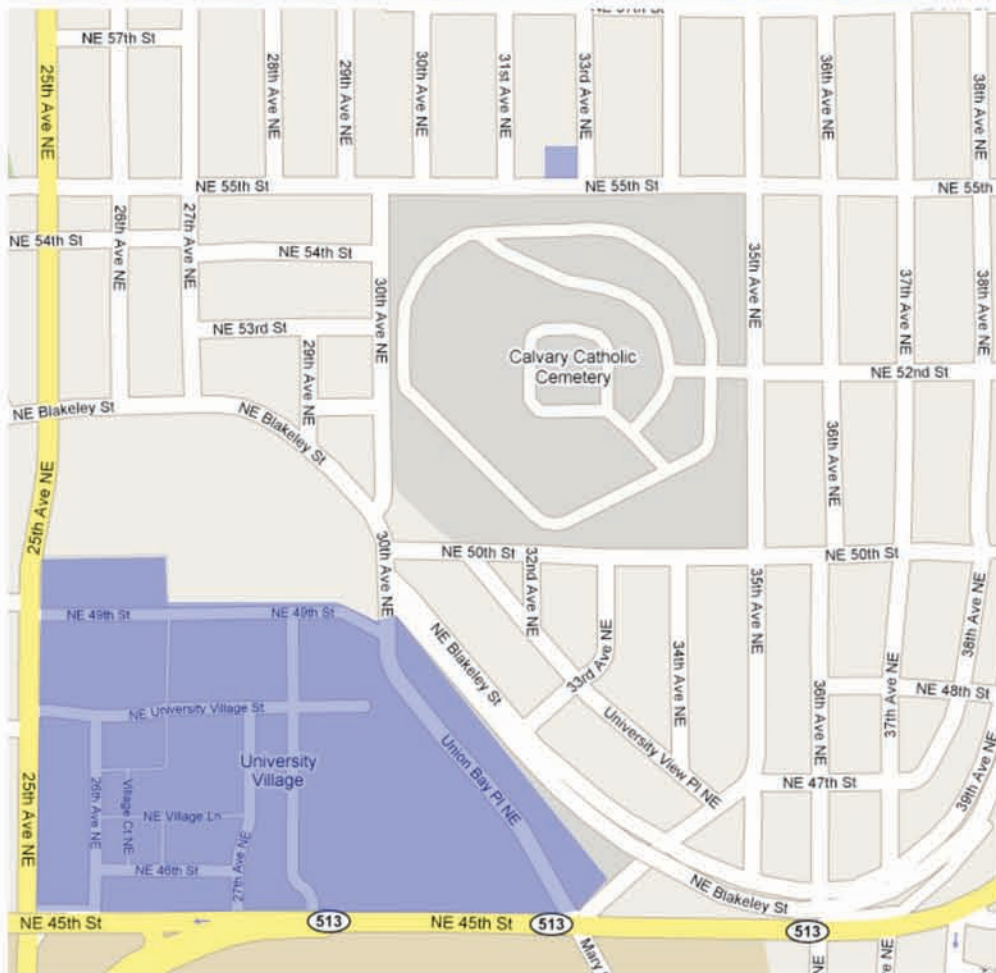
Flanked by neighborhood commercial; can probably be rezoned

Is a corner site



## Strengths and Weaknesses





Competition from University Village; draws more people to shops and restaurants

Cemetery is a depressing landmark

Family-oriented neighborhood can limit potential uses

Small site and building can limit potential uses

Existing on-site parking would be lost to an expansion

Limited on-street parking, mostly on 55th Street NE

Limited pedestrian activity

## Weaknesses & Threats





## SAN FRANCISCO FERRY BUILDING

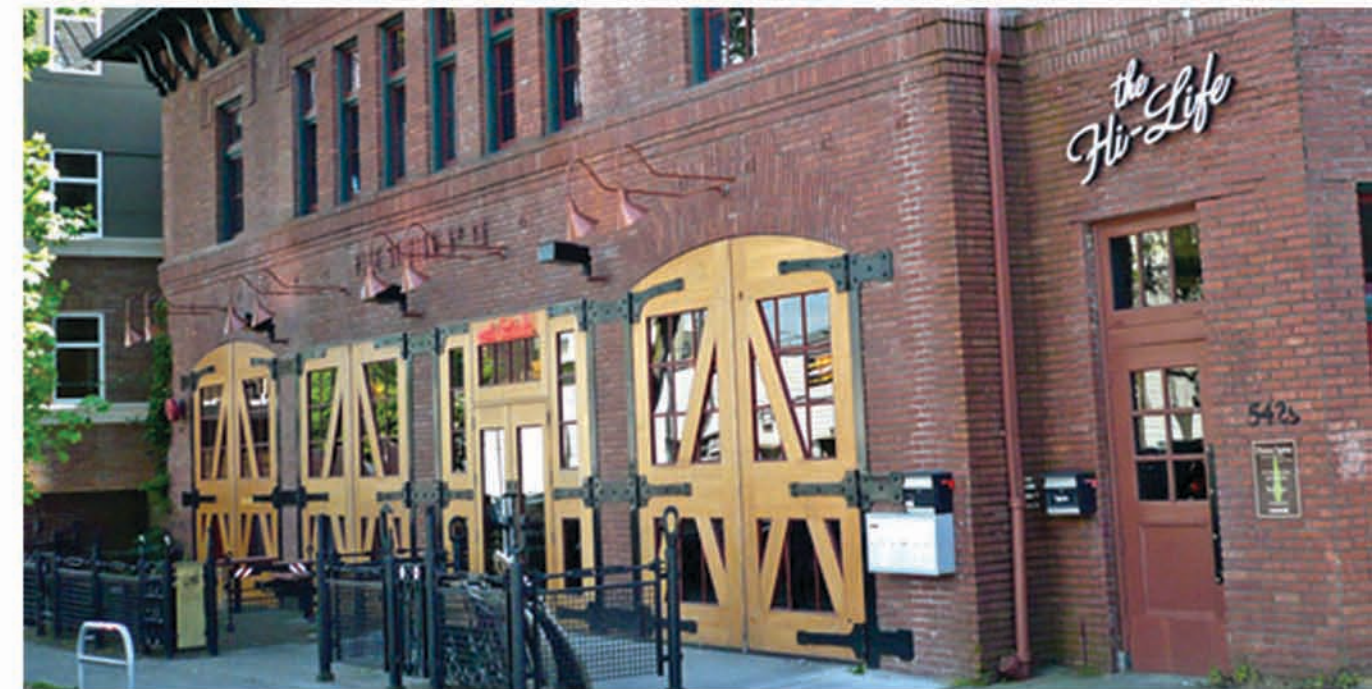
Renovated ferry plaza showcases small regional producers

Promotes sustainable methods of agriculture and production

Operates as a community gathering space

Runs educational and outreach programs

Weekly farmers market

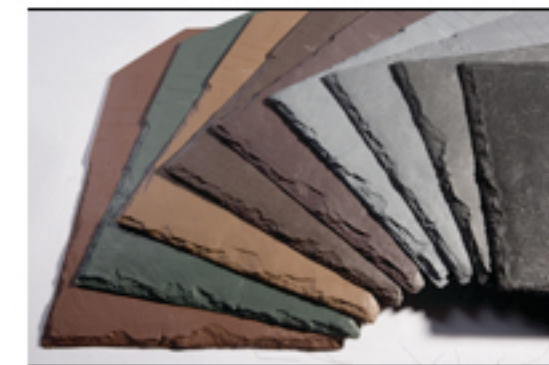


## HI LIFE RESTAURANT

Built in renovated Ballard fire house

## Case Studies / Precedents



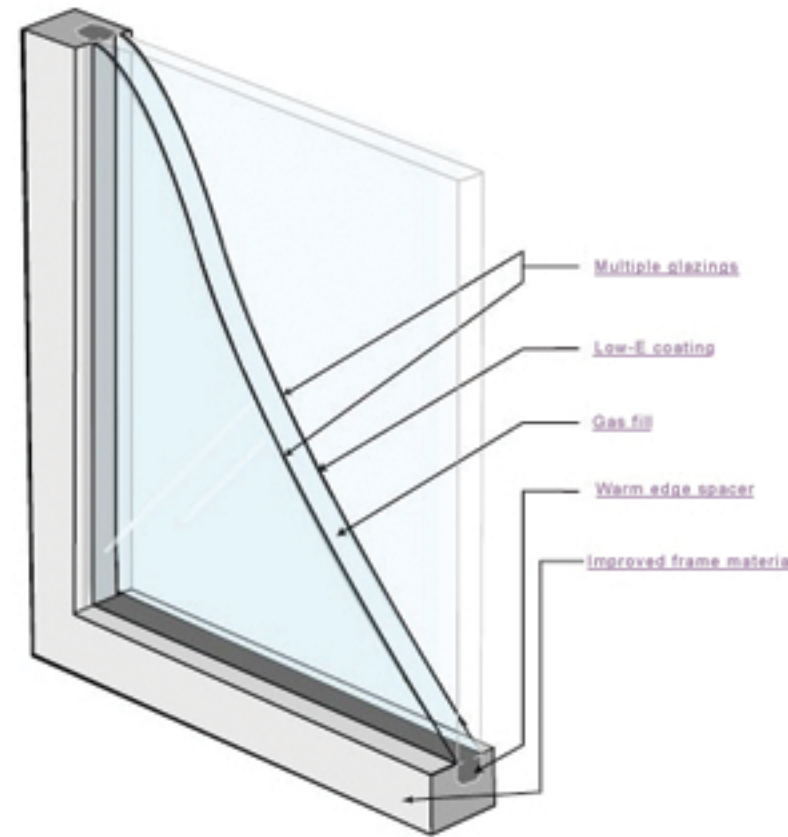


### PROGRAM ELEMENTS:

LOBBY/RECEPTION	300
EXHIBITION SPACES	2000
EXHIBITION STAGING ROOM	800
STAFF LUNCH ROOM	250
STAFF OFFICES (4)	200
MATERIALS LIBRARY	350
RESTROOMS (2)	50

THE BUILDING WILL EXHIBIT STRATEGIES THROUGH INTERACTIVE STATIONS AS WELL AS THROUGH ITS OWN DESIGN AND CONSTRUCTION. EXHIBITS WILL RANGE FROM ENERGY RESOURCES TO RECYCLED BUILDING MATERIALS



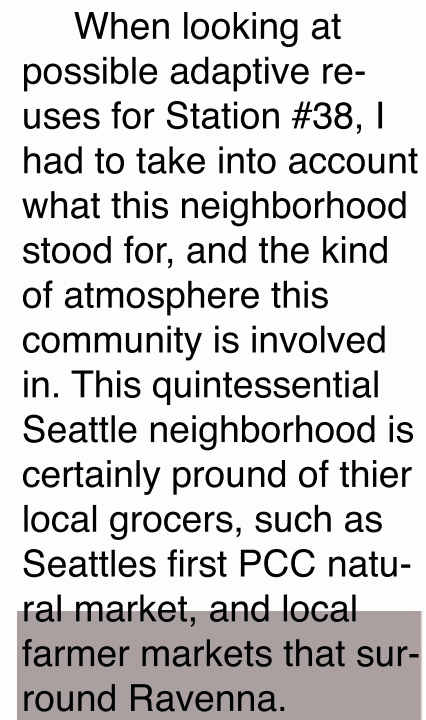


AN ENVIRONMENTAL RESEARCH CENTER IN THE ACTIVE COMMUNITY AROUND FIRE STATION WOULD HELP CREATE THE CONSUMER LEVEL CHANGE NEEDED IN OUR ATTEMPT TO CHANGE THE ENERGY HABITS ALREADY IN PLACE. BY ENGAGING OUR COMMUNITY WE CAN ALLOW KNOWLEDGE AND SMARTER CHOICES TO SPREAD.

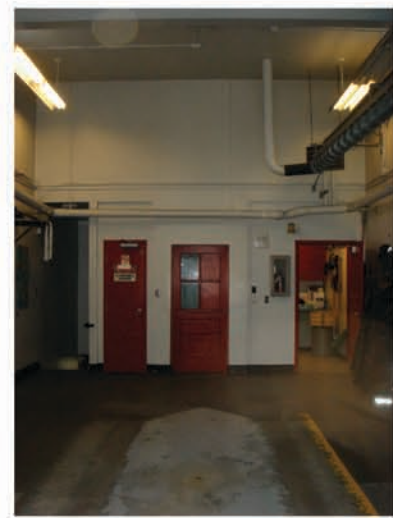
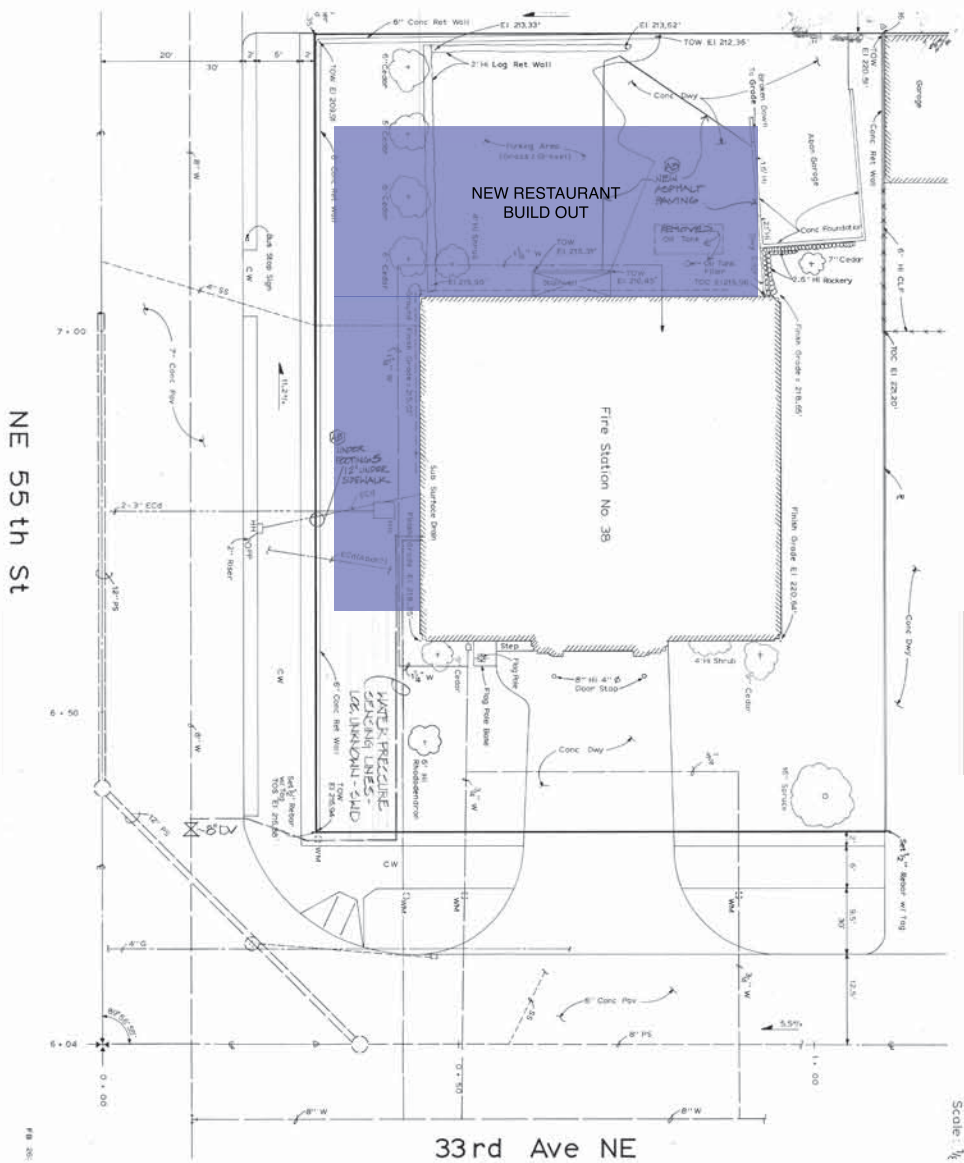


THE ADDITION REQUIRED TO GET THE DESIRED PRESENCE WITHIN THE NEIGHBORHOOD IS KEY. IT WILL FOLLOW SOME OF THE BUILDING ATTRIBUTES OF THE MISSION STYLE, SUCH AS SYMMETRY AND THICK WALL CONSTRUCTION, WHILE INCORPORATING CURRENT TECHNOLOGY, BOTH WITH ENERGY USAGE AND BUILDING DESIGN.





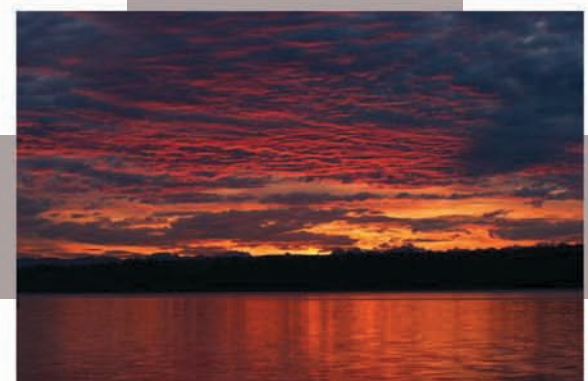
When looking at a local map of all the businesses in this area, I found that Ravenna is lacking a local restaurant. There are car dealerships, coffee shops, landscaping shops and natural markets. It would deem suitable that Ravenna be supplied with a restaurant, that would specialize in local and native foods to the region. This restaurant would have a “green” theme, meaning that it would specialize in local foods, wines, beers, coffees, and seafood.



The apparatus bay would prove as an excellent place to add a mezanine to the. This Mezanine would serve as a private dining room, and as a way to access an outdoor roof dining experience.

The existing hose tower would be transformed into a fireplace that would punch through all levels of the dining room, serving as the hearth of the restaurant.

# INITIAL PROGRAMMING CONCEPTS







# KITCHEN



TTYPICALLY FOR EVERY 1000SQ.FT. OF DINING, THERE IS 300-400 SQ.FT. OF KITHCEN, NOT IN-CLUDING THE FOOD STORAGE

# B A R

THE AVERAGE BAR CAN RANGE ANYWHERE FROM 300-1000SQ.FT.



# DINING



THE DINING ROOM NEEDS TO BE UPWARD OF 1000-2000 SQ.FT. TO ACCOMODATE AT LEAST 85-100 GUEST AT ANY GIVEN TIME. THERE ALSO NEEDS TO BE AN ADDITIONAL 200 SQ.FT. OF SERVER STATIONS



# S T O R A G E



FOOD STORAGE SHOULD BE AROUND 200 SQ.FT. FOR REFRIGERATION AND 200 SQ.FT. FOR FREEZER STORAGE





The potential residents of a cohousing project already know each other before moving in, and work together with an architect to design a living situation that fits their specific needs. Cohousing provides an enriching and healthy living situation that can mix families, different age groups and incomes. Living in a type of extended family environment can be rewarding and mutually beneficial.



Seattle has several cohousing communities downtown, in West Seattle, Fremont and Ballard. Not many suitable areas or buildings exist for cohousing. Fire station 38 could provide an ideal space for this use.

A small multifamily building has a similar use as other single family and multifamily residences in the surrounding neighborhood. The fire station layout and the site itself also work well for cohousing. The large apparatus bay makes an opportune place for a shared living space, and more room for apartments could be added with an addition.

**Beth Mitchell: Cohousing Concept**





The apartments can range in size from studios, one bedroom and two bedroom. Each would have its own small kitchen and living space.



The residents would benefit from a large communal living room space for interaction between neighbors.



A large shared kitchen could be available for cooking large dinners and hosting friends.



Another shared space would be a multi purpose dining room for dinners, meeting, or other activities.

Residents of cohousing would have a balance between private apartments and shared spaces.

Other shared amenities could include a gym, office space, and laundry facilities.

## Beth Mitchell: Cohousing Concept