

GRESHAM CITY HALL

THESIS STATEMENT

The relocation of Gresham City Hall will stimulate investment in the surrounding community and spawn urban revitalization through a renewed sense of civic pride.

FUNCTIONS OF A SUCCESSFUL CITY HALL

- Seamless flow of people and information between departments
- Safe and secure, yet inviting to all
- A gathering place for formal and informal interactions
- Open forum for hearing the thoughts and ideas of residents
- Stimulator of local investment and urban renewal
- Leader in sustainable design and business practices
- Provider of support/information for aspiring entrepreneurs
- Lasting symbol of civic pride

EXISTING BUILDING ANALYSIS

Features to retain:

- Proximity to Police + Fire headquarters
- Accessibility to MAX line
- Safe, secure workplace
- Large, flexible meeting area
- Ample bicycle storage + shower facilities
- Electric car charging station
- Coffee shop
- Community garden

EXISTING BUILDING ANALYSIS

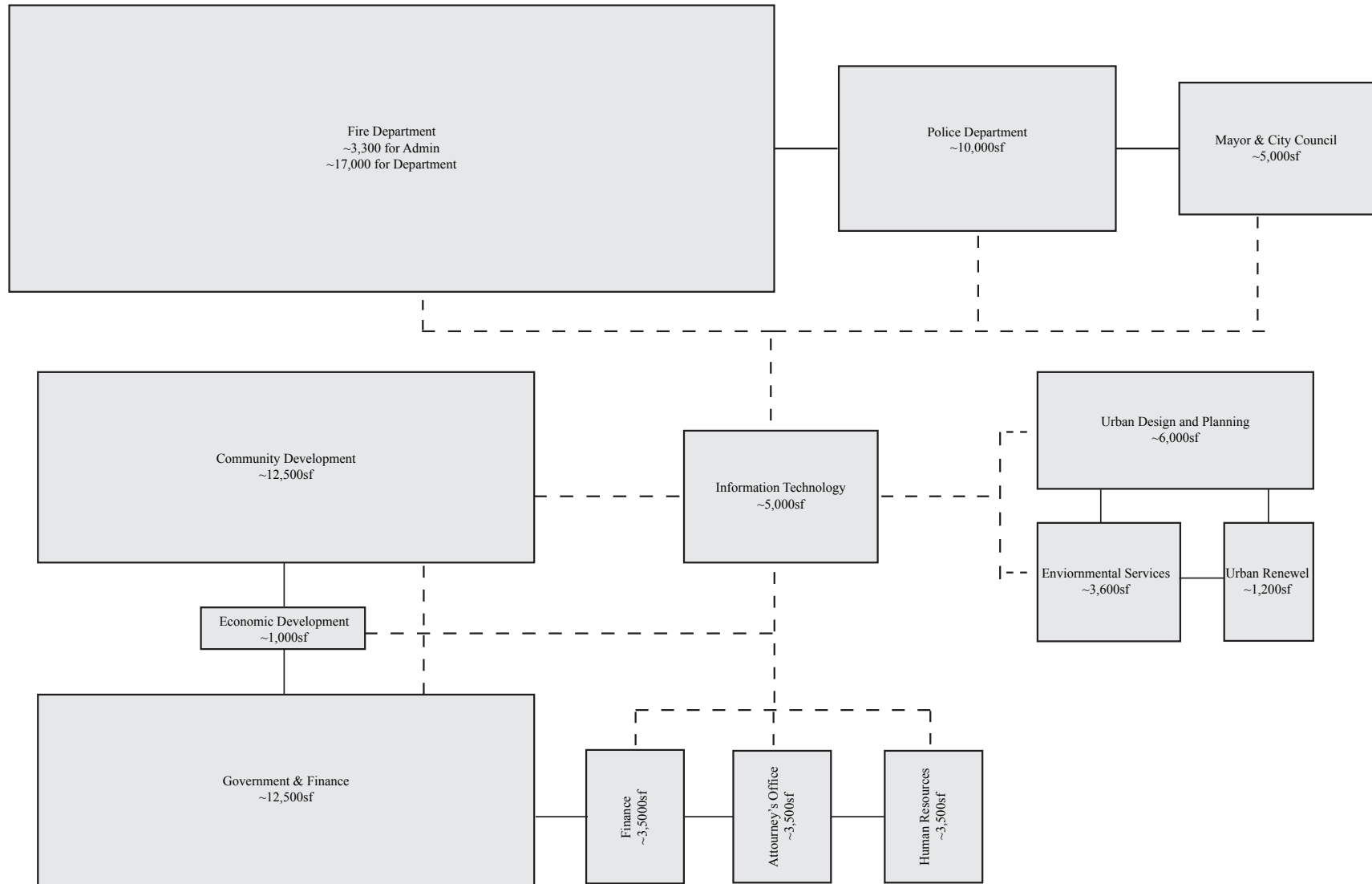
Room for improvement:

- Improve confidentiality of meeting rooms
- Separate lobbies for the police + fire department
- Develop intuitive wayfinding
- More efficient placement of program elements
- Provide various sizes of meeting rooms
- Incorporate area for employee relaxation during breaks
- Give Gresham City Hall an institutional aesthetic
- Easier access to the vehicle pool
- Create stronger connection to downtown Gresham and surrounding communities

VALUE BASED ANALYSIS

	Values	Goals	Facts	Needs	Ideas
Human	Private spaces for conversation Accommodate personal and private needs	Cubes are not sound proof There are some things during your day that need to be done in private	Meeting areas with floor to ceiling walls. Nursing stalls		Small multi-use conference space A women's lounge within the restroom facility for nursing and other personal needs
Environmental	Low impact building footprint. Easy access within departments and with outside business partner. Flexible spaces.	Buildings take up a lot of energy and produce a lot of pollution Large building under new construction uses a lot of energy Departments evolve over time	Adaptable spaces Location in proximity to other business associates		Use green technology Solar energy Rainwater collection Natural lighting Furniture on wheels
Cultural	Create a creative, peaceful workspace and embrace diversity. Potential for community uses (fire)	Staff comes from diverse backgrounds, spaces are used by the community	cultural R.E.S.P.E.C.T.		Strong civic identity
Technological	To meet the needs of the departments. Adaptation to advancing technologies.	Rapidly growing industry - in constant state of morphosis	Proper archiving New computers Digital communications		Investing in green energy harvesting technologies East West building orientation
Temporal	Longevity of facility	New city halls are not built all the time. This is a unique opportunity to design a civic facility	The building needs to last a long time, financially and to increase civic pride		Socio-sustainability Create a building that is beautiful and people are proud of
Economic	Spend wisely	Low budget Tax payers like to see their money spent wisely		Create an entire civic complex.	
Aesthetic	Powerful Civic Building Inviting and functional spaces Easy wayfinding	Limited Federal budget for new construction Many people need access to shared drawings Narrow halls and monotony causes confusion	Durability of materials Clear spatial organization Arrival spaces that distinguish areas within the building		A leader in sustainable design Large and eye-catching signage Welcoming reception areas throughout Department with their own distinct identity
Safety	Healthy work environment with good air and light quality Building security for files and personnel	ADA accessibility guidelines People working within close proximity to one another all day every day can spread germs easily Confidential information throughout	Secure storage Inside and outside security cameras to monitor building premises		Universal accessibility Security checkpoints into confidential storage rooms (limited access) Security personnel to watch cameras and the entrance(s)/exit(s) to the facility

ADJACENCY DIAGRAM



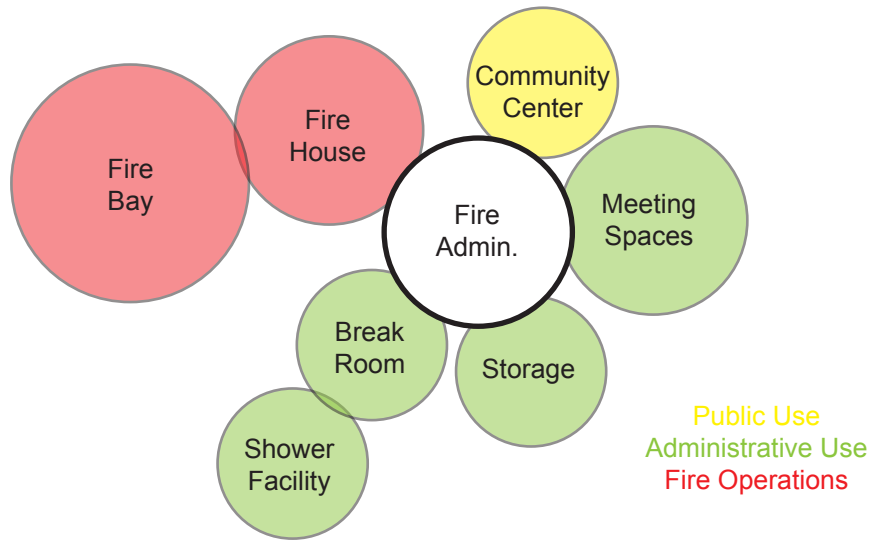
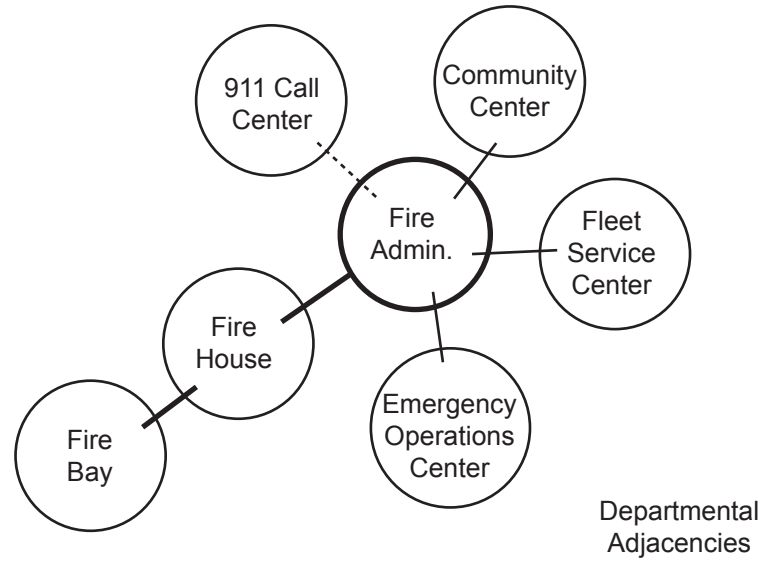
DESIGN IDEAS

- Small multi-use conference space
- A women's lounge within the restroom facility for nursing and other personal needs
- Use green technology
- Solar energy
- Rainwater collection
- Natural lighting
- Furniture on wheels
- Strong civic identity
- Investing in green energy harvesting technologies
- East West building orientation
- Socio-sustainability
- Create a building that is beautiful and people are proud of
- A leader in sustainable design
- Large and eye-catching signage
- Welcoming reception areas throughout
- Department with their own distinct identity
- Universal accessibility
- Security checkpoints into confidential storage rooms (limited access)
- Security personnel to watch cameras and the entrance(s)/exit(s) to the facility

Fire Administration

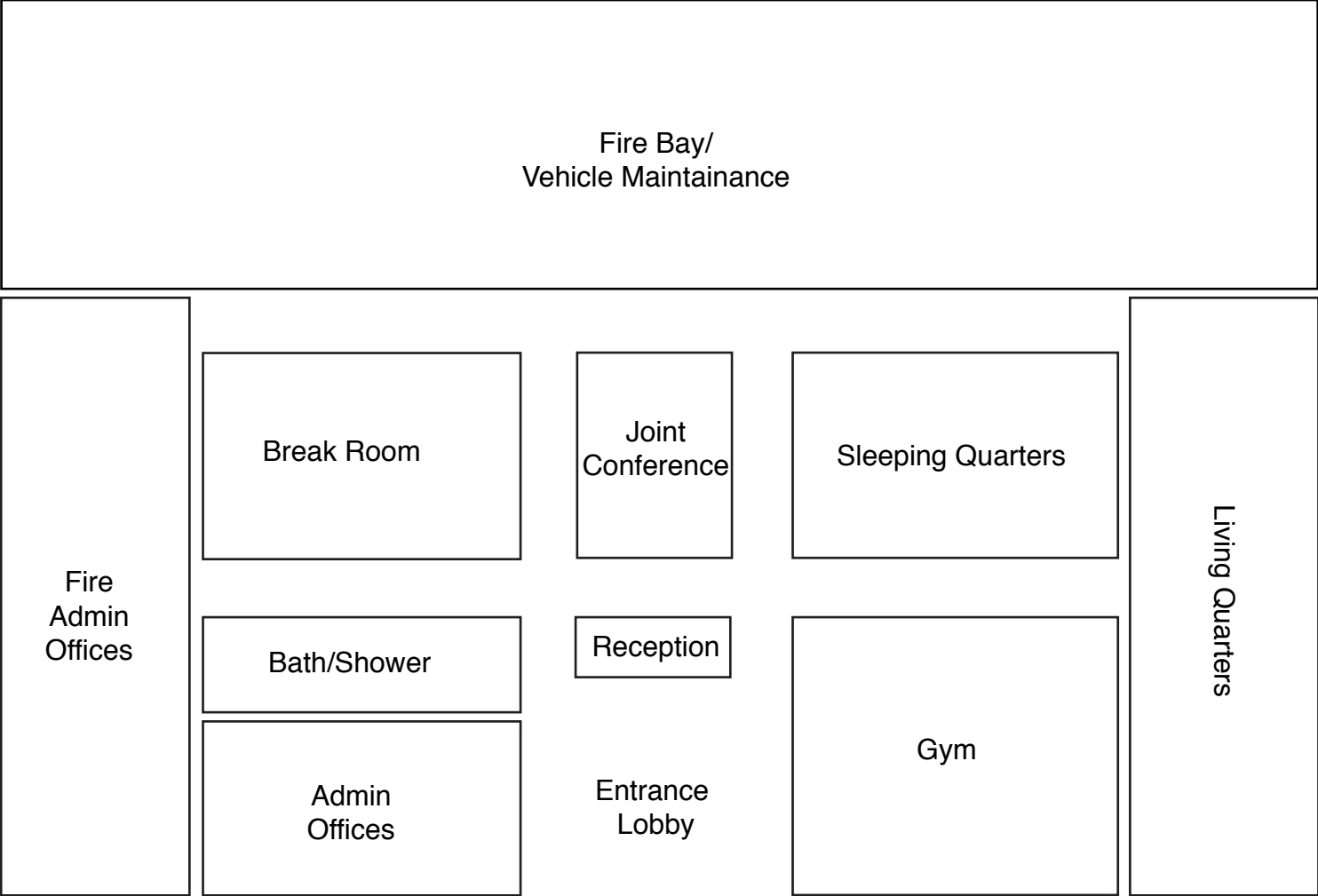
Values	Goals	Facts	Needs	Ideas
Human	Strong connection between Administration and Fire Fighters	Admin. plays an important role in the station and needs to have direct connection with the fire fighters	Close proximity of work areas Admin. not to be in a separate building. sound mitigation between fire admin/station	Natural light and air Access to outdoor space Admin. and Fire in same building but with separation
Environmental	Peaceful, Comfortable and Quiet	Fire fighting and related jobs are stressful Constant communication between departments	Closed off personal spaces Few distractions Good natural light	Separation between vehicle maintenance/fire training and sleeping quarters
Cultural	Fire Station seen/used as a Community Center	The fire station is a safe haven for those in need Unused space can be used for community activities Tax payer like to see their money well spent	Multiple-use areas A comfortable and inviting public entry	Entry with a strong civic identity
Technological	Technology needs to be accessible by all users	2-Way radio systems are a key technology used by everyone, everyday 911 dispatch accessibility	Everyone needs access to radio system at their desk	Organize office to accommodate personal space with computers and radio
Temporal				
Economic	Use the taxpayers money in an efficient and useful manner	Government funded buildings need to not waste any money or have excess amenities	Durable building materials	Create a place of civic pride increasing physical longevity and saving money
Aesthetic	Inviting and functional building	Taxpayer's \$ Fire Stations should look like fire stations so the public can know where they are	Durable building materials	Create a place of civic pride increasing physical longevity and saving money
Safety	Safety of Admin. and Fire Fighters is a key goal	Their job is dangerous so they need to have a safe work environment when not out in the field	Sleep and physical wellness	To create a welcoming, homelike professional setting in the station

Gresham Fire Department - Administration



Departmental Needs

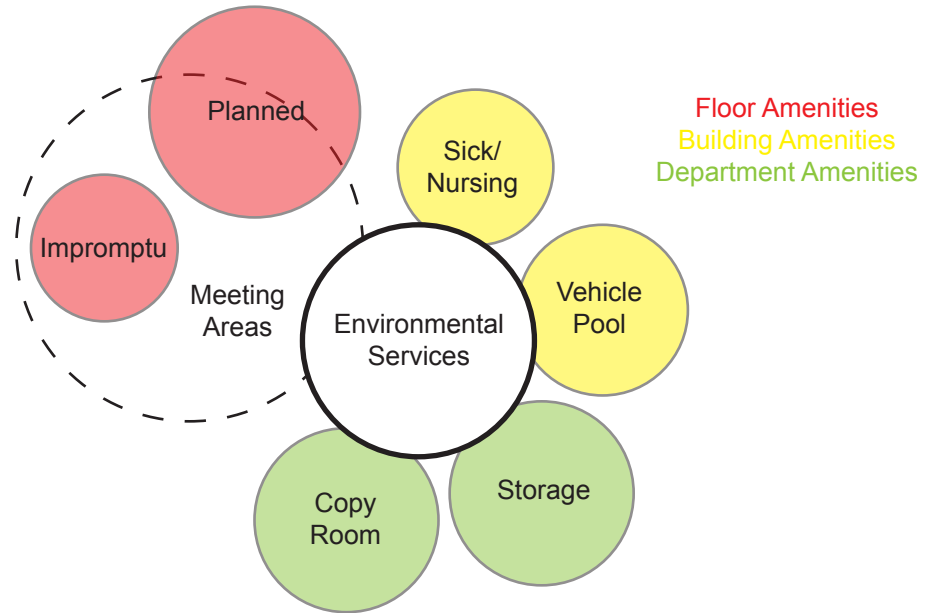
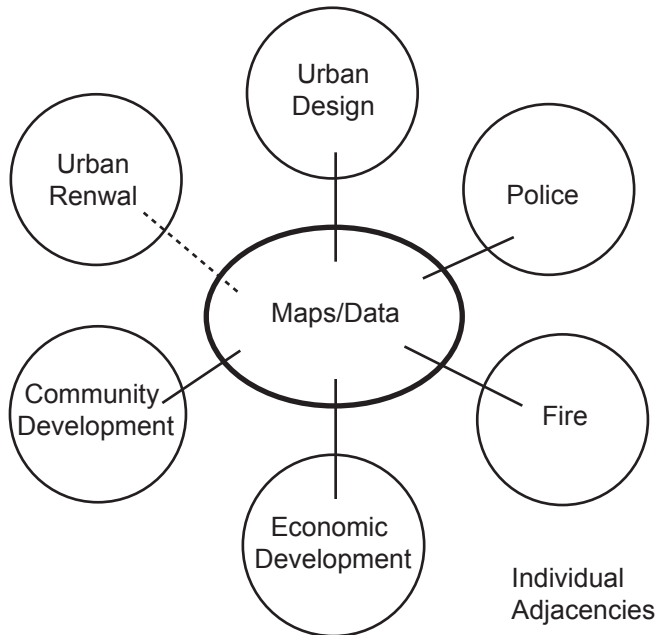
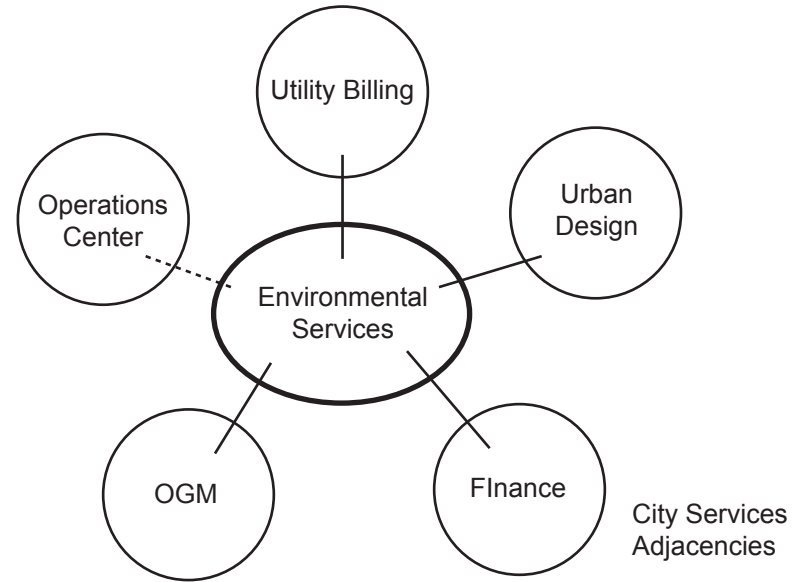
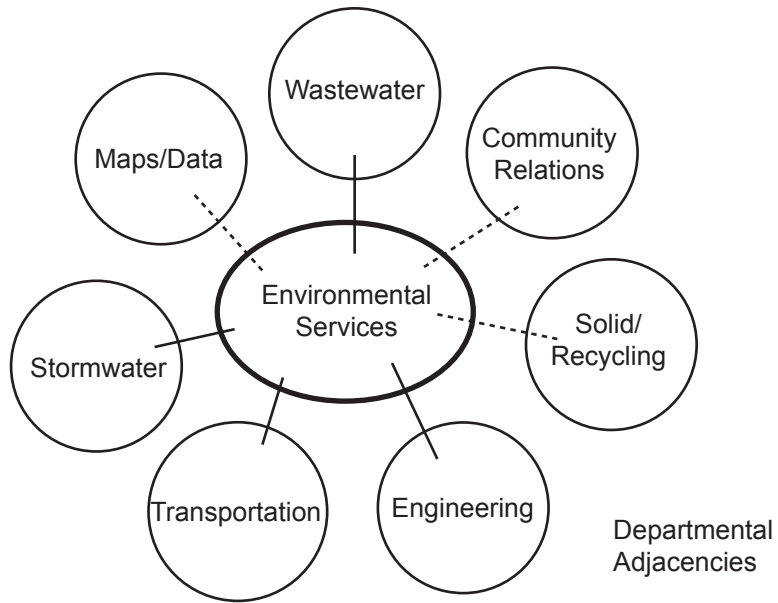
Fire Department Plan



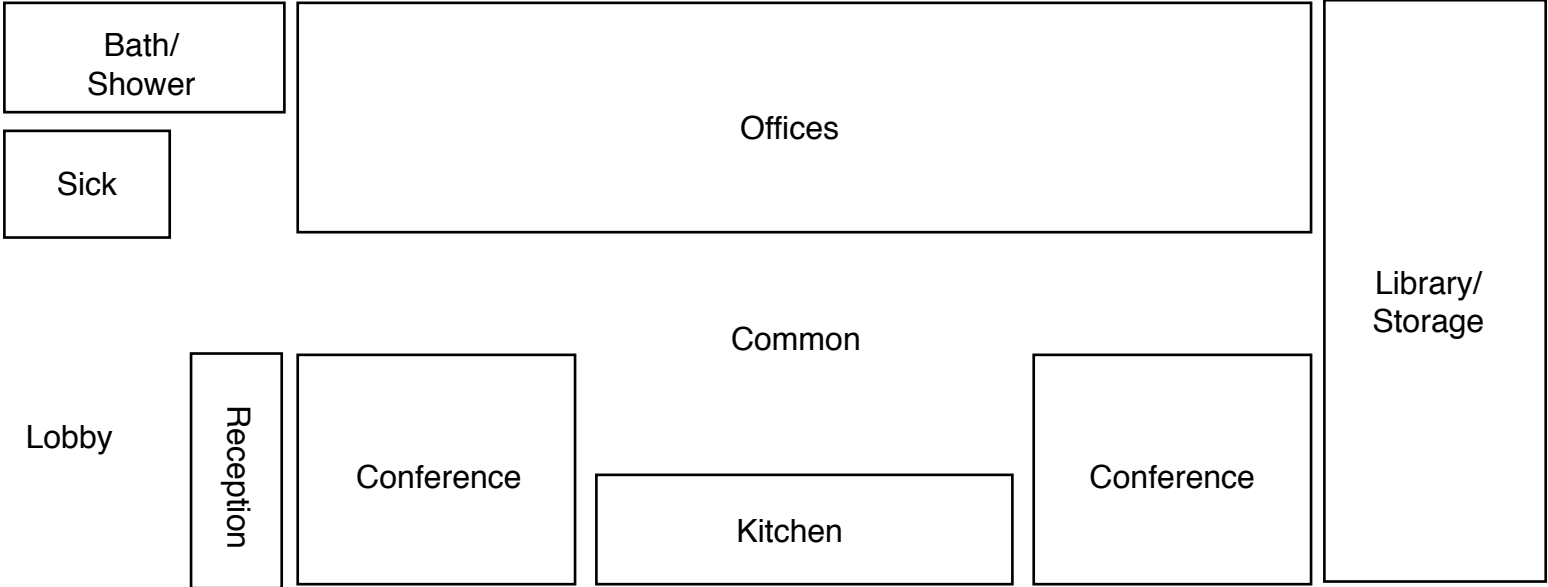
Department of Environmental Services

Values	Goals	Facts	Needs	Ideas
Human	Comfortable environment Space to have private conversations	Cubes are not sound-proof Extra amenities are expensive	Meeting areas with floor to ceiling walls A place to decompress	Small, walled off conference space to hold private conversations within each department, with comfortable chairs
Environmental	Easy access to co-workers within the department and people who work in offices outside city hall	Many people leave the office to conduct business and use fleet cars Employees work in "work groups"	Quick and easy transportation or connection to other related buildings Flexible space to accommodate changing work group sizes	Computer organized fleet vehicle system, use bicycles, Cube walls on wheels for easy manipulation
Cultural				
Technological	Green/sustainable building	New building - opportunity to work with new materials and new design of space	Use materials best fit Keep footprint small Better bike storage Capitalize on solar gains/natural ventilation	East-West bldg. orientation Multi-use spaces Employee locker room/bike storage
Temporal	Adaptable space for future growth	Gresham is growing quickly city hall staff is increasing	Large open spaces that can sub-divide and change form over time	Few permanent divisions in the building External structural system
Economic	Balance swank with tax \$	Tax payers like to see their tax dollars benefiting the community	Accommodate the needs of employees without spending a fortune	Multi-functional spaces, reducing the need for more rooms Inexpensive, durable materials
Aesthetic	Inviting spaces Tidy, organized work spaces	Many different people need access to documents & drawings	Clear, simple organizational system	Centrally located drawing storage, clearly organized
Safety				

Department of Environmental Services



Department of Enviornmental Services Plan



Group A3

Kelsey Lovett
Adam Newman
Hilary Olson
Stephen Varady



Site 1

City Hall

Police & Fire

Purpose

The relocation of City Hall in Gresham will stimulate private investment in the surrounding community and spawn urban revitalization through a renewed sense of civic pride.



Precedent Buildings



Train Signal Box, Basel, Switzerland



Turku City Library



Seattle City Hall



Portland City Hall



Gresham History

1852 - James Powell, Jackson Powell and Dr. John Parker Powell move to Oregon
Settled in "Powell Valley" - what is now the Gresham's downtown core.

This site was used as a resting point by many pioneers

May 15th, 1884 a post office was established, in order to establish a postal code to formally become a city. The post office was named after Walter Quinton Gresham, United States Postmaster General, and the city formerly known as "campground," was now known as Gresham



Gresham History

1905 - The Municipality of Gresham was incorporated
Lewis & Clark Exposition.
Gresham Population - 365.

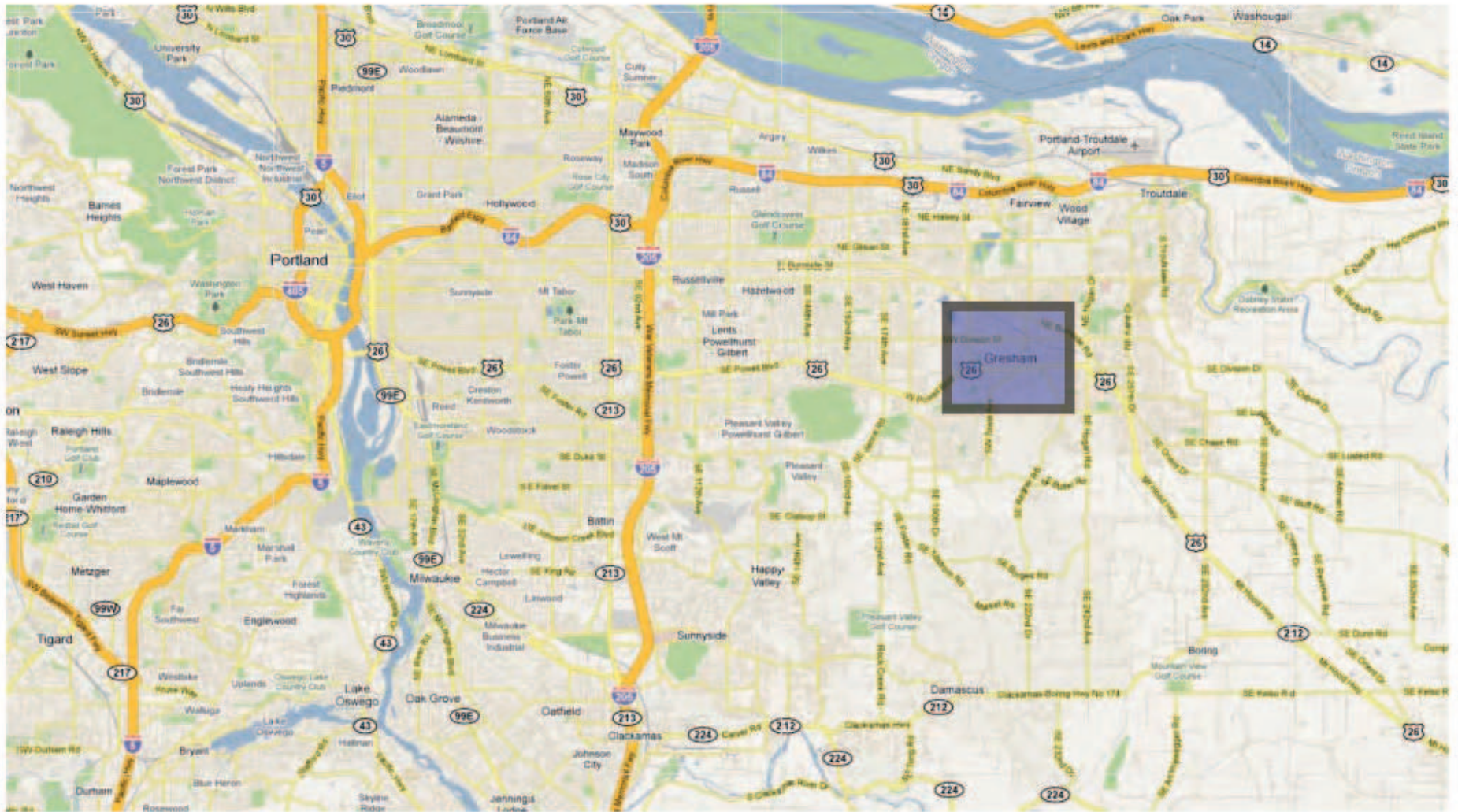
Interurban streetcar service to Gresham

36-mile line was opened east from Sellwood and Mt. Scott to Gresham, Boring, Estacada and Cazadero. This helped bring people out to Gresham, increasing Gresham's population.

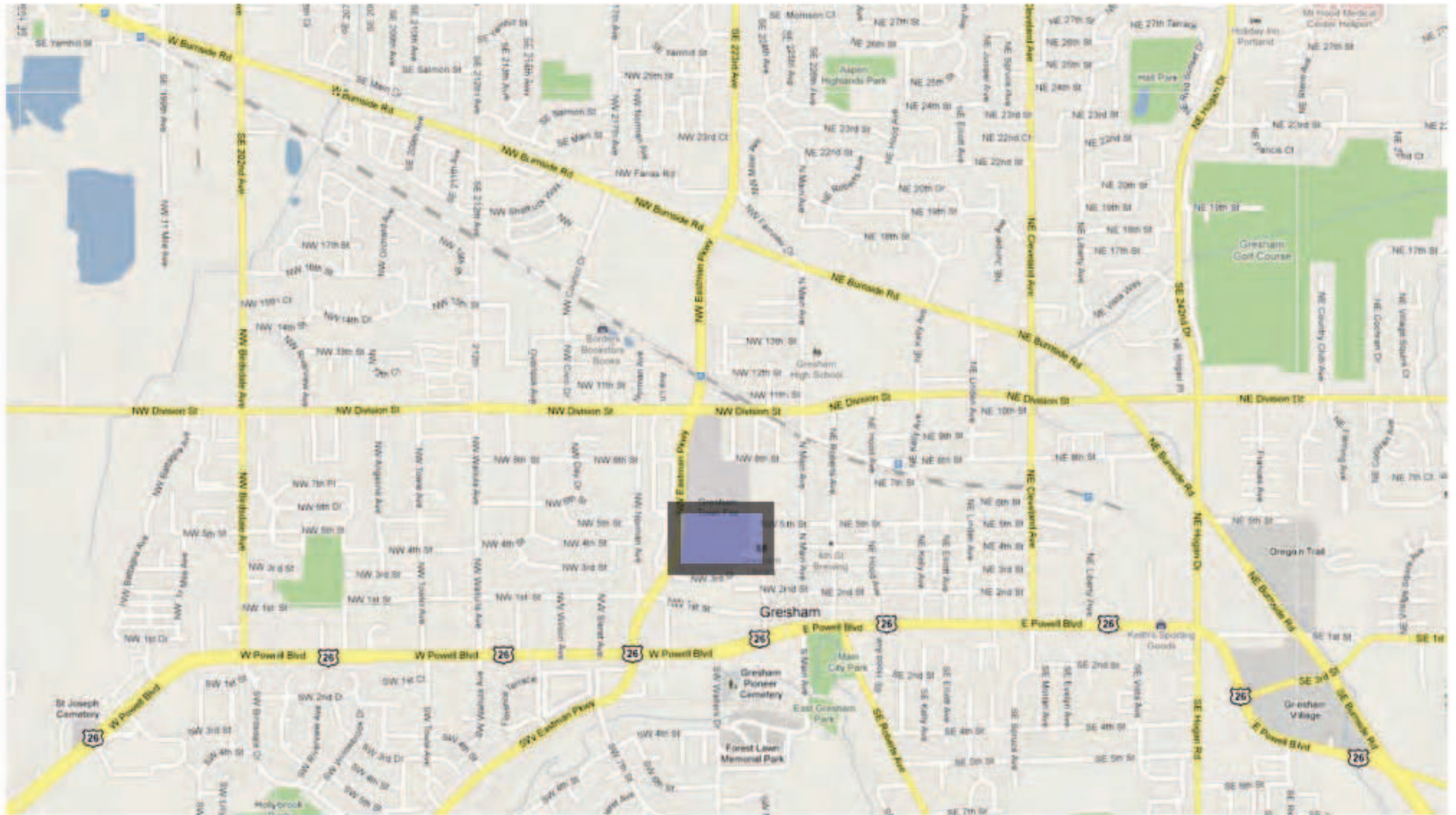
The once berry-growers town of the 1950s, with a population of 3,000, is now the 4th largest city in Oregon



Gresham, surrounding cities, and freeways



Site with surrounding roads



Entry points to the site



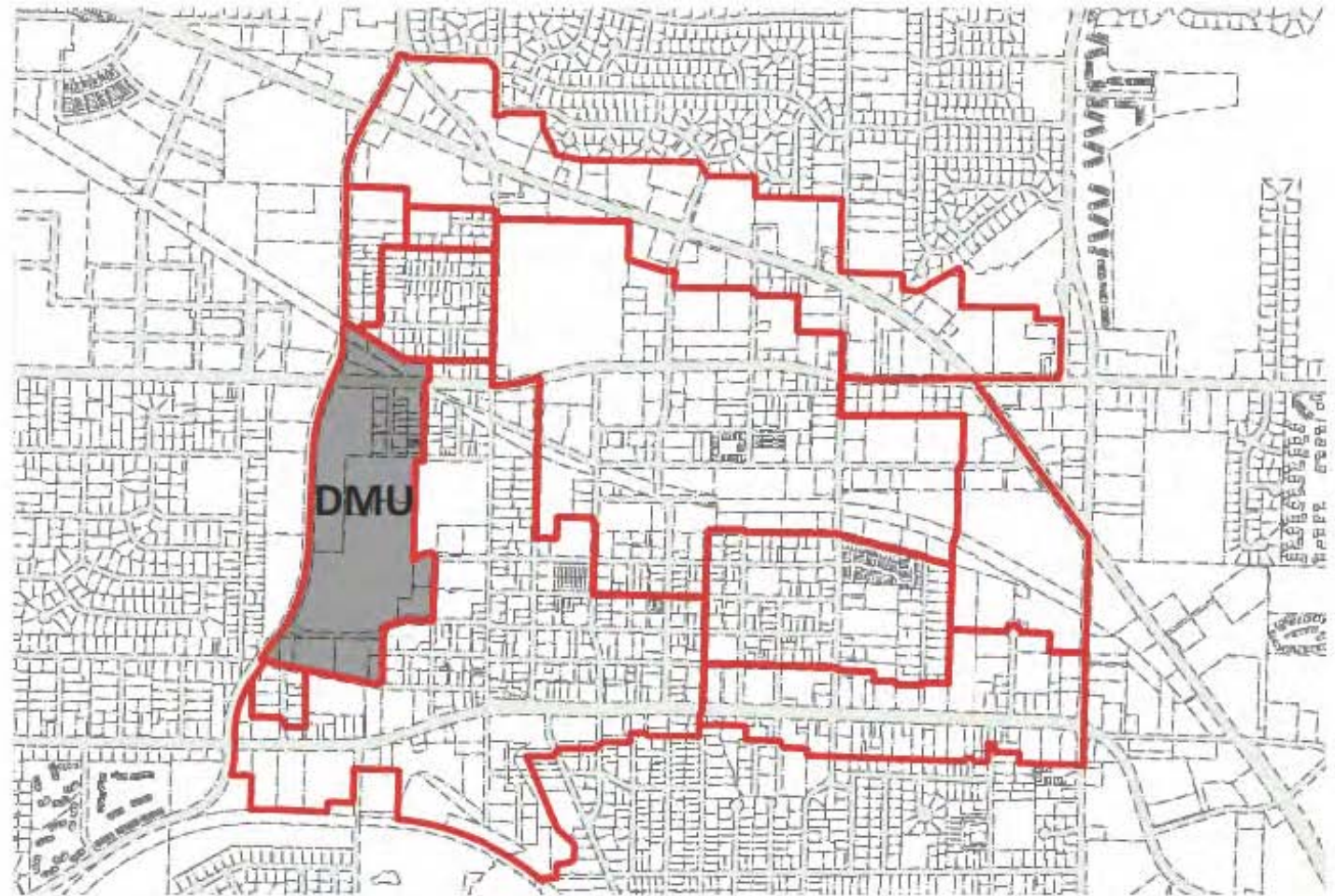
Downtown Mixed-Use

Encourage pedestrian safety, access and connections

Create vibrant mixed-use spaces

Create appropriate transitions in height, bulk and scale between buildings and along edges

Gateways should promote visual connections to significant landmarks



Bioswales Being Utilized on Site

There is an attempt to create a large bioswale at the north end of the site. This is a feature that should be used throughout the site. This is great because with this much existing blacktop, the runoff will then have some chance for filtration.



Nearby Uses Around the Site

Apartment complex across NE Eastman Parkway

Gresham Foursquare Church

St. Henry Catholic Church

JoAnn Fabric and Crafts

Ross Dress 4 Less

Many restaurants and bars SE of site in the downtown area

Medical facilities

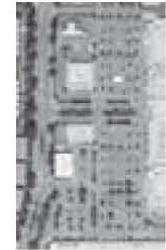
Gresham Station shopping center





Looking South onto Site

Looking At Existing Site from Outer Edge



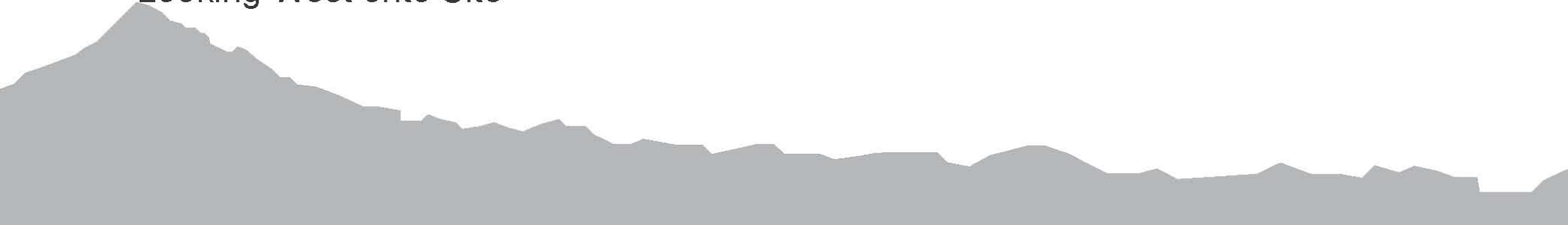
Looking East onto Site



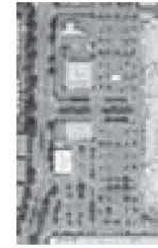
Looking North onto Site



Looking West onto Site



Looking out from Existing Site from Exterior Edge



Looking North from Site



Looking West from Site



Looking South from Site



Looking East from Site



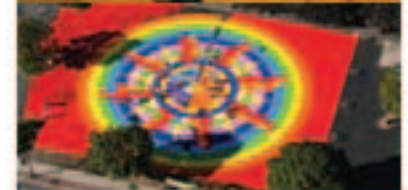
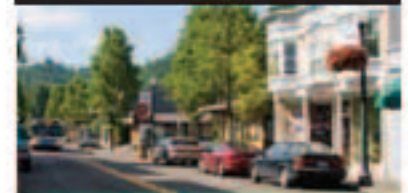
How the Development May Impact Surrounding Areas

Negatives

- Increase in traffic

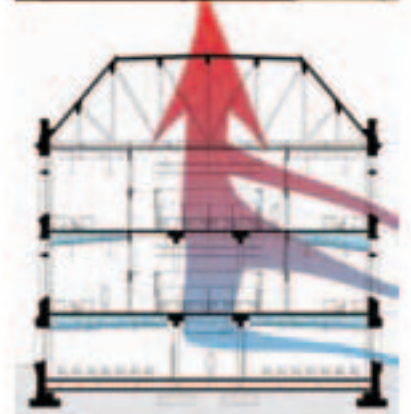
Positives

- Community pride
- City rejuvenation
- Less strip malls and more local business
- Overall city beautification
- City growth and prosperity



Design Considerations for Building

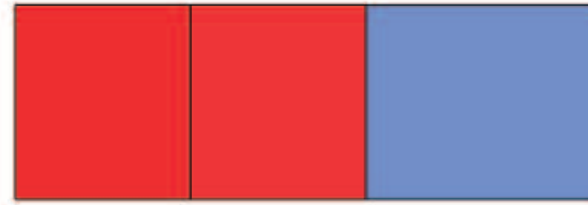
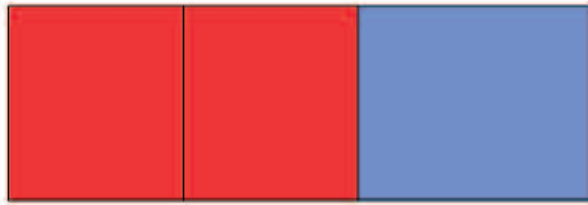
- Simplicity of floor plan and layout
- Natural light in as many spaces as possible
- Communal “common” area for all departments
- Low building height to increase natural light and passive ventilation
- Large floor area to accommodate growth & change
- Important departmental adjacencies



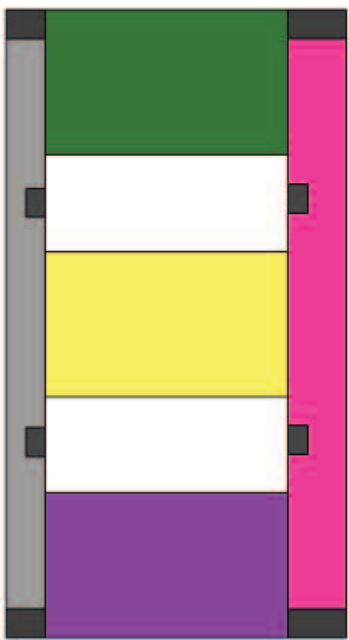
Preliminary Room Area Chart

No. Room	(SF x 1.15 for Storage/Circulation)	Total NSF
1 Financial Mgmt	12650 x 1.15 =	~15,000
2 City's Attorney	3000 x 1.15 =	~3,500
3 Police Department	22000 x 1.15 =	~25,000
4 Environmental Services	3000 x 1.15 =	~3,500
5 Fire Admin	3000 x 1.15 =	~3,500
6 Fire Department	18000 x 1.15 =	~20,700
7 Econ Dev	1000 x 1.15 =	~1,150
8 IT	5000 x 1.15 =	~6,000
9 Urban Renewal	1200 x 1.15 =	~1,380
10 Comm Dev	12000 x 1.15 =	~14,000

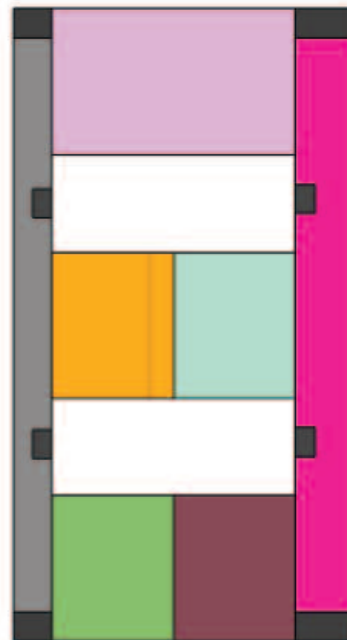
Building Floor Plans



- Fire
- Police
- Urban Planning
- Information Technology
- Support/Conference
- Environmental Services
- City Attorney
- Finance/Management
- OGM
- Economic Development
- Community Development



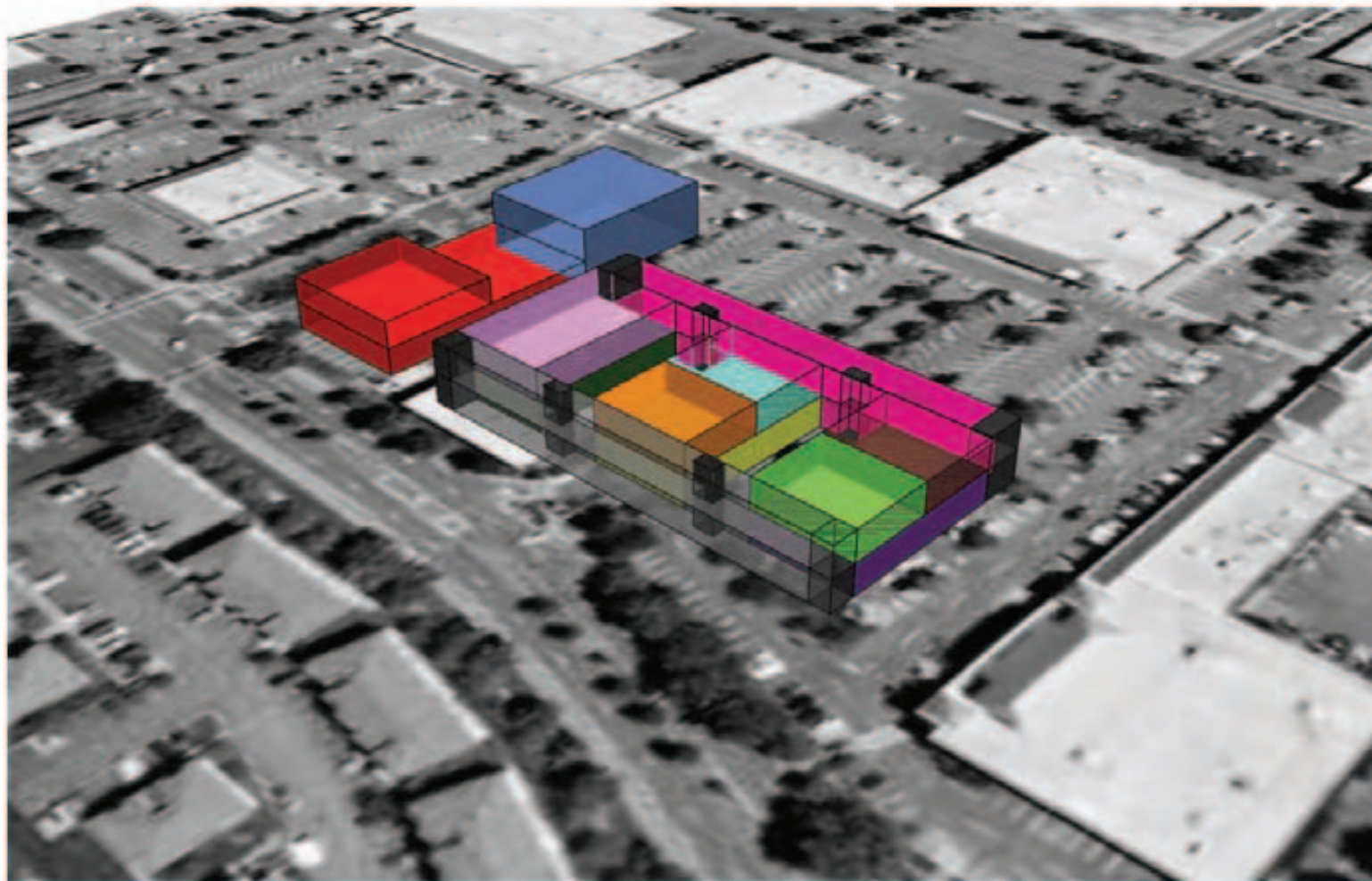
Floor 1



Floor 2



Aerial Site Plan



- Fire
- Police
- Urban Planning
- Information Technology
- Support/Conference
- Environmental Services
- City Attorney
- Finance/Management
- OGM
- Economic Development
- Community Development

Max Line Adjacency to Building

The closest MAX Line stop is about 0.35 miles away from the new City Hall site.

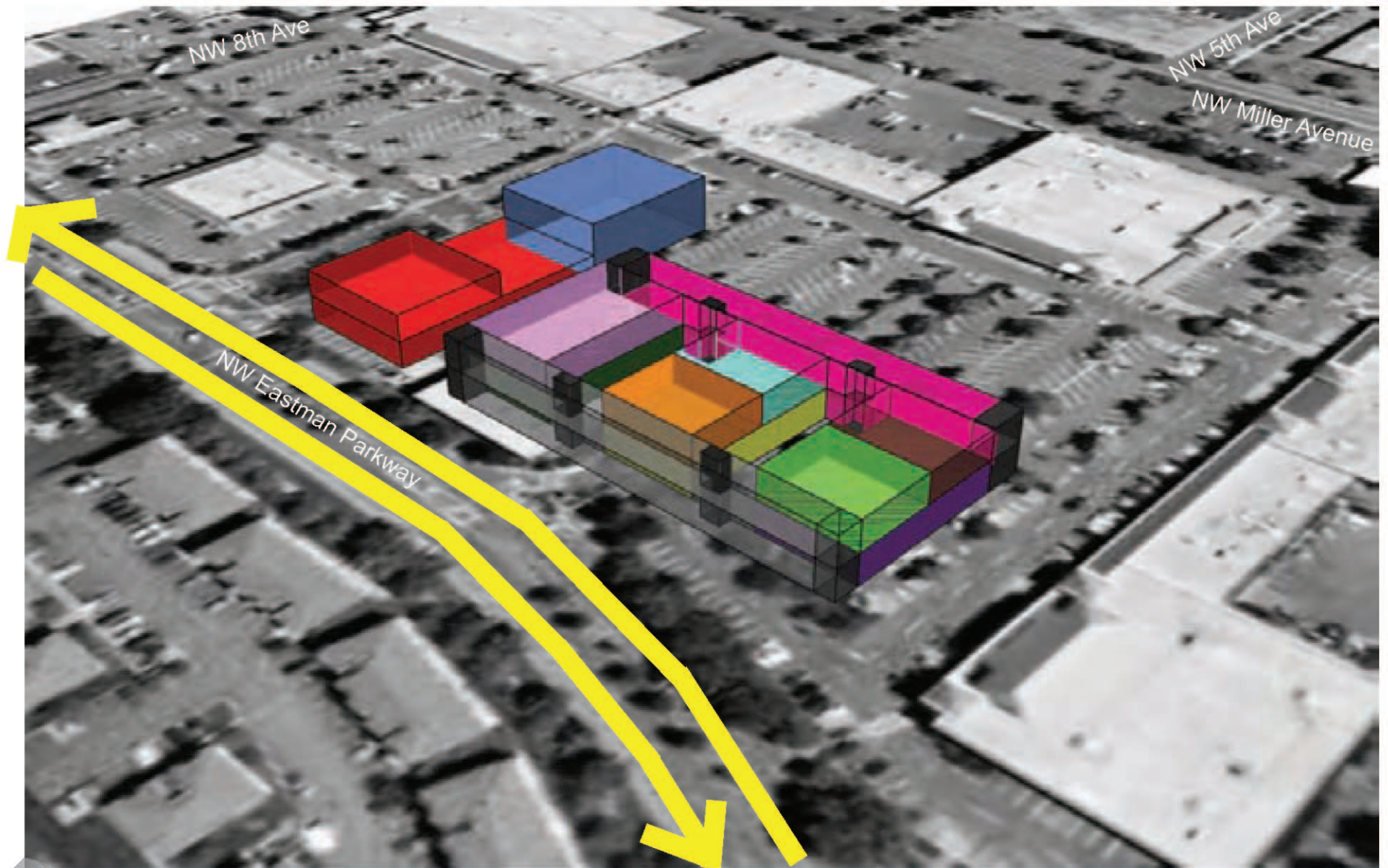
Close proximity allows for alternate modes of transportation; like biking or walking.

Since NW Eastman Parkway is a main thoroughfare, there is possibility of a streetcar line being placed along this route.

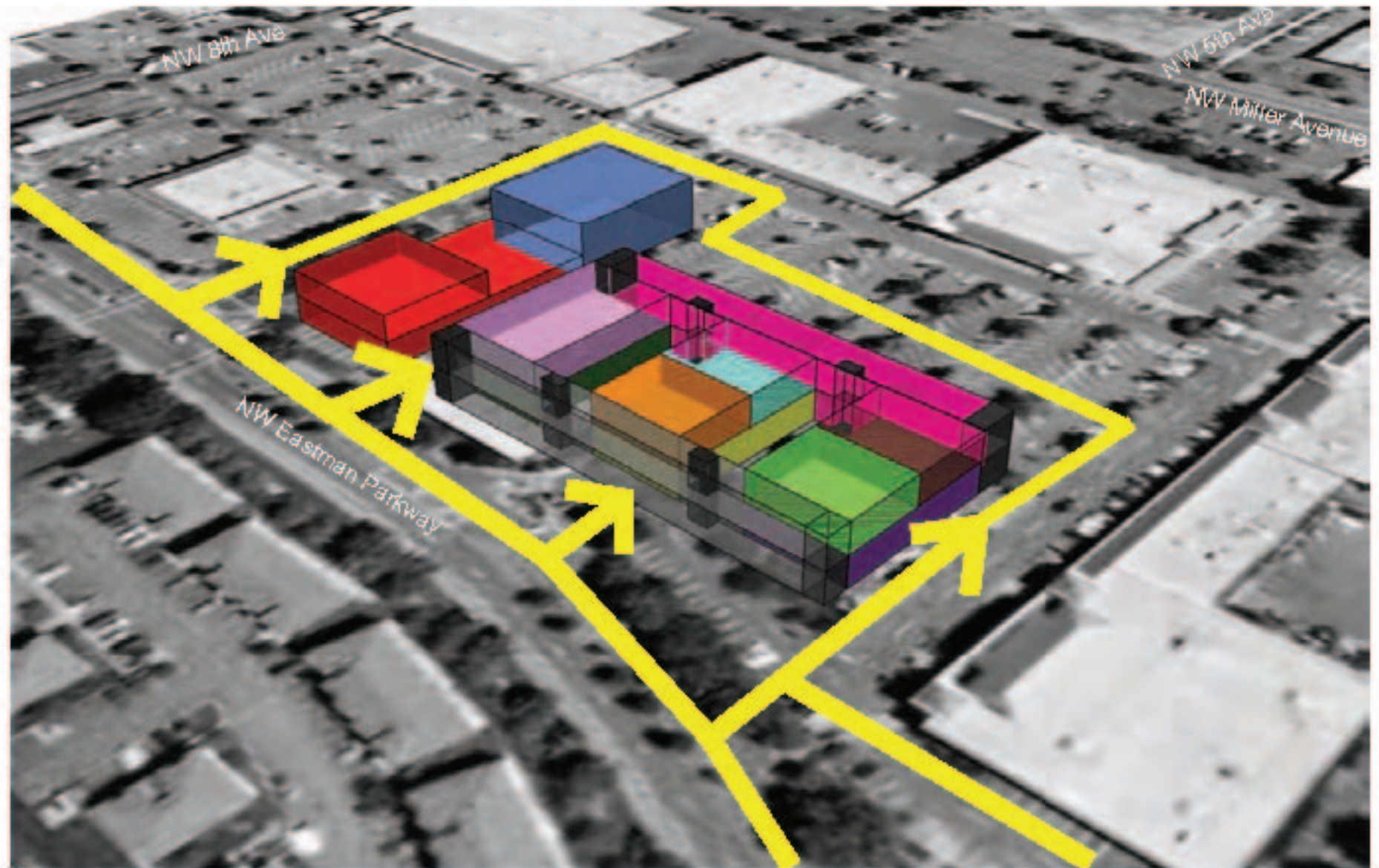
This extension of a streetcar line would connect to Gresham's historical roots; linking Gresham to Portland.



Bus Circulation to Building



Bike and Pedestrian Circulation to the Building



MIT Design Advisor

Heating Energy

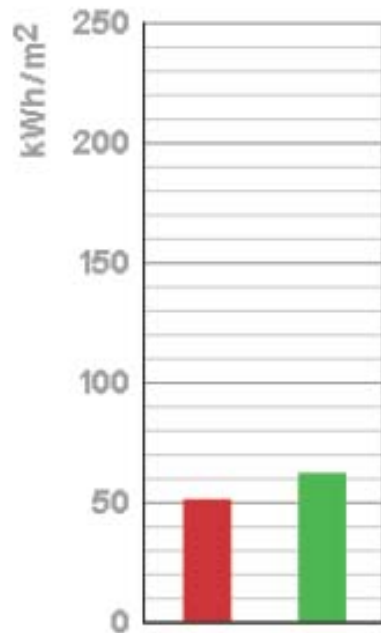
Lighting Energy

Building

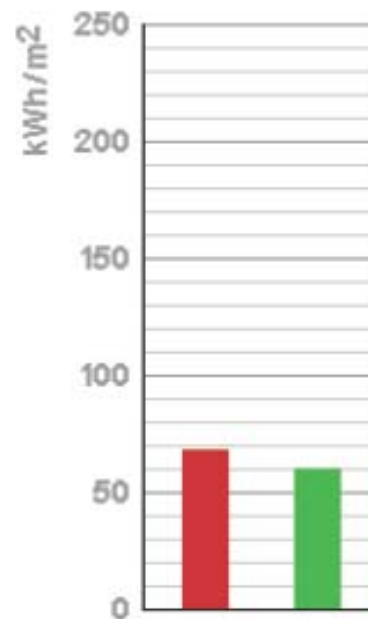
Location OR - Portland
Building length, side A 53 m
Building length, side B 99 m
Simulation Type
Simulation Type four_sided_mixed

Occupancy

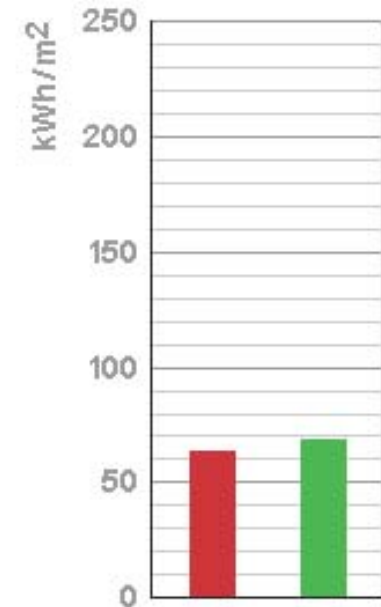
Type Office Building
Occupancy Load 0.25 people per m²
Lighting Requirements 500 lux
Equipment Load 5.00 W/m²



Scenario 1 *Representative Room*
Orientation south
Thermal Mass
Thermal Mass low
Overhang
Overhang Depth 1 m
Roof
Roof Type green roof
Insulation R-Value: 10 m²-KW
Insulation Location: bottom



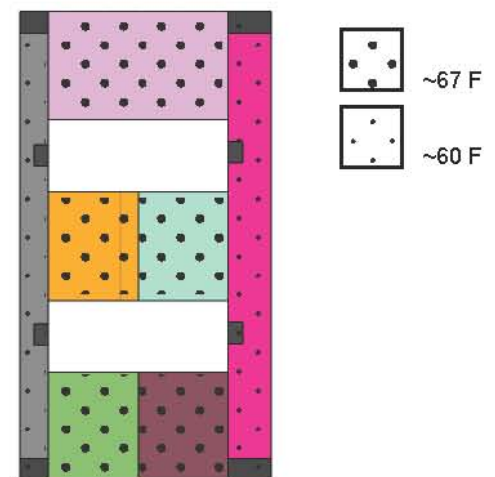
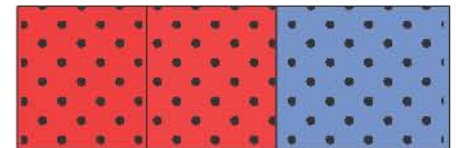
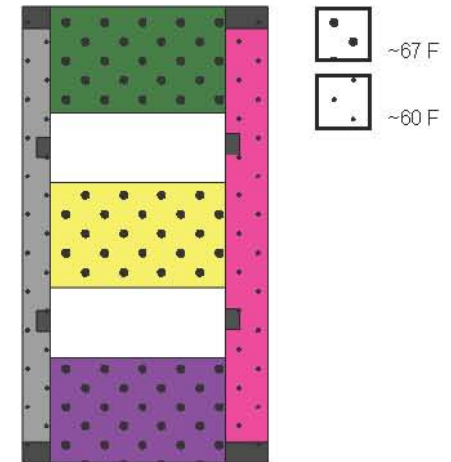
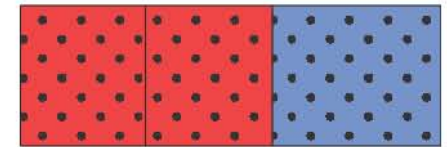
Scenario 2 *Representative Room*
Orientation west
Thermal Mass
Thermal Mass low
Overhang
Overhang Depth 2 m
Roof
Roof Type cool roof
Insulation R-Value: 2 m²-KW
Insulation Location: bottom



Scenario 3 *Representative Room*
Orientation west
Thermal Mass
Thermal Mass high
Overhang
Overhang Depth 2 m
Roof
Roof Type green roof
Insulation R-Value: 20 m²-KW
Insulation Location: bottom

Departmental Environmental Needs

- a. 2-story building design prevents light blockage for future neighbors
- b. Every department has 2 facades completely exposed to natural light
- c. 2 interior courtyards allow natural light, ventilation, and common manipulative space
- d. Every department has 2 access points to horizontal/vertical circulation
- e. 22' floor-to-ceiling height (excluding utilities) ensures a breathable, airy environment
- f. Every department space will average about 67 degrees
- g. Every circulation space will average about 60 degrees.



2030 Challenge

The current Gresham City Hall does not meet the 2030 Challenge. They need an additional 10% of savings to meet the 2010 requirement, then need to bump up the savings by 1% per year to stay on track. The new building should strive to reach at least 2020 or 2025 requirements, requiring 20% to 25% more in energy savings over the current building.

Target Energy Performance Results (estimated)			
Energy	Design	Target	Average Building
Energy Performance Rating (1-100)	50	60	50
Energy Reduction (%)	1	10	0
Source Energy Use Intensity (kBtu/Sq. Ft./yr)	241	217	242
Site Energy Use Intensity (kBtu/Sq. Ft./yr)	72	65	72
Total Annual Source Energy (kBtu)	21,666,546	19,499,131	21,778,220
Total Annual Site Energy (kBtu)	6,486,990	5,838,063	6,520,425
Total Annual Energy Cost (\$)	\$ 133,086	\$ 119,773	\$ 133,772
Pollution Emissions			
CO2-eq Emissions (metric tons/year)	782	704	786
CO2-eq Emissions Reduction (%)	1%	10%	0%

Facility Information [Edit](#)

Gresham City Hall
Gresham, OR 97030
United States

Facility Characteristics		Estimated Design Energy			
Space Type	Gross Floor Area (Sq. Ft.)	Energy Source	Units	Estimated Total Annual Energy Use	Energy Rate (\$/Unit)
Office	90,000	Electricity - Grid Purchase	kWh	1,901,228	\$ 0.070/kWh
Total Gross Floor Area	90,000				

* The Average Building is equivalent to an EPA Energy Performance Rating of 50.

Source: Data adapted from DOE-EIA. See EPA [Technical Description](#).