

# Forest Hills Municipal Building

Schematic Design Review

5 November 2015

**PFAFFMANN + ASSOCIATES**

# Forest Hills Municipal Building

## Agenda November 5, 2015

### PROGRAM REVIEW

Recap the assessment of needs and space requirements

### SCHEMATIC DESIGN

Walk thru of the schematic design of the building

### SITE PLANNING

Review site placement alternatives

### BUILDING SYSTEMS

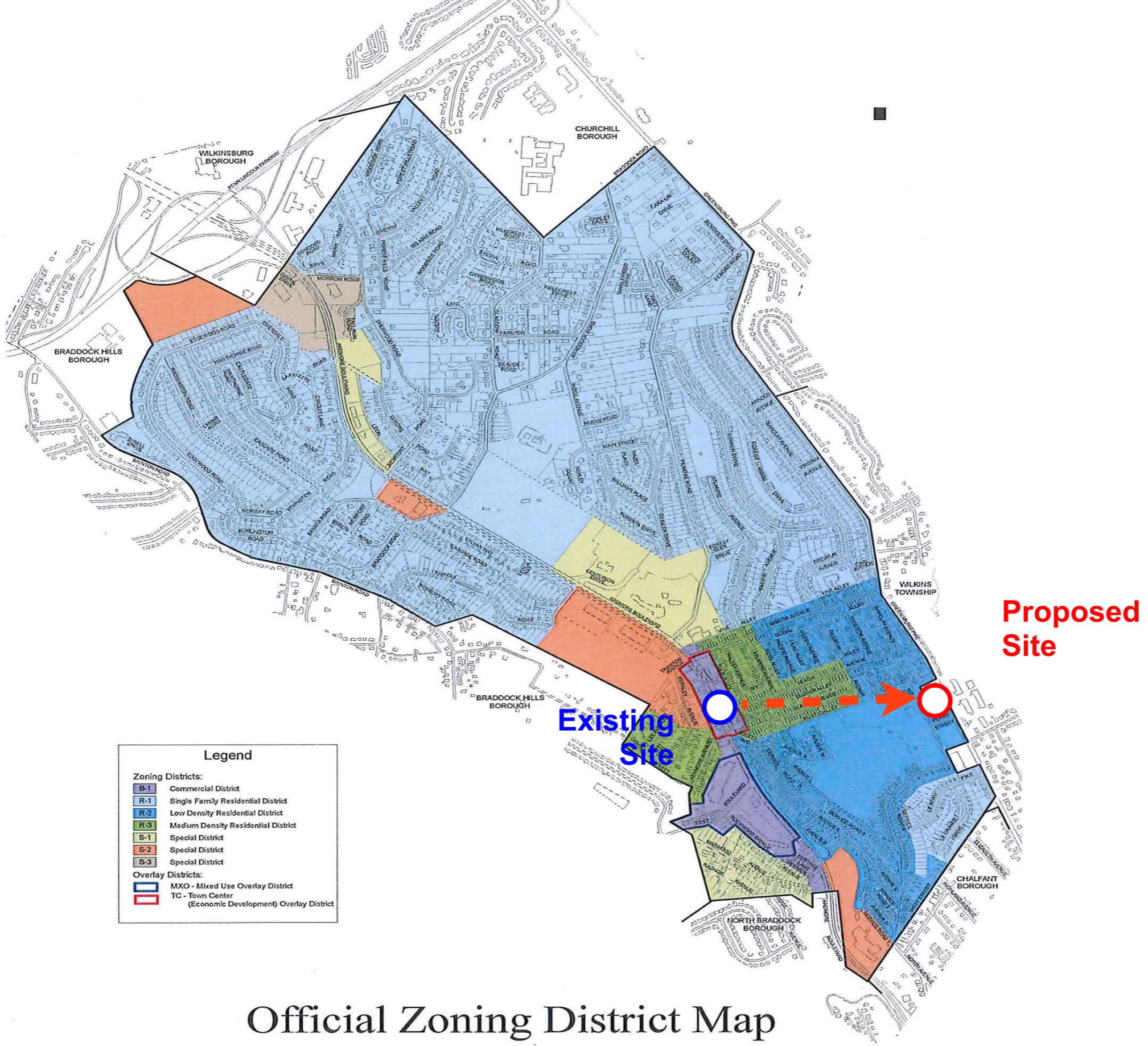
Review schematic MEP/Building Systems; Initial Recommendations

### SUSTAINABILITY

Review Sustainability Options & Enhancements

### NEXT STEPS/WHAT WE HEARD

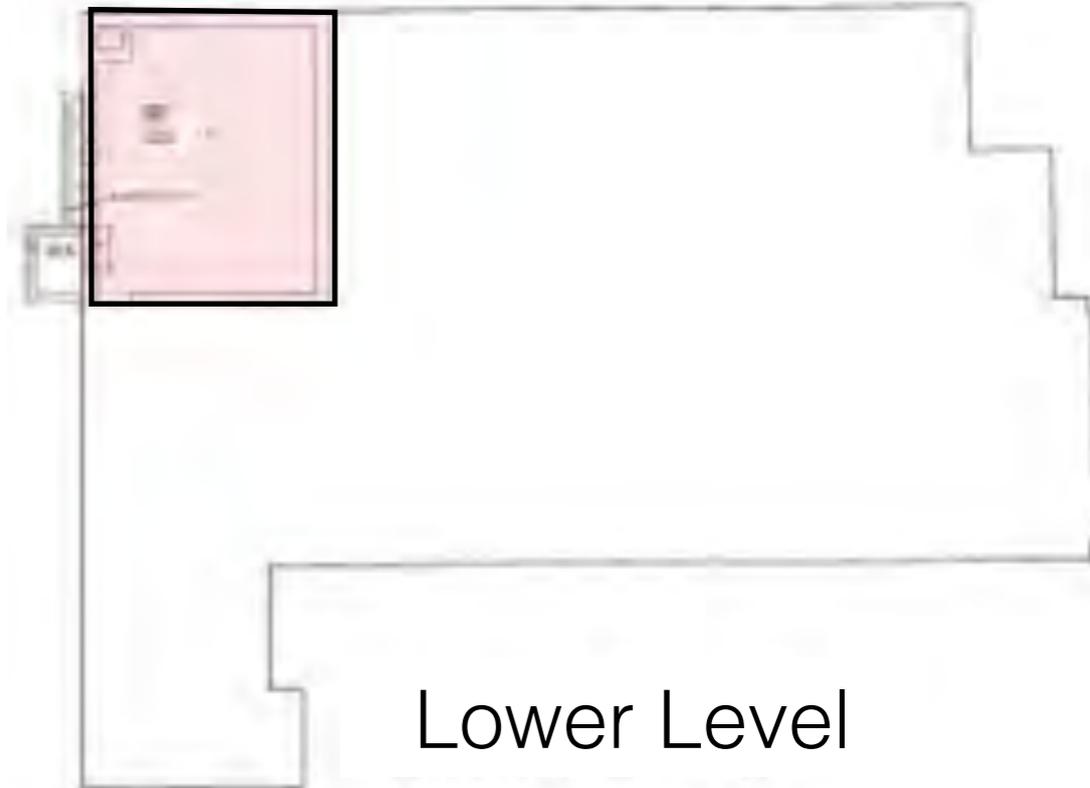
Internal Review Period, Budget Development, Site Due Diligence, Deliver Final Schematic Design



# Official Zoning District Map of the Borough of Forest Hills



Second Floor



Lower Level



First Floor

### Existing Building

2800 sf Second Floor

4500 sf First Floor

500 sf Lower Level

---

7800 sf Total



February 10, 2015

Proposed Forest Hills Municipal Building Vicinity Plan

**PFAFFMANN + ASSOCIATES**

**Zoning Appeal or Change; Zoning Administrator recommends R2>S1**



Site

Perry Ave

Powell St

Green

Barclay Ave

F Ave

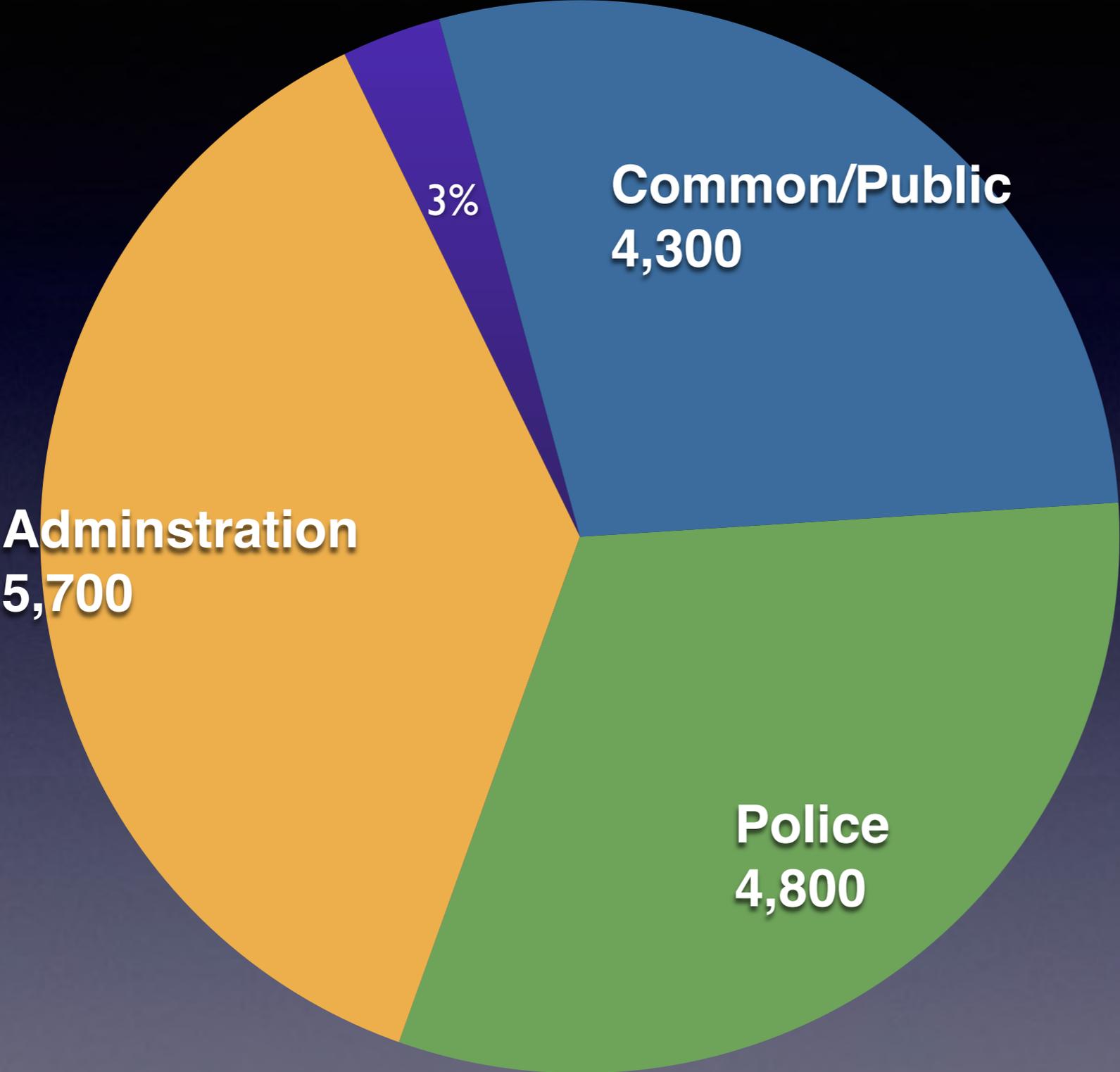
Westinghouse Lodge

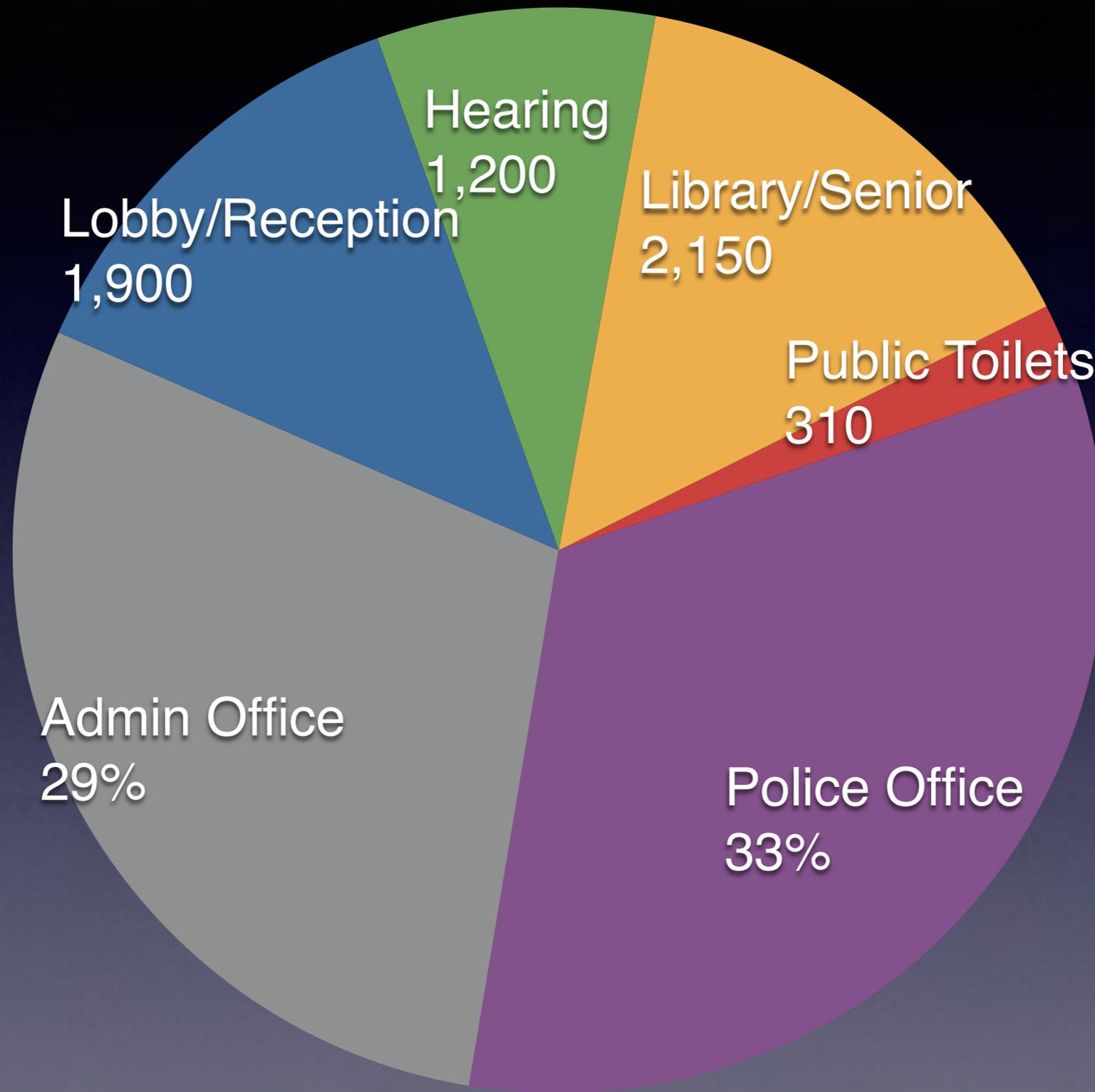
230 ft

© 2014 Google

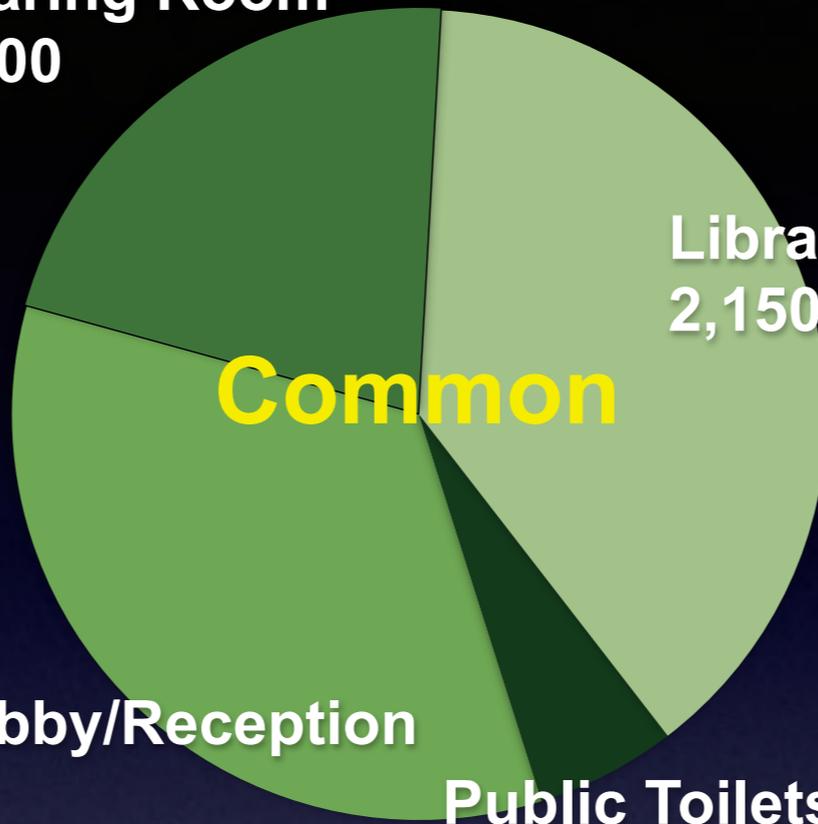
Google e

# Basic Program





**Hearing Room**  
1,200



**Library/Senior**  
2,150

**Common**

**Public Lobby/Reception**  
1,900

**Public Toilets**  
310

**Jail/Holding**  
700

**Police**

**Garage**  
11%

**Office-Work**  
3,140

**Lockers/Toilets**  
425

**Administration**

**Support**  
800

**Offices**  
3,420

# Schematic Design Highlights

- Unifies multiple services through internal “street”
- Organizes storage and operational support
- Provides Flexible, Healthy workspaces
- Addresses code and security problems for Police Dept.
- Library and Senior Ctr added to project
- Addresses code and operational inefficiencies
- Celebrates use of trees and landscape (Forest Hill Brand)
- Extensive use of green “passive “ design principles:
  - Energy Conservation
  - Water Conservation
  - Natural Light & Ventilation

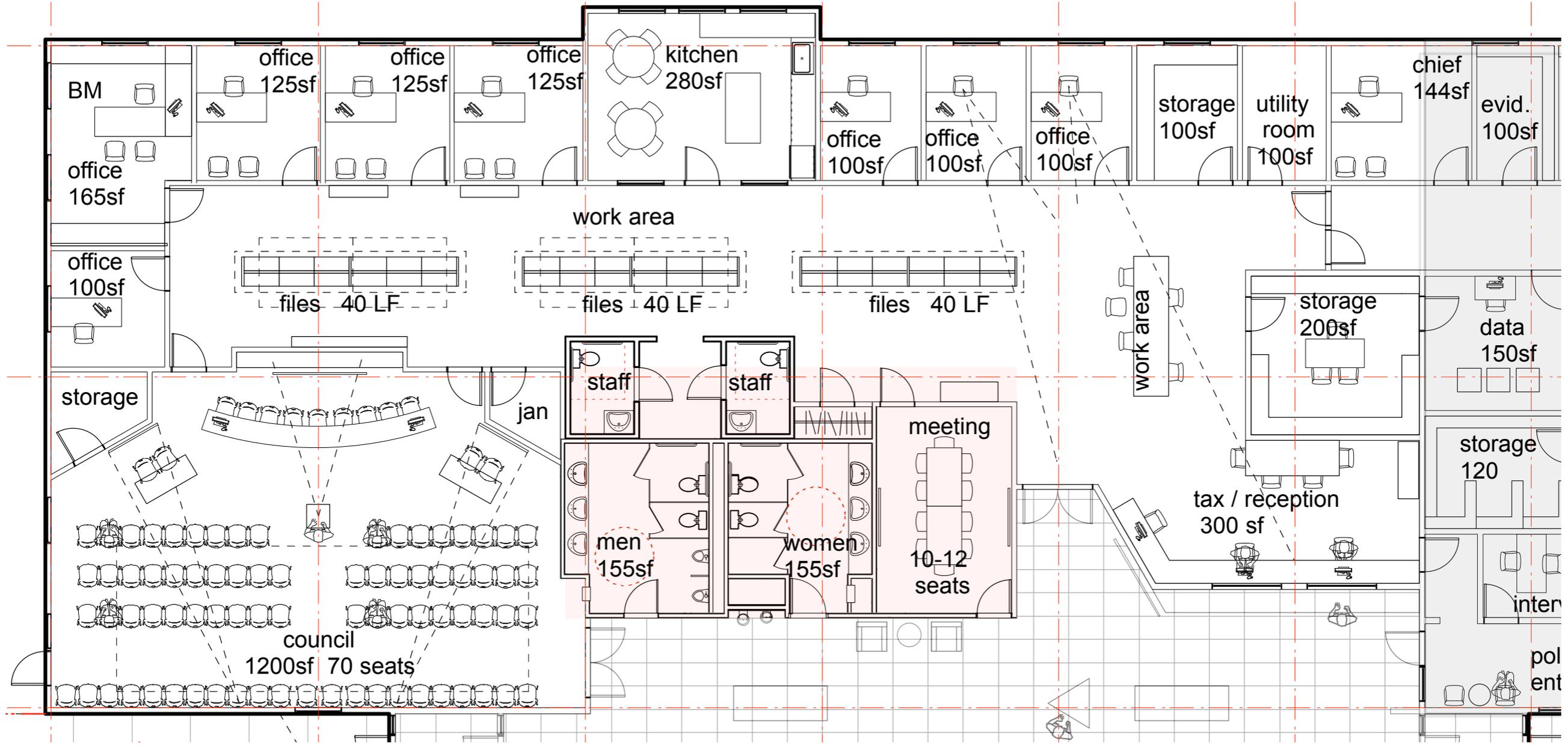
# Site Development Considerations

- Safe Pedestrian focused street and access
- Safe Parking & Curb Cuts
- Overflow Parking Addressed
- Landscape & Stormwater Enhancements
- Optimized Solar Orientation
- Creates Open Space
- Opportunity to share space with Lodge.



# Forest Hills Municipal Building

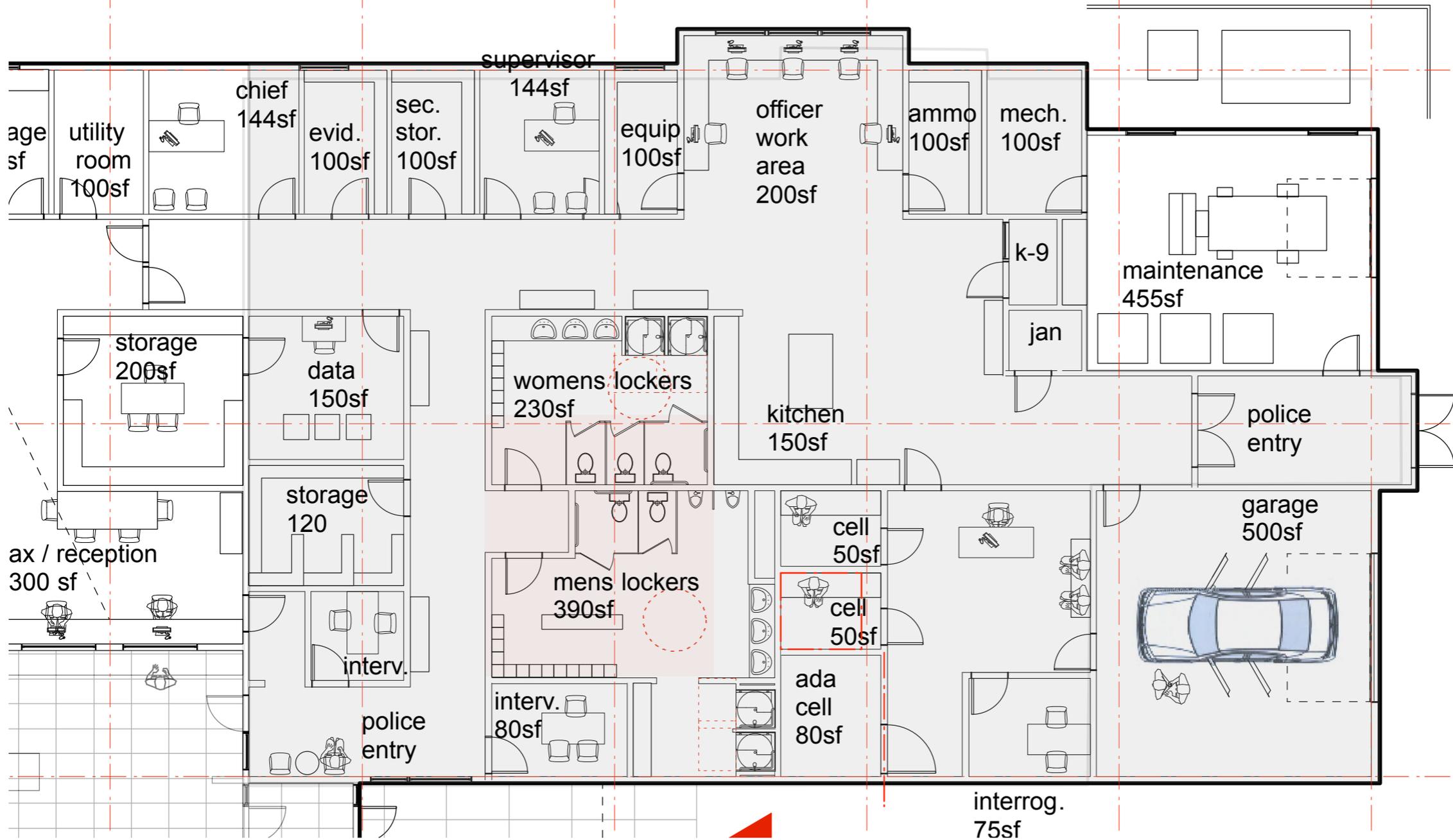
**PFAFFMANN + ASSOCIATES**



# Forest Hills Municipal Building

# Municipal Offices

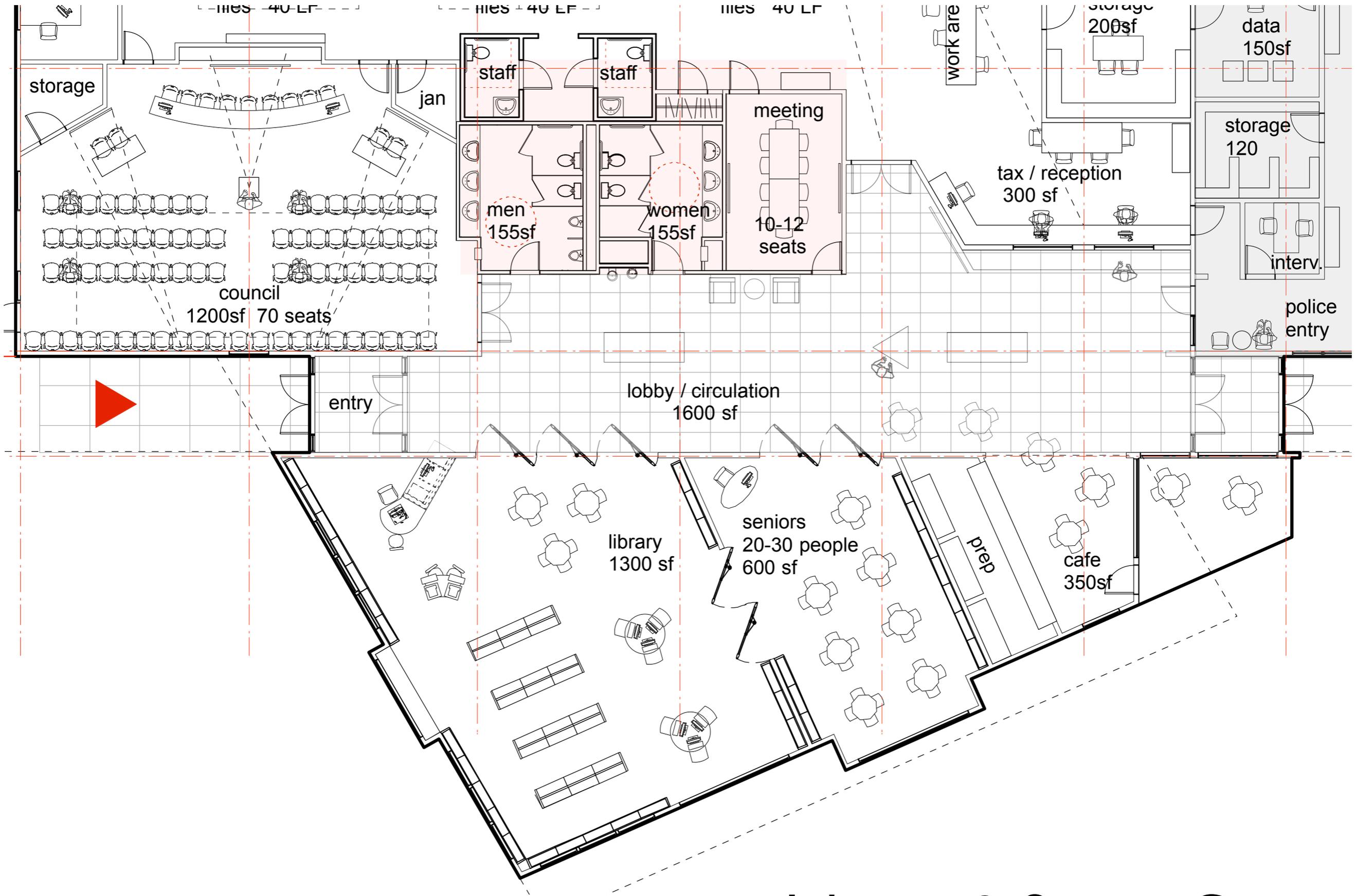
PFAFFMANN + ASSOCIATES



# Forest Hills Municipal Building

# Police Department

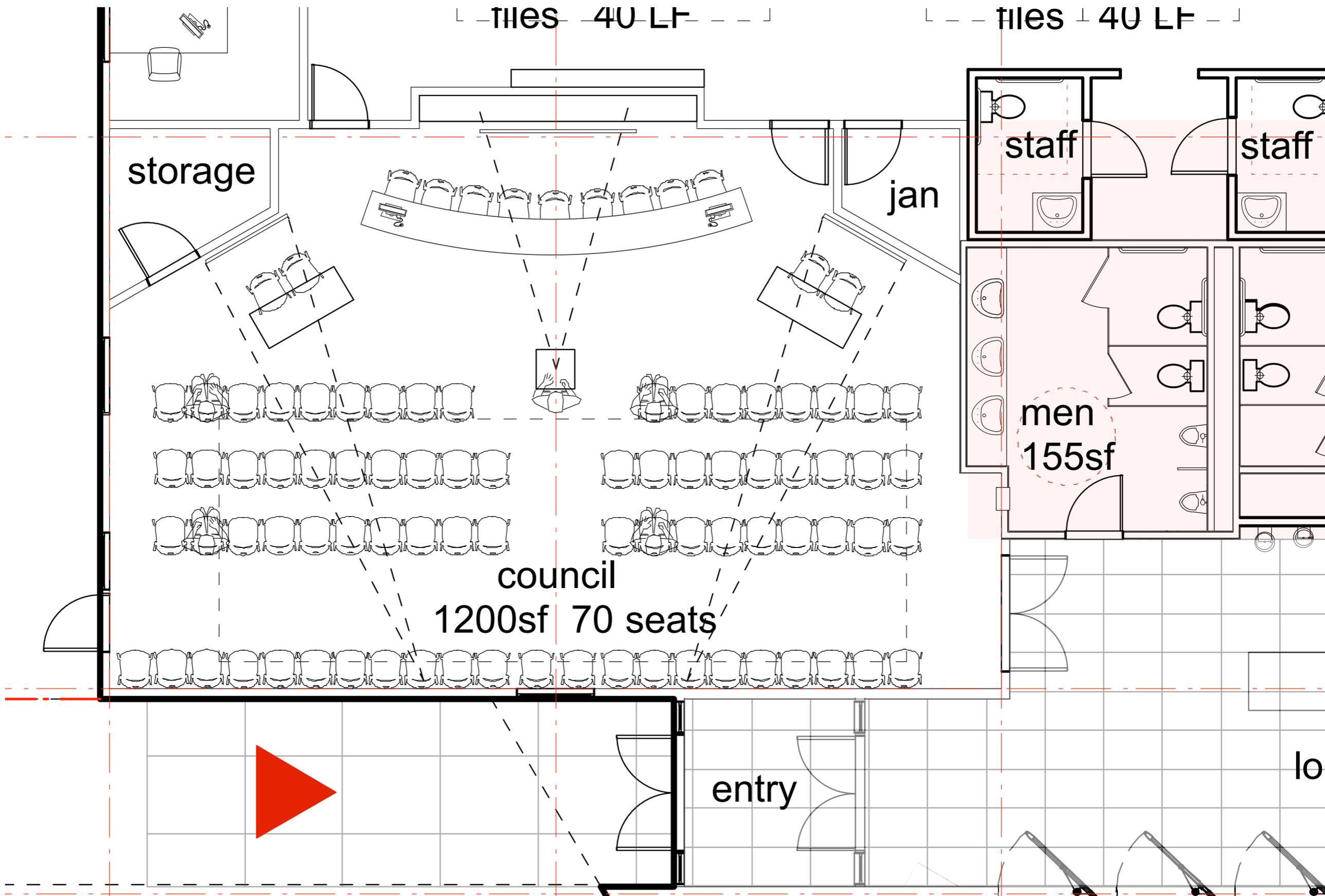
PFAFFMANN + ASSOCIATES



# Library & Senior Center

Forest Hills Municipal Building

PFAFFMANN + ASSOCIATES



# Council Chambers

PFAFFMANN + ASSOCIATES

Forest Hills Municipal Building



# Forest Hills Municipal Building

PFAFFMANN + ASSOCIATES



# Forest Hills Municipal Building

PFAFFMANN + ASSOCIATES



# Forest Hills Municipal Building

**PFAFFMANN + ASSOCIATES**



Forest Hills Municipal Building

PFAFFMANN + ASSOCIATES



Forest Hills Municipal Building

PFAFFMANN + ASSOCIATES



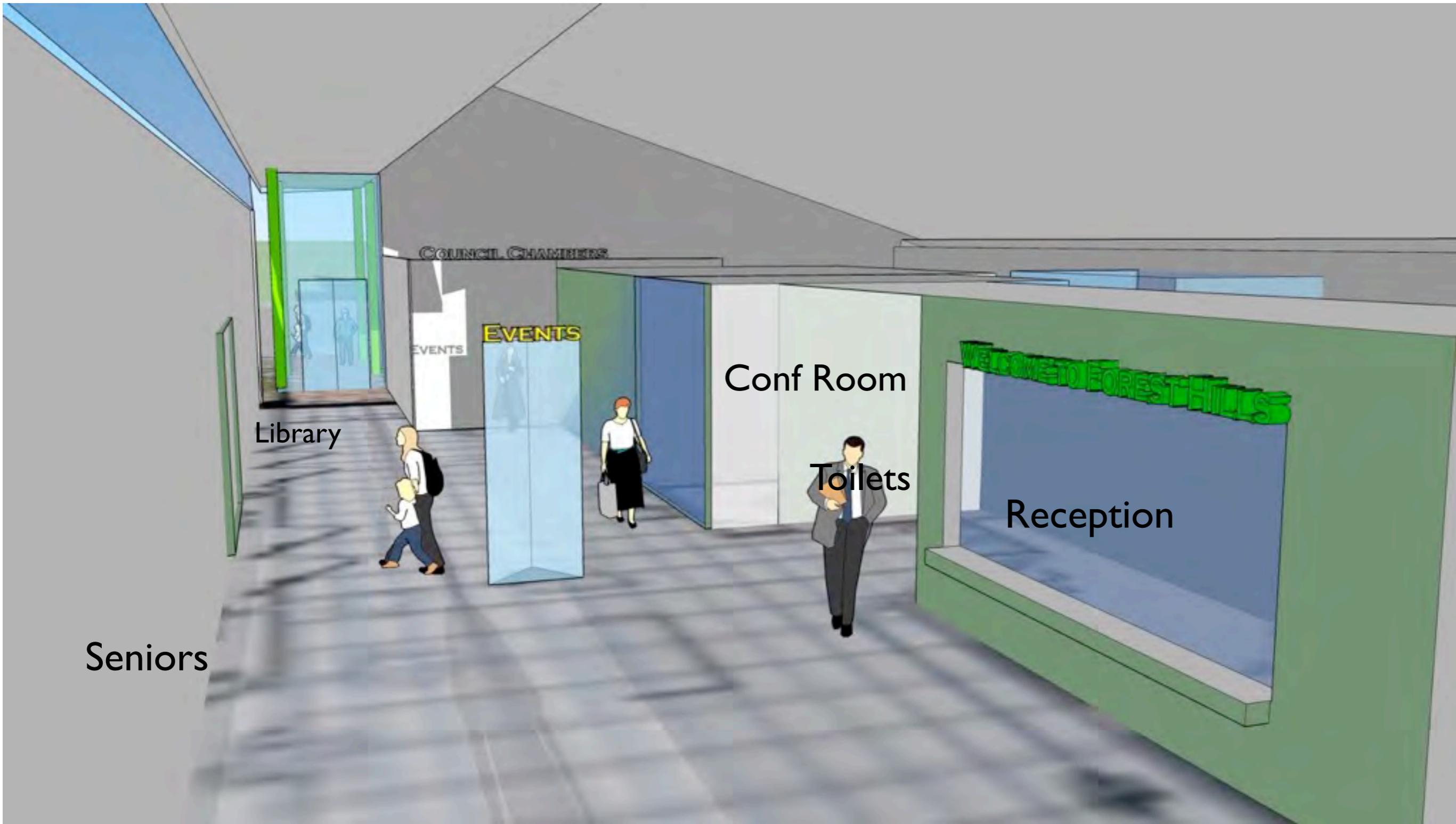
Council

Reception

Police

Seniors

Library

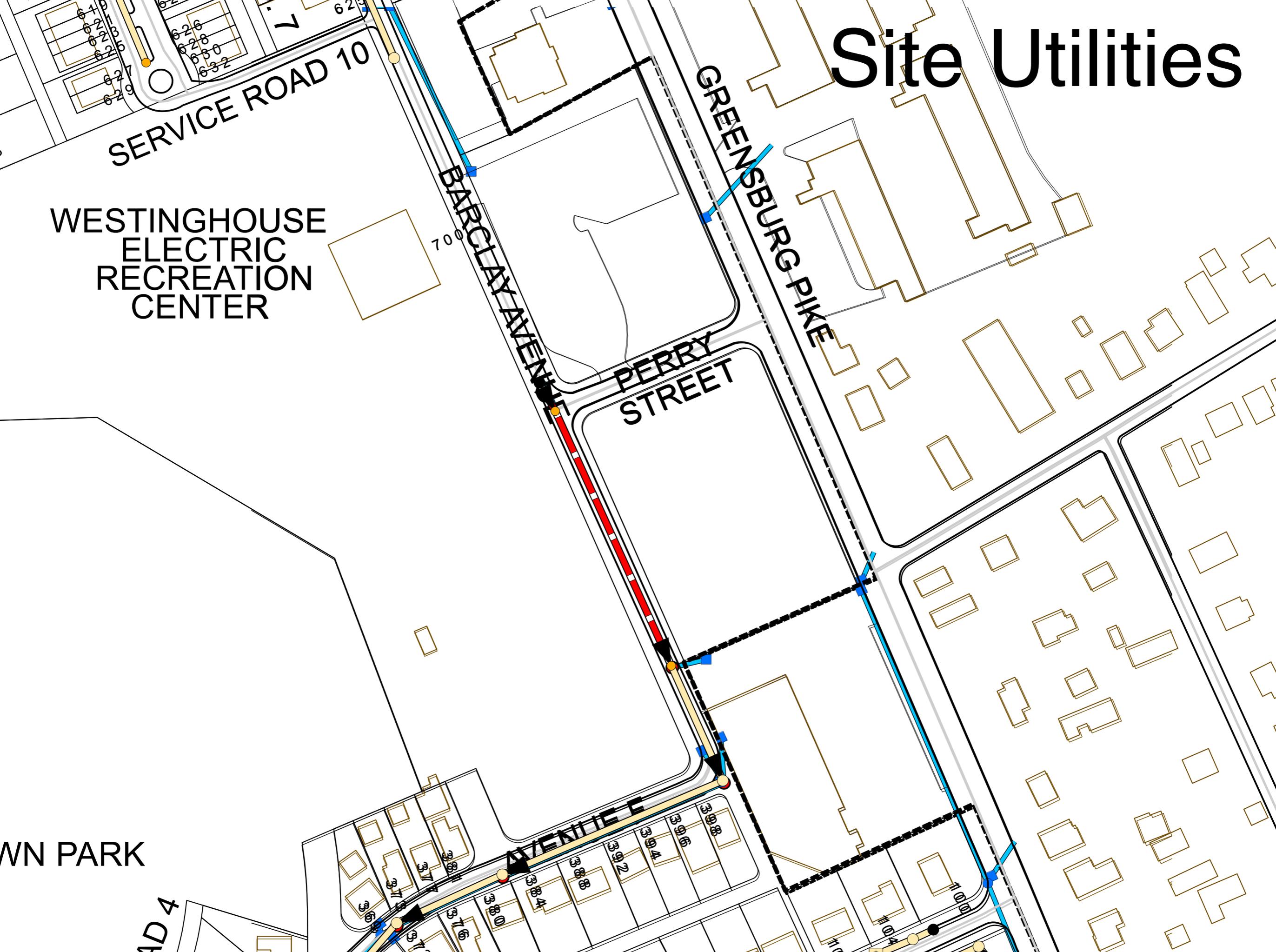




February 10, 2015

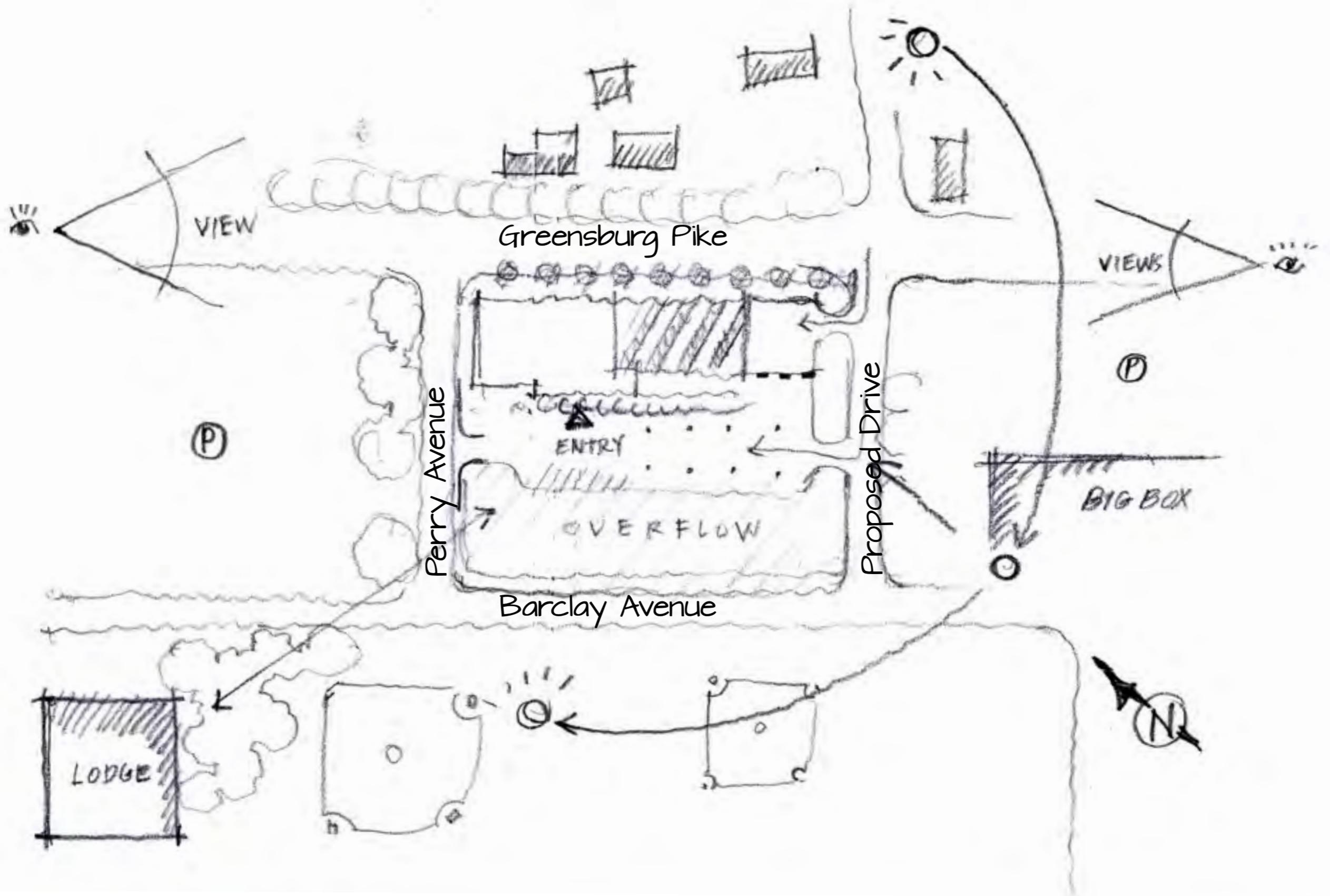
Forest Hills Municipal Building Site

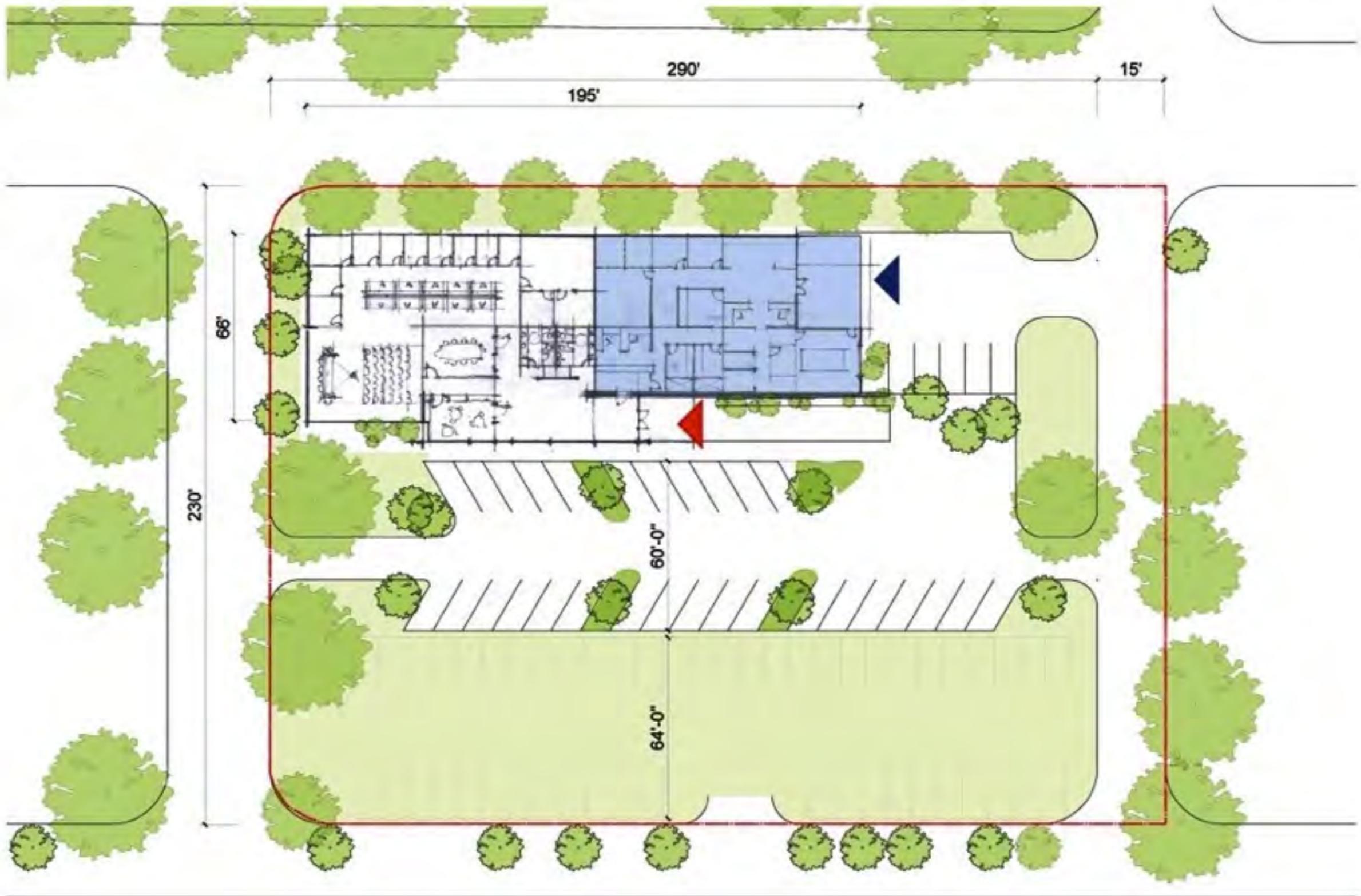
# Site Utilities



WESTINGHOUSE  
ELECTRIC  
RECREATION  
CENTER

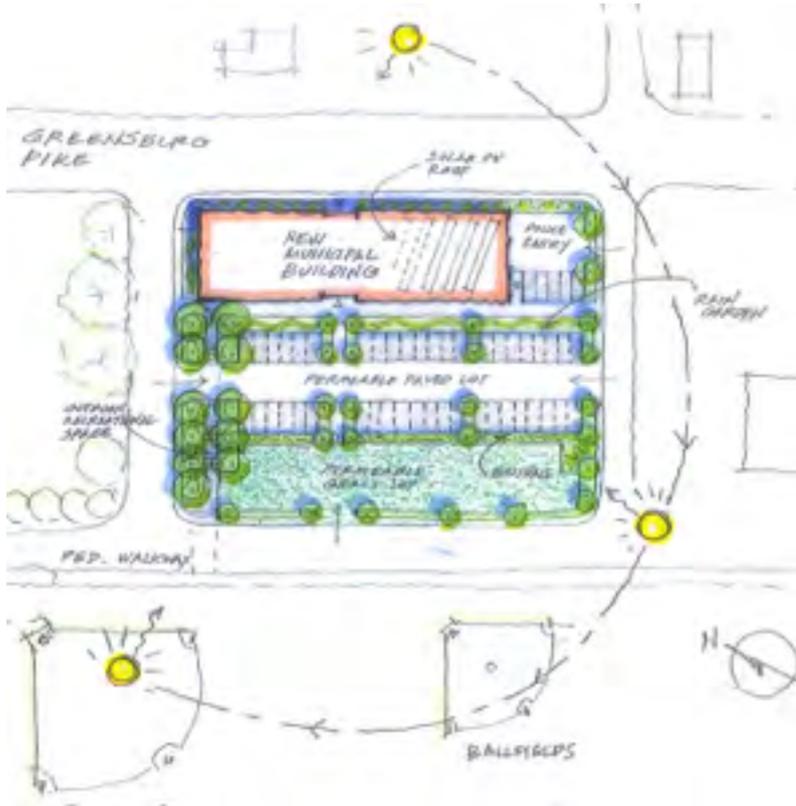
TOWN PARK





# Initial Concept Plan January 2015

# Site Positioning Options



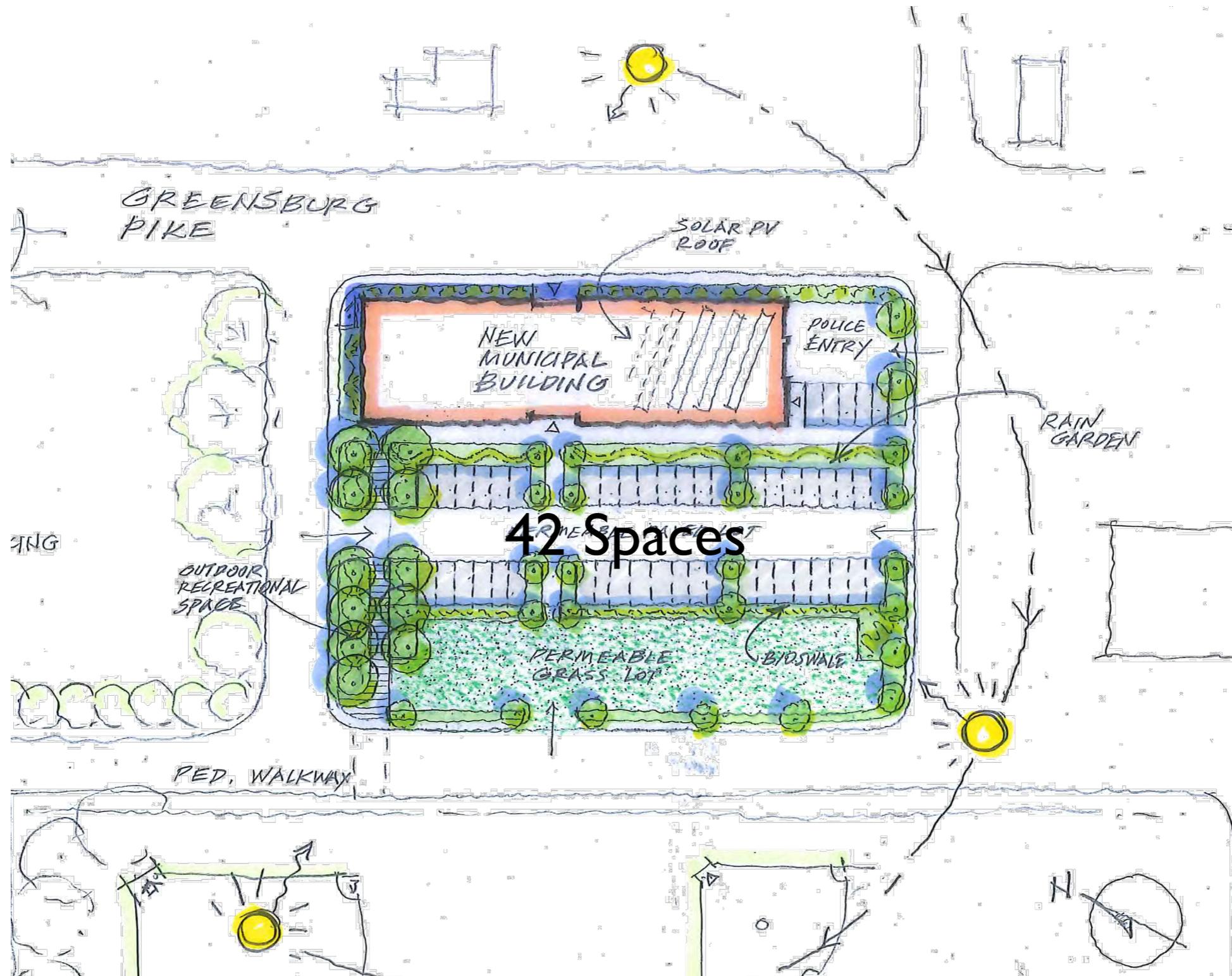
A



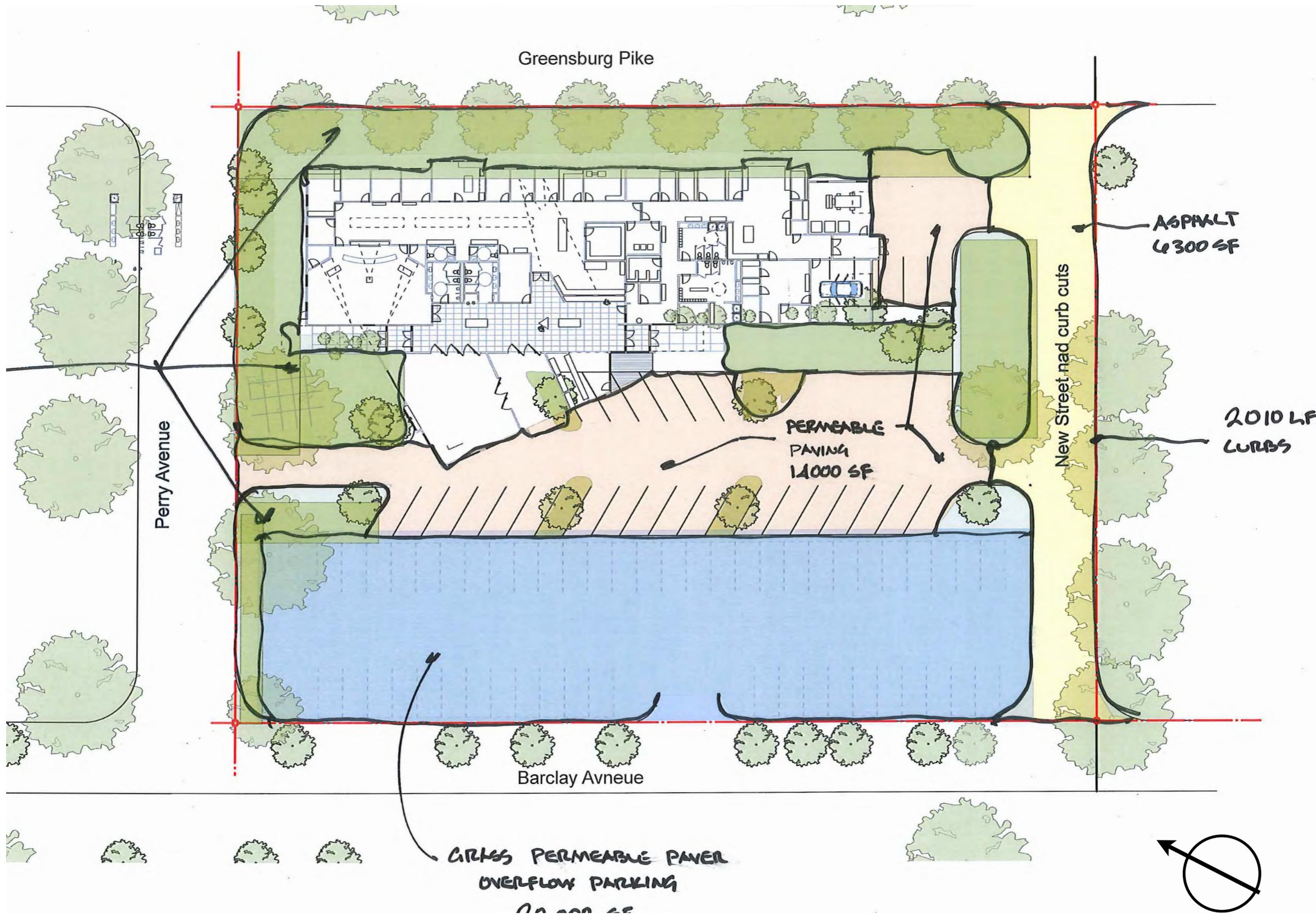
B



C



# Forest Hills Municipal Building



# Forest Hills Municipal Building

## Schematic Site Plan A Site Permeability

**PFAFFMANN + ASSOCIATES**

GREENSBURG PIKE

314'-9"

PERRY AVE.

226'-3"

BARCLAY AVE.



12 Spaces

STAFF AND VISITOR PARKING - 46 SPACES

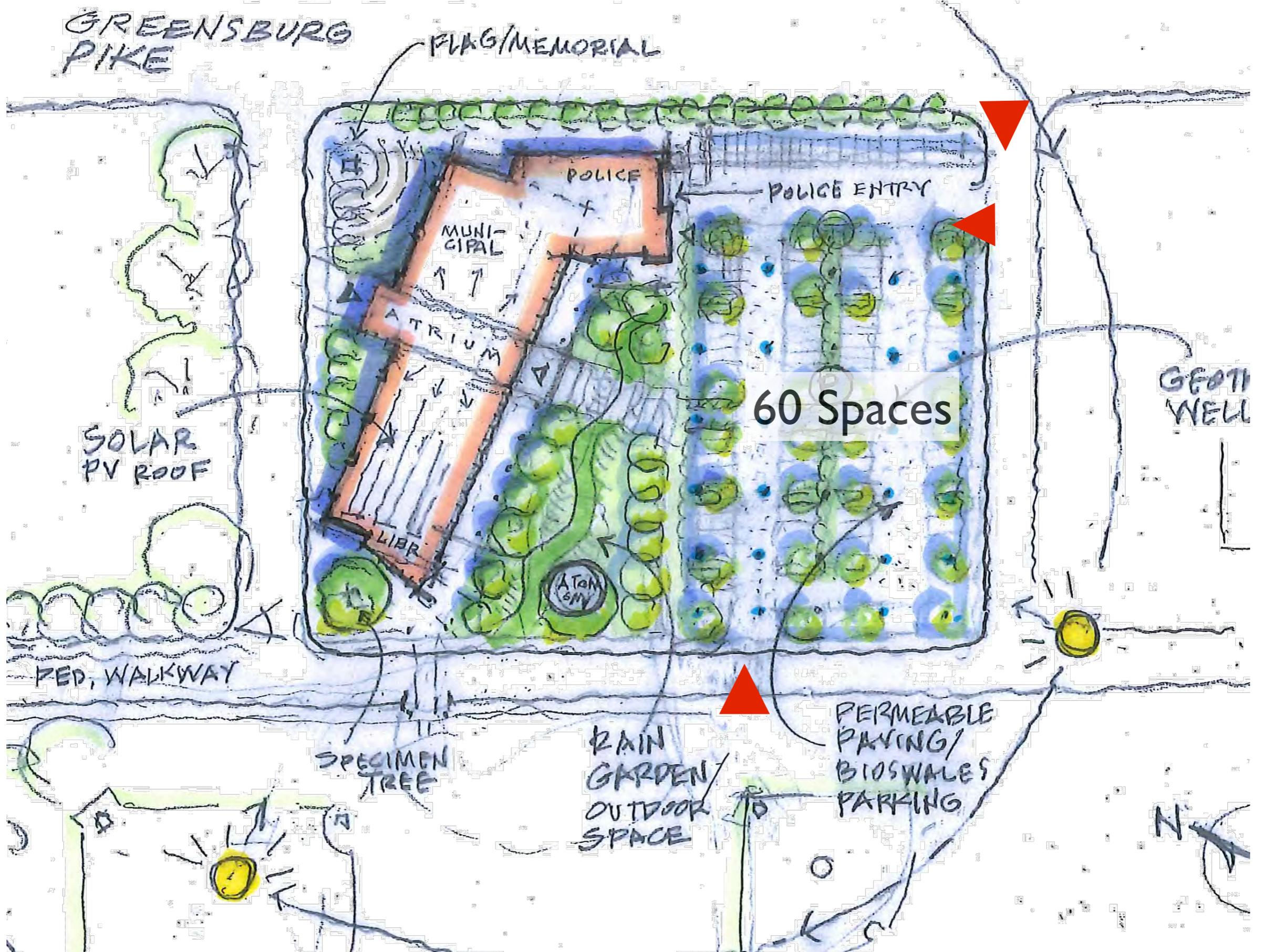
GRAVEL LOT PARKING - 24 SPACES

ONE WAY DRIVEWAY 15'

A

Forest Hills Municipal Building

PFAFFMANN + ASSOCIATES



## OPTION C: The solar option

Forest Hills Municipal Building

PFAFFMANN + ASSOCIATES

# Building Systems Review, Jon Iams, PE

HVAC Systems  
Electrical/Telecommunications  
Plumbing  
Fire Protection  
Energy Enhancements

# Forest Hills Municipal Building: **SUSTAINABILITY**





# Getting to Gold: Project Checklist

Y	?	N			
1			Credit	Integrative Process	1

<b>3</b>	<b>2</b>	<b>3</b>	<b>Location/Transportation</b>	<b>16</b>	
		1	Credit	LEED for Neighborhood Development Location	16
		1	Credit	Sensitive Land Protection	1
		1	Credit	High Priority Site	2
1			Credit	Surrounding Density and Diverse Uses	5
	1		Credit	Access to Quality Transit	5
1			Credit	Bicycle Facilities	1
1			Credit	Reduced Parking Footprint	1
	1		Credit	Green Vehicles	1

<b>6</b>	<b>2</b>	<b>1</b>	<b>Sustainable Sites</b>	<b>10</b>	
Y			Prereq	Construction Activity Pollution Prevention	Required
1			Credit	Site Assessment	1
		1	Credit	Site Development - Protect or Restore Habitat	2
1			Credit	Open Space	1
2	1		Credit	Rainwater Management	3
1	1		Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

<b>6</b>	<b>5</b>	<b>0</b>	<b>Water Efficiency</b>	<b>11</b>	
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
1	1		Credit	Outdoor Water Use Reduction	2
3	3		Credit	Indoor Water Use Reduction	6
1	1		Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

<b>19</b>	<b>9</b>	<b>5</b>	<b>Energy and Atmosphere</b>	<b>33</b>	
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
1	2	2	Credit	Enhanced Commissioning	6
12	4	2	Credit	Optimize Energy Performance	18
1			Credit	Advanced Energy Metering	1
1		1	Credit	Demand Response	2
1	2		Credit	Renewable Energy Production	3
1			Credit	Enhanced Refrigerant Management	1
2	1		Credit	Green Power and Carbon Offsets	2

<b>9</b>	<b>0</b>	<b>0</b>	<b>Materials and Resources</b>	<b>13</b>	
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
3			Credit	Building Life-Cycle Impact Reduction	5
2			Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1			Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1			Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2

<b>12</b>	<b>3</b>	<b>1</b>	<b>Indoor Environmental Quality</b>	<b>16</b>	
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
1		1	Credit	Enhanced Indoor Air Quality Strategies	2
2	1		Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
2			Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
2			Credit	Interior Lighting	2
2	1		Credit	Daylight	3
	1		Credit	Quality Views	1
1			Credit	Acoustic Performance	1

<b>3</b>	<b>3</b>	<b>0</b>	<b>Innovation</b>	<b>6</b>	
2	3		Credit	Innovation	5
1			Credit	LEED Accredited Professional	1

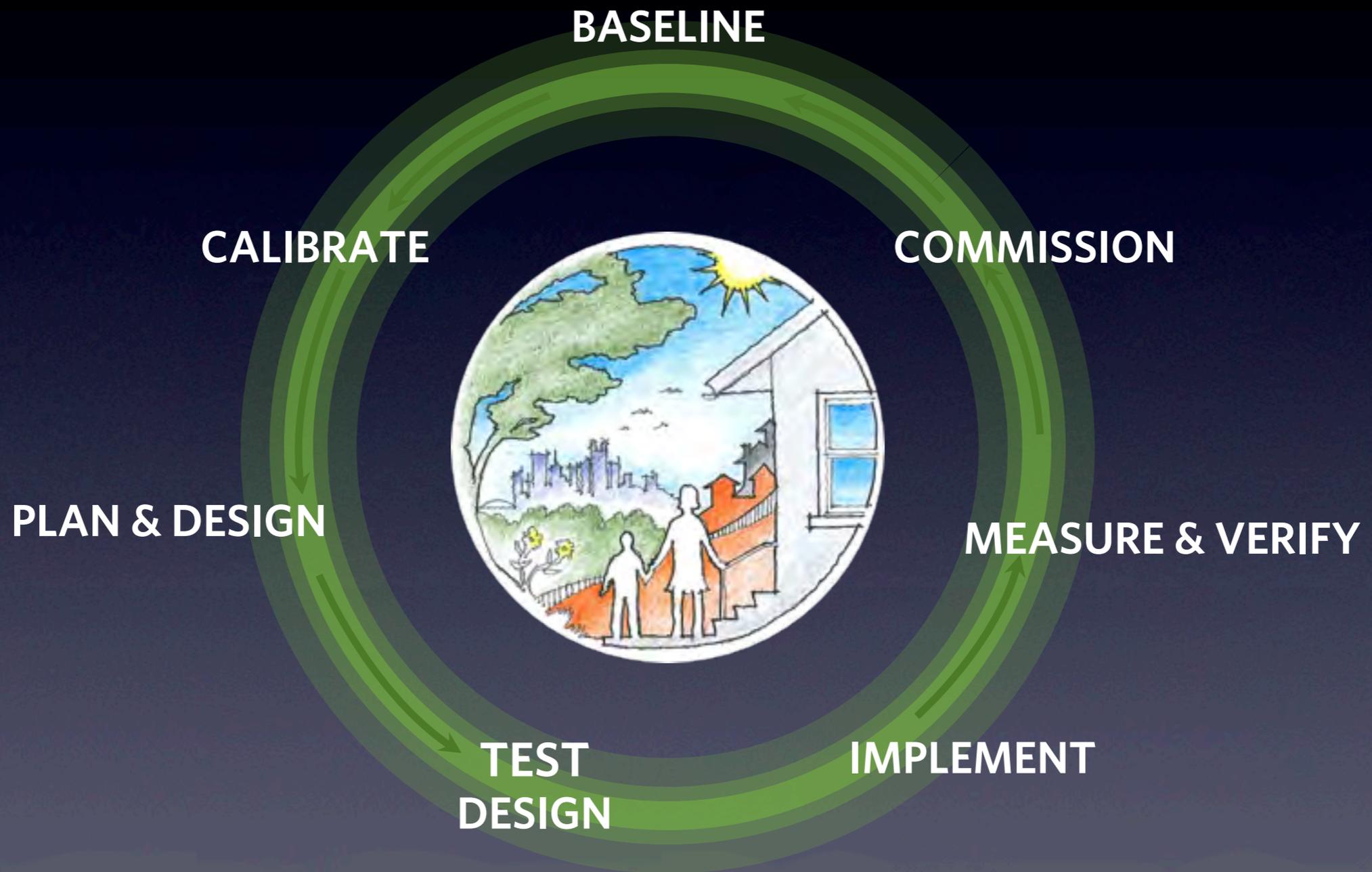
<b>2</b>	<b>2</b>	<b>0</b>	<b>Regional Priority</b>	<b>4</b>	
1			Credit	Regional Priority: Specific Credit	1
1			Credit	Regional Priority: Specific Credit	1
	1		Credit	Regional Priority: Specific Credit	1
	1		Credit	Regional Priority: Specific Credit	1

<b>61</b>	<b>26</b>	<b>10</b>	<b>TOTALS</b>	Possible Points: <b>110</b>
-----------	-----------	-----------	---------------	-----------------------------

Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110

## Current Estimate 61 Points (Gold)

# Process for Continuous Energy Performance Improvement



# Forest Hills Municipal Building

## “What we heard”

1. Explore ways to align the public spaces with the Council Chambers for larger event overflows
2. Review long term expansion/flexibility options (what if scenarios for government consolidation)
3. Analyze the current facility operating costs to clarify net reduction in operating costs.
4. Desire for additional data about cost of satying in place vs. new construction.

# Forest Hills Municipal Building

## “Architect’s Next Steps”

1. Review Schematic Design budget with Staff & Committee
2. Provide final recommendation on site plan orientation.
3. Analyze the current facility operating cost to show net reduction in operating costs vs new construction.
4. Develop recommendation of items to explore further in design development.
5. Submit final report and drawings for Council Approval