Date: 11/21/11
Item: 10.c

Roseville City Council

Fire Station Design Presentation

November 21, 2011

Presentaton Topics:

- Preliminary Site Plan
- Sustainability Approach Summary
- Preliminary Floor Plans
- Introduction to Training by Design Features
- Site & Floor Plan Attachments

Roseville Fire Station

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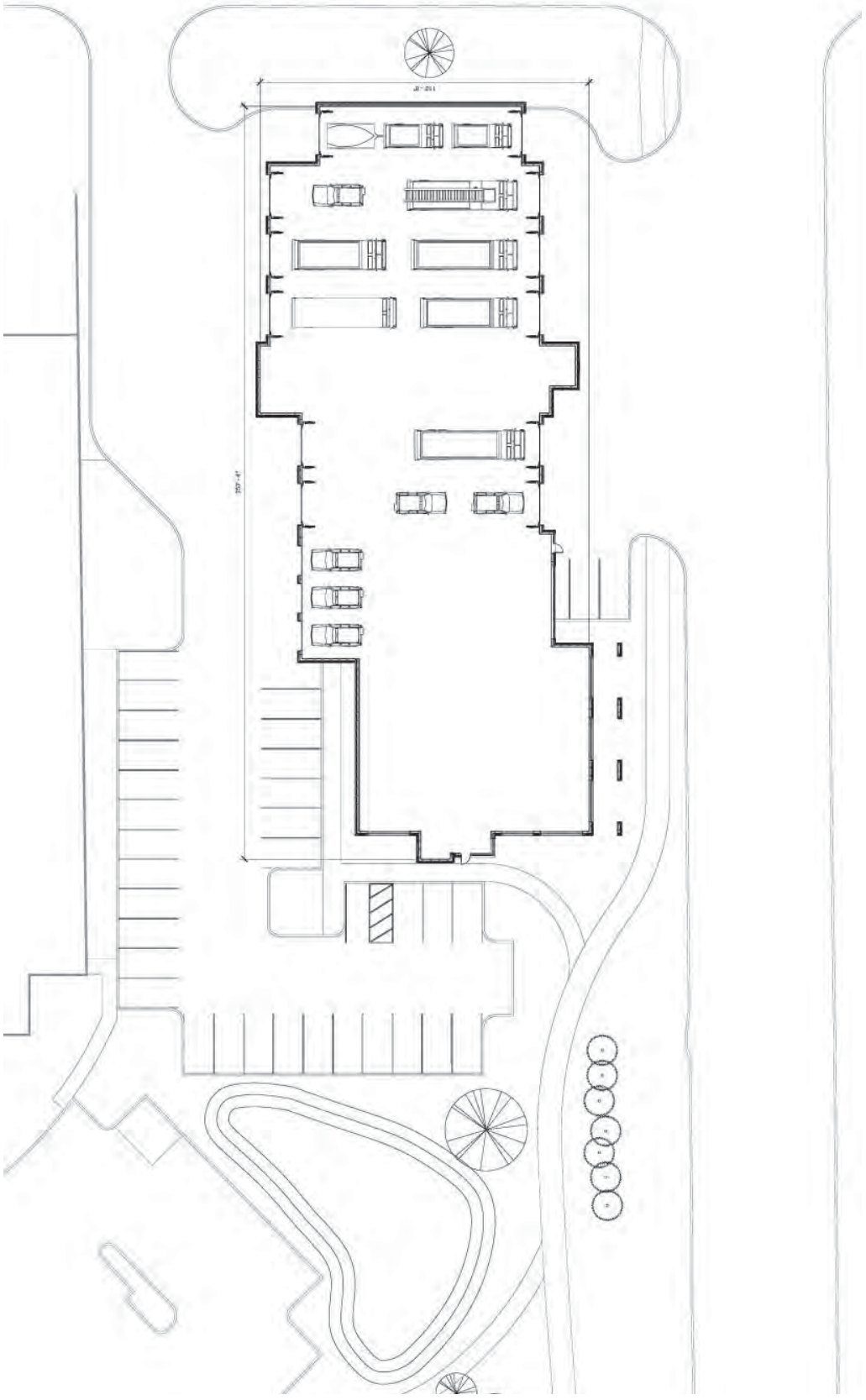
Preliminary Site Plan



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Sustainablility Approach Summary

The following review summarizes items previously presented to the City Council regarding the options for sustainability and certification for this project. In addition the review provides clarifications related to the questions asked by Council Members with the goal to provide the information needed for the City Council to provide the design team the preferred direction to approach sustainability goals for the fire station project.

Council Direction Elements

There are essentially three questions on which the design team is looking for City Council direction. The questions are progressive and depend on the answer to the previous item.

1. Should the project include sustainable features within the design of the site and building?
2. If sustainable features are to be included, should the project seek to obtain 3rd-party certification or not?
3. If 3rd-party certification is desired, should the City pursue Green Globe certification or LEED certification?

Baseline Sustainability

As mentioned earlier, many sustainable materials and design elements have become somewhat standard in good design and are typically included in most of our projects. In addition, the City of Roseville had begun to implement geothermal systems within the City Campus which will be an excellent fit with the fire station project. These items already planned for the fire station provide a significant baseline level of sustainability that we believe is sufficient to qualify for certification within either of the two 3rd-party programs.

In other words, if we do nothing more than what is already planned the resulting building will contain significant sustainable features providing benefit to the environment and energy savings for the City as well as be able to qualify for certification if desired by the City of Roseville.

Sustainablility Approach Summary

Value of 3rd-Party Certification

Whether the building is submitted for 3rd-party certification or not, the actual sustainable features included in the building and site design will not necessarily be impacted. Our design team will continue to review, analyze and include sustainable features within the fire station design where applicalbe and as allowed by budget. Consequently, the value of 3rd-Party Certification is less a physical impact on the project, but more related to other potential goals such as community leadership, publicity, or outside proof of the level of sustainability achieved. These are summarized by the following quotes from the certification organizations.

> "By having a third party assessor review and indicate that you have completed the certification assessment protocol, your achievement can then be recognized publicly as having achieved the relevent certification level. You add value and credibility to your project—in the market, the community, and among occupants."

> "Certification, which includes a rigorous third-party commissioning process, offers compelling proof to you, your clients, your peers and the public at large that you've achieved your environmental goals and your building is performing as designed."

Cost of 3rd-Party Certification

The cost of 3rd-Party Certification is separate from the cost of the individual sustainable features incorporated into the building. The costs associated with certification vary between the LEED process and Green Globes process, but consist within the following categories:

- Energy Modeling
- Commissioning (fundemantal and enhanced)
- Credit Documentation (sending, gathering, organizing and submitting documentation from manufacturers and contractors to the 3rd-Party Certifier)
- Certification Application Fees

For this project, the approximate cost of each certification approach is listed below:

Not Certified	Green Globe Certified	LEED Certified
$0	~$50,000	~$100,00

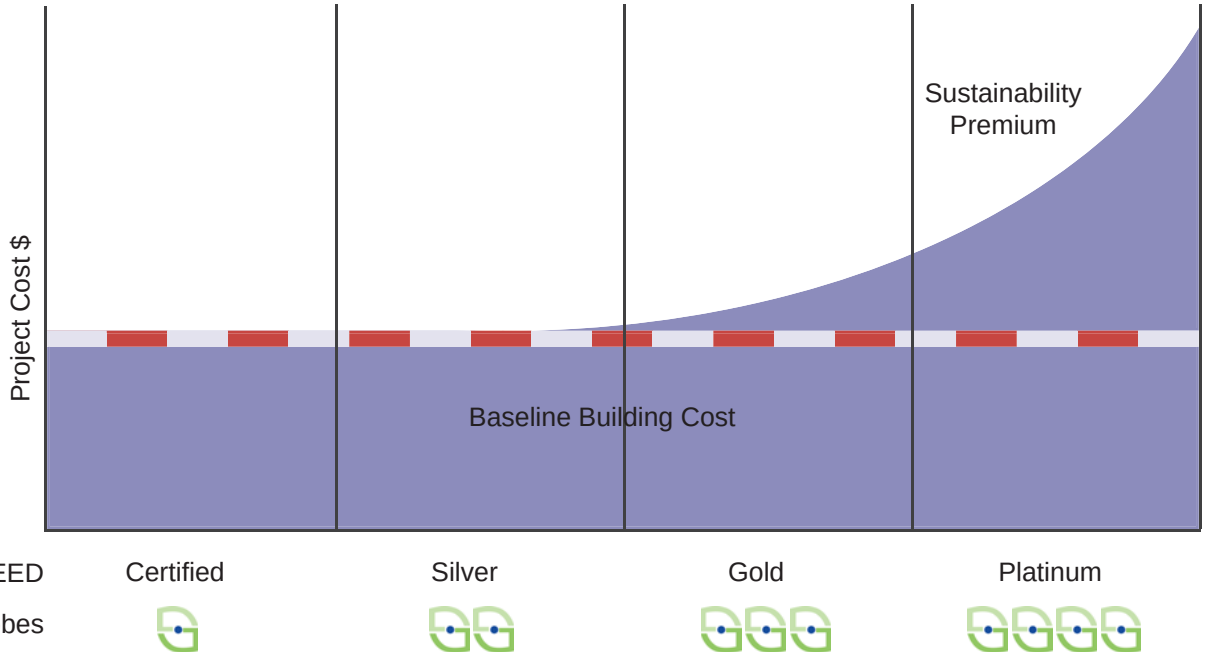
Sustainablility Approach Summary

Construction Cost for Increased Levels of 3rd-Party Certificaton

If 3rd-Party Sustainability Certification is selected we anticipate that project as currently planned would likely not only obtain the initial certification level, but would likely achieve the second level - Silver (LEED) or Two Globes (Green Globes). Achieving this level is not anticipated to add significant construction cost since many sustainable features are desired or required as part of the base project program. These items include things such as daylighting in apparatus bays, geothermal HVAC tied into Campus geothermal system, and stormwater management as required by the Rice Creek Watershed / City Ordinance. In addition many sustainable features don't add construction cost such as low-VOC paints and adhesives, recycled content in metals, or native landscaping materials.

However, if higher levels of certification is desired such as Gold (LEED) or Three Globes (Green Globes), additional square foot cost will be incurred. This cost will be dependent on which rating system is selected and the actual strategies and elements selected. While the costs are not determinable until these strategies and levels are known, it would not be surprising to increase the construction costs by 10% to 15% or more. Reaching above this third level will increase costs at a much faster rate as each additional point becomes harder to achieve.

The added cost for achieving the higher levels of certification above that currently planned will impact the construction cost and may result in either not including all programmed requirements or an increase in project budget.



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Sustainable Design - Approaches

LEED Certification

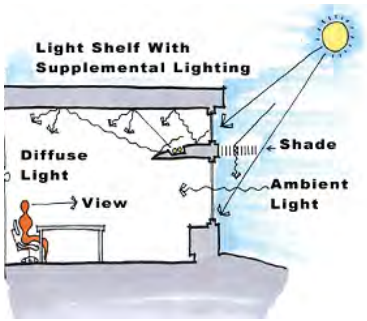
+ Widely recognized national 3rd-party certification
+ Systematic approach and point system

- Significant registration cost
- Energy modeling & commissioning required
- Complex design process adds cost
- Extensive contractor documentation submittals adds cost

Green Globes Certification

+ Growing national 3rd-party certification
+ Systematic approach and point system
+ Less complex design process
+ Minimal contractor documentation submittals
+ Second GG fire station in Minnesota (Eagan)

- Moderate registration cost
- Energy modeling & commissioning required
- Less widely known certification



Sustainable Design - No Certification

+ Systematic approach still used
+ Less complex design process, no added cost
+ Minimal contractor documentation submittals
+ Energy modeling & commissioning not required (still recommend for best energy performance)
+ No registration cost

- No 3rd-party certification or project review
- No minimum level of sustainability required

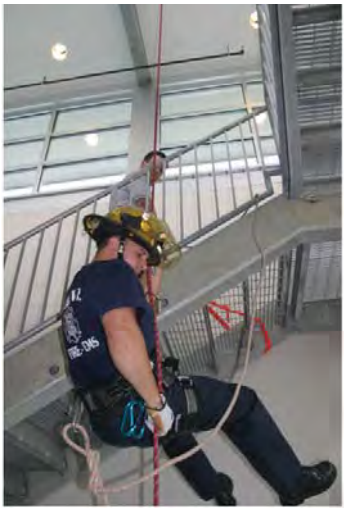
Training by Design

As mentioned in last week's Team Introduction, the Fire Safety Design Consultant, David Acomb, has developed the concept of designing elements of the fire station site and building to allow for firefighter certification training to occur on site. David has lead national seminars on this concept and incorporated them into fire stations around the country. These built-in training elements often can be included for little additional construction cost while providing both training budget savings to the Fire Department as well as keeping the firefighters on-site and ready to respond to an emergency call instead of out of the community at a training center.

Some of these features are listed or shown below and will be presented in greater depth as the building design and training features are further developed.

Training Features

- Ground ladder training
- Sprinkler system training
- Rope rescue & rappelling
- Hole in floor drop-down
- High-rise training, standpipe



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Preliminary Floor Plans

The following floor plan diagrams are also included in larger, scaled plans that are attached to the end of this packet.

First Floor Plan - Administration

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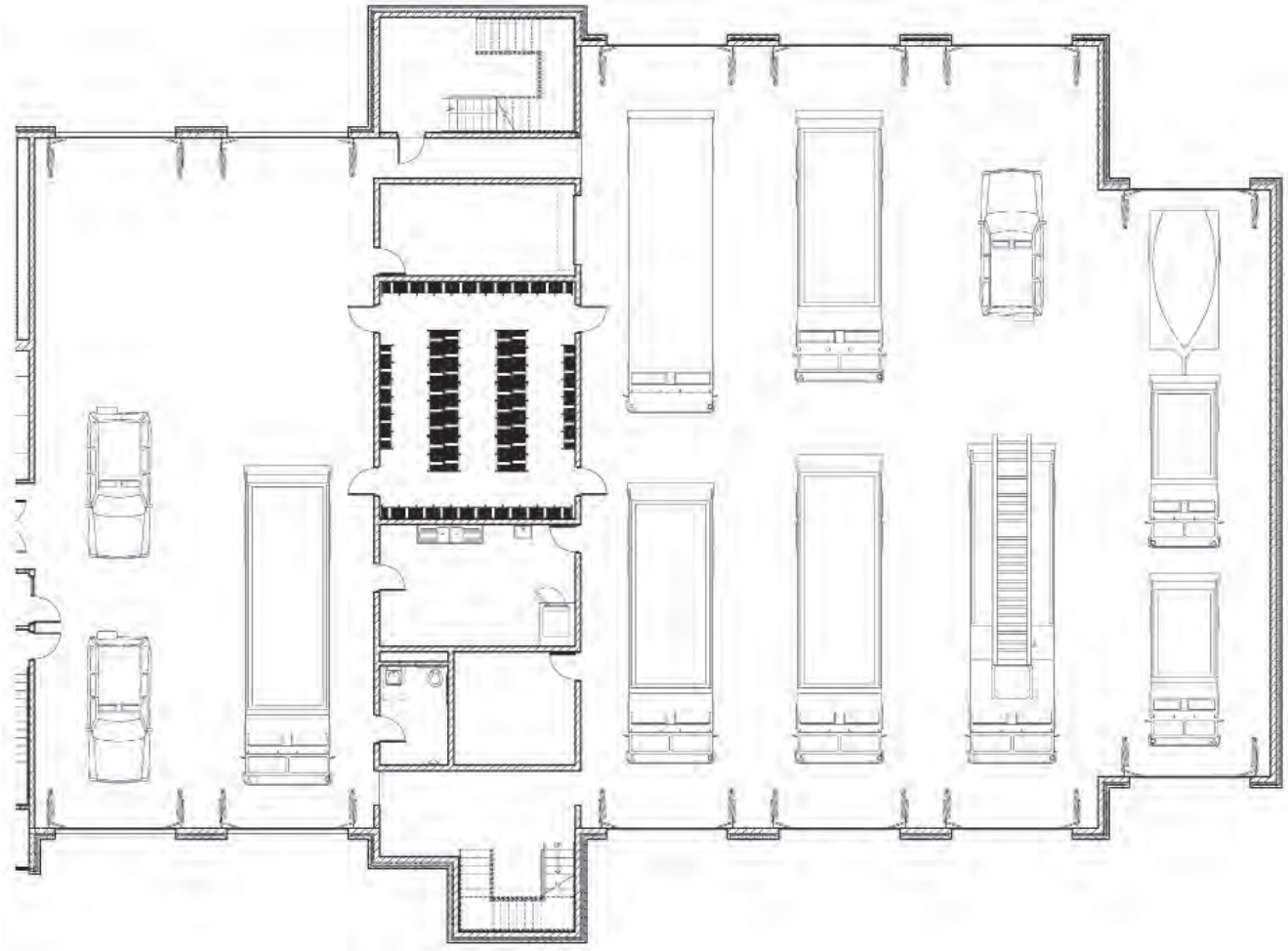
Preliminary Floor Plans



First Floor Plan - Apparatus Bays

Preliminary Floor Plans

Second Floor Plan - Administration

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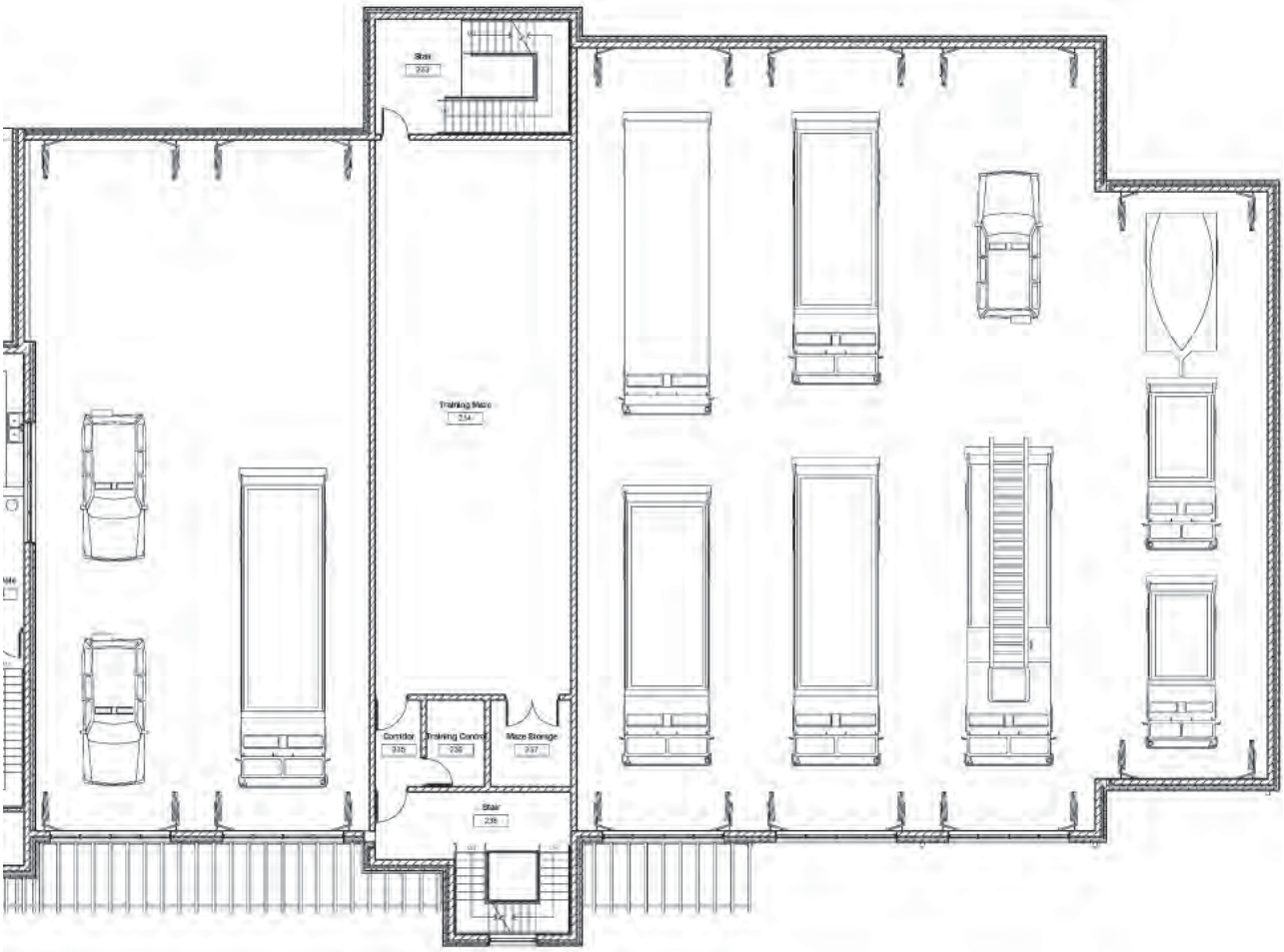
Preliminary Floor Plans



Second Floor Plan - Mezzanine

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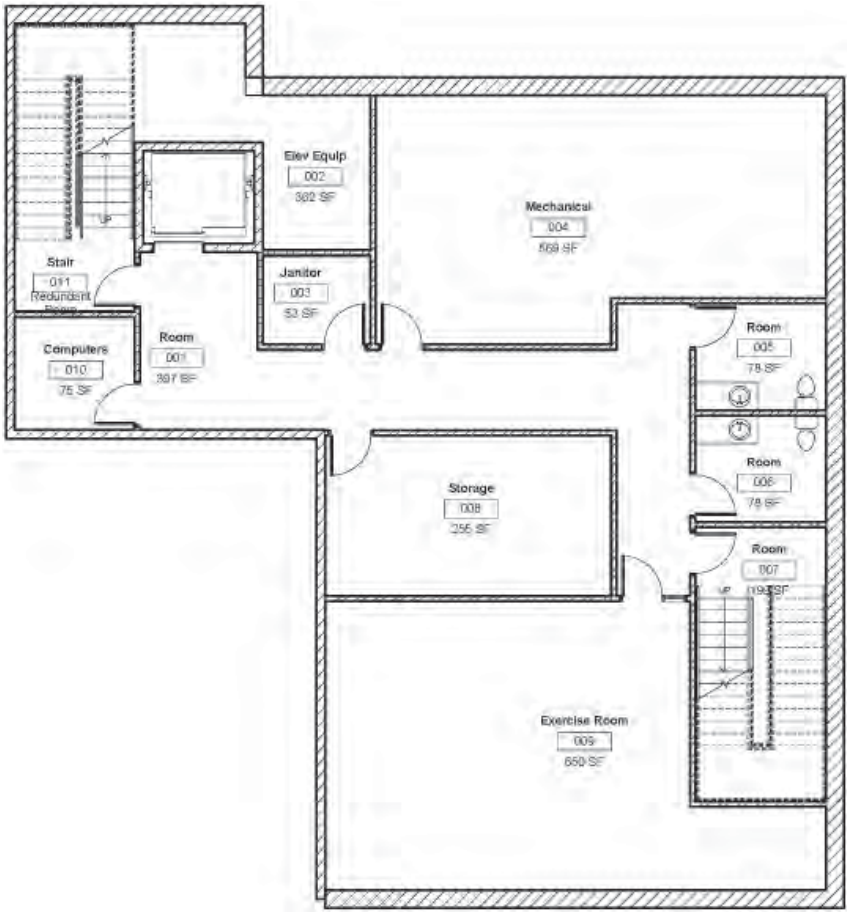
Preliminary Floor Plans



Basement Floor Plan

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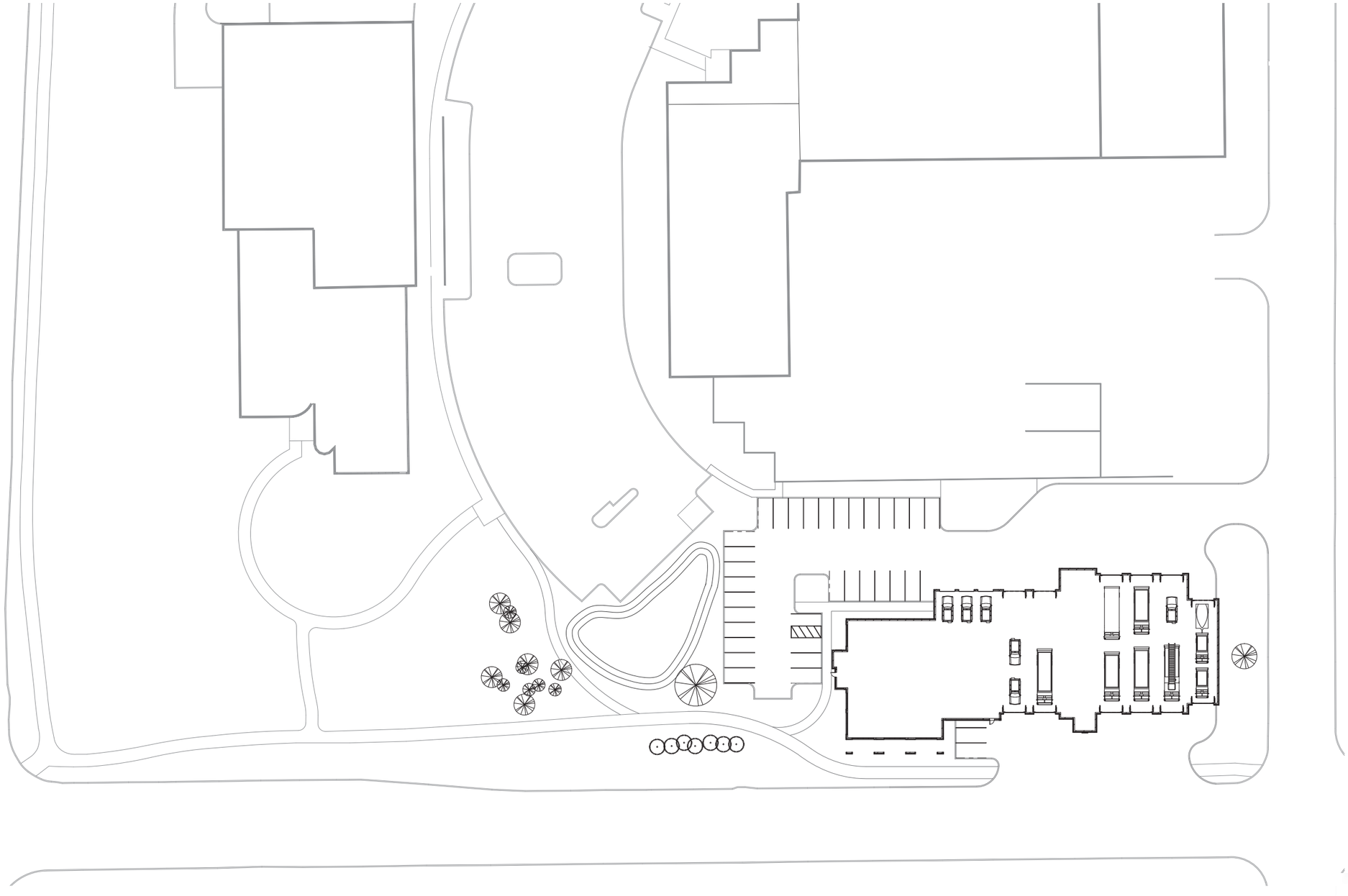

Roseville Fire Station - Overall Site Plan

Scale: 1" = 30'-0"

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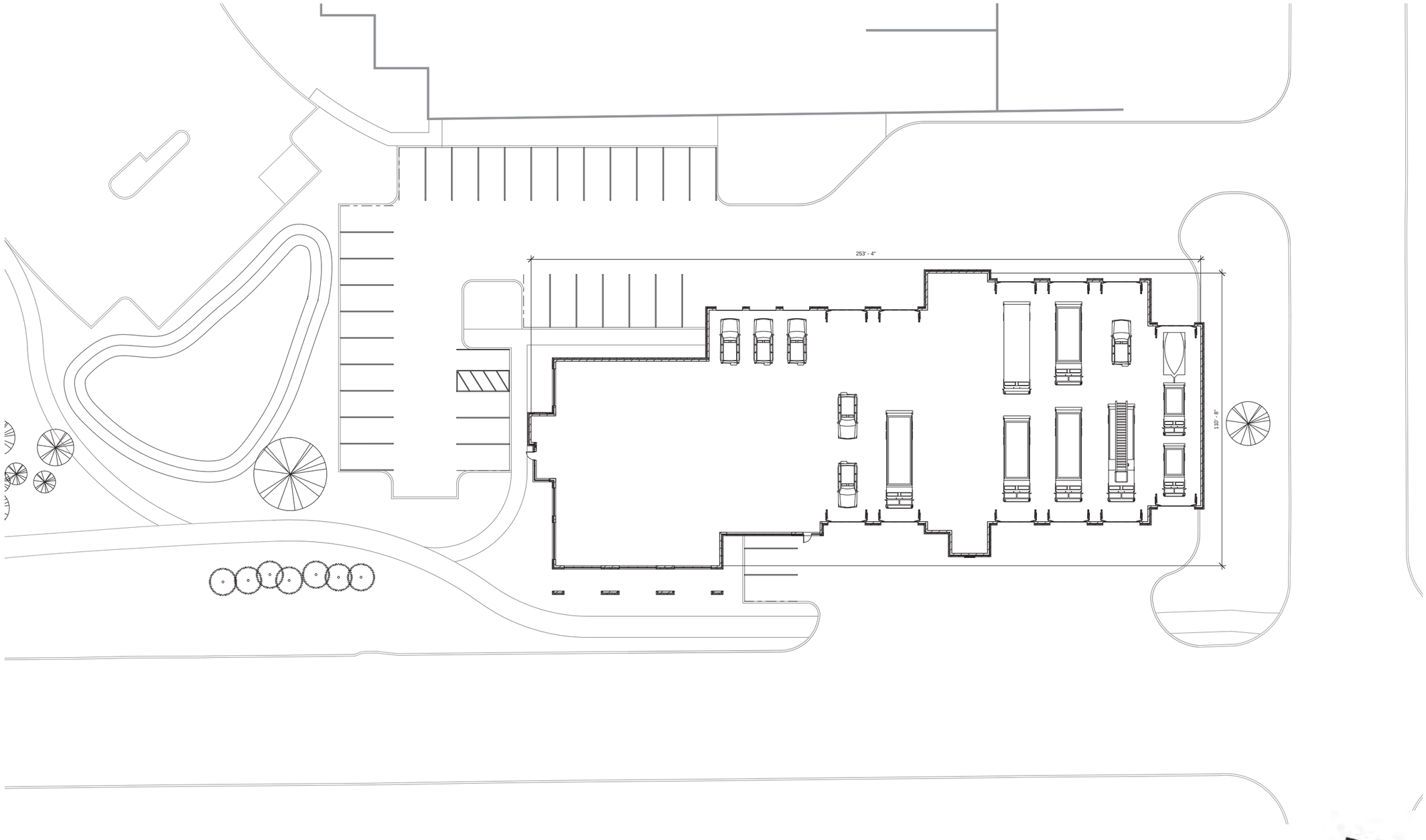

Roseville Fire Station - Site Plan

Scale: 1/16" = 1'-0"

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Date: 11/15/11

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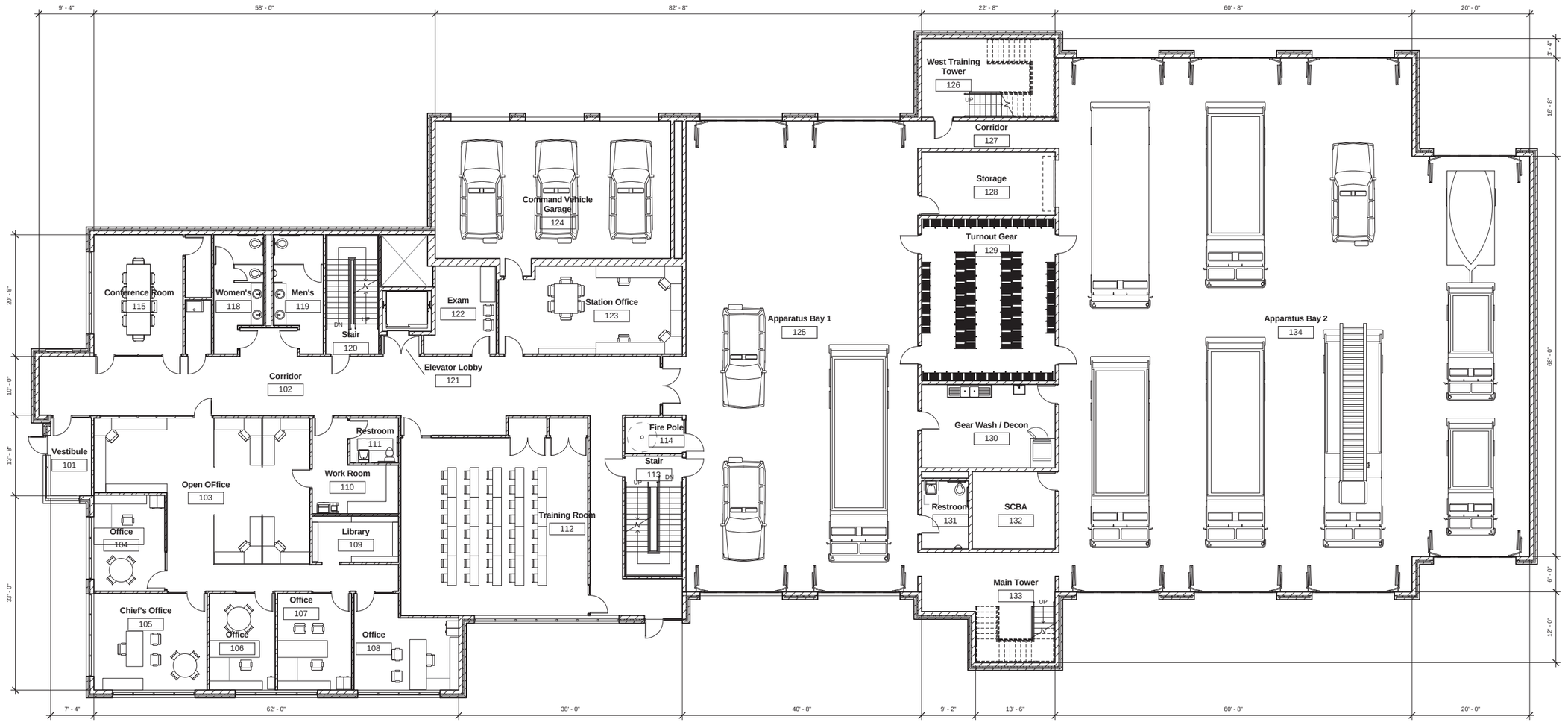

Roseville Fire Station - Overall First Floor Plan

Scale: 1/8" = 1'-0"

Comm. No.: 11045
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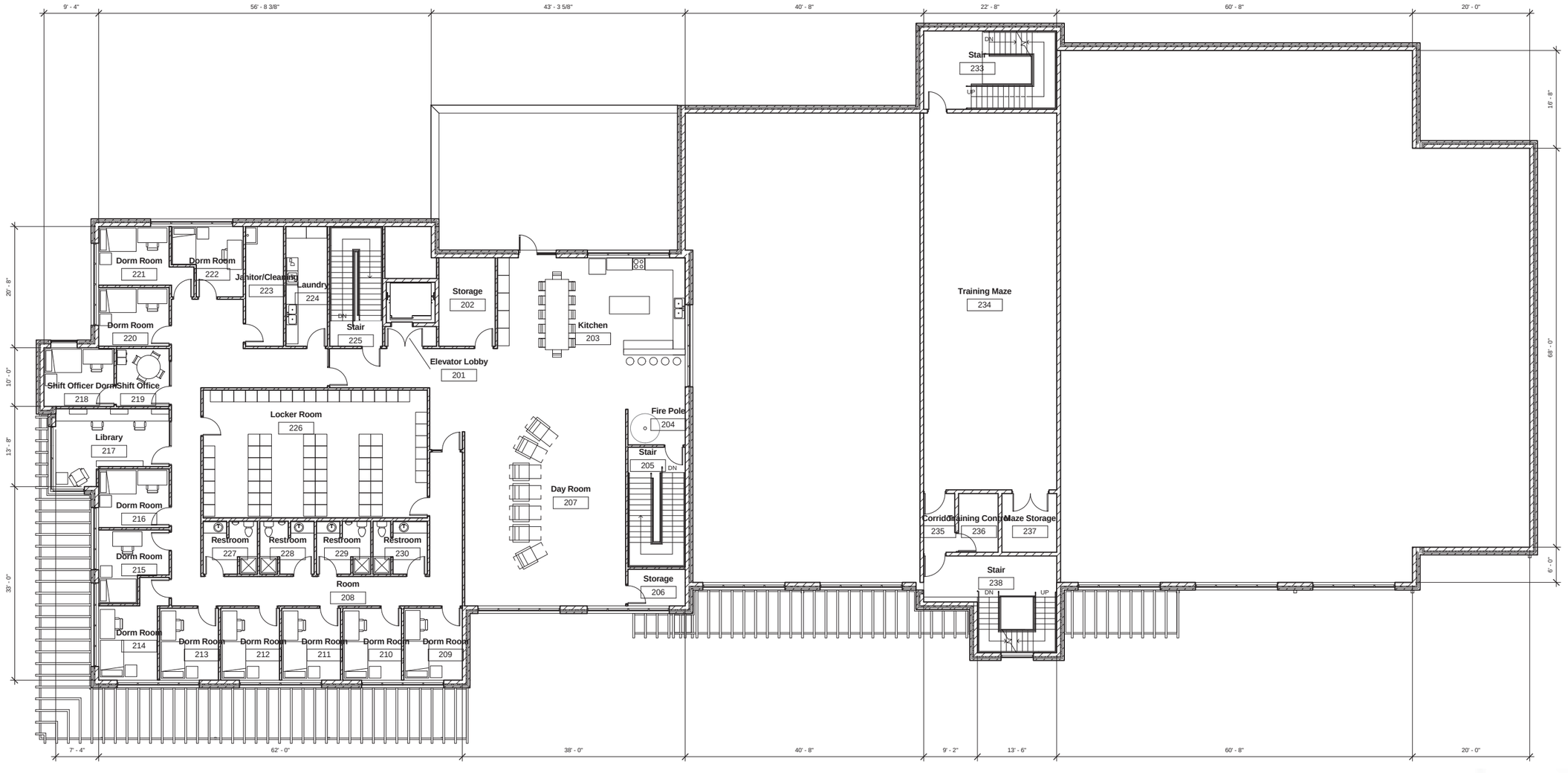

Roseville Fire Station - Overall Second Floor Plan

Scale: 1/8" = 1'-0"

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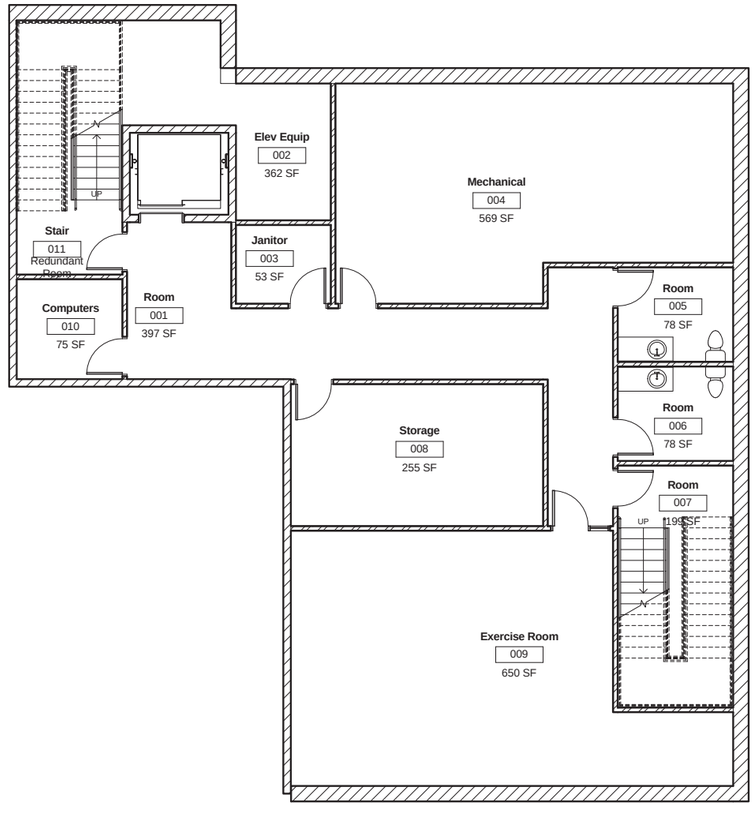

Roseville Fire Station - Basement Floor Plan

Scale: 3/16" = 1'-0"

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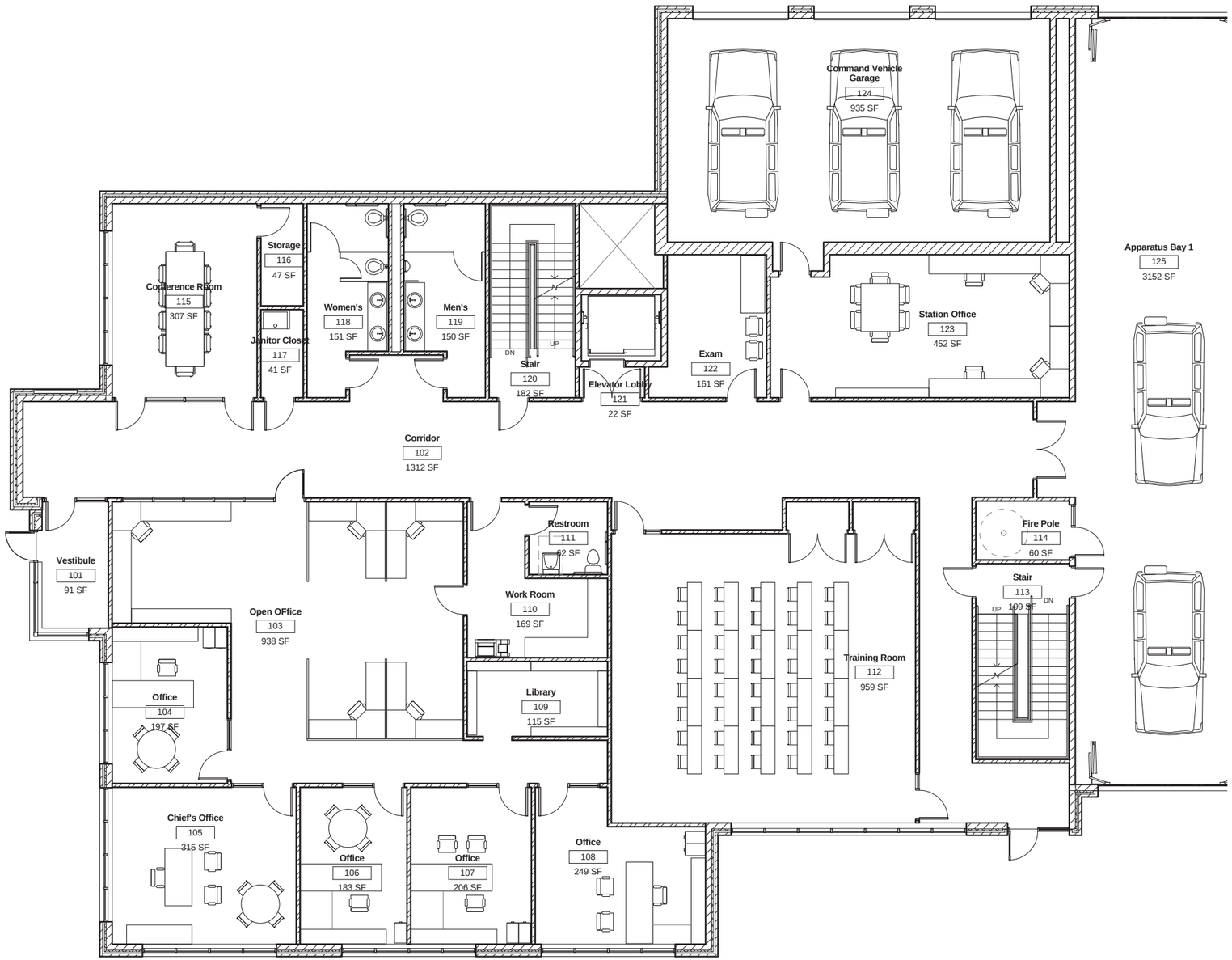

Roseville Fire Station - First Floor Plan - Admin

Scale: 3/16" = 1'-0"

Comm. No.: 11045
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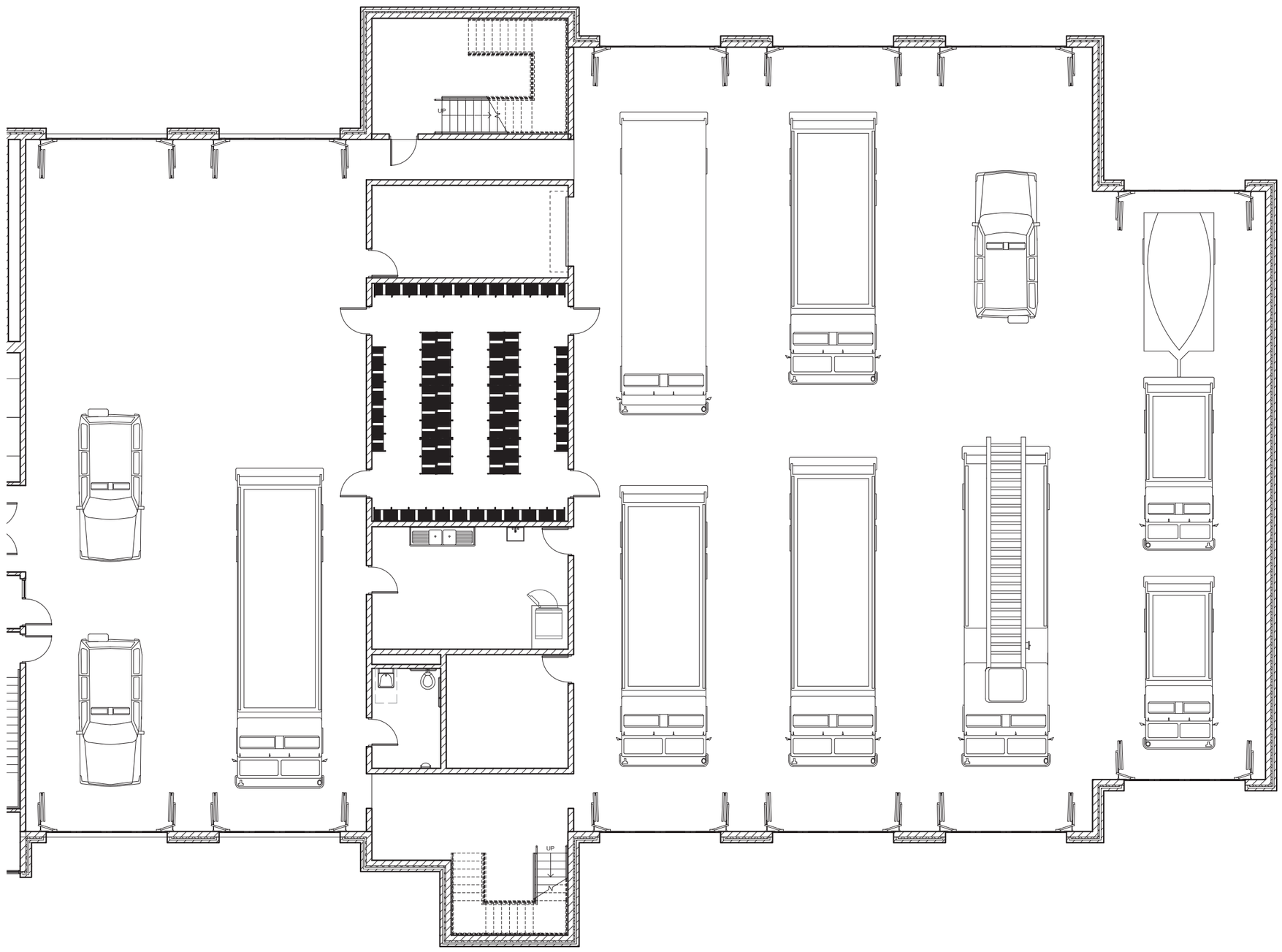

Roseville Fire Station - First Floor Plan - Apparatus Bays

Scale: 3/16" = 1'-0"

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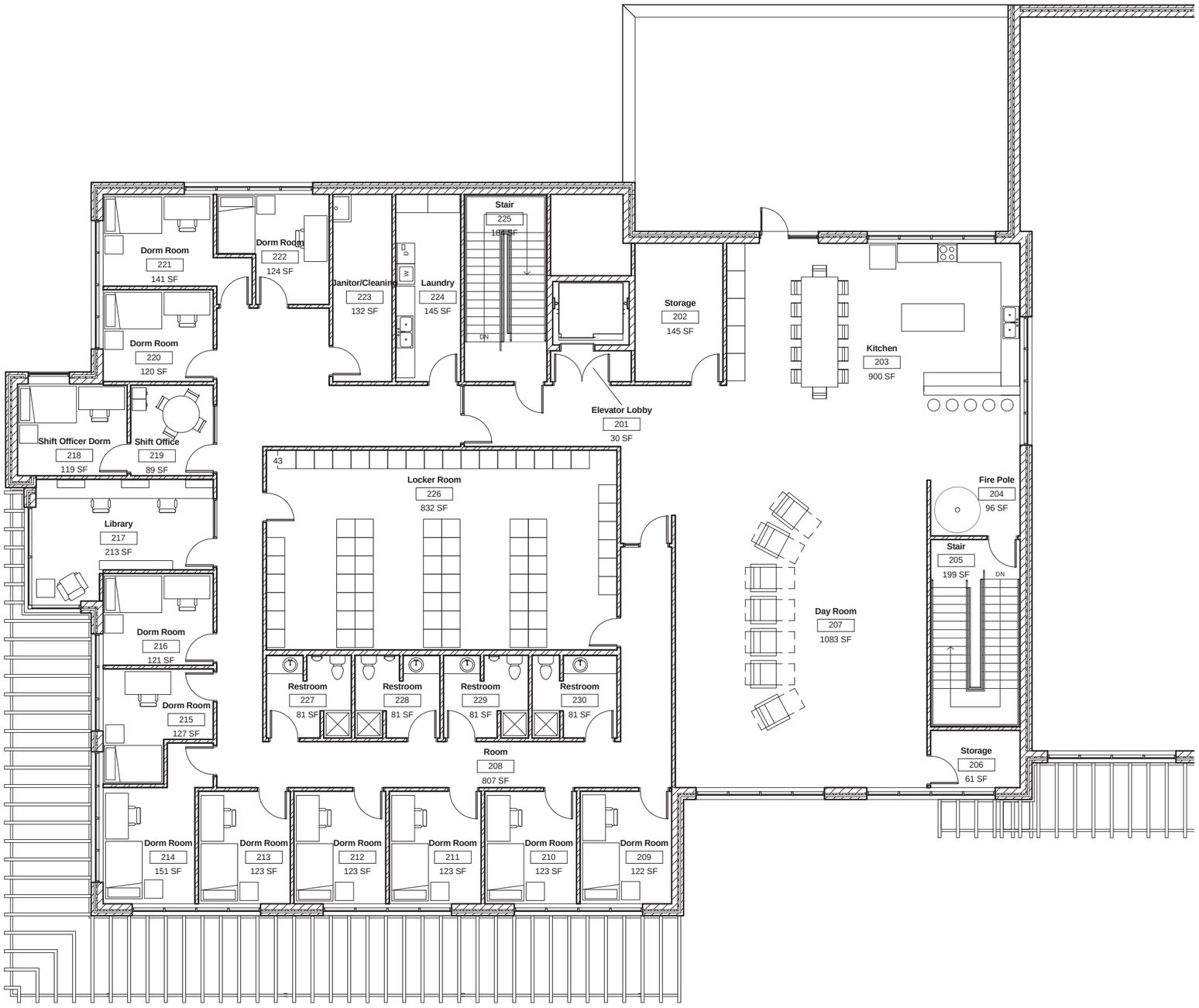

Roseville Fire Station - Second Floor Plan - Admin

Scale: 3/16" = 1'-0"

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Date: 11/15/11

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