EAST HADDAM
COMPANY # 2
FIREHOUSE RENOVATION

PUBLIC INFORMATION HEARING

August 29, 2024

ARCHITECTS
ENGINEERS
INTERIORS

Committee Members

Regular Members
Craig Mansfield, Chairman
Irene Haines
Kevin Rutty

Alternate Members
Walter Parkus

Recording Secretary
Ruth Zibrion

Architects – SPA
David Stein
Eric Cantar

Town Staff-Advisory
Don Angersola
Jim Ventrus
Valerie Belles

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COMMITTEE CHARGE

- Improvements to the Moodus Firehouse (Company #2)
- To consult with the Fire Department, Office of the Fire Marshal, Emergency Management and its administrators concerning the plans for said project and its construction and the schedule
- Develop schematic drawings and outline specifications for the project and to review and approve all plans for said project, and to supervise and/or provide for the proper supervision of the project in the Town's best interest
- Identify and apply for any available grant funding appropriate to supporting the project
- To contract with architects, engineers, contractors and others in the name and on behalf of the town to design, build and complete the project, and approve all design and construction expenditures for the project.

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COMMITTEE GOALS

1. **Assessment of Current Facility**: Conduct a comprehensive assessment of the current firehouse facility to identify structural, safety, and operational needs and deficiencies.
2. **Budget and Resource Planning**: Develop a plan for the renovation/rebuilding that considering both initial costs and long-term maintenance.
3. **Operational Efficiency**: Aim to improve the operational efficiency of the firehouse, considering factors such staff needs, equipment storage, and training facilities.
4. **Sustainability and Resilience**: Incorporate sustainable and resilient design elements into the plans to minimize environmental impact and minimize long-term operating cost.
5. **Technology Integration**: Explore opportunities to integrate modern technology and communication systems to enhance the capabilities of the firehouse and emergency response efforts.
6. **Timeline and Milestones**: Develop a clear timeline with achievable milestones to track progress and keep the project on schedule and on Budget.
7. **Legacy and Community Pride**: Create a firehouse that the community can take pride in, and that will serve as a valuable asset for future generations.

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CURRENT SITE PLAN



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CURRENT SITE CONDITIONS - EXTERIOR





"The existing building does not appear to have been designed in accordance with seismic, wind, and snow loading requirements for essential facilities."

- Szewczak Associates Structural Assessment, January of 2022

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CURRENT SITE CONDITIONS - EXTERIOR





"The original building structural design appears to have conformed to the State Building Code Requirements, at the time of original construction, for non-essential buildings."

- Szewczak Associates Structural Assessment, January of 2022

Year of original construction: 1989

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CURRENT SITE CONDITIONS - EXTERIOR





"A lack of compliance to the more stringent loading conditions for facilities that require to be operable after a severe weather event could compromise the utilization of this facility after the severe loadings have occurred."

- Szewczak Associates Structural Assessment, January of 2022

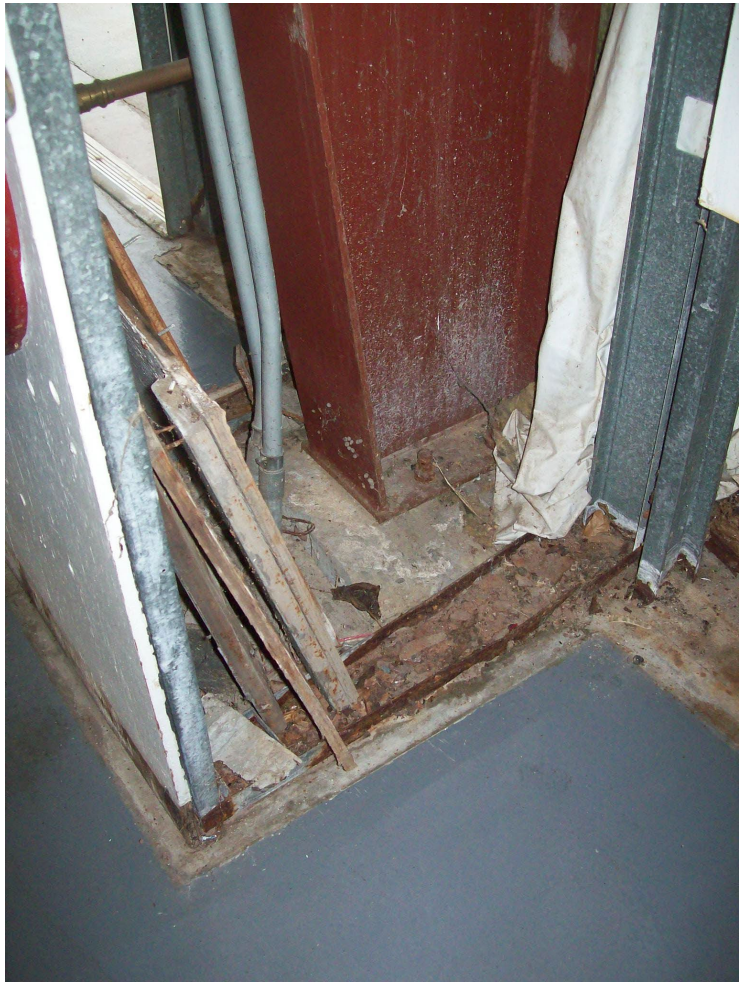
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CURRENT SITE CONDITIONS – COLUMN CONDITIONS







"In several areas along the siding bottom edge, where the siding meets the exterior apron slab or pavement, there was noticeable rust and degradation. This appears to be due to water collecting at the interface of the siding & paved surface."

- E2 Engineers Structural Assessment, April of 2023

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CURRENT SITE CONDITIONS – COLUMN CONDITIONS



- Exterior column condition at apparatus bay doors from Munger Construction Repair Quote.



Photo #10: Typical condition of steel column along west wall in 'original building' without any bracing or girts to brace its flange.

- Column condition from the E2 Engineers Structural Assessment.

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CURRENT SITE CONDITIONS – INTERIOR

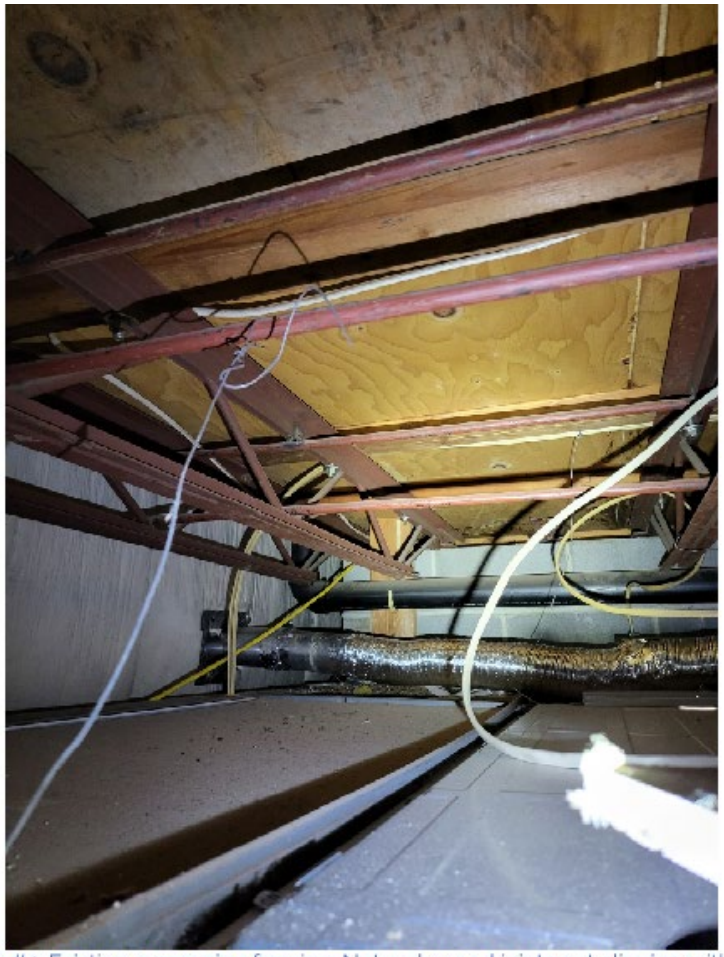


Photo #4: Existing mezzanine framing. Note: plywood joints not aligning with joist locations.

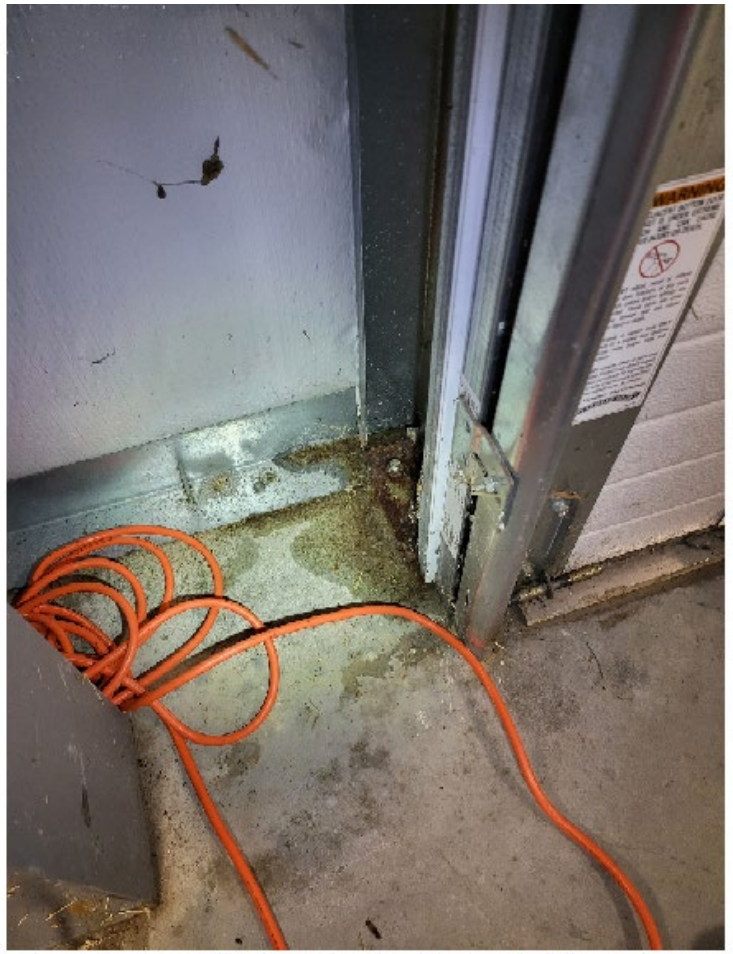


Photo #8: Water collecting on interior slab along building perimeter.



Photo #9: Close-up view showing base plate area of bent steel frame along east face of building (fourth bent frame from south)

- Images further explaining conditions from the E2 Engineers Structural Assessment.

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CURRENT SITE CONDITIONS – INTERIOR





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CURRENT SITE CONDITIONS – INTERIOR

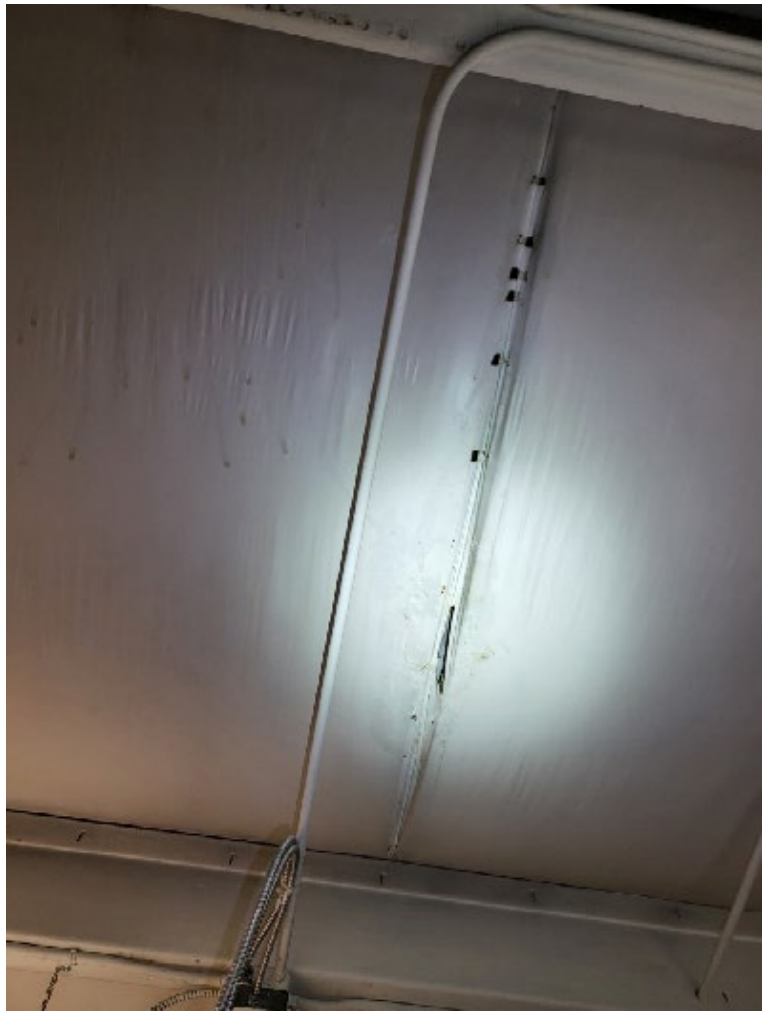




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CURRENT SITE CONDITIONS – INTERIOR







"Over the existing mezzanine, the Engineer observed several locations where the underside of bag insulation has opened at the seams or ripped."

" At one of these locations, the Engineer observed water dripping through the opening in the bag insulation."

- E2 Engineers Structural Assessment, April of 2023

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CURRENT SITE CONDITIONS – INTERIOR

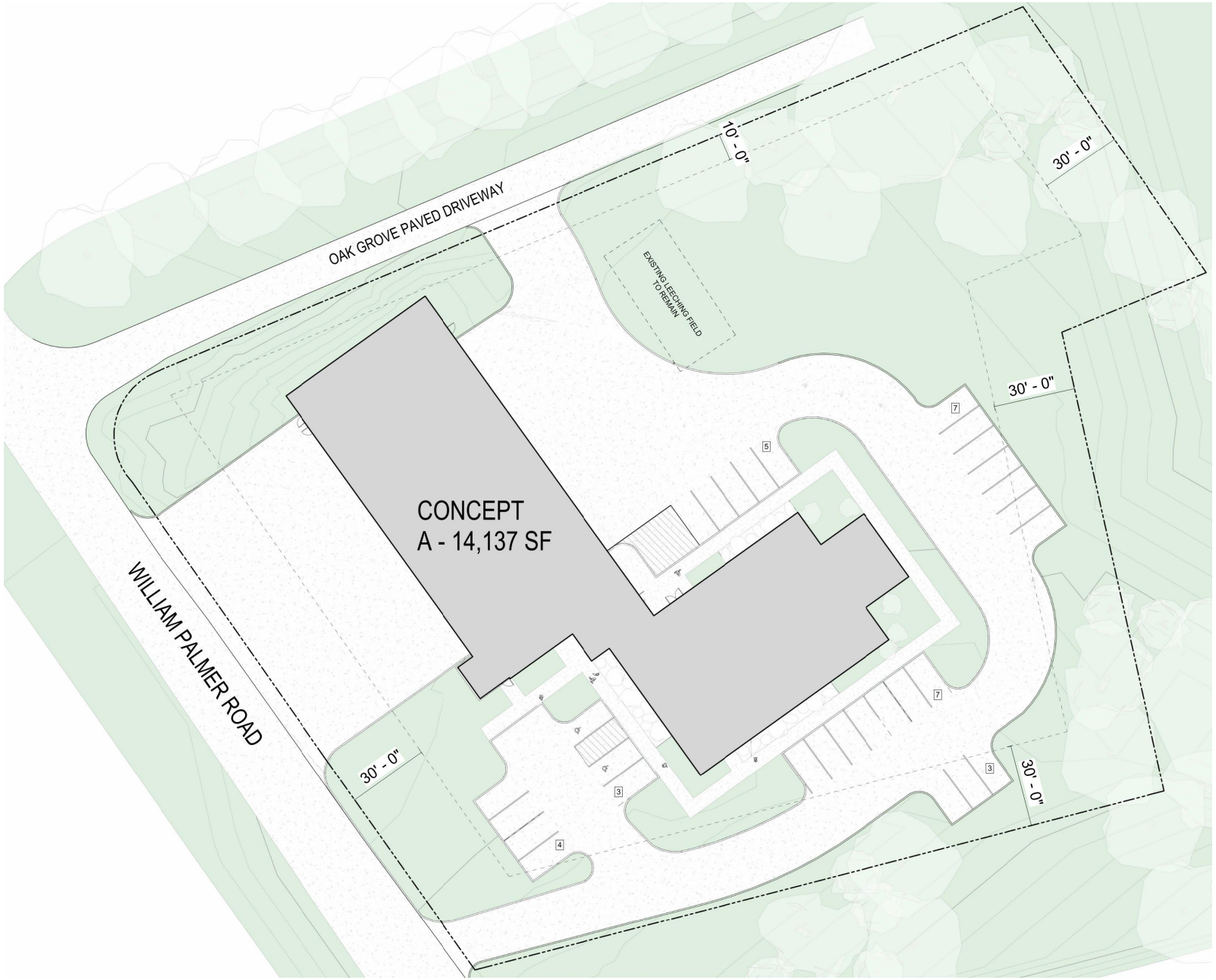




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PROPOSED SITE PLAN



Parking Rules as per Zoning Regulations: 5 spaces for every 1000 SF of gross building area.

When taking the apparatus bays and supporting spaces out of the equation, there is only 5,760 SF.

5,760 SF / 1000 SF = 5.76

5.76 x 5.00 = 28.8 spaces needed

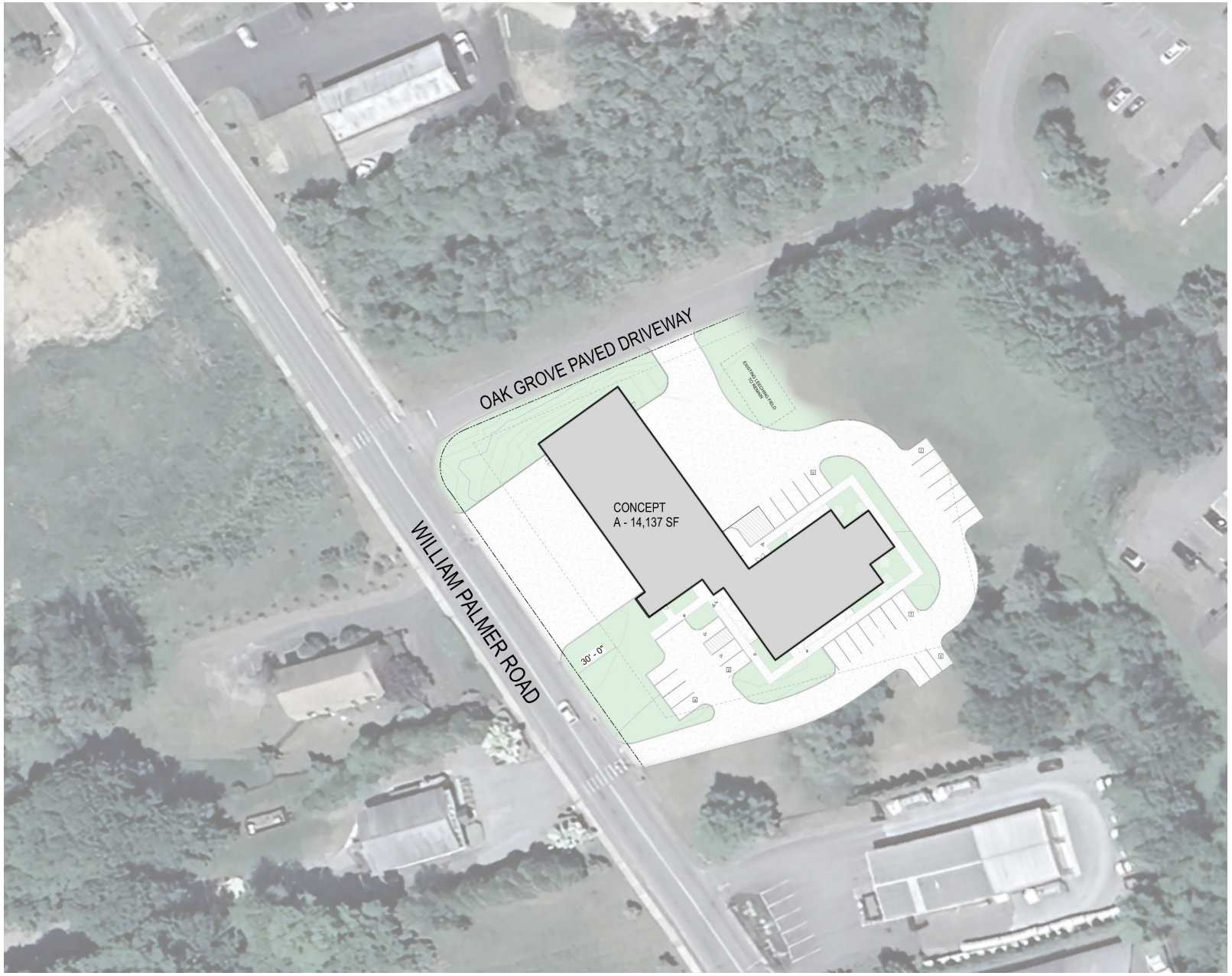
# of spaces provided: **29**

2 handicap spaces

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PROPOSED SITE PLAN

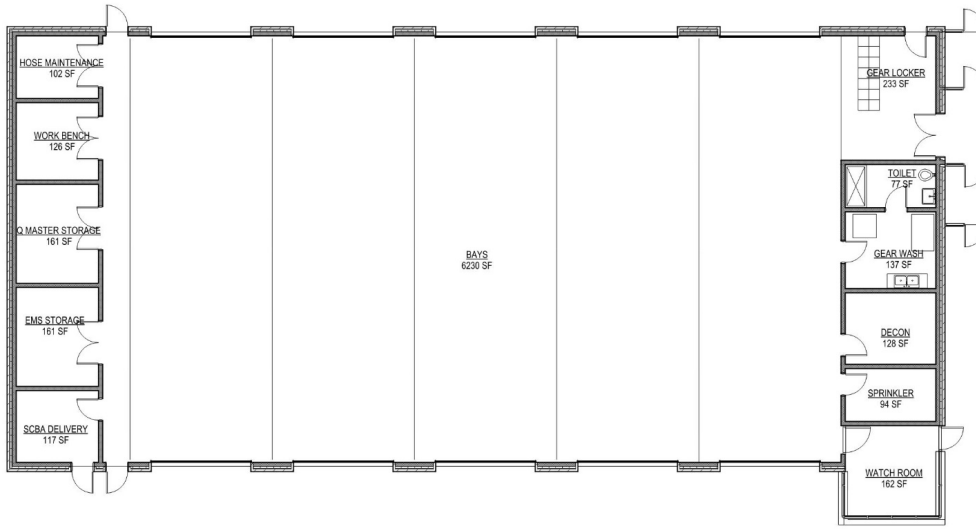


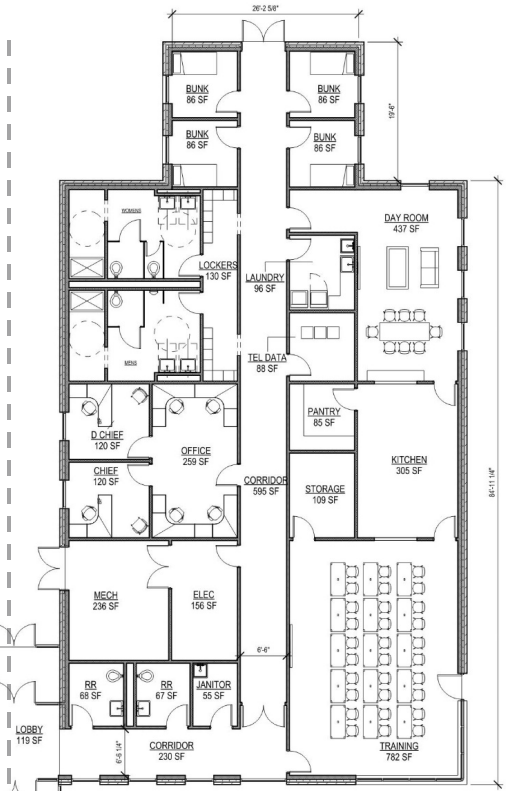
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PROPOSED FLOOR PLAN - OVERALL

PART A – APPARATUS BAYS





PART B – BUNKS / ADMIN

OCCUPANT LOAD

S-2 (STORAGE) - 37 OCCUPANTS

A (ASSEMBLY) - 54 OCCUPANTS

B (BUSINESS) - 6 OCCUPANTS

R-2 (RESIDENTIAL) - 8 OCCUPANTS

PLUMBING COUNT

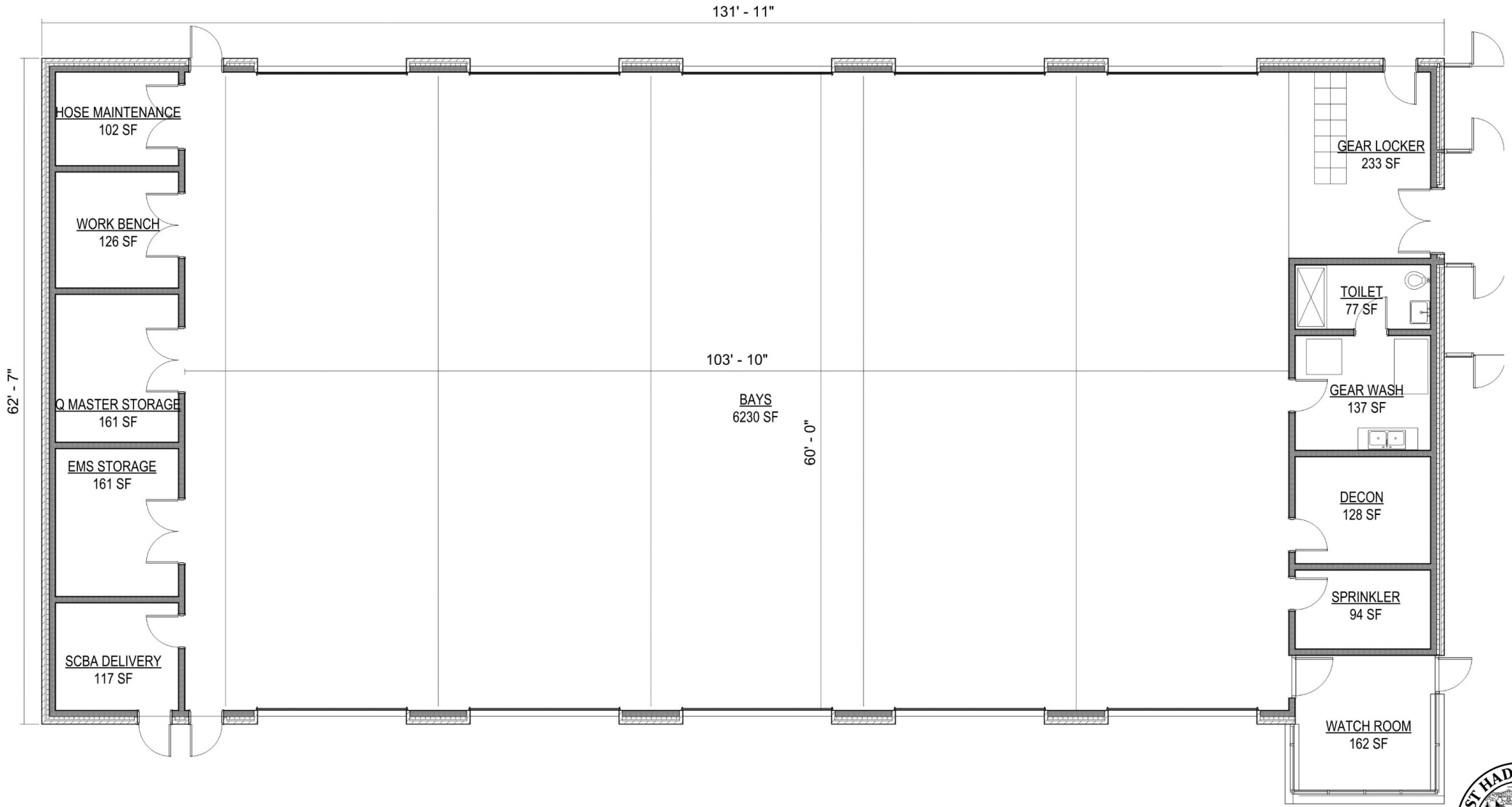
	MALE	FEMALE
REQUIRED	WC - .921 (1) LAV. - .795 (1) SHOWER - .5 (1)	WC - 1.12 (2) LAV. - .795 (1) SHOWER - .5 (1)
PROVIDING	WC - 3 LAV. - 3 SHOWER - 1	WC - 4 LAV. - 4 SHOWER - 1

OVERALL SF: 14,137 SF

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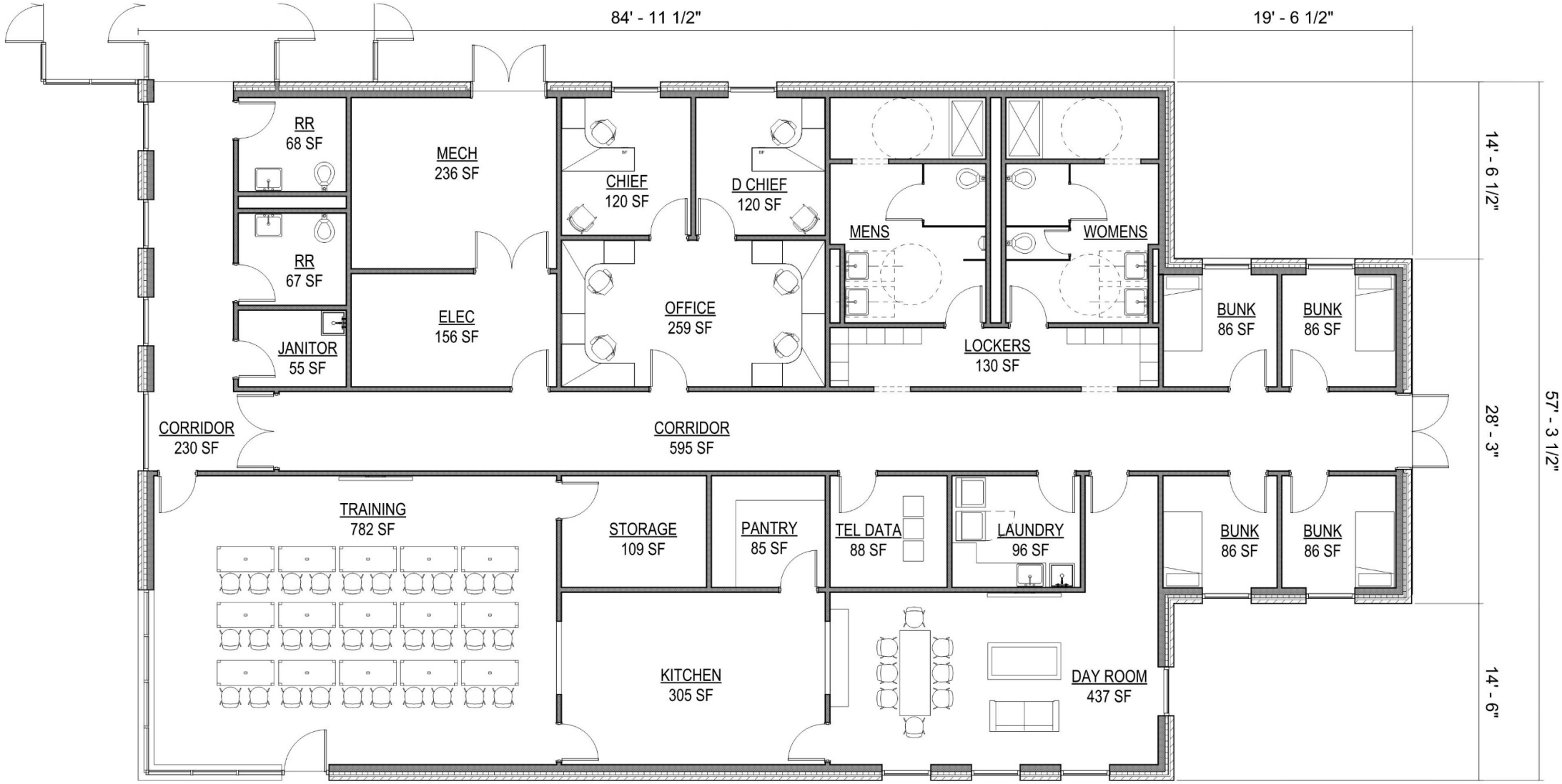
PROPOSED FLOOR PLAN – APPARATUS BAYS



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PROPOSED FLOOR PLAN – BUNKS / ADMIN



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BUILDING PROGRAM

TOWN OF EAST HADDAM

Firehouse #2 Facility Programming
PRELIMINARY SPACE PROGRAM
July 9, 2024

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SPACE COMPONENT	EXISTING SQUARE FOOTAGE			PROPOSED SQUARE FOOTAGE			Comments
	No.	Area NSF	Total NSF	No.	Area NSF	Total NSF	
Apparatus / Vehicle storage							
Apparatus bays	5	1200	6,000	5	1246	6,230	back to back, exist. size is adequate, 2 man doors (fr & bk)
Apparatus outbuilding							
Oxygen/SCBA							N.A. - at firehouse #1
Quarter Master Storage	1	200	200	1	160	160	adjacent to appartus bays, for equipment
Work Bench Area				1	125	125	adjacent to apparatus bays
EMS Storage	1	190	190	1	160	160	adjacent to appartus bays (?), with computer station
Decon Room				1	120	120	light decon, from app bay. gear extractor dryer, mop sink
Gear Washer & Dryer Room				1	130	130	near decon room
Apparatus Toilet	1	50	50	1	72	72	adjacent to decon
Sprinkler Room				1	80	80	room size dependent on fire pump req'mt
Hose Maintenance Storage				1	100	100	with computer station, drying racks in bays
Janitors Closet				1	50	50	
SCBA Delivery				1	115	115	
Gear Locker Storage				1	235	235	12 career lockers - 18" wide, in bays with enough room
Total Apparatus / Vehicle Storage			**6,440**			**7,577**	and accessory spaces

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BUILDING PROGRAM

SPACE COMPONENT	EXISTING SQUARE FOOTAGE			PROPOSED SQUARE FOOTAGE			Comments
	No.	Area NSF	Total NSF	No.	Area NSF	Total NSF	
Support/Private Space							
Vestibule				2	100	200	main entrance, security/air lock
Entrance Lobby				1	120	120	with trophy case(s)
Watch Room/Dispatch				1	165	165	3-4 occupants max.
Chief's Office	1	120	120	1	120	120	adjacent to meeting room
Deputy Chief's Office	1	120	120	1	120	120	adjacent to meeting room
Administrative Office				1	260	260	4-5 work stations with record storage
Office Toilet Rooms	1	105	105	2	68	136	non-gender/unisex
Training/MEETING/CONFERENCE				1	780	780	room for cots in emergency
Training Room Storage				1	110	110	adjacent to training room
Bunk Rooms				4	85	340	four individual rooms
Men's Bathroom/Shower/Locker Room				1	300	300	adjacent to bunk rooms
Women's Bathroom/Shower/Locker Room				1	300	300	adjacent to bunk rooms
Kitchen	1	200	200	1	305	305	dining up to 12 occupants, commercial appliances
Pantry Closet				1	85	85	
Day Room	1	270	270	1	440	440	no shower included
Washer/Dryer Laundry Closet				1	95	95	with mop sink
Data / Server Closet / Telephone				1	90	90	
Electrical Room				1	160	160	
Mechanical Room	1	150	150	1	240	240	
Total Support/Private Space			**965**			**4,366**	
Total Net square footage			**7,405**			**11,943**	
20% circulation (corridors & structure)			459			2,194	
Total Gross square footage			**7,864**			**14,137**	

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EXTERIOR RENDERING



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BENEFITS OF PROJECT

1. **Creates a Safe and Functional Firehouse** - Provide our firefighters with a building that provides a safe environment for personal and equipment while supporting new ways of operations.
   - Currently during storms with winds over **70+ mph**, crews and apparatus cannot remain in the building. Code required minimum is **105 mph**. The same is true for snow loads greater than **11”**. Code minimum is **20”**.
2. **Improves Community Resilience** - Enhance the community's resilience in the face of emergencies and disasters, providing a reliable structure for emergency response and support.
3. **Positive Economic Benefits** -Positive economic effects, such as increased property values and a more attractive community for businesses and residents.
4. **Compliance with Regulations** - Ensure that the firehouse meets current safety and building code regulations, reducing liability and potential risks while protecting our town emergency response assets.
5. **Training and Education** -Improved facilities can provide additional facilities/opportunities for training and education, benefiting both firefighters and the community through programs on fire safety and emergency preparedness.
6. **Environmental Sustainability** – Incorporate sustainability features, reducing the environmental impact of the firehouse and potentially lowering long-term operating costs.

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COST ESTIMATE

- Earliest iteration of program had this new construction sized to 17,349 SF. When taking the cost per square foot to the right here into account, that would have been a $15,983,286.72 building. A great effort has been made to reduce the building's square feet by over 3,000 SF, thus saving nearly $3,000,000.

Opinion of Probable Cost

East Haddam Fire House #2			14137 SF
Project Hard Costs	**Per SF Cost**		**Total**
Construction Cost - (14,137 SF)	$ 780	$	11,026,860
Demolition Cost - (7,200 SF)	$ 20	$	144,000
Total Construction Costs		**$**	**11,170,860**
Project Soft Costs			
A&E Professional Services %		$	670,252
Bonding and Legal Fees		$	10,000
Commissioning agent		$	38,000
Builders Risk Insurance - Town		$	40,000
Testing & Inspections		$	20,000
Furniture, Fixtures, Equipment and Technology		$	250,000
Utility Connection Fees Allowance		$	25,000
Owner's Contingency 10%		$	1,117,086
CM Fees			
Total Project Soft Costs		$	2,170,338
Grand Total of Project Costs		**$**	**13,341,198**
Building Cost Per SF		$	943.71

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POTENTIAL GRANT OPPORTUNITIES

- **USDA Rural Development Community Facilities Program**.
  - The USDA has a long history of working with communities to provide economic and development assistance and financing.
  - The mission of the rural development program is to enhance the ability of rural communities to develop, to grow and to improve their quality of life.
  - Potential 30 year financing.

- **STEEP Grant**
  - Potential grant $200 thousand.

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Next Steps

- Receive and review feedback from the tonight's public hearing
- Present to Board of Selectman (Date TBD)
- SPA to Create Construction drawings
- Complete RFP process
- Second Public Hearing—to review grants and funding
- Present at Town Meeting
- Referendum for funding approval

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QUESTIONS / COMMENTS / CONCERNS?