



FEASIBILITY STUDY FOR THE MERRIMAC PUBLIC SAFETY COMPLEX

FINAL REPORT

MERRIMAC, MASSACHUSETTS

JULY 27, 2016

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ACKNOWLEDGEMENTS

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Andrew D. Connor
W. Earl Baumgardner

MERRIMAC PUBLIC SAFETY COMMITTEE:

Chief Eric Shears, Chief of Police
Chief Ralph Spencer, Fire Chief
Robert Sinibaldi, DPW Director
Richard LeSavoy, Finance Committee Chairman
Mark Tocci, Building Committee
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EXECUTIVE SUMMARY

In August 2015, HKT Architects was selected by the Town of Merrimac, MA to conduct a feasibility study for the Merrimac Public Safety Complex located at 16 East Main Street. This work included a review of existing facilities, an evaluation of safety and functional aspects of the building, programming for the Police, Fire, Emergency Services, Intermediate Ambulance Service and Public Works departments, and a review of several off site locations as possible locations for new structures.

The Town formed a Building Committee to advise the design team during the study process. The committee was formed by members of each department, Town officials and local residents who might influence the design and construction process. As a result, the Building Committee has provided the design team valuable guidance and insight throughout the study's process.

The overall goal of this study was to determine whether or not the existing site and building should continue to accommodate any or all of the departments for the foreseeable future. The mandate was to work with the police, fire and DPW staff and Building Committee to program, review existing conditions and make recommendations. During a Visioning Session held with the Building Committee the following questions were asked:

- What do you see as the best outcome for this study?
- What do you see as the biggest challenge(s) for the study?
- How does the current layout of the site impact the three functions on the site?
- What are one or two critical details that we need to know about this project?

Responses to these questions focused on making sure that the outcome of the study appropriately analyzed the existing building and site, outlined what would need to be done to create a safe, secure, well organized and constructed public safety facility, and provide enough detail so that the Committee could present the information in a concise and easily understood manner to the citizens of Merrimac. Some of the biggest challenges noted included finding an appropriate alternative site should it be needed, sizing the building correctly, and explaining the costs for the projected work. During the open discussion that followed, Committee members discussed general issues related to the Town and other upcoming public projects.

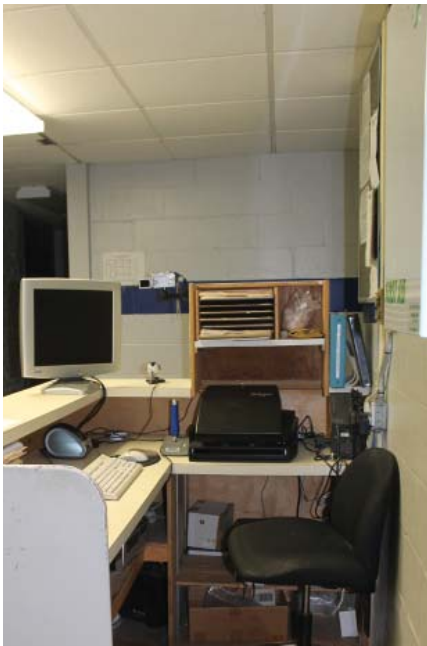
The Committee first made sure that the program was reasonable based on need and then focused on the possible combinations of departments that might be co-located on either the existing site or an alternative site. It should be noted that the goal of this study was not to propose a final design for each department but to propose alternatives for consideration.



EXTERIOR SIGNAGE



DETENTION



BOOKING STATION



GARAGE BAYS: USED FOR STORAGE RATHER THAN A SALLY PORT AND IMPOUND VEHICLE BAY.

History of the Community + Existing Site

The Town of Merrimac is a residential community of approximately 6,700 residents located in the northeast corner of the Commonwealth of Massachusetts. The Town is bordered by Amesbury to the east, Haverhill to the west and Newton, New Hampshire to the north. The Merrimack River flows along its southern border. The town also has several streams, ponds and Lake Attitash. Merrimac has approximately 72 miles of town roads, not including two state highways, Routes 495 and 110, which run through the center of the town.

The Merrimac Public Safety Complex, identified as the Richard J. Powers Public Safety Building, currently houses the Police, Fire, Ambulance, Emergency Management and Department of Public Works. This building was originally built in the late 1800's or early 1900's and occupied by the Massachusetts Northeast Trolley and Bus Company. It was then purchased by Brox Industries in the 1960's and used as a storage facility for construction equipment. After Brox Industries, a casket making company used the facility until the Town purchased the building around 1973. Following renovations, the Merrimac Police, Fire Department and Highway Departments moved into the building in 1976. In 1986, a dispatch center was added.

Merrimac Police Department

The Merrimac Police Department provides law enforcement and dispatch services twenty-four hours a day, seven days a week. The department is managed by the Chief of Police. In addition, there are (2) Sergeants, (4) Patrolman, (10) part-time Reserve Officers and (1) part-time Administrative Assistant. The officers and supervisors work on a rotating basis that allows two man coverage, most of the time, on the evening shift. The department has (4) marked patrol vehicles, (1) unmarked patrol vehicle, (1) ATV and (2) bicycles.

The dispatch center handles business calls, 911 calls and provides emergency medical dispatch services with (1) staff member twenty-four hours a day, seven days a week. The center dispatches for police, fire, ambulance, and emergency management. In addition, dispatch answers calls for several other town departments when they are closed. The dispatch staff includes (4) full-time dispatchers and (4) part-time dispatchers.

Feasibility Study for the
Merrimac Public Safety Complex



VIEW LOOKING INTO APPARATUS BAYS SHOWING VEHICLES + EQUIPMENT STORAGE.



TURN-OUT GEAR STORED ON RACKS. NOTE TIGHT CONDITION TO TRUCK.



EMERGENCY OPERATIONS CENTER



PUBLIC WORKS VEHICLES + EQUIPMENT VIEWED FROM MEZZANINE.

Merrimac Fire Department

The Merrimac Fire Department provides emergency services to the Town of Merrimac. Emergency services include fire, ambulance and emergency management services. The department is considered a “combination department”; that is a combination of full-time, part-time and call members. The fire department is managed by a full-time Fire Chief. In addition, there is a full-time firefighter/EMT position. The remaining call positions consist of (2) Deputy Chiefs, (4) Captains, (4) Lieutenants and (37) regular members. The Merrimac Fire Department has (2) Pumpers, (1) Ladder Truck, (1) Forestry, (1) Rescue Truck, (1) Fire SUV, (1) Chief’s SUV, and (1) boat.

The Merrimac Fire Department operates an Intermediate Ambulance Service out of the same building. The Ambulance Service is staffed by firefighter / EMT’s from 7am until 10pm; between 10pm and 7am, the Ambulance is a call service. The ambulance service utilize (1) full-time Firefighter/EMT, and several part-time and call positions to provide coverage. The Merrimac Fire Department utilizes (2) ambulances for the ambulance service.

The Fire Chief is also the Emergency Management Director for the Town of Merrimac. The Town’s Emergency Operations Center (EOC) is co-located within the Merrimac Fire Department. The EOC is operational during major weather events, town-wide emergencies and Seabrook Nuclear Power Plant drills / emergencies. During emergencies, the EOC is staffed by the town’s department heads and others. The EOC provides a common meeting place, has food service equipment and is the only generated shelter in the community. Emergency Management has (2) equipment trailers and (2) light towers.

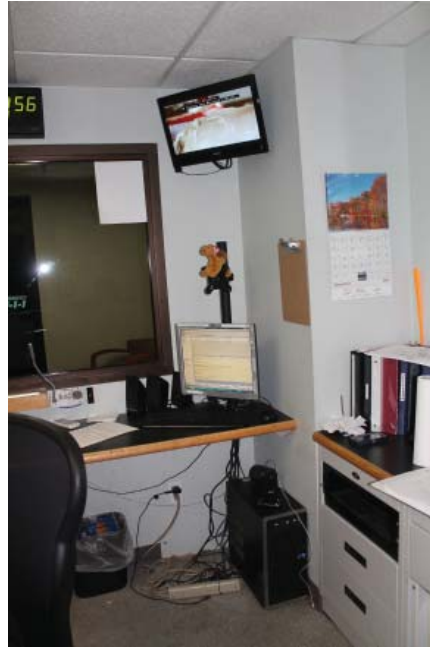
Merrimac Department of Public Works (DPW)

The Merrimac DPW is managed by a DPW Director. The DPW is comprised of the Highway, Water, and Sewer Departments. Presently the Highway Department maintains all the Town’s Athletic Fields as well as the Cemeteries. The Highway Department Staff is made up of (1) Highway Superintendent, (1) Mechanic, (3) Junior HMEO, and (1) Laborer/Driver. The Highway Department is responsible for the maintenance of the Town’s real property and public ways. Maintenance includes roadway maintenance, drainage and mowing operations. The Highway Department has six (6) full-time employees who work Monday through Friday from 7am to 3pm. Members of the Highway Department are on-call after those hours for emergencies and snow operations. The Highway Department has several pieces of maintenance equipment. The equipment includes (4) dump trucks, (1) pickup truck, (2) sanders, (1) loader and (1) backhoe, (1) asphalt paver, (1) low boy roller, (1) Elgin street sweeper, (1) boom mower, (1) Ford tractor and several smaller tractors.

Feasibility Study for the
Merrimac Public Safety Complex



WORKSHOP IN PUBLIC WORKS



DISPATCH CENTER



FIRE DEPARTMENT RADIO ROOM



TRAILERS + BULK STORAGE

Total Project Cost Estimate

Historical Cost data was used to determine probable Total Project Costs for various new building configurations. These included both hard and soft construction costs.

Methodology

The Building Committee held its first meeting in November 2015 to kick-off the process and discuss the goals and objectives of the study. The discussion included the steps that the design team would take to review existing conditions and gain an understanding of the needs of the department. At the kick-off meeting HKT Architects also explained how the Committee would be involved so that the study results would reflect and respond to their ideas and concerns.

Space Needs Assessment and Program Development

A detailed analysis was completed that defined the functional needs of each public safety agency for the foreseeable future. This comprehensive program addressed individual department needs as well as the shared needs for the departments. The programming summaries included options for a combined agency as well as other possible combinations and stand-alone facilities.

Following the kick-off Committee Meeting, HKT Architects met with Fire Chief Ralph Spencer, Police Chief Eric Shears and DPW Director Robert Sinibaldi to define the department's needs in terms of a space program, to discuss industry norms, and to tour the existing building and site. It was clear in the walk-through that each department lacked the physical space to accommodate their many basic needs. These include public and support areas such as Intake/Interview Room, training, public toilets, mechanical, electrical and data rooms, employee support spaces such as lunch rooms and locker and toilet rooms, vehicle storage spaces for Fire, Police and DPW, a sally port, evidence rooms, and maintenance bays and parts storage. Building spaces are not fully accessible including the detention area.

The departments were asked to think not just of current needs but to plan for the distant future. The draft program that was developed as a result of this meeting were subsequently reviewed by the departments and some adjustments were made to develop the study's final space program. This program was then reviewed with the Building Committee, focusing on specific departmental program areas, those shared by the departments and those used by the public. The Committee felt that each department staff could best comment on the less public, staff-only areas. The overall square footage was again reviewed and several additional reductions to the program were made.

**Feasibility Study for the
Merrimac Public Safety Complex**



VIEW TO COBBLERS BROOK.



VIEW OF BUILDING FROM COBBLERS
BROOK.



SITE OPTIONS

Site Evaluation – Current Location and Alternative Sites

A preliminary assessment and evaluation of existing site conditions for each department was completed. Exterior functions included adequacy of aprons, parking for visitors, professional staff and other vehicles, antennas, generators, transformers and other site amenities.

With the understanding that the program developed was larger than the existing building, and with site requirements far exceeded the existing available land, other site options were discussed by the Committee. They included:

- 106 West Main Street site: a site that slightly elevates at the rear of the site, not owned by Town
- 74 East Main Street: Only other location where Fire Department could be located to meet response times could be, not owned by Town
- 1 Bear Hill Road: a corner lot, not owned by Town
- Emery Street Fields site: a flat, 5 acre site, owned by Town

HKT then developed conceptual block plans to see if all or any of the proposed programs could fit. The purpose of these options was to demonstrate differing approaches to how the departments could be organized at each site.

Building Observations

The original structure was a wood building from the 1890's that burned to the ground and was replaced with the masonry structure currently on site. Renovations to convert the building to its present use included the construction of interior masonry walls to provide separation between departments, filling in and raising floor slabs that once included pits for maintenance, restructuring of exterior façade to create appropriate openings for overhead doors and construction of the second level and several mezzanines.

Linear roof monitors were removed during a re-roofing project and replaced with a series of smaller skylights. Mechanical and Electrical systems are at the end of their useful life as they are original to the 1976 renovations. Building finishes are maintained as best as possible. No elevator serves the second level of the building, which houses the Emergency Operations Center, and existing egress pathways from the second floor do not egress directly outdoors.

Feasibility Study for the
Merrimac Public Safety Complex



REAR OF SITE LOOKING AT PUBLIC WORKS YARD + EQUIPMENT.



BRICK PIER AT OVERHEAD DOOR.



CONDITION AT INTERIOR WALL (POLICE DEPARTMENT)



NORTH WALL: OVERHEAD DOORS AT PUBLIC WORKS.

Engineering Reports: Civil and Structural

Civil and structural engineers from Pare Corporation toured the building and site to evaluate the existing conditions. Particular attention was paid to potential reuse and steps needed to upgrade the building to modern code requirements of an essential public safety facility.

The structural assessment noted that slabs and roof portion of the building occupied by the Fire Department and DPW were in good condition, the interior brick and CMU was in fair condition and all of the exterior brick walls were in fair-to-poor condition. The police area includes roof and wall conditions similar to the other parts of the building. However, structural elements of the foundation in this area are in poor condition. Slab cracks, foundation wall cracks, and stepped CMU wall cracks, may be indicative of differential settlement of the foundation. Unlike a global settlement, which settles and stops relatively uniformly, this differential settlement is of unknown origins and may continue. The basement area also suffers from ongoing humidity and moisture issues which has led to steel corrosion. Follow-up geotechnical investigation is required to determine additional information such as the extents of settlement, potential causes and remediation techniques / options.

The site assessment noted that the site is zoned both Agricultural Residential and Village Residential, regulated areas include wetlands to the west of site with a 100 foot buffer zone (of which 75% of site falls within that resource), that parking is unmarked, and that stormwater is not currently managed or treated. Future steps will include in-depth geotechnical investigation and soil evaluation to properly design foundations for any future structures, and drainage improvements and discussions on local wetlands regulations to understand prohibitions and exemptions.

See section 5: Existing Conditions Assessment for full reports.

Cost Analysis

Finally, to understand the ramifications of any of the options explored, HKT developed estimated probable costs using historical cost data for new construction. All project costs apparent at this time were used in this estimate, including the cost of construction (hard costs) and various administrative costs (soft costs) such as architectural and engineering fees, project management fees and moving costs, among others. The costs for renovation of the existing building were more challenging to define as the decision of which department would occupy the space, and in what configuration based on the problems with the foundation at the police portion of the building, and what level of renovation would be required were still being decided. Based on other recent projects a square foot number in the range of \$250-280 will be used to establish a preliminary budget for renovation of the building and additional costs will be added to that for demolition and site development. The following table summarizes the costs for new construction options:



FIRE DEPARTMENT: MEETING / TRAINING ROOM



INTERIOR FIRE DEPARTMENT SIGNAGE



OVERHEAD DOOR AT FIRE DEPARTMENT



FIRE DEPARTMENT BAY SHOWING STAIR TO SECOND LEVEL.

<i>EXISTING BUILDING AT 22,406 +/-</i>	SQUARE FOOTAGE	HARD COSTS @ \$390/SF + \$315 /SF	SOFT COSTS @ 25%	TOTAL PROJECT COSTS
FIRE, POLICE + DPW COMBINED	58,177	\$20,797,080	\$6,932,360	\$27,729,440
FIRE + POLICE COMBINED	32,950	\$12,850,500	\$4,283,500	\$17,134,000
FIRE + DPW COMBINED	47,745	\$16,728,600	\$5,576,200	\$22,304,800
POLICE + DPW COMBINED	41,022	\$14,106,630	\$4,702,210	\$18,808,840
POLICE, STAND-ALONE	15,531	\$6,057,090	\$2,019,030	\$8,076,120
FIRE, STAND-ALONE	22,254	\$8,679,060	\$2,893,020	\$11,572,080
DPW, STAND-ALONE	26,789	\$8,438,535	\$2,812,845	\$11,251,380

Committee Review and Response

Following the presentation of this data The Merrimac Public Safety Building Committee met in June of 2016 to discuss the future of this project and make recommendations regarding the direction that would be undertaken. All members were in agreement that building areas would have to be significantly reduced, compared to those programmed, for affordability purposes. The Committee's goal was to reduce the Project Total Costs to just below \$20,000,000 in lieu of the nearly \$30,000,000 that was being discussed if all new stand-alone facilities were considered. Hard but necessary choices were outlined and each department will work with HKT to redefine their programs to reduce the areas to meet these targeted goals. Below is a brief description of the recommendations for each department.

Fire Department, Emergency Operations Center and Ambulance Service: Renovation at Existing Site

The recommendation was made to renovate the existing East Main Street Public Safety Building to house only the Merrimac Fire Department, Emergency Operations Center and Ambulance Service. The attached Police Annex will be demolished to make room for parking and to improve access to the rear of the building. The Committee noted that there will be numerous unforeseen conditions but do not think the residents of Merrimac will support any building project that does not include reuse of the existing site and building. The decision to limit the use of the existing structure to the Fire Department, Emergency Operations Center and Ambulance Service requires that the DPW and Police Departments are located to other appropriate sites in Town.

The site, after renovations, will include parking for visitors and employees, and space for a transformer, emergency generator, dumpster and antenna as needed.

DPW: New Structure to be located in the Emery Street Field

The recommendation for the DPW is to construct a new 18,000 SF pre-engineered building with a free-standing truck wash bay. The wash bay area is in addition to the 18,000 SF. The proposed building will be broken up as follows:

- 7,500 SF for cold vehicle storage, no heat with bare minimum building insulation, a code compliant ventilation system per the 2009 IMC, and paddle fans for creature comfort during the summer months.
- 7,500 SF of heated and ventilated vehicle storage and a repair shop.
- 3,000 SF of space with full HVAC systems for offices, toilet / showers, lunch room, tool shop, and all mechanical rooms required for the structure.

The site will also include parking for visitors and employees, a working yard, and space for a dumpster, exterior bulk storage and a future salt/sand shed.

Police Station: New Structure to be located on Donated Land or Acquired Property

The recommendation for the Police department is to construct a new 12,000 SF building with a 2,000 SF heated outbuilding to house a trailer and ATV and to provide bulk storage. The site will also include parking for visitors and employees, and space for a transformer, emergency generator, dumpster and antenna. This recommendation does require the Town to acquire property either through donation or acquisition.

Concept sketches for the renovation to the existing building for the Fire Department, and new structures for the Public Works and Police Departments are shown on the following pages.

- LEGEND
- PUBLIC AREAS
 - ADMINISTRATION
 - EMPLOYEE SUPPORT
 - OPERATIONS
 - MECH/ELEC



PLAN FIRE STATION CONCEPTUAL FLOOR PLAN - 16 EAST MAIN ST. RENOVATION
 1/16" = 1'-0"

1

Date: 18 JULY 2016
 Scale: 1/16" = 1'-0"
 Job num: 21512
 Drawn by: SMV

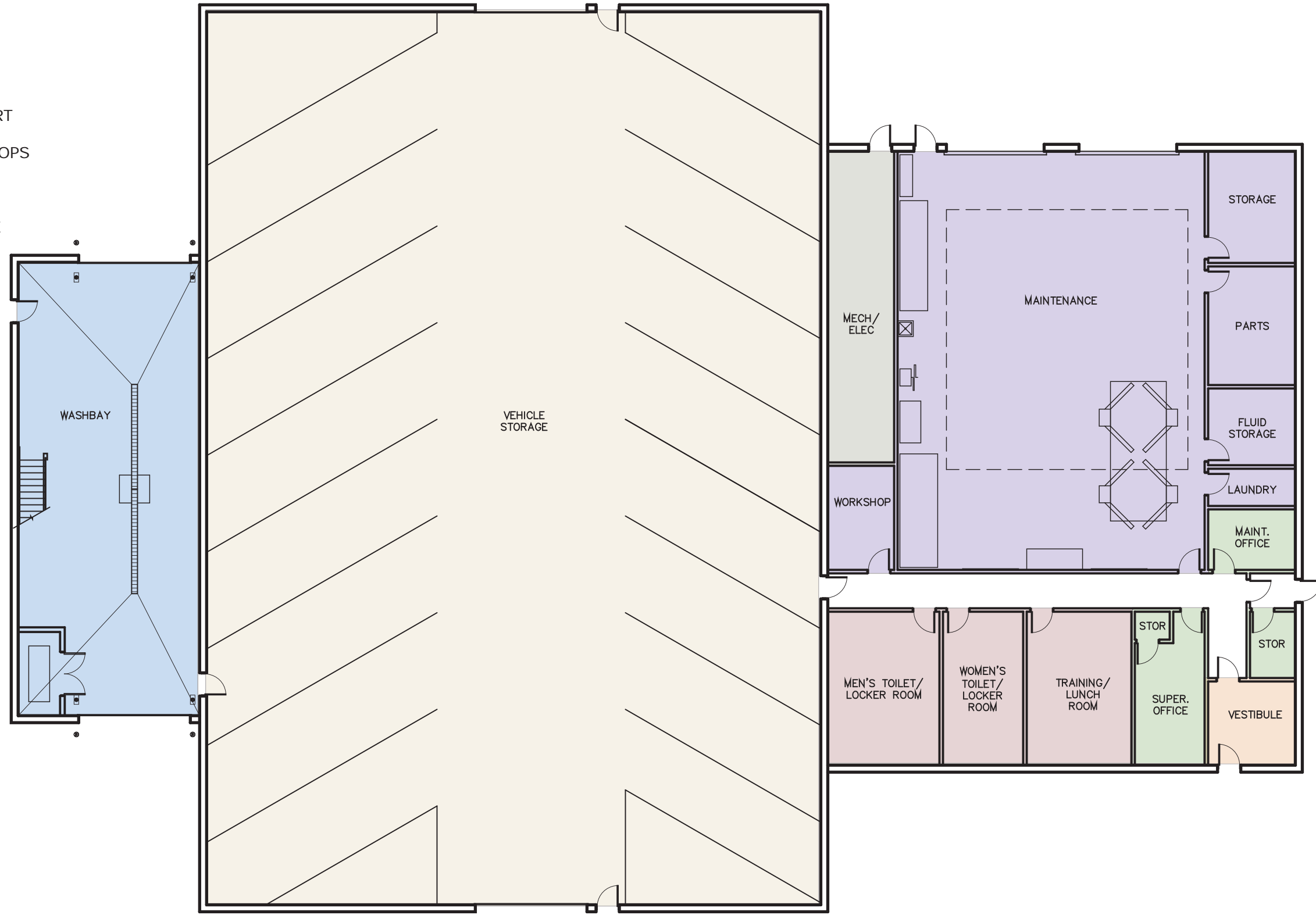
FIRE

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX
 FIRE STATION CONCEPTUAL FLOOR PLAN - 16 EAST MAIN ST. RENOVATION

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- LEGEND
- PUBLIC AREAS
 - ADMINISTRATION
 - WASHBAY
 - EMPLOYEE SUPPORT
 - MAINTENANCE/SHOPS
 - MECH/ELEC
 - VEHICLE STORAGE



PLAN DPW CONCEPTUAL FLOOR PLAN - NEW CONSTRUCTION
 1/16" = 1'-0"

1

Date: 18 JULY 2016
 Scale: 1/16" = 1'-0"
 Job num: 21512
 Drawn by: SMV

DPW

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX

DPW CONCEPTUAL FLOOR PLAN - NEW CONSTRUCTION

35 Medford Street
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- LEGEND
- PUBLIC AREAS
 - ADMINISTRATION
 - DETENTION
 - EMPLOYEE SUPPORT
 - OPERATIONS
 - MECH/ELEC

PLAN POLICE STATION CONCEPTUAL FLOOR PLAN - NEW CONSTRUCTION
 1/16" = 1'-0"

1

Date: 18 JULY 2016
 Scale: 1/16" = 1'-0"
 Job num: 21512
 Drawn by: SMV

POLICE

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX
 POLICE STATION CONCEPTUAL FLOOR PLAN - NEW CONSTRUCTION

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SPACE NEEDS ASSESSMENT

The following pages represent the initial space programs for the departments housed at The Merrimac Public Safety Building. The programming process began with the distribution of program worksheets that were to be filled out by the separate departments. These completed worksheets included information on existing operational processes and existing equipment and building spaces. Following that process, HKT met with each department head for informational interviews which outlined general information about the departments including current and anticipated future staffing levels and vehicle and equipment inventories. The goal of this meeting was to focus on how staff of the department perform various functions rather than asking for a compilation of spaces that staff thought would be needed. Discussions focused on each departments current and future needs as well as the potential for shared use spaces and areas that might be used by other groups in the community. Spaces within the existing building were also observed during the site visit for how spaces are currently configured to meet operational needs and adequacies of that available space.

Following the initial programming meeting, HKT analyzed the data collected and compared projected space needs with those of similar municipalities and with industry best practices. The space needs were then illustrated graphically with room data sketches showing idealized layouts of each individual room or space, and verbally shown with room data sheets which describe the quantitative and qualitative aspects of each room. Tabulations of required program spaces were developed by adding the net square footage (NSF), defined as the area required to do an activity, of each functional space and then applying grossing factors to determine the building program gross square footage (GSF) including areas for circulation and wall construction. Drafts of these documents were shared with the department to obtain their feedback and revisions were made. It should be emphasized that the development of the ideal space program is a 'site blind' exercise which purposefully does not take into consideration any of the existing conditions at 16 East Main Street. It is important to review the needs of the departments initially, and then for the purpose of the study, compare those space needs against the available area located at 16 East Main Street.

The space program, which includes final comments collected following the cost estimating process, demonstrates the need for an approximately 60,144 gross square foot facility including all departments. This program was broken down into five major sections: Shared Public Areas, Support Spaces, DPW – Highway Department, Fire Department / Intermediate Ambulance/ Emergency Management and Police Department.

	Proposed SF
Shared Public Areas	3,727
Support Spaces	3,480
DPW – Highway Department	25,894
Fire Department / Intermediate Ambulance/ Emergency Management	16,705
Police Department	10,338
Total Gross Square Feet	60,144

Parking needs were also analyzed as part of the space needs assessment. Parking counts took into account various factors including staff personal vehicles, visitors, department owned vehicles and equipment. The resulting count factors in the anticipated vehicles on site during a shift change when personal vehicles from both the arriving and departing shift are on site along with departmental vehicles staff may drive while on shift. The following table summarizes the needs:

	Dept. Issued vehicles	Total Parking Spaces
DPW / Highway Staff	0	8
Fire / Ambulance / EMS including 10 On-Call Staff	1	21
Police Department Staff – Personal and Official Vehicles including shift changes	6	12
Visitor Spaces	0	15
Parking dedicated for Town Officials during EOC event	0	5
Total		70
Carport: additional vehicle parking		8

In addition to parking spaces, other site needs have been identified including emergency generators, a transformer, communication tower, dumpsters and storage for equipment not otherwise included in the building program.

The program tabulation sheets on the following pages illustrate the department's proposed ideal building program. Room data sheets and sketches with details of each room's space needs can be found in Appendix B.

INITIAL SPACE PROGRAM

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
SHARED PUBLIC AREAS						
Entry Vestibule - Lobby	1	SKA-S1	234		90	
Interview / Intake Room	2	SKA-S2	128			
Triage Room	3	SKA-S3	120			
Training / Community Room	4,5	SKA-S4A, SKA-S4B, SKA-S4C	1064		1,572	FD Meeting Room, EOC included in this SF
Training Room Storage	6	SKA-S5	110			
Kitchen	7	SKA-S6	360		219	
Public Toilet	8	SKA-S7	121			
Fitness Room / Defensive Tactics Room with Storage	9	SKA-S8	564			
SUBTOTAL				2,701	1,881	
Gross area adjustment 15%				405		
Circulation adjustment at 20%				621		
TOTAL				3,727		
SUPPORT SPACES						
Janitor's Closet	10	SKA-SUP1	72		85	In PD - 2 rooms
Mechanical Room	11	SKA-SUP2	400			
Plumbing / Fire Protection Room	12	SKA-SUP3	144			
Main Electrical Room	13	SKA-SUP4	250		104	
Emergency Electrical Room	14	SKA-SUP5	80			
Electrical Closet Per Floor Assume 1	15	SKA-SUP6	48			
Emergency Electrical Closet	16	SKA-SUP7	96			
IT Room	17	SKA-SUP8	192		124	
Radio Room	18	SKA-SUP9	60			
Stairs	19	SKA-SUP10	880			
Elevator	20	SKA-SUP11	200			
Elevator Machine Room	21	SKA-SUP12	100			
SUBTOTAL				2,522	313	
Gross area adjustment 15%				378		
Circulation adjustment at 20%				580		
TOTAL				3,480		
DPW - HIGHWAY DEPARTMENT						
Foreman's Office	22	SKA-DPW1	196		234	
Lunchroom / Small Meeting	23	SKA-DPW2	336			
Locker/Shower/Toilet - Male	24	SKA-DPW3	360		135	
Locker/Shower/Toilet - Female	25	SKA-DPW4	230			
Laundry	26	SKA-DPW5	69			
Maintenance Bays	27	SKA-DPW6	2640		3,690	West Bay
Storage	28	SKA-DPW7	330		785	Mezzanine
Fluid Storage Area	29	SKA-DPW8	160			
Parts & Supply Storage	30	SKA-DPW9	224		283	Maintenance Workshop
Tire Storage	31	SKA-DPW10	50			
Vehicle Staging & Prep	32	SKA-DPW11	11,700		3,117	East Bay
Wash Bay	33	SKA-DPW12	1690			
Future Mechanic's Office	34	SKA-DPW13	100			
Public Works Director Office	35	SKA-DPW14	182			
Administrative Assistant Workspace	36	SKA-DPW15	266			

INITIAL SPACE PROGRAM

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Future Engineering Office	37	SKA-DPW16	0			
Coat Closet	38	SKA-DPW17	13			
Office Supply	39	SKA-DPW18	18			
Plan Room	40	SKA-DPW19	80			
SUBTOTAL				18,644	8,244	
Gross area adjustment 15%				2,797		
Circulation adjustment at 20%				4,288		
TOTAL				25,729		
FIRE DEPARTMENT / INTERMEDIATE AMBULANCE / EMERGENCY MANGEMENT						
Fire Chief Office	41	SKA-F1	204		245	
Administrative Assistant	42	SKA-F2	168			
Deputy Fire Chief Office	43	SKA-F3	126		208	Includes closet
Deputy Fire Chief Office	44	SKA-F3	126			
Shared Office for Fire Officers	45	SKA-F4	144		102	
Fire Prevention Office and Plan Storage	46	SKA-F5	0			
Hose Company Office	47	SKA-F6	0			
Coat Closet	48	SKA-F7	13		337	Combine all storage 2nd level
Dorm Rooms	49	SKA-F8	560			
Toilet / Shower Room Male	50	SKA-F9	264			
Toilet / Shower Room Female	51	SKA-F10	200			
Day Room	52	SKA-F11	280		588	
Radio Room Back-Up to Main Dispatch	53	SKA-F12	72		237	
Apparatus Bays	54,55	SKA-F13	7,520		4,892	
Maintenance Workshop	56	SKA-F14	144		195	
Gear Storage	57	SKA-F15	612			
SCBA Fill Room	58	SKA-F16	108			
Oxygen Storage	59	SKA-F17	32			
Medical Cleaning / Decontamination	60	SKA-F18	143			
Laundry	61	SKA-F19	144		102	
Air Compressor	62	SKA-F20	40			
Medical Supply Storage	63	SKA-F21	80			
Shelter Storage	64	SKA-F22	238			
Bulk Storage	65	SKA-F23	180			
Hose Storage	66	SKA-F24	48			
FUTURE Hose / Training Tower	67	SKA-F25	288			
Staff Toilet	68	SKA-F26	121		34	
SUBTOTAL				11,855	6,940	
Gross area adjustment 15%				1,778		
Circulation adjustment at 20%				2,727		
TOTAL				16,360		
POLICE DEPARTMENT						
Dispatch	69	SKA-DP1	336		128	
Dispatch Support Space	70	SKA-DP2	64			
911 Equipment Room	71	SKA-DP3	60			

INITIAL SPACE PROGRAM

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Police Chief Office	72	SKA-P1	204		136	Includes closet
Administrative Assistant	73	SKA-P2	132		90	
Conference Room	74	SKA-P3	192			
Future Lieutenant - Second in Command	75	SKA-P4	120			
Future Detectives	76	SKA-P5	144			
Office Equipment / Copy	77	SKA-P6	64		155	Room between Chief and Dispatch
Office Supply	78	SKA-P7	32		11	
Active File Room	79	SKA-P8	100			
Archival Document Storage	80	SKA-P9	168			
Sergeants	81	SKA-P10	192			
Roll Call / Break Room	82	SKA-P11	243			
Report Writing ACO + Reserve Officers	83	SKA-P12	108			
Patrol Shared Workspace	84	SKA-P13	264		573	
Patrol Storage	85	SKA-P14	64		293	Mezzanine at garage + office
Evidence - Prep / Processing / Storage	86	SKA-P15	267		102	
Narcotics / Valuable Evidence	87	SKA-P16	60			
Armory	88	SKA-P17	80			
Toilet / Shower / Locker Room - Male	89	SKA-P18	776			
Toilet / Shower / Locker Room - Female	90	SKA-P19	314			
Sally Port / Impound Bay	91	SKA-P20	1080			
Bulk Evidence	92	SKA-P21	160			
Holding Booking	93	SKA-P22	72			
Booking	94,95	SKA-P23	325		311	
Detainee Storage	96	SKA-P24	36			
Detainee Shower	97	SKA-P25	43			
Detention Janitor	98	SKA-P26	30			
Detention Interview Room	99	SKA-P27	120			
Detention AV Surveillance	100	SKA-P28	80			
Detention Cell - Male	101	SKA-P29	144		156	4 cells
Detention Cell - Female	102	SKA-P30	72			
Detention Cell - Juvenile	103	SKA-P31	72			
Matron / Juvenile Soft Cell	104	SKA-P32	68			
Vehicle Storage	105	SKA-P33	840		590	Used for general storage
Maintenance Storage	106	SKA-P34	100			
Future Lab Processing	107	SKA-P35	0			
Staff Toilet	108	SKA-P36	121		71	3 toilets
SUBTOTAL				7,347	2,616	
Gross area adjustment 15%				1,102		
Circulation adjustment at 20%				1,690		
TOTAL				10,139		
GRAND TOTAL NET SQUARE FEET				59,435	19,994	
TOTAL GSF FIRST LEVEL					18,782	
TOTAL GSF 2nd EVEL PLUS MEZ.					3,624	
					22,406	
Carpport	109	SKA-P37	1600			

PARKING/VEHICLE COUNTS

	Personal Vehicle Parking Space	Department Issued Vehicle	Total Parking Required on Site
DPW / HIGHWAY			
DPW Director	1	0	1
Administrative	1	0	1
Highway Foreman	1	0	1
Staff	5	0	5
SUBTOTAL	8	0	8
FIRE / AMBULANCE / EMS DEPARTMENT STAFF			
Chief	1	1	1
Officer Staff: 4 Cpts. 1 LT FTE plus 4 other Lts.	9	0	9
30 Call Staff: Assume 10 respond for parking counts	30	0	10
Administrative	1	0	1
SUBTOTAL	41	1	21
POLICE DEPARTMENT STAFF			
Chief	1	0	1
Sworn Officers - Full Time, Current: Sergeants and Patrol	6	6	6
Sworn Officers - Reserve	10	0	0
Dispatcher: FTE and PTE	7	0	2
Animal Control	1	0	1
Future Staff: 1 Lieutenant, 2 Detective, 4 Reserve	7	0	0
SUBTOTAL	32	6	10
Parking for Police Personnel			
7am to 3pm Day Shift:	3	1	4
3pm to 11pm Shift:	3	0	3
11pm to 7am Shift:	3	0	0
Civilian Staff: Admin/Dispatch Shift 1	2	0	2
Civilian Staff: Admin/Dispatch Shift 2	1	0	0
Civilian Staff: Admin/Dispatch Shift 3	1	0	0
Total Parking - Personnel vehicles based on largest overlapping shifts	8	1	9
Visitor Parking	15	0	15
Parking dedicated for Town Officials during EOC event	5	0	5
TOTAL Exterior Parking Spaces Required			68
Possible Carport	8	8	8
Total Parking with Carport	0	0	76

CONCEPT REVIEW: TEST FITS TO ACCOMMODATE NEEDS ON NEW SITE

Considering the square footage available in the existing building, approximately 22,406 square feet (including mezzanines and the program spaces that were not provided in the existing structure), it was clear that the building could not support the needs of the three emergency services departments. While Committee members recognized that the program would need to be revised they also acknowledged that no amount of small cutting of program would fit into the existing building. As a next step, the Committee requested that HKT come up with square foot totals that reflected plausible combinations of departments and stand-alone buildings.

When coming up for a program that combined different departments or created stand-alone options, the first thing that needed to be done was to decide how much of the Shared Public Areas and Support Spaces would need to be included to make each of the options fully functional. Each of the options would need an entry, some training space, and mechanical / electrical / plumbing and data space to support the structure. Excel charts were developed for four combined options and three stand-alone options. Those new combinations, including several additional reductions in square footage that came about during a final cutting exercise, were then compared against the existing square footage to see if the existing structure could accommodate the options. They included:

Existing Building: 22,405 SF	Proposed SF
FD / PD / DPW Combined	58,177
Fire / Police Station Combined	32,950
Fire Station / DPW Combined	47,745
Police Station / DPW Combined	41,022
Stand Alone Police Station	15,531
Stand Alone Fire Station	22,254
Stand Alone DPW	26,789

** At the end of this section there are more detailed break-downs of where the square foot numbers are derived from.*

These square foot totals suggested which department(s) could occupy the existing building, assuming that adjustments could be made to the square footages if it was in the best interests to co-locate departments to improve communications or shared spaces. Suggested other ways to accommodate the program needs would be to insert a new second floor the areas currently used to house DPW trucks. As the table indicates, each department could occupy the building as a stand-alone facility and a Fire / Police Station might be possible after a reduction in some parts of each program.

These newly organized programs were then matched with the identified sites and conceptual building massing to develop different site plan options. The purpose of these options was to demonstrate differing approaches to how the departments could be organized at each site. The following sites were part of the assessment:

- 106 West Main Street site (slightly elevated at the rear of the site, owned by Town)
- Waterhouse Site (74 East Main Street). Only other location where Fire could be located to meet response times
- 1 Bear Hill Road (corner lot)
- Emery Street Fields site (flat, 5 acre site, owned by Town)

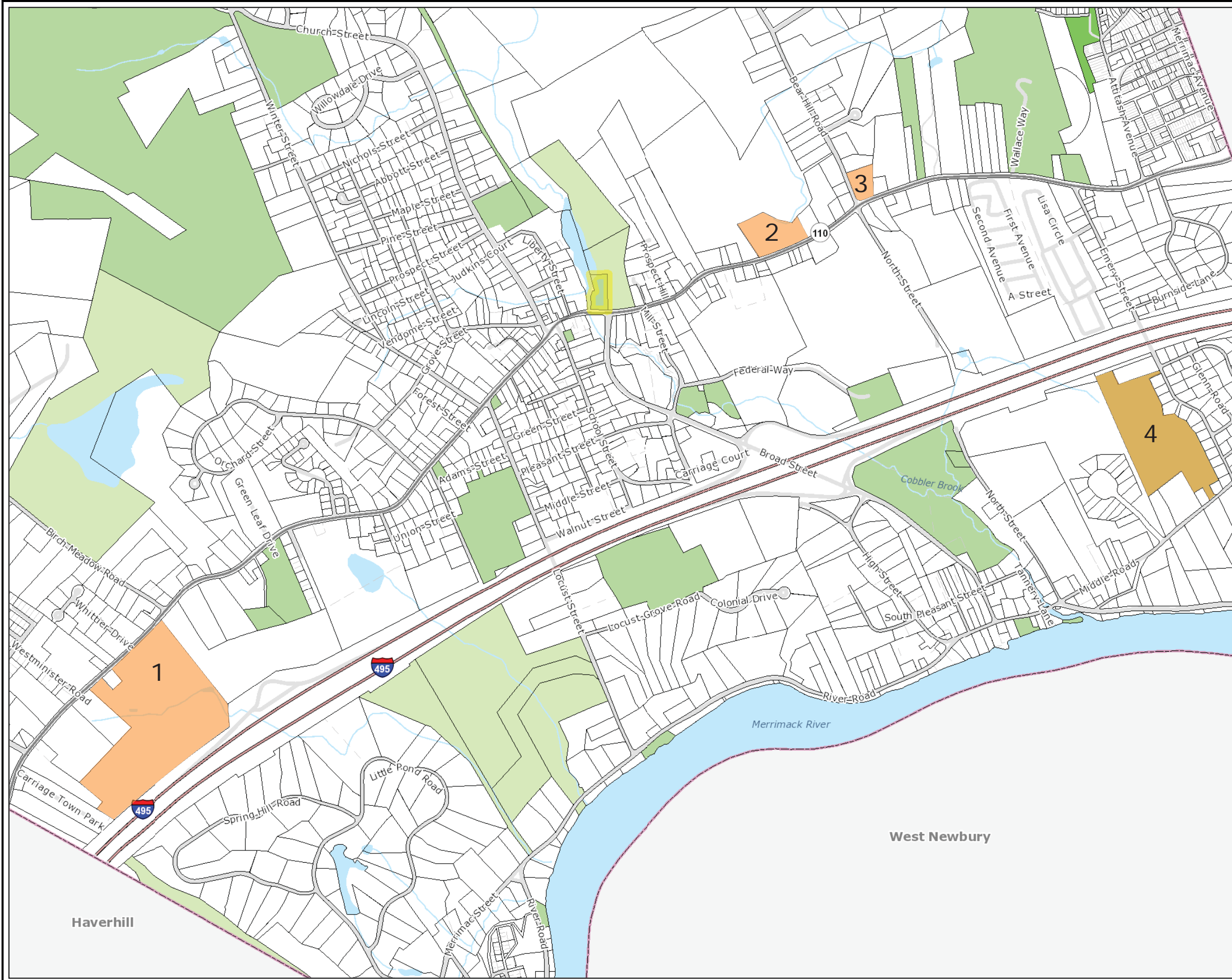
Included with each of the programs were the exterior areas as defined during programming including:

- Transformers
- Generator
- Dumpster
- Communication Antenna
- Salt + Sand Shed (Option for consideration at the DPW)
- Exterior bulk storage (Option for consideration at the DPW)
- Parking for official vehicles, personal vehicles and visitors

When conceptualizing the test fits on each site we assumed single story construction although not all sites supported this concept. If single story buildings are possible then the need for elevators and stairs is eliminated therefore reducing the square footage required, and thus cutting costs from the project.

Following this review of possible sites the Committee members felt strongly that they would like to see a reuse of the current site for at least one department, the Fire Department, and discussed whether or not another department could continue to share the site.

The following pages show the different site options and the possible facility configurations for each site.



- Municipal Boundar
- Parcels
- Other Legal Interest
- Easements
- Roads
 - Interstate
 - Major Road
 - RoadROW
 - Trails
- Hydrographic Features
 - Streams
- Open Space
 - State
 - Municipal
 - Private

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1" = 1000 ft



Merrimac MIMAP

March 28, 2016

COMPARISON OF SITES CHART

		SITES			
		SITE 1 (WEST MAIN)	SITE 2 (EAST MAIN)	SITE 3 (BEAR HILL)	SITE 4 (EMERY)
FACILITY COMBINATIONS	FD/PD/DPW	—	* <input checked="" type="checkbox"/>	—	—
	FD/PD	—	<input checked="" type="checkbox"/>	—	—
	FD/DPW	—	<input checked="" type="checkbox"/>	—	—
	PD/DPW	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	PD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FD	—	<input checked="" type="checkbox"/>	—	—
	DPW	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		* Buildable area does not include any land associated with the 500 Year Flood Plain. Parking, exterior storage, etc. may be permitted within Flood Plain.			

SITE 1: 106 WEST MAIN STREET

106 West Main accommodated the following:

- Police / DPW in a combined structure at 39,518 SF or 69,368 SF with support and parking
- Stand-Alone Police Station at 14,027 SF or 28,457 SF with support and parking
- Stand-Alone DPW at 26,789 SF or 42,879 SF with support and parking.

The site challenges on this site included wetlands, site split by water entity, and the residential neighborhood.

Comments on this site included that only top right corner, north portion, of site (approximately 6 acres) will possibly be available for new construction and that the site has potential to construct a facility that could benefit Police or DPW and then also be used for something else in the future.



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Number	Revised	Date

Registrations

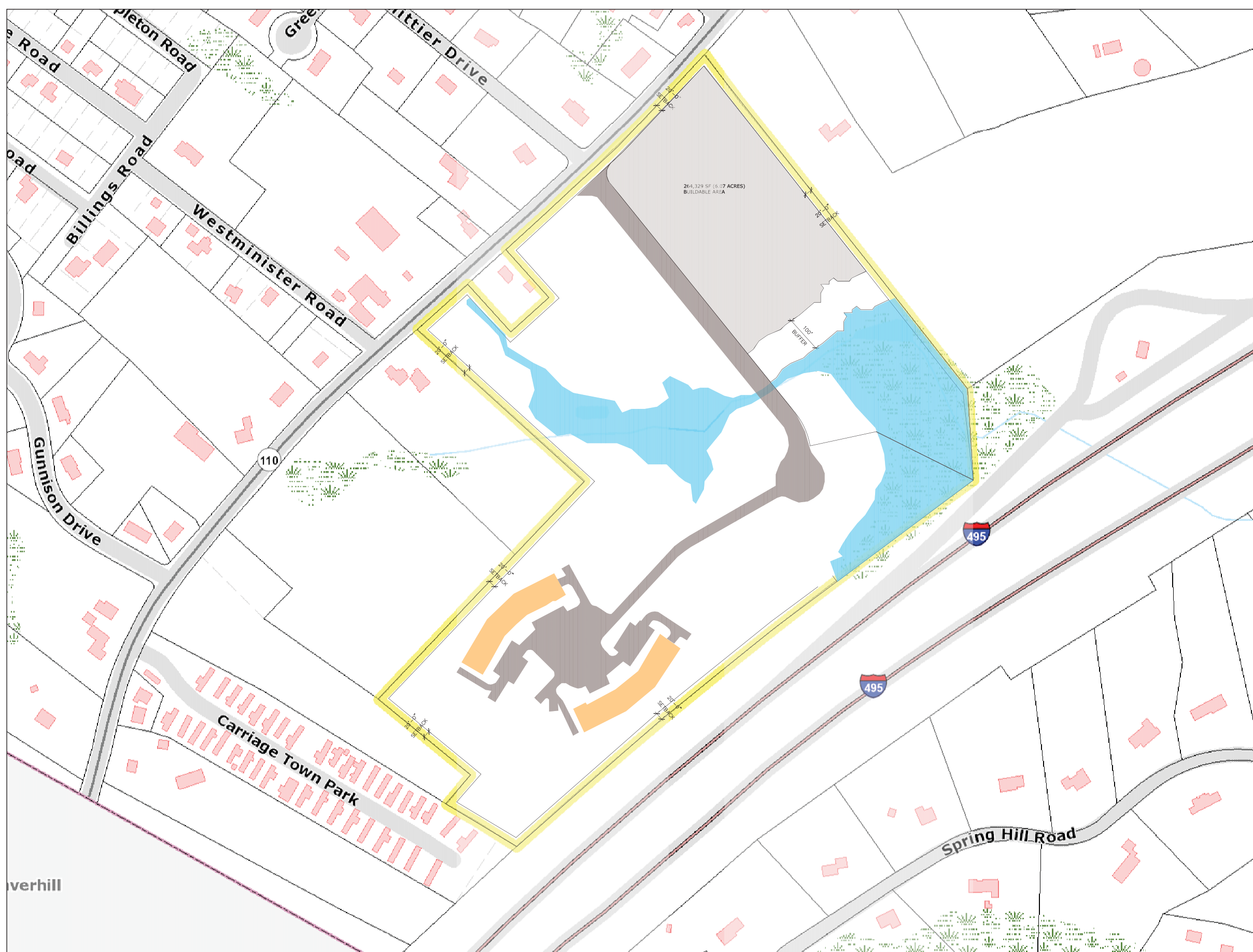
Consultants

Project
Merrimac Public Safety Complex
Feasibility Study
Town of Merrimac

Drawing Title
SITE 1
106 WEST MAIN STREET - POSSIBLE SITE

SMV	JMS
Drawn by	Checked by
MARCH 2, 2016	
21512	
2/15/16	
EXISTING CONDITIONS	
Drawing set	
Drawing number	

SITE



PLAN PROPOSED SITE
1" = 100'

1



106 W. Main St.

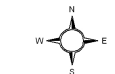


- Municipal Boundar
- Parcels
- Easements
- Roads
 - Interstate
 - Major Road
 - Trails
- Hydrographic Features
 - Streams
 - Wetlands



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1" = 302 ft



Merrimac MIMAP

February 23, 2016

<i>Building Size: Assumed single story construction</i> <i>Site Elements: Roadways/Pathways not included</i>	Square Footage
SITE 1	
Address: 106 West Main Street	
Owner: Private (Regency Village LLC)	
Zoning: Commercial	
Lot Size	9.79 Acres
Buildable Area	264,329 SF (6.07 acres)
Police Station/DPW Combined	
Transformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking Combined (personnel/visitors)	20,480 SF
Building Combined	39,518 SF
TOTAL	69,368 SF
Stand Alone Police Station	
Transformers/Generators/Dumpsters/Antenna	670 SF
Parking (personnel/visitors - includes Carport)	13,760 SF
Building	14,027 SF
TOTAL	28,457 SF
Stand Alone DPW	
Transformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking (personnel/visitors)	6,720 SF
Building	26,789 SF
TOTAL	42,879 SF
Site Challenges:	
Wetlands	
Site split by water entity	
Residential Neighbors across the street	
Fire Department does not meet fire response times from this location	

SITE 2: 74 EAST MAIN STREET

74 East Main accommodated the following:

- Fire / Police / DPW in a combined structure at 56,673 SF or 101,403 SF with support and parking
- Fire / Police in a combined structure at 31,446 SF or 60,576 SF with support and parking
- Fire / DPW in a combined structure at 46,241 SF or 77,211 SF with support and parking
- Police / DPW in a combined structure at 39,518 SF or 69,368 SF with support and parking
- Stand-Alone Police Station at 14,027 SF or 28,457 SF with support and parking
- Stand-Alone Fire Station at 20,750 SF or 36,300 SF with support and parking
- Stand-Alone DPW at 26,789 SF or 42,879 SF with support and parking

Challenges on this site included that the site includes a significant portion of the site within a 500 year Flood Plain and the useable site is narrow and linear.

Comments on this site included the possibility of acquiring the property by eminent domain, that it may be an expensive site to obtain and that it was once contaminated and has been capped.

Number	Revision	Date

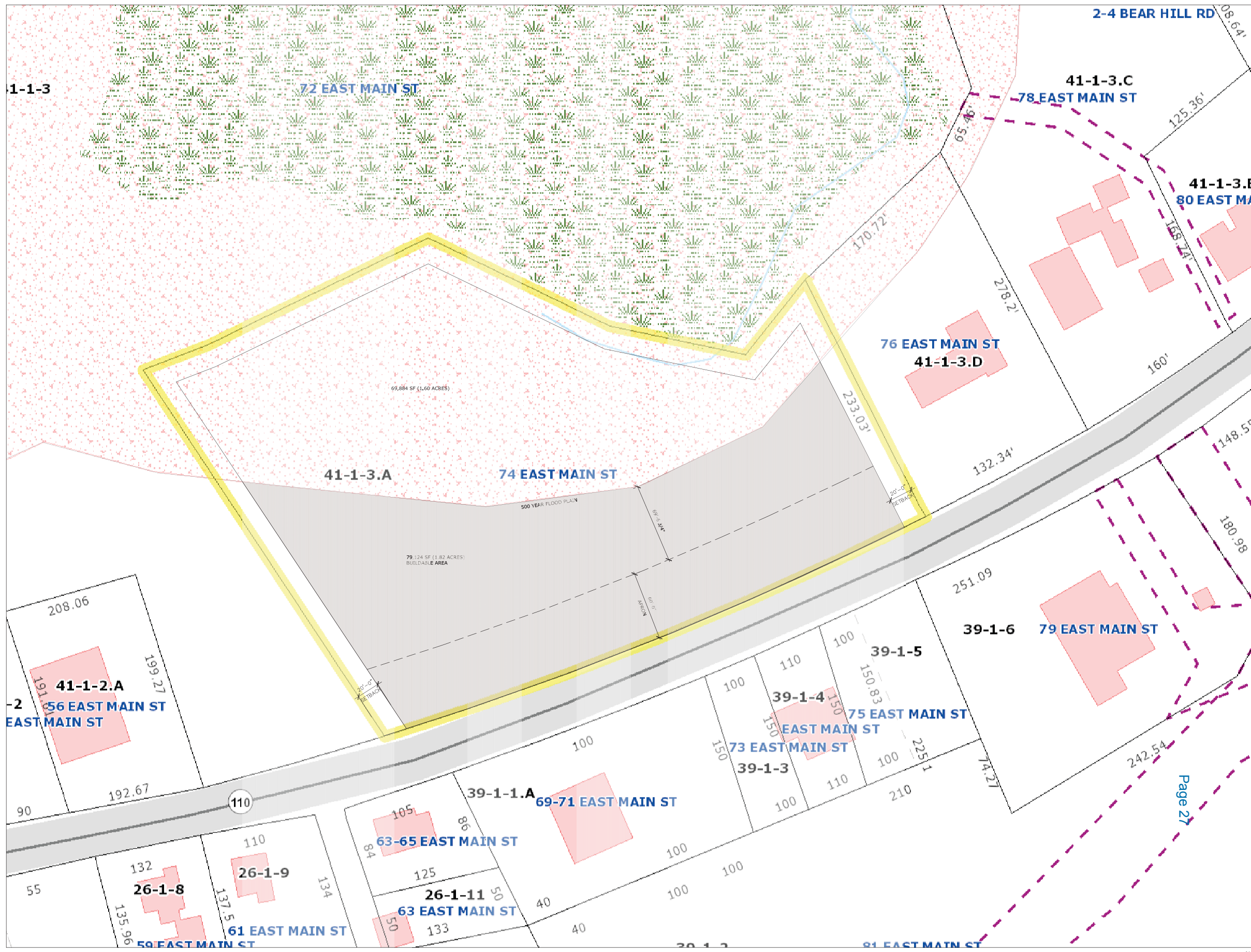
Registrations
Consultants

Project
Merrimac Public Safety Complex
Feasibility Study
Town of Merrimac

Drawing Title
SITE 2
74 EAST MAIN STREET - POSSIBLE SITE

SMV	JMS
Drawn by	Checked by
MARCH 2, 2016	
21512	
EXISTING CONDITIONS	
Drawn by	
Drawn by	

SITE



PLAN PROPOSED SITE
1/32" = 1'-0"



Page 27

74 East Main Street_Waterhouse



- Municipal Boundar
- Parcels
- Easements
- Roads
 - Interstate
 - Major Road
 - Trails
- Hydrographic Features
 - Streams
 - Wetlands

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1" = 114 ft



Merrimac MIMAP

February 23, 2016



<i>Building Size: Assumed single story construction</i> <i>Site Elements: Roadways/Pathways not included</i>	Square Footage
SITE 2	
Address: 74 East Main Street	
Owner: Private (Waterhouse Realty)	
Zoning: Commercial	
Lot Size	4.25 Acres
Buildable Area	79,124 SF (1.82 acres) (69,884 SF (1.60 acres) within 500 Year Flood Plain)
Fire, Police and DPW Combined	
Tranformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking (personnel/visitors - includes Carport)	35,360 SF
Building Combined	56,673 SF
TOTAL	101,403 SF
Fire and Police Station Combined	
Tranformers/Generators/Dumpsters/Antenna	670 SF
Parking (personnel/visitors - includes Carport)	28,640 SF
Building Combined	31,446 SF
TOTAL	60,576 SF
Fire Station and DPW Combined	
Tranformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking (personnel/visitors)	21,600 SF
Building Combined	46,241 SF
TOTAL	77,211 SF
Police Station and DPW Combined	
Tranformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking (personnel/visitors - includes Carport)	20,480 SF
Building Combined	39,518 SF
TOTAL	69,368 SF
Stand Alone Police Station	
Tranformers/Generators/Dumpsters/Antenna	670 SF
Parking (personnel/visitors - includes Carport)	13,760 SF
Building	14,027 SF
TOTAL	28,457 SF
Stand Alone Fire Station	
Tranformers/Generators/Dumpsters/Antenna	670 SF
Parking (personnel/visitors)	14,880 SF
Building	20,750 SF
TOTAL	36,300 SF

**Feasibility Study for the
Merrimac Public Safety Complex**

<i>Building Size: Assumed single story construction Site Elements: Roadways/Pathways not included</i>	Square Footage
Stand Alone DPW	
Tranformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking (personnel/visitors)	6,720 SF
Building	26,789 SF
TOTAL	42,879 SF
Site Challenges:	
1/2 Site is within 500 Year Flood Plain	
Narrow, linear site	
Only other possible location for Fire Department	

SITE 3: 1 BEAR HILL ROAD

1 Bear Hill Road accommodated the following:

- Police / DPW in a combined structure at 39,518 SF or 69,368 SF with support and parking
- Stand-Alone Police Station at 14,027 SF or 28,457 SF with support and parking
- Stand-Alone DPW at 26,789 SF or 42,879 SF with support and parking

Challenges on this site included that the site would not be a good location for the Fire Department.

Comments from the Committee included that it is an awkward site which doesn't appear to work well for any department.

Number	Rev/Mod	Date

Registrations

Consultants

Project
Merrimac Public Safety Complex
Feasibility Study
Town of Merrimac

Drawing Title
SITE 3
1 BEAR HILL ROAD - POSSIBLE SITE

SMV	JMS
Drawn by	Checked by
MARCH 2, 2016	
Date	
21512	
Job number	
EXISTING CONDITIONS	
Drawn by	
Drawn by number	

SITE



PLAN PROPOSED SITE
1/32" = 1'-0"



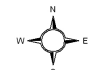
1 Bear Hill Road



- Municipal Boundar
- Parcels
- Easements
- Roads
 - Interstate
 - Major Road
 - Trails
- Hydrographic Features
- Streams
- Wetlands

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1" = 110 ft



Merrimac MIMAP

February 23, 2016



<i>Building Size: Assumed single story construction Site Elements: Roadways/Pathways not included</i>	Square Footage
SITE 3	
Address: 1 Bear Hill Road	
Owner: Private (Waterhouse Realty)	
Zoning: Commercial	
Lot Size	1.69 Acres
Buildable Area	64,349 SF (1.48 acres)
Police Station/DPW Combined	
Transformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking Combined (personnel/visitors)	20,480 SF
Building Combined	39,518 SF
TOTAL	69,368 SF
Stand Alone Police Station	
Transformers/Generators/Dumpsters/Antenna	670 SF
Parking (personnel/visitors - includes Carport)	13,760 SF
Building	14,027 SF
TOTAL	28,457 SF
Stand Alone DPW	
Transformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking (personnel/visitors)	6,720 SF
Building	26,789 SF
TOTAL	42,879 SF
Site Challenges:	
Site identified as not meeting the response time requirement for the Fire Department	

SITE 4: EMERY STREET FIELD

Emery Street Fields accommodated the following:

- Police / DPW in a combined structure at 39,518 SF or 69,368 SF with support and parking
- Stand-Alone Police Station at 14,027 SF or 28,457 SF with support and parking
- Stand-Alone DPW at 26,789 SF or 42,879 SF with support and parking

Challenges on this site included that the site includes some wetlands, the surrounding residential neighborhood and challenging access.

Comments from the Committee for this site included that access to the site might be difficult but not impossible as access already exists, that the site would not be suitable for Police because of the proximity to residents, that the site includes wetlands and an endangered species of flowers on a portion of site, and that there is a steep grade change at south end of site. However, most of the Committee noted that if the Fire Department were able to stay at 16 East Main Street the DPW could move to Emery Site.

Number	Revision	Date

Registrations

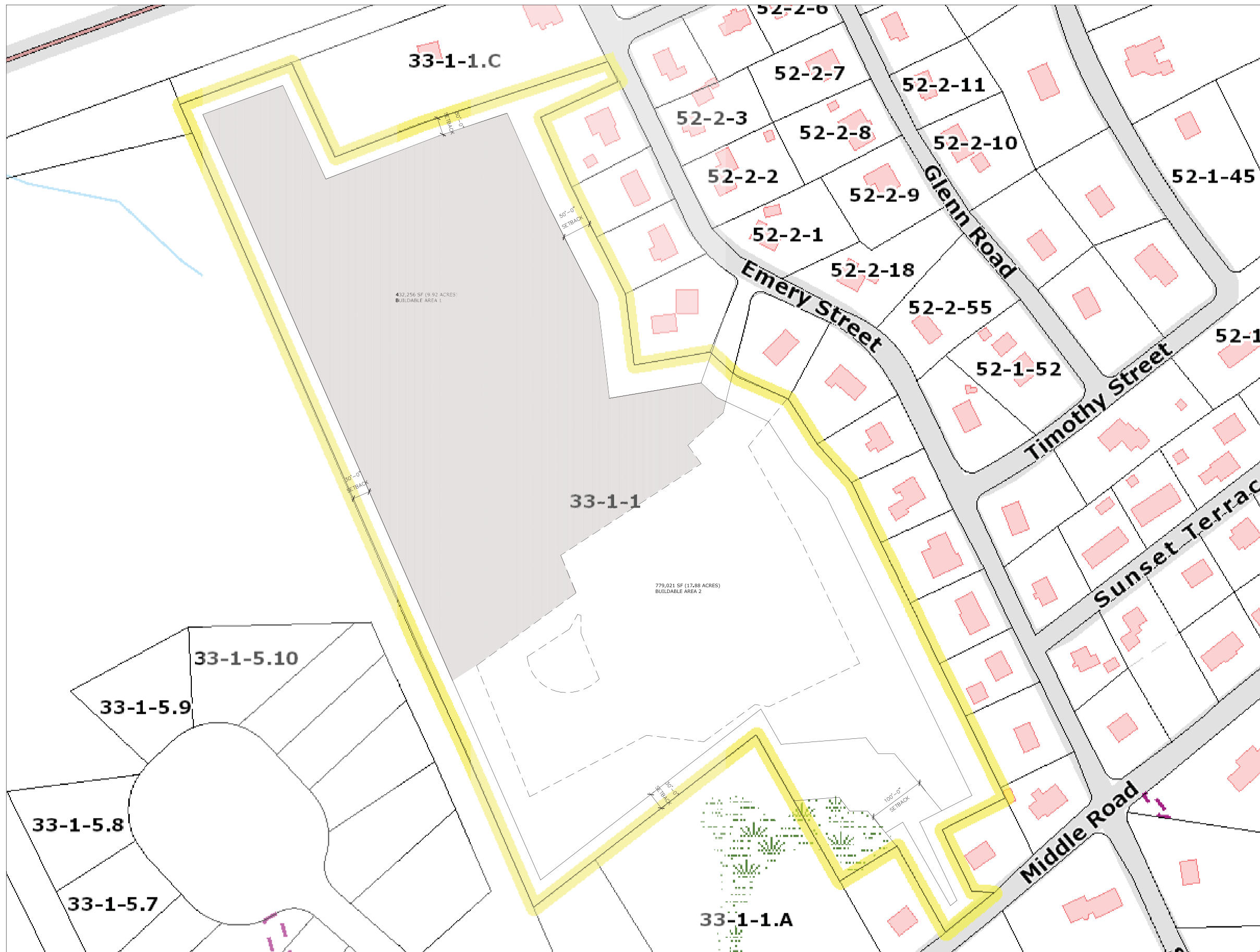
Consultants

Project
Merrimac Public Safety Complex
Feasibility Study
Town of Merrimac

DATE: 1/16/16
Drawing Title
**SITE 4
EMERY STREET FIELD - POSSIBLE SITE**

SMV	JMS
Drawn by	Checked by
MARCH 2, 2016	
21512	
21512	
EXISTING CONDITIONS	
Design:	
Drawn:	

SITE



PLAN PROPOSED SITE
1/64" = 1'-0"

1



Emery Street Field

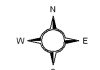


Amesbury

- Municipal Boundar
- Parcels
- Easements
- Roads
 - Interstate
 - Major Road
 - Trails
- Hydrographic Features
 - Streams
 - Wetlands

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1" = 259 ft



Merrimac MIMAP

February 22, 2016

<i>Building Size: Assumed single story construction</i> <i>Site Elements: Roadways/Pathways not included</i>	Square Footage
SITE 4	
Address: Emery Street Fields	
Owner: Town of Merrimac	
Zoning: Agricultural-Residential	
Lot Size	17.94 Acres
Buildable Area 1	432,256 SF (9.92 Acres)
Buildable Area 2 (entire Lot)	799,021 SF (17.88 Acres)
Police Station/DPW Combined	
Transformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking Combined (personnel/visitors - includes Carport)	20,480 SF
Building Combined	39,518 SF
TOTAL	69,368 SF
Stand Alone Police Station	
Transformers/Generators/Dumpsters/Antenna	670 SF
Parking (personnel/visitors - includes Carport)	13,760 SF
Building	14,027 SF
TOTAL	28,457 SF
Stand Alone DPW	
Transformers/Generators/Dumpsters/Antenna	670 SF
Salt + Sand Shed	6,000 SF = 2,352 SF (56'x42') + 3,648 SF
Exterior/Bulk Storage	2,700 SF
Parking (personnel/visitors)	6,720 SF
Building	26,789 SF
TOTAL	42,879 SF
Site Challenges:	
Some Wetlands	
Residential Neighbors abutting the property	
Access to site appears to be difficult	
Existing fields (in use?)	
Development of Site(s) to the west	

FACILITY COMBINATIONS

The goal of the planning process is to program “site blind” meaning that the program is developed not for a specific site, but is developed to describe the actual needs of each department on any site that may be identified. Therefore, during the initial needs assessment, each department, and all of the shared public and support spaces, were programmed with that concept in mind, and were presented as individual sub-categories. This organization provided a clear way to understand the individual needs of each department and how they might share other spaces that have overlapping uses. The results of that initial programming, after reductions following department review, is 58,177 gross square feet.

The next step was combine the stand-alone programs, with revised shared and support spaces based on public interactions, training needs and related mechanical / electrical / plumbing-fire protection and IT needs.

The following pages contain summary programming sheets that illustrate the initial program and possible combinations for the three departments:

- (1) A combined Fire, Police and Public Works Department
- (2) A combined Fire and Police Department
- (3) A combined Fire and Public Works Department
- (4) A combined Police and Public Works Department
- (5) A Stand-Alone Police Department
- (6) A Stand-Alone Fire Department
- (7) A Stand-Alone Public Works Department

(1) FD PD DPW COMBINED

The first (1) of these, a combined Fire, Police and Public Works Department at 58,177 gross square feet, includes each department program total plus all of the Shared Public and Support Spaces program totals. In this case, the building is assumed to be at least two stories in height and therefore includes stairs and an elevator. All shared and support spaces such as public lobbies, training/community rooms and related mechanical / electrical / plumbing-fire protection and IT areas will be organized so the departments equally share these spaces.

FD PD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
SHARED PUBLIC AREAS						
Entry Vestibule - Lobby	1	SKA-S1	234		90	
Interview / Intake Room	2	SKA-S2	128			
Triage Room	3	SKA-S3	100			
Training / Community Room	4,5	SKA-S4A, SKA-S4B, SKA-S4C	1064		1,572	
Training Room Storage	6	SKA-S5	110			
Kitchen	7	SKA-S6	360		219	
Public Toilet	8	SKA-S7	121			
Fitness Room / Defensive Tactics Room with Storage	9	SKA-S8	564			
SUBTOTAL				2,681	1,881	
Gross area adjustment 15%				402		
Circulation adjustment at 20%				617		
TOTAL				3,700		
SUPPORT SPACES						
Janitor's Closet	10	SKA-SUP1	72		85	
Mechanical Room	11	SKA-SUP2	400			
Plumbing / Fire Protection Room	12	SKA-SUP3	144			
Main Electrical Room	13	SKA-SUP4	250		104	
Emergency Electrical Room	14	SKA-SUP5	80			
Electrical Closet Per Floor Assume 1	15	SKA-SUP6	48			
Emergency Electrical Closet	16	SKA-SUP7	96			
IT Room	17	SKA-SUP8	192		124	
Radio Room	18	SKA-SUP9	60			
Stairs	19	SKA-SUP10	880			
Elevator	20	SKA-SUP11	200			
Elevator Machine Room	21	SKA-SUP12	100			
SUBTOTAL				2,522	313	
Gross area adjustment 15%				378		
Circulation adjustment at 20%				580		
TOTAL				3,480		
DPW - HIGHWAY DEPARTMENT						
Foreman's Office	22	SKA-DPW1	144		234	
Lunchroom / Small Meeting	23	SKA-DPW2	336			
Locker/Shower/Toilet - Male	24	SKA-DPW3	360		135	
Locker/Shower/Toilet - Female	25	SKA-DPW4	230			
Laundry	26	SKA-DPW5	69			
Maintenance Bays	27	SKA-DPW6	2640		3,690	
Storage	28	SKA-DPW7	330		785	
Fluid Storage Area	29	SKA-DPW8	160			
Parts & Supply Storage	30	SKA-DPW9	224		283	
Tire Storage	31	SKA-DPW10	50			
Vehicle Staging & Prep	32	SKA-DPW11	11,440		3,117	
Wash Bay	33	SKA-DPW12	1690			
Future Mechanic's Office	34	SKA-DPW13	100			
Public Works Director Office	35	SKA-DPW14	182			
Administrative Assistant Workspace	36	SKA-DPW15	214			

FD PD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Future Engineering Office	37	SKA-DPW16	0			Deleted Space (02/24/2016)
Coat Closet	38	SKA-DPW17	13			
Office Supply	39	SKA-DPW18	18			
Plan Room	40	SKA-DPW19	80			
SUBTOTAL				18,280	8,244	
Gross area adjustment 15%				2,742		
Circulation adjustment at 20%				4,204		
TOTAL				25,226		
FIRE DEPARTMENT / INTERMEDIATE AMBULANCE / EMERGENCY MANGEMENT						
Fire Chief Office	41	SKA-F1	204		245	
Administrative Assistant	42	SKA-F2	168			
Deputy Fire Chief Office	43	SKA-F3	126		208	
Deputy Fire Chief Office	44	SKA-F3	126			
Shared Office for Fire Officers	45	SKA-F4	144		102	
Fire Prevention Office and Plan Storage	46	SKA-F5	0			Deleted Space (02/24/2016)
Hose Company Office	47	SKA-F6	0			Deleted Space (02/24/2016)
Coat Closet	48	SKA-F7	13		337	
Dorm Rooms	49	SKA-F8	560			
Toilet / Shower Room Male	50	SKA-F9	264			
Toilet / Shower Room Female	51	SKA-F10	200			
Day Room	52	SKA-F11	252		588	
Radio Room Back-Up to Main Dispatch	53	SKA-F12	72		237	
Apparatus Bays	54,55	SKA-F13	7,332		4,892	
Maintenance Workshop	56	SKA-F14	120		195	
Gear Storage	57	SKA-F15	612			
SCBA Fill Room	58	SKA-F16	108			
Oxygen Storage	59	SKA-F17	32			
Medical Cleaning / Decontamination	60	SKA-F18	143			
Laundry	61	SKA-F19	120		102	
Air Compressor	62	SKA-F20	40			
Medical Supply Storage	63	SKA-F21	70			
Shelter Storage	64	SKA-F22	238			
Bulk Storage	65	SKA-F23	150			
Hose Storage	66	SKA-F24	48			
FUTURE Hose / Training Tower	67	SKA-F25	288			
Staff Toilet	68	SKA-F26	121		34	
SUBTOTAL				11,551	6,940	
Gross area adjustment 15%				1,733		
Circulation adjustment at 20%				2,657		
TOTAL				15,940		
POLICE DEPARTMENT						
Dispatch	69	SKA-DP1	336		128	
Dispatch Support Space	70	SKA-DP2	64			

FD PD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
911 Equipment Room	71	SKA-DP3	60			
Police Chief Office	72	SKA-P1	204		136	
Administrative Assistant	73	SKA-P2	132		90	
Conference Room	74	SKA-P3	192			
Future Lieutenant - Second in Command	75	SKA-P4	120			
Future Detectives	76	SKA-P5	144			
Office Equipment / Copy	77	SKA-P6	64		155	
Office Supply	78	SKA-P7	32		11	
Active File Room	79	SKA-P8	100			
Archival Document Storage	80	SKA-P9	168			
Sergeants	81	SKA-P10	168			
Roll Call / Break Room	82	SKA-P11	243			
Report Writing ACO + Reserve Officers	83	SKA-P12	108			
Patrol Shared Workspace	84	SKA-P13	264		573	
Patrol Storage	85	SKA-P14	64		293	
Evidence - Prep / Processing / Storage	86	SKA-P15	267		102	
Narcotics / Valuable Evidence	87	SKA-P16	60			
Armory	88	SKA-P17	80			
Toilet / Shower / Locker Room - Male	89	SKA-P18	776			
Toilet / Shower / Locker Room - Female	90	SKA-P19	314			
Sally Port / Impound Bay	91	SKA-P20	952			
Bulk Evidence	92	SKA-P21	160			
Holding Booking	93	SKA-P22	72			
Booking	94,95	SKA-P23	325		311	
Detainee Storage	96	SKA-P24	36			
Detainee Shower	97	SKA-P25	43			
Detention Janitor	98	SKA-P26	30			
Detention Interview Room	99	SKA-P27	120			
Detention AV Surveillance	100	SKA-P28	64			
Detention Cell - Male	101	SKA-P29	144		156	
Detention Cell - Female	102	SKA-P30	72			
Detention Cell - Juvenile	103	SKA-P31	72			
Matron / Juvenile Soft Cell	104	SKA-P32	68			
Vehicle Storage	105	SKA-P33	784		590	
Maintenance Storage	106	SKA-P34	100			
Future Lab Processing	107	SKA-P35	0			Deleted Space (02/24/2016)
Staff Toilet	108	SKA-P36	121		71	
SUBTOTAL				7,123	2,616	
Gross area adjustment 15%				1,068		
Circulation adjustment at 20%				1,638		
TOTAL				9,830		
Total Net square Feet					19,994	
Total GSF First Level					18,782	
Total GSF 2nd Level plus Mez					3,624	
GRAND TOTAL GSF				58,177	22,406	
Carpport	109	SKA-P37	1600			

(2) FD PD COMBINED

The second (2), a combined Fire and Police Department at 32,950 gross square feet, includes the Fire and Police Department program totals, plus Shared Public and Support Spaces totals. All of the Public Works totals, shown as DPW - Highway Department, have been reduced to zero. In this case, the building is assumed to be at least two stories in height and therefore includes stairs and an elevator.

FD PD COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
SHARED PUBLIC AREAS						
Entry Vestibule - Lobby	1	SKA-S1	234		90	
Interview / Intake Room	2	SKA-S2	128			
Triage Room	3	SKA-S3	100			
Training / Community Room	4,5	SKA-S4A, SKA-S4B, SKA-S4C	1064		1,572	
Training Room Storage	6	SKA-S5	110			
Kitchen	7	SKA-S6	360		219	
Public Toilet	8	SKA-S7	121			
Fitness Room / Defensive Tactics Room with Storage	9	SKA-S8	564			
SUBTOTAL				2,681	1,881	
Gross area adjustment 15%				402		
Circulation adjustment at 20%				617		
TOTAL				3,700		
SUPPORT SPACES						
Janitor's Closet	10	SKA-SUP1	72		85	
Mechanical Room	11	SKA-SUP2	400			
Plumbing / Fire Protection Room	12	SKA-SUP3	144			
Main Electrical Room	13	SKA-SUP4	250		104	
Emergency Electrical Room	14	SKA-SUP5	80			
Electrical Closet Per Floor Assume 1	15	SKA-SUP6	48			
Emergency Electrical Closet	16	SKA-SUP7	96			
IT Room	17	SKA-SUP8	192		124	
Radio Room	18	SKA-SUP9	60			
Stairs	19	SKA-SUP10	880			
Elevator	20	SKA-SUP11	200			
Elevator Machine Room	21	SKA-SUP12	100			
SUBTOTAL				2,522	313	
Gross area adjustment 15%				378		
Circulation adjustment at 20%				580		
TOTAL				3,480		
DPW - HIGHWAY DEPARTMENT						
Foreman's Office	22	SKA-DPW1	0		234	
Lunchroom / Small Meeting	23	SKA-DPW2	0			
Locker/Shower/Toilet - Male	24	SKA-DPW3	0		135	
Locker/Shower/Toilet - Female	25	SKA-DPW4	0			
Laundry	26	SKA-DPW5	0			
Maintenance Bays	27	SKA-DPW6	0		3,690	
Storage	28	SKA-DPW7	0		785	
Fluid Storage Area	29	SKA-DPW8	0			
Parts & Supply Storage	30	SKA-DPW9	0		283	
Tire Storage	31	SKA-DPW10	0			
Vehicle Staging & Prep	32	SKA-DPW11	0		3,117	
Wash Bay	33	SKA-DPW12	0			
Future Mechanic's Office	34	SKA-DPW13	0			
Public Works Director Office	35	SKA-DPW14	0			
Administrative Assistant Workspace	36	SKA-DPW15	0			

FD PD COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Future Engineering Office	37	SKA-DPW16	0			Deleted Space (02/24/2016)
Coat Closet	38	SKA-DPW17	0			
Office Supply	39	SKA-DPW18	0			
Plan Room	40	SKA-DPW19	0			
SUBTOTAL				0	8,244	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
FIRE DEPARTMENT / INTERMEDIATE AMBULANCE / EMERGENCY MANGEMENT						
Fire Chief Office	41	SKA-F1	204		245	
Administrative Assistant	42	SKA-F2	168			
Deputy Fire Chief Office	43	SKA-F3	126		208	
Deputy Fire Chief Office	44	SKA-F3	126			
Shared Office for Fire Officers	45	SKA-F4	144		102	
Fire Prevention Office and Plan Storage	46	SKA-F5	0			Deleted Space (02/24/2016)
Hose Company Office	47	SKA-F6	0			Deleted Space (02/24/2016)
Coat Closet	48	SKA-F7	13		337	
Dorm Rooms	49	SKA-F8	560			
Toilet / Shower Room Male	50	SKA-F9	264			
Toilet / Shower Room Female	51	SKA-F10	200			
Day Room	52	SKA-F11	252		588	
Radio Room Back-Up to Main Dispatch	53	SKA-F12	72		237	
Apparatus Bays	54,55	SKA-F13	7,332		4,892	
Maintenance Workshop	56	SKA-F14	120		195	
Gear Storage	57	SKA-F15	612			
SCBA Fill Room	58	SKA-F16	108			
Oxygen Storage	59	SKA-F17	32			
Medical Cleaning / Decontamination	60	SKA-F18	143			
Laundry	61	SKA-F19	120		102	
Air Compressor	62	SKA-F20	40			
Medical Supply Storage	63	SKA-F21	70			
Shelter Storage	64	SKA-F22	238			
Bulk Storage	65	SKA-F23	150			
Hose Storage	66	SKA-F24	48			
FUTURE Hose / Training Tower	67	SKA-F25	288			
Staff Toilet	68	SKA-F26	121		34	
SUBTOTAL				11,551	6,940	
Gross area adjustment 15%				1,733		
Circulation adjustment at 20%				2,657		
TOTAL				15,940		
POLICE DEPARTMENT						
Dispatch	69	SKA-DP1	336		128	
Dispatch Support Space	70	SKA-DP2	64			

FD PD COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
911 Equipment Room	71	SKA-DP3	60			
Police Chief Office	72	SKA-P1	204		136	
Administrative Assistant	73	SKA-P2	132		90	
Conference Room	74	SKA-P3	192			
Future Lieutenant - Second in Command	75	SKA-P4	120			
Future Detectives	76	SKA-P5	144			
Office Equipment / Copy	77	SKA-P6	64		155	
Office Supply	78	SKA-P7	32		11	
Active File Room	79	SKA-P8	100			
Archival Document Storage	80	SKA-P9	168			
Sergeants	81	SKA-P10	168			
Roll Call / Break Room	82	SKA-P11	243			
Report Writing ACO + Reserve Officers	83	SKA-P12	108			
Patrol Shared Workspace	84	SKA-P13	264		573	
Patrol Storage	85	SKA-P14	64		293	
Evidence - Prep / Processing / Storage	86	SKA-P15	267		102	
Narcotics / Valuable Evidence	87	SKA-P16	60			
Armory	88	SKA-P17	80			
Toilet / Shower / Locker Room - Male	89	SKA-P18	776			
Toilet / Shower / Locker Room - Female	90	SKA-P19	314			
Sally Port / Impound Bay	91	SKA-P20	952			
Bulk Evidence	92	SKA-P21	160			
Holding Booking	93	SKA-P22	72			
Booking	94,95	SKA-P23	325		311	
Detainee Storage	96	SKA-P24	36			
Detainee Shower	97	SKA-P25	43			
Detention Janitor	98	SKA-P26	30			
Detention Interview Room	99	SKA-P27	120			
Detention AV Surveillance	100	SKA-P28	64			
Detention Cell - Male	101	SKA-P29	144		156	
Detention Cell - Female	102	SKA-P30	72			
Detention Cell - Juvenile	103	SKA-P31	72			
Matron / Juvenile Soft Cell	104	SKA-P32	68			
Vehicle Storage	105	SKA-P33	784		590	
Maintenance Storage	106	SKA-P34	100			
Future Lab Processing	107	SKA-P35	0			Deleted Space (02/24/2016)
Staff Toilet	108	SKA-P36	121		71	
SUBTOTAL				7,123	2,616	
Gross area adjustment 15%				1,068		
Circulation adjustment at 20%				1,638		
TOTAL				9,830		
Total Net square Feet					19,994	
Total GSF First Level					18,782	
Total GSF 2nd Level plus Mez					3,624	
GRAND TOTAL				32,950	22,406	
Carport	109	SKA-P37	1600			

(3) FD DPW COMBINED

The third (3), a combined Fire and Public Works Department at 47,745 gross square feet, includes the Fire and Public Works Departments program totals, plus slightly reduced Shared Public and Support Spaces totals. All of the Police Department totals have been reduced to zero. In this case, the building is assumed to be at least two stories in height and therefore includes stairs and an elevator.

FD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
SHARED PUBLIC AREAS						
Entry Vestibule - Lobby	1	SKA-S1	190		90	Smaller without Dispatch
Interview / Intake Room	2	SKA-S2	0			No Intake Required
Triage Room	3	SKA-S3	100			
Training / Community Room	4,5	SKA-S4A, SKA-S4B, SKA-S4C	1064		1,572	FD Meeting Room, EOC included in this SF
Training Room Storage	6	SKA-S5	110			
Kitchen	7	SKA-S6	360		219	
Public Toilet	8	SKA-S7	121			
Fitness Room / Defensive Tactics Room with Storage	9	SKA-S8	300			No storage for defensive training equipment
SUBTOTAL				2,245	1,881	
Gross area adjustment 15%				337		
Circulation adjustment at 20%				516		
TOTAL				3,098		
SUPPORT SPACES						
Janitor's Closet	10	SKA-SUP1	72		85	
Mechanical Room	11	SKA-SUP2	400			
Plumbing / Fire Protection Room	12	SKA-SUP3	144			
Main Electrical Room	13	SKA-SUP4	250		104	
Emergency Electrical Room	14	SKA-SUP5	80			
Electrical Closet Per Floor Assume 1	15	SKA-SUP6	48			
Emergency Electrical Closet	16	SKA-SUP7	96			
IT Room	17	SKA-SUP8	192		124	
Radio Room	18	SKA-SUP9	60			
Stairs	19	SKA-SUP10	880			
Elevator	20	SKA-SUP11	200			
Elevator Machine Room	21	SKA-SUP12	100			
SUBTOTAL				2,522	313	
Gross area adjustment 15%				378		
Circulation adjustment at 20%				580		
TOTAL				3,480		
DPW - HIGHWAY DEPARTMENT						
Foreman's Office	22	SKA-DPW1	144		234	
Lunchroom / Small Meeting	23	SKA-DPW2	336			
Locker/Shower/Toilet - Male	24	SKA-DPW3	360		135	
Locker/Shower/Toilet - Female	25	SKA-DPW4	230			
Laundry	26	SKA-DPW5	69			
Maintenance Bays	27	SKA-DPW6	2640		3,690	
Storage	28	SKA-DPW7	330		785	
Fluid Storage Area	29	SKA-DPW8	160			
Parts & Supply Storage	30	SKA-DPW9	224		283	
Tire Storage	31	SKA-DPW10	50			
Vehicle Staging & Prep	32	SKA-DPW11	11,440		3,117	
Wash Bay	33	SKA-DPW12	1690			
Future Mechanic's Office	34	SKA-DPW13	100			
Public Works Director Office	35	SKA-DPW14	182			
Administrative Assistant Workspace	36	SKA-DPW15	214			

FD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Future Engineering Office	37	SKA-DPW16	0			Deleted Space (02/24/2016)
Coat Closet	38	SKA-DPW17	13			
Office Supply	39	SKA-DPW18	18			
Plan Room	40	SKA-DPW19	80			
SUBTOTAL				18,280	8,244	
Gross area adjustment 15%				2,742		
Circulation adjustment at 20%				4,204		
TOTAL				25,226		
FIRE DEPARTMENT / INTERMEDIATE AMBULANCE / EMERGENCY MANGEMENT						
Fire Chief Office	41	SKA-F1	204		245	
Administrative Assistant	42	SKA-F2	168			
Deputy Fire Chief Office	43	SKA-F3	126		208	
Deputy Fire Chief Office	44	SKA-F3	126			
Shared Office for Fire Officers	45	SKA-F4	144		102	
Fire Prevention Office and Plan Storage	46	SKA-F5	0			Deleted Space (02/24/2016)
Hose Company Office	47	SKA-F6	0			Deleted Space (02/24/2016)
Coat Closet	48	SKA-F7	13		337	
Dorm Rooms	49	SKA-F8	560			
Toilet / Shower Room Male	50	SKA-F9	264			
Toilet / Shower Room Female	51	SKA-F10	200			
Day Room	52	SKA-F11	252		588	
Radio Room Back-Up to Main Dispatch	53	SKA-F12	72		237	
Apparatus Bays	54,55	SKA-F13	7,332		4,892	
Maintenance Workshop	56	SKA-F14	120		195	
Gear Storage	57	SKA-F15	612			
SCBA Fill Room	58	SKA-F16	108			
Oxygen Storage	59	SKA-F17	32			
Medical Cleaning / Decontamination	60	SKA-F18	143			
Laundry	61	SKA-F19	120		102	
Air Compressor	62	SKA-F20	40			
Medical Supply Storage	63	SKA-F21	70			
Shelter Storage	64	SKA-F22	238			
Bulk Storage	65	SKA-F23	150			
Hose Storage	66	SKA-F24	48			
FUTURE Hose / Training Tower	67	SKA-F25	288			
Staff Toilet	68	SKA-F26	121		34	
SUBTOTAL				11,551	6,940	
Gross area adjustment 15%				1,733		
Circulation adjustment at 20%				2,657		
TOTAL				15,940		
POLICE DEPARTMENT						
Dispatch	69	SKA-DP1	0		128	
Dispatch Support Space	70	SKA-DP2	0			

FD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
911 Equipment Room	71	SKA-DP3	0			
Police Chief Office	72	SKA-P1	0		136	
Administrative Assistant	73	SKA-P2	0		90	
Conference Room	74	SKA-P3	0			
Future Lieutenant - Second in Command	75	SKA-P4	0			
Future Detectives	76	SKA-P5	0			
Office Equipment / Copy	77	SKA-P6	0		155	
Office Supply	78	SKA-P7	0		11	
Active File Room	79	SKA-P8	0			
Archival Document Storage	80	SKA-P9	0			
Sergeants	81	SKA-P10	0			
Roll Call / Break Room	82	SKA-P11	0			
Report Writing ACO + Reserve Officers	83	SKA-P12	0			
Patrol Shared Workspace	84	SKA-P13	0		573	
Patrol Storage	85	SKA-P14	0		293	
Evidence - Prep / Processing / Storage	86	SKA-P15	0		102	
Narcotics / Valuable Evidence	87	SKA-P16	0			
Armory	88	SKA-P17	0			
Toilet / Shower / Locker Room - Male	89	SKA-P18	0			
Toilet / Shower / Locker Room - Female	90	SKA-P19	0			
Sally Port / Impound Bay	91	SKA-P20	0			
Bulk Evidence	92	SKA-P21	0			
Holding Booking	93	SKA-P22	0			
Booking	94,95	SKA-P23	0		311	
Detainee Storage	96	SKA-P24	0			
Detainee Shower	97	SKA-P25	0			
Detention Janitor	98	SKA-P26	0			
Detention Interview Room	99	SKA-P27	0			
Detention AV Surveillance	100	SKA-P28	0			
Detention Cell - Male	101	SKA-P29	0		156	
Detention Cell - Female	102	SKA-P30	0			
Detention Cell - Juvenile	103	SKA-P31	0			
Matron / Juvenile Soft Cell	104	SKA-P32	0			
Vehicle Storage	105	SKA-P33	0		590	
Maintenance Storage	106	SKA-P34	0			
Future Lab Processing	107	SKA-P35	0			Deleted Space (02/24/2016)
Staff Toilet	108	SKA-P36	0		71	
SUBTOTAL				0	2,616	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
Total Net square Feet					19,994	
Total GSF First Level					18,782	
Total GSF 2nd Level plus Mez					3,624	
GRAND TOTAL				47,745	22,406	
Carport	109	SKA-P37	0			

(4) PD DPW COMBINED

The fourth (4), a combined Police and Public Works Department at 41,022 gross square feet, includes the Police and Public Works Departments program totals, plus reduced Shared Public and Support Spaces program totals. All of the Fire Department totals have been reduced to zero. In this case, the building is assumed to be at least two stories in height and therefore includes stairs and an elevator.

PD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
SHARED PUBLIC AREAS						
Entry Vestibule - Lobby	1	SKA-S1	234		90	
Interview / Intake Room	2	SKA-S2	128			
Triage Room	3	SKA-S3	0			No Triage Required
Training / Community Room	4,5	SKA-S4A, SKA-S4B, SKA-S4C	500		1,572	Smaller size but still available to Community
Training Room Storage	6	SKA-S5	110			
Kitchen	7	SKA-S6	144		219	Smaller Kitchen
Public Toilet	8	SKA-S7	121			
Fitness Room / Defensive Tactics Room with Storage	9	SKA-S8	564			
				1,801	1,881	
				270		
				414		
TOTAL				2,485		
SUPPORT SPACES						
Janitor's Closet	10	SKA-SUP1	72		85	
Mechanical Room	11	SKA-SUP2	400			
Plumbing / Fire Protection Room	12	SKA-SUP3	144			
Main Electrical Room	13	SKA-SUP4	250		104	
Emergency Electrical Room	14	SKA-SUP5	80			
Electrical Closet Per Floor Assume 1	15	SKA-SUP6	48			
Emergency Electrical Closet	16	SKA-SUP7	96			
IT Room	17	SKA-SUP8	192		124	
Radio Room	18	SKA-SUP9	60			
Stairs	19	SKA-SUP10	880			
Elevator	20	SKA-SUP11	200			
Elevator Machine Room	21	SKA-SUP12	100			
				2,522	313	
				378		
				580		
TOTAL				3,480		
DPW - HIGHWAY DEPARTMENT						
Foreman's Office	22	SKA-DPW1	144		234	
Lunchroom / Small Meeting	23	SKA-DPW2	336			
Locker/Shower/Toilet - Male	24	SKA-DPW3	360		135	
Locker/Shower/Toilet - Female	25	SKA-DPW4	230			
Laundry	26	SKA-DPW5	69			
Maintenance Bays	27	SKA-DPW6	2640		3,690	
Storage	28	SKA-DPW7	330		785	
Fluid Storage Area	29	SKA-DPW8	160			
Parts & Supply Storage	30	SKA-DPW9	224		283	
Tire Storage	31	SKA-DPW10	50			
Vehicle Staging & Prep	32	SKA-DPW11	11,440		3,117	
Wash Bay	33	SKA-DPW12	1690			
Future Mechanic's Office	34	SKA-DPW13	100			
Public Works Director Office	35	SKA-DPW14	182			
Administrative Assistant Workspace	36	SKA-DPW15	214			

PD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Future Engineering Office	37	SKA-DPW16	0			Deleted Space (02/24/2016)
Coat Closet	38	SKA-DPW17	13			
Office Supply	39	SKA-DPW18	18			
Plan Room	40	SKA-DPW19	80			
SUBTOTAL				18,280	8,244	
Gross area adjustment 15%				2,742		
Circulation adjustment at 20%				4,204		
TOTAL				25,226		
FIRE DEPARTMENT / INTERMEDIATE AMBULANCE / EMERGENCY MANGEMENT						
Fire Chief Office	41	SKA-F1	0		245	
Administrative Assistant	42	SKA-F2	0			
Deputy Fire Chief Office	43	SKA-F3	0		208	
Deputy Fire Chief Office	44	SKA-F3	0			
Shared Office for Fire Officers	45	SKA-F4	0		102	
Fire Prevention Office and Plan Storage	46	SKA-F5	0			Deleted Space (02/24/2016)
Hose Company Office	47	SKA-F6	0			Deleted Space (02/24/2016)
Coat Closet	48	SKA-F7	0		337	
Dorm Rooms	49	SKA-F8	0			
Toilet / Shower Room Male	50	SKA-F9	0			
Toilet / Shower Room Female	51	SKA-F10	0			
Day Room	52	SKA-F11	0		588	
Radio Room Back-Up to Main Dispatch	53	SKA-F12	0		237	
Apparatus Bays	54,55	SKA-F13	0		4,892	
Maintenance Workshop	56	SKA-F14	0		195	
Gear Storage	57	SKA-F15	0			
SCBA Fill Room	58	SKA-F16	0			
Oxygen Storage	59	SKA-F17	0			
Medical Cleaning / Decontamination	60	SKA-F18	0			
Laundry	61	SKA-F19	0		102	
Air Compressor	62	SKA-F20	0			
Medical Supply Storage	63	SKA-F21	0			
Shelter Storage	64	SKA-F22	0			
Bulk Storage	65	SKA-F23	0			
Hose Storage	66	SKA-F24	0			
FUTURE Hose / Training Tower	67	SKA-F25	0			
Staff Toilet	68	SKA-F26	0		34	
SUBTOTAL				0	6,940	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
POLICE DEPARTMENT						
Dispatch	69	SKA-DP1	336		128	
Dispatch Support Space	70	SKA-DP2	64			

PD DPW COMBINED

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
911 Equipment Room	71	SKA-DP3	60			
Police Chief Office	72	SKA-P1	204		136	
Administrative Assistant	73	SKA-P2	132		90	
Conference Room	74	SKA-P3	192			
Future Lieutenant - Second in Command	75	SKA-P4	120			
Future Detectives	76	SKA-P5	144			
Office Equipment / Copy	77	SKA-P6	64		155	
Office Supply	78	SKA-P7	32		11	
Active File Room	79	SKA-P8	100			
Archival Document Storage	80	SKA-P9	168			
Sergeants	81	SKA-P10	168			
Roll Call / Break Room	82	SKA-P11	243			
Report Writing ACO + Reserve Officers	83	SKA-P12	108			
Patrol Shared Workspace	84	SKA-P13	264		573	
Patrol Storage	85	SKA-P14	64		293	
Evidence - Prep / Processing / Storage	86	SKA-P15	267		102	
Narcotics / Valuable Evidence	87	SKA-P16	60			
Armory	88	SKA-P17	80			
Toilet / Shower / Locker Room - Male	89	SKA-P18	776			
Toilet / Shower / Locker Room - Female	90	SKA-P19	314			
Sally Port / Impound Bay	91	SKA-P20	952			
Bulk Evidence	92	SKA-P21	160			
Holding Booking	93	SKA-P22	72			
Booking	94,95	SKA-P23	325		311	
Detainee Storage	96	SKA-P24	36			
Detainee Shower	97	SKA-P25	43			
Detention Janitor	98	SKA-P26	30			
Detention Interview Room	99	SKA-P27	120			
Detention AV Surveillance	100	SKA-P28	64			
Detention Cell - Male	101	SKA-P29	144		156	
Detention Cell - Female	102	SKA-P30	72			
Detention Cell - Juvenile	103	SKA-P31	72			
Matron / Juvenile Soft Cell	104	SKA-P32	68			
Vehicle Storage	105	SKA-P33	784		590	
Maintenance Storage	106	SKA-P34	100			
Future Lab Processing	107	SKA-P35	0			Deleted Space (02/24/2016)
Staff Toilet	108	SKA-P36	121		71	
SUBTOTAL				7,123	2,616	
Gross area adjustment 15%				1,068		
Circulation adjustment at 20%				1,638		
TOTAL				9,830		
Total Net square Feet					19,994	
Total GSF First Level					18,782	
Total GSF 2nd Level plus Mez					3,624	
GRAND TOTAL				41,022	22,406	
Carpport	109	SKA-P37	1600			

(5) STAND ALONE POLICE

The fifth (5), a Stand-Alone Police Department at 15,531 gross square feet, includes just the Police Department program totals, plus reduced Shared Public and Support Spaces program totals. All of the Fire and Public Works Department totals have been reduced to zero. In this case, the building is assumed to be at least two stories in height and therefore includes stairs and an elevator. If an appropriately sized site is identified, the police department would work better, from an operational point of view, if all spaces could be located on one level.

STAND ALONE POLICE

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
SHARED PUBLIC AREAS						
Entry Vestibule - Lobby	1	SKA-S1	234		90	
Interview / Intake Room	2	SKA-S2	128			
Triage Room	3	SKA-S3	0			
Training / Community Room	4,5	SKA-S4A, SKA-S4B, SKA-S4C	500		1,572	Smaller size but still available to Community
Training Room Storage	6	SKA-S5	110			
Kitchen	7	SKA-S6	144		219	Smaller Kitchen
Public Toilet	8	SKA-S7	121			
Fitness Room / Defensive Tactics Room with Storage	9	SKA-S8	564			
SUBTOTAL				1,801	1,881	
Gross area adjustment 15%				270		
Circulation adjustment at 20%				414		
TOTAL				2,485		
SUPPORT SPACES						
Janitor's Closet	10	SKA-SUP1	72		85	
Mechanical Room	11	SKA-SUP2	300			Smaller
Plumbing / Fire Protection Room	12	SKA-SUP3	144			
Main Electrical Room	13	SKA-SUP4	200		104	Smaller
Emergency Electrical Room	14	SKA-SUP5	80			
Electrical Closet Per Floor Assume 1	15	SKA-SUP6	48			
Emergency Electrical Closet	16	SKA-SUP7	96			
IT Room	17	SKA-SUP8	150		124	
Radio Room	18	SKA-SUP9	60			
Stairs	19	SKA-SUP10	880			
Elevator	20	SKA-SUP11	200			
Elevator Machine Room	21	SKA-SUP12	100			
SUBTOTAL				2,330	313	
Gross area adjustment 15%				350		
Circulation adjustment at 20%				536		
TOTAL				3,215		
DPW - HIGHWAY DEPARTMENT						
Foreman's Office	22	SKA-DPW1	0		234	0
Lunchroom / Small Meeting	23	SKA-DPW2	0			
Locker/Shower/Toilet - Male	24	SKA-DPW3	0		135	
Locker/Shower/Toilet - Female	25	SKA-DPW4	0			
Laundry	26	SKA-DPW5	0			
Maintenance Bays	27	SKA-DPW6	0		3,690	
Storage	28	SKA-DPW7	0		785	
Fluid Storage Area	29	SKA-DPW8	0			
Parts & Supply Storage	30	SKA-DPW9	0		283	
Tire Storage	31	SKA-DPW10	0			
Vehicle Staging & Prep	32	SKA-DPW11	0		3,117	
Wash Bay	33	SKA-DPW12	0			
Future Mechanic's Office	34	SKA-DPW13	0			
Public Works Director Office	35	SKA-DPW14	0			
Administrative Assistant Workspace	36	SKA-DPW15	0			

STAND ALONE POLICE

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Future Engineering Office	37	SKA-DPW16	0			Deleted Space (02/24/2016)
Coat Closet	38	SKA-DPW17	0			
Office Supply	39	SKA-DPW18	0			
Plan Room	40	SKA-DPW19	0			
SUBTOTAL				0	8,244	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
FIRE DEPARTMENT / INTERMEDIATE AMBULANCE / EMERGENCY MANGEMENT						
Fire Chief Office	41	SKA-F1	0		245	
Administrative Assistant	42	SKA-F2	0			
Deputy Fire Chief Office	43	SKA-F3	0		208	
Deputy Fire Chief Office	44	SKA-F3	0			
Shared Office for Fire Officers	45	SKA-F4	0		102	
Fire Prevention Office and Plan Storage	46	SKA-F5	0			Deleted Space (02/24/2016)
Hose Company Office	47	SKA-F6	0			Deleted Space (02/24/2016)
Coat Closet	48	SKA-F7	0		337	
Dorm Rooms	49	SKA-F8	0			
Toilet / Shower Room Male	50	SKA-F9	0			
Toilet / Shower Room Female	51	SKA-F10	0			
Day Room	52	SKA-F11	0		588	
Radio Room Back-Up to Main Dispatch	53	SKA-F12	0		237	
Apparatus Bays	54,55	SKA-F13	0		4,892	
Maintenance Workshop	56	SKA-F14	0		195	
Gear Storage	57	SKA-F15	0			
SCBA Fill Room	58	SKA-F16	0			
Oxygen Storage	59	SKA-F17	0			
Medical Cleaning / Decontamination	60	SKA-F18	0			
Laundry	61	SKA-F19	0		102	
Air Compressor	62	SKA-F20	0			
Medical Supply Storage	63	SKA-F21	0			
Shelter Storage	64	SKA-F22	0			
Bulk Storage	65	SKA-F23	0			
Hose Storage	66	SKA-F24	0			
FUTURE Hose / Training Tower	67	SKA-F25	0			
Staff Toilet	68	SKA-F26	0		34	
SUBTOTAL				0	6,940	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
POLICE DEPARTMENT						
Dispatch	69	SKA-DP1	336		128	
Dispatch Support Space	70	SKA-DP2	64			

(6) STAND ALONE FIRE

The sixth (6), a Stand-Alone Fire Department at 22,254 gross square feet, includes just the Fire Department program totals, plus a slightly reduced Shared Public and Support Spaces program totals. All of the Police and Public Works Department totals have been reduced to zero. In this case, the building is assumed to be at least two stories in height and therefore includes stairs and an elevator.

STAND ALONE FIRE

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
SHARED PUBLIC AREAS						
Entry Vestibule - Lobby	1	SKA-S1	190		90	Smaller without Dispatch
Interview / Intake Room	2	SKA-S2	0			No Intake Required
Triage Room	3	SKA-S3	100			
Training / Community Room	4,5	SKA-S4A, SKA-S4B, SKA-S4C	1064		1,572	FD Meeting Room, EOC included in this SF
Training Room Storage	6	SKA-S5	110			
Kitchen	7	SKA-S6	360		219	
Public Toilet	8	SKA-S7	121			
Fitness Room / Defensive Tactics Room with Storage	9	SKA-S8	300			No storage for defensive training equipment
SUBTOTAL				2,245	1,881	
Gross area adjustment 15%				337		
Circulation adjustment at 20%				516		
TOTAL				3,098		
SUPPORT SPACES						
Janitor's Closet	10	SKA-SUP1	72		85	In PD - 2 rooms
Mechanical Room	11	SKA-SUP2	300			Smaller
Plumbing / Fire Protection Room	12	SKA-SUP3	144			
Main Electrical Room	13	SKA-SUP4	200		104	Smaller
Emergency Electrical Room	14	SKA-SUP5	80			
Electrical Closet Per Floor Assume 1	15	SKA-SUP6	48			
Emergency Electrical Closet	16	SKA-SUP7	96			
IT Room	17	SKA-SUP8	150		124	
Radio Room	18	SKA-SUP9	60			
Stairs	19	SKA-SUP10	880			
Elevator	20	SKA-SUP11	200			
Elevator Machine Room	21	SKA-SUP12	100			
SUBTOTAL				2,330	313	
Gross area adjustment 15%				350		
Circulation adjustment at 20%				536		
TOTAL				3,215		
DPW - HIGHWAY DEPARTMENT						
Foreman's Office	22	SKA-DPW1	0		234	
Lunchroom / Small Meeting	23	SKA-DPW2	0			
Locker/Shower/Toilet - Male	24	SKA-DPW3	0		135	
Locker/Shower/Toilet - Female	25	SKA-DPW4	0			
Laundry	26	SKA-DPW5	0			
Maintenance Bays	27	SKA-DPW6	0		3,690	West Bay
Storage	28	SKA-DPW7	0		785	Mezzanine
Fluid Storage Area	29	SKA-DPW8	0			
Parts & Supply Storage	30	SKA-DPW9	0		283	Maintenance Workshop
Tire Storage	31	SKA-DPW10	0			
Vehicle Staging & Prep	32	SKA-DPW11	0		3,117	East Bay
Wash Bay	33	SKA-DPW12	0			
Future Mechanic's Office	34	SKA-DPW13	0			
Public Works Director Office	35	SKA-DPW14	0			
Administrative Assistant Workspace	36	SKA-DPW15	0			

STAND ALONE FIRE

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Future Engineering Office	37	SKA-DPW16	0			
Coat Closet	38	SKA-DPW17	0			
Office Supply	39	SKA-DPW18	0			
Plan Room	40	SKA-DPW19	0			
SUBTOTAL				0	8,244	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
FIRE DEPARTMENT / INTERMEDIATE AMBULANCE / EMERGENCY MANGEMENT						
Fire Chief Office	41	SKA-F1	204		245	
Administrative Assistant	42	SKA-F2	168			
Deputy Fire Chief Office	43	SKA-F3	126		208	Includes closet
Deputy Fire Chief Office	44	SKA-F3	126			
Shared Office for Fire Officers	45	SKA-F4	144		102	
Fire Prevention Office and Plan Storage	46	SKA-F5	0			
Hose Company Office	47	SKA-F6	0			
Coat Closet	48	SKA-F7	13		337	Combine all storage 2nd level
Dorm Rooms	49	SKA-F8	560			
Toilet / Shower Room Male	50	SKA-F9	264			
Toilet / Shower Room Female	51	SKA-F10	200			
Day Room	52	SKA-F11	252		588	
Radio Room Back-Up to Main Dispatch	53	SKA-F12	72		237	
Apparatus Bays	54,55	SKA-F13	7,332		4,892	
Maintenance Workshop	56	SKA-F14	120		195	
Gear Storage	57	SKA-F15	612			
SCBA Fill Room	58	SKA-F16	108			
Oxygen Storage	59	SKA-F17	32			
Medical Cleaning / Decontamination	60	SKA-F18	143			
Laundry	61	SKA-F19	120		102	
Air Compressor	62	SKA-F20	40			
Medical Supply Storage	63	SKA-F21	70			
Shelter Storage	64	SKA-F22	238			
Bulk Storage	65	SKA-F23	150			
Hose Storage	66	SKA-F24	48			
FUTURE Hose / Training Tower	67	SKA-F25	288			
Staff Toilet	68	SKA-F26	121		34	
SUBTOTAL				11,551	6,940	
Gross area adjustment 15%				1,733		
Circulation adjustment at 20%				2,657		
TOTAL				15,940		
POLICE DEPARTMENT						
Dispatch	69	SKA-DP1	0		128	
Dispatch Support Space	70	SKA-DP2	0			
911 Equipment Room	71	SKA-DP3	0			

STAND ALONE FIRE

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Police Chief Office	72	SKA-P1	0		136	Includes closet
Administrative Assistant	73	SKA-P2	0		90	
Conference Room	74	SKA-P3	0			
Future Lieutenant - Second in Command	75	SKA-P4	0			
Future Detectives	76	SKA-P5	0			
Office Equipment / Copy	77	SKA-P6	0		155	Room between Chief and Dispatch
Office Supply	78	SKA-P7	0		11	
Active File Room	79	SKA-P8	0			
Archival Document Storage	80	SKA-P9	0			
Sergeants	81	SKA-P10	0			
Roll Call / Break Room	82	SKA-P11	0			
Report Writing ACO + Reserve Officers	83	SKA-P12	0			
Patrol Shared Workspace	84	SKA-P13	0		573	
Patrol Storage	85	SKA-P14	0		293	Mezzanine at garage + office
Evidence - Prep / Processing / Storage	86	SKA-P15	0		102	
Narcotics / Valuable Evidence	87	SKA-P16	0			
Armory	88	SKA-P17	0			
Toilet / Shower / Locker Room - Male	89	SKA-P18	0			
Toilet / Shower / Locker Room - Female	90	SKA-P19	0			
Sally Port / Impound Bay	91	SKA-P20	0			
Bulk Evidence	92	SKA-P21	0			
Holding Booking	93	SKA-P22	0			
Booking	94,95	SKA-P23	0		311	
Detainee Storage	96	SKA-P24	0			
Detainee Shower	97	SKA-P25	0			
Detention Janitor	98	SKA-P26	0			
Detention Interview Room	99	SKA-P27	0			
Detention AV Surveillance	100	SKA-P28	0			
Detention Cell - Male	101	SKA-P29	0		156	4 cells
Detention Cell - Female	102	SKA-P30	0			
Detention Cell - Juvenile	103	SKA-P31	0			
Matron / Juvenile Soft Cell	104	SKA-P32	0			
Vehicle Storage	105	SKA-P33	0		590	Used for general storage
Maintenance Storage	106	SKA-P34	0			
Future Lab Processing	107	SKA-P35	0			
Staff Toilet	108	SKA-P36	0		71	3 toilets
SUBTOTAL				0	2,616	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
Total Net square Feet					19,994	
Total GSF First Level					18,782	
Total GSF 2nd Level plus Mez					3,624	
GRAND TOTAL GSF				22,254	22,406	
Carport	109	SKA-P37	0			

(7) STAND ALONE DPW

The seventh (7), a Stand-Alone Public Works Department at 26,789 gross square feet, includes just the Public Works Department program totals, plus significantly reduced Shared Public and Support Spaces program totals. All of the Fire and Police Department totals have been reduced to zero. In this case, the building is assumed to be a one story building and square footage assigned to stairs and an elevator have been deleted.

STAND ALONE DPW

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
SHARED PUBLIC AREAS						
Entry Vestibule - Lobby	1	SKA-S1	190		90	Smaller without Dispatch
Interview / Intake Room	2	SKA-S2	0			No Intake Required
Triage Room	3	SKA-S3	0			No Triage Required
Training / Community Room	4,5	SKA-S4A, SKA-S4B, SKA-S4C	0		1,572	No Public Space Required
Training Room Storage	6	SKA-S5	0			No Storage Required
Kitchen	7	SKA-S6	0		219	No Kitchen required
Public Toilet	8	SKA-S7	0			No Public Toilets Provided
Fitness Room / Defensive Tactics Room with Storage	9	SKA-S8	0			No storage for defensive training equipment
SUBTOTAL				190	1,881	
Gross area adjustment 15%				29		
Circulation adjustment at 20%				44		
TOTAL				262		
SUPPORT SPACES						
Janitor's Closet	10	SKA-SUP1	72		85	
Mechanical Room	11	SKA-SUP2	300			Smaller
Plumbing / Fire Protection Room	12	SKA-SUP3	144			
Main Electrical Room	13	SKA-SUP4	150		104	Smaller
Emergency Electrical Room	14	SKA-SUP5	80			
Electrical Closet Per Floor Assume 1	15	SKA-SUP6	0			Assume 1 floor
Emergency Electrical Closet	16	SKA-SUP7	96			
IT Room	17	SKA-SUP8	100		124	Smaller
Radio Room	18	SKA-SUP9	0			None Required
Stairs	19	SKA-SUP10	0			Assume 1 Floor
Elevator	20	SKA-SUP11	0			Assume 1 Floor
Elevator Machine Room	21	SKA-SUP12	0			Assume 1 Floor
SUBTOTAL				942	313	
Gross area adjustment 15%				141		
Circulation adjustment at 20%				217		
TOTAL				1,300		
DPW - HIGHWAY DEPARTMENT						
Foreman's Office	22	SKA-DPW1	144		234	
Lunchroom / Small Meeting	23	SKA-DPW2	336			
Locker/Shower/Toilet - Male	24	SKA-DPW3	360		135	
Locker/Shower/Toilet - Female	25	SKA-DPW4	230			
Laundry	26	SKA-DPW5	69			
Maintenance Bays	27	SKA-DPW6	2640		3,690	
Storage	28	SKA-DPW7	330		785	
Fluid Storage Area	29	SKA-DPW8	160			
Parts & Supply Storage	30	SKA-DPW9	224		283	
Tire Storage	31	SKA-DPW10	50			
Vehicle Staging & Prep	32	SKA-DPW11	11,440		3,117	
Wash Bay	33	SKA-DPW12	1690			
Future Mechanic's Office	34	SKA-DPW13	100			
Public Works Director Office	35	SKA-DPW14	182			
Administrative Assistant Workspace	36	SKA-DPW15	214			

STAND ALONE DPW

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
Future Engineering Office	37	SKA-DPW16	0			Deleted Space (02/24/2016)
Coat Closet	38	SKA-DPW17	13			
Office Supply	39	SKA-DPW18	18			
Plan Room	40	SKA-DPW19	80			
SUBTOTAL				18,280	8,244	
Gross area adjustment 15%				2,742		
Circulation adjustment at 20%				4,204		
TOTAL				25,226		
FIRE DEPARTMENT / INTERMEDIATE AMBULANCE / EMERGENCY MANGEMENT						
Fire Chief Office	41	SKA-F1	0		245	
Administrative Assistant	42	SKA-F2	0			
Deputy Fire Chief Office	43	SKA-F3	0		208	
Deputy Fire Chief Office	44	SKA-F3	0			
Shared Office for Fire Officers	45	SKA-F4	0		102	
Fire Prevention Office and Plan Storage	46	SKA-F5	0			Deleted Space (02/24/2016)
Hose Company Office	47	SKA-F6	0			Deleted Space (02/24/2016)
Coat Closet	48	SKA-F7	0		337	
Dorm Rooms	49	SKA-F8	0			
Toilet / Shower Room Male	50	SKA-F9	0			
Toilet / Shower Room Female	51	SKA-F10	0			
Day Room	52	SKA-F11	0		588	
Radio Room Back-Up to Main Dispatch	53	SKA-F12	0		237	
Apparatus Bays	54,55	SKA-F13	0		4,892	
Maintenance Workshop	56	SKA-F14	0		195	
Gear Storage	57	SKA-F15	0			
SCBA Fill Room	58	SKA-F16	0			
Oxygen Storage	59	SKA-F17	0			
Medical Cleaning / Decontamination	60	SKA-F18	0			
Laundry	61	SKA-F19	0		102	
Air Compressor	62	SKA-F20	0			
Medical Supply Storage	63	SKA-F21	0			
Shelter Storage	64	SKA-F22	0			
Bulk Storage	65	SKA-F23	0			
Hose Storage	66	SKA-F24	0			
FUTURE Hose / Training Tower	67	SKA-F25	0			
Staff Toilet	68	SKA-F26	0		34	
SUBTOTAL				0	6,940	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
POLICE DEPARTMENT						
Dispatch	69	SKA-DP1	0		128	
Dispatch Support Space	70	SKA-DP2	0			

STAND ALONE DPW

Space	Room Data Page #	Ref. Sketch #SKA	Size proposed SF	Total SF	Existing SF	Notes
911 Equipment Room	71	SKA-DP3	0			
Police Chief Office	72	SKA-P1	0		136	
Administrative Assistant	73	SKA-P2	0		90	
Conference Room	74	SKA-P3	0			
Future Lieutenant - Second in Command	75	SKA-P4	0			
Future Detectives	76	SKA-P5	0			
Office Equipment / Copy	77	SKA-P6	0		155	
Office Supply	78	SKA-P7	0		11	
Active File Room	79	SKA-P8	0			
Archival Document Storage	80	SKA-P9	0			
Sergeants	81	SKA-P10	0			
Roll Call / Break Room	82	SKA-P11	0			
Report Writing ACO + Reserve Officers	83	SKA-P12	0			
Patrol Shared Workspace	84	SKA-P13	0		573	
Patrol Storage	85	SKA-P14	0		293	
Evidence - Prep / Processing / Storage	86	SKA-P15	0		102	
Narcotics / Valuable Evidence	87	SKA-P16	0			
Armory	88	SKA-P17	0			
Toilet / Shower / Locker Room - Male	89	SKA-P18	0			
Toilet / Shower / Locker Room - Female	90	SKA-P19	0			
Sally Port / Impound Bay	91	SKA-P20	0			
Bulk Evidence	92	SKA-P21	0			
Holding Booking	93	SKA-P22	0			
Booking	94,95	SKA-P23	0		311	
Detainee Storage	96	SKA-P24	0			
Detainee Shower	97	SKA-P25	0			
Detention Janitor	98	SKA-P26	0			
Detention Interview Room	99	SKA-P27	0			
Detention AV Surveillance	100	SKA-P28	0			
Detention Cell - Male	101	SKA-P29	0		156	
Detention Cell - Female	102	SKA-P30	0			
Detention Cell - Juvenile	103	SKA-P31	0			
Matron / Juvenile Soft Cell	104	SKA-P32	0			
Vehicle Storage	105	SKA-P33	0		590	
Maintenance Storage	106	SKA-P34	0			
Future Lab Processing	107	SKA-P35	0			Deleted Space (02/24/2016)
Staff Toilet	108	SKA-P36	0		71	
SUBTOTAL				0	2,616	
Gross area adjustment 15%				0		
Circulation adjustment at 20%				0		
TOTAL				0		
Total Net square Feet					19,994	
Total GSF First Level					18,782	
Total GSF 2nd Level plus Mez					3,624	
GRAND TOTAL				26,789	22,406	
Carport	109	SKA-P37	0			

EXISTING CONDITIONS ASSESSMENT

ARCHITECTURAL ASSESSMENT

The original wood structure from the 1890's burned to the ground and was replaced with the masonry structure currently on site. The building included overhead doors that ran from the front of the building through to the back and included large pits and railroad tracks. Renovations to convert the building to its present use included new mechanical systems, interior masonry walls to provide separation between departments, filling in and raising floor slabs, restructuring of exterior masonry façade to create appropriate openings for overhead doors and construction of the second level and mezzanines.

Site

The existing site at 16 East Main Street (Route 110) is a 1.02 acre parcel consisting of a masonry building housing the Police and Fire Departments and the Highway Division of the Department of Public Works. There is an apron extending from the six Fire Department overhead doors to East Main Street, parking spaces for staff and visitors, circulation driveways to overhead doors for the Police and Highway Departments and paved areas for the storage of trailers and other miscellaneous equipment. A salt/sand shed for the DPW is located off-site.

The site abuts Cobbler Brook to the west with some paved areas located within the property lines defining Cobbler Brook. A small portion of 18 East Main Street, a 16.1 acre parcel to the east and north, also owned by the Town of Merrimac, currently is used for the outdoor storage of Town equipment and trailers. Cobblers Brook, a perennial stream that empties into the Merrimack River, lies within 40-50 feet of the western most portion of the masonry structure which would appear to be in the wetlands buffer zone. The main driveway to the rear of the property is directly adjacent to Cobbler Brook and also within the 40-50 feet zone.

18 East Main Street, known as the Old Sawyer House, circa 1735, includes two wood frame structures on a woodland site, slopes upwards within approximately 12-15 feet of the masonry structure at 16 East Main Street. The driveway to the Old Sawyer House begins near the south-east corner of 16 East Main Street.

The site is zoned as an Agricultural Residential District (AR) and Village Residential (VR). Municipal structures are a Permitted Use subject to Site Plan Review and authorized by Town Meeting. The existing building / site does not meet the current Dimensional and Intensity Regulations (Zoning 6.6) for an AR site but there are Special Permits Granting Criteria, through the Planning Board, that may allow continued reuse of this site under various scenarios. Continued use as a Fire, Police and Highway Departments Building is grandfathered.

Other site elements include an antenna located in the corner along the west wall. Nearby is an emergency generator, police trailers and storage for recovered bicycles.

Building

The masonry structure includes approximately 18,782 gross square feet on the grade level and approximately 3,624 gross square feet on the second floor including mezzanines. There is a low pitched tar and gravel roof with skylights and various types of windows. There are 10 overhead doors, four with small glazed panels and six that are fully glazed except for the lowest panel. Some of the overhead doors are insulated, others are not. Structural elements include masonry bearing walls/piers, steel beams (some encased) and a wood roof deck. Interior walls are made of brick, CMU and gypsum board on studs (not clear whether studs are wood or metal). The ceilings are acoustic tile, painted plaster or in some cases there is no ceiling and the structure is exposed. Flooring materials includes concrete, vinyl composition tile, ceramic tile and wood.

The HVAC system consists of a gas-fired rooftop unit and two gas-fired make-up air units that serve the police and the fire departments. The HVAC equipment, installed around 1999/2000, has a normal duty cycle of approximately 15 to 20 years with routine preventative maintenance. The HVAC systems will be near or at 20 years based on the timeline of two to three years to complete a renovation project. Due to the age of the equipment and the benefit of integral savings that a major renovation offers, a full demolition with replacement of systems is recommended. The source capture system, Plymovent, can be reconditioned. The HVAC systems should be reviewed during the design period to confirm this decision and make a final recommendation on reuse or new.

The plumbing systems will need to be replaced.

The existing electric service is a 400 amp, 3 phase/4 wire with a 225 amp Main Distribution Panel. During design a new service with a pad mounted transformer most probably will be recommended.

The floor plan consists of vehicle storage areas for both the fire and highway departments, workshops, storage areas, office space, toilet and shower rooms for each department, a large kitchen adjacent to the meeting room in the fire department, a detention area located in the police department and mechanical support areas. On the second level there is the Emergency Operations Center for the Town, offices for police and fire personnel, storage closets and a fire department day room. Three small mezzanines, currently used for storage, are located in the highway and police portions of the building.

The existing building, constructed in the late 1800's or early 1900's and renovated in 1976 and 2000, was primarily constructed before modern buildings codes came into effect. Subsequent renovations and changes are minimally documented with regards to structural reinforcements or restraints, wall types for separation of spaces or insulation values of walls and roofs.

From an access point of view, there is no accessible pathway from a designated accessible parking spot to the front entry door. Once inside, a visitor can access personnel at the Radio / Dispatch room to receive help but access beyond that point is limited. Additionally, anyone with a disability cannot access the upper levels of either the Police or Fire Departments, which are not physically connected, because an elevator is not provided. Included on the upper level is the Town's Emergency Operations Center, which is used by Town personnel and as such should be fully accessible. Toilet rooms are not accessible and there are none on the second level serving the EOC.

Useable space on the second level of both the fire and police departments should meet the current requirement for egress. Every floor should be provided with two independent forms of exit, meeting the minimum requirements for the occupant load. With the three departments being co-located on one floor, there should be two remote egress points from each of the departments. Any individual space that can accommodate more than 50 persons must have two independent exits.

Mechanical / electrical and plumbing systems are at the end of their useful life and when replaced should be with energy efficient systems. These should include systems that prevent air transfer between any space housing vehicles and adjacent work spaces.

The building envelope appears to have limited, if any, insulation. The current Energy Code requires continuous insulation from foundation to roof and across roof, air barriers to limit migration of moisture and insulated windows and doors.

Number	Revision	Date

Registrations

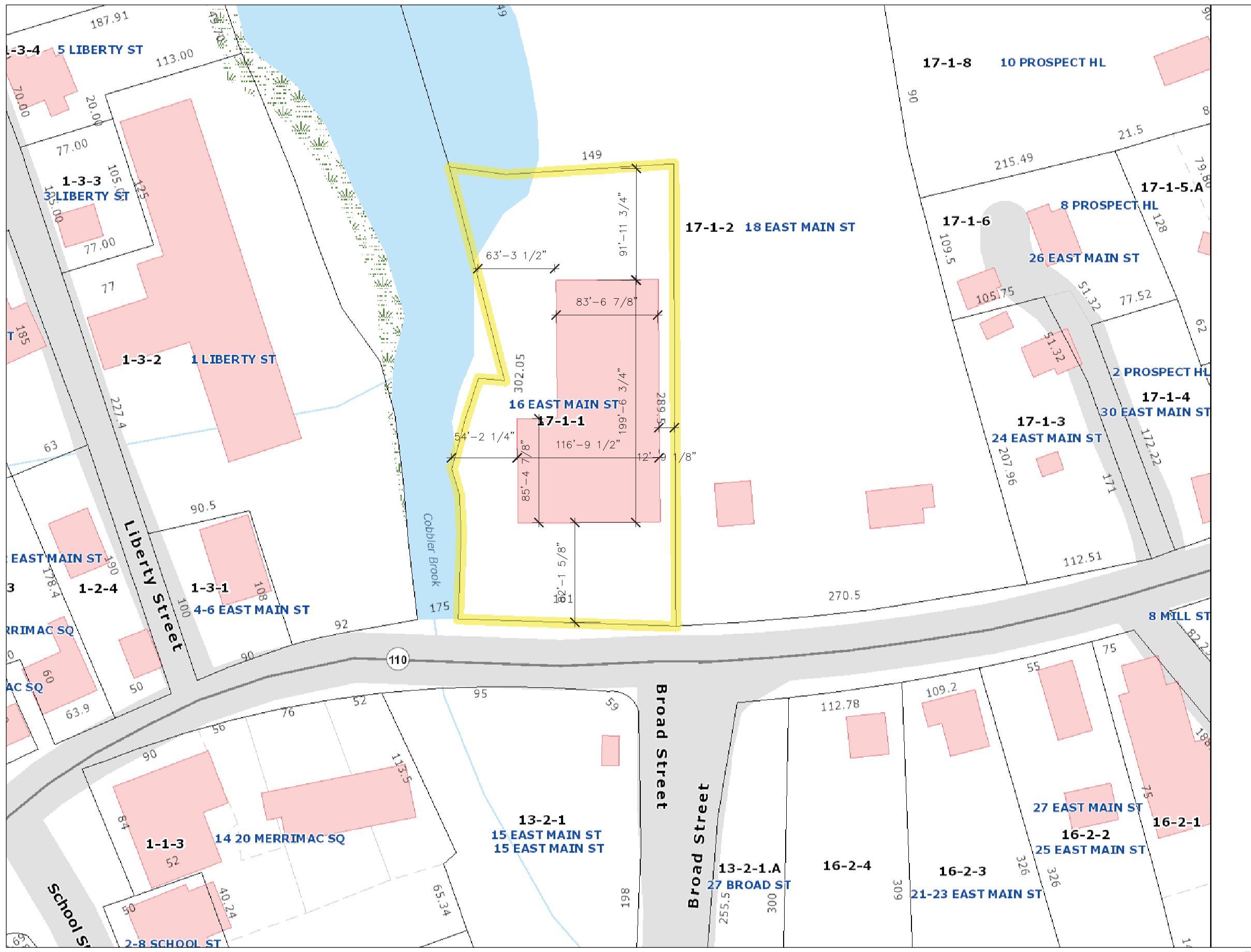
Consultants

Project
Merrimac Public Safety Complex
Feasibility Study
Town of Merrimac

16 EAST MAIN STREET - EXISTING SITE

Drawn By	Checked By
SMV	JMS
MARCH 2, 2016	
21512	
EXISTING CONDITIONS	

SITE



PLAN EXISTING SITE
1" = 30'

1





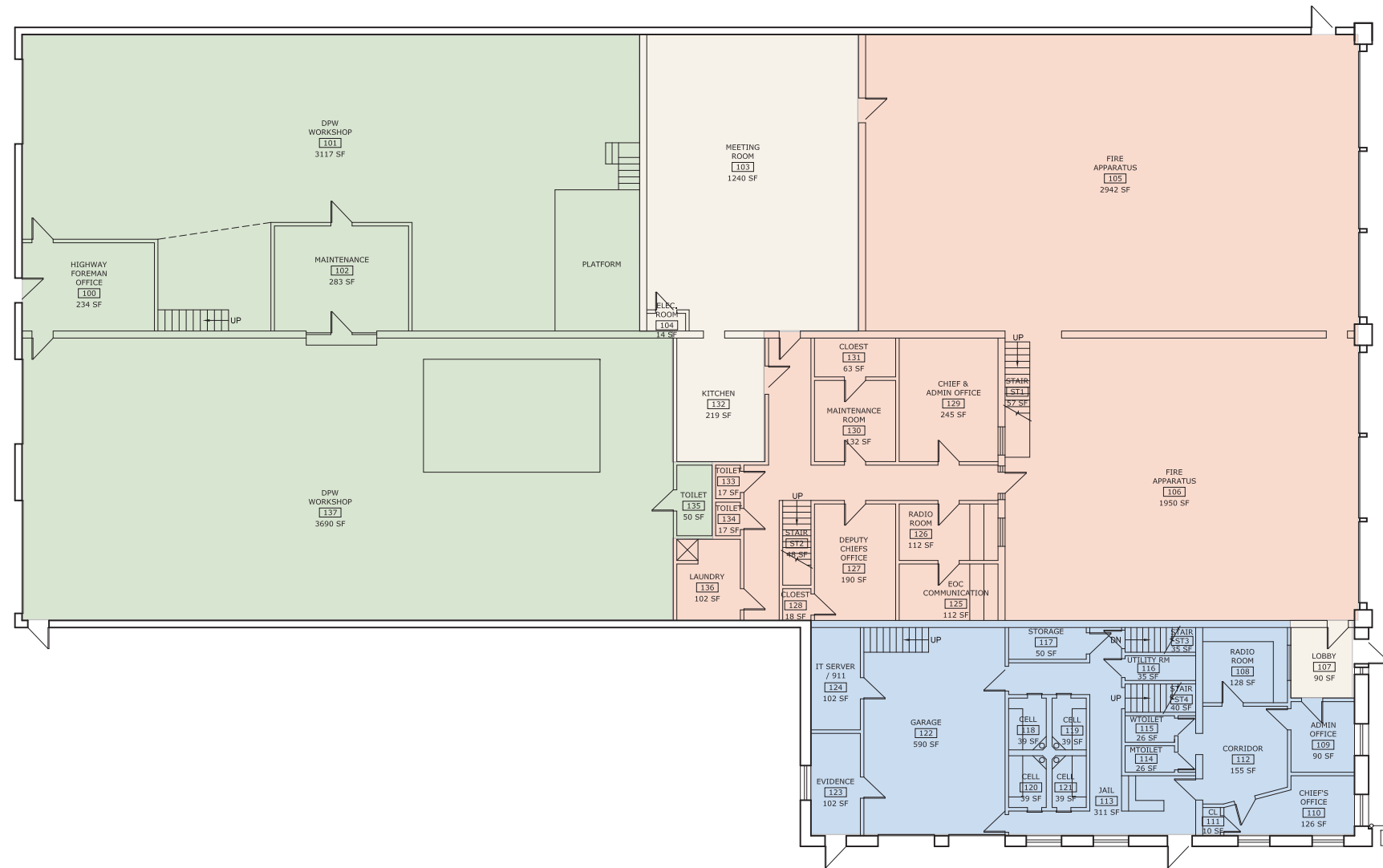
35 Medford Street
Somerville, MA 02143
T: 617.776.6545
F: 617.776.6678
www.hktarchitects.com

Number	Revised	Date

Registrations

Consultants

- LEGEND**
- SHARED
 - FIRE DEPARTMENT
 - DEPARTMENT OF PUBLIC WORKS
 - POLICE DEPARTMENT



PLAN EXISTING FIRST FLOOR PLAN
1/8" = 1'-0"

1



Project
Merrimac Public Safety Complex
Feasibility Study
Town of Merrimac

16 EAST MAIN STREET - EXISTING CONDITIONS
FIRST FLOOR PLAN

NJ	JMS
Drawn by	Checked by
FEBRUARY 9, 2016	
Date	
21512	
Job Number	
EXISTING CONDITIONS	
Drawing set	
Drawing number	

E-101



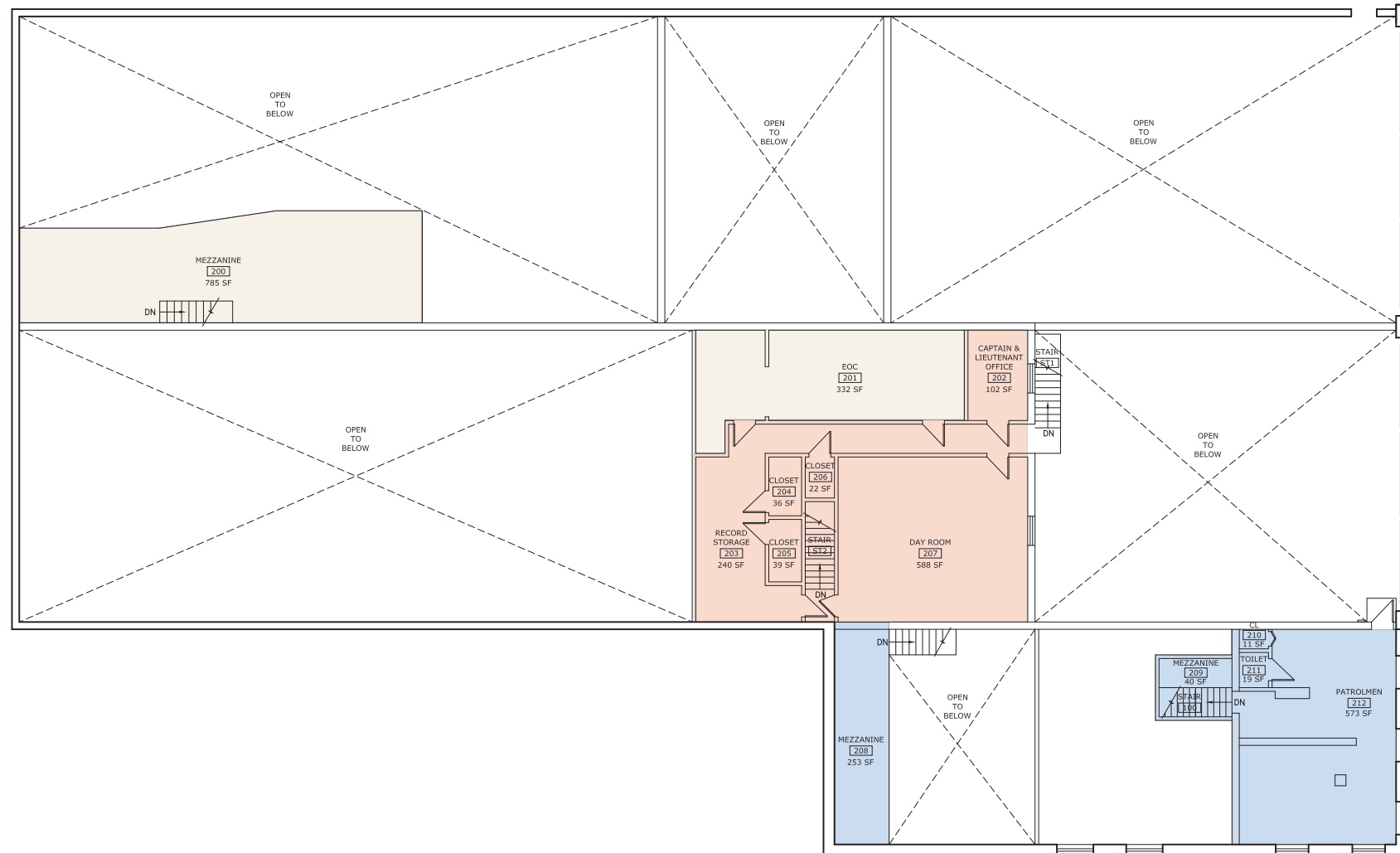
35 Medford Street
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Number	Revision	Date

Registrations

Consultants

- LEGEND**
- SHARED
 - FIRE DEPARTMENT
 - DEPARTMENT OF PUBLIC WORKS
 - POLICE DEPARTMENT



Project
 Merrimac Public Safety Complex
 Feasibility Study
 Town of Merrimac

16 EAST MAIN STREET - EXISTING CONDITIONS
 SECOND FLOOR PLAN

NJJ	JMS
Drawn by	Checked by
FEBRUARY 9, 2016	
Date	
21512	
Job number	
EXISTING CONDITIONS	
Drawing title	
Drawing number	

E-102

PLAN - EXISTING SECOND FLOOR PLAN
 1/8" = 1'-0"

1



Highway Department

The highway department is located at the rear of the building, accessed by the paved roadway located between the building and Cobblers Brook. The rear of the site includes a small area for bin storage for gravel or patch, storage spaces for plows, trailers and a dumpster as well as some other miscellaneous storage units. Some of this equipment sits beyond the property lines of 16 East Main Street.

Three overhead doors provide access for department vehicles along the north wall. Currently, the highway department is able to house most, if not all, of their trucks indoors. Many of their plows should be stored indoors so as to extend the useful life of the equipment. The configuration is not practical, as trucks are stacked three deep and sometimes it is necessary to move several vehicles to access the one that is needed. The west vehicle storage bay houses a Mohawk lift (maximum capacity 25000 pounds) along with a small bridge crane, vehicle storage plows and a compressor. In addition, heavy duty storage shelving and cabinets and equipment storage is located on or along the perimeter walls. Access to a toilet room is along the rear wall. Located within the east bay is a workshop, an office and a mezzanine. This area includes storage for small equipment, pallets, waste oil, signs, cones, 55 gallon drums and vehicles.

The Public Works portion includes vehicle bays that do not account for all town vehicles and equipment though the Town has benefited from being able to house most within the building. The current layout does require stacking of vehicles which delays response times during emergencies.

This portion of the building also lacks accessible and appropriate employee work and support spaces including locker rooms and toilet / showers. DPW administrative workspaces are not adequately separated from vehicles with doors opening directly onto the garage areas instead of being separated with vestibules and wall tight wall construction. The Maintenance area lacks appropriate spaces for fluid, parts and tire storage. Public Works does not have a Wash Bay.

ROOM NAME	USE	APPROXIMATE NET SQUARE FOOTAGE
DPW Workshop – West Bay	Vehicle + plow storage, maintenance, storage, toilet/lavatory/shower	3,690
DPW Workshop – East Bay	Vehicle + equipment storage. pallet storage, 55 gal storage	3,117
Maintenance Workshop	Workshop	283
Highway Foreman Office	Office	234
Mezzanine located over east workshop and office	Storage	785
Toilet		135
	TOTAL Net Square Feet	8,244

Fire Department

The fire department zone is located at the front of the building, accessed by the paved apron located between the main road and the main façade of the building. Visitors enter the department at the door located to the west of the overhead doors. Six overhead doors, primarily glazed, provide clear movement for the first responder vehicles during an emergency. Vehicle are stacked two deep in some bays. Currently, the fire department houses all of their trucks indoors.

Each bay includes a first responder vehicle including pumpers, ladder truck, a boat, towed equipment and an ambulance. Major fire apparatus is connected to a source capture exhaust system (Plymovent) and has access to power and compressed air. The shallower bays also include perimeter storage for cabinetry, a SCBA system on the rear wall, oxygen tanks, 55 gallon drum for fluid and other supplies and access to the administrative offices. Located within the east bay are additional vehicles and equipment including hose racks and equipment stored in bins and cabinets. Firefighters gear is located along perimeter walls in all bays.

The first floor administrative area includes shared offices for the chief and administrator as well as the deputy chiefs, a radio room, communications room, maintenance room, laundry, toilets and kitchen. The second level, which is accessed from an open stair in the apparatus bays and a stair located within the office space, leads to offices for the captain / lieutenant and the Emergency Operations Center, a day room, a records storage area and storage closets.

The other large room on the first level as a meeting room which is used primarily by the fire department but is also shared by the other departments as well. This room includes white boards, seating and tables for training, and access to the kitchen.

The Fire Station portion includes apparatus bays that are smaller than would be if a new structure was constructed but the Fire department functions well given the current layout. With the addition of more storage space the bays can be reorganized for vehicles only thus making movement around vehicles easier and safer. Support areas including separate rooms dedicated for Medical Cleaning and Decontamination, Oxygen Storage, a SCBA Fill Room, Medical Supply Storage and Bulk Storage are not currently provided. Storage for items dedicated to the shelter of Merrimac citizens in case of an emergency are housed off site or in trailers.

This portion of the building also lacks accessible and appropriate employee work and support spaces including locker rooms and toilet / showers. Fire administrative workspaces are not adequately separated from vehicles. Door open directly onto the apparatus floor instead of being separated with vestibules and wall tight wall construction. The upper level space, used for offices, storage and a dayroom, also includes the Town's Emergency Operations Center. This room is undersized and not accessible. Storage is limited.

Dorm rooms are currently not included in the building but are planned for the future.

ROOM NAME	USE	APPROXIMATE NET SQUARE FOOTAGE
Fire Apparatus Bay #1	Apparatus, gear, SCBA, Storage	1,950
Fire Apparatus Bay #2	Apparatus, gear, storage	2,942
Meeting Room	Meetings and training	1,240
Kitchen	Food storage and prep for large groups	219
Electrical Room		14
Toilets - two	Water closet + lavatory	34
Laundry	Gear washer, shower, janitor sink	102
Corridor	-	371
Deputy Chiefs	Shared office for two, closet	208
Radio/Communications Rooms	Communications room, radio	224
Maintenance Room + Closet	Maintenance + storage	195
Chief + Administrator office	Shared office for two	245
	FIRST FLOOR SUB-TOTAL	7,744
Day Room	Meetings, activities	588
Records Storage	Storage, cabinets for EOC and Public Health	240
Closets – three	Storage	97
Corridor	-	168
Emergency Operations Center	Meeting space for Town officials during all Town emergencies	332
Captain/Lieutenant Office	Shared office for two	102
	SECOND FLOOR SUB-TOTAL	1,527
	TOTAL	9,271

Police Department

The police department is located at the front of the building and along the west side of the site, accessed by the paved apron located between the main road and the main façade of the building. Visitors enter the department at the door located to the west of the fire department's overhead doors.

The police department entry leads to a lobby and the Radio / Dispatch room. Dispatchers receive and dispatch calls and serve as receptionist for visitors. Visitors cannot access the remainder of the police area without escort. The first floor spaces includes offices for administrators and the chief, and a shared "corridor" that includes cabinets and an informal meeting area for patrol officers. The detention block, accessed from a door on the west wall, includes a booking counter, utility room, storage and four cells, none of which meet the current Public Health or Massachusetts Architectural Access Board regulations. A two bay garage, next to the booking area, has become the storage room for a three-wheeled vehicle, lockers, files, records and equipment, a refrigerator, safes, an IT room and evidence storage. A mezzanine is located above the IT and evidence rooms.

The second level, accessed by a stair off of the detention block, leads to offices for patrolmen as well as closet storage and a toilet. A second egress exits into the Fire apparatus bays via a ladder. This does not qualify as a proper second means of egress.

A basement, which had frequent water issues, was partially filled with concrete and no longer is of any practical use as the height of this space is now approximately four feet.

The Police Station portion lacks most features of a modern facility. This portion of the building lacks accessible and appropriate employee work and support spaces including locker rooms and toilet / showers. There is no dedicated meeting space for meetings, roll call or report writing. Acoustical privacy is lacking. Sensitive conversations occurring in dispatch can easily be overheard. Similar acoustic privacy is lacking between the offices and the common corridor. Appropriate security and adequate storage space for records and equipment is limited.

Normally a garage space adjacent to the detention block would be used as a sally port, a place for the safe movement of officers and detainees from vehicle to holding / booking. Because the garage space is used for storage that controlled pathway does not exist. Once inside the building there is no contained holding area and the undersized booking area compromises security. Male, female and juvenile cells are neither accessible nor sight and sound separated. Massachusetts Department of Public health regulations governing police detention facilities require that officers check on the welfare of detainees at frequent intervals. Currently, dispatch personnel perform this function and this space is not located adjacent to the detention block.

Another area of concern is the Evidence Storage area which is on an exterior wall with a door and window. There is no place to process evidence with a clear chain of custody. Walls could easily be compromised.

ROOM NAME	USE	APPROXIMATE NET SQUARE FOOTAGE
Lobby	Waiting Room; Direct access to Apparatus Bays; No direct access to Police	90
Administration Office	Office for part-time worker	90
Radio Room / Dispatch Office	Dispatch; greet visitors	128
Corridor connected offices	Access point to each room; mailboxes, copier, kitchenette	155
Chief's Office	Office + Closet	136
Jail/Booking	Booking ; Electric Panels; Corridor connected to garage; no sight / sound separation for detainees	331
Cells - Four	Cells; limited sight separation, no sound separation	156
W Toilet	Water closet + lavatory	26
M Toilet	Water closet + lavatory	26
Utility Room	Water tank	35
Storage	Sink	50
Garage	Storage for files and equipment	590
IT Server / 911 Room	-	102
Evidence	Evidence Storage; limited access	102
Mezzanine over IT / Evidence + at office area	Storage	293
	FIRST FLOOR SUB-TOTAL	2,310
Patrolmen Office	Office for patrol staff	573
Closet	Storage	11
Toilet	Water closet + lavatory	19
	SECOND FLOOR SUB-TOTAL	603
	TOTAL	2,913



MEMORANDUM

DATE: May 12, 2016

TO: Janet Slemenda, HKT Architects

FROM: Kevin M. Champagne, P.E., Pare Corporation

CC: James Asprinio, LEED AP., Pare Corporation
Andrew Chagnon, P.E., Pare Corporation

RE: **Structural Condition Assessment
Existing Public Safety Complex
Merrimac, Massachusetts**
Pare Project No. 16147.00

Per your request, Pare Corporation has prepared this memorandum to present the findings of a structural condition assessment of the existing public safety complex located in Merrimac, Massachusetts. The purpose of this assessment was to document the building's structural systems and its overall condition. A review of the structural systems relative to building code compliance for potential future additions and alterations was also performed.

The findings herein are based upon observations made during a walkthrough of the complex on April 22, 2016 and a review of the relevant provisions of the Massachusetts State Building Code, 8th Edition, which adopts the 2009 International Existing Building Code (IEBC) and 2009 International Building Code (IBC) by reference. The walkthrough was conducted with representatives of HKT Architects (HKT) and was cursory in nature to generally identify framing configurations, lateral load (wind, seismic) resisting systems, and overall condition of the structure. No destructive investigation or investigation for the presence of hazardous materials was performed.

EXISTING CONDITIONS & CONDITION ASSESSMENT

The public safety complex is a two-story brick-masonry structure with an approximate footprint of 19,000 square-feet that was, according to Town personnel, constructed in the late 1800's. The complex houses Department of Public Works (DPW) offices and workshops; fire department apparatus bays and offices; and police department facilities. According to Town personnel, alterations to the building were made circa 1976 by students from a local vocational high school. These alterations including construction of 3,000 square-foot second floor and concrete masonry unit (CMU) partition walls. No second floor is present over the DPW workshops and fire department apparatus bays, resulting in open two-story spaces for these areas. There are small storage mezzanine areas present in both the DPW and police department.

A general description of the building's structural systems and summary of observed conditions within the Police Station, Fire Department, and DPW areas follows. Recommendations for further assessment and/or repair have also been provided where deemed appropriate by Pare based upon the observed conditions.

Structural Systems Description

- Lower level and foundations: Concrete slab-on-grade with exterior concrete foundation walls, typical. The first floor of the southern half of the police department is a structural concrete slab; a basement is located below this area. With the exception of the basement within the police department, the building's foundation walls are not visible. The slab-on-grade is generally not visible within the police station and fire department as it is covered with an epoxy coating. The slab-on-grade is exposed within the DPW workshop areas.
- Second Floor: The second floor is framed with lumber joists and a plywood floor deck. The joists are supported by CMU partition walls. The second floor framing was generally not visible due to interior finishes; however it appears sound based upon heel-drops performed by Pare personnel at various areas of the floor.
- Roof: Low-slope roof constructed of wood planking supported by concrete-encased steel beams. The beams span east-west and are supported by brick masonry piers. According to Town personnel, the steel roof beams originally supported a pair of monitor roofs that ran the length of the fire department and DPW workshop areas. The monitor roofs were eventually demolished and replaced with a series of skylights. The roof areas between the skylights were infilled with wood planking.
- Walls: The exterior walls of the building consist of 12-inch thick, multi-wythe brick masonry. Brick parapets are located along the south elevation of the building. The interior walls are a mix of CMU and brick masonry.
- Lateral load resisting system: Due to the age of the building, existing plans do not designate a lateral-load resisting system. The roof planking and second floor plywood deck likely act as horizontal diaphragms. The interior and exterior brick walls likely act as shear walls.

Fire Department and DPW Workshops – Observations/Recommendations

The fire department and DPW workshop areas occupy the majority of the building area (approximately 16,000 SF footprint). General observations and recommendations are as follows:

- The concrete slab-on-grade, where exposed, is in good¹ condition overall.
- The existing roof planking appears to be in good condition overall and generally well-maintained. No areas of significant water staining or rot were observed. Cracks were observed in some of the concrete encasements of the steel roof beams. While the cracks do not appear to be structural concern, they should be filled with an epoxy adhesive keep the encasements intact. *See Photos 02 & 03.*
- The interior brick walls and CMU partitions appear to be in fair condition overall. The majority of the interior brick walls are painted and, therefore, the condition of the mortar joints was not visible. Some re-pointing/repair of the mortar joints and replacement of deteriorated bricks should be anticipated during future renovations. One stepped crack was observed in a brick wall over a doorway at the southwest corner of the fire department. This crack should be routed and filled with repair mortar. *See Photo 04.*

- The exterior brick walls are in fair-to-poor condition overall. The mortar joints are deteriorated or spalled in numerous areas. The walls generally appear plumb, however the brick supporting the east jamb of the overhead door at the northwest corner of the DPW workshop area appears rotated and cracked. Modifications to the exterior walls are apparent; new overhead doors have been cut into the walls at various locations while other openings have been infilled. *See Photos 05 thru 07.* Recommendations for repair and further assessment are:
 - All mortar joints should be cleaned of all deteriorated material and re-pointed. Tests should be taken prior to repairing to determine the material properties of the existing mortar. New mortar should be proportioned to match existing properties as closely as possible.
 - Once repairs are complete, consideration should be given during future renovations to covering the existing brick walls with an exterior cladding system to protect it from the elements and extend its service life.
 - The cracked and rotated brick jamb at the northwest overhead door should be investigated further to determine the extent of damage and develop a method of repair. Potential repairs include reconstruction of the damaged portions of brick and/or the installation of metal rods within the mortar joints to tie separated layers of brick together. The existing steel lintel above the door appears to have separated due to the jamb's rotation. An evaluation should be made during brick repairs to determine if the lintel needs to be reset.

Police Station – Observations/Recommendations

The police station occupies the southwest area of the building (approximately 3,000 SF footprint). General observations and recommendations are as follows:

- The police station's foundation contains structural elements that, where visible, are in poor condition. The following observations were made during the site visit.
 - There is a basement located below the southern half of the police station (approximately 1,500 SF). The basement is partially filled with a thick layer of concrete, reducing headroom within the basement to approximately 3 to 4 feet. Extensive cracking was observed along the surface of the concrete layer. According to Town personnel, the concrete layer is approximately 4 feet thick and was installed approximately 5 years ago in an effort to keep water from infiltrating the basement area. It was reported that water infiltration was observed shortly after a small dam, constructed with two jersey barriers, was constructed in the river adjacent to the police station. The air within the basement felt humid at the time of the site visit and approximately six inches of standing water was observed in a sump pit at the southwest corner of the basement. The sump pump was not running at the time of the visit. A small dehumidifier is installed in the basement, but it was not functioning at the time of the visit. *See Photo 08.*

- The building foundation within the basement consists of a perimeter foundation wall as well as concrete beams and piers supporting the 1st floor structural slab. The surface of the perimeter foundation wall and 1st floor slab is largely covered by a 1”-2” thick layer of concrete that was likely deposited during placement of the concrete fill, limiting visual assessment. Some surfaces of the beams and piers are also covered. Cracks and spalls are present along some of the concrete beams piers and the exposed steel visible within these areas is corroded. Diagonal cracks were also observed at various locations along the perimeter foundation wall. *See Photos 09 thru 11.*
- Cracks were observed along the 1st floor structural slab within the booking area. One of the crack locations appears to be located above a diagonal foundation wall crack observed within the basement. A stepped crack in a CMU partition wall was observed adjacent to the basement area. *See Photos 12 thru 14.*

Based on the observations at the police station’s foundation, Pare recommends the following:

- The observed slab cracks, foundation wall cracks, and stepped CMU wall crack may be indicative of differential settlement of the foundation. Pare coordinated internally with its geotechnical engineering department regarding these issues. Given the number of unknowns at this time, we recommend a comprehensive geotechnical investigation be performed to determine additional information such as the extents of settlement, potential causes, and remediation techniques/options. Further evaluation should also be performed to determine the potential source of water infiltration into the basement. The concrete layer covering the foundation’s structural elements should be removed as much as practicable so that their condition can be assessed. A repair program for the foundation to address geotechnical issues, water drainage issues, as well as the concrete spalls and cracks should then be developed. This information may then be used to weigh the benefits vs. costs associated with the future use of the facility as part of Town’s programming/planning efforts.
- Humidity and moisture issues within the basement should be evaluated by a mechanical engineer to determine a more effective method of control. Reducing moisture levels could help reduce the rate of steel corrosion within basement.
- The condition of the roof structure is generally similar to the fire department and DPW workshop areas. A small area of rot in the timber planking was observed at the northeast corner of the police station. *See Photo 15.* Cracks in the steel beam concrete encasements should be filled with an epoxy adhesive. A large spall was observed above a garage/storage area at the north end of the police station. This spall poses a safety hazard and should be removed and the void filled with patching mortar.
- The condition of interior CMU walls and brick walls were generally similar to the fire department and CMU workshop areas. A stepped CMU crack was observed over a doorway in the garage/storage area (note this is the same location as described in the foundation observations above). *See Photo 14.* A stepped brick crack was observed at the northeast corner of the garage/storage area. *See Photo 15.* These cracks should be routed and filled with repair mortar.

- The condition of the exterior brick walls is generally similar to the fire department and CMU workshop areas. Refer to the discussion on that area for repair recommendations.

BUILDING CODE REVIEW

Note that this review is based upon the 8th edition of the Massachusetts Building Code. The 9th edition of the code is scheduled to be put into effect in the summer of 2016. Pare has reviewed a draft version of the 9th edition of the code (dated October 2015) and it appears that relevant structural provisions of the code discussed below will be relatively unchanged in 9th edition. However, this should be confirmed once the official version is released.

Based upon discussions with HKT, Pare understands that extensive renovation and re-programming would be required for the building to continue its use by the police department, fire department, and/or DPW. This renovation would likely be classified as an “Alteration – Level 3” by the Massachusetts Building Code as the “work area” would exceed 50% of the aggregate area of the building. The “work area” is defined by the International Existing Building Code as “that portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents.” The following structural provisions of the Massachusetts Building Code apply to “Alteration – Level 3” work:

- Existing structural elements need to be analyzed (and retrofitted or replaced as necessary) if loads supported by those elements increase by more than 5%. For example, the existing roof structure would need to be analyzed, and retrofitted if necessary, to support new mechanical rooftop equipment.
- Minimum seismic retrofits would be required as the existing structure consists of unreinforced load-bearing brick masonry (IEBC State Amendment Section 807.5).
 - Wall anchorage: Wall anchors shall be installed at roof and floor levels to tie the masonry walls to these structures. Wall anchors generally consist of thru-wall anchors or drill-and-epoxy anchors spaced evenly along the wall. The use of drill-and-epoxy anchors requires in-situ load testing to determine their structural capacity. Also, the interior CMU partitions do not appear to be secured to the roof structure. Clip angles shall be added to the top of the CMU walls to tie them to the roof structure.
 - Parapet bracing: Parapets shall be braced back to the roof structure. This is typically accomplished by installing angle braces anchored to the roof and wall on the backside of the parapet. The braces are spaced evenly along the parapet wall.
- If the area of *structural* alterations exceeds 30% of the total floor and roof areas of the building, or if overall building weight is increased by more than 10%, then the structural work would be considered a “Substantial Structural Alteration” and the building must be analyzed and retrofitted to resist current building-code prescribed wind loads and reduced seismic loads. The areas to be counted toward the 30% *structural* alterations are those areas tributary to vertical load-carrying components (e.g. joists, decking, beams, walls, columns)

that will be added, removed, or altered. Required retrofits may include, but not be limited to: adding new braced frames; strengthening existing or adding new shear walls; strengthening existing or adding new foundations to support these elements; and strengthening existing diaphragms.

- If the area of *structural* alterations is less than or equal to 30% of the total floor and roof areas of the building, or if overall building weight is increased by less than or equal to 10%, then the structural work would be considered a “Limited Structural Alteration”. For a Limited Structural Alteration, only the component of the building’s lateral-load resisting system that is being altered must be analyzed and retrofitted to meet current building-code prescribed wind loads and reduced seismic loads. This analysis needs to account for the cumulative effects of prior alterations made to the building (i.e. additions, renovations) to determine their effect on the component. For example, a steel braced frame may need to be added if a large opening is made in one of the existing brick-masonry walls. A “whole building” lateral load analysis/retrofit is typically not required for a Limited Structural Alteration.

ASSESSMENT LIMITATIONS

This structural assessment is meant only as a guide to understanding the current condition of the building. It is not an airtight assessment. This was a visual investigation, general in nature, limited to reasonably safe and accessible portions of the building. Destructive investigation (e.g. removal of finishes) was not performed, and not all conditions were visually accessible. The assessment is based on general observations, reasonable assumptions, professional judgment, and experience with similar structures. A structural analysis of the existing building was not performed as part of this assessment.

Please feel free to contact me with any questions.

- Kevin Champagne, P.E.
Pare Corporation

Attachments
Representative Photographs

¹Condition Assessment Nomenclature

Good: Structural elements have little to no observed deterioration and can perform their intended function. Steel members may have some light rusting. Concrete and masonry surfaces are clean with little to no cracking or spalling. Wood is clean with no staining or mold. Plaster surfaces are firm and crack free.

Fair: Structural elements have low levels of deterioration and can perform their intended function, but may have some minor reduction in capacity. Steel members may have localized, minor corrosion. Concrete and masonry elements may have hairline cracks and localized spalling,

efflorescence, and staining, but surfaces are largely intact and clear. Wood members may have some checking and localized staining/mold, but appear sound. Plaster surfaces may have some staining and minor cracking at corners, but surfaces are firm.

Poor: Structural elements show advanced section loss or deterioration and have moderate reductions in capacity. Steel members may have extensive corrosion or delamination. Concrete may exhibit large spalls and/or extensive efflorescence. Large cracks may be observed in concrete or masonry elements. Wood may be stained and/or damp with mold and/or small areas of rot. Vertical elements may be out of plumb and have lost veneer elements. Floors/roofs may have rotted/missing finishes and/or are easily deflected.

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Photo 01 - Southern Elevation of Building



Photo 02 - Roof overview



Photo 03 - Encasement crack



Photo 04 - Int stepped crack



Photo 05 - Typ brick condition



Photo 06 - rotated jamb



Photo 07 - new and old opngs



Photo 08 - Concrete fill



Photo 09 - shotcrete and cracks



Photo 10 - wall crack



Photo 11 - beam crack



Photo 12 - Slab Crack



Photo 13 - slab crack



Photo 14 - CMU crack



Photo 15 - rot and crack



MEMORANDUM

DATE: May 12, 2016

TO: Janet Slemenda, HKT Architects

FROM: Jim Asprinio, Project Engineer, Pare Corporation

CC: Kevin M. Champagne, P.E., Pare Corporation
Andrew Chagnon, P.E., Pare Corporation

RE: **Existing Site Narrative Feasibility Study**
Existing Merrimac Public Safety Complex
16 East Main Street, Merrimac, MA
Pare Project No.: 16147.00

Pare Corporation (Pare) is pleased to submit this Existing Site Narrative for the Public Safety Complex located at 16 East Main Street in Merrimac, MA (the Site). The purpose of this assessment was to document the existing site's overall condition. A review of the site including both utilities and drainage relative to regulatory compliance for potential future additions and alterations was also performed.

Information was obtained for the site and facilities from site observations completed on April 22, 2016, record documents and drawings, and data available through the Massachusetts Office of Geographic Information (MassGIS) online mapping, the Town of Merrimac WebGIS (WebGIS) system, United States Department of Agriculture Web Soil Survey (USDA WSS), and the FEMA Flood Map Service.

The Site is located on one parcel totaling approximately 1.020 acres as shown on the Town of Merrimac ("Town") Assessors Map K Lots 17-1-1. The Site is bounded to the north and east by a privately owned property, the south by East Main Street, and the west by wetlands and Cobbler Brook. The Site is currently developed with a Public Safety Complex and houses the Towns Fire Department, Police Department and Department of Public Works (DPW). The Site contains driveways, parking lots, exterior and underground site utilities, landscaping and walkways.

ZONING

The Site is zoned in two zoning districts. The top 25% of the site is zoned as "Agricultural Residential" (AR) and the lower 75% of the Site is zoned as "Village Residential" (VR) according to the "Town of Merrimac – Zoning Map" map dated May 2014 and the "Merrimac Zoning Bylaw" (Bylaw) as amended April 29th, 2013. Abutting properties to the east, south and west are zoned Village Residential, and Agricultural Residential to the north. There are no Zoning Overlay Districts within the property boundary.

The dimensional requirements according to the Bylaws within Zone AR and VR are shown in the below table.

Dimensional Requirements		
	AR District - Requirements	VR District- Requirements
Min Lot Area (ft ²)	87,120sq	10,890
Min Lot Frontage (ft)	200	80
Min Lot Width (ft)	180	70
Min Front Setback (ft)	50	10
Max Front Setback (ft)	--	25
Min Side Setback (ft)	30	10
Min Rear Setback (ft)	30	10
Max Stories	2.5 stories	2.5 stories
Max Building Height	35	35
Max Lot Coverage (%)	25	40
Min preservation of existing wooded area (%)	25	--

NATURAL ENVIRONMENT

Topography

The topography of the Site pitches generally from east to west towards Cobbler Brook. The Site is graded as such that the stormwater pitches away from the building.

Soils

Existing geologic information was obtained from data produced by the National Resources Conservation Services website. The site is classified as unrated Urban Land. However, the surrounding soils are classified as ‘Canton Fine Sandy Loam’ soils with 8 to 15 percent slopes and a soil rating of A (Map Unit 420C). The slopes within the Site are approximately 3 to 8 percent. These soils are typically well drained soils with a depth to bedrock at greater than 65-inches and a depth to seasonal high water table greater than 5 feet. These soils can be located on side slopes on terraces, escarpments, kames, and eskers. An in-depth geotechnical and soil evaluation will need to be performed to properly design foundations for future building improvements, drainage improvements.

Regulated Areas

Review of the WebGIS data layers shows that there are wetlands located to the west of the Site. The wetland areas are protected by a 100-foot buffer zone under both the State Wetlands Protection Act and the local wetland regulations. Approximately 75% of the site is within the 100-foot buffer zone. The local wetland regulations prohibit the following items: removal, filling, dredging, building, degrading, discharging, or otherwise altering the resource or the area within a 100-foot buffer of the resource. However, the bylaw allows exemptions to be made for maintaining, repairing or replacing, but not substantially enlarging, an existing and lawfully located structure.

Additionally, Natural Heritage and Endangered Species Program (NHESP) habitat is mapped along the west side of the Site. We would recommend further conversations with the Conservation

Commission on future building and site improvements and how they pertain to these regulations. Additionally, further review and delineation of the wetlands will be required for design as well as coordination with NHESP.

According to the Flood Insurance Rate Maps for Merrimac available through FEMA (Federal Emergency Management Agency), this Site is located entirely outside of the 100-year flood zones.

INFRASTRUCTURE

Parking and Driveways

Vehicular access to the site is available from East Main Street via a bituminous concrete pavement parking lot which is flush along the length of the lot frontage. A vegetated island with a flag pole and entrance sign separates regular vehicle access to the west from the emergency vehicle access to the east. The entrance appears to be in fair condition (Picture 1). There are no traffic controls at the site entrance.

There is an existing raised pedestrian bituminous sidewalk with granite curbing along both sides of East Main Street before and after the site. However, the sidewalk is not continued along the frontage of the site.

Parking for the buildings is provided in a parking lot to the front of the building and along the west side of the building. Parking spaces are not marked and an accurate parking count cannot be made. The building is accessible through the front entrance to the west of the fire bay doors. There are no pavement markings to denote handicap parking or an accessible route. (Picture 2)

General Zoning Bylaw for parking requires that lots shall be located to provide screening from abutting properties, buildings and streets. The Zoning bylaw requires parking based on building use. Coordination with the Town will be required to determine the quantity of parking required as the Bylaw does not have the use of this facility specifically covered (e.g. emergency services). For use as an office, 3 spaces are required per 1,000sqft of gross area and for use as an industrial facility, 1 space is required per 1,000sqft of gross area. As this building is proposed to have both industrial and office space, the gross square footage of each will be used to proportionally calculate an appropriate number of parking spaces.

Parking space dimensions shall be 9' wide by 18' long. If greater than 50 spots are required, 20% of the spaces may be designated by signs as compact and be reduced to 16' long. Maneuvering aisles and access drives shall be 24' wide. Accessible parking spaces would be required to meet the minimum requirements of 521 CMR Architectural Access Board and the American Disabilities Act (ADA).

Utilities

Information regarding the existing utilities was obtained for the Site and building through site observations.

Drainage: Stormwater is not currently managed or treated on the site. It appears that stormwater sheets directly from paved surfaces to wetland areas to the west of the site (Picture 3). Additionally, roof drains appear to collect in a subsurface pipe and drain directly into the wetlands to the west of the Site (Picture 4). There is regular flooding of the basement of the building that should be

remediated in the proposed design. Concrete was poured in the basement at a depth and thickness of approximately 4-feet in order to try and “cap” the foundation to avoid any water intrusion. However, based on visual observations this appears to have been unsuccessful. Future site and building improvements would also likely require the mitigation and treatment of stormwater flows from the building and the Site. We would recommend that the Town provide all available record information on the Site’s existing drainage system as well as any information on the drainage system in East Main Street. The proposed drainage improvements will be required to meet the Massachusetts Department of Environmental Protection most current Massachusetts Stormwater Handbook, as well as MS4.

Sewer: The sewer service for the police station currently exits the building to the municipal sewer main in East Main Street. The size of this line is unknown at the time.

It is unknown as to where the interior floor drains within the garage bays, sally port and utility rooms discharge to or how (or if) they are treated prior to discharge (Picture 4). Treatment of the floor drains prior to discharging to a tight tank could be required depending on the proposed future building improvements.

Water: Water is currently supplied to the building by a municipal system. Future building improvements and water demands will require that the water system be further analyzed to determine if the existing connections are adequate for both domestic and fire protection services. During design, a hydrant flow test will be required to determine available flow for fire suppression system design.





Electric: Electricity is operated by the Merrimac Municipal Light Department and serviced via overhead wires. The service connects to the buildings from East Main Street. Future building improvements would require that the existing system be analyzed for capacity. Coordination should occur with the utility company regarding any service improvements.

Natural Gas: The buildings are currently serviced by natural gas which is operated by National Grid. Future building improvements would require that the existing system be located and analyzed for capacity. Coordination should occur with the utility company regarding any service improvements.

ASSESSMENT LIMITATIONS

This assessment is meant as a preliminary understanding the current condition of the site. This was a visual investigation based on on-site observations, reasonable assumptions, professional judgment, and experience. Further investigation and coordination will be necessary in order to determine future design.

ATTACHMENT 1: REPRESENTATIVE PHOTOGRAPHS

	<p>Picture 1: View of the site entrance traffic controls. Taken from google Maps.</p>
	<p>Picture 2: View of the front entrance and parking</p>
	<p>Picture 3: View of the west side of the police/fire station and wetlands from behind the station.</p>
	<p>Picture 4: Basement pump pipe outlet to stream.</p>

COST ANALYSIS

The goals for Merrimac Public Safety Complex study included development of an estimated Total Project Cost (TPC) budget that could be evaluated by the Building Committee and used by the Town to discuss what next steps should be taken. Total Project Cost is a combination of the cost for construction (hard costs) and administrative costs borne directly by the Owner (soft costs). Multiple combination or stand-alone options were reviewed for cost development. In this case the historical costs were based on recently constructed buildings of similar anticipated construction type.

Two different costs were carried for hard construction costs: \$315 per square foot for portions of the building associated with the DPW and \$390 per square foot for all other building spaces. At this time, soft costs of 25% of those hard construction costs were carried. In following phases, once sites are settled upon and building programs are established, detailed TPC's will be developed and will include the following details.

Hard Costs

The estimated "hard construction costs" will include construction of the building, including demolition, renovation and new construction. Contingencies for design and construction are factored in and these costs will typically be based on the anticipated mid-point in construction. In addition escalation costs will be noted. For instance, if the Town anticipates a delay of construction of the project for any reason, that delay will be factored in based on anticipated normal escalation costs. In typical years that may be 3.8%. One potential variable to a budget is if there should be a significant change in the economy (such as a major rise in fuel costs) then it could affect the base cost and the escalation contingency.

Soft Costs

The estimated "soft costs" include a list of administrative costs typical of a project. Working with the Committee and Town officials we will try to secure as many actual costs that can be expected; however, we can also look to other projects to estimate these costs based on historical data.

Architectural and engineering fees and owner's project management fees are typically estimated as a percentage of the construction cost. Other costs are based on figures for similar projects. These may include permitting, legal fees, temporary relocation costs, commissioning, fixture furniture & equipment, communications, bid documents, cost of printing, advertisement and marketing of the project, testing during construction and a clerk of the works. An Owner's Contingency is also carried to cover changes that are initiated at the Owner's option or latent conditions such as unforeseen circumstances. Examples of unforeseen circumstances might be additional hazardous waste or boulder removal. This contingency can also cover changes that the Owner chooses to initiate. These could include upgrading to a better grade of equipment or deciding to change a spatial arrangement during construction.

FLOW CHART FOR DESIGNING + CONSTRUCTING PUBLIC FACILITIES + NEXT STEPS

The steps required for constructing a public facility are as follows:

Awarding Authority – Town of Merrimac

STEP 1 – Preliminary Planning – Feasibility Study Phase: local jurisdictions are not legally required to complete a study but as a practical matter the State suggests the completion of one:

- Confirms and explains the owner’s requirements i.e. a Program
- Identifies and evaluates alternative solutions
- Recommends and defines a solution
- Summarizes the proposed scope of work
- Provides a detailed cost estimate

Merrimac has completed Step 1 although some additional re-programming will need to be completed during the next phase to reduce costs.

STEP 2 – Obtain Funding for the Project

- Municipalities handle this in different ways:
 - o Obtain Funding for a Portion of the Estimated Total Project Costs:
 - Obtain funds for a portion of the design phase including an estimate at one Town Meeting. Then go to a later Town Meeting requesting the balance of estimated total project costs (hard construction and soft costs) based on the additional design work completed and an updated construction estimate.
 - Obtain funds for design fees for Schematic Design through Bidding (including some other soft costs for work required during design). Then go to a later Town Meeting with a bid in hand to request construction funds and funds for the balance of anticipated soft costs.
 - o Request Total Project Costs (hard and soft costs) based on early estimates completed during the feasibility study.

STEP 3 – Hire OPM (if required or desired)

- Selection of Owners Project Manager: Projects estimated to cost over \$1.5 million
 - o Requirements outlined in M.G.L. c. 149 §44 A 1/2

Merrimac will be required to hire an OPM.

STEP 4 – Selection of Design Team after selection of OPM

- Per the Office of the Inspector General, “Awarding authorities may contract with the same designer for feasibility study and final design services provided that the original solicitation for feasibility study services indicates that the contract scope may include final design services, or the awarding authority has procured the final design services in accordance with the designer selection law.”

- o Awarding authorities may commission an independent peer review of the feasibility study, but are not required to do so. Selection of a contractor for the peer review is not subject to the designer selection law.

STEP 5 – Design Phase: Translate the functional requirements established in the program into a set of biddable construction documents

- Complete gathering all site documentation that may be lacking including but not limited to surveys, wetlands delineation, geotechnical evaluation, hazardous material assessment. This work may be done prior to the design phase, but should not be delayed past very early schematic design.
- Consultation with Users, abutters and other affected individuals and groups
- Preparation of schematic drawings
- Analysis of major building components
- Preparation of final plans, specifications and other bid documents
- Updated project cost estimates based on final plans and specifications
- Determine Project Delivery Method early in Design Phase
 - o Design Bid Build: Typical process used by Municipalities on similar projects
 - Governed by M.G.L. c. 149 Public Construction Law which defines roles of the:
 - Public Owner with Owners Project Manager (OPM) owners representative
 - Designer
 - Contractor
 - o Alternate Delivery Method – Construction Management at Risk (CM at Risk or CMR)
 - Possible for projects over \$5 million per M.G.L. c. 149A
 - Approval must be obtained from the Office of the Inspector General
- Prequalification of General and Sub-Bid Contractors is required for projects estimated to cost over \$10 million
 - o Establish a Pre-Qualification Committee: one representative of the project designer, the OPM, and two other representatives of your jurisdiction
 - o Prepare and advertise RFQ and receive Statements of Qualification (SOQ) for evaluation
 - o Evaluate and prequalify General Contractors and Sub-Bid Contractors who will be eligible to bid on the project

STEP 6 – Bidding

- Public projects in Massachusetts must pay Prevailing Wages – Requirements outlined in M.G.L. c. 149, §§ 26-27
- Filed Sub-Bidding Requirements: There are 18 categories of work subject to the filed sub-bid laws. If work in a category is estimated to exceed \$20,000, that category of work must be bid separately from the General Contract as a Filed Sub-Bid. General Contractors must select their sub-contractors from the Filed Sub-Bidders in these categories.

- Bidding Process:
 - o Prepare invitation for bid (IFB)
 - o Advertise and post IFB
 - o Receive, open and review filed sub-bids
 - o Distribute filed sub-bidder list to everyone who received the IFB
 - o Receive, open and review general bids
 - o Award the contract to the lowest “responsible and eligible” bidder
 - o Obtain bonds and execute the contract
 - o Return bid deposits and publicize the contract

STEP 7 – Construction Phase

- The General Contractor’s job is to complete the project in accordance with the plans and specifications prepared by the designer.
- The Architect and Design Team is responsible for periodic observation of the construction for general compliance with the plans and specifications.
- Awarding Authority should hire a Clerk of the Works who serves as the public owner’s representative at the project site. The Clerk’s function is to observe and record the progress of construction. The Clerk is a full-time position and should be someone who has substantial construction experience.

FINAL COMMITTEE MEETING

The Committee met on July 12, 2016 to discuss how to proceed. The Committee considered the needs of the departments, the challenges of the existing building and site, potential off site properties, the schedule, overall costs, and steps that would need to be taken.

The Committee felt that the Town should take the next steps in the design process. These steps would advance the design of buildings and sites in order to refine the total costs and to begin the process of reviewing the findings with the Community in order to win their support. While new options for potential site parcels remain an ongoing conversation, the decision at this time is to renovate the existing building for the Fire Department and build new Police and Public Works buildings on other sites in Town. Should a site large enough to accommodate all three departments become available, the Committee did recognize the merits of a singular structure that could take advantage of shared public and support spaces.

After discussion on subjects such as funding projects one at time and the extent of detailed work required to get to a cost estimate by an independent professional cost estimator, the Committee voted unanimously to request the Board of Selectmen to include an article on the 2016 Fall Town Meeting agenda to allow the Town to borrow funds to support the next phase of the design process for renovated and new public safety structures.

CONCLUSION

This report has been prepared under the direction of the Merrimac Building Committee. The Committee, consisting of Selectmen, Town staff, Fire, Police and DPW officials and residents representing the citizens of Merrimac. The Committee has provided guidance and thoughtful comments throughout the study process.

The process focused on identifying the programmatic needs of each Department, determining the feasibility of the reuse of 16 East Main Street, reviewing other sites identified by the Committee and estimating the probable costs for new construction. This goal was to have each department built to meet current needs and those anticipated for the future.

An assessment of existing conditions indicated that a significant portion of the building can be reused but would require upgrades to bring the building into compliance with current building codes. These would include substantial upgrades to the building envelope and systems and reconfiguration of building spaces to accommodate the needs of a department. Parking for visitors and personnel also needs to be addressed. A portion of the building that houses the police department also includes spaces that will require extensive investigation to determine the cause of the settlement that has been identified and repairs may make this work too costly to consider. A tear down of that portion of the building might make sense. Based on that information, the Committee made several crucial decisions including the reuse of the existing site for the Fire Department and the construction of new buildings on two sites to meet the needs of the Public Works and Police Departments.

Deciding which options best benefits the citizens of Merrimac and the three Emergency Service Departments will be the work of the Committee and Design Team as the project moves forward. We look forward to working with you on your next steps.

Thank you.



APPENDIX A: MEETING MINUTES

MEETING MINUTES

To: Town of Merrimac MA Public Safety
Complex Building Committee

From: Janet M. Slemenda
Nancy J. Joyce

Subject: Visioning / Kick-Off Meeting

Date: November 12, 2014

Project: Merrimac Public Safety
Complex Study

Job No: 21512

Attending:

- Andrew Conner, Board of Selectmen (BoS), Fire Dept.,
selectman2@townofmerrimac.com
- Chief Eric Shears, Chief of Police, eshears@merrimacpolice.org
- Chief Ralph Spencer, Fire Chief, ralph.spencer@merrimacfire.com
- Robert Sinibaldi, DPW Director, dpwdir@townofmerrimac.com
- Larry Fisher, Fire Dept. Deputy Chief, lfisher.electric@comcast.net
- Richard Holcroft, Police Dept. Patrolman, rholcroft@merrimacpolice.org
- Richard LeSavoy, Finance Committee Chairman, lesavoy@comcast.net
- Mark Tocci, Building Committee, mark.tocci@crossfieldengineering.com
- Jennifer Penney, BoS Executive Assistant, selectmen@townofmerrimac.com
- Janet Slemenda (JMS), HKT Architects, jslemenda@hktarchitects.com
- Eric Kluz (WEK), HKT Architects, ekluz@hktarchitects.com
- Nancy Joyce (NJJ), HKT Architects, njoyce@hktarchitects.com
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Item:

-
- 1.01 JMS reviewed agenda for this Visioning / Kick - Off Meeting, which included reintroducing the HKT design team, our approach to managing the study, the process and the goals for the visioning session.

A quick overview the process for the study included a discussion on the assessment phase including gathering input and ideas from the Committee and defining the limitations of the existing building and site, and the Design phase which included conceptual development of an operationally sound option.

The Process will also include:

- Programming
- Building Assessment
- Site Assessment

-
- 1.02 The Visioning Session included and overview of the session process, questions, a review of responses and open discussion. The following items 1.03 through 1.06 document the questions asked and the responses attendees wrote on individual post-it notes. Responses have been recorded as they were written with the exception that abbreviated words have been written out for the readers' understanding.

-
- 1.03 Question 1: What do you see as the best outcome for this study?
- Professional training center
 - Become educated on what the possibilities are: Technology, and what works
-

and what does not.

- Personal space for staff
- A public safety building that works well for the Police, Fire and Community
- Community space for all to use
- Useable space that is easy to keep / maintain long term
- Come up with plan that ensure our operations are safe and secure for staff and customers
- Accessibility to I-495
- Location
- Finding a location(s)
- Parking away from Apparatus Bays
- Create a concept for how we can solve the problems we identify by analyzing the current site
- Clearly identifying the inadequacies of the current site
- Identify a realistic alternate site presuming we cannot solve all the issues on the current site
- Storm-proof building
- Preliminary design
- Prove to the community that our existing facilities are inadequate and come up with a plan for the future
- Discuss and explain options for our facilities
- Convince the community of the need
- A good understanding of what the needs of the Town are and if project will be possible

1.04 Question 2: What do you see as the biggest challenge(s) for the study?

- Finding a site
 - Location
 - Location
 - Limitations of what we can do on the current site
 - Lack of availability of an alternate site in an ideal location
 - Access to highway
 - Evaluating future sites because we do not own an land large enough to support a new facility
 - Repurposing the existing facility
 - Ease of use
 - Wrapping my head around a large project
 - Building size
 - Keeping the departments in one building
 - Deciding who goes where
 - Not over building the project but planning for the future at the same time
 - Putting too much in the overall plan
 - Number of uses
 - Cost
 - Cost and selling to the community
 - Participation of key people who have been part of the team off and on
 - Selling it to the community
-

1.05 Question 3: How does the current layout of the site impact the three functions on the site?

- All outdated
- It works, but is dated
- Some parking issues at times
- Parking
- Traffic / Parking
- Not enough space for parking
- Traffic
- No traffic lights
- Entry for public
- Best location in Town
- It is a center piece in Town and centrally located
- Great location within Town
- Existing building is in the ideal location
- Police Department needs more interior space for interview room, locker room and sally port, etc.
- More vehicle bays
- I originally did not even know the DPW was in the building
- Not a lot of room to expand
- Police facility is inadequate and unwelcoming
- Police station seems very unfriendly to the public
- All three departments are separate with little shared place
- Flooding

1.06 Question 4: What are one or two critical details that we need to know about this project?

- Easy accessibility to main roads
 - Separation of entering and exiting Police / Fire vehicles
 - Parking
 - Site options are limited
 - The site...
 - Who the owners are of possible other sites and the possibilities of securing / procuring them
 - Location
 - Location
 - Location is key to overall operations
 - This current site is an ideal geographical location
 - Keeping the DPW onsite is not as critical as Police & Fire Departments
 - To keep Police and Fire Departments with a common area so that there is regular interaction (Common entrance, etc.)
 - Operation of Police and Fire departments need to remain together
 - Facility's layout makes it difficult to provide quality professional services to our community
 - Lack of space
 - Importance of finding an optimum use for the current site as a selling feature for the project
 - May not be easily accepted by the community
-

1.07 Open discussion questions included:

- There are items coming off of the Town tax base
- Pentucket Regional School District, 50% of the Town Budget goes to school district. Three Towns: Merrimac, Groveland and West Newbury
- A new high school is needed. Last time it came up to a vote (1994) it failed by a single vote.
- Town growth is not expected to be large. Infrastructure like schools, water and sewer are more or less at maximum capacity.
- Town Hall – potential ongoing projects. They have not done a study yet.
- Three departments on one site?
 - Police & Fire really want to have a shared site. So public safety items could have shared resources.
 - DPW site could be a different site
- There are two other properties that are known potential sites.
 - Waterhouse: ~4.5 Acre site. Known zoning,
 - Across from Edgemont: 9 acres, not ideal location for Fire Department.
- Other possible secondary locations mentioned:
 - Emery (behind soccer fields)?
 - Federal Way? Behind the Salt Shed. There is a swamp vs. hill situation on that site. Although the Light & Sewer departments already there which potentially convenient.
- A phased approach to the project? Would they need funding all at the same time? Salisbury projects were phased, but not funded at the same time.
- What are the rates of escalation these days?
- Neighbor to the existing site, a historic property. Where is the property line between the two?
- Community
 - Seems to be slightly indifferent to project
 - School numbers are going down
 - New development seems for 55+
 - Taxes in Town have gone up quite a bit
 - Last Town meeting there were no questions and everything was unanimous.
 - Departments host community events which are very positively reviewed.
- Community involvement and engaging in the getting the project moving.
 - Using local television, giving tour
 - Social Media
 - Work on a 3-minute elevator pitch
 - Transparency of the process
- Town Meeting is 3rd Monday in April.

Next Meeting to be held: TBD

Please contact HKT Architects within three business days if these minutes do not accurately reflect discussions.

Cc: All attendees

MEETING MINUTES

To: Town of Merrimac MA Public Safety
Complex Building Committee

From: Janet M. Slemenda
Staci M. Villa

Subject: Meeting 02

Date: February 9, 2016

Project: Merrimac Public Safety
Complex Study

Job No: 21512

- Attending:**
- Andrew Conner (AC), Board of Selectmen (BoS), Fire Dept., selectman2@townofmerrimac.com
 - Chief Eric Shears (ES) , Chief of Police, eshears@merrimacpolice.org
 - Chief Ralph Spencer (RS), Fire Chief, ralph.spencer@merrimacfire.com
 - Robert Sinibaldi (RS), DPW Director, dpwdir@townofmerrimac.com
 - Larry Fisher (LF), Fire Dept. Deputy Chief, lsfisher.electric@comcast.net
 - Richard Holcroft (RH), Police Dept. Patrolman, rholfcroft@merrimacpolice.org
 - Richard LeSavoy (RLS), Finance Committee Chairman, lesavoy@comcast.net
 - Mark Tocci (MT), Building Committee, mark.tocci@crossfieldengineering.com
 - Jennifer Penney (JP), BoS Executive Assistant, selectmen@townofmerrimac.com
 - Carol McLeod (CML), Finance Director, cmcleod@townofmerrimac.com
 - Rick Pinciario (RP), Former Selectman, rick@westnewburyinsurance.net
 - Steven Brown (SB), Fire Department, MFDSRBEMT@comcast.net
 - Janet Slemenda (JMS), HKT Architects, jslemenda@hktarchitects.com
 - Eric Kluz (WEK), HKT Architects, ekluz@hktarchitects.com
 - Nancy Joyce (NJJ), HKT Architects, njoyce@hktarchitects.com
 - Staci M. Villa (SMV), HKT Architects, svilla@hktarchitects.com

Item:

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- 2.01 Janet M. Slemenda (JMS) reviewed agenda and discussed that the purpose of the meeting was to review programming documents and discuss potential sites.
-
- 2.02 JMS gave overview of excel charts (room data sheets) and programming sketches. Programming Documents: At this point the programming stands at the following:
- Shared Public Spaces: 3,727 GSF
 - Support Spaces: 3,480 GSF
 - DPW: 25,894 GSF
 - Fire: 16,705 GSF
 - Police 10,338 GSF
 - Total: 60,145 GSF
- Exterior Parking Counts included:
- DPW: 8 spaces
 - Fire: 21 spaces
 - Police: 12 spaces
 - Visitor Parking: 15 spaces
 - EOC: 5 spaces
 - Possible Carport: 8 spaces
-

Discussion focused about how the space program can be cut. JMS explained that the first cuts to the program should be made with input from the PD/FD Chiefs and DPW Director. Some cuts have been proposed by the PD and more will follow from other departments. If the Town chose, HKT can make additional cuts but will withhold that until we hear back from each department.

The program was developed after sessions with each department and are based on a preferred idea of how operations would best work. However, it is understood that the program must get smaller to be supported by the Committee and the Community.

-
- 2.03 Robert Sinibaldi, DPW Director, (RS) to look at truck layouts, maintenance spaces and storage bays (that may be able to be used for maintenance). JMS states that different spaces need different types of heating and ventilation and to think about that as he considers his options.

Washbay could be free standing.

Salt and Sand Shed needs to be added to the program. It is shared with other communities and goes through 900 tons/yr. Currently has 6 loads stored. Style of existing shed is a typical MassDOT wood structure with a low-pitch roof. RS to get tonnage information to HKT. JMS states that a favored style sand/salt shed is a high-arch gambrel.

State mandated equipment required for the DPW has no space.

Will the DPW stay at the Town Hall (850 sf of DPW support space)?

-
- 2.04 Chief Ralph Spencer, Fire Chief (RS) to look at the vehicle storage to make sure the correct number of truck and equipment is represented in the programming sheets. RS stated that some of the office space can be taken out. RS is to also look at gear storage and locker spaces. JMS mentioned that all toilet rooms need to be meet accessible standards.

-
- 2.05 Everyone is to take a look at the parking requirements for their departments (i.e. visitors, staff, etc.). Mark Tocci (MT) brought up the question about the use of municipal

-
- 2.06 RS to get back to HKT with comments about programming by next week (02/19/2016) and Chief Eric Shears, Chief of Police, (ES) to get comments back by this week (02/12/2016).

-
- 2.07 If the Town grows to 8,000 people, public safety is expecting over 1,000 calls a year. The Town needs to plan for the future and project the necessary equipment and the necessary staff.

Discussion about planning for the future. RS asked if there should there be square footage numbers based on population when planning for the future. Space was allocated for projections out to 2035. Chief Shears discussed his research on other Police Departments with communities of 6,000 people. Departments included 10-11 full-time employees (1 Chief, 3 Sergeants, 6 Patrolmen (some cross-trained as detectives).

MT asked the question about staff being mandated by the state. ES explained that the staff numbers put out by the FBI are not valid. ES also commented that work-load-

based assessment is also not appropriate because of the number of calls that are received each year.

Police Department issues: The current building is not safe without a sallyport. There should be a certain sequence for best practices and safety. Detention bays are not up to code (including no sight/sound separation).

-
- 2.08 Existing Building: If a renovation is considered, it would have to be creative. Building up would be difficult. JMS explained there is not appropriate lateral bracing and there are, most likely, other structural issues to repair or enhance. MT asked if it would be possible to add a second floor just on the rear of the building; possibly framing it out for future use (maybe for dorms) and only owning some drywall. The question arose about the use of the building without an elevator. JMS explained it is not really possible to do anything on a 2nd floor without an elevator.

All mechanical systems need to be replaced as they are near the end of their useful life. The design of the mechanical is looking to be about \$80-90/sf. The structure would need to be renovated to meet the energy code if a substantial renovation is contemplated.

All members felt that renovation has to be given all due consideration.

-
- 2.09 Existing facility not in the Water Resources Overlay Projection. However, it is included in the River Act because it's within 200' of the river.

Site Zoning is Agricultural/Residential but the existing facility is deemed as municipal use but is still subject to review.

-
- 2.10 Other Site Options: Rick Pinciario, (RP), expressed interest in other sites and what can space be moved.

The following sites were discussed:

- Emery Street Fields site (flat, 5 acre site, owned by Town).
- 106 West Main Street site (slightly elevated at the rear of the site, owned by Town).
- Waterhouse Site (74 East Main Street). Only other location where Fire could be.
- 1 Bear Hill Road (corner lot)
- Lehey Clinic is closing and suggested as a possible site (2 tiered building with 2nd floor space available).

HKT to do a brief assessment of the new suggested sites and break the program into pieces to see how they can fit on the sites.

JMS will take the program and break the pieces into different departments (for example: Police will keep dispatch and have to add its own training, Fire will keep EOC and have to add its own training as well).

-
- 2.11 Possible Configurations: It is possible to re-use the building for one or two of the programs. It was determined that Fire needs to be in the same general area as current location. Police and DPW can relocate somewhere else.

Start with the option of keeping Fire at existing site. Can both Police and Fire remain?

Can Police move to rear of building? Can DPW move to different site?

Other option: If Police/Fire were relocated, could DPW use entire site? It would be more difficult for DPW and Fire to remain because of space/site constraints.

-
- 2.12 Chief Shears expressed concern about the cost to keep the Police and Fire at its current location and relocate the DPW. Issues brought up include flooding problems and the culvert that is undersized (where civil will need to get involved for an assessment).

MT asked what if the Fire and DPW continue to share the existing facility and relocate the Police to a new facility. "Little People" site was suggested as a perfect size facility for the Police. It was determined that the "Little People" facility has already been sold.

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- 2.13 Pre-engineered building a possibility? JMS explains that this is a possibility but it still needs to meet the energy code and will be about \$250/sf.

-
- 2.14 Carol McLeod, Finance Director, (CML) commented that a reasonable budget would be \$10 million.

-
- 2.15 Brief discussion about having community support and explaining what is necessary for Public Safety to function. Concern was expressed that community approval might be challenged because of the High School project that is moving forward (even though it will have 50% reimbursement) and also that Town Hall needs work. Communicating to the Town on why things are necessary is a huge concern. It's not good enough to just say that "the Town is growing".

Next Meeting to be held: Wednesday, March 2, 2016

Please contact HKT Architects within three business days if these minutes do not accurately reflect discussions.

Cc: All attendees

MEETING MINUTES

To: Town of Merrimac MA Public Safety
Complex Building Committee

From: Janet M. Slemenda
Staci M. Villa

Subject: Meeting 03

Date: March 29, 2016

Project: Merrimac Public Safety
Complex Study

Job No: 21512

Attending:

- Andrew Conner (AC), Board of Selectmen (BoS), Fire Dept., selectman2@townofmerrimac.com
- Chief Eric Shears (ES) , Chief of Police, eshears@merrimacpolice.org
- Chief Ralph Spencer (RS), Fire Chief, ralph.spencer@merrimacfire.com
- Robert Sinibaldi (RS), DPW Director, dpwdir@townofmerrimac.com
- Larry Fisher (LF), Fire Dept. Deputy Chief, lsfisher.electric@comcast.net
- Richard Holcroft (RH), Police Dept. Patrolman, rholfcroft@merrimacpolice.org
- Richard LeSavoy (RLS), Finance Committee Chairman, lesavoy@comcast.net
- Mark Tocci (MT), Building Committee, mark.tocci@crossfieldengineering.com
- Jennifer Penney (JP), BoS Executive Assistant, selectmen@townofmerrimac.com
- Carol McLeod (CML), Finance Director, cmcleod@townofmerrimac.com
- Rick Pinciario (RP), Former Selectman, rick@westnewburyinsurance.net
- Steven Brown (SB), Fire Department, MFDSRBEMT@comcast.net
- Laura Dillingham-Mailman (LD), Senior Ctr. Dir., ldmailman@townofmerrimac.com
- Janet Slemenda (JMS), HKT Architects, jslemenda@hktarchitects.com
- Eric Kluz (WEK), HKT Architects, ekluz@hktarchitects.com
- Nancy Joyce (NJJ), HKT Architects, njoyce@hktarchitects.com
- Staci M. Villa (SMV), HKT Architects, svilla@hktarchitects.com

Item:

Review of Programming

-
- 3.01 Janet M. Slemenda (JMS) reviewed the agenda and discussed that the purpose of the meeting was to review the revised programming documents and discuss potential sites for relocation of some or all of the departments.
-
- 3.02 JMS gave overview of excel charts (different facility combinations) that were discussed at the previous meeting. Each combination of departments is listed in the header center location.
- Grey column represents Existing SF (square feet)
 - Gross SF (space including walls) vs. Net SF (space within walls)
 - Explanation of circulation % adjustments (added SF for corridors, stairs, etc.)
 - Comparison of Grand Total GSF #s to show existing SF and how it relates to potential space for the future
- a. FD / PD / DPW Combined
- Existing: 22,406 SF vs. Potential New: 58,177 SF
- b. Fire / Police Station Combined
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- Existing: 22,406 SF vs. Potential New: 32,950 SF
- c. Fire Station / DPW Combined
- Existing: 22,406 SF vs. Potential New: 47,745 SF
- d. Police Station / DPW Combined
- Existing: 22,406 SF vs. Potential New: 41,022 SF
- e. Stand Alone Police Station
- Existing: 22,406 SF vs. Potential New: 15,531 SF
- f. Stand Alone Fire Station
- Existing: 22,406 SF vs. Potential New: 22,254 SF
- g. Stand Alone DPW
- Existing: 22,406 SF vs. Potential New: 26,789 SF

JMS explained that shared and support spaces have been adjusted depending on which departments have been grouped together. All numbers are based on the programming documents including adjustments made by department heads. JMS also mentioned that programming was done with the idea that an “ideal” program be developed as a guideline.

As each combination was discussed the existing square footage suggested programs that could be combined. Other combinations might also work but each program would need to be reconsidered and spaces reduced or eliminated. Each stand-alone department could occupy the existing building.

-
- 3.03 Mark Tocci (MT) asked if the Fire and DPW stay at the existing facility would it be possible to inset a second level in some of the high bay areas where trucks currently reside. There already are some mezzanines. JMS suggested that each department will need to be evaluated before the determination that a second floor would need to be added:
- What is necessary for storage space?
 - How will each department operates on a daily basis?
 - What is needed for circulation (vehicular and pedestrian)?
 - Is a second floor necessary? This will require an elevator.

-
- 3.04 Ongoing discussion of what department could stay at the site with improved operational efficiencies. All issues (code, site, etc.) will need to be addressed.

It is a possibility that DPW could take over entire existing building. Robert Sinibaldi (RS) reiterated that the Highway Dept. can't be at existing site because of MS4 regulations. Maybe Fire/Police stay at existing site with significant upgrades. The Fire Department operates best off this site based on an ideal location for response times.

If Police and Fire remain on site, major areas for reconfiguration include all office space, EOC space, a DPH approved detention area, a sallyport and reconfiguration of how detention and administration interact.

Existing Building And Site

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- 3.05 Reuse of existing building: The Committee felt it was important that the building be considered for reuse by one or even two departments.

Chief Shears (ES) has major concerns about the existing building – floors epoxied 3-4 years ago are already showing ½” cracks. The building appears to be sinking.

What is the cost to renovate? It was determined that structural and civil engineers need to look at existing conditions. What is the cost to gut completely? Andrew Connor (AC) brought up the point of having to relocate all fire equipment if the building is gutted. There are costs associate with temporary trailers, relocating trucks, etc.

Discussion of elevator determined that a second floor cannot be used without a full elevator. A LULA (limited use, limited access) lift would not work, or if would be a very tough sell to get approved. If millions are going to be spent on renovations, \$120,000-150,000 isn't that much to spend on an elevator to have a 2nd floor that is accessible.

-
- 3.06 General concern by all about renovations to the existing facility with the upcoming adoption of the new building codes and regulations. There may be some lessening of requirements for renovations of existing structures in the new code, due to be released in the summer of 2016, which may benefit this project.

From a code point of view, is it an "essential facility"? If it is police and fire then the answer is yes. The DPW would be up for consideration but not required in all probability.

-
- 3.07 Bob Sinibaldi (RS) noted that MS4 (Municipal Separate Storm Sewer Systems) regulations make the DPW location on this site 100% non-compliant and that something would have to be done to address this issue. There was discussion about the impact MS4 has on the washing of other vehicles housed on site. The community will need to understand that this issue must be addressed.

Committee members noted that there is a cost of doing nothing; for instance the building MEP systems have reached the end of their useful life and will need to be replaced.

-
- 3.08 Existing parking: Discussion continued on the existing parking, which is scattered with no lines designating proper spaces, and future needs on this site. HKT has prepared a parking count based on the programming session. Someone asked if off-site parking might work. Andover facility mentioned as having off-site parking. Senior Center noted as having about 50 parking spaces.

HKT did count 8 spaces for the DPW, 21 spaces for Fire/Ambulance/EMS, 12 spaces for Police, 15 visitor spaces and 5 spaces for and EOC event. Not all of these spaces would be needed all the time but there is a possibility of a major event that would require a significant amount of these spaces, perhaps 50 spaces.

It was noted that there are not that amount of identifiable spaces on existing site.

Site Options

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- 3.09 JMS and Staci Villa (SMV) distributed site plans showing all four sites in question as well as the existing site. Enlarged site plans of each individual site distributed with associated spreadsheets with square footages for possible facility combinations for each site.

-
- 3.10 JMS distributed a standard Matrix for everyone to think about comparing and scoring each of the sites under certain categories. It may be helpful in determining sites that aren't a possibility at all or it may turn out that all sites score around the same. In either
-

case it is another way of looking at sites and assessing them based on similar issues.

EMERY STREET FIELD

3.11 Possible Site configurations:

- Police/DPW Combined: (39,518 SF)(69,368 SF with support and parking)
 - Stand Alone Police Station: (14,027 SF)(28,457 SF with support and parking)
 - Stand Alone DPW: (26,789 SF)(42,879 SF with support and parking)
-

3.12 Comments:

- Determined to not be suitable for Police because of noise and close proximity to residents.
 - If Fire Department stays at existing site, DPW could move to Emery Site. Access to the site is difficult; small access road between houses.
 - North access lane was sold off and is no longer available.
 - Site has wetlands crossing, endangered species of flowers on a portion of site, steep grade change at south end of site.
 - Site is not suitable for Fire Department.
-

106 WEST MAIN

3.13 Possible Site configurations:

- Police/DPW Combined: (39,518 SF)(69,368 SF with support and parking)
 - Stand Alone Police Station: (14,027 SF)(28,457 SF with support and parking)
 - Stand Alone DPW: (26,789 SF)(42,879 SF with support and parking)
-

3.14 Comments:

- Only top right corner, north portion, of site (approx. 6 acres) will possibly be available for new construction.
 - Site has potential to construct a facility that could benefit Police or DPW and then also be used for something else in the future.
-

74 EAST MAIN

3.15 Possible Site configurations:

- Fire/Police/DPW Combined: (56,673 SF)(101,403 SF with support and parking)
 - Fire/Police Combined: (31,446 SF)(60,576 SF with support and parking)
 - Fire/DPW Combined: (46,241 SF)(77,211 SF with support and parking)
 - Police/DPW Combined: (39,518 SF)(69,368 SF with support and parking)
 - Stand Alone Police Station: (14,027 SF)(28,457 SF with support and parking)
 - Stand Alone Fire Station: (20,750 SF)(36,300 SF with support and parking)
 - Stand Alone DPW: (26,789 SF)(42,879 SF with support and parking)
-

3.16 Comments:

- Possibility of acquiring by eminent domain.
 - May be an expensive site to obtain.
 - Was once contaminated, has since been capped.
-

1 BEAR HILL ROAD

3.17 Possible Site configurations:

- Police/DPW Combined: (39,518 SF)(69,368 SF with support and parking)
 - Stand Alone Police Station: (14,027 SF)(28,457 SF with support and parking)
-

-
- Stand Alone DPW: (26,789 SF)(42,879 SF with support and parking)
-

3.18 Comments:

- This site does not appear to work for any department.
 - Difficult intersection.
 - Challenging site on a curve.
-

Next Steps

- 3.19 The Town expressed that they need evidence to support the cost of keeping the existing building and renovating it vs. the cost of a new facility.

Town of Merrimac would like HKT to contact engineers to see how much it will cost to have the existing structure and the site analyzed. JMS to talk to engineers and tell them the situation/issues. The Structural / Civil engineer will need to visit the site. Structural will determine if cores are necessary as a next step.

JMS stated that she can put together a package of historic costs for all new construction. HKT has recent projects related to all the pieces that the Town is considering. These can be supplied with escalated costs as well. Some examples may include costs from the Salisbury Police Station, Boxborough Public Safety Facility and Brookline Washbay.

In order to get more accurate cost data the services of a professional cost estimator may be required. JMS explained that in order to do a cost estimate there has to be some type of plan which has not yet been done because the end users have not yet been determined.

- 3.20 The Town is to see how much additional funding they have available for engineers or cost estimator to analyze the existing building and site.

It is too late to ask for additional funding at Spring Town Meeting. Chief Shears believes it is very important to have a complete report (including an engineering analysis) to present at Fall Town Meeting

Next Meeting to be held: TBD

Please contact HKT Architects within three business days if these minutes do not accurately reflect discussions.

Cc: All attendees

MEETING MINUTES

To: Town of Merrimac MA Public Safety
Complex Building Committee

From: Janet M. Slemenda
Staci M. Villa

Subject: Meeting 04

Date: May 24, 2016

Project: Merrimac Public Safety
Complex Study

Job No: 21512

- Attending:**
- Andrew Conner (AC), Board of Selectmen (BoS), Fire Dept.,
selectman2@townofmerrimac.com
 - Chief Eric Shears (ES) , Chief of Police, eshears@merrimacpolice.org
 - Chief Ralph Spencer (RS), Fire Chief, ralph.spencer@merrimacfire.com
 - Robert Sinibaldi (RS), DPW Director, dpwdir@townofmerrimac.com
 - Larry Fisher (LF), Fire Dept. Deputy Chief, lfisher.electric@comcast.net
 - Richard Holcroft (RH), Police Dept. Patrolman, rholfcroft@merrimacpolice.org
 - Richard LeSavoy (RLS), Finance Committee Chairman, lesavoy@comcast.net
 - Mark Tocci (MT), Building Committee, mark.tocci@crossfieldengineering.com
 - Jennifer Penney (JP), BoS Executive Assistant, selectmen@townofmerrimac.com
 - Carol McLeod (CML), Finance Director, cmcleod@townofmerrimac.com
 - Rick Pinciario (RP), Former Selectman, rick@westnewburyinsurance.net
 - Steven Brown (SB), Fire Department, MFDSRBEMT@comcast.net
 - Laura Dillingham-Mailman (LD), Senior Ctr. Dir., ldmailman@townofmerrimac.com
 - Janet Slemenda (JMS), HKT Architects, jslemenda@hktarchitects.com
 - Eric Kluz (WEK), HKT Architects, ekluz@hktarchitects.com
 - Nancy Joyce (NJJ), HKT Architects, njoyce@hktarchitects.com
 - Staci M. Villa (SMV), HKT Architects, svilla@hktarchitects.com

Item:

Review of Civil + Structural Observations

- 4.01 Janet M. Slemenda (JMS) reviewed the agenda and discussed that the purpose of the meeting was to review the civil and structural observation reports prepared by Pare Corporation and to discuss historical cost data for new construction.

The observation report highlights were reviewed in a PowerPoint presentation, were handed out to attendees at the committee meeting, and are attached for review.

- 4.02 JMS gave overview of the civil observations.
- Existing Conditions:
 - Zoning: Agricultural Residential and Village Residential.
 - Natural Environment: Site pitches east to west towards Cobbler Brook. Soils are classified as "Canton Fine Sandy Loam". Regulated areas include wetlands to the west of site with a 100 foot buffer zone of which 75% of site falls within that resource. Site includes a Natural Heritage and Endangered Species Program habitat.
 - Infrastructure: Parking is unmarked, screening to abutters is not provided. Utilities: Stormwater not currently managed or treated. Municipal sewer, water and electricity currently serve site. Natural Gas is by National Grid.
-

-
- **Future Steps:**
 - **Soils:** In-depth geotechnical investigation and soil evaluation will need to be done to properly design foundations for future buildings and drainage improvements.
 - **Regulated Areas:** Further discussion on local wetlands regulations to understand prohibitions and exemptions. Conversation with Conservation Committee needed early on.
 - **Parking and Driveways:** Coordination with the Town required including location of accessible spaces.
 - **Utilities:** Future improvements would require mitigation and treatment of stormwater from building and site. Must meet MA DEP and MA Stormwater Handbook requirements.
 - **Sewer:** Treatment of floor drains prior to discharge into tight tank could be required.
 - **Water, Electric and Gas:** Analysis for future demands would be required to determine level of improvements required.
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4.03 Civil Discussion/Comments with Committee and HKT

- Rick Pinciario (RP) noted that it is blue spotted salamanders that are protected by the Natural Heritage and Endangered Species Program.
 - JMS noted that the location of accessible parking spaces and pathways should be delineated.
 - Stormwater issues need to be addressed. Could a sonar scan be done to find where the underground pipes lead to?
-

4.04 JMS gave overview of the structural observations.

- **Existing Conditions:**
 - **Structural Systems:**
 - Slab on grade with concrete foundation walls; partial structural slab with basement in Police department.
 - Second floor framing: lumber joists and plywood floor supported on CMU partitions.
 - Roof: Low slope of wood planking supported by concrete encased steel beams, supported by masonry piers.
 - Walls: 12" thick multi-wythe brick masonry; brick parapets; interior walls mix of CMU and brick masonry.
 - Lateral load resisting system: plans do not designate system. Roof planking and second floor plywood likely act as horizontal diaphragm and walls act as shear walls.
 - **Observations: Fire Department and DPW Workshops**
 - Concrete slab appears in good condition.
 - Existing roof planking appears in good condition.
 - Interior brick walls and CMU partitions appear to be in fair condition.
 - Cracks should be filled with epoxy adhesive or routed and filled with repair mortar depending on situation.
 - Exterior brick walls in fair-to-poor conditions. Mortar joints deteriorated or spalled in some areas. Walls generally plumb with some areas of concern.
 - Mortar joints to be cleaned and repointed.
 - Consideration for covering brick walls with cladding to protect and extend life.
-

-
- Cracked and rotated jambs to be investigated.
 - Repair some lintel conditions.
 - Observations: Police Station Foundation
 - Foundation contains structural elements that, where visible, are in poor condition
 - Basement: Partial filled basement – extensive cracking observed, air humid, standing water observed in sump pit.
 - Building foundation including perimeter walls, beams and piers: limited visibility but cracks and spalls are present along some beam piers and exposed steel is corroded. Diagonal cracks also observed at foundation walls.
 - Recommendations for Police Station Foundation
 - Observed cracks may be indicative of differential settlement of foundation.
 - Pare spoke with their Geotechnical staff who recommended a comprehensive investigation to determine extents for settlement, potential causes and remediation options. Further evaluation to determine potential source of water infiltration should be performed.
 - Benefits versus costs associated with future use of this portion of the building can then be weighed.
 - At this time, humidity and moisture issues should be evaluated to determine a cost effective method of control.
 - Existing roof planking appears in good condition.
 - Interior brick walls and CMU partitions appear to be in fair condition
 - Cracks should be filled with epoxy adhesive or routed and filled with repair mortar depending on situation.
 - Exterior brick walls in fair-to-poor conditions: Mortar joints deteriorated or spalled in some areas. Walls generally plumb with some areas of concern.
 - Mortar joints to be cleaned and repointed.
 - Consideration for covering brick walls with cladding to protect and extend life.
 - Cracked and rotated jambs to be investigated.
 - Repair some lintel conditions.

4.05 Structural Discussion/Comments with Committee and HKT

- JMS mentioned that some of the issues mentioned for the Fire Department and DPW Workshops should be part of a short term maintenance plan.
 - Mark Tocci (MT) noted that in the Police Station basement there is a system for moving air and having adequate air current move across the surface of the concrete will help to limit the condensation. It was also noted that there are no windows/openings to place a louver in. An “area way” would need to be installed in the front or side of the building. Chief Shears noted that some equipment has broken and needs to be replaced.
 - JMS noted that one option for protecting the exterior walls would be to clad them with a new finish material, including air barrier and insulation.
 - MT added that a cladding option might be a good solution. This way the envelope is protected and the building could meet energy codes.
 - Various individuals voiced concern that any fix to the slab/foundation at the police area would be too costly.
-

4.06 JMS gave overview of the Building Code Review by Pare Corporation.

- All portions of the building
 - *The review is based upon the 8th edition of the Massachusetts Building Code. The 9th edition of the code is scheduled to be put into effect in the summer of 2016. Pare has reviewed a draft version of the 9th edition of the code and it appears that relevant structural provisions of the code discussed below will be relatively unchanged in 9th edition.*
 - Pare understood that extensive renovation and re-programming would be required for the building to continue its use by the police department, fire department and/or DPW.
 - This renovation would likely be classified as an “Alteration – Level 3” as the “work area” would exceed 50% of the aggregate area of the building. The “work area” is defined by the International Existing Building Code as “that portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents.”
 - The following structural provisions of the Massachusetts Building Code apply to “Alteration – Level 3” work:
 - Existing structural elements need to be analyzed (and retrofitted or replaced as necessary) if loads supported by those elements increase by more than 5%.
 - Minimum seismic retrofits would be required as the existing structure consists of unreinforced load-bearing brick masonry. Wall anchorage: Wall anchors shall be installed at roof and floor levels to tie the masonry walls to these structures. Interior CMU partitions do not appear to be secured to the roof structure. Parapets shall be braced back to the roof structure.
 - If the area of structural alterations exceeds 30% of the total floor and roof areas of the building, or if overall building weight is increased by more than 10%, then the structural work would be considered a “Substantial Structural Alteration” and the building must be analyzed and retrofitted to resist current building-code prescribed wind loads and reduced seismic loads. The areas to be counted toward the 30% structural alterations are those areas tributary to vertical load-carrying components (e.g. joists, decking, beams, walls, columns) that will be added, removed, or altered. Required retrofits may include, but not be limited to: adding new braced frames; strengthening existing or adding new shear walls; strengthening existing or adding new foundations to support these elements; and strengthening existing diaphragms.
 - If the area of *structural* alterations is less than or equal to 30% of the total floor and roof areas of the building, or if overall building weight is increased by less than or equal to 10%, then the structural work would be considered a “Limited Structural Alteration”. For a Limited Structural Alteration, only the component of the building’s lateral-load resisting system that is being altered must be analyzed and retrofitted to meet current building-code prescribed wind loads and reduced seismic loads. This analysis needs to account for the cumulative effects of prior alterations made to the building (i.e. additions, renovations) to determine their effect on the component. For example, a steel braced frame may need to be added if a large opening is made in one of the existing brick-masonry walls. A “whole building” lateral load
-

analysis/retrofit is typically not required for a Limited Structural Alteration.

Estimated Total Project Costs Using Historical Date for New Construction

- 4.07 JMS gave overview of the potential Total Project Costs including:
- Hard Costs: Construction
 - Demolition as needed + Construction of Building
 - Construction of previously developed site with minimal complicating issues or construction at a new undeveloped site
 - Design, Estimating + Construction Contingencies + Escalation to Mid-Point of Construction
 - Soft Costs: Administrative
 - Fees for design team, OPM, Clerk-of-Works, Special Services, Owners Contingency
 - Prequalification, Printing, Advertisement, Permitting, Legal, Financing, Commissioning + Testing
 - Furniture, Fixtures, Equipment, Low Voltage Systems
 - Utility Back Charges, Temporary Facilities and Moving Costs

4.08 The following table indicates probable costs for both hard and soft construction costs for new buildings based on historical data. They are not based on any site or specific building details but uses the square footages discussed at Meeting #3 and costs compiled from several recently constructed or bid projects.

<i>Existing Building at 22,406 +/-</i>	Square Footage	Hard Costs @ \$390/sf + \$315 /sf	Soft Costs @ 25%	Total Project Costs
Fire, Police + DPW <i>Combined</i>	58,177	\$20,797,080	\$6,932,360	\$27,729,440
Fire + Police <i>Combined</i>	32,950	\$12,850,500	\$4,283,500	\$17,134,000
Fire + DPW <i>Combined</i>	47,745	\$16,728,600	\$5,576,200	\$22,304,800
Police + DPW <i>Combined</i>	41,022	\$14,106,630	\$4,702,210	\$18,808,840
Police, <i>Stand-Alone</i>	15,531	\$6,057,090	\$2,019,030	\$8,076,120
Fire, <i>Stand-Alone</i>	22,254	\$8,679,060	\$2,893,020	\$11,572,080
DPW, <i>Stand-Alone</i>	26,789	\$8,438,535	\$2,812,845	\$11,251,380

4.09 The Committee members discussed the possibilities for this project based on the civil and structural observations and comments and the possible total projects costs.

Carol McLeod (CML) asked what the cost of geotechnical analysis may cost. JMS responded in the \$15-20,000 range for the initial response which hopefully, but not necessarily, would uncover the reason for the settlement issue. A geotechnical analysis may include 5-6 borings, visual methods and other testing.

The Committee felt that an option for reuse of the building, with a possible demolition of the existing police administration and garage area, and a possible rebuild in this footprint, might be the way to proceed for the Fire Department. Another site that would

meet the needs of the FD, based on response times, has not been identified. It was noted that if the Town decided to renovate, a more detailed investigation would need to take place to obtain more information about the existing building.

In this scenario, a new Police Station and a new Department of Public Works, perhaps on two different sites, would be planned. This construction would be completed and the departments would move. Renovation at the existing site would then begin. A phased approach for renovations would be considered (rear portion renovated, FD move to rear of site, front portion renovated and then full move in) as well as a temporary off site move to decrease overall construction time.

MT noted that the existing building needs a lot of mechanical/electrical work. There are also no sprinklers in the building and no fire alarm system on one side. The amount of work will be substantial if one of the departments stayed. Is the building large enough for the Fire Department if the Police and DPW left? If the building were to house the Fire Department, interior renovations would be required as well as work on the building envelope. The consensus is that the Fire Department would like to stay in the existing building.

If the project is taken to the next step, the programming numbers will need to be reviewed again. Everyone needs to consider that if stand-alone options are chosen, each building will need their own mechanical and electrical rooms and some of the "shared spaces" will need to be included in each building program.

It was noted that there are a lot of moving parts to think about. Renovations for Fire Department could be at least \$200-\$250/SF (not including soft costs) using historical data, but no formal estimating has been done.

CML mentioned that if all 3 projects are not done together, the Town probably wouldn't support the project at all.

A discussion of the cost of temporary facilities was brought up and has to be considered when renovating the existing building. Tents can cost as much as \$7,000/month and is probably cheaper to buy than rent as it could always be used for other Town projects. The cost of temporary infrastructure (i.e. water, HVAC, etc.) also needs to be considered. It was reiterated that a lot of fire stations can remain fully functional while being renovated.

The question was asked what HKT would recommend. JMS explained that if money was no object, the entire building would be torn down and reconstructed. The more realistic and viable option is to renovate, including tearing down the police portion of the building, for the Fire Department, and constructing new buildings for the Police Department and DPW on other Town sites.

Next Steps

- 4.10 The Committee plans on meeting as a group to discuss all their options. HKT will then meet one more time with the Committee to discuss the decision so that it can be included in the executive summary for the report. HKT will begin assembling the report.
-



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Next Meeting to be held: TBD

Please contact HKT Architects within three business days if these minutes do not accurately reflect discussions.

Cc: All attendees

File: I:\HKT Projects\21512 Merrimac Public Safety Study\Administration\Project Meeting\Meeting Minutes\21512 Meeting Minutes 04_2016-05-24.doc

MEETING MINUTES

To: Town of Merrimac MA Public Safety
Complex Building Committee

From: Janet M. Slemenda
Staci M. Villa

Subject: Meeting 05

Date: July 12, 2016

Project: Merrimac Public Safety
Complex Study

Job No: 21512

Attending:

- Andrew Conner (AC), Board of Selectmen (BoS), Fire Dept., selectman2@townofmerrimac.com
- Chief Eric Shears (ES) , Chief of Police, eshears@merrimacpolice.org
- Chief Ralph Spencer (RS), Fire Chief, ralph.spencer@merrimacfire.com
- Robert Sinibaldi (RS), DPW Director, dpwdir@townofmerrimac.com
- Larry Fisher (LF), Fire Dept. Deputy Chief, lfisher.electric@comcast.net
- Richard Holcroft (RH), Police Dept. Patrolman, rholfcroft@merrimacpolice.org
- Richard LeSavoy (RLS), Finance Committee Chairman, lesavoy@comcast.net
- Mark Tocci (MT), Building Committee, mark.tocci@crossfieldengineering.com
- Jennifer Penney (JP), BoS Executive Assistant, selectmen@townofmerrimac.com
- Carol McLeod (CML), Finance Director, cmcleod@townofmerrimac.com
- Rick Pinciario (RP), Former Selectman, rick@westnewburyinsurance.net
- Steven Brown (SB), Fire Department, MFDSRBEMT@comcast.net
- Laura Dillingham-Mailman (LD), Senior Ctr. Dir., ldmailman@townofmerrimac.com
- Hal Lloyd (HL), Board of Selectmen
- Janet Slemenda (JMS), HKT Architects, jslemenda@hktarchitects.com
- Eric Kluz (WEK), HKT Architects, ekluz@hktarchitects.com
- Nancy Joyce (NJJ), HKT Architects, njoyce@hktarchitects.com
- Staci M. Villa (SMV), HKT Architects, svilla@hktarchitects.com

Item:

-
- 5.01 Janet M. Slemenda (JMS) reviewed the agenda and discussed that the purpose of the meeting was to review comments on the draft report and to discuss next steps.
-
- 5.02 Chief Shears (ES) provided a review of the work to date.
- Space Needs Assessment
 - Test Fits of Programs on different sites
 - Existing Conditions Assessment
 - Cost Analysis
 - Committee Meeting to discuss options and budget including a reduction in proposed overall budget and corresponding program cuts
-
- 5.03 Committee members asked about the process for cutting square footage. (JMS) commented that the process would include a re-programming effort with the heads of each department and creation of a summary document. Room data sketches and details will not be redone at that time and this effort will happen in the next phase.
-
- 5.04 The Committee once again reviewed and discussed the four potential sites with Selectman Lloyd (HL) including 106 West Main Street.
-
- 5.05 HL commented on the disadvantages of splitting the different departments into three separate buildings as is the current recommendation of the Committee. This led to a
-

further discussion of the 74 East Main street which is the only site considered that would house all three departments together while offering an acceptable response location for the Fire Department.

The potential renovation of the existing East Main Street public safety building was also discussed with JMS reviewing the findings of the civil and structural engineering assessment. Options included repair or demolition.

- Robert Sinibaldi (RS) noted that the DPW must address, by July 2017, issues related to treatment of stormwater from building and site.

5.06 Discussion on the property at 104 West Main included whether or not this site should be accepted by the Town as a donation and what it would be used for.

- The Committee voiced a unanimous opinion that if the Town is offered donated land at 106 West Main Street, the donation should be accepted. The Committee agreed that this site would appear to represent a good location for a new Police Station. The PD needs a visible site and quick access to Route 110.
- Richard LeSavoy (RLS) made a motion to prepare a letter to the Board of Selectmen from the Committee urging the Board to accept this land as Town owned if offered. Laura Dillingham-Mailman (LD) seconded the motion. The committee voted 5-0 to approve the motion.

5.07 JMS discussed the pages in the draft report titled “Flow Chart for Designing and Constructing Public Facilities” in Massachusetts. The various approaches were discussed including attempting to secure funding for the design phase of the project prior to the approval of the entire project. There were many questions relating to what the design portion of the project would cost and what an Owners Project Manager (OPM) would cost as this is under M.G. L. JMS to provide the Committee with a matrix to assist with estimating the different costs associated with the early steps in the project.

- RLS voiced his opinion that one option is to simply move forward with only a new Police Station which could be constructed for between \$6 and \$8 Million. This idea did not garner much support due to the current and increasing environmental regulations which pose a problem for the DPW at the current site.
- The concept of moving forward with just the design phase was further discussed. Carol McLeod (CML) mentioned the idea of gaining approval to borrow the money at the upcoming fall town meeting and absorbing the debt service into the budget.

5.08 LD made a motion for the committee to direct a request to the Board of Selectmen to include an article on the Fall Town Meeting agenda which would allow the Town to borrow funds to support the next phase of the design process for new public safety building structures. RLS seconded the motion. The committee approved the motion by a vote of 5-0.

Next Steps

5.10 HKT will take all the comments received and complete the report by the end of July 2016 so that the town will have use of this document between now and Town Meeting. HKT will send updates on issues noted for revision prior to completing the document.

Please contact HKT Architects within three business days if these minutes do not accurately reflect discussions. Cc: All attendees



APPENDIX B: ROOM DATA SHEETS AND SKETCHES

ROOM OR SPACE

Room No: SKA-S1
Description: **Entry Vestibule - Lobby**
Name:
Group: Public Area

Quantitative Criteria: 1 234
Square feet

Functional Description: 1 Notices and pamphlet information
2 Transaction Counters; one to dispatch, one to FD administration
3 Waiting for 2 persons

Qualitative Description: 1 Welcoming, open area, control point
2 Accessible but no direct access to work areas
3 Direct access to Intake
4 Clear access to Public Toilets

Locational Criteria: 1 Wayfinding obvious to visitor
2 Adjacent to Dispatch + FD Administration, Intake room, Training/Community Room, Public Toilets and Triage

Technical Criteria:

Walls: GWB with bullet resistant wall panels; chair rail
Floors: Porcelain Tile, durable / low maintenance
Ceiling: Acoustic Tile & GWB
Windows: Desirable
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect; spots in display area
Power: Standard
Tel/Data: Standard for computer
Security: Standard Entry Lock
Equipment: Bullet resistant transaction windows with pass thru and speakers; Video surveillance

Furnishings: 1 Built-in seating
2 Display for pamphlets and brochures
3 Bulletin Board
4 Transaction counters
5 Display cabinet
6 Medication drop-box
7 TV Monitor for news, cable TV and informational slide show

Notes: 1 Entry vestibule to act as a Safe Haven.
2 TV monitor will need to be connected to a computer in Dispatch.



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Project

MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SHARED:
ENTRY VESTIBULE - LOBBY

Date: 21 DECEMBER 2015

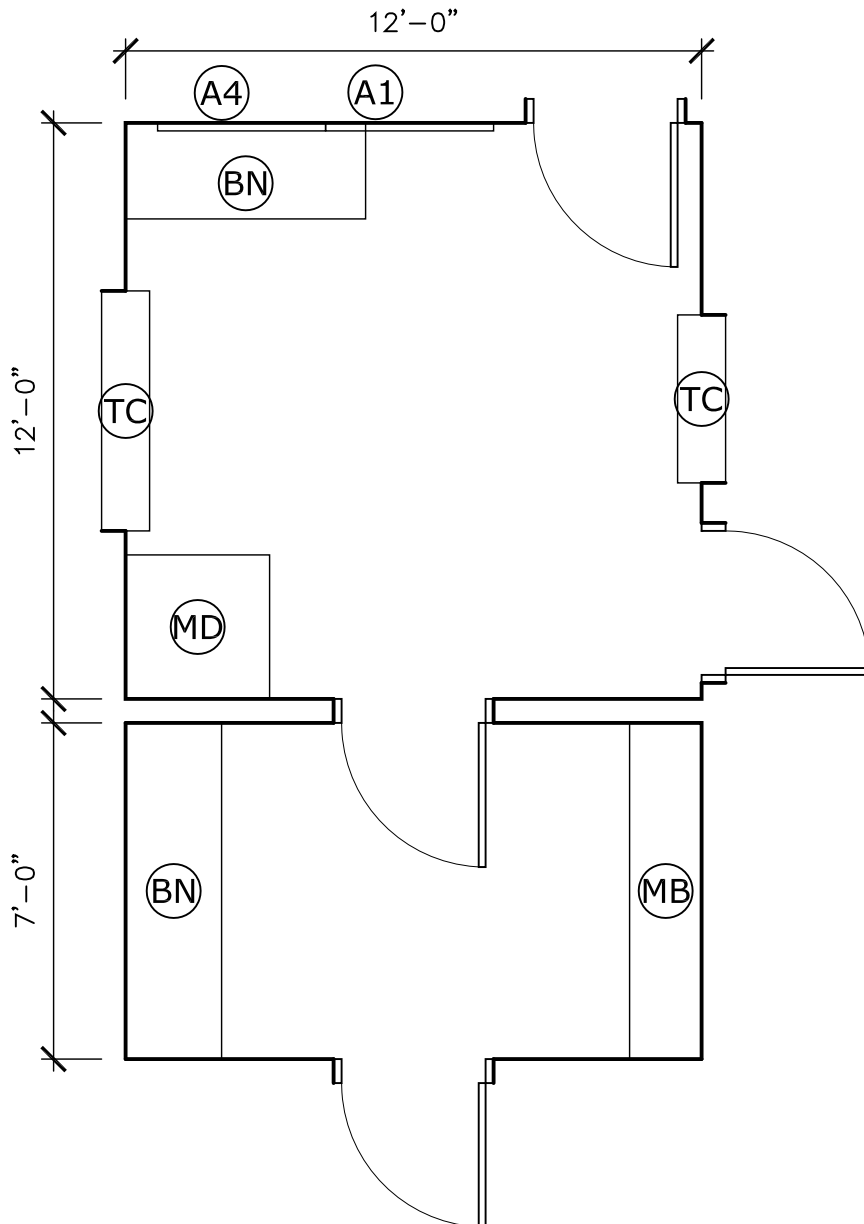
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Job num: 21512

Drawn by: NJJ

SKA-S1

234 SF



(A1) WHITEBOARD/TACKBOARD

(A4) PAMPHLET/BROCHURE DISPLAY

(BN) BENCH

(MB) MEMORABILIA DISPLAY

(MD) MEDICINE DROP-OFF BOX

(TC) TRANSACTION COUNTER

ROOM OR SPACE

Room No: SKA-S2
Description: **Interview / Intake Room**
Name:
Group: Public Area

Quantitative Criteria: 1 128
Square feet

Functional Description: 1 Use for interviewing witnesses
2 Use for fingerprinting, weapons licensing

Qualitative Description: 1 Secure area

Locational Criteria: 1 Adjacent to Lobby
2 Possibly accessed from Department side as well
3 Located in order to move people into a safe zone immediately

Technical Criteria:

Walls: GWB, Office Standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: NA
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock with electric strike
Equipment: Camera; Computer; equipment as required for fingerprinting etc.

Furnishings: 1 Small conference table
2 Seating for 4 people
3 Whiteboard / Tackboard
4 Lockable Built-in Cabinets

Notes: 1 Space secured from lobby. Must be buzzed in.
2 CALEA: If space is to be used for formal interviews section 42.2.10 requires room to include weapons control, added security for potentially serious or combative situations, means of summoning assistance aka panic button, limitations of stored equipment in room and access to restrooms, water or comfort breaks.
3 Add computer and camera for firearms permit processing and Audio/Video recording of interviews.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SHARED:
INTERVIEW / INTAKE ROOM

Date: 18 DECEMBER 2015

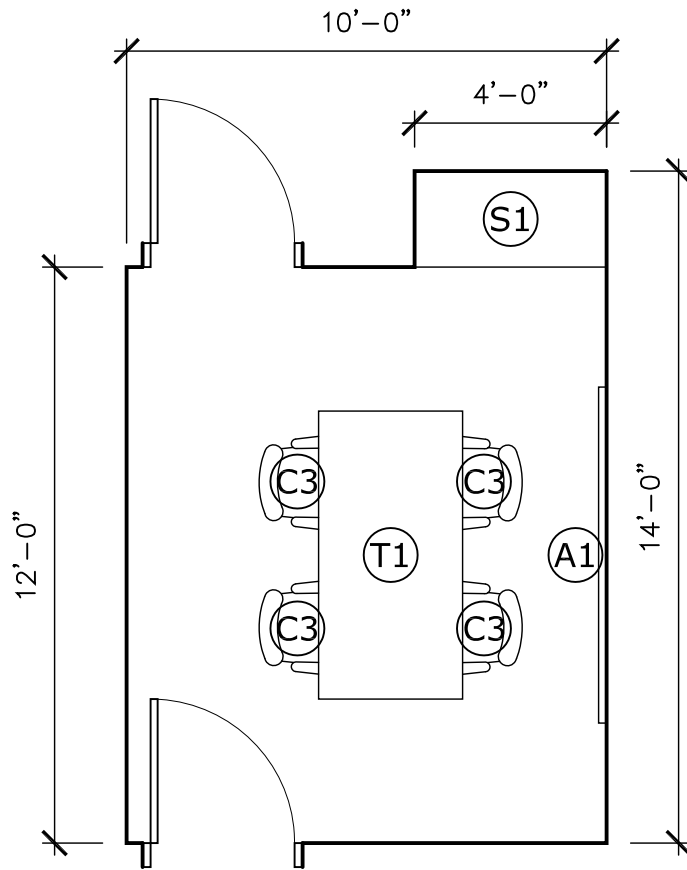
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Job num: 21512

Drawn by: NJJ

SKA-S2

128 SF



- (A1) WHITEBOARD/TACKBOARD
- (C3) CONFERENCE CHAIR
- (S1) BUILT-IN STORAGE
- (T1) SMALL CONFERENCE TABLE

ROOM OR SPACE

Room No: SKA-S3
Description: **Triage Room**
Name:
Group: Public Area

Quantitative Criteria: 1 100
Square feet

Functional Description: 1 Area for immediate response to person with health needs

Qualitative Description: 1 Secure area

Locational Criteria: 1 Located off of lobby and/or off of apparatus bay

Technical Criteria:

Walls: GWB, Office Standard
Floors: Resilient
Ceiling: Acoustic Tile
Windows: NA
Plumbing: Sink
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Undercounter refrigerator

Furnishings: 1 Lockable base and wall Cabinets
2 Cot/Bed
3 Chair

Notes: 1 Space secured from lobby / apparatus. Must be buzzed in.



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Project

MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SHARED:
TRIAGE

Date: 18 DECEMBER 2015

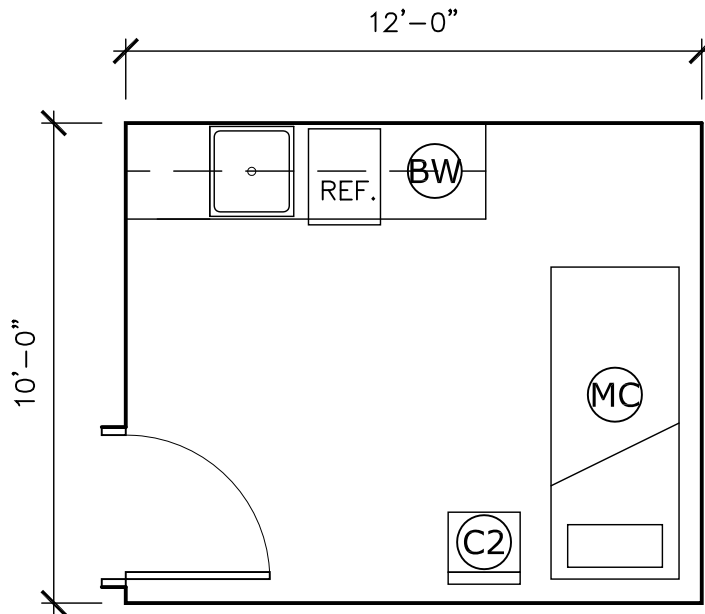
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Job num: 21512

Drawn by: NJJ

SKA-S3

120 SF



(BW) BASE AND WALL CABINET

(C2) GUEST CHAIR

(MC) MEDICAL COT

ROOM OR SPACE

Room No: SKA-S4A, SKA-S4B, SKA-S4C
Description: **Training / Community Room**
Name:
Group: Public Area

Quantitative Criteria: 1 1064
Square feet
2 Capable of subdivision

Functional Description: 1 Used for training or classroom teaching - 45 persons FD, 30 persons DPW, 25 persons PD
2 Used for Seabrook emergencies
3 Used for EOC Events
4 Subdivide as staff meeting space, community meeting space and conference room

Qualitative Description: 1 Comfortable environment for lecturing or training
2 Multi-media
3 Good acoustics
4 Multiple lighting levels

Locational Criteria: 1 Access to main lobby and dispatch
2 Access by individual departments desirable
3 Storage for chairs and tables adjacent
4 Storage for AV equipment nearby
5 Near kitchen area

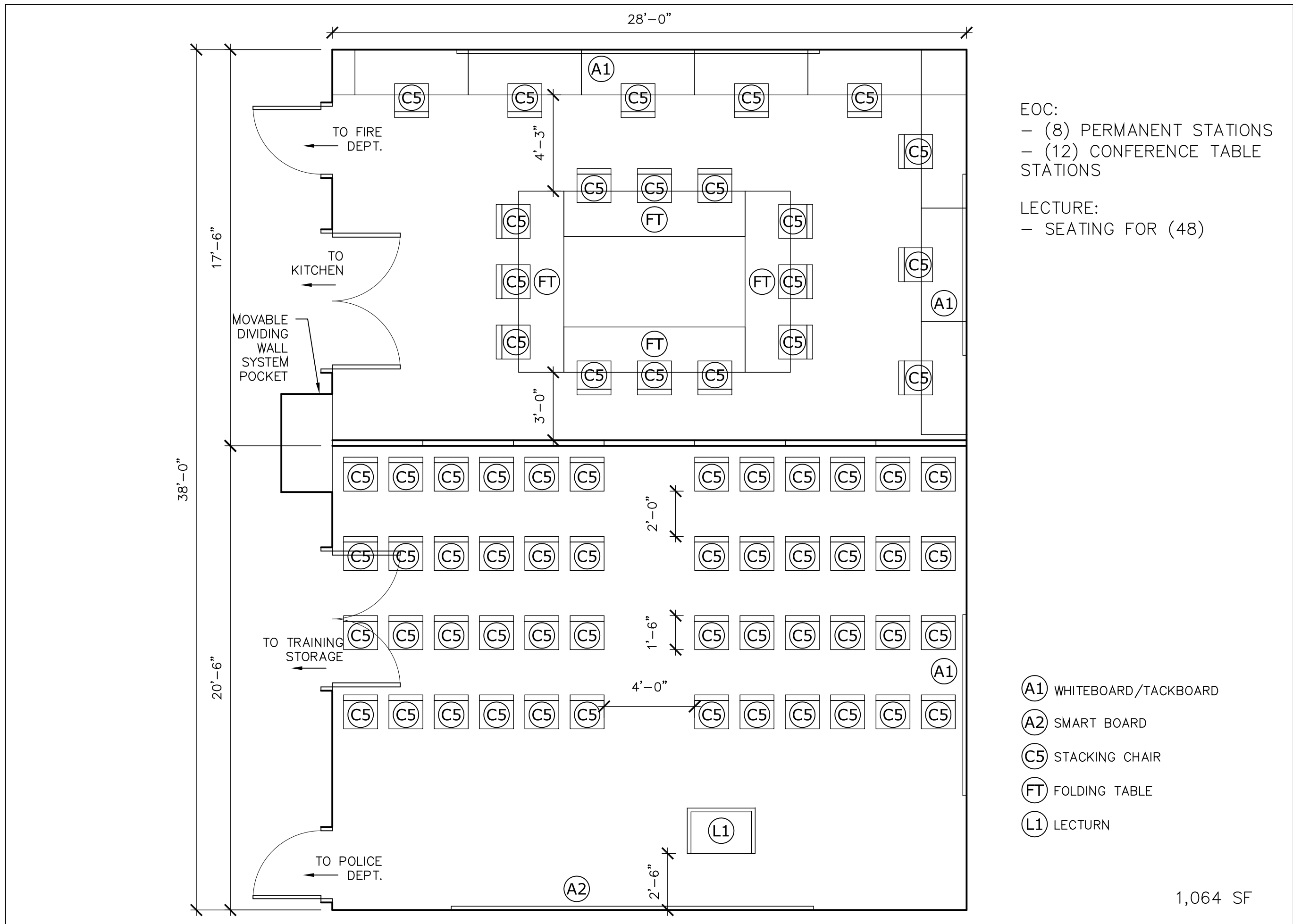
Technical Criteria:

Walls: GWB
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Meeting Room Environment
Ventilation: Standard Meeting Room Environment
Lighting: Direct/Indirect; variable lighting levels; dimming
Power: Standard Meeting Room; Floor boxes
Tel/Data: Standard Meeting Room; Floor Boxes
Security: Standard Office Lock
Equipment: Smartboard; speakers; video equipment; phone; data

Furnishings: 1 Folding training tables (12); 2' x 8'
2 Stackable seating for 72 people
3 Lectern
4 Whiteboard / Tackboard
5 Blackout shades
6 Built in perimeter locked cabinetry for Seabrook equipment

Notes: 1 This room to be organized so as to be used as an EOC and for Seabrook, as a training room and for community use.

- 2 Current space also used as a shelter, but this is not a good situation during events. Providing an emergency generator at the the senior center or school would alleviate this problem.
- 3 Current workspace with corresponding phone line to be provided for these individuals: FD, PD, DPW/Highway, Transportation, School Department, Special Needs Coordinator, Town Manager, Radiological, Secretary



EOC:
 - (8) PERMANENT STATIONS
 - (12) CONFERENCE TABLE STATIONS

LECTURE:
 - SEATING FOR (48)

- (A1) WHITEBOARD/TACKBOARD
- (A2) SMART BOARD
- (C5) STACKING CHAIR
- (FT) FOLDING TABLE
- (L1) LECTURN

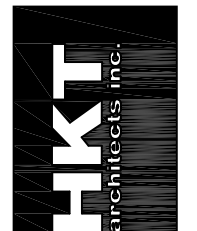
1,064 SF

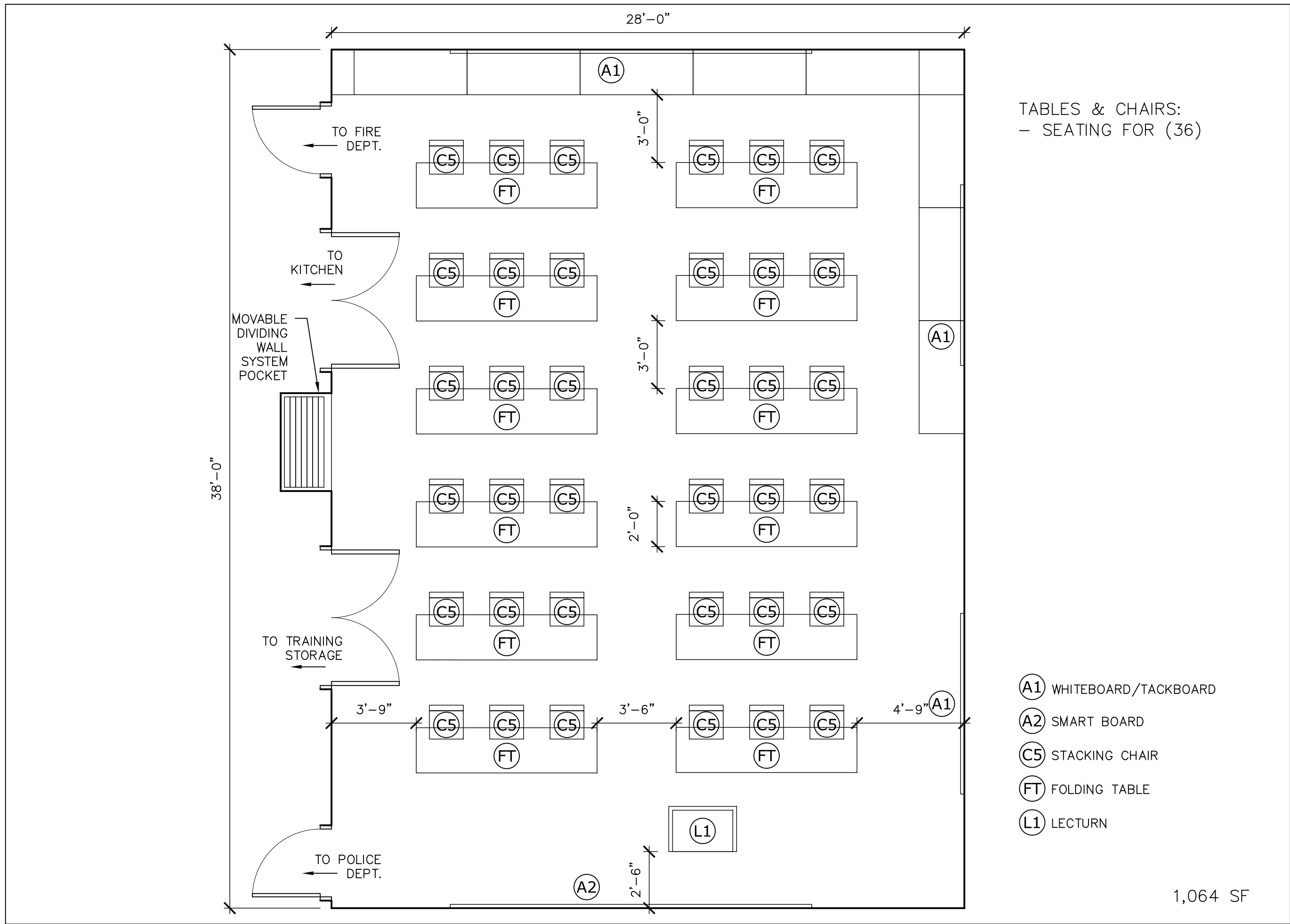
Date: 21 DECEMBER 2015
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 Job num: 21512
 Drawn by: NJJ
SKA-S4A

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX

SHARED:
 TRAINING ROOM / EOC

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TABLES & CHAIRS:
- SEATING FOR (36)

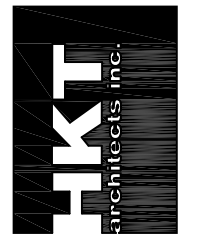
- (A1) WHITEBOARD/TACKBOARD
- (A2) SMART BOARD
- (C5) STACKING CHAIR
- (FT) FOLDING TABLE
- (L1) LECTURN

1,064 SF

Date: 21 DECEMBER 2015
 Scale: 1/4" = 1'-0"
 Job num: 21512
 Drawn by: NJJ
SKA-S4B

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX
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 TRAINING ROOM / EOC

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ROOM OR SPACE

Room No: SKA-S5
Description: **Training Room Storage**
Name:
Group: Public Area

Quantitative Criteria: 1 110
Square feet

Functional Description: 1 Storage for chairs and tables

Qualitative Description: 1 Secure

Locational Criteria: 1 Adjacent to Training Room

Technical Criteria:

Walls: GWB
Floors: Resilient or carpet in storage
Ceiling: Acoustic Tile
Windows: NA
Plumbing: NA
HVAC: Standard Storage
Ventilation: Standard Storage
Lighting: Direct
Power: Standard Storage
Tel/Data: NA
Security: Standard Storage Lock
Equipment: NA

Furnishings: 1 Dollies for furniture

Notes:



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Project

MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SHARED:
TRAINING ROOM STORAGE

Date: 21 DECEMBER 2015

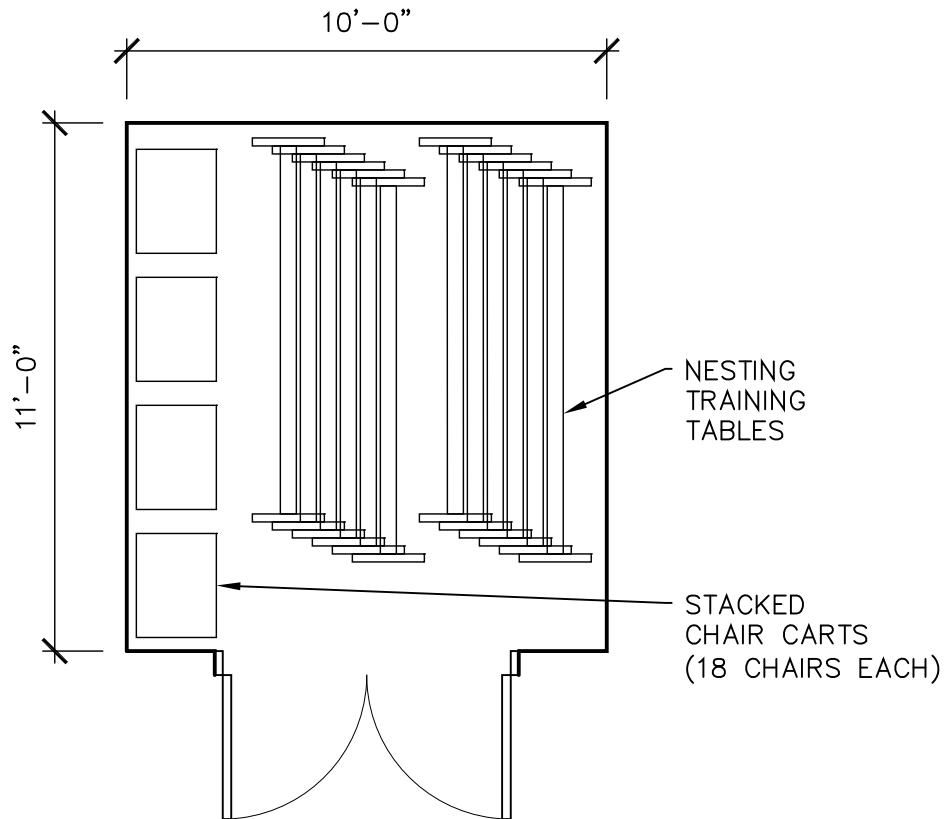
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Job num: 21512

Drawn by: NJJ

SKA-S5

110 SF



**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-S6
Description: **Kitchen**
Name:
Group: Public Area

Quantitative Criteria: 1 360
Square feet

Functional Description: 1 Food preparation space

Qualitative Description: 1 Accessible and open
2 Easy to maintain/clean
3 Good ventilation

Locational Criteria: 1 Adjacent to Training / Community Room

Technical Criteria:

Walls: GWB
Floors: Resilient
Ceiling: ACT
Windows: Preferred
Plumbing: NA
HVAC: Standard Environment
Ventilation: Standard Environment
Lighting: Direct/Indirect
Power: Standard Environment
Tel/Data: Standard Environment
Security: Standard Office Lock
Equipment: Refrigerators (2), microwave, toaster oven, coffee makers, sink, cooktop with hood, dishwasher; baker/roaster

Furnishings: 1 Provisions for recycling and trash
2 Wall and base cabinets

Notes: 1 The intent of this space is to serve as the main kitchen for daily use by all staff and for community events. However, the entries to this area must be secure so that there is not entry into the PD or FD by community members or other PD/FD staff.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SHARED:
KITCHEN

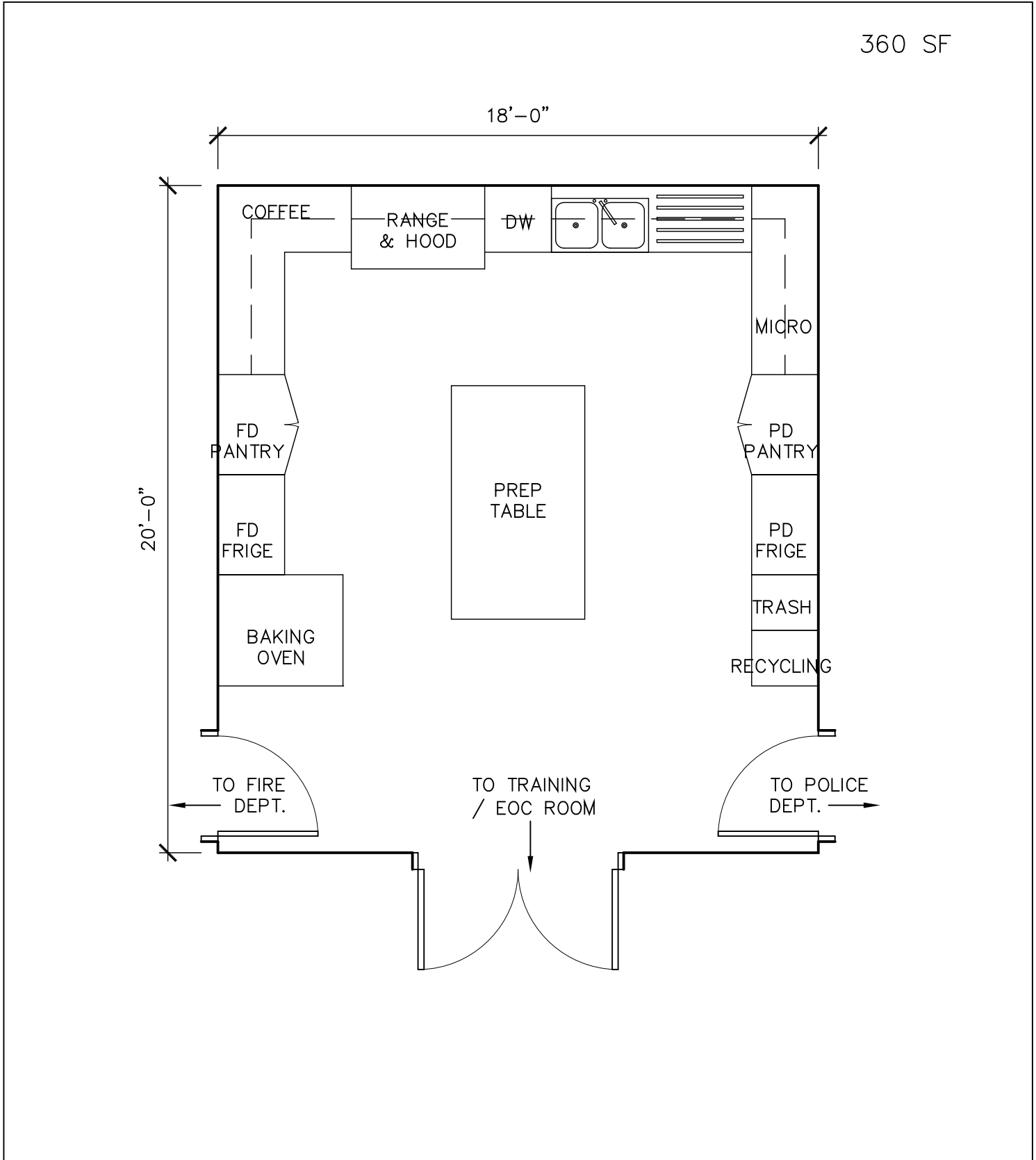
Date: 18 DECEMBER 2015

Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-S6



ROOM OR SPACE

Room No: SKA-S7
Description: **Public Toilet**
Name:
Group: Public Area

Quantitative Criteria: 1 121
Square feet (121 per set)

Functional Description: 1 Men's and Women's Toilet
2 Fully accessible

Qualitative Description: 1 Toilet area

Locational Criteria: 1 Public: Adjacent to Lobby
2 Visible from Dispatch

Technical Criteria:

Walls: GWB/Ceramic Tile
Floors: Ceramic Tile
Ceiling: GWB or acoustic tile
Windows: NA
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: NA
Security: Standard Toilet Room Lock
Equipment: NA

Furnishings: 1 Mirror
2 Soap dispenser
3 Towel dispenser/trash receptacle
4 Feminine dispenser and receptacle
5 Toilet paper dispenser
6 Coat hook

Notes: 1 Toilets to be located off of lobby



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

SHARED:
PUBLIC TOILETS

Date: 21 DECEMBER 2015

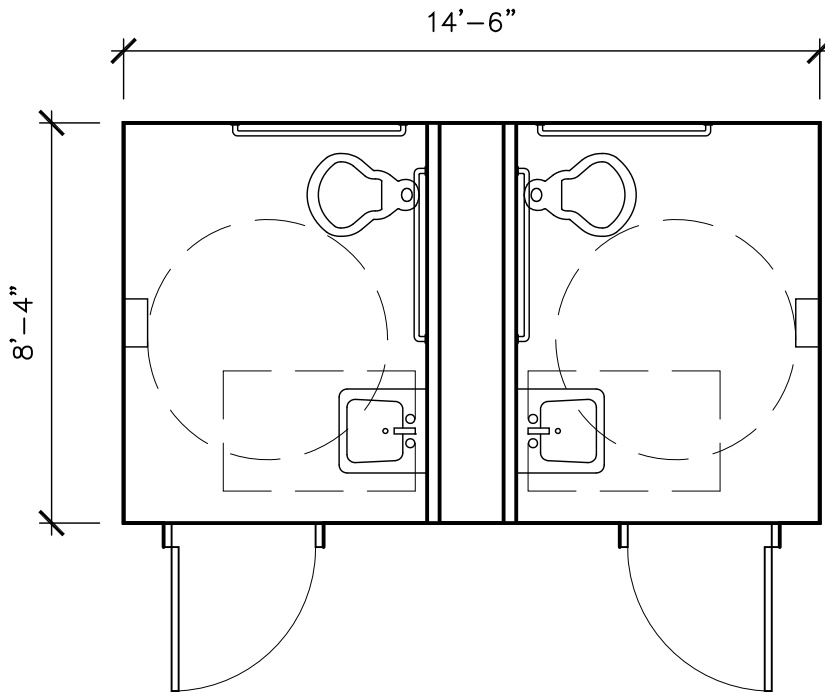
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-S7

121 SF



ROOM OR SPACE

Room No: SKA-S8
Description: **Fitness Room / Defensive Tactics Room with Storage**
Name:
Group: Staff Support

Quantitative Criteria: 1 564
Square feet

Functional Description: 1 Exercise room
2 Defensive Tactics training
3 Storage for Mats

Qualitative Description: 1 Good ventilation
2 Easy to maintain/clean
3 Comfortable relaxed environment

Locational Criteria: 1 Centrally located
2 Near locker rooms

Technical Criteria:

Walls: GWB and 8' high mirrors on two wall
Floors: Rubber athletic flooring
Ceiling: Acoustic Tile
Windows: Preferred
Plumbing: NA
HVAC: Standard
Ventilation: Standard
Lighting: Direct/Indirect
Power: Standard
Tel/Data: Standard
Security: Standard office lock
Equipment: CATV; Panic Button

Furnishings: 1 Treadmill
2 Stairmaster
3 Exercise Bicycle
4 Free Weights
5 Universal

Notes: 1 PD will use this space for defensive tactics training
2 DT State requirement
3 Storage space for mat system for DT training.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SHARED:
FITNESS / DEFENSIVE TACTICS ROOM

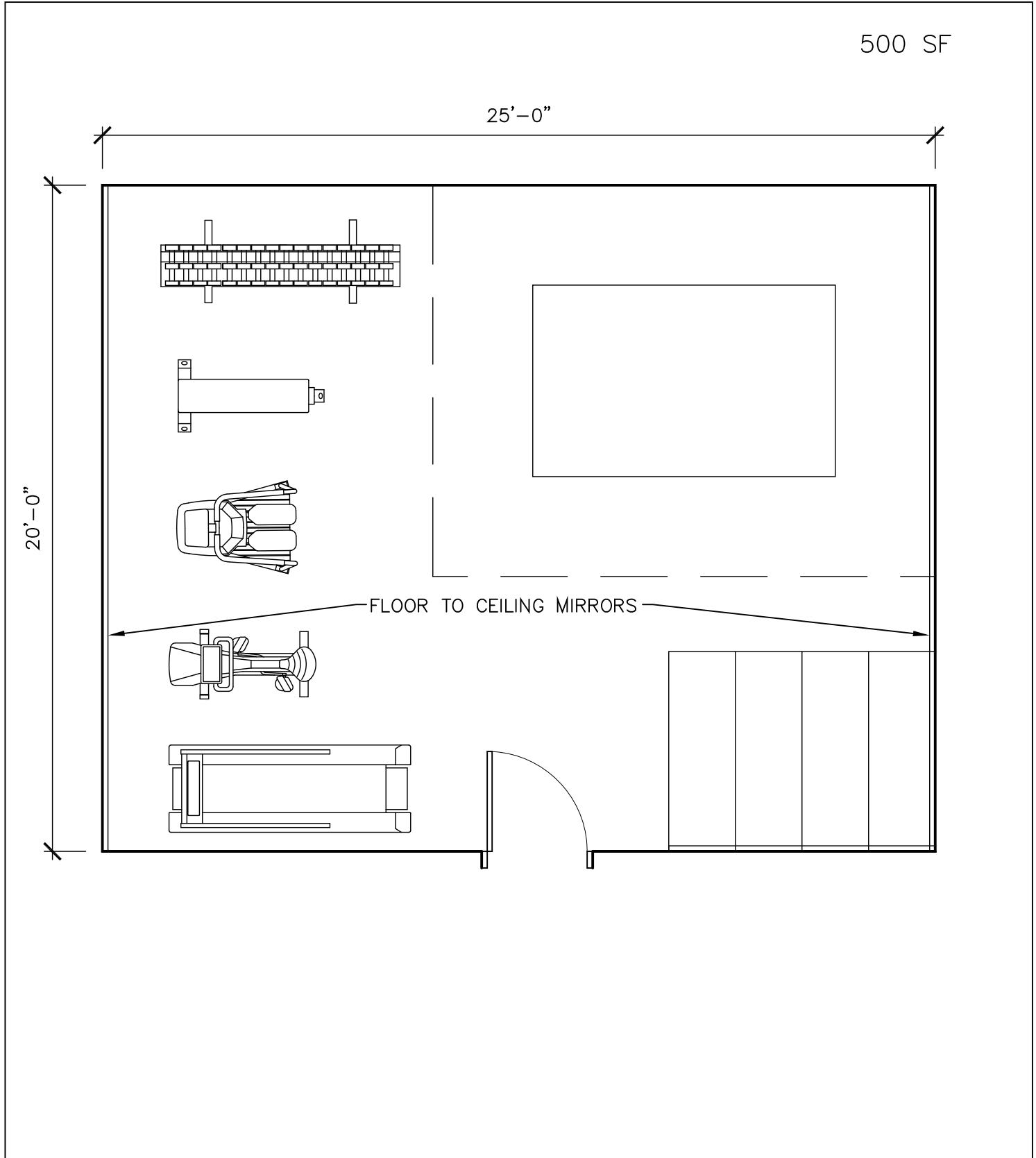
Date: 21 DECEMBER 2015

Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-S8



ROOM OR SPACE

Room No: SKA-SUP1
Description: **Janitor's Closet**
Name:
Group: Support

Quantitative Criteria: 1 72
Square feet
2 38 Sf per - 1 required per floor (assumes 2)

Functional Description: 1 House janitorial supplies

Qualitative Description: 1 Durable materials

Locational Criteria: 1 One required per level

Technical Criteria:

Walls: Moisture Resistant GWB
Floors: Resinous or resilient
Ceiling: GWB
Windows: None
Plumbing: Standard Janitors Environment
HVAC: Standard Environment
Ventilation: Standard Environment
Lighting: Direct
Power: Standard Environment
Tel/Data: None
Security: Standard Lock
Equipment: None

Furnishings: 1 Janitors sink or mop sink
2 Mop / broom holder with shelf
3 Shelving

Notes:



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SUPPORT AREAS:
JANITOR CLOSET

Date: 18 DECEMBER 2015

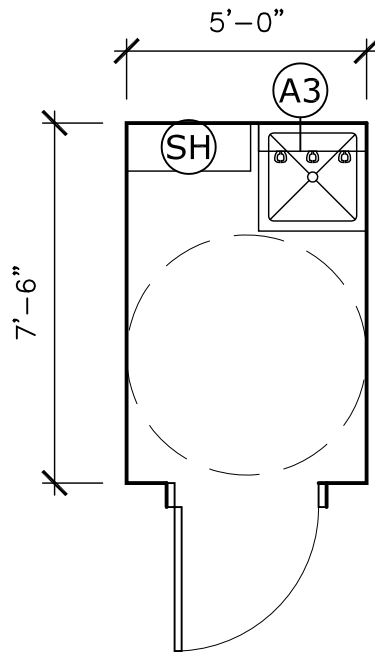
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP1

38 SF



(A3) MOP HOLDER WITH SHELF

(SH) SHELVING ON STANDARDS

ROOM OR SPACE

Room No: SKA-SUP2
Description: **Mechanical Room**
Name:
Group: Support

Quantitative Criteria: 1 400
Square feet

Functional Description: 1 Room for mechanical equipment

Qualitative Description: 1 Service type room

Locational Criteria: 1 Central in building

Technical Criteria:

Walls: High impact GWB
Floors: Concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: Not required
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct
Power: As required for equipment
Tel/Data: Required
Security: Standard storage lock
Equipment: Mechanical Equipment

Furnishings: 1 None

Notes: 1 Double door



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SUPPORT AREAS:
MECHANICAL ROOM

Date: 18 DECEMBER 2015

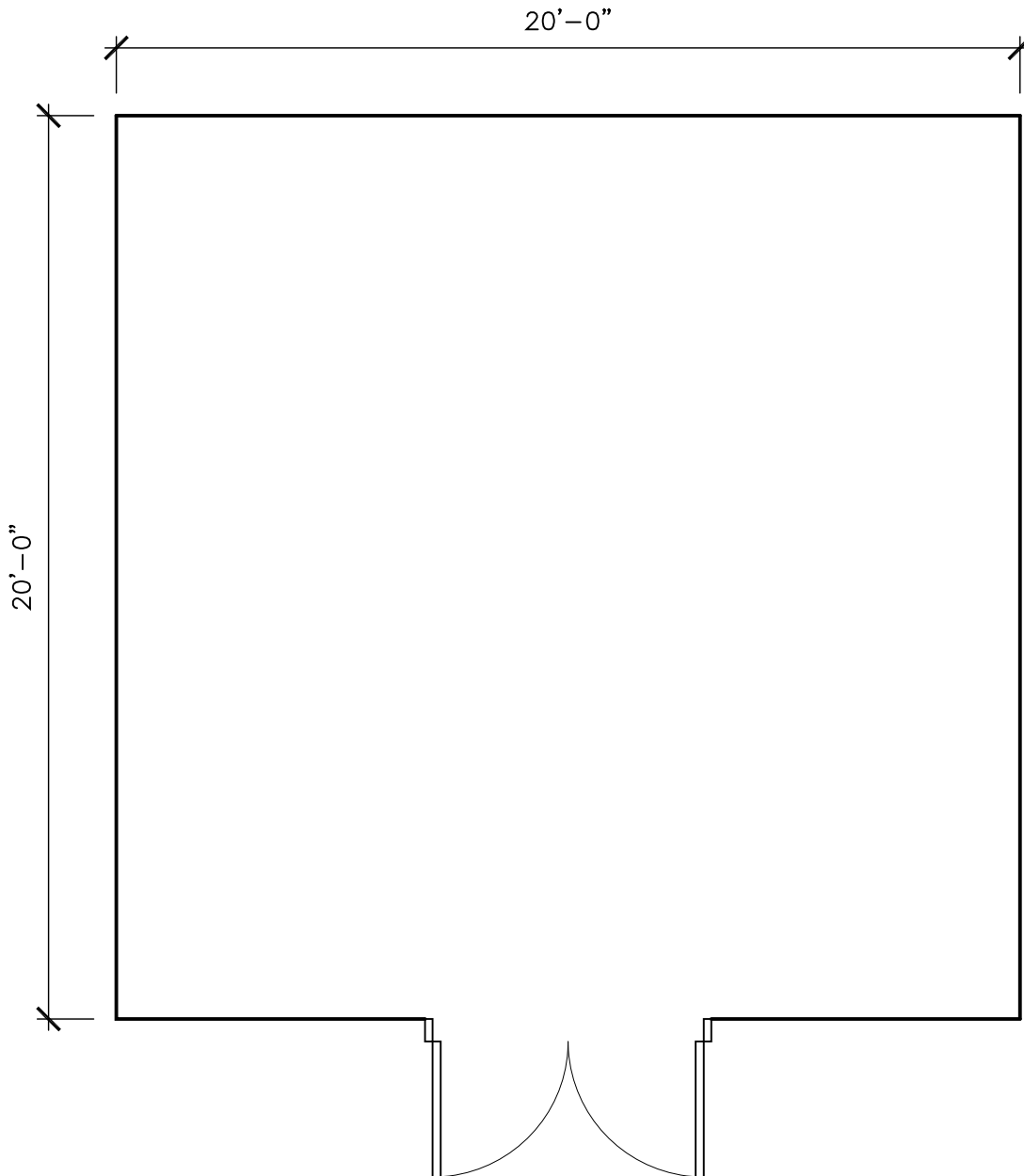
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP2

400 SF



ROOM OR SPACE

Room No: SKA-SUP3
Description: **Plumbing / Fire Protection Room**
Name:
Group: Support

Quantitative Criteria: 1 144
Square feet

Functional Description: 1 Room for plumbing and fire protection services and panels

Qualitative Description: 1 Service type room

Locational Criteria: 1 Central in building

Technical Criteria:

Walls: High impact GWB
Floors: Concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: Not required
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct
Power: Standard environment
Tel/Data: Required
Security: Standard storage lock
Equipment: Fire protection sevice (dry and wet) check valve assembly, domestic water meter and reduced backflow preventer, water heater and expansion tank protection, tempered water control panel and mixing valves

Furnishings: 1 None

Notes: 1 Double door



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SUPPORT AREAS:
PLUMBING / FIRE PROTECTION ROOM

Date: 18 DECEMBER 2015

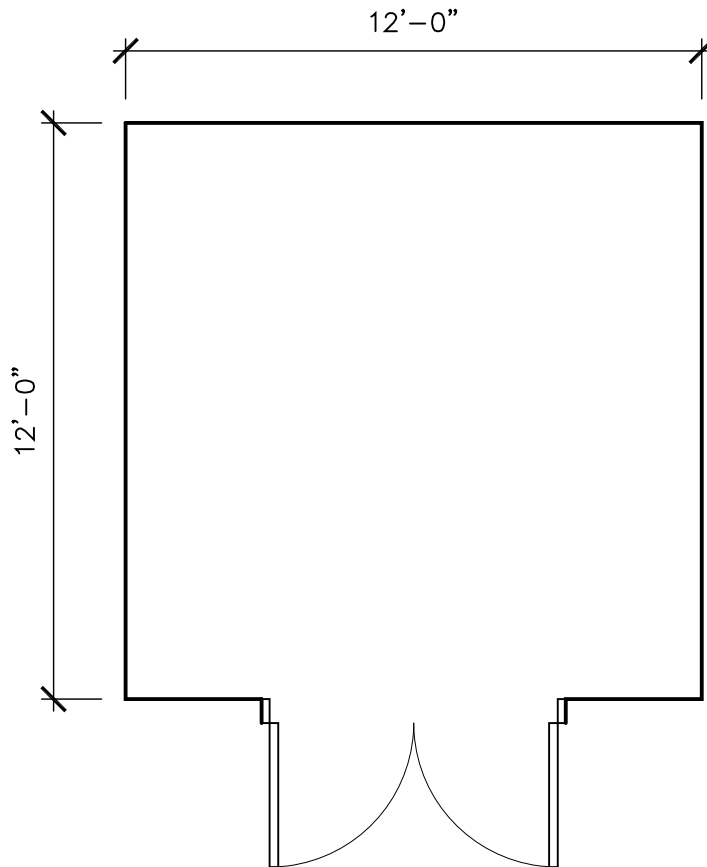
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP3

144 SF



ROOM OR SPACE

Room No: SKA-SUP4
Description: **Main Electrical Room**
Name:
Group: Support

Quantitative Criteria: 1 250
Square feet

Functional Description: 1 Room for electrical service and panels

Qualitative Description: 1 Service type room

Locational Criteria: 1 Central in building

Technical Criteria:

Walls: High impact GWB
Floors: Concrete with hardener or sealer
Ceiling: GWB
Windows: Not required
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct Utility
Power: Determined by equipment needs
Tel/Data: Required
Security: Standard storage lock
Equipment: Electrical equipment

Furnishings: 1 None

Notes: 1 Double door



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**MERRIMAC FEASIBILITY STUDY
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SUPPORT AREAS:
MAIN ELECTRIC ROOM

Date: 18 DECEMBER 2015

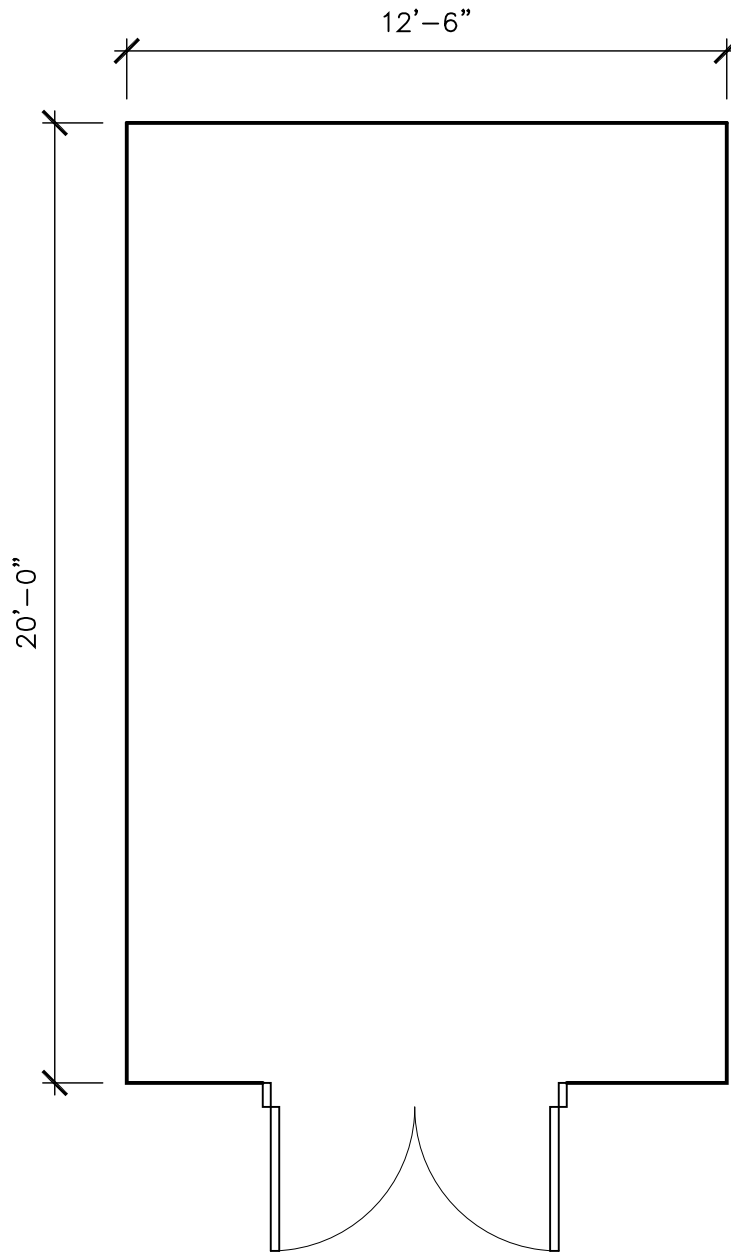
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP4

250 SF



ROOM OR SPACE

Room No: SKA-SUP5
Description: **Emergency Electrical Room**
Name:
Group: Support

Quantitative Criteria: 1 80
Square feet

Functional Description: 1 Emergency electric panels

Qualitative Description: 1 Service type room

Locational Criteria: 1 Central in building

Technical Criteria:

Walls: High impact GWB
Floors: Concrete with hardener or sealer
Ceiling: GWB
Windows: Not required
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct Utility
Power: Determined by equipment needs
Tel/Data: Required
Security: Standard storage lock
Equipment: Electrical equipment

Furnishings:

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

SUPPORT AREAS:
EMERGENCY ELECTRIC ROOM

Date: 18 DECEMBER 2015

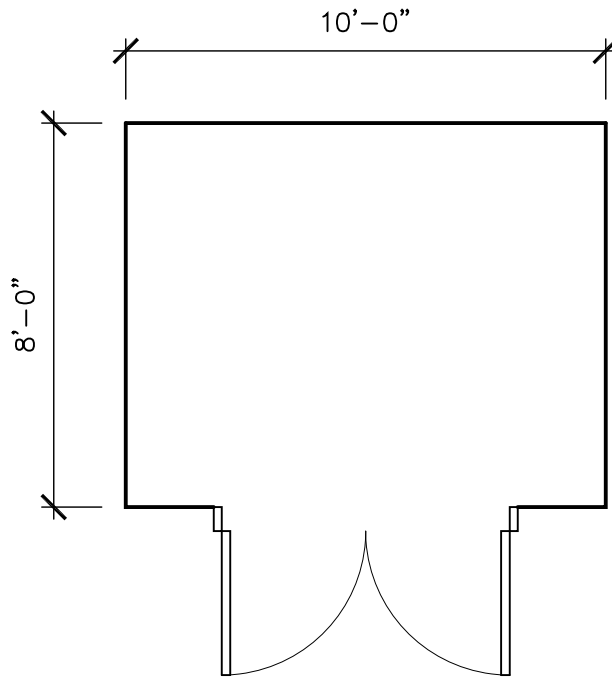
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP5

80 SF



ROOM OR SPACE

Room No: SKA-SUP6
Description: **Electrical Closet Per Floor Assume 1**
Name:
Group: Support

Quantitative Criteria: 1 48
Square feet
48 SF assume 1 on each floor other than the floor which houses the main
emergency electrical room

Functional Description: 1 Emergency electric panels

Qualitative Description: 1 Service type room

Locational Criteria: 1 Central in building

Technical Criteria:

Walls: High impact GWB
Floors: Concrete with hardener or sealer
Ceiling: GWB
Windows: Not required
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct Utility
Power: Determined by equipment needs
Tel/Data: Required
Security: Standard storage lock
Equipment: Electrical equipment

Furnishings:

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

SUPPORT AREAS:
MAIN ELECTRIC CLOSET

Date: 18 DECEMBER 2015

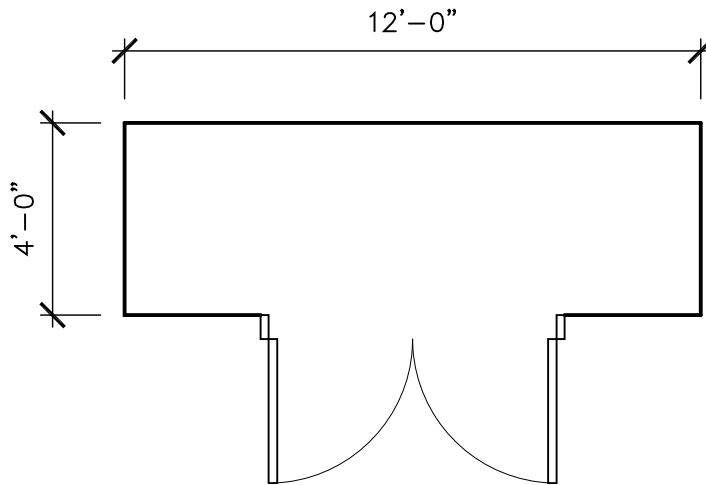
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP6

48 SF



ROOM OR SPACE

Room No: SKA-SUP7
Description: **Emergency Electrical Closet**
Name:
Group: Support

Quantitative Criteria: 1 96
Square feet
48 Sf assume 1 per floor

Functional Description: 1 Emergency electric panels

Qualitative Description: 1 Service type room

Locational Criteria: 1 Central in building

Technical Criteria:

Walls: High impact GWB
Floors: Concrete with hardener or sealer
Ceiling: GWB
Windows: Not required
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct Utility
Power: Determined by equipment needs
Tel/Data: Required
Security: Standard storage lock
Equipment: Electrical equipment

Furnishings:

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

SUPPORT AREAS:
EMERGENCY ELECTRIC CLOSET

Date: 18 DECEMBER 2015

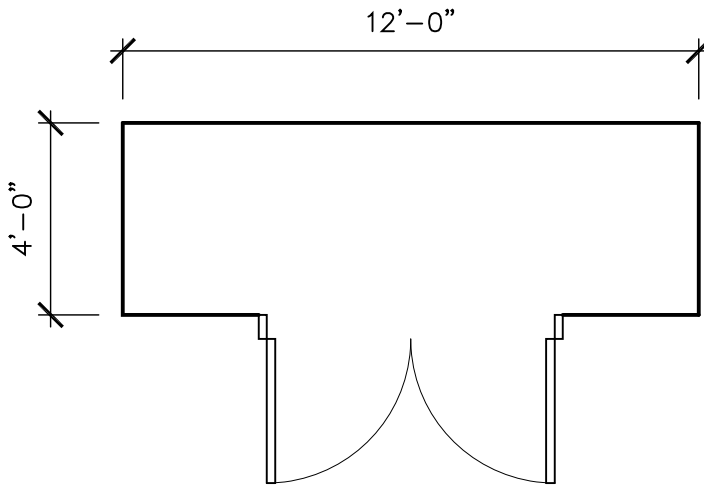
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP7

48 SF



ROOM OR SPACE

Room No: SKA-SUP8
Description: **IT Room**
Name:
Group: Support

Quantitative Criteria: 1 192
Square feet

Functional Description: 1 Room for all equipment and servers
2 Card access and cell check head end location

Qualitative Description: 1 Secure, dry, well lit

Locational Criteria: 1 Central location or as required

Technical Criteria:

Walls: High impact GWB
Floors: Resilient
Ceiling: Exposed to structure
Windows: Not required
Plumbing: Foam fire suppression system?
HVAC: Standard environment; independent AC
Ventilation: Standard environment
Lighting: Direct / indirect
Power: Standard environment; as required for equipment; emergency power
Tel/Data: Required
Security: Standard office lock with limited access
Equipment: CCTV, Telephone, security, card access, microwave link
(x) full size server racks
(x) full size switches
E911 UPS power (possible)
Police Dept UPS power

Furnishings:

Notes: 1 Contractor will provide conduit and pull strings for Town's vendor to install all wiring.
2 Provide backboards for all wall mounted equipment.
3 E911 head end location near dispatch, but could be added to this area



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SUPPORT AREAS:
IT ROOM

Date: 18 DECEMBER 2015

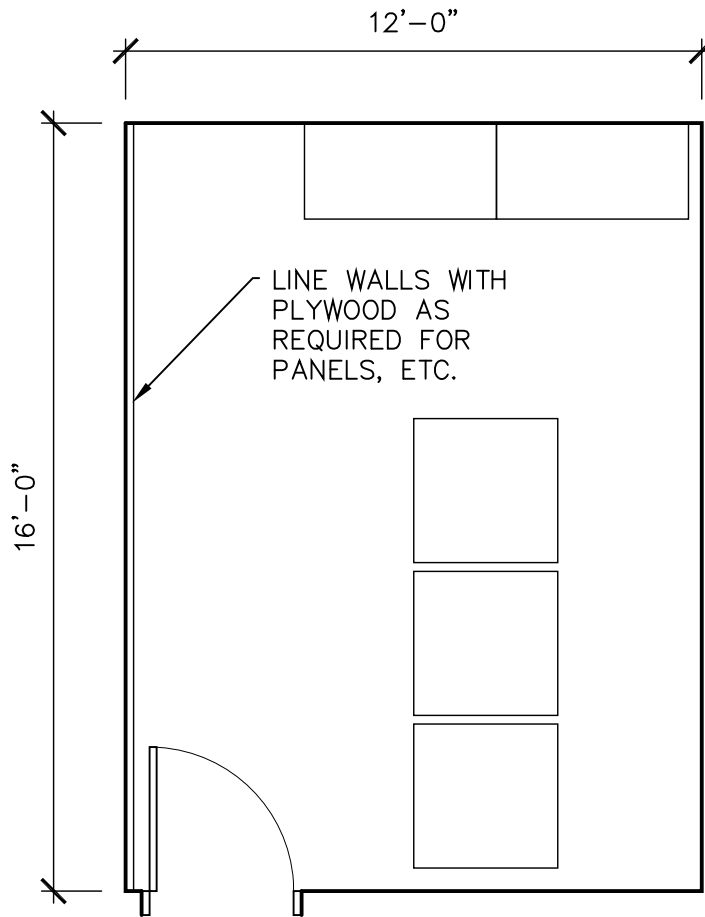
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP8

192 SF



ROOM OR SPACE

Room No: SKA-SUP9
Description: **Radio Room**
Name:
Group: Support

Quantitative Criteria: 1 60
Square feet

Functional Description: 1 Room for radio equipment

Qualitative Description: 1 Secure, dry, well lit

Locational Criteria: 1 Central location or as required
2 Near IT Room if possible

Technical Criteria:

Walls: High impact GWB
Floors: Resilient
Ceiling: Exposed to structure
Windows: Not required
Plumbing: Foam fire suppression system?
HVAC: Standard environment; independent AC
Ventilation: Standard environment
Lighting: Direct / indirect
Power: Standard environment; as required for equipment; emergency power
Tel/Data: Required
Security: Standard office lock with limited access
Equipment: (x) full size server racks

Furnishings:

Notes: 1 Contractor will provide conduit and pull strings for Town's vendor to install all wiring.
2 Provide backboards for all wall mounted equipment.



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**MERRIMAC FEASIBILITY STUDY
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SUPPORT AREAS:
RADIO ROOM

Date: 18 DECEMBER 2015

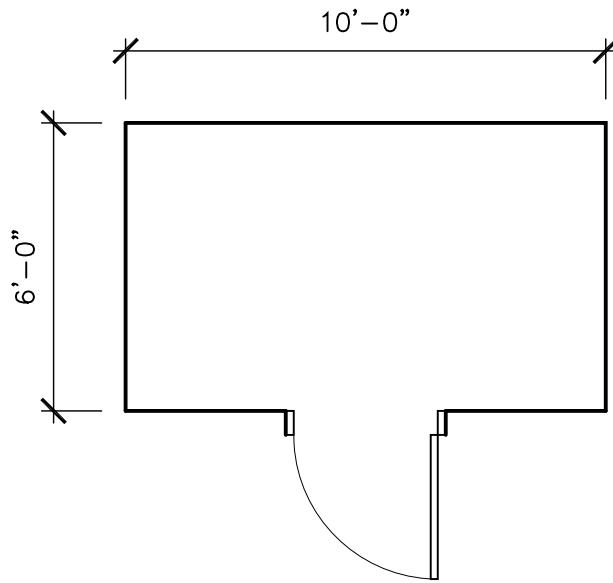
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP9

60 SF



ROOM OR SPACE

Room No: SKA-SUP10
Description: **Stairs**
Name:
Group: Support

Quantitative Criteria: 1 880
Square feet
2 220 sf per floor; Assumes two stairs connecting two floors

Functional Description: 1 Vertical circulation

Qualitative Description: 1 Well lit

Locational Criteria: 1 Ideally centrally located to be shared by departments

Technical Criteria:

Walls: GWB
Floors: Raised rubber tile
Ceiling: GWB
Windows: Not required
Plumbing: NA
HVAC: Standard
Ventilation: Standard
Lighting: Direct
Power: Standard
Tel/Data: NA
Security: Dependant on final plan layout
Equipment:

Furnishings:

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SUPPORT AREAS:
STAIRS

Date: 18 DECEMBER 2015

Scale: 1/4" = 1'-0"

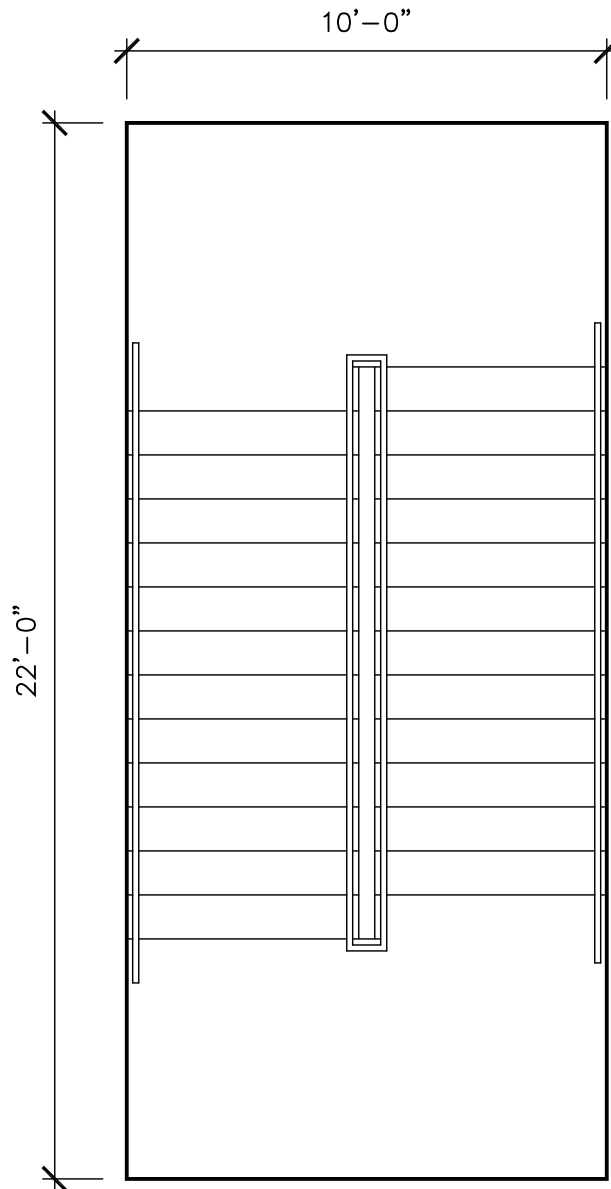
Job num: 21512

Drawn by: NJJ

SKA-SUP10

220 SF PER
FLOOR

880 SF:
2 STORY
BLDG WITH
2 STAIRS



ROOM OR SPACE

Room No: SKA-SUP11
Description: **Elevator**
Name:
Group: Support

Quantitative Criteria: 1 200
Square feet
100 sf per floor

Functional Description: 1 Vertical circulation

Qualitative Description: 1

Locational Criteria: 1 Accessible to the lobby

Technical Criteria:

Walls: Standard
Floors: Porcelain Tile in elevator; resilient in machine room
Ceiling: Standard
Windows: NA
Plumbing: NA
HVAC: NA
Ventilation: NA
Lighting: Standard
Power: Standard
Tel/Data: Standard
Security: Dependant on final plan layout
Equipment: Hydraulic elevator

Furnishings:

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

SUPPORT AREAS:
ELEVATOR

Date: 18 DECEMBER 2015

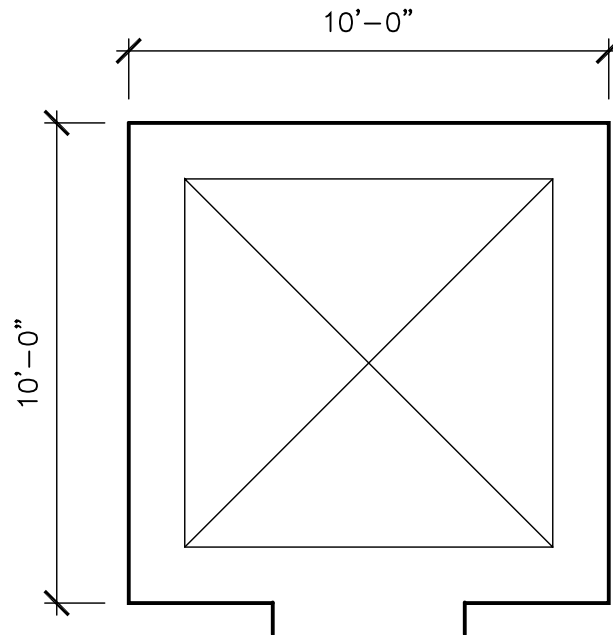
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP11

100 SF



ROOM OR SPACE

Room No: SKA-SUP12
Description: **Elevator Machine Room**
Name:
Group: Support

Quantitative Criteria: 1 100
Square feet

Functional Description: 1 Vertical circulation

Qualitative Description: 1

Locational Criteria: 1 Accessible to the lobby

Technical Criteria:

Walls: Standard
Floors: Resilient in machine room
Ceiling: Standard
Windows: NA
Plumbing: NA
HVAC: NA
Ventilation: NA
Lighting: Standard
Power: Standard
Tel/Data: Standard
Security: Dependant on final plan layout
Equipment: Hydraulic elevator

Furnishings:

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

SUPPORT AREAS:
ELEVATOR MACHINE ROOM

Date: 18 DECEMBER 2015

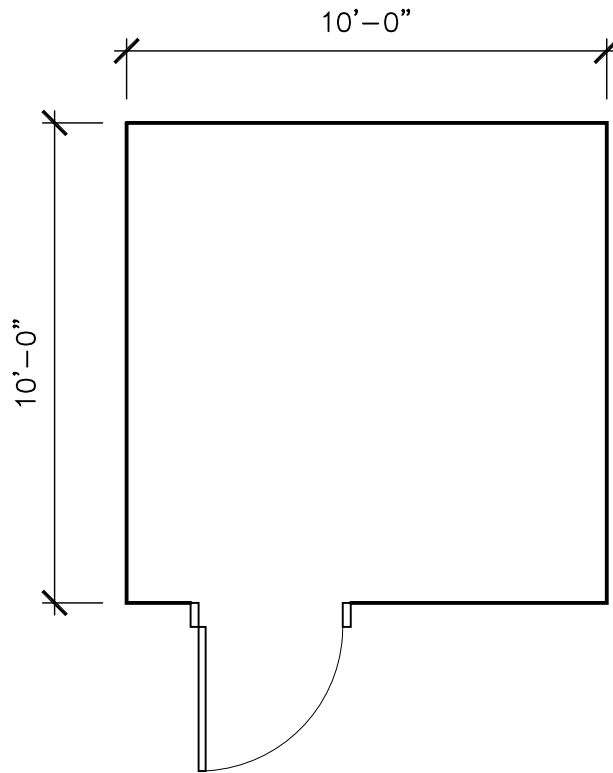
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-SUP12

100 SF



**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW1
Description: **Foreman's Office**
Name: Tom Barry
Group: Highway

Quantitative Criteria: 1 144
Square feet

Functional Description: 1 Deskwork
2 Meets with 1 person
3 Storage of plans / drawings

Qualitative Description: 1 Shared private office for two

Locational Criteria: 1 Near operations

Technical Criteria:

Walls: GWB
Floors: Resilient
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer

Furnishings: 1 2 Desks with pedestal and return
2 Seating - 2 office with 1 guest chair
3 File cabinets
4 Whiteboard / Tackboard
5 Flat File
6 Hanging File

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
FOREMAN'S OFFICE

Date: 21 DECEMBER 2015

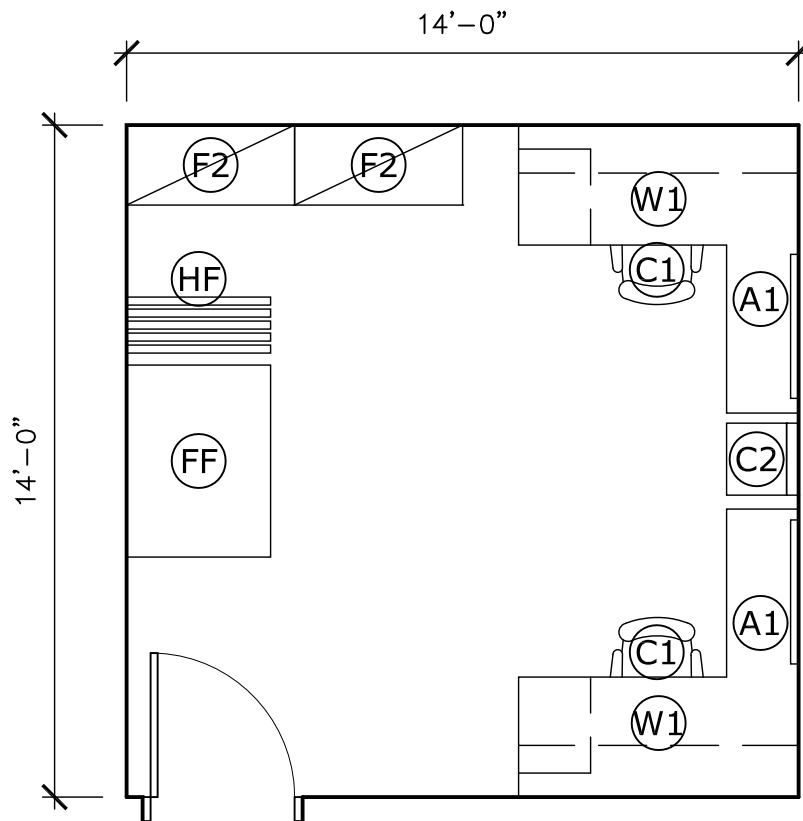
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW1

196 SF



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (FF) FLAT FILE
- (HF) HANGING FILE
- (W1) DESK WITH PEDESTAL AND RETURN

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW2
Description: **Lunchroom / Small Meeting**
Name:
Group: Highway

Quantitative Criteria: 1 336
Square feet

Functional Description: 1 Lunchroom for 10
2 Small meeting room for entire staff

Qualitative Description: 1 Comfortable environment for eating / meeting
2 Multiple lighting levels

Locational Criteria: 1 Central location on exterior wall

Technical Criteria:

Walls: GWB
Floors: Resilient
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard kitchen environment
Ventilation: Standard kitchen environment
Lighting: Direct/Indirect
Power: Standard kitchen environment
Tel/Data: Standard kitchen environment
Security: Standard Office Lock
Equipment: Refrigerator, microwave, toaster oven, coffee maker, wall mount TV

Furnishings: 1 Moveable, folding 30" x 84" and 30" x 60" training tables
2 Seating - 10
3 Whiteboard
4 Tackboard
5 Mount for TV

Notes: 1 No cooktop or vending



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
LUNCHROOM / SMALL MEETING ROOM

Date: 21 DECEMBER 2015

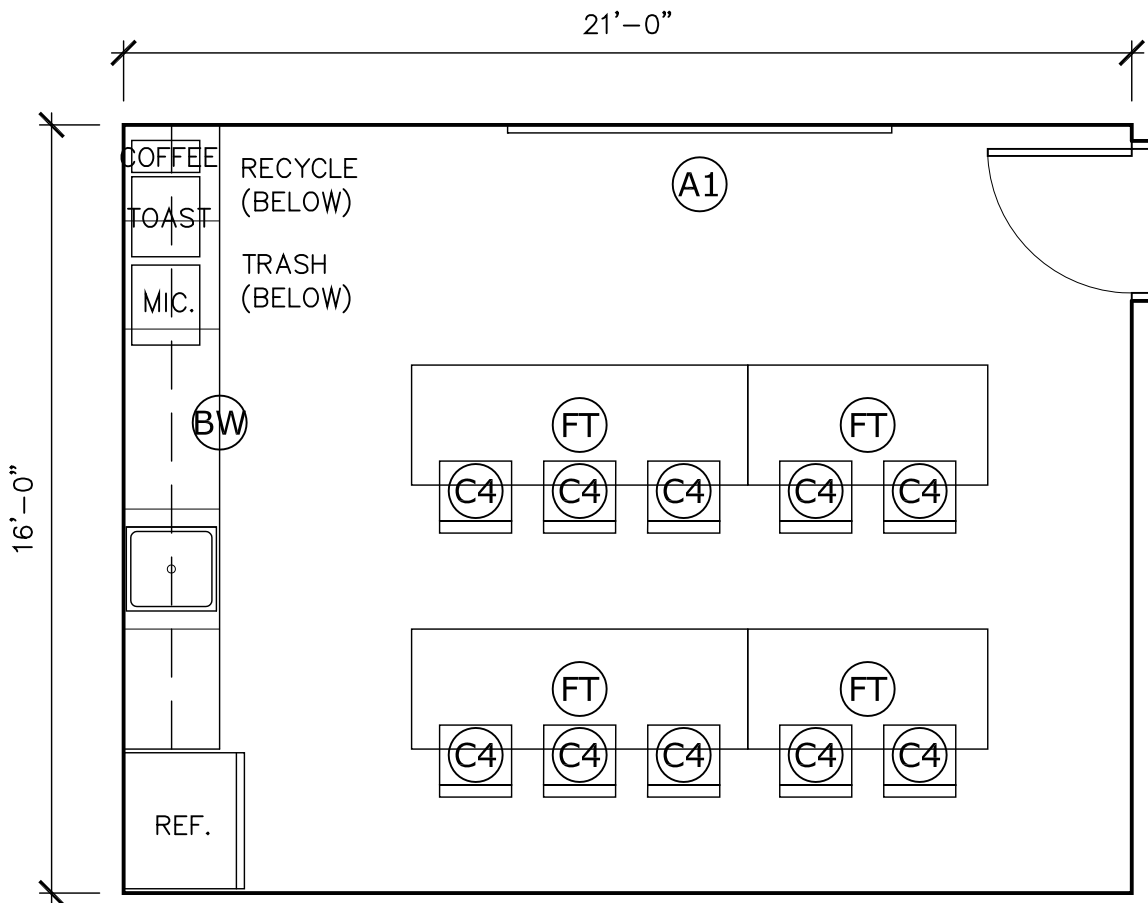
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW2

336 SF



(A1) WHITEBOARD/TACKBOARD

(BW) BASE AND WALL CABINET

(C4) DINING CHAIR

(FT) FOLDING TABLE

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW3
Description: **Locker/Shower/Toilet - Male**
Name:
Group: Highway

Quantitative Criteria: 1 360
Square feet

Functional Description: 1 Toilet/ Lavatory
2 Shower with dressing area
3 Lockers

Qualitative Description: 1 Private
2 Secure
3 Good ventilation
4 Durable Materials

Locational Criteria: 1 Near Training / Lunchroom

Technical Criteria:

Walls: GWB with epoxy paint; Ceramic Tile wainscot
Floors: Ceramic Tile or Resinous flooring
Ceiling: Acoustic Tile
Windows: NA
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: One outlet
Security: Standard Toilet Room Lock with card reader or FOB
Equipment: NA

Furnishings: 1 Mirror
2 Soap dispenser
3 Towel dispenser/trash receptacle
4 Toilet paper dispenser
5 Lockers: full 2' x 2'
6 Clothing hooks
7 Clothing rods and shelf

Notes: 10 lockers total



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
MALE LOCKER / SHOWER / TOILET ROOM

Date: 18 DECEMBER 2015

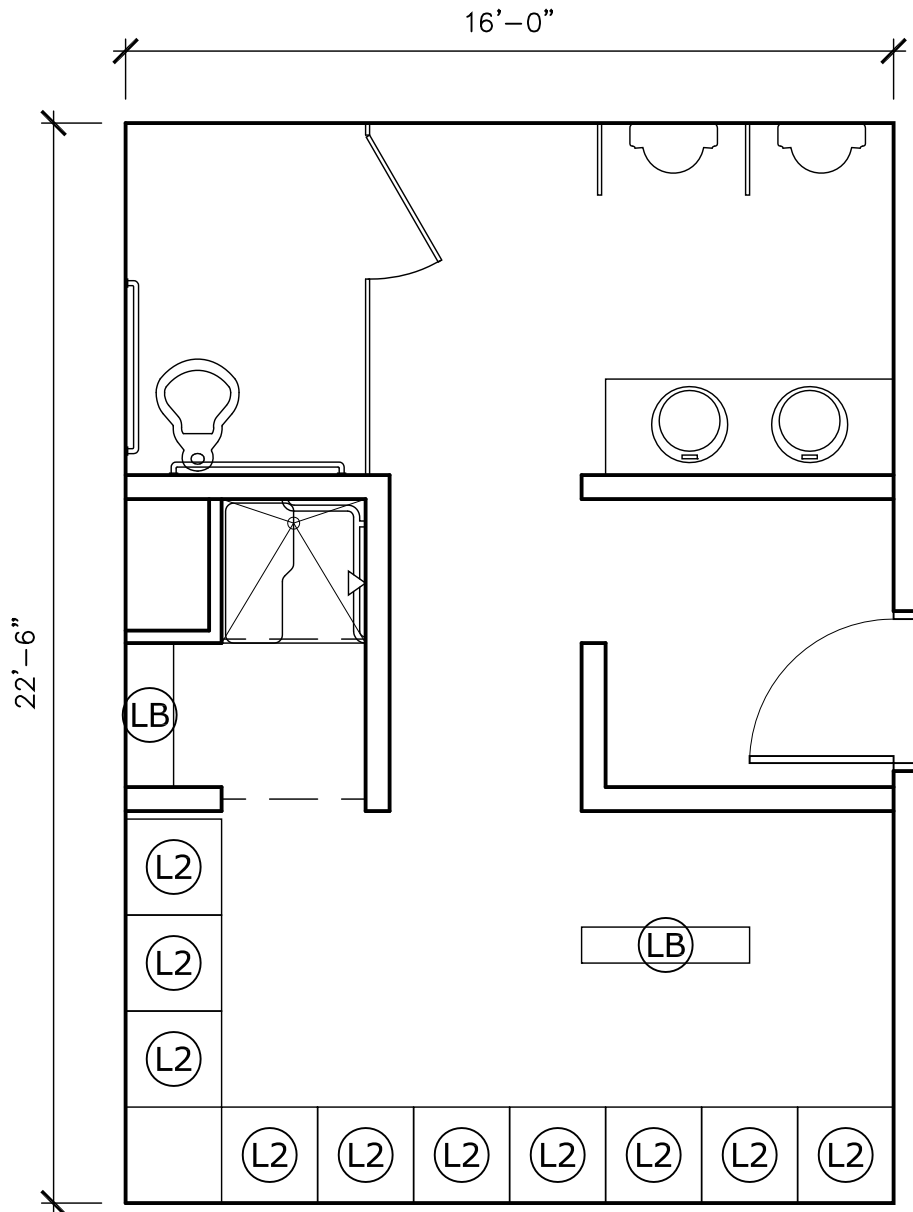
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW3

360 SF



(L2) 24"X24" LOCKERS

(LB) LOCKER ROOM BENCH

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW4
Description: **Locker/Shower/Toilet - Female**
Name:
Group: Highway

Quantitative Criteria: 1 230
Square feet

Functional Description: 1 Toilet/ Lavatory
2 Shower with dressing area
3 Lockers

Qualitative Description: 1 Private
2 Secure
3 Good ventilation
4 Durable Materials

Locational Criteria: 1 Near Lunchroom / Training

Technical Criteria:

Walls: GWB with epoxy paint; Ceramic Tile wainscot
Floors: Ceramic Tile or Resinous flooring
Ceiling: Acoustic Tile
Windows: NA
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: One outlet
Security: Standard Toilet Room Lock with card reader or FOB
Equipment: NA

Furnishings: 1 Mirror
2 Soap dispenser
3 Towel dispenser/trash receptacle
4 Toilet paper dispenser
5 Lockers: full 2' x 2'
6 Clothing hooks
7 Clothing rods and shelf
8 Feminine Receptacle

Notes: 4 lockers



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
FEMALE LOCKER / SHOWER / TOILET
ROOM

Date: 18 DECEMBER 2015

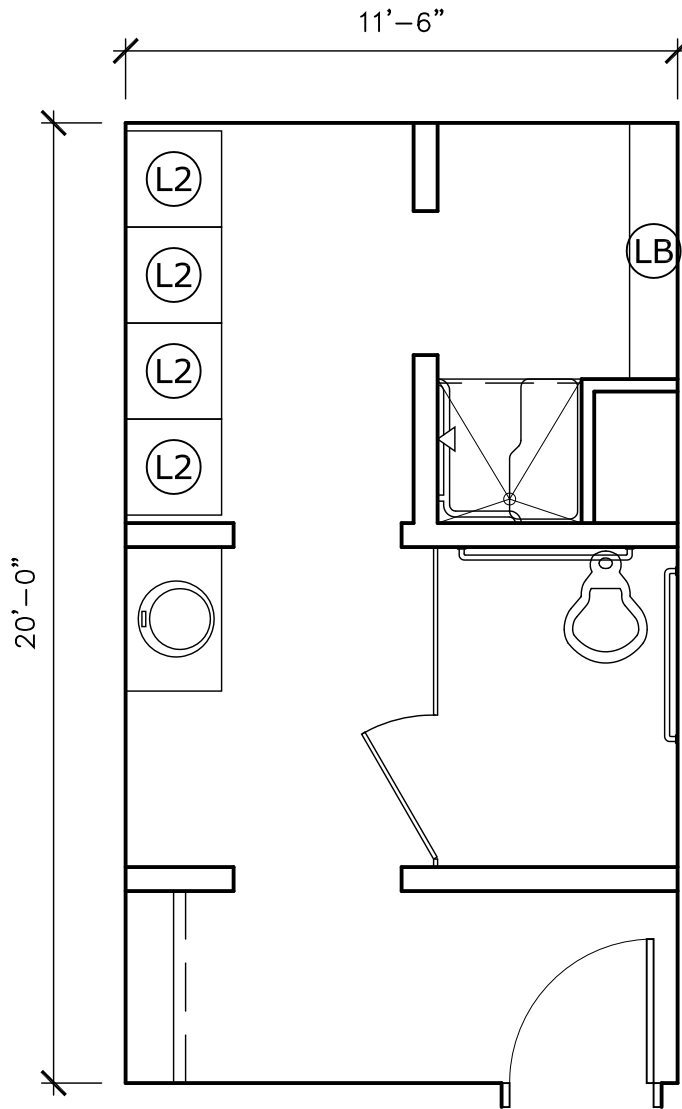
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW4

230 SF



(L2) 24"X24" LOCKERS

(LB) LOCKER ROOM BENCH

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW5
Description: **Laundry**
Name:
Group: Highway

Quantitative Criteria: 1 69
Square feet
2 Sized for standard washer and dryer and mop basin

Functional Description: 1 Location for washing and drying uniforms

Qualitative Description: 1 Efficient, durable space

Locational Criteria: 1 Near Locker Rooms

Technical Criteria:

Walls: Moisture resistant GWB or CMU; tile
Floors: Resinous or concrete
Ceiling: ACT or exposed to structure
Windows: NA
Plumbing: Standard; mop basin
HVAC: Standard
Ventilation: Standard plus dryer vent
Lighting: Direct
Power: Standard
Tel/Data: Standard
Security: NA
Equipment: Commercial washer and dryer

Furnishings: 1 Shelving
2 Wall hooks

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
LAUNDRY

Date: 18 DECEMBER 2015

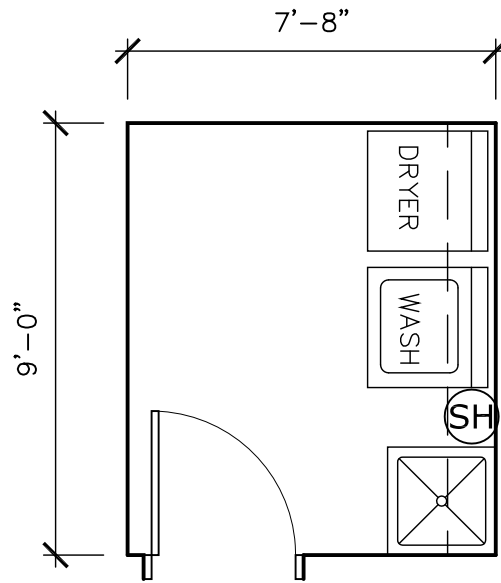
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW5

69 SF



(SH) SHELVING ON STANDARDS

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW6
Description: **Maintenance Bays**
Name:
Group: Highway

Quantitative Criteria: 1 2,640
Square feet
2 Sized for access to all sides and tops of vehicles
3 Large overhead doors - min 16' x 16'
4 Two general maintenance bays with welding bench

Functional Description: 1 Maintain vehicles
2 Prep vehicles

Qualitative Description: 1 Easy access to equipment
2 Clear span for maximum flexibility
3 Good air quality
4 Adequate height for clearance and maintenance of vehicles
5 Natural light

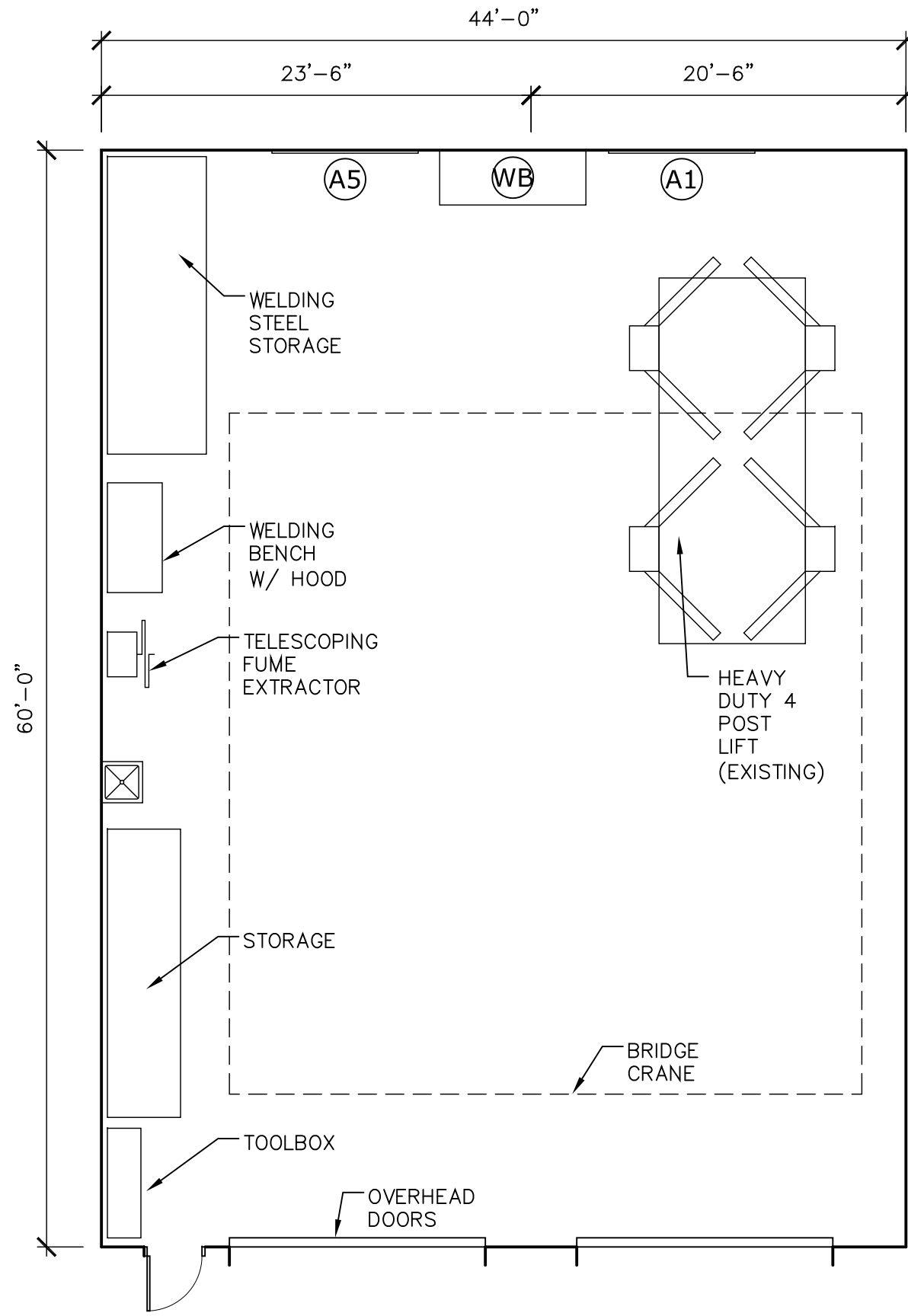
Locational Criteria: 1 Adjacent to Parts Storage, Fluid Storage, Tire Storage
2 Good access to exterior

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: Required using natural light thru doors, clerestory and possible skylights
Plumbing: Floor drains, compressed air connections, shop sink
HVAC: No air conditioning; radiant heat
Ventilation: As required by code
Lighting: High bay fluorescent or LED
Power: Throughout, specialized outlets for specific pieces of equipments.
Tel/Data: Required: 2 locations
Security: Locked to secure equipment; overhead doors to have multiple systems for closing down doors
Equipment: Overhead door controls
4 post lift
Bridge crane over two maintenance bays
Overhead tailpipe exhaust system
Lubrication distribution system
Welding equipment

Furnishings: 1 Bulletin Board
2 White Board

Notes: 1 Longest vehicles serviced is ladder truck (50' long) ??
2 Current mechanic provides "preventive maintenance" only; all other work is sent out.



- (A1) WHITEBOARD/TACKBOARD
- (A5) PEGBOARD
- (WB) WORKBENCH

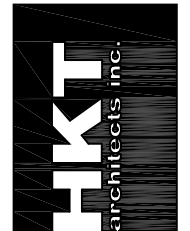
2,640 SF

Date: 18 DECEMBER 2015
 Scale: 1/8" = 1'-0"
 Job num: 21512
 Drawn by: NJJ
SKA-DPW6

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX

DEPT OF PUBLIC WORKS:
 MAINTENANCE BAYS

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**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW7
Description: **Storage**
Name:
Group: Highway

Quantitative Criteria: 1 330
Square feet

Functional Description: 1 Storage of sign making supplies
2 Air Compressor
3 Flammable Storage Cabinet

Qualitative Description: 1 Easy access to equipment
2 Good lighting

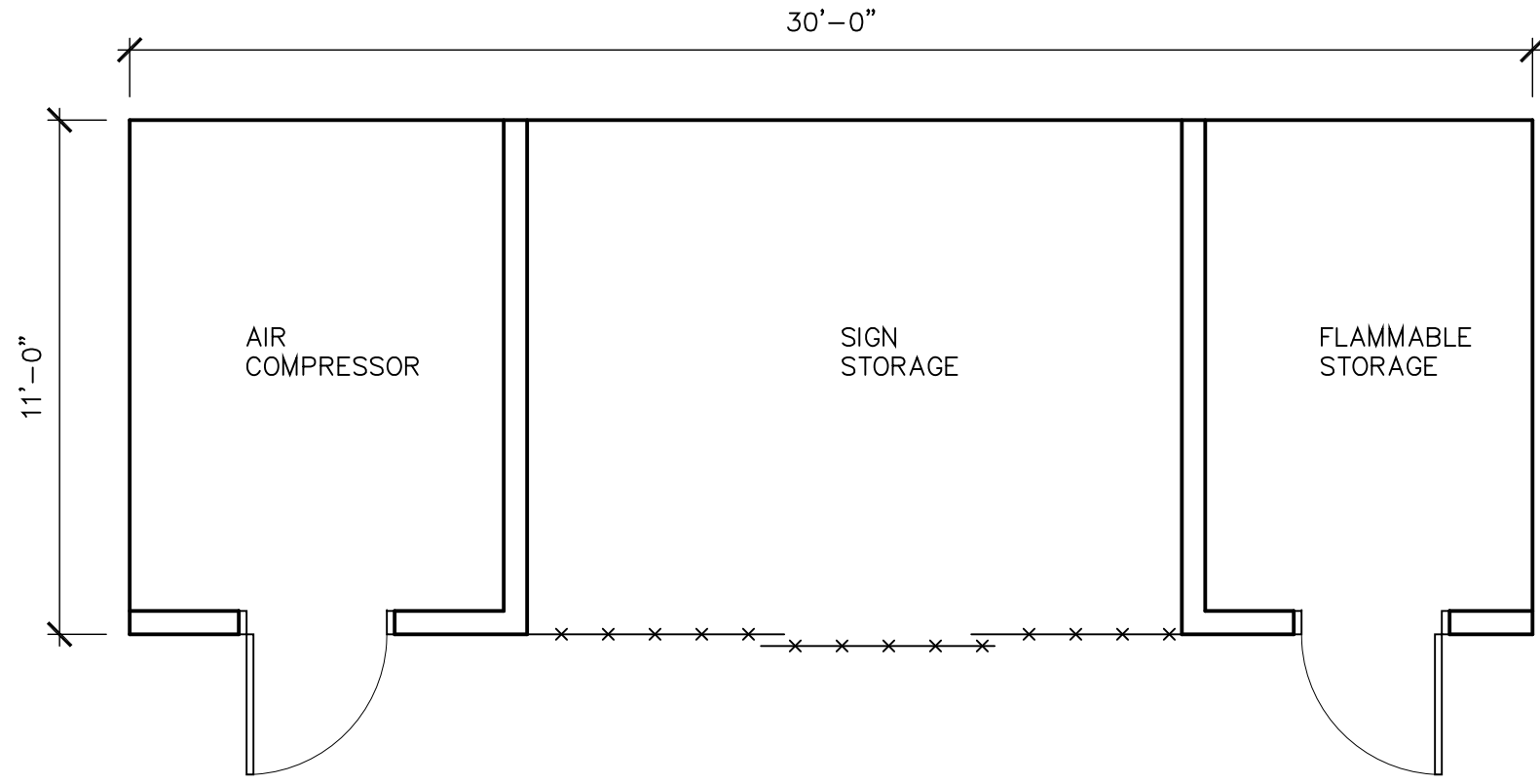
Locational Criteria: 1 Flexible

Technical Criteria:

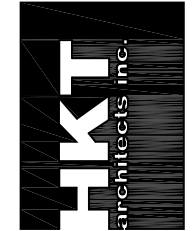
Walls: CMU or high impact GWB
Floors: Concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: Compressed air
HVAC: No air conditioning; radiant heat
Ventilation: As required by code
Lighting: Direct
Power: As required by code
Tel/Data: NA
Security: Locked to secure equipment
Equipment: NA

Furnishings: 1 Shelving on standards
2 Freestanding shelving units
3 Flammable Storage Cabinet

Notes:



330 SF



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MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX

DEPT OF PUBLIC WORKS:
 STORAGE

Date: 21 DECEMBER 2015

Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW7

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW8
Description: **Fluid Storage Area**
Name:
Group: Highway

Quantitative Criteria: 1 160
Square feet

Functional Description: 1 Storage of Fluids
2

Qualitative Description: 1 Efficient, durable space
2 Recess floor 12"; provide access ramp

Locational Criteria: 1 Maintenance Bays

Technical Criteria:

Walls: CMU or high impact GWB/Fire-rated
Floors: Concrete with hardener or sealer
Ceiling: Structure
Windows: NA
Plumbing: Compressed Air
HVAC: Standard/direct vent
Ventilation: Standard/direct vent
Lighting: Direct
Power: Dependant on equipment required
Tel/Data: Not Required
Security: Locked
Equipment: TBD

Furnishings:

Notes: 1 Rated Room; water stops at floor/wall intersections; double doors
2 Primarily 55 gallon drums



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
FLUID STORAGE

Date: 18 DECEMBER 2015

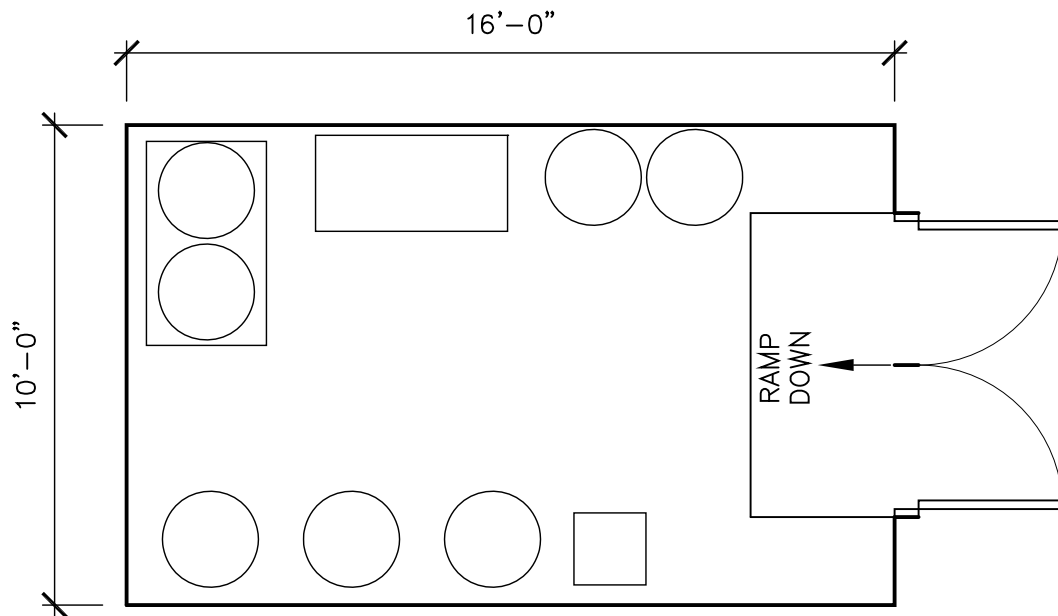
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW8

160 SF



**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW9
Description: **Parts & Supply Storage**
Name:
Group: Highway

Quantitative Criteria: 1 224
Square feet

Functional Description: 1 Storage of truck parts
2 Storage of general supplies

Qualitative Description: 1 Efficient, durable space

Locational Criteria: 1 Adjacent to vehicle bays

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct
Power: Dependant on equipment required
Tel/Data: Required
Security: Secured
Equipment: Computer

Furnishings: 1 24" and 18" Heavy Duty Shelving
2 Allow room for bulk floor storage
3 Worksurface
4 Seating: one office chair
5 Wall mounted peg boards

Notes: Double doors



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
PARTS & SUPPLY STORAGE

Date: 18 DECEMBER 2015

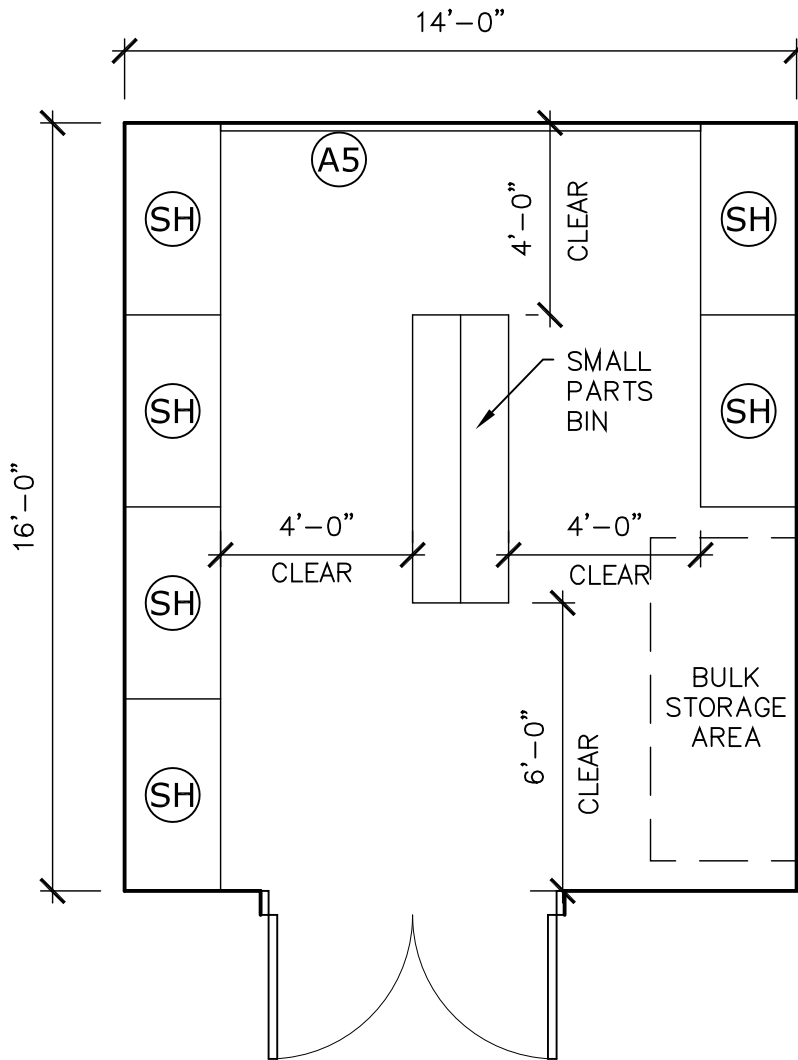
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW9

224 SF



(A5) PEGBOARD

(SH) SHELVING ON STANDARDS

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW10
Description: **Tire Storage**
Name:
Group: Highway

Quantitative Criteria: 1 50
Square feet

Functional Description: 1 Storage of tires

Qualitative Description: 1 Efficient, durable space

Locational Criteria: 1 Adjacent to Maintenance Bays

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct
Power: Dependant on equipment required
Tel/Data: Required
Security: Secured
Equipment: Tire repair equipment

Furnishings: 1 Tire racks for 6 large tires (usually on rims)

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
TIRE STORAGE

Date: 21 DECEMBER 2015

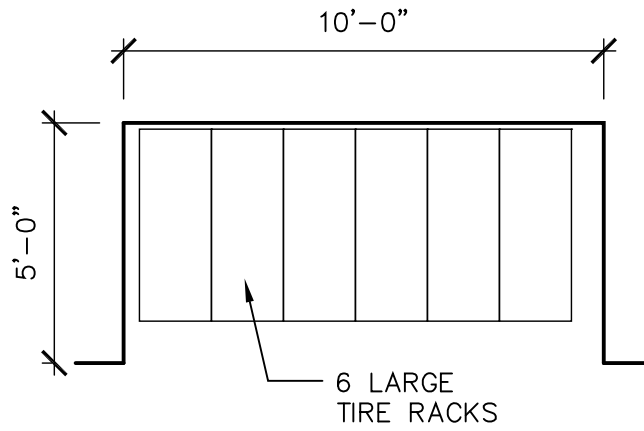
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW10

50 SF



**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW11
Description: **Vehicle Staging & Prep**
Name:
Group: Vehicle Staging & Prep

- Quantitative Criteria:**
- 1 11,440
Square feet
 - 2 Sized for access to all sides and tops of vehicles; ceiling height to accommodate dump bodies being raised fully
 - 3 Large overhead doors - 16'x16' preferred
 - 4
 - a. Vehicle parking areas
 - b. Small equipment storage area

- Functional Description:**
- 1 Store vehicles, towed equipment, plows
 - 2 Prep vehicles
 - 3 Store small equipment in cages

- Qualitative Description:**
- 1 Easy access to equipment
 - 2 Clear span for maximum flexibility
 - 3 Good air quality
 - 4 Adequate height for clearance and maintenance of vehicles
 - 5 Natural light

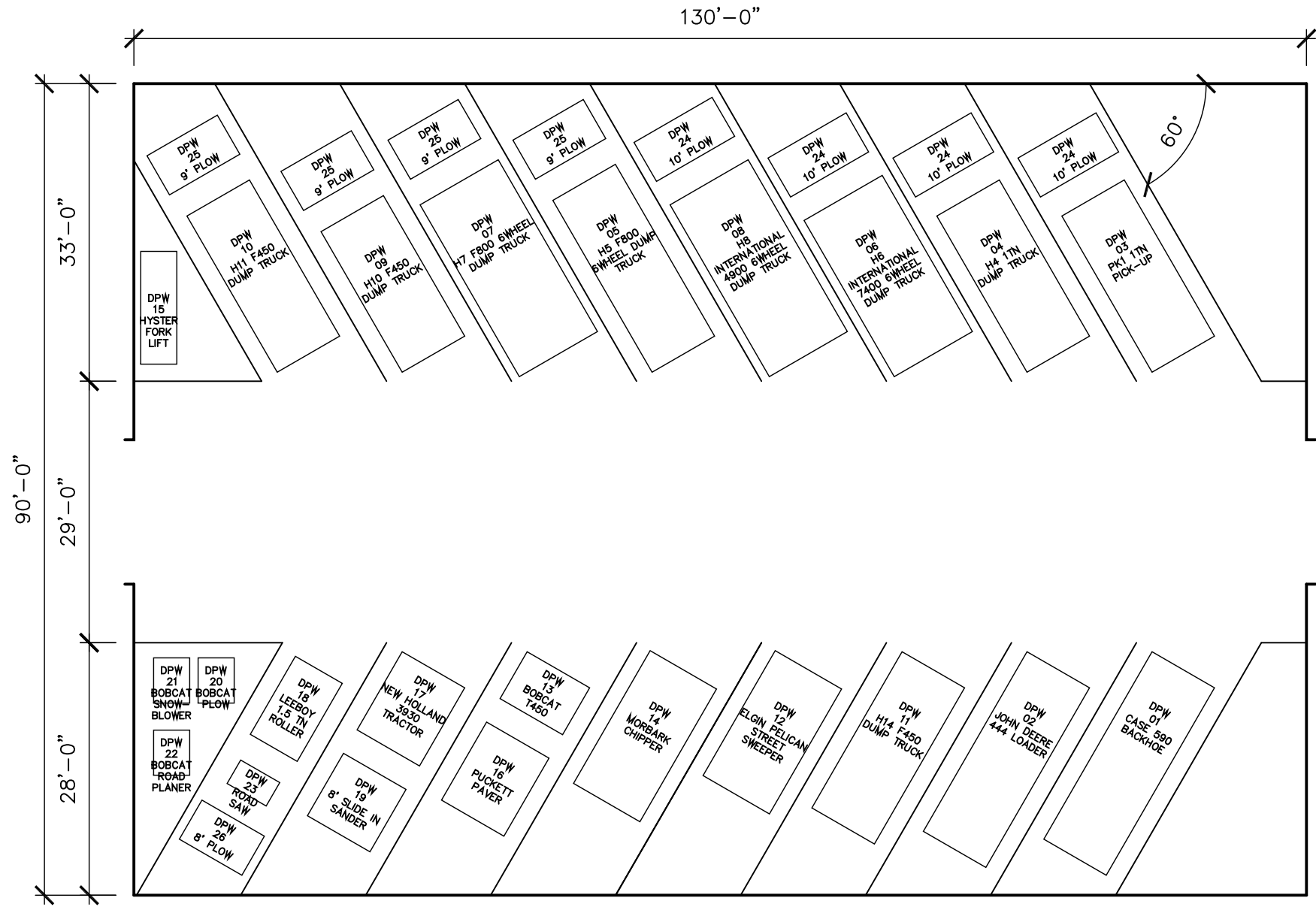
- Locational Criteria:**
- 1 Clear access to employee support areas
 - 2 Good access to exterior

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: Required using natural light thru doors, clerestory and possible skylights
Plumbing: Floor drains, compressed air connections
HVAC: No air conditioning; radiant heat
Ventilation: As required by code
Lighting: High bay fluorescent or LED
Power: Throughout, specialized outlets for specific pieces of equipment.
Tel/Data: Required: 2 locations
Security: Locked to secure equipment; overhead doors to have multiple systems for closing down doors
Equipment: Overhead door controls

- Furnishings:**
- 1 Secured wire cages for small dedicated equipment
 - 2 Bulletin Board
 - 3 White Board

- Notes:**
- 1 Layout to be considered: double loaded corridor or direct drive out are options



11,700 SF

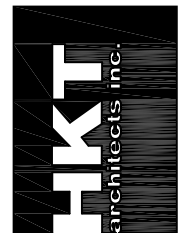
Date: 21 DECEMBER 2015
 Scale: 1/4" = 1'-0"
 Job num: 21512
 Drawn by: NJJ

MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX

DEPT OF PUBLIC WORKS:
 VEHICLE STAGING & PREP AREA

SKA-DPW11

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**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW12
Description: **Wash Bay**
Name:
Group: Wash Bay

Quantitative Criteria: 1 1,690
Square feet
2 Sized for access to all sides and tops of vehicles
3 Large overhead doors - min 16' x 16'
4 1690 sf includes wash bay and equipment room
5 Ceiling height to allow access to the top of the highest vehicle

Functional Description: 1 Wash vehicles

Qualitative Description: 1 Clear span for maximum flexibility
2 Good air quality
3 Adequate height for clearance and maintenance of vehicles
4 Natural light

Locational Criteria: 1 Good access to exterior

Technical Criteria:

Walls: CMU
Floors: Concrete with hardener or sealer
Ceiling: No exposed steel; all structure to be encased
Windows: Required using natural light thru doors
Plumbing: Floor drains, power washers
HVAC: No air conditioning; radiant heat
Ventilation: As required by code
Lighting: High bay fluorescent or LED
Power: As required
Tel/Data: As required
Security: Locked to secure equipment; overhead doors to have multiple systems for closing down doors
Equipment: Overhead door controls
Power washer in wash bay

Furnishings: 1 Catwalk

Notes: 1 All surfaces including structure, walls, floors, misc. metal, switches, light fixtures, fire alarms, doors and frames, etc. to be finishes to accept corrosive nature of indoor wash facility.
2 Sized to wash ladder truck



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
WASH BAY

Date: 21 DECEMBER 2015

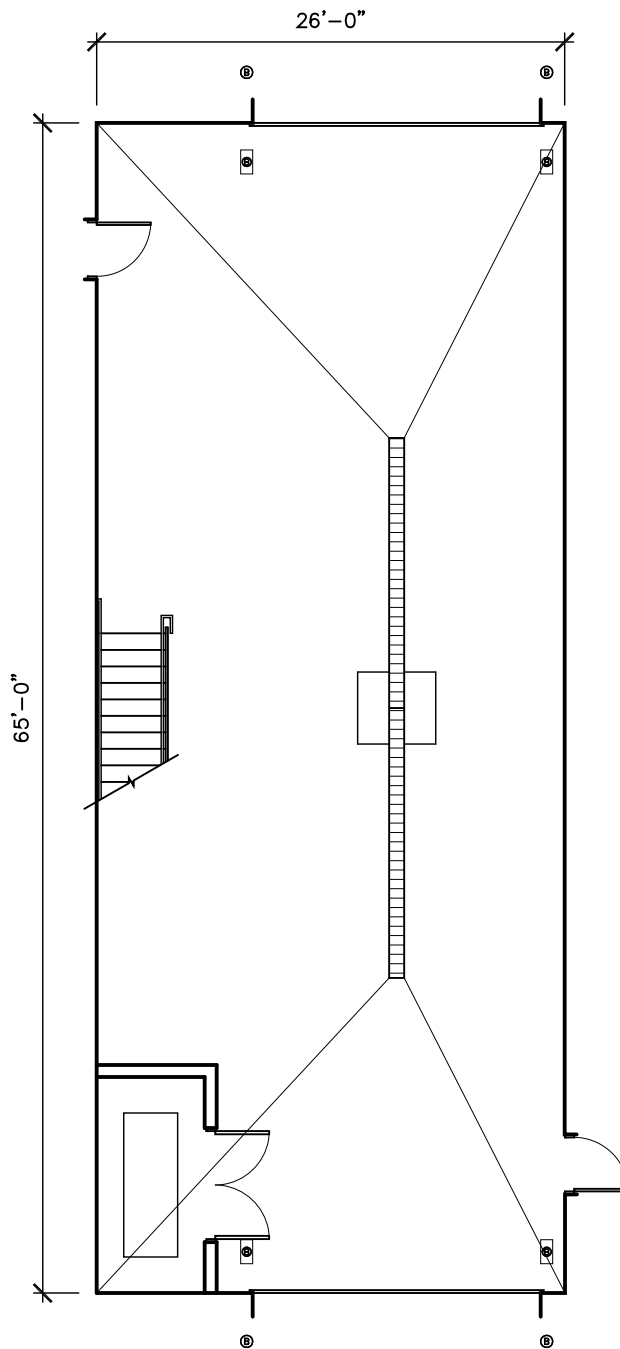
Scale: 3/32" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW12

1,690 SF



**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW13
Description: **Future Mechanic's Office**
Name:
Group: Highway

Quantitative Criteria: 1 100
Square feet

Functional Description: 1 Deskwork

Qualitative Description: 1 Efficient, durable space

Locational Criteria: 1 Adjacent to Maintenance Bays

Technical Criteria:

Walls: CMU or GWB
Floors: Concrete or resilient
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer

Furnishings:

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
MAINTENANCE WORKSPACE

Date: 18 DECEMBER 2015

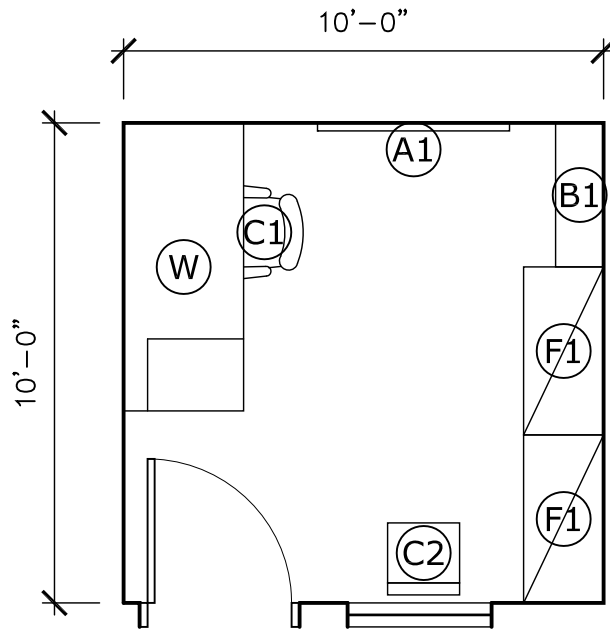
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW13

100 SF



- (A1)** WHITEBOARD/TACKBOARD
- (B1)** TALL BOOKCASE
- (C1)** MANAGEMENT CHAIR
- (C2)** GUEST CHAIR
- (F1)** 2-DRAWER LATERAL FILE
- (W)** DESK WITH PEDESTAL

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW14
Description: **Public Works Director Office**
Name: Robert Sinibaldi
Group: Administration

Quantitative Criteria: 1 182
Square feet

Functional Description: 1 Deskwork
2 Meets with 1-2 persons

Qualitative Description: 1 Private Office

Locational Criteria: 1 Adjacent to Administrative Assistant

Technical Criteria:

Walls: GWB
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer

Furnishings: 1 Desk with return
2 Credenza
3 Table large enough for plan review
4 Seating - 1 office with 2 guest chairs
5 File cabinets
6 Bookcase
7 Whiteboard / Tackboard

Notes: 1 DPW Director is also the Building Commissioner in the Inspectional Services Department. Meet with contractors; provides permits; reviews plans etc.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
DPW DIRECTOR OFFICE

Date: 18 DECEMBER 2015

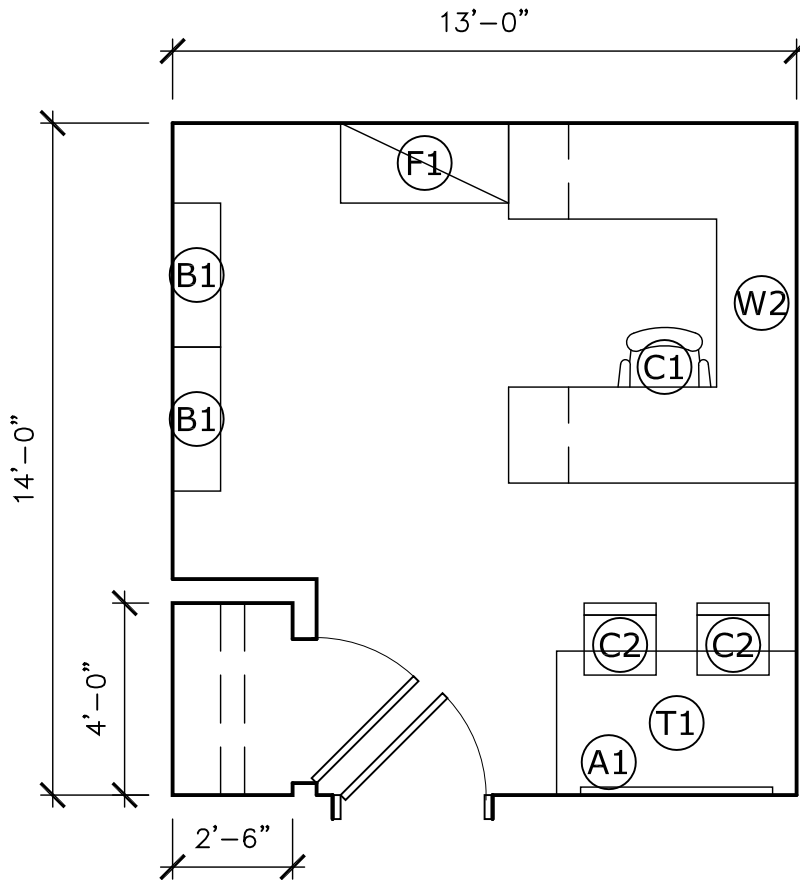
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW14

182 SF



- (A1) WHITEBOARD/TACKBOARD
- (B1) TALL BOOKCASE
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F1) 2-DRAWER LATERAL FILE
- (T1) SMALL CONFERENCE TABLE
- (W2) DESK WITH PEDESTAL, RETURN AND CREDENZA/FILES

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW15
Description: **Administrative Assistant Workspace**
Name:
Group: Administration

Quantitative Criteria: 1 214
Square feet

Functional Description: 1 Deskwork

Qualitative Description: 1 Private Office or Open Work Area

Locational Criteria: 1 Adjacent to Public Works Director
2 Near lobby

Technical Criteria:

Walls: GWB
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computers; fax; printer

Furnishings: 1 Desk with return
2 Seating - 1 office with 1 guest chair
3 Transaction counter
4 File cabinets
5 Whiteboard / Tackboard

Notes: 1 DPW and Inspectional Services work
2 Vestibule is included and need is dependent on final layout



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
ADMINISTRATIVE ASSISTANT & ENTRY

Date: 21 DECEMBER 2015

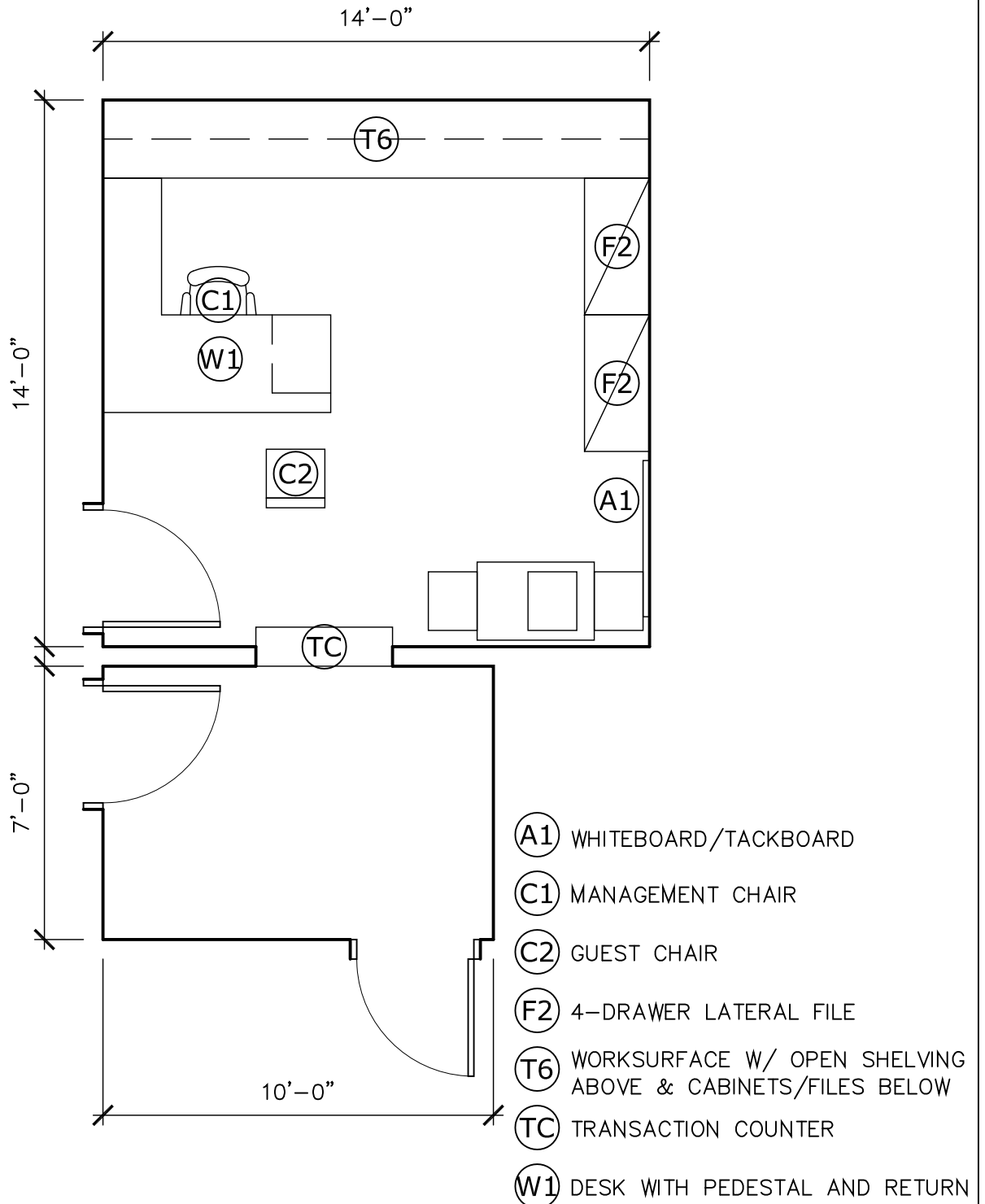
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW15

266 SF



**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW16
Description: **Future Engineering Office**
Name:
Group: Administration

Quantitative Criteria: 1 0
Square feet

Functional Description: 1 Deskwork
2 Meets with 1 person

Qualitative Description: 1 Private Office

Locational Criteria: 1 Near other administrative personnel

Technical Criteria:

Walls: GWB
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer

Furnishings: 1 Desk with return
2 Worksurface for review of drawings
3 Seating - 1 office with 1 guest chair
4 File cabinets
5 Bookcase
6 Whiteboard / Tackboard

Notes: 1 Currently all engineering support is via a paid consultant.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
ENGINEERING OFFICE

Date: 18 DECEMBER 2015

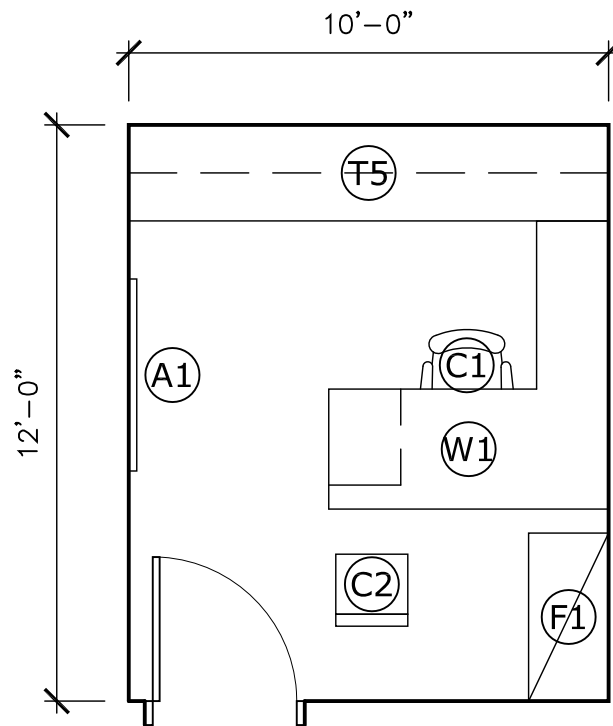
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW16

120 SF



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F1) 2-DRAWER LATERAL FILE
- (T5) WORKSURFACE WITH OPEN SHELVING ABOVE
- (W1) DESK WITH PEDESTAL AND RETURN

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW17
Description: **Coat Closet**
Name:
Group: Administration

Quantitative Criteria: 1 13
Square feet - (1) @ 2.5' x 6'

Functional Description: 1 Storage for Personal Belongings

Qualitative Description: 1 Standard closet

Locational Criteria: 1 Near administrative offices

Technical Criteria:

Walls: GWB
Floors: Carpet or resilient
Ceiling: Acoustic Tile
Windows: NA
Plumbing: NA
HVAC: NA
Ventilation: NA
Lighting: Direct
Power: NA
Tel/Data: NA
Security: Standard passage set
Equipment: NA

Furnishings: 1 Coat rod with shelf above

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

DEPT. OF PUBLIC WORKS:
COAT CLOSET

Date: 18 DECEMBER 2015

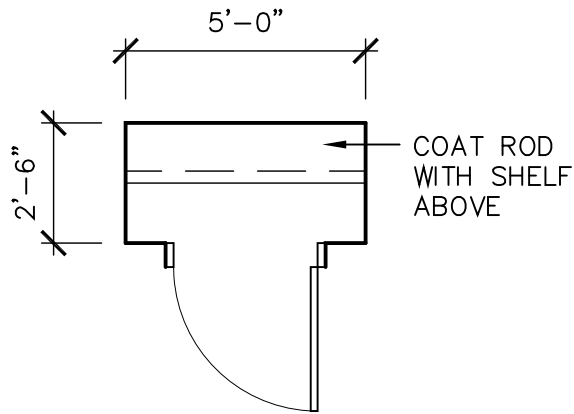
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW17

13 SF



**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW18
Description: **Office Supply**
Name:
Group: Administration

Quantitative Criteria: 1 18
Square feet

Functional Description: 1 Storage of office supplies

Qualitative Description: 1 Good lighting

Locational Criteria: 1 Near Administrative personnel

Technical Criteria:

Walls: GWB
Floors: Resilient
Ceiling: Acoustic tile
Windows: NA
Plumbing: NA
HVAC: Standard storage environment
Ventilation: Standard storage environment
Lighting: Direct
Power: Standard storage environment
Tel/Data: Standard
Security: Standard passage set
Equipment:

Furnishings: 1 Shelving on standards
2 Storage for paper and ink
3 Storage for recycling toner cartridges

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

DEPT. OF PUBLIC WORKS:
OFFICE SUPPLY CLOSET

Date: 18 DECEMBER 2015

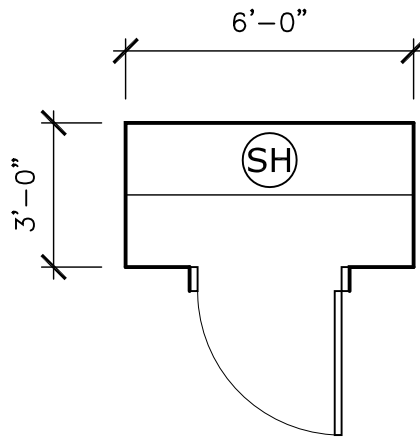
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW18

18 SF



(SH) SHELVING ON STANDARDS

**Public Safety Complex
Merrimac, Massachusetts**

ROOM OR SPACE

Room No: SKA-DPW19
Description: **Plan Room**
Name:
Group: Administration

Quantitative Criteria: 1 80
Square feet

Functional Description: 1 Storage of plans / drawings
2 Drafting space
3 Plan review space

Qualitative Description: 1 Good lighting and secure

Locational Criteria: 1 Near Public Works Director
2 Near future engineer

Technical Criteria:

Walls: GWB
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer

Furnishings: 1 Drafting table
2 Seating: 1 task chair, 2 guest chairs
3 36"x60" table
4 Flat files
5 Upright mobile roll files
6 Whiteboard / Tackboard

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DEPT. OF PUBLIC WORKS:
PLAN ROOM

Date: 21 DECEMBER 2015

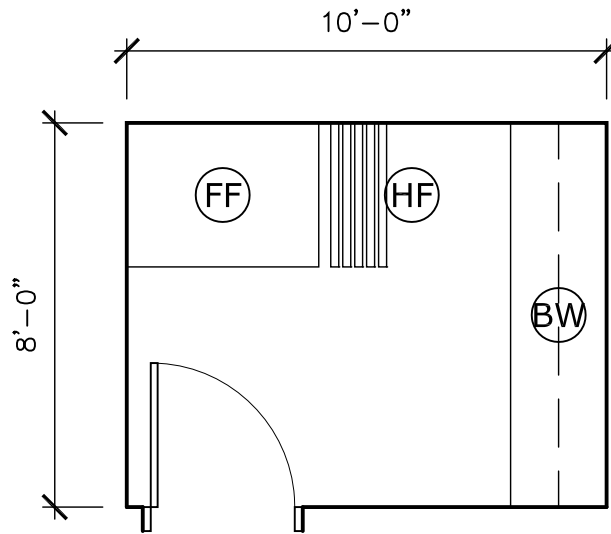
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DPW19

80 SF



(BW) BASE AND WALL CABINET

(FF) FLAT FILE

(HF) HANGING FILE

ROOM OR SPACE

Room No: SKA-F1
Description: **Fire Chief Office**
Name: Chief Ralph Spencer
Group: Administration - Fire

Quantitative Criteria: 1 204
Square feet
2 Meets with 1-4 people

Functional Description: 1 Deskwork
2 Small Meetings

Qualitative Description: 1 Private Office

Locational Criteria: 1 Central access to administrative staff
2 Near Deputy Chiefs

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV, speaker, wall mounted computer monitor (for meetings)

Furnishings: 1 Desks with return
2 Seating - 1 office with 4 guest chairs
3 3' round table
4 Bookshelves
5 File cabinets
6 Whiteboard / Tackboard

Notes: 1 Small coat closet within room
2 Acoustically private



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
FIRE CHIEF OFFICE

Date: 18 DECEMBER 2015

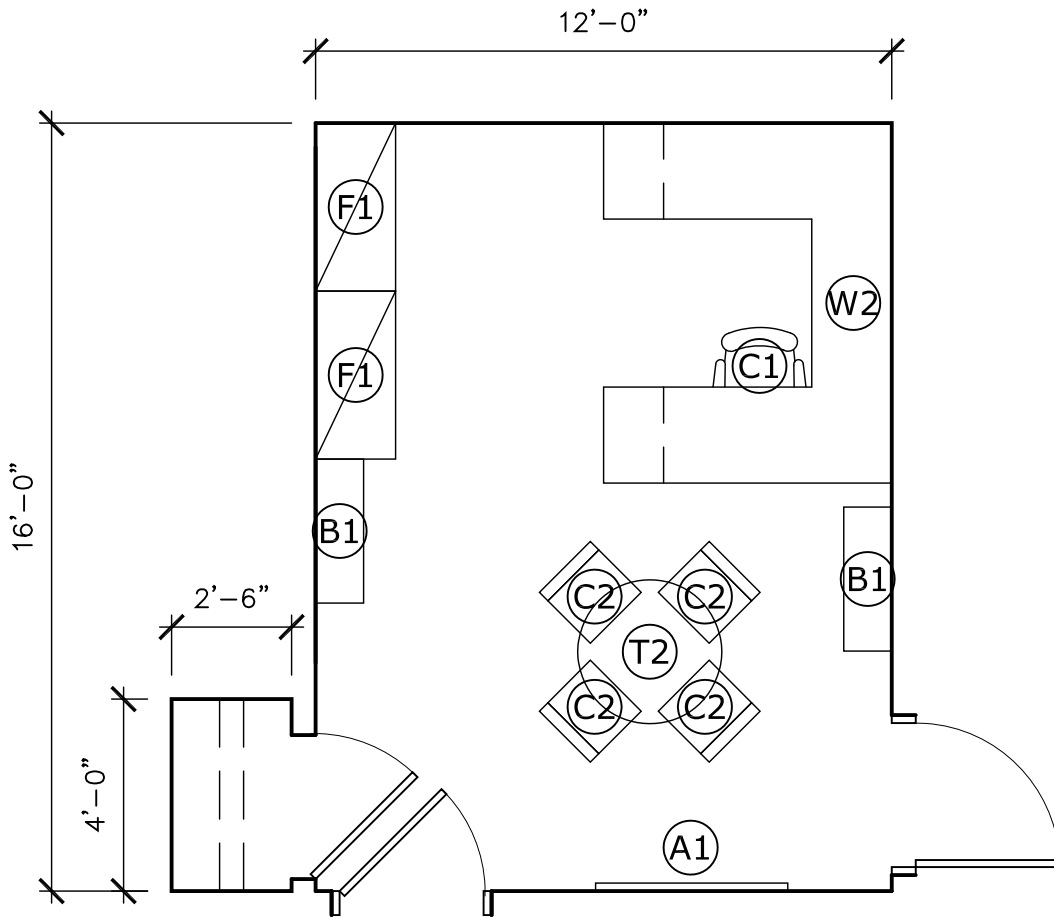
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F1

204 SF



- (A1) WHITEBOARD/TACKBOARD
- (B1) TALL BOOKCASE
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F1) 2-DRAWER LATERAL FILE
- (T2) ROUND CONFERENCE TABLE
- (W2) DESK WITH PEDESTAL, RETURN AND CREDENZA/FILES

ROOM OR SPACE

Room No: SKA-F2
Description: **Administrative Assistant**
Name:
Group: Administration - Fire

Quantitative Criteria: 1 168
Square feet

Functional Description: 1 Deskwork
2 Available to public
3 Active File Storage

Qualitative Description: 1 Open office area or private office space

Locational Criteria: 1 Adjacent to Lobby
2 Adjacent to Fire Chief & Deputy Chief
3 Near Deputy Chiefs

Technical Criteria:

Walls: GWB, Office Standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV,, copier/fax, printer

Furnishings: 1 Desk with return
2 Seating - 1 office, 1 guest
3 Worksurface with adjustable shelving above
4 File cabinets; one secured for personnel records; Minimum 2 (4) drawer files

5 Transaction Counter dependent on layout
6 Tackboard/Whiteboard

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
ADMINISTRATIVE ASSISTANT

Date: 21 DECEMBER 2015

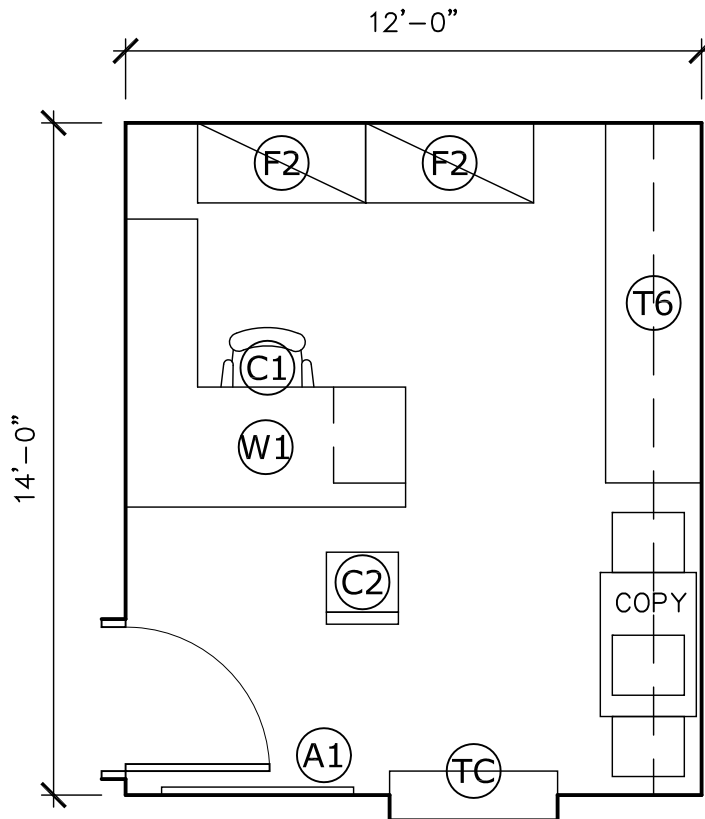
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F2

168 SF



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (T6) WORKSURFACE WITH OPEN SHELVING ABOVE AND CABINETS / FILES BELOW
- (TC) TRANSACTION COUNTER
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-F3
Description: **Deputy Fire Chief Office**
Name: Larry Fisher
Group: Administration - Fire: Fire Alarm, Fire Investigation, Suppression

Quantitative Criteria: 1 126
Square feet
2 Meets with 1-2 people

Functional Description: 1 Deskwork
2 Small Meetings

Qualitative Description: 1 Private Office

Locational Criteria: 1 Central access to administrative offices
2 Near Fire Chief & Administrative Assistant

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV, speaker

Furnishings: 1 Desk with return
2 Seating - 1 office with 2 guest chairs
3 Adjustable shelving on standards
4 File cabinets
5 Whiteboard / Tackboard

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
DEPUTY CHIEF OFFICE

Date: 18 DECEMBER 2015

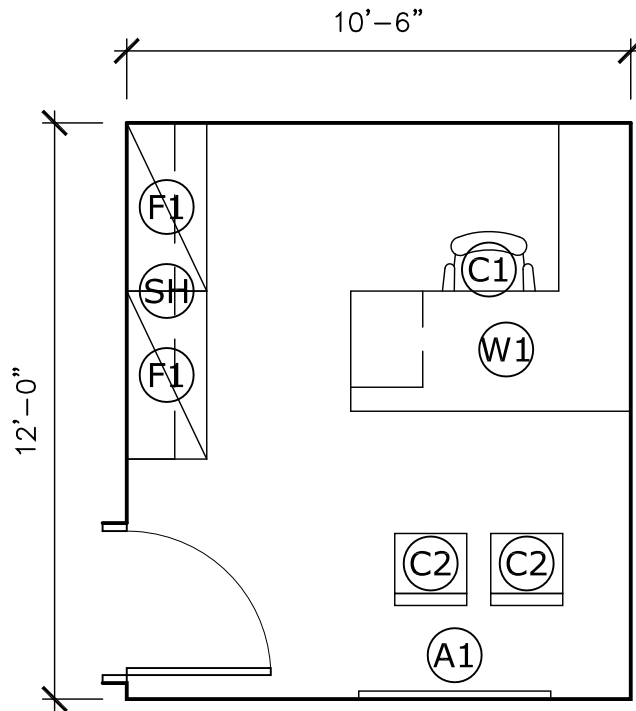
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F3

126 SF EACH



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F1) 2-DRAWER LATERAL FILE
- (SH) SHELVING ON STANDARDS
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-F3
Description: **Deputy Fire Chief Office**
Name: Gregory Habgood
Group: Administration - Fire: Suppression, EMS, Training

Quantitative Criteria: 1 126
Square feet
2 Meets with 1-2 people

Functional Description: 1 Deskwork
2 Small Meetings

Qualitative Description: 1 Private Office

Locational Criteria: 1 Central access to administrative offices
2 Near Fire Chief & Administrative Assistant

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV, speaker

Furnishings: 1 Desk with return
2 Seating - 1 office with 2 guest chairs
3 Adjustable shelving on standards
4 File cabinets
5 Whiteboard / Tackboard

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
DEPUTY CHIEF OFFICE

Date: 18 DECEMBER 2015

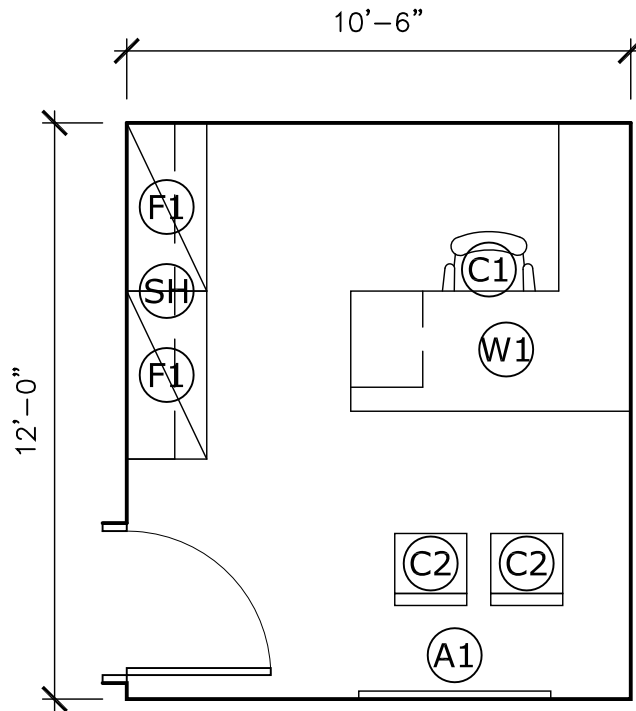
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F3

126 SF EACH



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F1) 2-DRAWER LATERAL FILE
- (SH) SHELVING ON STANDARDS
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-F4
Description: **Shared Office for Fire Officers**
Name:
Group: Administration - Fire

Quantitative Criteria: 1 144
Square feet
2 Meets with 1-2 people

Functional Description: 1 Deskwork
2 Small Meetings

Qualitative Description: 1 Private Office

Locational Criteria: 1 Central access to administrative offices
2 Could be located closer to Operations

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV, speaker

Furnishings: 1 2 Desks with return
2 Seating - 2 office with 1 guest chairs
3 Adjustable shelving on standards
4 File cabinets
5 Whiteboard / Tackboard

Notes: 1 This space will be shared by Lieutenants or Captains on shift and is not dedicated to any one individual



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
SHARED OFFICE FOR FIRE OFFICERS

Date: 21 DECEMBER 2015

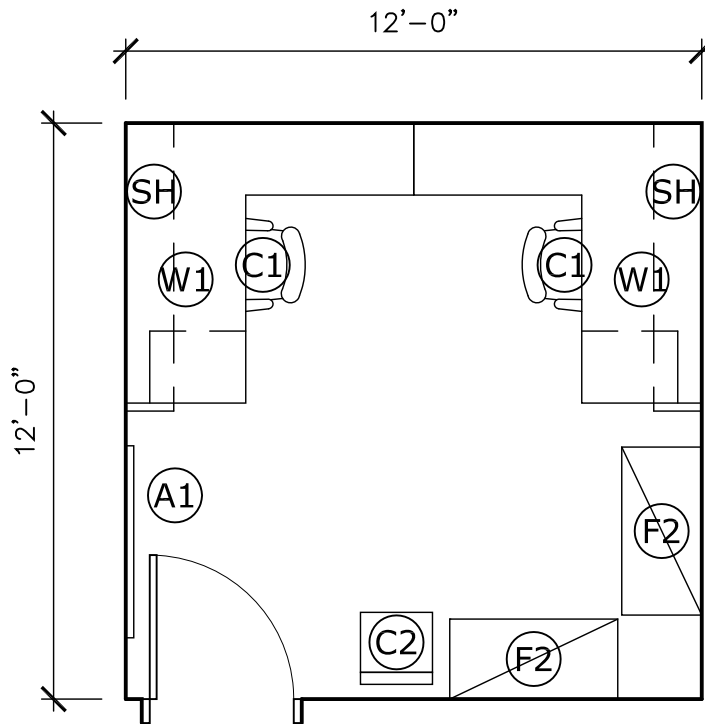
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F4

144 SF



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (SH) SHELVING ON STANDARDS
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-F5
Description: **Fire Prevention Office and Plan Storage**
Name:
Group: Administration - Fire

Quantitative Criteria: 1 0
Square feet
2 Meets with 1-2 people

Functional Description: 1 Deskwork
2 Small Meetings
3 Plan Review

Qualitative Description: 1 Private Office

Locational Criteria: 1 Central access to administrative offices

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV, speaker

Furnishings: 1 Desk with return
2 Seating - 1 office with 2 guest chairs
3 Adjustable shelving on standards
4 File cabinets
5 Whiteboard / Tackboard
6 Flat file cabinets
7 Upright mobile roll files
8 Rectangular table for plan review

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
FIRE PREVENTION OFFICE & PLAN
STORAGE

Date: 21 DECEMBER 2015

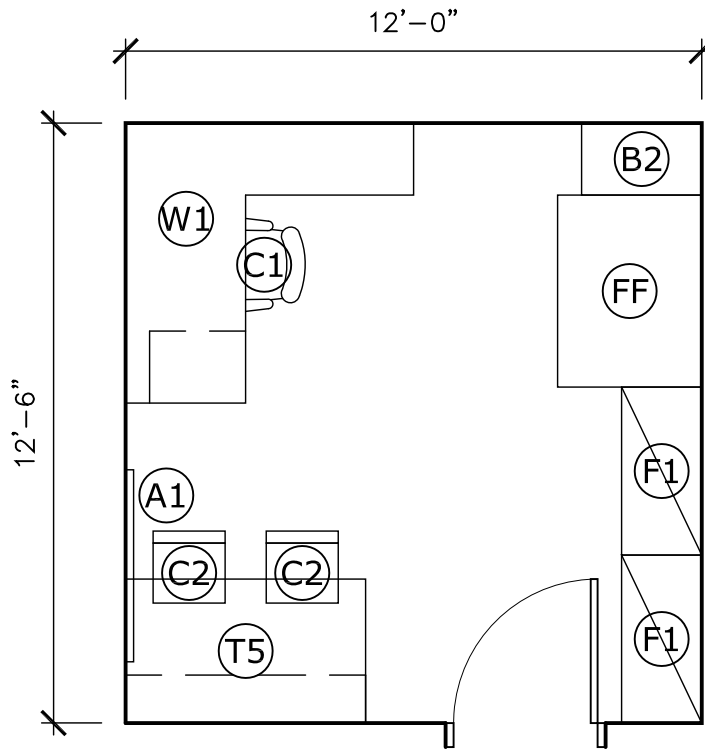
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F5

150 SF



- (A1) WHITEBOARD/TACKBOARD
- (B2) BIN STORAGE
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F1) 2-DRAWER LATERAL FILE
- (FF) FLAT FILE
- (T5) WORKSURFACE WITH OPEN SHELVING ABOVE
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-F6
Description: **Hose Company Office**
Name:
Group: Administration - Fire

Quantitative Criteria: 1 0
Square feet

Functional Description: 1 Deskwork
2 Small meeting space

Qualitative Description: 1 Shared Office

Locational Criteria: 1 Flexible location

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer

Furnishings: 1 1 Desk
2 Seating - 1 office with 4 guest chair
3 3' round table
4 File cabinet
5 Whiteboard / Tackboard

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
HOSE COMPANY OFFICE

Date: 21 DECEMBER 2015

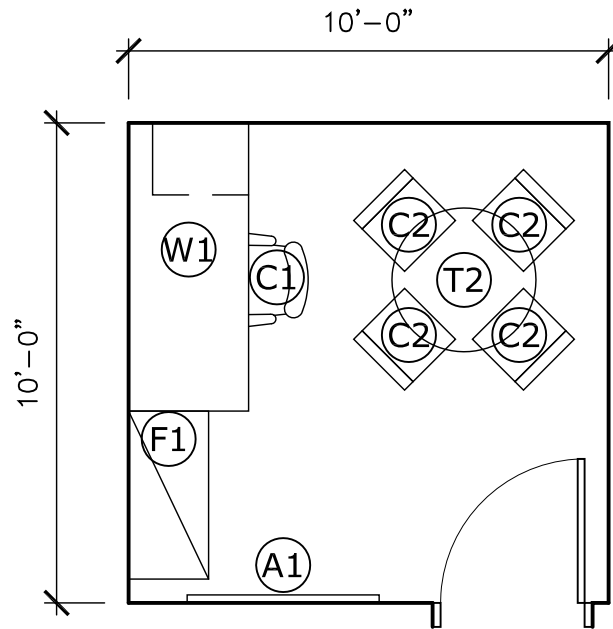
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F6

100 SF



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F1) 2-DRAWER LATERAL FILE
- (T2) ROUND CONFERENCE TABLE
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-F7
Description: **Coat Closet**
Name:
Group: Administration - Fire

Quantitative Criteria: 1 13
Square feet - (1) @ 2.5' x 5'

Functional Description: 1 Personal Belongings

Qualitative Description: 1 Closet for storage

Locational Criteria: 1 Central to administration staff

Technical Criteria:

Walls: GWB
Floors: Carpet or resilient
Ceiling: Acoustic Tile
Windows: None
Plumbing: NA
HVAC: NA
Ventilation: NA
Lighting: NA
Power: None
Tel/Data: None
Security: Standard Closet Lock
Equipment: None

Furnishings: 1 Coat rod with shelf above

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

**FIRE:
COAT CLOSET**

Date: 18 DECEMBER 2015

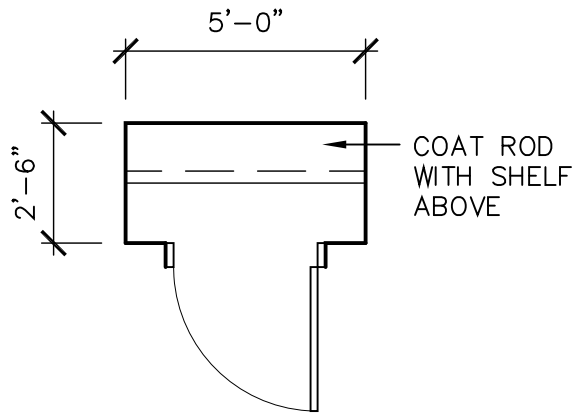
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F7

13 SF



ROOM OR SPACE

Room No: SKA-F8
Description: **Dorm Rooms**
Name:
Group: Staff Support - Fire

Quantitative Criteria: 1 560
Square feet
2 Provide 4 at 140 SF; Sized for two twin beds, 2 nightstands, 4 wardrobes

Functional Description: 1 (4) double occupancy sleeping rooms

Qualitative Description: 1 Good ventilation
2 Quiet

Locational Criteria: 1 Easy access to apparatus bays

Technical Criteria:

Walls: GWB
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard
Ventilation: Standard
Lighting: Indirect and Task
Power: Standard
Tel/Data: Standard
Security: Standard Office Lock
Equipment: Telephone; speaker; station alert system for light control

Furnishings: 1 Twin bed (2)
2 Nightstand (2)
3 Storage for linens / personnel items in wardrobe/locker (4)
4 Blackout shades

Notes: (4) 30"x24" wardrobes



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
DOUBLE DORM ROOM

Date: 21 DECEMBER 2015

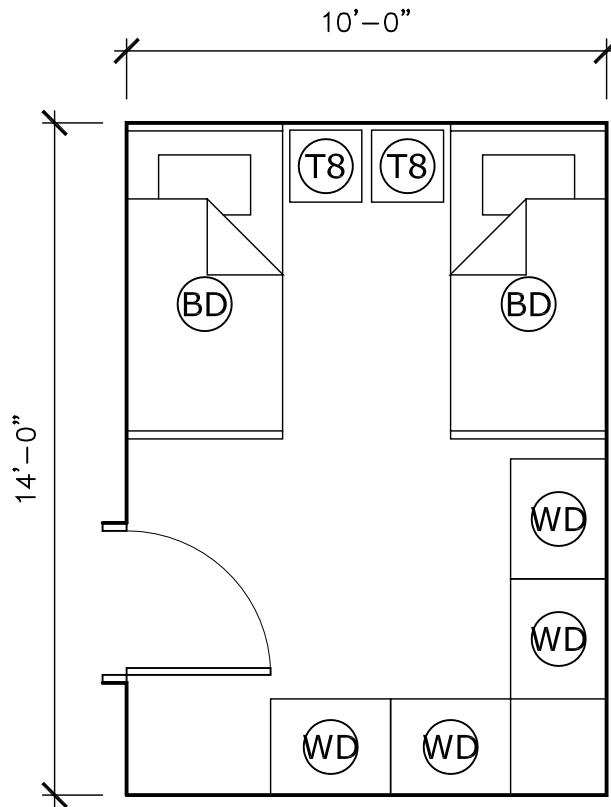
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F8

140 SF EACH



(BD) BED

(T8) SIDE TABLE

(WD) WARDROBE

ROOM OR SPACE

Room No: SKA-F9
Description: **Toilet / Shower Room Male**
Name:
Group: Staff Support - Fire

Quantitative Criteria: 1 264
Square feet

Functional Description: 1 Toilet / Lavatory
2 Showers with dressing area

Qualitative Description: 1 Multiple occupant space
2 Secure
3 Good ventilation
4 Durable Materials

Locational Criteria: 1 Adjacent to staff quarters

Technical Criteria:

Walls: GWB with epoxy paint; Ceramic Tile wainscot
Floors: Ceramic Tile or Resinous flooring
Ceiling: Acoustic Tile and GWB
Windows: None
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: One outlet
Security: Standard Toilet Room Lock
Equipment: Speakers for radio monitoring

Furnishings: 1 Mirrors
2 Soap dispensers
3 Towel dispenser/trash receptacle
4 Toilet paper dispensers
5 Showers with bench seats
6 Clothing hooks

Notes: 1 Provide wet garment drying area



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
MALE SHOWER / TOILET ROOM

Date: 21 DECEMBER 2015

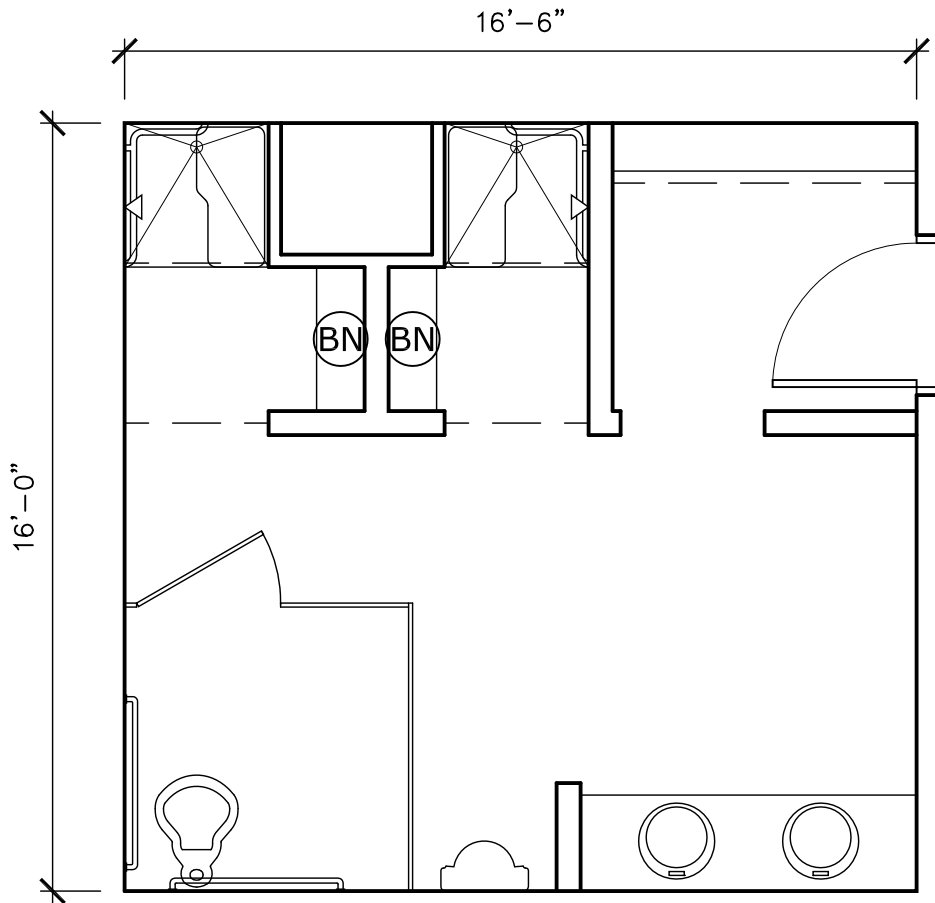
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F9

264 SF



(BN) BENCH

ROOM OR SPACE

Room No: SKA-F10
Description: **Toilet / Shower Room Female**
Name:
Group: Staff Support - Fire

Quantitative Criteria: 1 200
Square feet

Functional Description: 1 Toilet / Lavatory
2 Showers with dressing area

Qualitative Description: 1 Multiple occupant space
2 Secure
3 Good ventilation
4 Durable Materials

Locational Criteria: 1 Adjacent to staff quarters

Technical Criteria:

Walls: GWB with epoxy paint; Ceramic Tile wainscot
Floors: Ceramic Tile or Resinous flooring
Ceiling: Acoustic Tile and GWB
Windows: None
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: One outlet
Security: Standard Toilet Room Lock
Equipment: Speakers for radio monitoring

Furnishings: 1 Mirrors
2 Soap dispensers
3 Towel dispenser/trash receptacle
4 Toilet paper dispensers
5 Shower with bench seat
6 Clothing hooks
7 Feminine napkin disposal

Notes: 1 Provide wet garment drying area



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
FEMALE SHOWER / TOILET ROOM

Date: 18 DECEMBER 2015

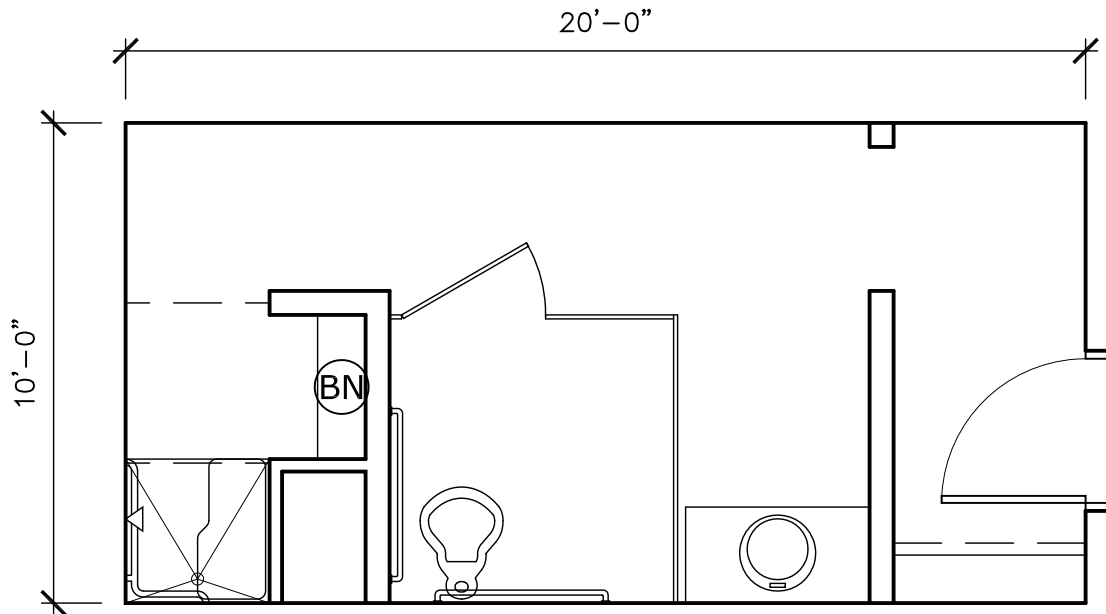
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F10

200 SF



(BN) BENCH

ROOM OR SPACE

Room No: SKA-F11
Description: **Day Room**
Name:
Group: Staff Support - Fire

Quantitative Criteria: 1 252
Square feet

Functional Description: 1 Watching TV/Videos; Listening to music
2 Informal meeting

Qualitative Description: 1 Comfortable relaxed environment
2 Natural lighting

Locational Criteria: 1 Easy access to apparatus bays
2 Adjacent to Kitchen

Technical Criteria:

Walls: GWB
Floors: Carpet or Resilient
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard
Ventilation: Standard
Lighting: Indirect and task
Power: Standard
Tel/Data: Standard
Security: NA
Equipment: TV/Video equipment

Furnishings: 1 Comfortable chairs
2 TV stand
3 Bookshelves
4 Side tables

Notes: 1 Large enough to have small "kitchenette"



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
DAY ROOM

Date: 18 DECEMBER 2015

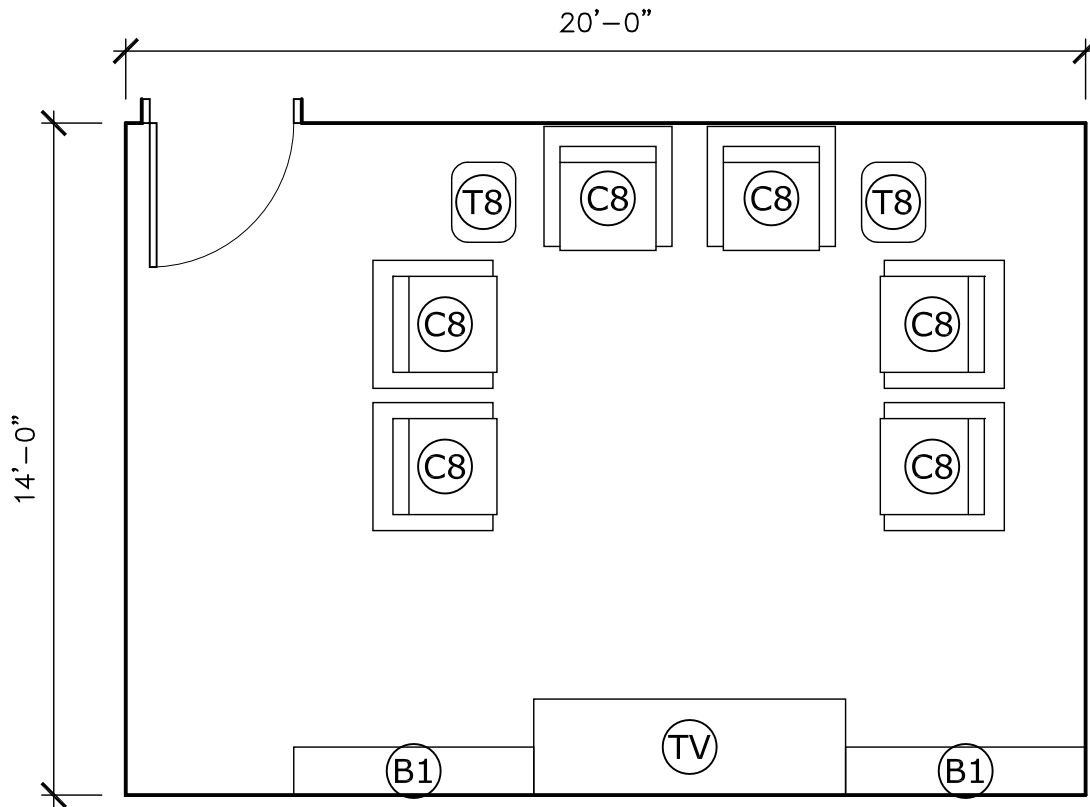
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F11

280 SF



(B1) TALL BOOKCASE

(C8) ARMED SWIVEL/TILT CHAIR

(T8) SIDE TABLE

(TV) TV STAND

ROOM OR SPACE

Room No: SKA-F12
Description: **Radio Room Back-Up to Main Dispatch**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 72
Square feet

Functional Description: 1 Room for radio equipment

Qualitative Description: 1 Secure, dry, well lit

Locational Criteria: 1 Central location or as required
2 Near IT Room if possible

Technical Criteria:

Walls: High impact GWB
Floors: Resilient
Ceiling: Exposed to structure
Windows: Not required
Plumbing: Foam fire suppression system?
HVAC: Standard environment; independent AC
Ventilation: Standard environment
Lighting: Direct / indirect
Power: Standard environment; as required for equipment; emergency power
Tel/Data: Required
Security: Standard office lock with limited access
Equipment: TBD; Contractor will provide conduit and pull strings for Town's vendor to install all wiring.

Furnishings: 1 Radio consoles; chairs

Notes: 1 This room to be set up to be a back up for main dispatch



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Project

MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
DISPATCH BACK-UP / RADIO ROOM

Date: 18 DECEMBER 2015

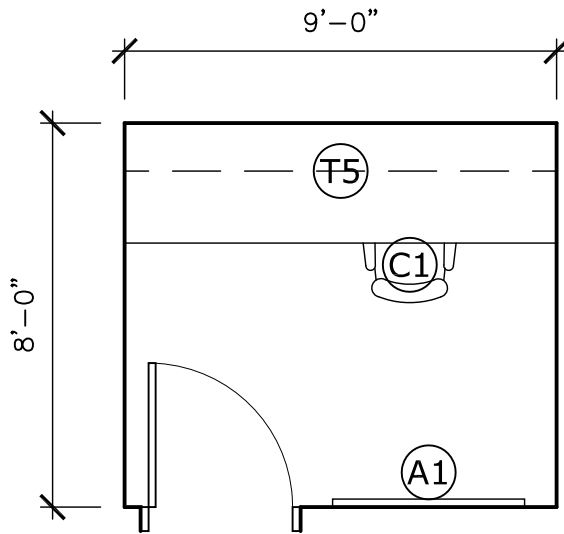
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F12

72 SF



(A1) WHITEBOARD/TACKBOARD

(C1) MANAGEMENT CHAIR

(T5) WORKSURFACE WITH OPEN SHELVING ABOVE

ROOM OR SPACE

Room No: SKA-F13
Description: **Apparatus Bays**
Name:
Group: Operations - Fire

- Quantitative Criteria:**
- 1 7,332
Square feet
 - 2 Sized for access to all sides and tops of vehicles
 - 3 14 x 14 overhead doors - Glass in doors
 - 4 Vehicles
 - a. Ladder Truck (49'L x 8'W)
 - b. Engine x Forestry Truck - (23'L x 8'W)
 - c. Engine x - Pumper (31'L x 8'W)
 - d. Engine x - Pumper (31'L x 8'W)
 - e. Engine x - Pumper (31'L x 8'W)
 - f. Ambulance x - (25'L x 8'W)
 - g. Ambulance x - (25'L x 8'W)
 - h. Rescue Truck (25' x 8')
 - h. Boat (14'L x 6'W)
 - i. Light tower (15'L x 6'W)
 - j. Light tower (15'L x 6'W)
 - k. Rescue Trailer (20'L x 8'-6"W)
 - l. (3) Utility Trailer (10' x 8') - store outside
 - m. Chief's car - store outside
 - 5 Prefer Double Deep Bays - Drive-thru preferred for min 2 bays but not required

These are approximate sizes and need to be confirmed

- Functional Description:**
- 1 House fire apparatus
 - 2 House ambulance
 - 3 House trailers, portable pumps and generators

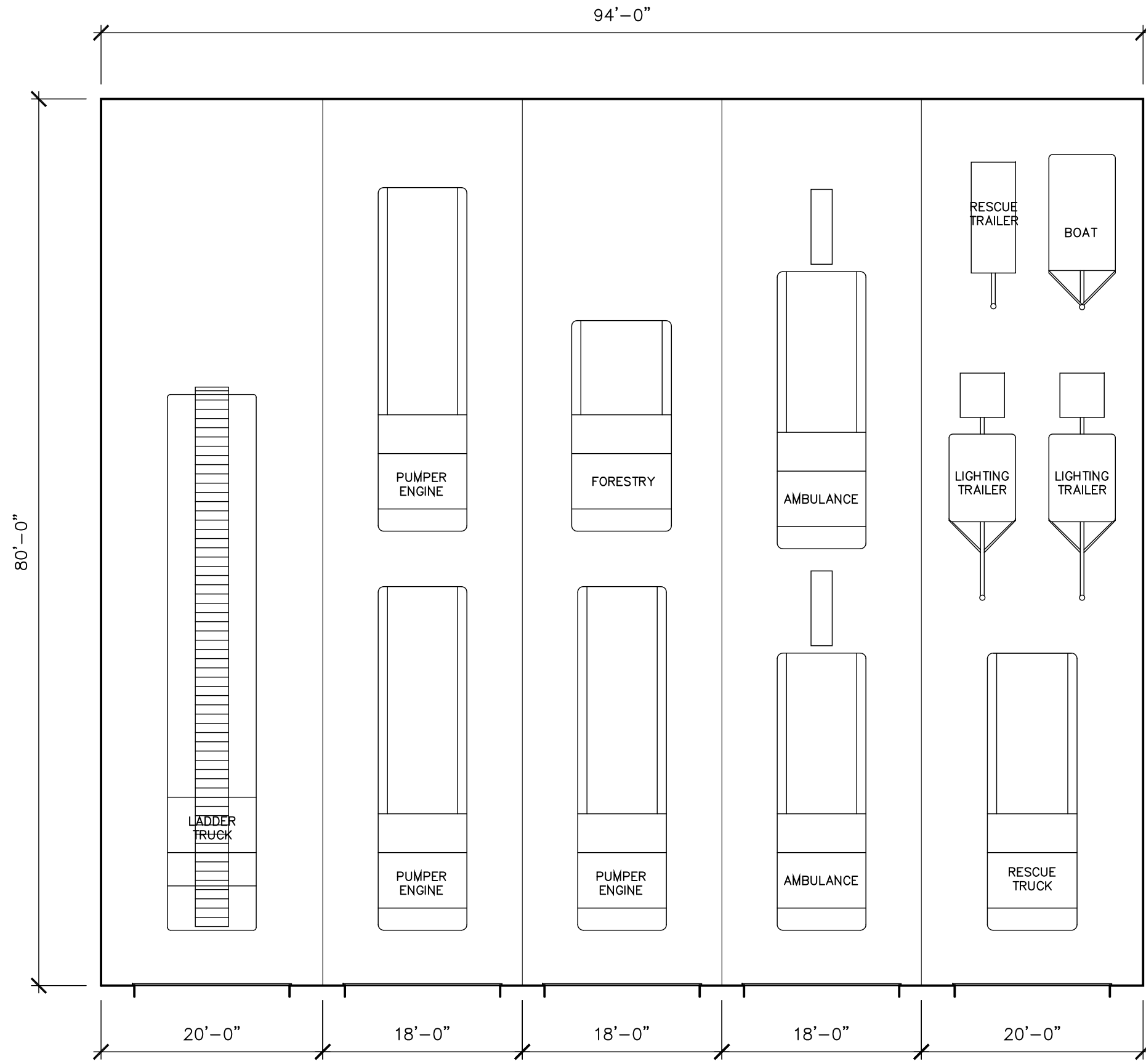
- Qualitative Description:**
- 1 Easy access to trucks
 - 2 Easy access to gear
 - 3 Clear span for maximum flexibility preferred but not required
 - 4 Good air quality
 - 5 Adequate height for clearance and maintenance of vehicles
 - 6 Natural light

- Locational Criteria:**
- 1 Excellent access from living quarters and day room
 - 2 Adjacent to maintenance and fire equipment support areas

Technical Criteria:

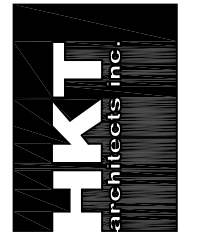
Walls: CMU or high impact GWB
Floors: Epoxy Resin or Concrete with non slip surface
Ceiling: Exposed to structure
Windows: Required using natural light thru doors and clerestory
Plumbing: Floor drains, compressed air connections; fill lines; tight tanks
HVAC: No air conditioning; radiant heat
Ventilation: Source Capture exhaust; standard garage and emergency CO monitor and vent system
Lighting: High bay fluorescent or LED light fixtures

- Power: Throughout for repair including reel for maintenance
Tel/Data: Required: 2 locations?
Security: Locked to secure equipment when firefighters are on calls; overhead doors to have multiple systems for closing down doors
Equipment: Air and water lines; overhead door controls; Source capture system
- Furnishings:**
- 1 Operable racks for lifting 50' hoses along exterior wall - height at least 1/2 length or 25' length
 - 2 White Board
 - 3 Bulletin Board
- Notes:**
- 1 Total count of bays and bay depth is site dependent. Prefer drive thru capability.
 - 2 Training equipment (stairs and ladders, dry stand pipe hook-up, rapelling connections, roof hatch, floor hatch, operable windows/doors at multiple levels)
 - 3 3 Utility Trailers and the Chief's car to be stored outdoors
 - 4 Consider adding trailer for emergency generator for a shelter off site



7,520 SF

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MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX

FIRE:
 APPARATUS BAYS

Date: 21 DECEMBER 2015

Scale: 3/32" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F13

ROOM OR SPACE

Room No: SKA-F14
Description: **Maintenance Workshop**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 120
Square feet

Functional Description: 1 Storage of tools and parts - rolling tool box
2 Minor repair work
3 Storage of flammable materials (ventilated)

Qualitative Description: 1 Flexible repair work environment
2 Good lighting

Locational Criteria: 1 Adjacent to apparatus area

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: Preferable
Plumbing: As required.
HVAC: Standard shop environment
Ventilation: Standard shop environment
Lighting: Direct/indirect
Power: Standard shop environment, wiremold
Tel/Data: Required
Security: Locked
Equipment: Bench tools; vise; grinders; air powered tools

Furnishings: 1 Workbenches
2 Shelving on standards
3 Metal Cabinet for flammable materials
4 Locked Metal Cabinet for small part storage
5 Peg Boards
6 Rolling tool box

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
MAINTENANCE WORKSHOP

Date: 18 DECEMBER 2015

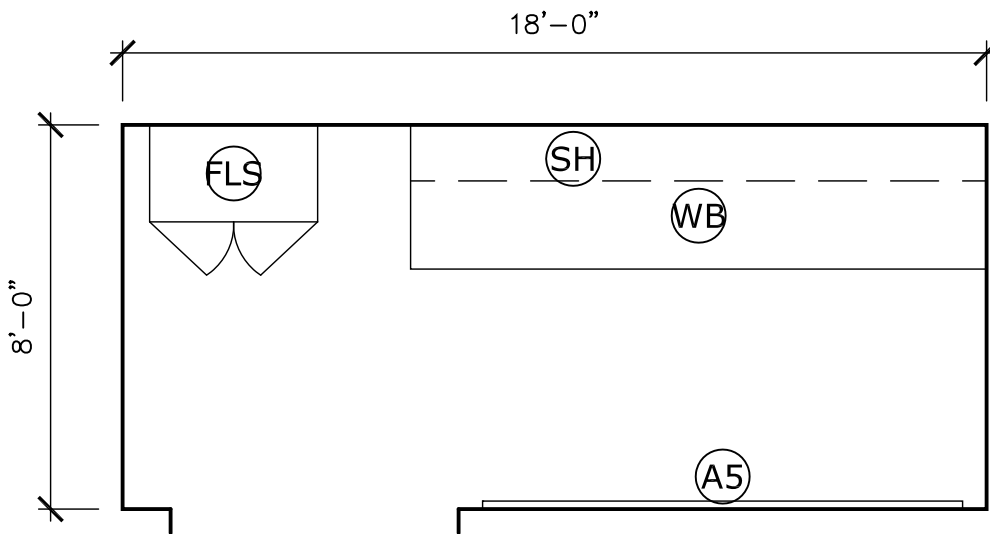
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F14

144 SF



- (A5) PEGBOARD
- (FLS) FLAMMABLE STORAGE TALL CABINET
- (SH) SHELVING ON STANDARDS
- (WB) WORKBENCH

ROOM OR SPACE

Room No: SKA-F15
Description: **Gear Storage**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 612
Square feet
2 Gear Lockers

Functional Description: 1 Stores turnout gear and equipment

Qualitative Description: 1 Easy access to vehicle bays
2 Good ventilation for drying gear/pressurized

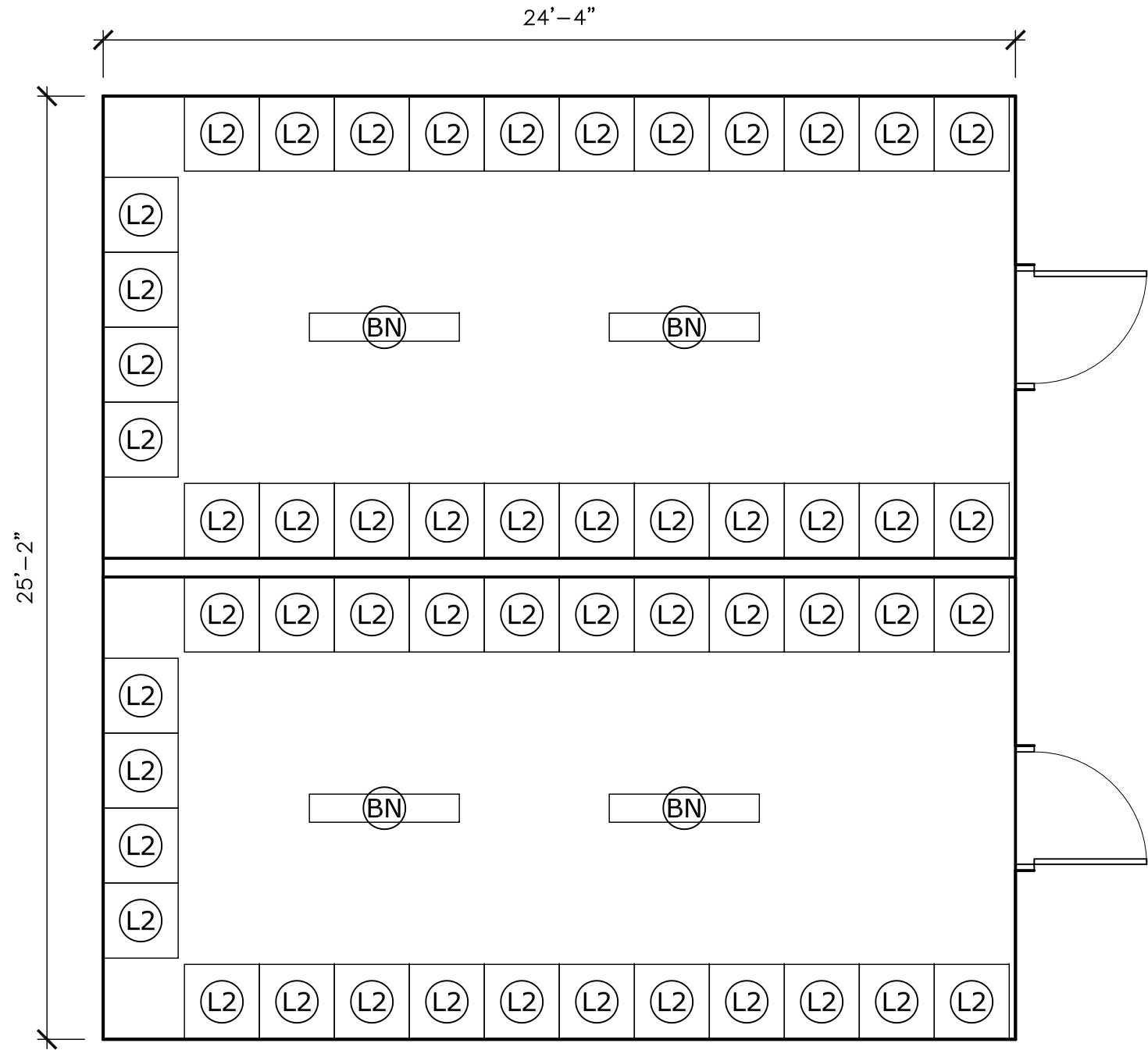
Locational Criteria: 1 Adjacent but separate from vehicle bays

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: NA
HVAC: Standard
Ventilation: Standard
Lighting: Standard
Power: Standard; radio chargers
Tel/Data: Standard
Security: NA
Equipment:

Furnishings: 1 (52) Wire Lockers
2 Shelving for portable radio chargers

Notes:



- (BN) BENCH
- (L2) 24"X24" WIRE LOCKERS

612 SF

Date: 18 DECEMBER 2015
 Scale: 1/4" = 1'-0"
 Job num: 21512
 Drawn by: NJJ

SKA-F15

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX

FIRE:
 GEAR STORAGE

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ROOM OR SPACE

Room No: SKA-F16
Description: **SCBA Fill Room**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 108
Square feet
2 Source of clean air

Functional Description: 1 Fill area for breathing apparatus - tanks

Qualitative Description: 1 Clean
2 Secure

Locational Criteria: 1 Adjacent to vehicle bays
2 Adjacent to compressor area

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: Direct source of intake air to outside; tap into cascade compressor for station air
HVAC: Standard
Ventilation: Standard
Lighting: Direct
Power: Standard
Tel/Data: Required
Security: Secured area
Equipment: Cascade System

Furnishings: 1 SCBA bottle cart for 6
2 Work bench
3 Adjustable shelving

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
SCBA FILL ROOM

Date: 18 DECEMBER 2015

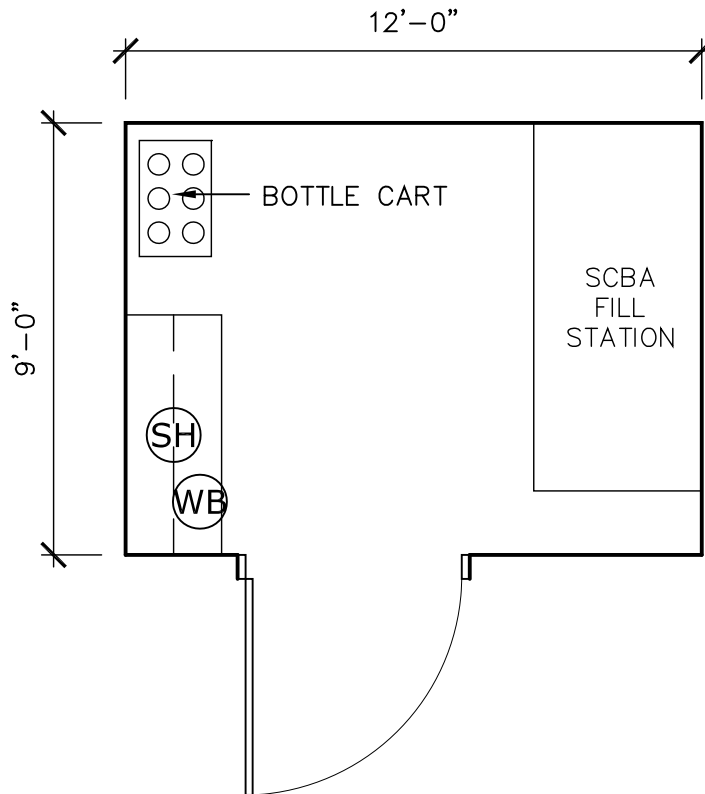
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F16

108 SF



(SH) SHELVING ON STANDARDS

(WB) WORKBENCH

ROOM OR SPACE

Room No: SKA-F17
Description: **Oxygen Storage**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 32
Square feet

Functional Description: 1 Storage for oxygen cylinders

Qualitative Description: 1 Clean
2 Secure

Locational Criteria: 1 Adjacent to apparatus bays

Technical Criteria:

Walls: CMU or high impact GWB - 2 hour rated
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: 2 hour rated GWB
Windows: NA
Plumbing: NA
HVAC: Standard
Ventilation: Standard
Lighting: Direct
Power: Standard; rated for O2 storage
Tel/Data: Required
Security: Secured area
Equipment: NA

Furnishings: 1 Rack for (2) Large cylinders
2 Rack for (6) Small cylinders

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
OXYGEN STORAGE

Date: 18 DECEMBER 2015

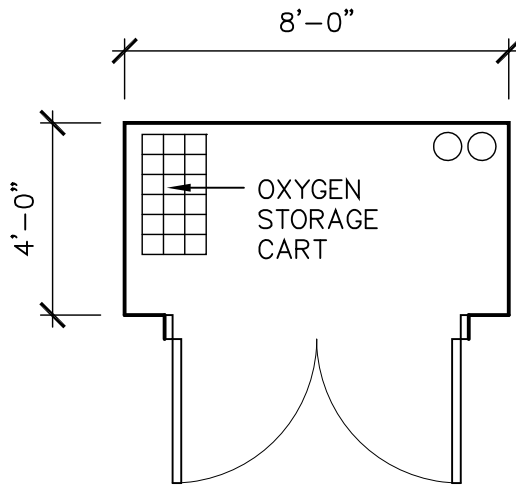
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F17

32 SF



ROOM OR SPACE

Room No: SKA-F18
Description: **Medical Cleaning / Decontamination**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 143
Square feet

Functional Description: 1 Cleaning of medical equipment
2 Cleaning of other equipemnt
3 Decontamination of personnel or gear

Qualitative Description: 1 Clear working space for equipment
2 Wet environment

Locational Criteria: 1 Include exterior vestibule for easy access to room
2 Off apparatus bays
3 Near ambulance bay if possible

Technical Criteria:

Walls: CMU or impact resistant GWB, FRP or Ceramic Tile
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: Exposed to structure or scrubbable ACT
Windows: NA
Plumbing: Floor drains, water service, deep sink with built in drainboards, washdown area for backboards or other large equipment with flexible deluge shower and eye wash
HVAC: Standard
Ventilation: Standard
Lighting: Direct
Power: Standard
Tel/Data: Required
Security: Secured
Equipment: NA

Furnishings: 1 Base Cabinets
2 Wall Cabinets
3 Open Shelving
4 Clothes hooks

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
MEDICAL CLEANING / DECONTAMINATION

Date: 21 DECEMBER 2015

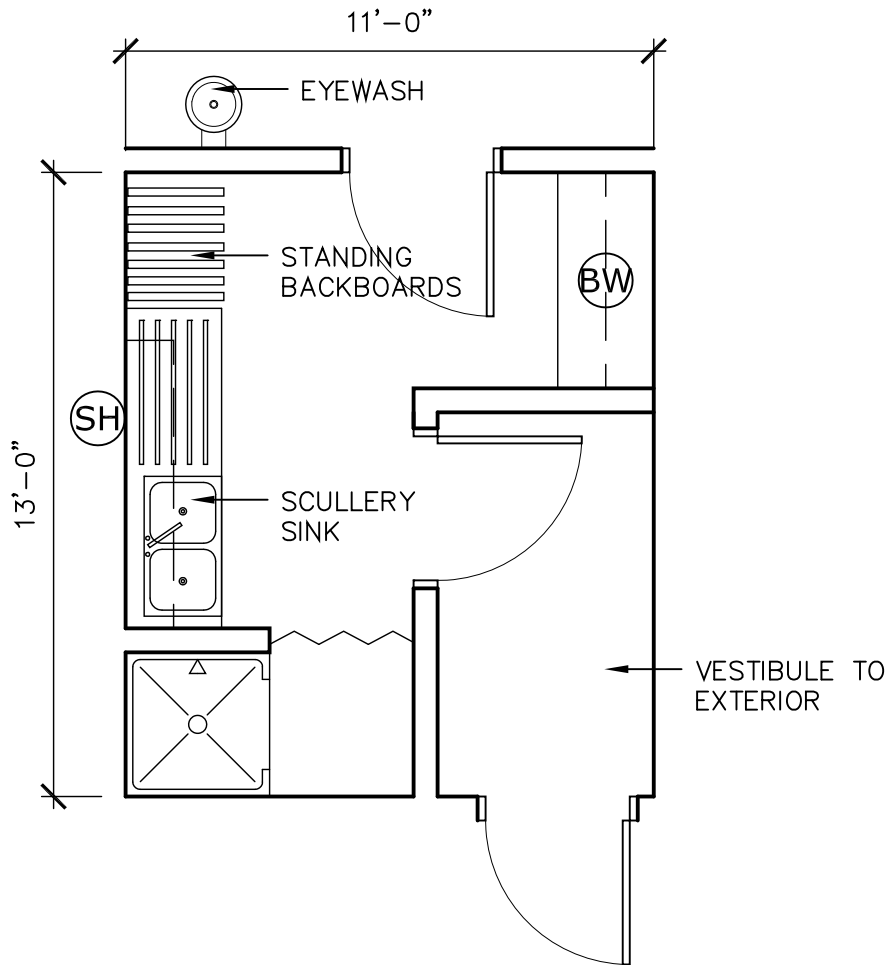
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F18

143 SF



(BW) BASE AND WALL CABINET

(SH) SHELVING ON STANDARDS

ROOM OR SPACE

Room No: SKA-F19
Description: **Laundry**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 120
Square feet

Functional Description: 1 Room for washing and drying turnout gear
2 Washing and drying of bed linens and clothing

Qualitative Description: 1 Easy access to apparatus bays
2 Good ventilation for drying gear/pressurized

Locational Criteria: 1 Adjacent but separate from vehicle bays

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: As required for washers; utility sink; floor drains
HVAC: Standard
Ventilation: Standard; ventilation for dryers
Lighting: Direct
Power: Standard; as required for equipment
Tel/Data: Standard
Security: NA
Equipment: Extractor (existing), commercial washer and dryer (new), gear dehydrator (future), ice machine (existing)

Furnishings: 1 12" D adjustable shelving

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
LAUNDRY

Date: 21 DECEMBER 2015

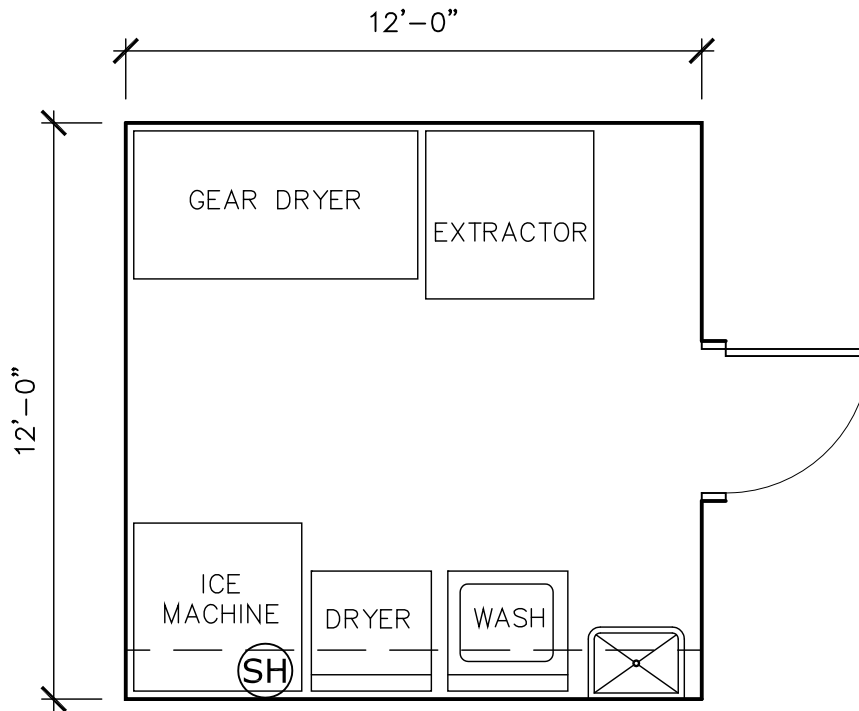
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F19

144 SF



(SH) SHELVING ON STANDARDS

ROOM OR SPACE

Room No: SKA-F20
Description: **Air Compressor**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 40
Square feet

Functional Description: 1 Compressed air for air lines throughout apparatus area

Qualitative Description: 1 Noisy; isolate acoustically

Locational Criteria: 1 Adjacent to apparatus bays

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: Compressed air lines
HVAC: Standard
Ventilation: Standard; direct outside if possible
Lighting: Direct
Power: To accommodate equipment
Tel/Data: Required
Security: Standard storage lock
Equipment: Compressor

Furnishings:

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
AIR COMPRESSOR

Date: 18 DECEMBER 2015

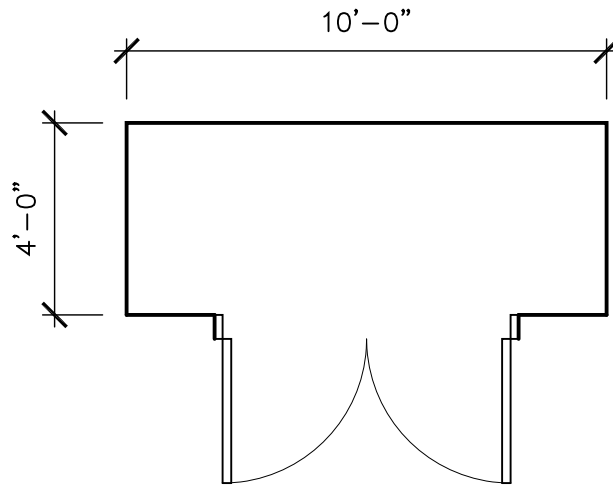
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F20

40 SF



ROOM OR SPACE

Room No: SKA-F21
Description: **Medical Supply Storage**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 70
Square feet

Functional Description: 1 Secure medical supplies

Qualitative Description: 1 Secured closet

Locational Criteria: 1 Central to apparatus bays

Technical Criteria:

Walls: GWB
Floors: Resilient
Ceiling: Acoustic Tile
Windows: NA
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct
Power: NA
Tel/Data: NA
Security: Standard storage lock
Equipment: NA

Furnishings: 1 18" deep shelving on standards
2 Storage cabinets

Notes: 1 Allow adequate floor space for backboard storage



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
MEDICAL SUPPLY CLOSET

Date: 18 DECEMBER 2015

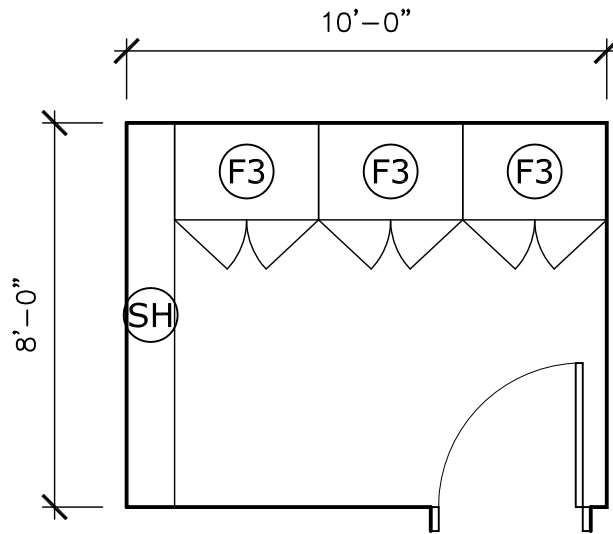
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F21

80 SF



(F3) STORAGE CABINET WITH DOORS

(SH) SHELVING ON STANDARDS

ROOM OR SPACE

Room No: SKA-F22
Description: **Shelter Storage**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 238
Square feet
2 Portable racks for storing cots and blankets

Functional Description: 1 Storing room for cots and blankets etc.

Qualitative Description: 1 Good Lighting

Locational Criteria: 1 Adjacent to vehicle bays

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy Resinous or Concrete with non slip surface
Ceiling: Exposed to structure
Windows: NA
Plumbing: NA
HVAC: Standard
Ventilation: Standard
Lighting: Direct
Power: Standard
Tel/Data: Standard
Security: Standard storage lock
Equipment: NA

Furnishings:

Notes: 1 Room has been sized for 60 cots and bin storage for blankets etc.
2 Current shelter for 30 in FD meeting room because no emergency generator is available at school, senior center or elsewhere. This is not a preferred situation during emergency operations. Provide emergency generator on trailer in new building so that shelter can be moved off site.



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

**FIRE:
SHELTER STORAGE**

Date: 18 DECEMBER 2015

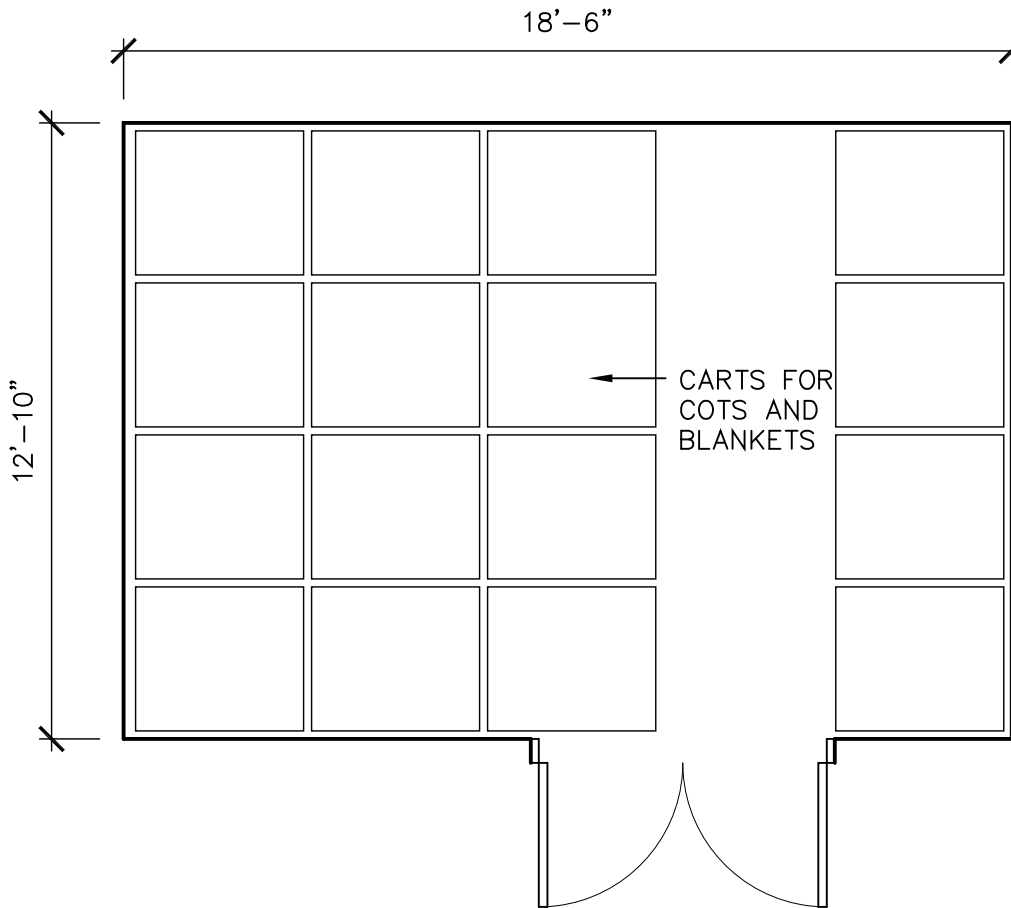
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F22

238 SF



ROOM OR SPACE

Room No: SKA-F23
Description: **Bulk Storage**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 150
Square feet

Functional Description: 1 Storage of equipment and supplies
2 Storage of tires and pumps
3 Storage of surplus turnout gear

Qualitative Description: 1 Locked Storage

Locational Criteria: 1 Adjacent to apparatus

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: Not required
Plumbing: NA
HVAC: Standard storage environment
Ventilation: Standard storage environment
Lighting: Direct
Power: Standard storage environment
Tel/Data: Required
Security: Standard storage lock
Equipment: NA

Furnishings: 1 Light Duty Shelving
2 24" Heavy Duty Shelving
3 Double door supply cabinets
4 Locked supply cabinets for PPE equipment and accessories

Notes: 1 Allow adequate floor space for 4-5 tires, pumps, etc. under shelving



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
BULK STORAGE

Date: 18 DECEMBER 2015

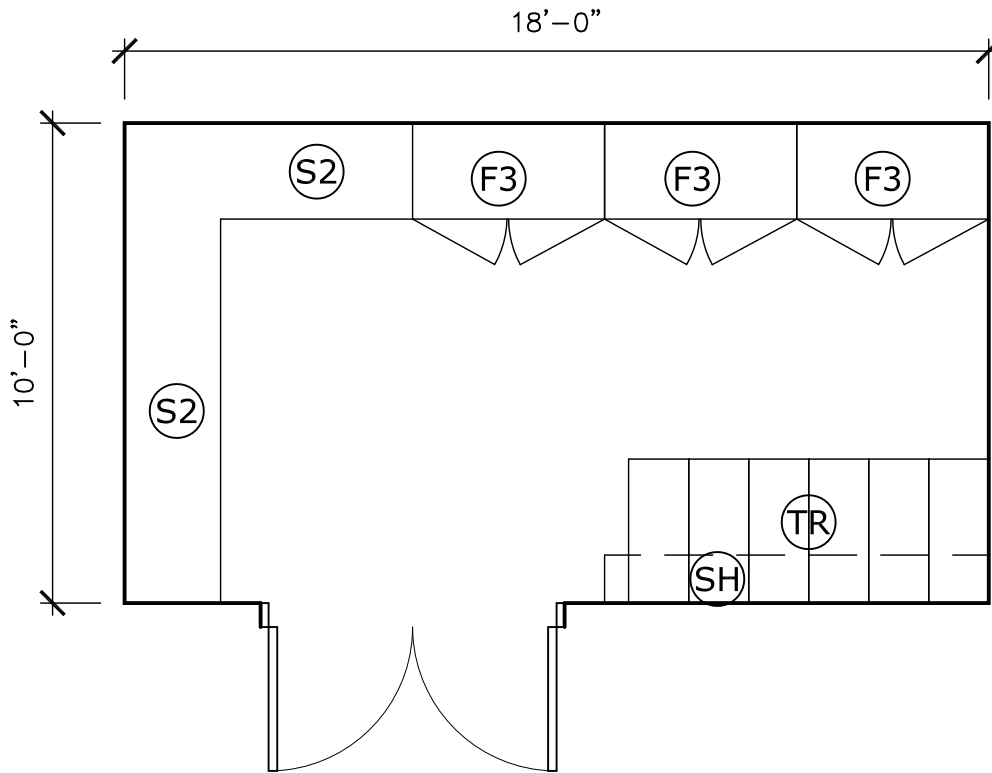
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F23

180 SF



(F3) STORAGE CABINET WITH DOORS

(S2) 24" HEAVY DUTY SHELVING

(SH) SHELVING ON STANDARDS

(TR) TIRE RACK

ROOM OR SPACE

Room No: SKA-F24
Description: **Hose Storage**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 48
Square feet
2 Portable racks

Functional Description: 1 Storing Hose on racks

Qualitative Description: 1 Good Lighting

Locational Criteria: 1 Adjacent to vehicle bays
2 Adjacent to maintenance and fire equipment support areas

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy Resinous or Concrete with non slip surface
Ceiling: Exposed to structure
Windows: NA
Plumbing: NA
HVAC: Same as apparatus bays
Ventilation: Same as apparatus bays
Lighting: Same as apparatus bays
Power: Same as apparatus bays
Tel/Data: NA
Security: NA
Equipment: NA

Furnishings:

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
HOSE STORAGE

Date: 21 DECEMBER 2015

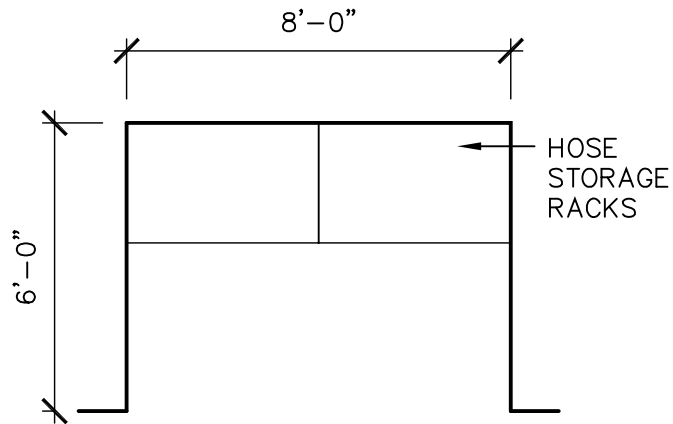
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F24

48 SF



ROOM OR SPACE

Room No: SKA-F25
Description: **FUTURE Hose / Training Tower**
Name:
Group: Operations - Fire

Quantitative Criteria: 1 288
Square feet
144 Sf per floor - (Assume 2 floors)

Functional Description: 1 Stairs for practicing hose advancement; rapelling off buildings
2 Option: Hose drying area from hanging racks

Qualitative Description: 1 Hose hanging space

Locational Criteria: 1 Adjacent to apparatus bays

Technical Criteria:

Walls: CMU with epoxy paint
Floors: Epoxy Resinous or Concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: Required
Plumbing: Floor drain
HVAC: Standard; provide adequate ventilation for venting smoke machine
Ventilation: Standard
Lighting: Direct
Power: Standard
Tel/Data: NA
Security: Locked
Equipment: Operable racks for lifting hoses, training equipment, stairs and ladders, dry stand pipe hook-up, rapelling connections, roof hatch, floor hatch, operable windows/doors at multiple levels, smoke machine

Furnishings:

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

FIRE:
HOSE TRAINING TOWER

Date: 18 DECEMBER 2015

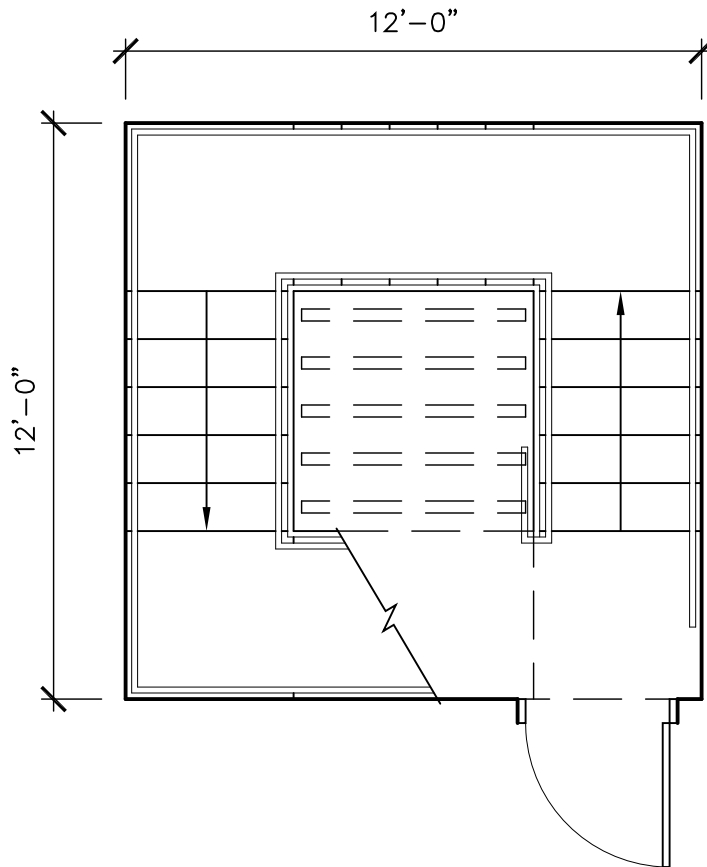
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F25

144 SF



ROOM OR SPACE

Room No: SKA-F26
Description: **Staff Toilet**
Name:
Group: Administration - Fire

Quantitative Criteria: 1 121
Square feet (per set)

Functional Description: 1 Men's and Women's Toilet
2 Fully accessible

Qualitative Description: 1 Toilet area

Locational Criteria: 1 General office area

Technical Criteria:

Walls: GWB/Ceramic Tile
Floors: Ceramic Tile
Ceiling: GWB or acoustic tile
Windows: NA
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: NA
Security: Standard Toilet Room Lock
Equipment: NA

Furnishings: 1 Mirror
2 Soap dispenser
3 Towel dispenser/trash receptacle
4 Feminine dispenser and receptacle
5 Toilet paper dispenser
6 Coat hook
7 Shelving

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

**FIRE:
STAFF TOILET**

Date: 18 DECEMBER 2015

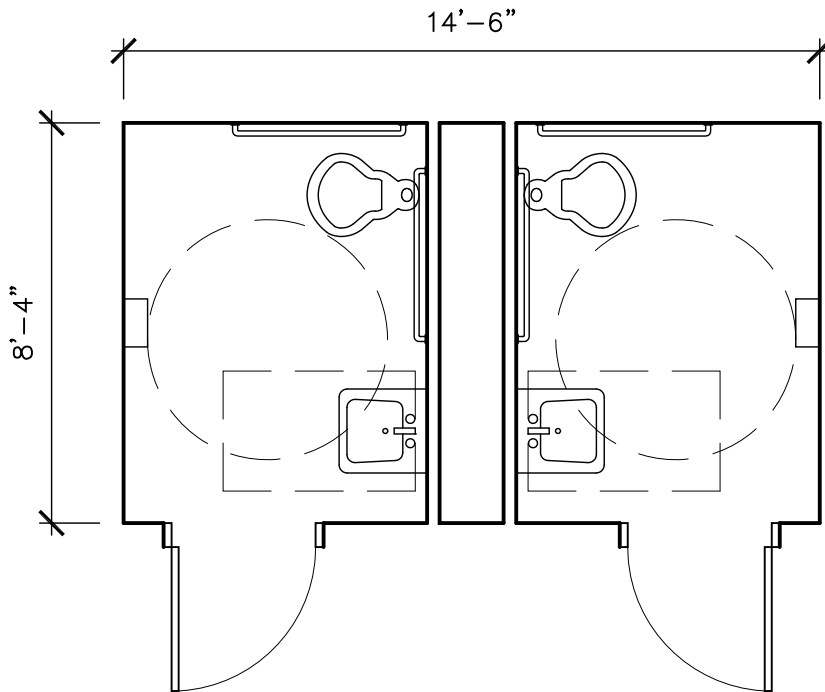
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-F26

121 SF



ROOM OR SPACE

Room No: SKA-DP1
Description: **Dispatch**
Name:
Group: Public Area - Police

Quantitative Criteria: 1 336
Square feet

Functional Description: 1 Receive and dispatch calls
2 Receive and dispatch E911 calls
3 Main "greeter" for the station

Qualitative Description: 1 Secure area

Locational Criteria: 1 Adjacent to lobby
2 Close proximity to detention area
3 Dedicated unisex staff toilet and small kitchenette within room or close proximity to toilet and kitchenette
4 Adjacent to Dispatch Supervisor Office
5 Near Server / E911 Room

Technical Criteria:

Walls: GWB; Insulate for noise control; bullet resistant panels at lobby walls
Floors: Resilient; possibly recessed access floor for wiring to run below
Ceiling: Acoustic Tile
Windows: Not required; any windows to be bullet resistant
Plumbing: Kitchen sink; toilet room fixtures
HVAC: Standard Office / Toilet Environment
Ventilation: Standard Office / Toilet Environment
Lighting: Direct/Indirect with dimmers
Power: As required for equipment
Tel/Data: Standard Office Environment; as required for equipment; telephone in toilet room
Security: Standard Office Lock
Equipment: Radios; computer; data/phone; fax; printer; shredder; kitchenette with microwave, coffee maker, toaster/oven, cooktop, sink, undercounter refrigerator; CATV; CCTV; 4 Computers: (2) 911 (1) in-house (1) CJIS

Furnishings: 1 2 Dispatch Workstations with heavy duty chairs
2 TV mounting at wall
3 Built in base cabinets
4 Tackboard for maps; Whiteboard
5 Files

Notes: 1 If there is an interface wall with lobby it should have bullet resistant window with transaction counter with speaker and pass-thru.
2 Size for one full-time dispatcher and one future dispatcher
3 Add surveillance monitor for dispatch to monitor the station.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

DISPATCH:
DISPATCH OFFICE

Date: 21 DECEMBER 2015

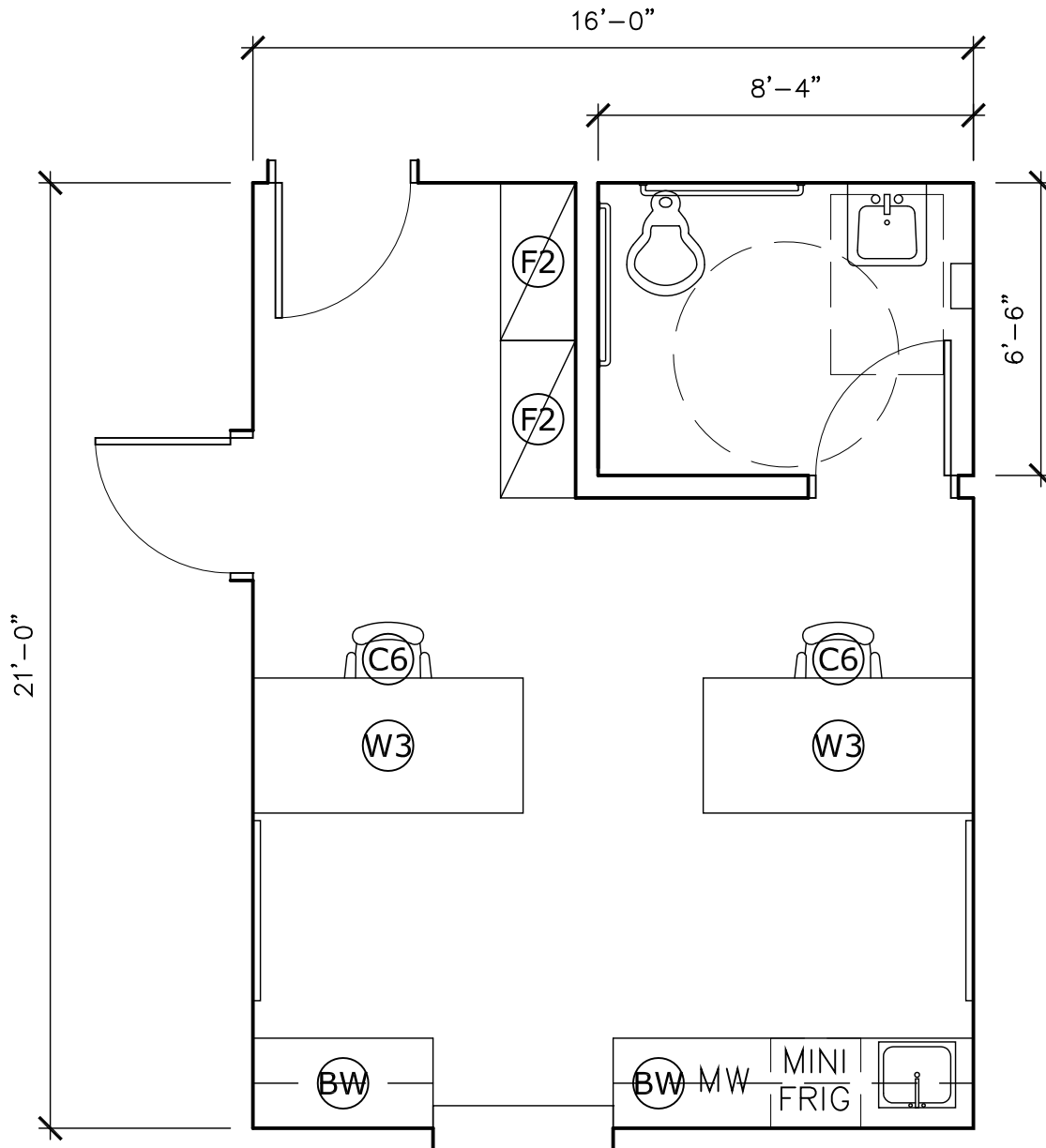
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DP1

336 SF



(BW) BASE AND WALL CABINET

(F2) 4-DRAWER LATERAL FILE

(C6) DISPATCH CHAIR

(W3) DISPATCH WORKSTATION

ROOM OR SPACE

Room No: SKA-DP2
Description: **Dispatch Support Space**
Name:
Group: Public Area - Police

Quantitative Criteria: 1 64
Square feet

Functional Description: 1 Storage of files for Dispatch Supervisor
2 Storage of Supplies

Qualitative Description: 1 Storage

Locational Criteria: 1 Adjacent to Dispatch

Technical Criteria:

Walls: GWB; Insulate for noise control; bullet resistant panels if at lobby walls
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Not required; any windows to be bullet resistant
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect with dimmers
Power: As required for equipment
Tel/Data: Standard Environment; as required for equipment
Security: Standard Office Lock
Equipment: Radios; computer; data/phone; CATV; CCTV

Furnishings: 1 Bookshelves
2 File cabinets

Notes: 1 Used for storage space for dispatch supplies.
2 File cabinet storage for Supervisor supplies/records.



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DISPATCH:
DISPATCH SUPERVISOR OFFICE

Date: 18 DECEMBER 2015

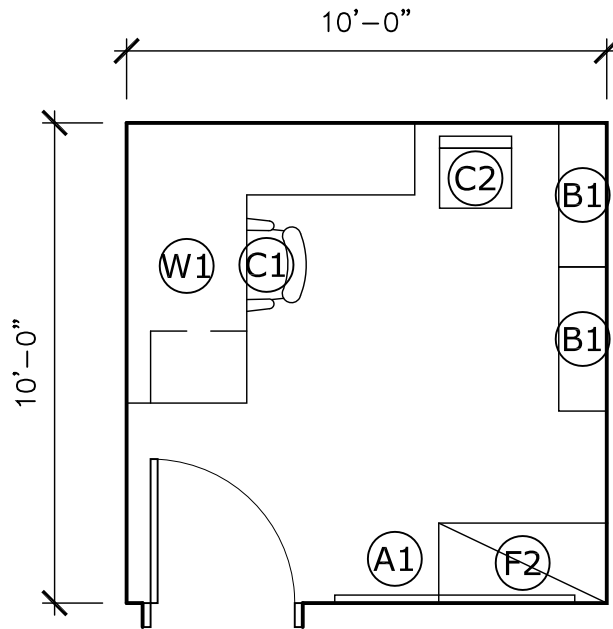
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DP2

100 SF



- (A1) WHITEBOARD/TACKBOARD
- (B1) TALL BOOKCASE
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-DP3
Description: **911 Room**
Name:
Group: Public Area - Police

Quantitative Criteria: 1 60
Square feet

Functional Description: 1 911 equipment

Qualitative Description: 1 Service type room

Locational Criteria: 1 Near dispatch if possible

Technical Criteria:

Walls: High impact GWB
Floors: Resilient
Ceiling: GWB
Windows: NA
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct Utility
Power: Determined by equipment needs
Tel/Data: Required
Security: Standard storage lock
Equipment: Electrical equipment

Furnishings:

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

DISPATCH:
911 EQUIPMENT ROOM

Date: 21 DECEMBER 2015

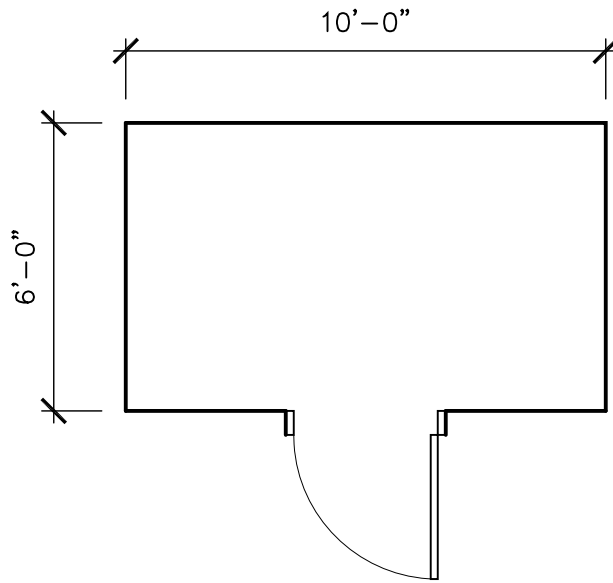
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-DP3

60 SF



ROOM OR SPACE

Room No: SKA-P1
Description: **Police Chief Office**
Name: Chief Eric Shears
Group: Administration - Police

Quantitative Criteria: 1 204
Square feet
2 Meets with 2-4 people

Functional Description: 1 Deskwork
2 Small Meetings

Qualitative Description: 1 Private Office

Locational Criteria: 1 Central access to administrative staff
2 Adjacent to Conference Room
3 Near Administrative Assistant

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV, speaker, wall mounted computer monitor (for meetings)

Furnishings: 1 Desks with return and credenza
2 Seating - 1 office with 4 guest chairs
3 3' round table
4 Bookshelf
5 File cabinets: lockable
6 Whiteboard / Tackboard

Notes: 1 Small coat closet within room
2 Acoustically private
3 Coat hooks on door
4 CALEA: Item 43.1.2 Regarding Records, Storage and Security - records and reports relating to active vice, drug, and organized crime investigations are securely filed and maintained separately from the central records system.



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POLICE:
POLICE CHIEF OFFICE

Date: 18 DECEMBER 2015

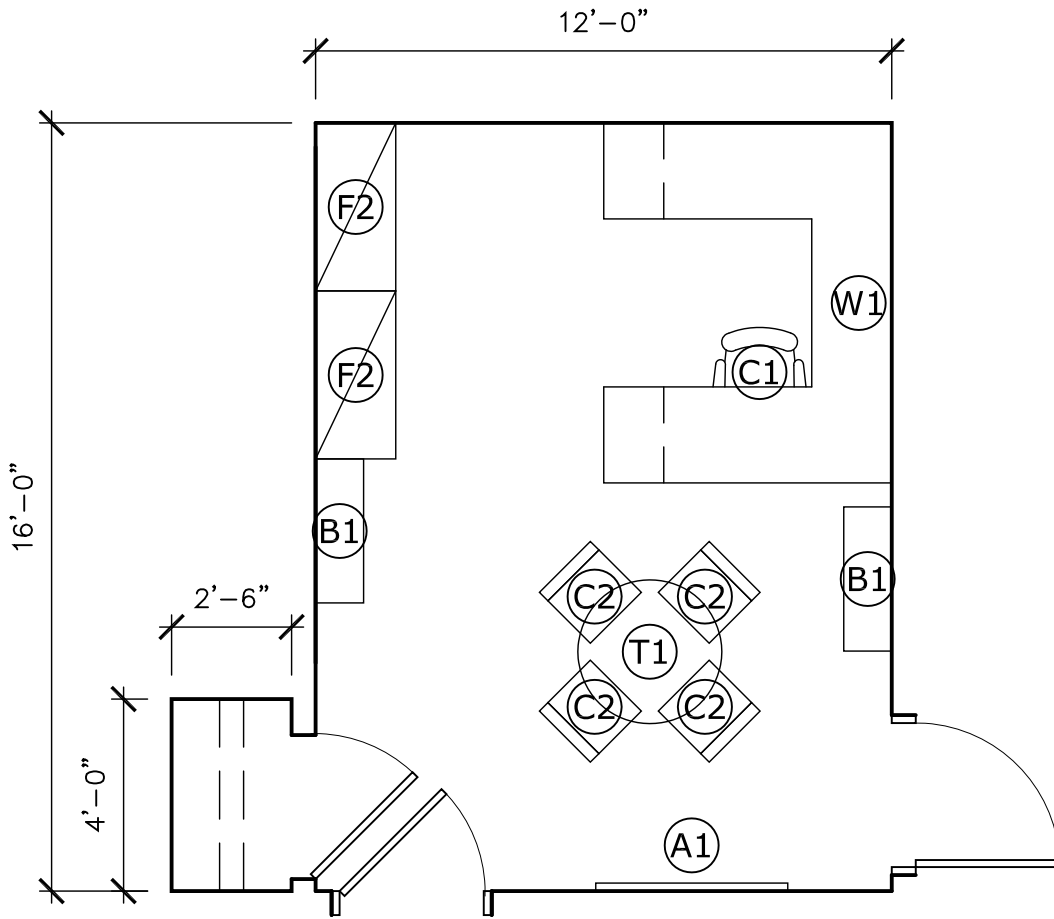
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Job num: 21512

Drawn by: NJJ

SKA-P1

204 SF



- (A1) WHITEBOARD/TACKBOARD
- (B1) TALL BOOKCASE
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (T1) SMALL CONFERENCE TABLE
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-P2
Description: **Administrative Assistant**
Name: Jennifer
Group: Administration - Police

Quantitative Criteria: 1 132
Square feet

Functional Description: 1 Deskwork
2 Storage of active records (personnel)
3 Meets with employees

Qualitative Description: 1 Open office area or private office

Locational Criteria: 1 Adjacent to Police Chief
2 Near other administrator staff
3 Near Archive Record Storage

Technical Criteria:

Walls: GWB, Office Standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer

Furnishings: 1 Desk with return and credenza
2 Seating - 1 office with 1 guest chair
3 File cabinets: lockable
4 Tackboard/ White board

Notes: 1 Could be in open work zone
2 No direct interaction with visitors



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POLICE:
ADMINISTRATIVE ASSISTANT

Date: 21 DECEMBER 2015

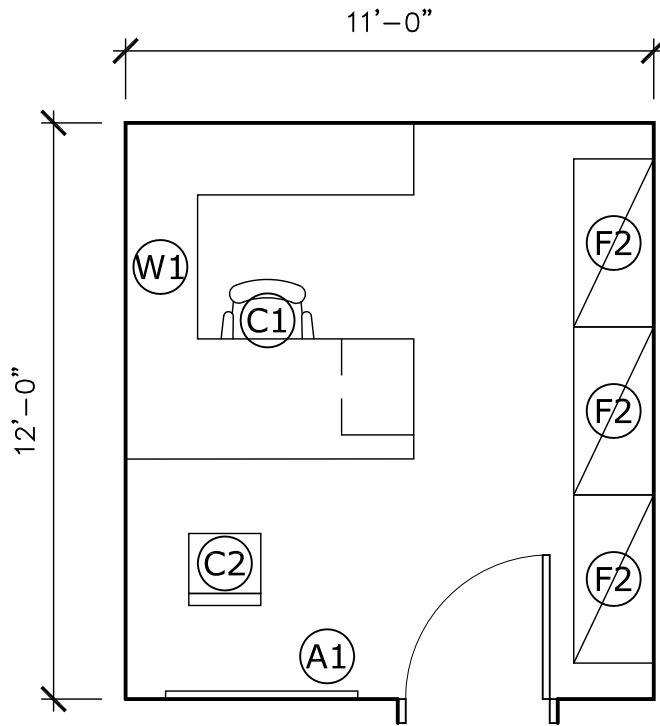
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P2

132 SF



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-P3
Description: **Conference Room**
Name:
Group: Administration - Police

Quantitative Criteria: 1 192
Square feet
2 10 Person Capacity

Functional Description: 1 Use for in house meetings

Qualitative Description: 1 Private enclosed conference area

Locational Criteria: 1 Centrally located for administrative use
2 Adjacent to Chief's office

Technical Criteria:

Walls: GWB, Office Standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Preferred not Required
Plumbing: NA
HVAC: Standard Conference Environment
Ventilation: Standard Conference Environment
Lighting: Direct/Indirect; Dimming possible
Power: Standard Conference
Tel/Data: Standard Conference including conference call capability
Security: Standard Office Lock
Equipment: Smartboard, Phone, Speaker

Furnishings: 1 Conference table
2 Seating for 10 people
3 Credenza
4 Whiteboard / Tackboard

Notes:



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POLICE:
CONFERENCE ROOM

Date: 21 DECEMBER 2015

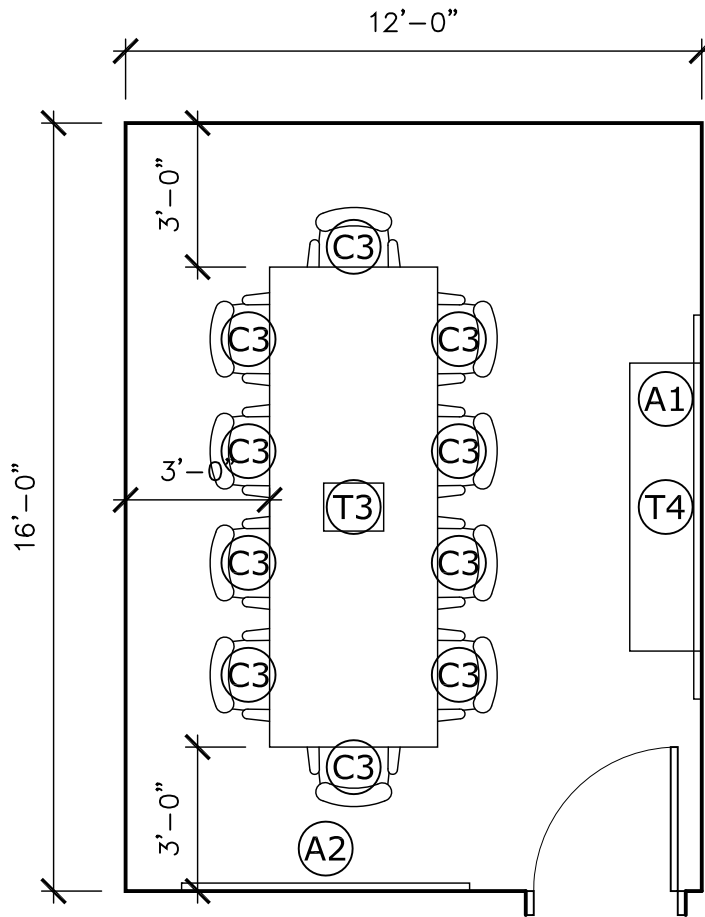
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P3

192 SF



- (A1) WHITEBOARD/TACKBOARD
- (A2) SMART BOARD
- (C3) CONFERENCE CHAIR
- (T3) LARGE CONFERENCE TABLE
- (T4) CREDENZA WITH LATERAL FILES

ROOM OR SPACE

Room No: SKA-P4
Description: **Future Lieutenant - Second in Command**
Name:
Group: Administration - Police

Quantitative Criteria: 1 120
Square feet
2 Meets with 1-2 people

Functional Description: 1 Deskwork
2 Small Meetings

Qualitative Description: 1 Private Office

Locational Criteria: 1 Central access to administrative offices
2 Near Conference Room
3 Near Chief's Office

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV, speaker?

Furnishings: 1 Desks with return
2 Seating - 1 office with 2 guest chairs
3 File cabinets: lockable
4 Whiteboard / Tackboard

Notes: 1 This position will be the second-in-command
2 CALEA: Item 43.1.2 Regarding Records, Storage and Security - records and reports relating to active vice, drug, and organized crime investigations are securely filed and maintained separately from the central records system.



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POLICE:
LIEUTENANT OFFICE

Date: 18 DECEMBER 2015

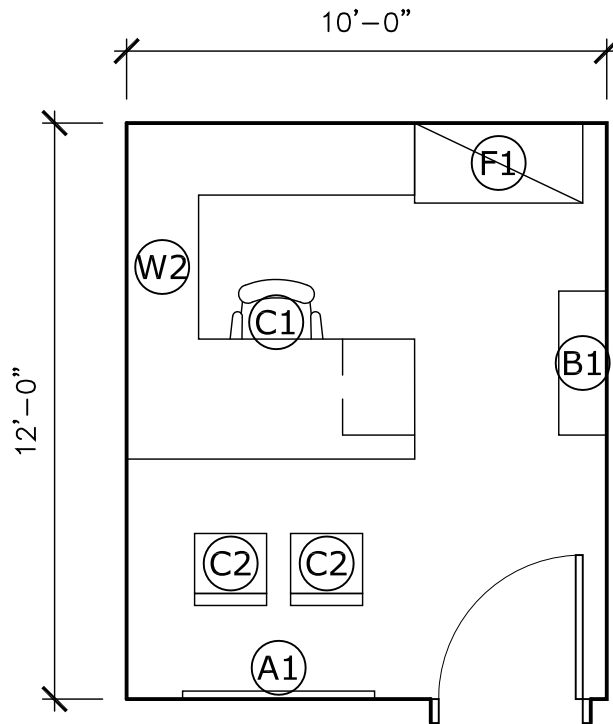
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P4

120 SF



- (A1) WHITEBOARD/TACKBOARD
- (B1) TALL BOOKCASE
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F1) 2-DRAWER LATERAL FILE
- (W2) DESK WITH PEDESTAL, RETURN AND CREDENZA/FILES

ROOM OR SPACE

Room No: SKA-P5
Description: **Future Detectives**
Name:
Group: Administration - Police

Quantitative Criteria: 1 144
Square feet
2 Meets with 1-2 people

Functional Description: 1 Deskwork
2 Small Meetings

Qualitative Description: 1 Private Office for two

Locational Criteria: 1 Central access to administrative offices
2 Near Conference Room
3 Near Chief's Office

Technical Criteria:

Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, CCTV, speaker?

Furnishings: 1 2 Desks with return
2 Seating - 2 office with 1 guest chairs
3 File cabinets: lockable
4 Bookcase
5 Whiteboard / Tackboard

Notes: 1 Currently officers works on own cases - these are future positons
2 CALEA: Item 43.1.2 Regarding Records, Storage and Security - records and reports relating to active vice, drug, and organized crime investigations are securly filed and maintained sepertely from the central records system.



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POLICE:
DETECTIVES

Date: 21 DECEMBER 2015

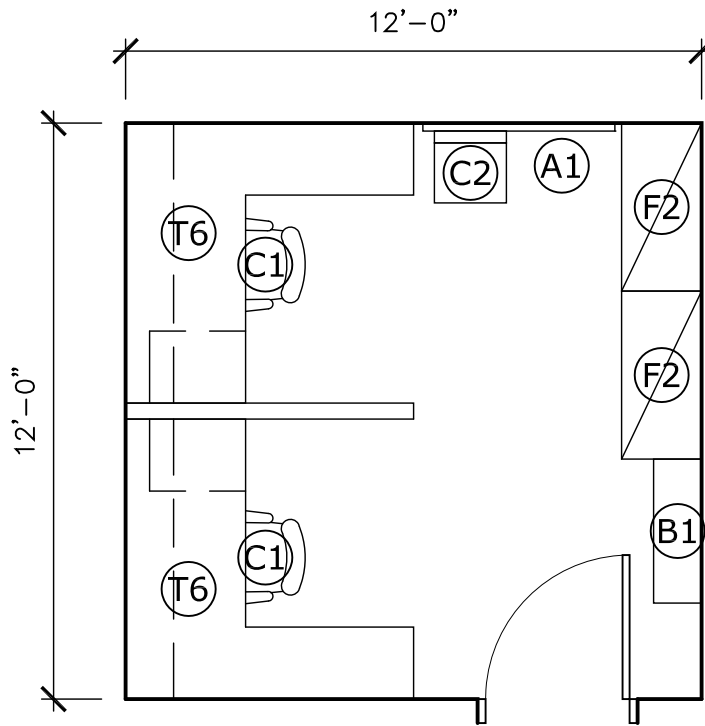
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P5

144 SF



- (A1) WHITEBOARD/TACKBOARD
- (B1) TALL BOOKCASE
- (C1) MANAGEMENT CHAIR
- (C2) GUEST CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (T6) WORKSURFACE WITH OPEN SHELVING ABOVE AND CABINETS / FILES BELOW

ROOM OR SPACE

Room No: SKA-P6
Description: **Office Equipment / Copy**
Name:
Group: Administration - Police

Quantitative Criteria: 1 64
Square feet

Functional Description: 1 Office equipment area
2 Counter space for sorting

Qualitative Description: 1 Good lighting

Locational Criteria: 1 Near Administrative personnel for easy access by all personnel

Technical Criteria:

Walls: GWB, Office Standard
Floors: Resilient or carpet
Ceiling: Acoustic Tile
Windows: NA
Plumbing: NA
HVAC: Standard Copy/print Environment
Ventilation: Standard Copy/print Environment
Lighting: Direct / Indirect
Power: Standard Copy/print Environment; plug strips
Tel/Data: Dedicated as required for equipment, standard office
Security: Standard Office Environment
Equipment: Computer, copier

Furnishings: 1 Countertop
2 Shelving on standards
3 Storage for paper and ink

Notes: 1 Copier Not Included



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
OFFICE EQUIPMENT / COPY

Date: 18 DECEMBER 2015

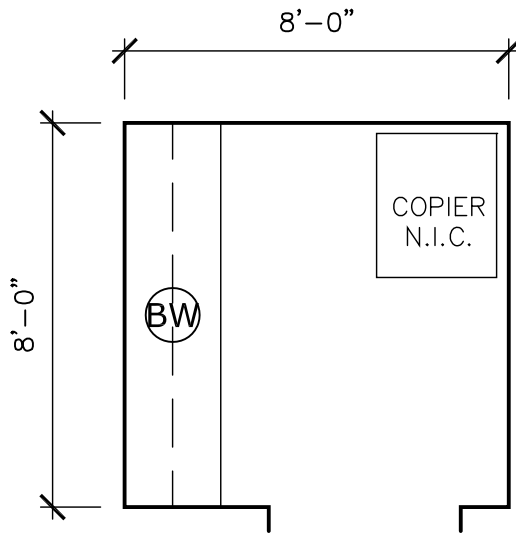
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P6

64 SF



BW BASE AND WALL CABINET

ROOM OR SPACE

Room No: SKA-P7
Description: **Office Supply**
Name:
Group: Administration - Police

Quantitative Criteria: 1 32
Square feet

Functional Description: 1 Storage for office supplies

Qualitative Description: 1 Good lighting

Locational Criteria: 1 Near Administrative Assistant

Technical Criteria:

Walls: GWB, Office Standard
Floors: Resilient or carpet
Ceiling: Acoustic Tile
Windows: NA
Plumbing: NA
HVAC: Standard Storage Environment
Ventilation: Standard Storage Environment
Lighting: Direct / Indirect
Power: Standard Storage Environment
Tel/Data: NA
Security: Standard Storage Lock
Equipment: NA

Furnishings: 1 Shelving on standards

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

**POLICE:
OFFICE SUPPLY CLOSET**

Date: 18 DECEMBER 2015

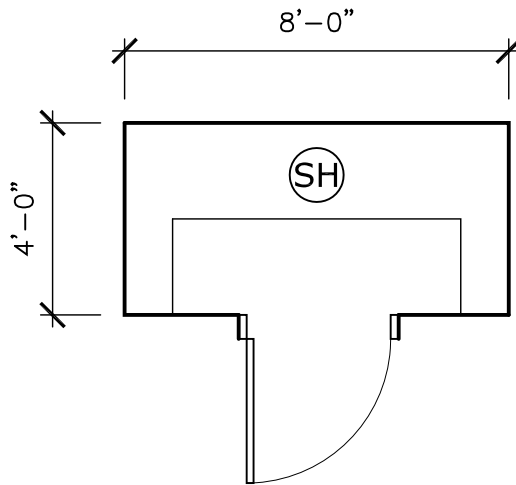
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P7

32 SF



(SH) SHELVING ON STANDARDS

ROOM OR SPACE

Room No: SKA-P8
Description: **Active File Room**
Name:
Group: Administration - Police

Quantitative Criteria: 1 100
Square feet

Functional Description: 1 Secure storage for records

Qualitative Description: 1 Dry, well lit and secure

Locational Criteria: 1 Flexible location
2 Near administrative staff

Technical Criteria:

Walls: GWB, Office Standard
Floors: Resilient
Ceiling: Acoustic Tile
Windows: NA
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Storage Lock
Equipment: Computer

Furnishings: 1 (4) four drawer file cabinets - lockable
2 Fire rated file cabinet
3 Desk with pedestal
4 Chair

Notes: 1 CALEA: Item 43.1.2 Regarding Records, Storage and Security - records and reports relating to active vice, drug, and organized crime investigations are securely filed and maintained separately from the central records system.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
ACTIVE FILE STORAGE

Date: 21 DECEMBER 2015

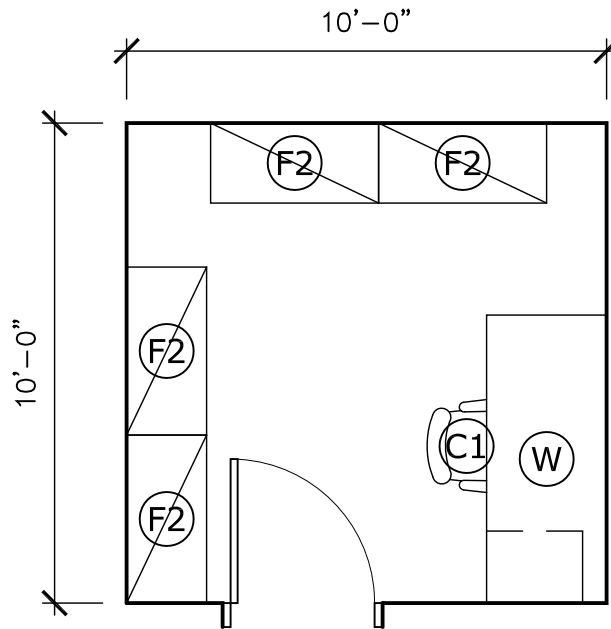
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P8

100 SF



- (C1) MANAGEMENT CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (W) DESK WITH PEDESTAL

ROOM OR SPACE

Room No: SKA-P9
Description: **Archival Document Storage**
Name:
Group: Administration - Police

Quantitative Criteria: 1 168
Square feet

Functional Description: 1 Secure storage for records

Qualitative Description: 1 Dry, well lit and secure

Locational Criteria: 1 Flexible location
2 Near administrative staff

Technical Criteria:

Walls: GWB, Office Standard
Floors: Resilient
Ceiling: Acoustic Tile
Windows: None
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Storage Lock
Equipment: Computer

Furnishings: 1 High density file storage
2 Fire rated file cabinets
3 Desk with pedestal
4 Chair

Notes: 1 CALEA: Item 43.1.2 Regarding Records, Storage and Security - records and reports relating to active vice, drug, and organized crime investigations are securely filed and maintained separately from the central records system.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
ARCHIVAL FILE STORAGE

Date: 21 DECEMBER 2015

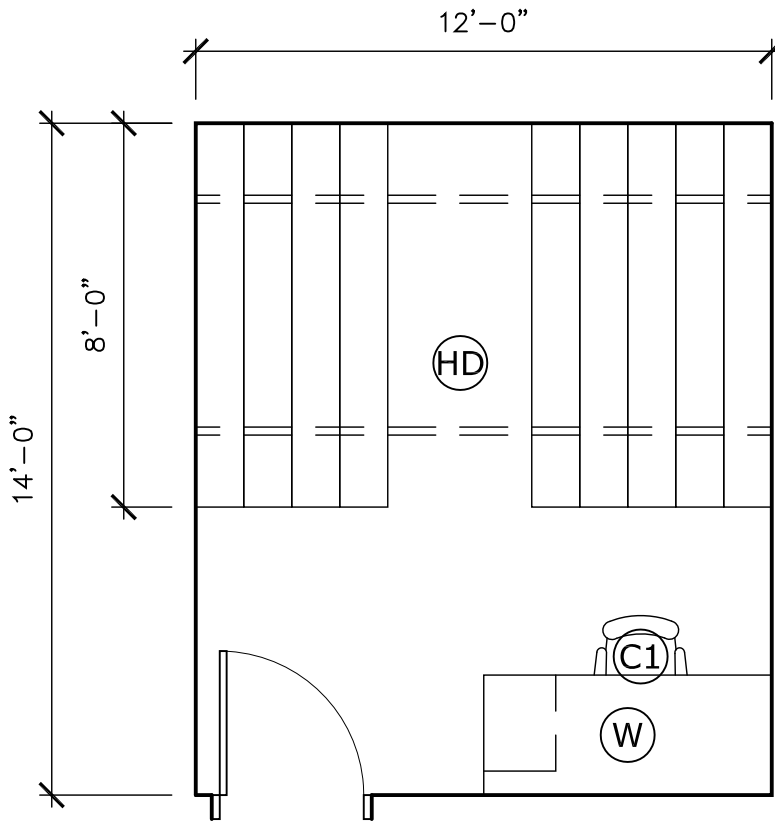
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P9

168 SF



(C1) MANAGEMENT CHAIR

(HD) HIGH DENSITY STORAGE

(W) DESK WITH PEDESTAL

ROOM OR SPACE

Room No: SKA-P10
Description: **Sergeants**
Name:
Group: Operations - Police

Quantitative Criteria: 1 168
Square feet

Functional Description: 1 Deskwork

Qualitative Description: 1 Private Office

Locational Criteria: 1 Adjacent to Roll Call
2 Near Report Writing
3 Easy access for all patrol staff
4 Near Patrol Storage

Technical Criteria:
Walls: GWB, office standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer, CATV, speaker?

Furnishings: 1 3 Desks with returns
2 Bookshelf
3 File cabinets: lockable
4 Whiteboard / Tackboard

Notes: 1 CALEA: Item 43.1.2 Regarding Records, Storage and Security - records and reports relating to active vice, drug, and organized crime investigations are securely filed and maintained separately from the central records system.
2 Sergeants currently handle prosecution



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
SERGEANTS OFFICE

Date: 18 DECEMBER 2015

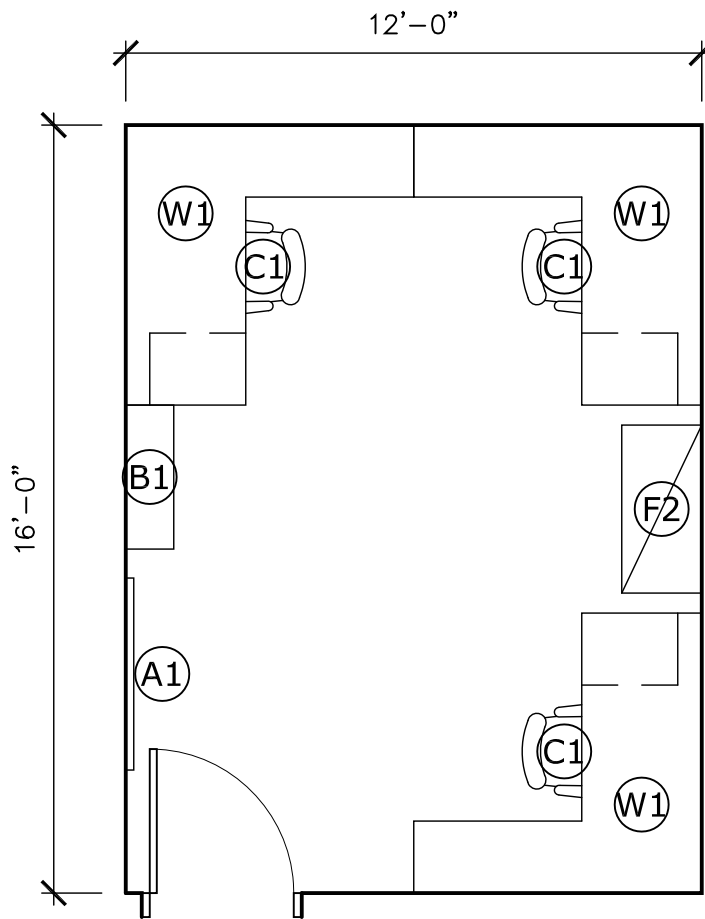
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P10

192 SF



- (A1) WHITEBOARD/TACKBOARD
- (B1) TALL BOOKCASE
- (C1) MANAGEMENT CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-P11
Description: **Roll Call / Break Room**
Name:
Group: Operations - Police

Quantitative Criteria: 1 243
Square feet

Functional Description: 1 Meet for roll call
2 Lunch and break room for police staff
3 Room for training with video capability

Qualitative Description: 1 Enclosed meeting space

Locational Criteria: 1 Flexible location

Technical Criteria:

Walls: GWB
Floors: Resilient
Ceiling: Acoustic Tile
Windows: Preferred but not required
Plumbing: NA
HVAC: Standard Meeting / Kitchen Environment
Ventilation: Standard Meeting / Kitchen Environment
Lighting: Direct / Indirect
Power: Standard and as required for equipment
Tel/Data: Standard and as required for equipment
Security: NA
Equipment: Smartboard

Furnishings: 1 (6) chairs without arms
2 Folding training tables (2) @ 8' long
3 Whiteboard / Tackboard
4 Lecturn

Notes: 1 Space to be multi-purpose: roll call, lunch / break, small meeting / training



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
ROLL CALL / BREAK ROOM

Date: 18 DECEMBER 2015

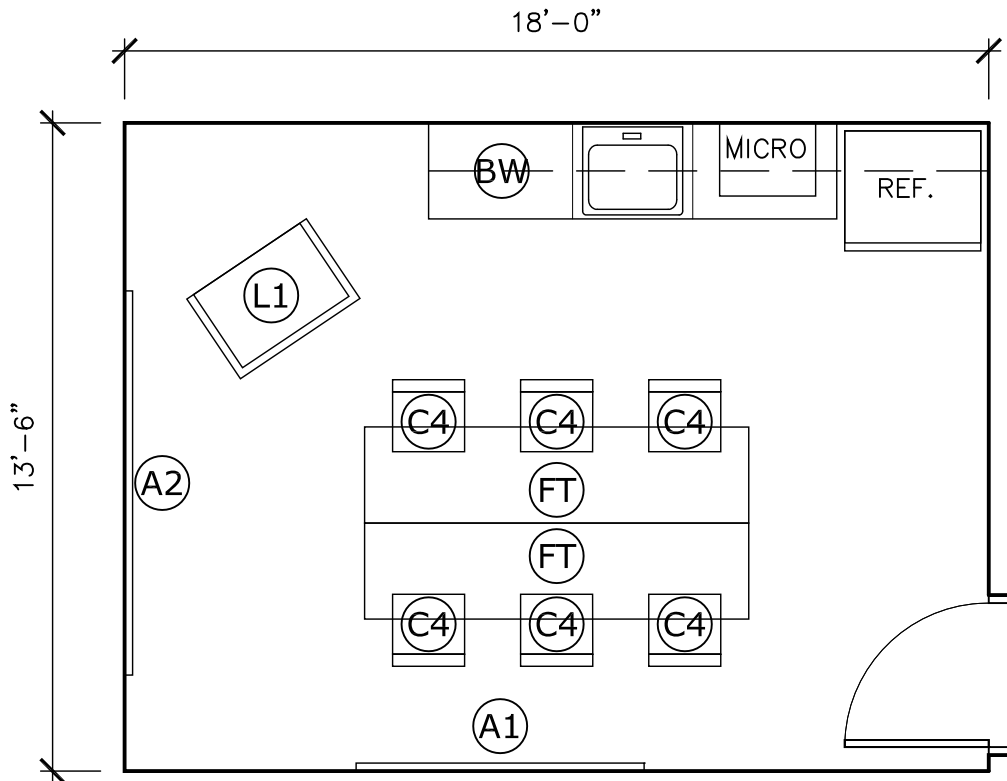
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P11

243 SF



(A1) WHITEBOARD/TACKBOARD

(A2) SMART BOARD

(BW) BASE AND WALL CABINET

(C4) DINING CHAIR

(FT) FOLDING TABLE

(L1) LECTURN

ROOM OR SPACE

Room No: SKA-P12
Description: **Report Writing ACO + Reserve Officers**
Name:
Group: Operations - Police

Quantitative Criteria: 1 108
Square feet
2 Provide space for 4 people

Functional Description: 1 Deskwork

Qualitative Description: 1 Shared space for writing reports
2 Shared space for Reserve Officers

Locational Criteria: 1 Adjacent to Roll Call
2 Near Sergeants

Technical Criteria:

Walls: GWB
Floors: Carpet
Ceiling: Acoustic Tile
Windows: NA
Plumbing: Standard Office Environment
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: NA
Equipment: Computers

Furnishings: 1 Built-in worksurface
2 (4) chairs
3 Adjustable shelving on standards
4 File pedestal - lockable; below worksurface
5 Whiteboard / Tackboard

Notes: 1 Can be open to corridor or connected to another work space
2 CALEA; Items 84.1.1, 84.1.2, 84.1.3, 84.1.4 regarding evidence/property control systems. These cover proper "chain-of-custody" rules including appropriate areas for logging in property, report writing, areas for packaging and labeling, lockers for transfer from officers to evidence officer, and security measures.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
REPORT WRITING / RESERVE OFFICERS

Date: 21 DECEMBER 2015

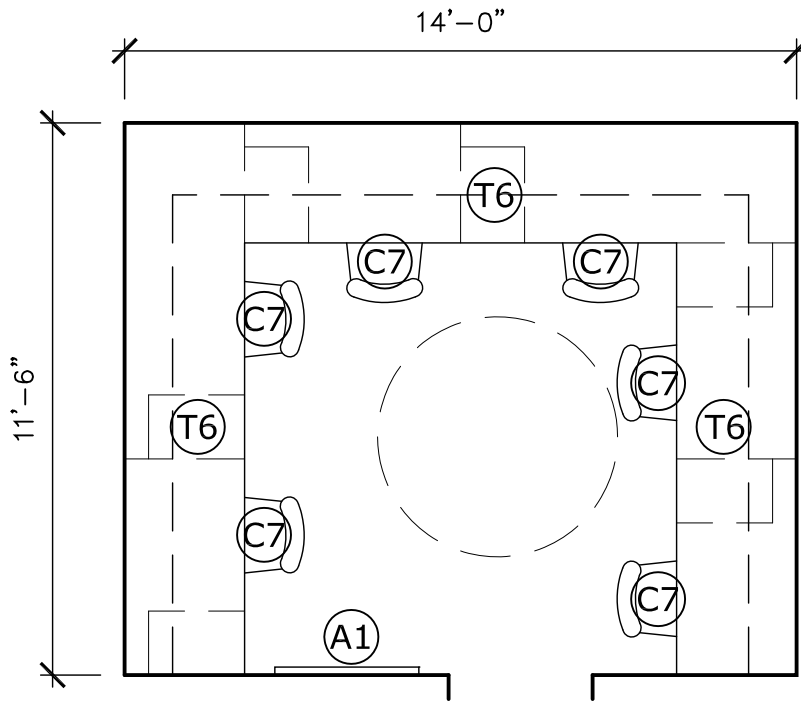
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P12

161 SF



- Ⓐ WHITEBOARD/TACKBOARD
- Ⓒ MANAGEMENT CHAIR WITHOUT ARMS
- Ⓓ WORKSURFACE WITH OPEN SHELVING ABOVE AND CABINETS / FILES BELOW

ROOM OR SPACE

Room No: SKA-P13
Description: **Patrol Shared Workspace**
Name:
Group: Operations - Police

Quantitative Criteria: 1 264
Square feet

Functional Description: 1 Deskwork

Qualitative Description: 1 Open office area

Locational Criteria: 1 Near Sergeants

Technical Criteria:

Walls: GWB, Office Standard
Floors: Carpet
Ceiling: Acoustic Tile
Windows: Required
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: Computer; printer/fax/copier

Furnishings: 1 Desk with return (6)
2 Seating - 6 office
3 Tackboard/ White board
4 Files - lockable

Notes: 1 CALEA: Item 43.1.2 Regarding Records, Storage and Security - records and reports relating to active vice, drug, and organized crime investigations are securely filed and maintained separately from the central records system.

2 Includes workspace for animal control



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
PATROL SHARED WORKSPACE

Date: 18 DECEMBER 2015

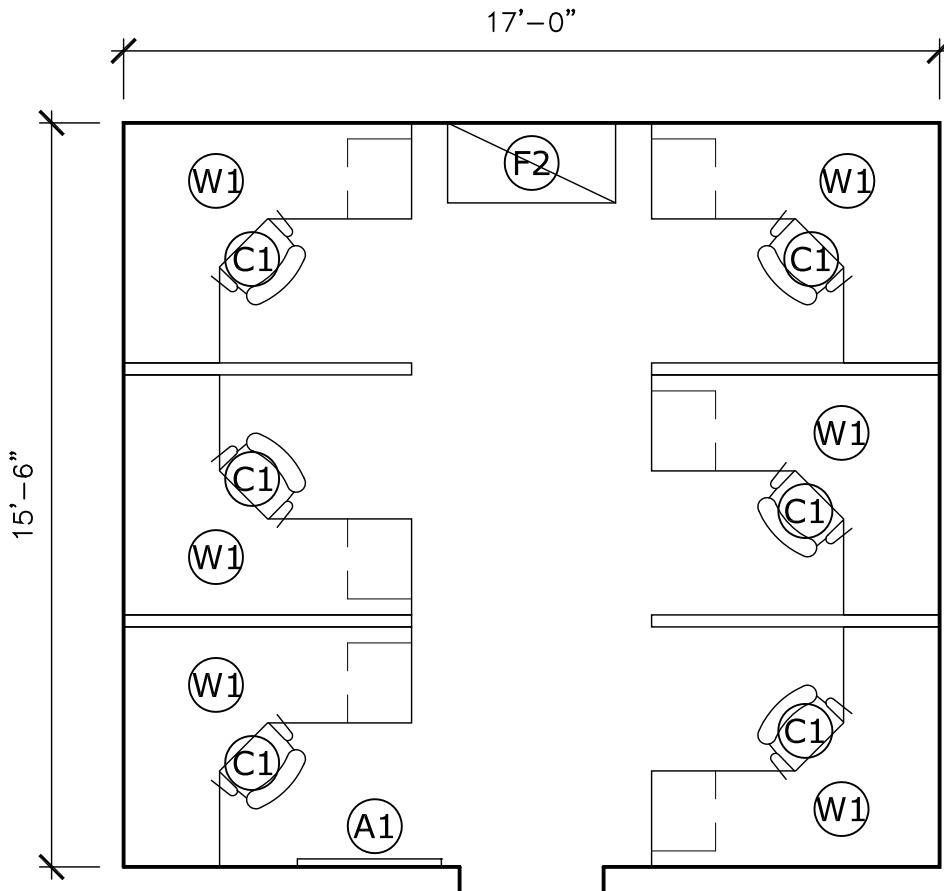
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P13

264 SF



- (A1) WHITEBOARD/TACKBOARD
- (C1) MANAGEMENT CHAIR
- (F2) 4-DRAWER LATERAL FILE
- (W1) DESK WITH PEDESTAL AND RETURN

ROOM OR SPACE

Room No: SKA-P14
Description: **Patrol Storage**
Name:
Group: Operations - Police

Quantitative Criteria: 1 64
Square feet

Functional Description: 1 Storage for patrol officer's supplies (medical supplies, gloves, citations, handouts etc.)

Qualitative Description: 1 Storage

Locational Criteria: 1 Near Sergeants
2 Easy access by Patrol Officers

Technical Criteria:

Walls: GWB, office standard
Floors: Resilient
Ceiling: Acoustic Tile
Windows: NA
Plumbing: NA
HVAC: Standard Storage Environment
Ventilation: Standard Storage Environment
Lighting: Direct/Indirect
Power: Standard Storage Environment
Tel/Data: Standard Storage Environment
Security: Standard Storage Lock
Equipment: Radio Chargers

Furnishings: 1 Adjustable shelving for supplies and chargers
2 Whiteboard / Tackboard

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
PATROL STORAGE

Date: 18 DECEMBER 2015

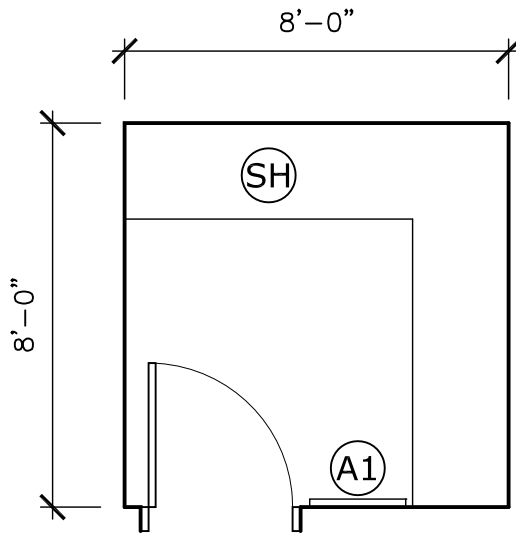
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P14

64 SF



(A1) WHITEBOARD/TACKBOARD

(SH) SHELVING ON STANDARDS

ROOM OR SPACE

Room No: SKA-P15
Description: **Evidence - Prep / Processing / Storage**
Name:
Group: Operations - Police

Quantitative Criteria: 1 267
Square feet

Functional Description: 1 Secure transfer of evidence
2 Prep of evidence prior to placement in pas-thru lockers
3 Processing evidence
4 Storage of evidence

Qualitative Description: 1 Secure storage / workroom

Locational Criteria: 1 Accessible only to Evidence Officers
2 Connected to Narcotics/Valuable Evidence
3 Processing area easily accessed by Patrol Officers

Technical Criteria:

Walls: CMU or GWB
Floors: Resilient
Ceiling: GWB
Windows: None
Plumbing: NA
HVAC: Standard Storage Environment; pressurize room - see notes below
Ventilation: Standard Storage Environment; pressurize room - see notes below
Lighting: Direct
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Restricted access - storage lock
Equipment: Computer, speakers, refrigerator

Furnishings: 1 Desk or built-in worksurface
2 Chair
3 Shelving
4 Safe NIC
5 Whiteboard / Tackboard
6 Refrigerator NIC
7 Pass-thru evidence lockers
8 Evidence prep area adjacent to pass thru lockers

Notes: 1 Marijuana fumes are of concern. Seals on doors and proper ventilation required.
2 CALEA; Items 84.1.1, 84.1.2, 84.1.3, 84.1.4 regarding evidence/property control systems. These cover proper "chain-of-custody" rules including appropriate areas for logging in property, report writing, areas for packaging and labeling, lockers for transfer from officers to evidence officer, and security measures.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
EVIDENCE - STORAGE & PROCESSING

Date: 21 DECEMBER 2015

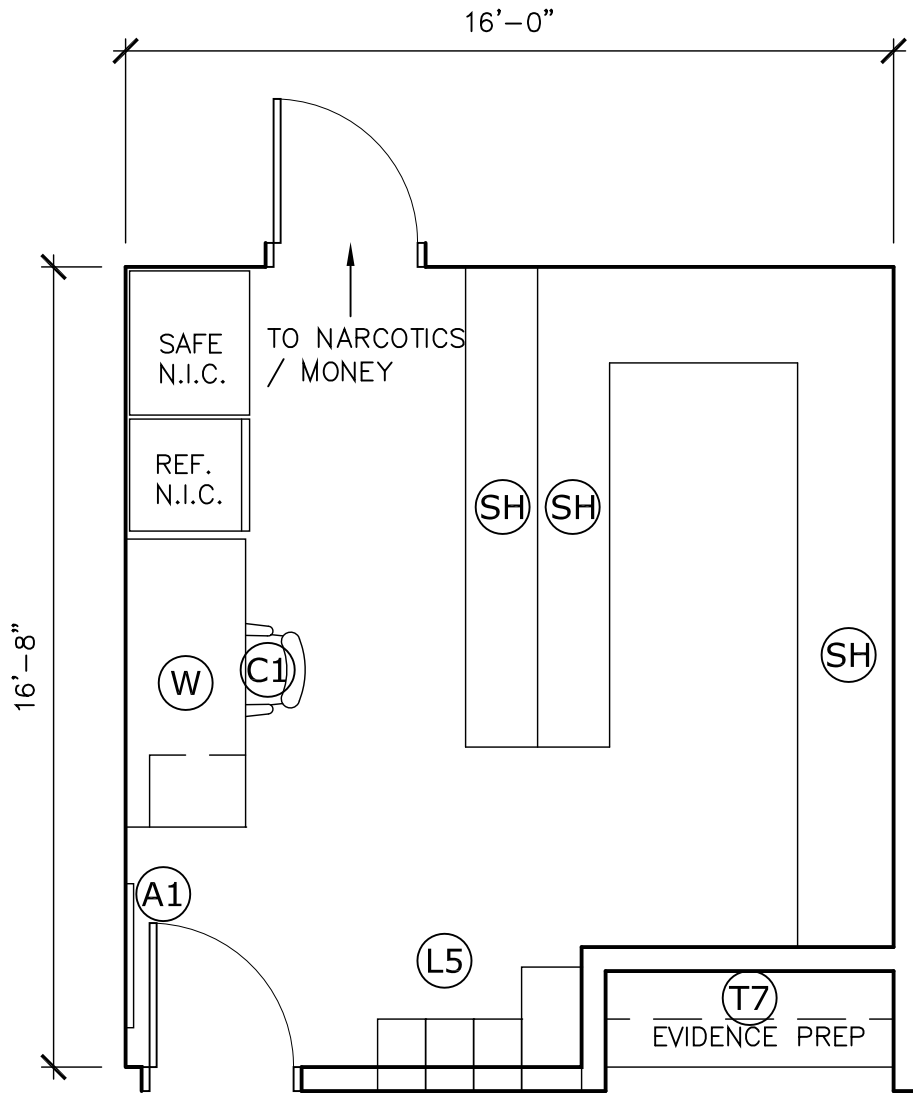
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P15

267 SF



(A1) WHITEBOARD/TACKBOARD

(SH) SHELVING

(C1) MANAGEMENT CHAIR

(T7) LAB CABINETS AND COUNTERTOP

(L5) PASS-THRU EVIDENCE LOCKERS

(W) DESK WITH PEDESTAL

ROOM OR SPACE

Room No: SKA-P16
Description: **Narcotics / Valuable Evidence**
Name:
Group: Operations - Police

Quantitative Criteria: 1 60
Square feet

Functional Description: 1 Secure storage of drugs and valuable evidence

Qualitative Description: 1 Secure storage

Locational Criteria: 1 Direct access through Evidence

Technical Criteria:

Walls: CMU or GWB
Floors: Resilient
Ceiling: GWB
Windows: None
Plumbing: NA
HVAC: Standard Storage Environment; pressurize room - see notes below
Ventilation: Standard Storage Environment; pressurize room - see notes below
Lighting: Direct
Power: Standard Storage Environment
Tel/Data: Standard Storage Environment
Security: Restricted access storage lock
Equipment:

Furnishings: 1 Shelving

Notes: 1 Marijuana fumes are of concern. Seals on doors and proper ventilation required.
2 CALEA; Items 84.1.1, 84.1.2, 84.1.3, 84.1.4 regarding evidence/property control systems. These cover proper "chain-of-custody" rules including appropriate areas for logging in property, report writing, areas for packaging and labeling, lockers for transfer from officers to evidence officer, and security measures.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
EVIDENCE - NARCOTICS / VALUABLE

Date: 18 DECEMBER 2015

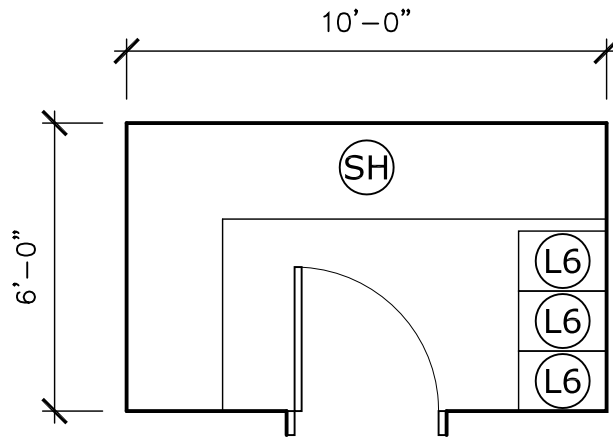
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P16

60 SF



(SH) SHELVING

(L6) 4-DRAWER LOCKED EVIDENCE LOCKERS

ROOM OR SPACE

Room No: SKA-P17
Description: **Armory**
Name:
Group: Operations - Police

Quantitative Criteria: 1 80
Square feet

Functional Description: 1 Secure storage of guns and ammunition
2 Secure area for cleaning / maintaining weapons

Qualitative Description: 1 Secure storage / workroom

Locational Criteria: 1 Flexible

Technical Criteria:

Walls: GWB (to underside of deck above) Rated Room
Floors: Resilient
Ceiling: GWB
Windows: NA
Plumbing: NA
HVAC: Standard Environment; pressurize room and provide adequate ventilation for cleaning solvents; exhaust hood
Ventilation: Standard Environment; pressurize room and provide adequate ventilation for cleaning solvents; exhaust hood
Lighting: Direct/Indirect
Power: Standard Environment
Tel/Data: Standard Environment
Security: Standard storage lock
Equipment: Speakers?

Furnishings: 1 Built-in worksurface made of stainless steel or other durable surface
2 Lateral files below work surface
3 Adjustable shelving
4 Full size gun safe NIC
5 Whiteboard / Tackboard

Notes: 1 Quantities and weights of gunpowder to be determined
2 Will require rated room



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
ARMORY

Date: 21 DECEMBER 2015

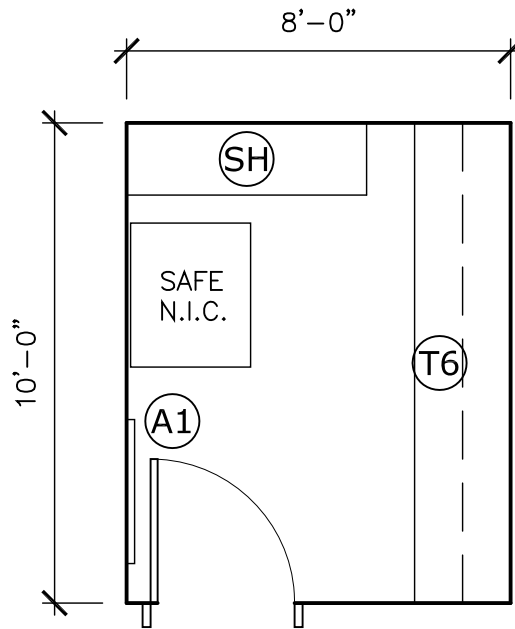
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P17

80 SF



(A1) WHITEBOARD/TACKBOARD

(SH) SHELVING ON STANDARDS

(T6) STAINLESS STEEL WORKSURFACE WITH OPEN SHELVING
ABOVE AND CABINETS / FILES BELOW

ROOM OR SPACE

Room No: SKA-P18
Description: **Toilet / Shower / Locker Room - Male**
Name:
Group: Staff Support - Police

Quantitative Criteria: 1 776
Square feet

Functional Description: 1 Toilet / Shower / Lavatory / Locker

Qualitative Description: 1 Multiple occupant space
2 Secure
3 Good ventilation
4 Durable Materials

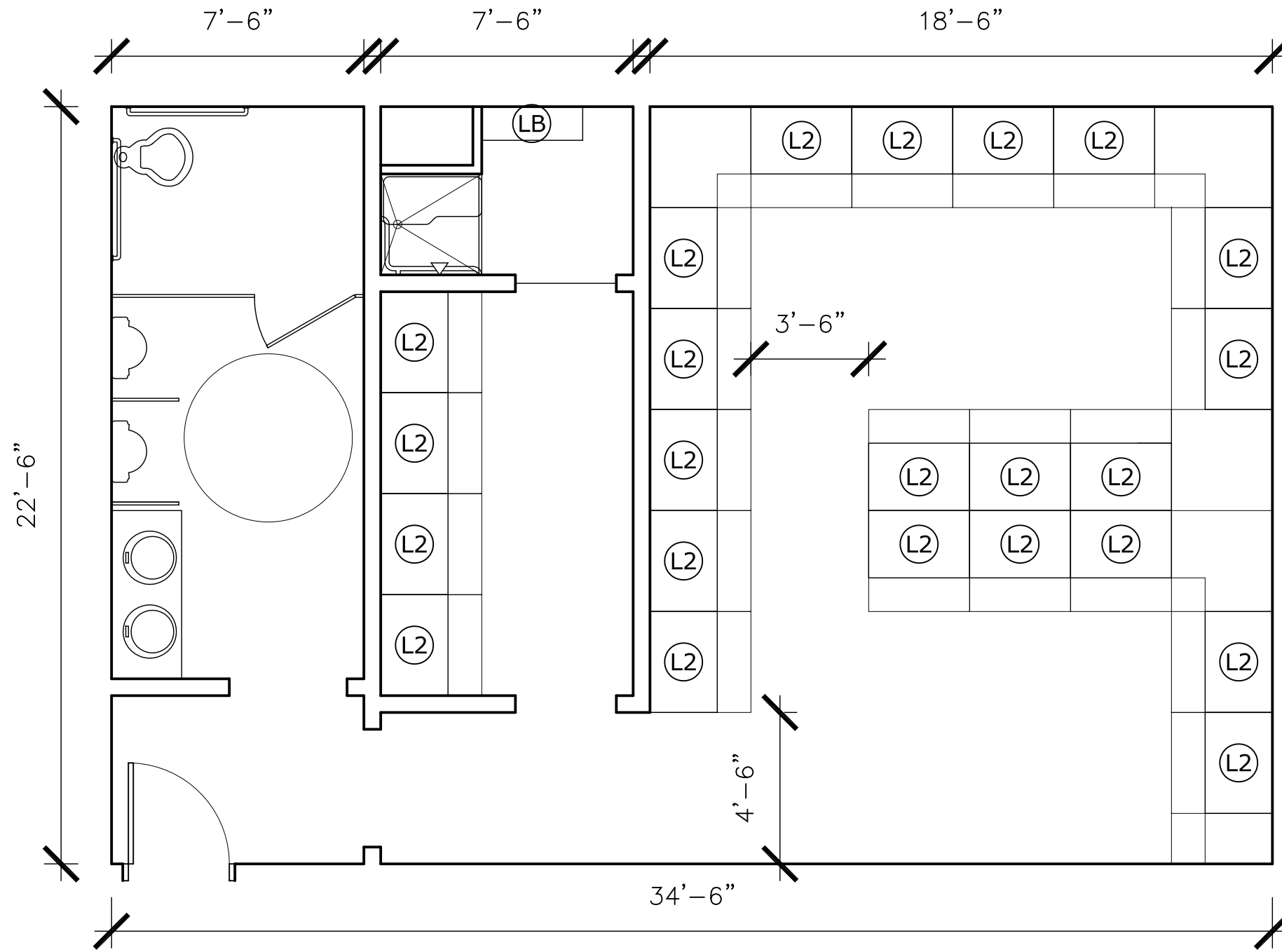
Locational Criteria: 1 Flexible location

Technical Criteria:

Walls: GWB with epoxy paint; Ceramic Tile wainscot
Floors: Ceramic Tile or Resinous flooring
Ceiling: Acoustic Tile and GWB
Windows: None
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: Outlet
Security: Standard Toilet Room Lock
Equipment: Speakers for radio monitoring

Furnishings: 1 Mirrors
2 Soap dispensors
3 Towel dispenser/trash receptacle
4 Toilet paper dispensers
5 Showers with bench seats
6 Clothing hooks
7 23 Lockers - 24"D x 36"W with slope tops, double doors, outlets, 12" x 36"
integral boot storage bench

Notes: 1 Space has been planned for FTE and PTE staff



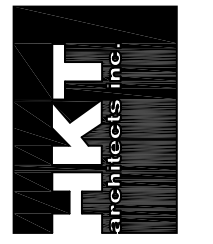
- (L2) 24"X36" LOCKERS WITH 12"X36" INTEGRAL BENCH
- (LB) LOCKER ROOM BENCH

776 SF

Date: 21 DECEMBER 2015
 Scale: 1/4" = 1'-0"
 Job num: 21512
 Drawn by: NJJ
SKA-P18

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX
 POLICE:
 MALE LOCKER / SHOWER / TOILET ROOM

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ROOM OR SPACE

Room No: SKA-P19
Description: **Toilet / Shower / Locker Room - Female**
Name:
Group: Staff Support - Police

Quantitative Criteria: 1 314
Square feet

Functional Description: 1 Toilet / Shower / Lavatory / Locker
2 Drying area for wet garments

Qualitative Description: 1 Multiple occupant space
2 Secure
3 Good ventilation
4 Durable Materials

Locational Criteria: 1 Flexible location

Technical Criteria:

Walls: GWB with epoxy paint; Ceramic Tile wainscot
Floors: Ceramic Tile or Resinous flooring
Ceiling: Acoustic Tile and GWB
Windows: None
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: One outlet
Security: Standard Toilet Room Lock
Equipment: Speakers for radio monitoring

Furnishings: 1 Mirrors
2 Soap dispensors
3 Towel dispenser/trash receptacle
4 Toilet paper dispensers
5 Feminine napkin disposal
6 Showers with bench seats
7 Clothing hooks
8 5 Lockers - 24"D x 36"W with slope tops, double doors, outlets, 12" x 36"
integral boot storage bench

Notes: Space has been planned for FTE and PTE staff



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
FEMALE LOCKER / SHOWER /
TOILET ROOM

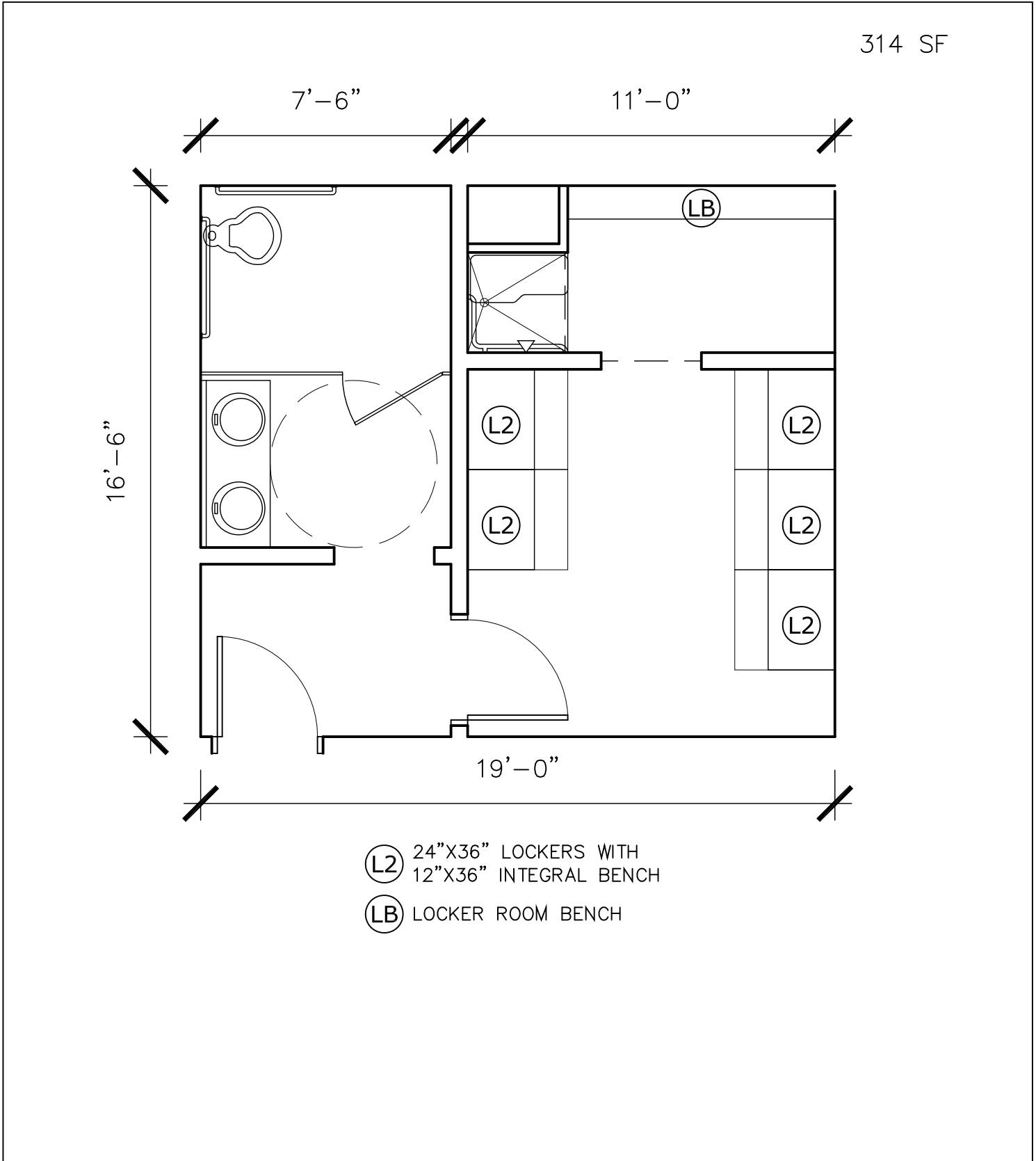
Date: 21 DECEMBER 2015

Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P19



ROOM OR SPACE

Room No: SKA-P20
Description: **Sally Port / Impound Bay**
Name:
Group: Detention

Quantitative Criteria: 1 952
Square feet
2 (2) bays

Functional Description: 1 Secure internal location for transferring detainees to lock-up
2 Secure vehicle impound area

Qualitative Description: 1 Durable materials easy to clean and maintain
2 Good air quality

Locational Criteria: 1 Direct access to Booking

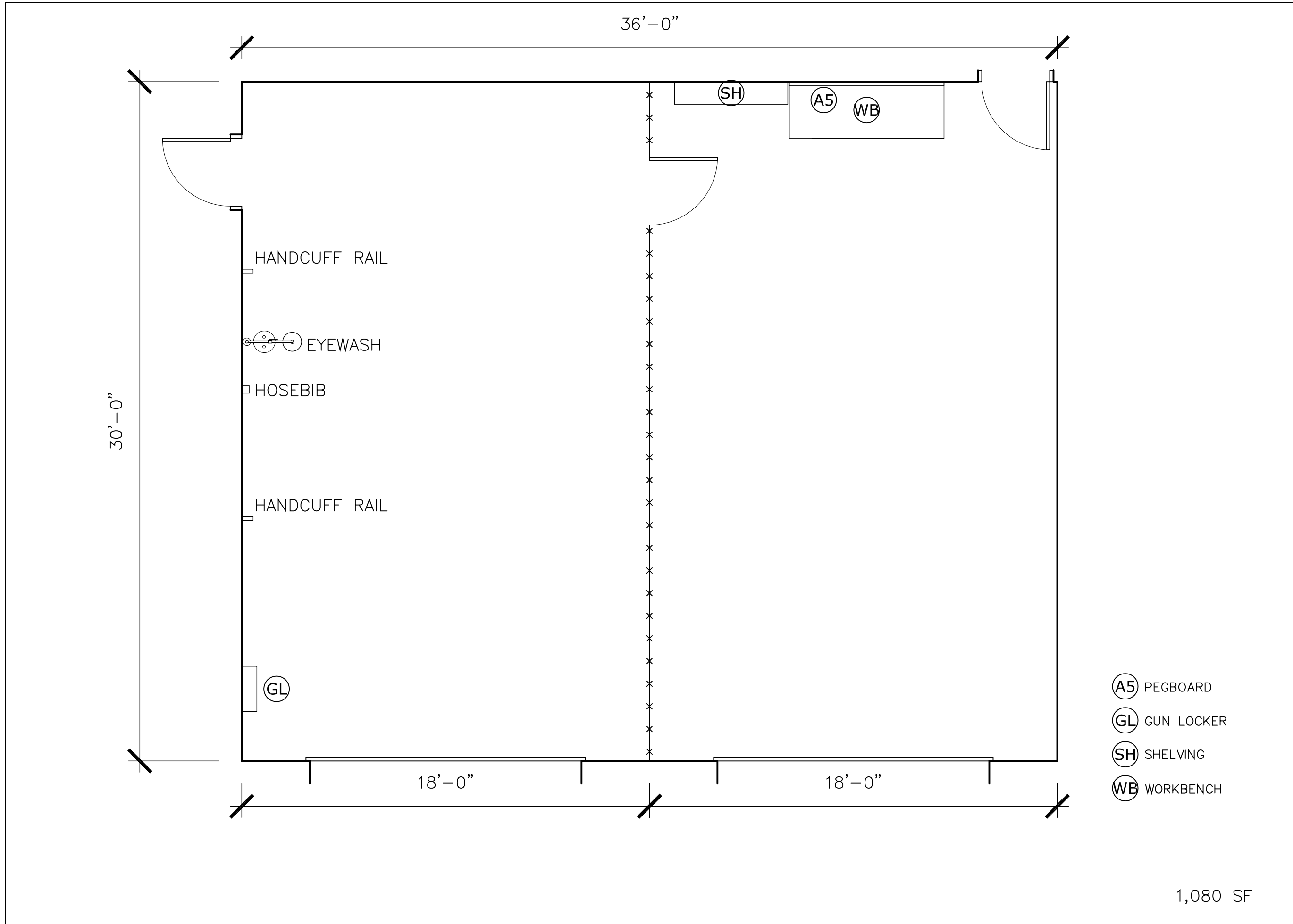
Technical Criteria:

Walls: CMU
Floors: Concrete with non slip surface
Ceiling: Exposed to structure
Windows: None
Plumbing: Floor drains; eyewash, hose bibb
HVAC: No air conditioning; Standard environment
Ventilation: Standard garage and emergency CO monitor and vent system
Lighting: Direct
Power: Standard environment
Tel/Data: Required: 2 locations
Security: Locked; overhead doors to have multiple systems for closing down doors

Equipment: Air and water lines; overhead door controls; wire mesh partition with lockable gate separating bays; panic or duress alarm

Furnishings: 1 Gun locker for (4)

Notes:



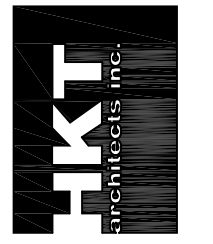
- (A5) PEGBOARD
- (GL) GUN LOCKER
- (SH) SHELVING
- (WB) WORKBENCH

1,080 SF

Date: 21 DECEMBER 2015
 Scale: 1/4" = 1'-0"
 Job num: 21512
 Drawn by: NJJ
SKA-P20

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX
 POLICE:
 SALLY PORT / IMPOUND

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ROOM OR SPACE

Room No: SKA-P21
Description: **Bulk Evidence**
Name:
Group: Detention

Quantitative Criteria: 1 160
Square feet

Functional Description: 1 Secure storage of large evidence or found property

Qualitative Description: 1 Secure storage

Locational Criteria: 1 Accessible off Sally Port

Technical Criteria:

Walls: CMU
Floors: Epoxy resinous or concrete with hardener / sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: NA
HVAC: Standard Storage Environment
Ventilation: Standard Storage Environment
Lighting: Direct
Power: Standard Storage Environment
Tel/Data: Standard Storage Environment
Security: Restricted access storage lock
Equipment: NA

Furnishings: 1 Shelving on standards

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
BULK EVIDENCE

Date: 18 DECEMBER 2015

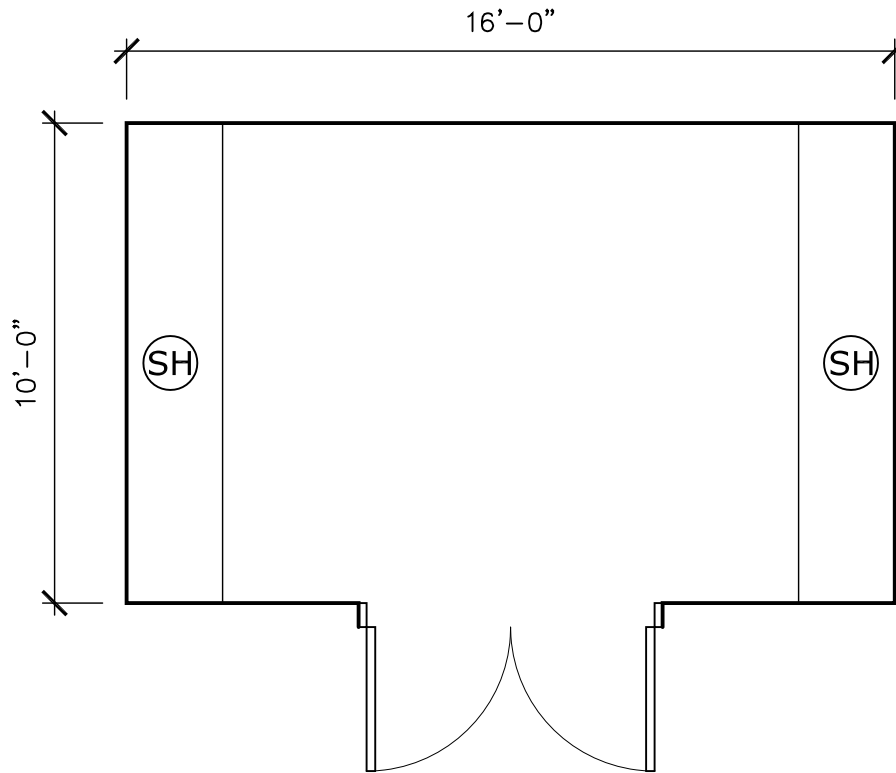
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P21

160 SF



(SH) SHELVING

ROOM OR SPACE

Room No: SKA-P22
Description: **Holding Booking**
Name:
Group: Detention

Quantitative Criteria: 1 72
Square feet

Functional Description: 1 Secure holding of detainees before processing

Qualitative Description: 1 Good Lighting
2 Durable, easy to clean materials
3 Secure

Locational Criteria: 1 Adjacent to Sally Port
2 Adjacent to Booking

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous
Ceiling: GWB
Windows: View Window
Plumbing: NA
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct/Indirect
Power: NA
Tel/Data: NA
Security: Standard detention locks
Equipment: Panic or duress alarm

Furnishings: 1 Steel bench with handcuff rail

Notes: 1 CALEA: Item 71.3.3 Security - In areas of temporary detention firearms will be secured, panic or duress alarms provided and face-to-face visual observation of unattended detainees are required at 30 minute intervals, audio and / or visual devices to monitor detainees between 30 minute face-to-face visual observations required.



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
HOLDING BOOKING

Date: 18 DECEMBER 2015

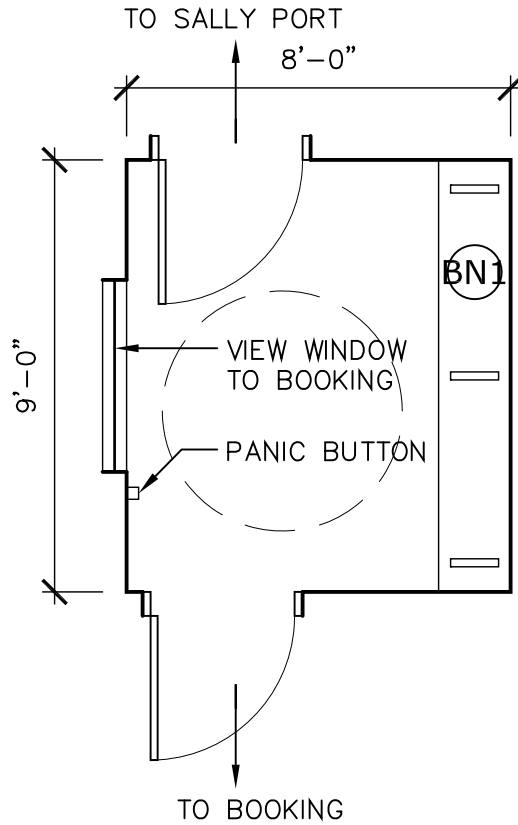
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Job num: 21512

Drawn by: NJJ

SKA-P22

72 SF



BN1 BENCH WITH HANDCUFF RAILS

ROOM OR SPACE

Room No: SKA-P23
Description: **Booking**
Name:
Group: Detention

Quantitative Criteria: 1 325
Square feet

Functional Description: 1 Processing of detainees
2 Fingerprinting
3 Photographing of detainees
4 Breathalyzer testing

Qualitative Description: 1 Good Lighting
2 Durable, easy to clean materials
3 Secure

Locational Criteria: 1 Adjacent to Sally Port
2 Adjacent to Detention Cells
3 Adjacent to Holding

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous
Ceiling: GWB
Windows: View window to Holding / Booking
Plumbing: Handwash sink
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct/Indirect
Power: Standard environment
Tel/Data: Standard environment
Security: Standard detention locks
Equipment: Computer, CCTV, breathalyzer, digital fingerprint desktop device, camera, base cabinets with locks and heavy duty hardware including integral pulls, view window to Holding; panic or duress alarm

Furnishings: 1 Steel bench with handcuff rail
2 Handcuff rails
3 Base and Wall Cabinets

Notes: 1 CALEA: Item 71.3.3 Security - In areas of temporary detention firearms will be secured, panic or duress alarms provided and face-to-face visual observation of unattended detainees are required at 30 minute intervals, audio and / or visual devices to monitor detainees between 30 minute face-to-face visual observations required.
2 CALEA" Items 72.4.4, 72.4.5, 72.4.9, 72.8.1 regarding securing firearms, door security, security checks, panic or duress alarms, and 24 hour supervision should include gun lockers, cell monitoring via audio/visual equipment, panic alarms, cell checks, and hardware at all doors

- 3 Provide gun lockers at entry to booking area



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
BOOKING

Date: 18 DECEMBER 2015

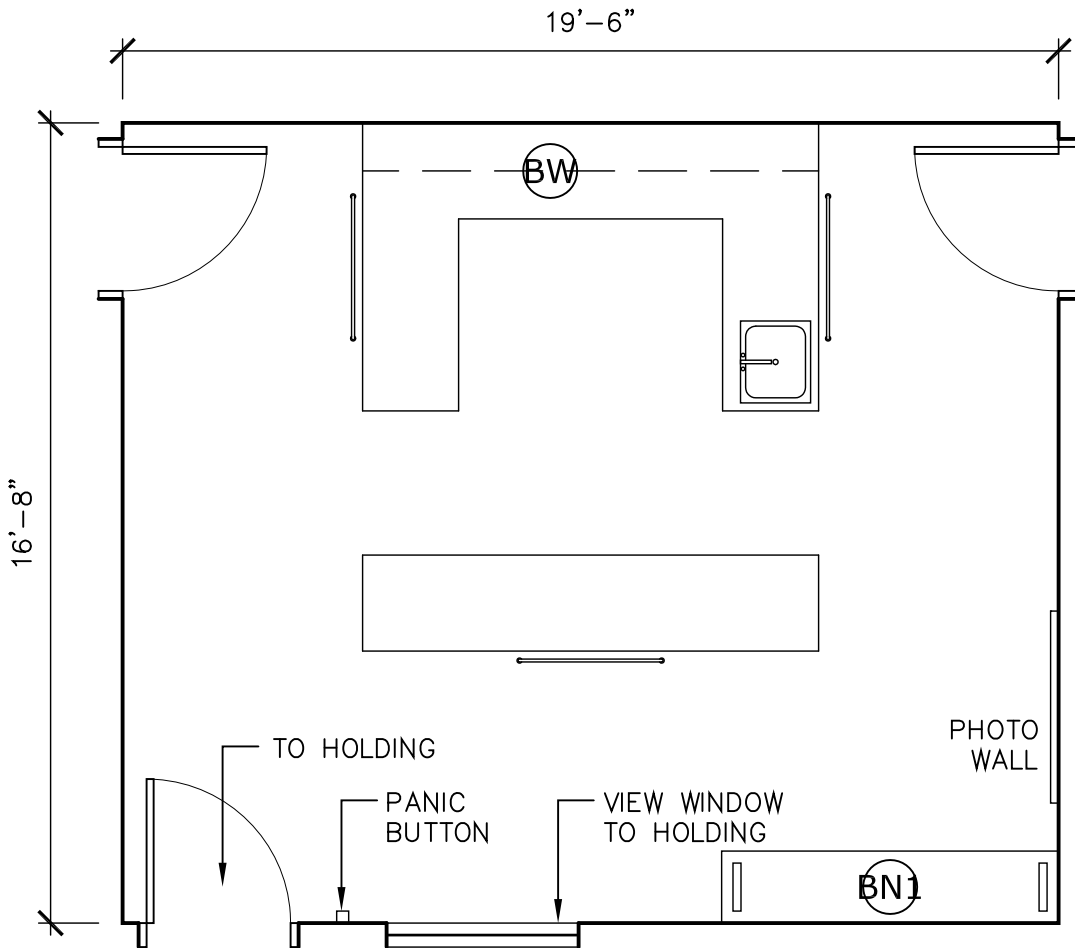
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P23

325 SF



BN1 BENCH WITH HANDCUFF RAILS

BW BASE AND WALL CABINET

ROOM OR SPACE

Room No: SKA-P24
Description: **Detainee Storage**
Name:
Group: Detention

Quantitative Criteria: 1 36
Square feet

Functional Description: 1 Stores personal belongings of detainees
2 Storage for detention area (bedding, jumpsuits, cuffs, leg irons, toilet paper, cleaning supplies, etc.)

Qualitative Description: 1 Good Lighting
2 Secure

Locational Criteria: 1 Adjacent to Booking

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous
Ceiling: GWB
Windows: None
Plumbing: None
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct
Power: Standard environment
Tel/Data: Standard environment
Security: Standard storage locks
Equipment: None

Furnishings: 1 Lockers
2 Shelving

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
DETAINEE STORAGE

Date: 18 DECEMBER 2015

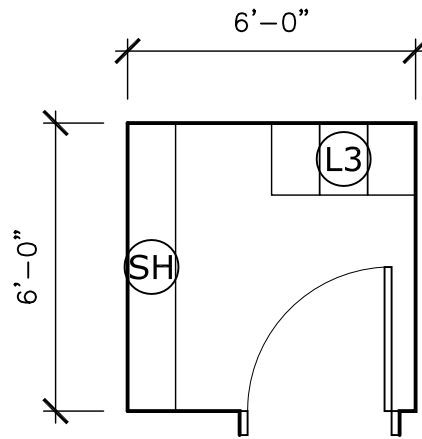
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P24

36 SF



(L3) DETAINEE LOCKER

(SH) SHELVING ON STANDARDS

ROOM OR SPACE

Room No: SKA-P25
Description: **Detainee Shower**
Name:
Group: Detention

Quantitative Criteria: 1 43
Square feet

Functional Description: 1 Shower facility for detainees

Qualitative Description: 1 Durable, easy to clean materials
2 Secure
3 Suicide resistant
4 Sight / sound separation between males, females, juveniles

Locational Criteria: 1 Adjacent to Booking
2 Adjacent to Janitor

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous; pitch to floor drain
Ceiling: GWB
Windows: NA
Plumbing: Standard penal shower fixture
HVAC: Standard detention environment
Ventilation: Standard detention environment
Lighting: Direct
Power: NA
Tel/Data: NA
Security: Standard detention locks
Equipment: NA

Furnishings:

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

**POLICE:
DETAINEE SHOWER**

Date: 18 DECEMBER 2015

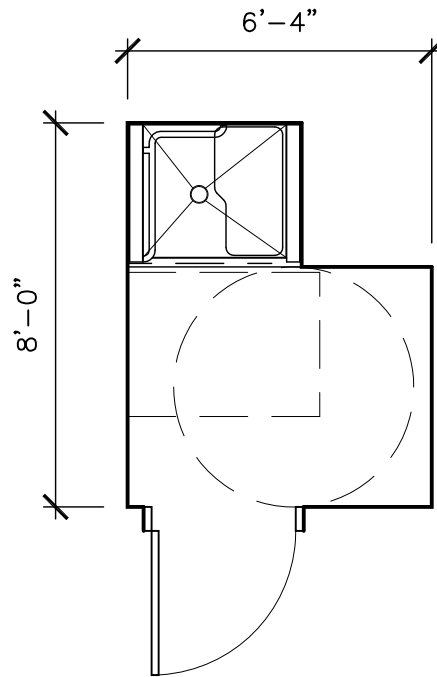
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P25

43 SF



ROOM OR SPACE

Room No: SKA-P26
Description: **Detention Janitor**
Name:
Group: Detention

Quantitative Criteria: 1 30
Square feet

Functional Description: 1 Cleaning supplies for detention area

Qualitative Description: 1 Durable, easy to clean materials
2 Secure

Locational Criteria: 1 Accessed off Detainee Shower

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous
Ceiling: GWB
Windows: NA
Plumbing: Mop sink and Deep sink
HVAC: Standard environment
Ventilation: Standard environment
Lighting: Direct
Power: Standard environment
Tel/Data: NA
Security: Standard storage lock
Equipment: NA

Furnishings: 1 Mop / broom holder with shelf
2 Wall hooks for cuffs and leg irons
3 Adjustable shelving on standards

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
DETENTION JANITOR

Date: 18 DECEMBER 2015

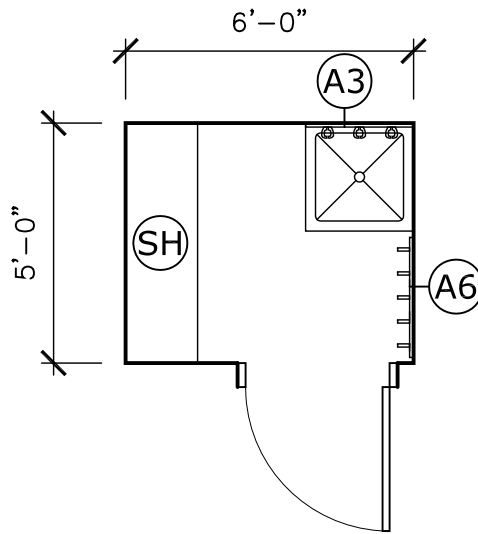
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P26

30 SF



(A3) MOP HOLDER WITH SHELF

(A6) WALL HOOKS

(SH) SHELVING ON STANDARDS

ROOM OR SPACE

Room No: SKA-P27
Description: **Detention Interview Room**
Name:
Group: Detention

Quantitative Criteria: 1 120
Square feet

Functional Description: 1 Use for interviewing detainees
2 Possible use for "soft" juvenile holding

Qualitative Description: 1 Private enclosed area

Locational Criteria: 1 Adjacent to AV Surveillance

Technical Criteria:

Walls: GWB
Floors: Resinous or resilient
Ceiling: Acoustic Tile
Windows: One way mirror
Plumbing: NA
HVAC: Standard Office Environment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: One way glass mirror to AV Surveillance; CCTV; panic or duress alarm

Furnishings: 1 Conference table secured to wall
2 Seating for 4 people

Notes: 1 CALEA: If space is to be used for formal interviews section 42.2.10 requires room to include weapons control, added security for potentially serious or combative situations, means of summoning assistance aka panic button, limitations of stored equipment in room and access to restrooms, water or comfort breaks.
2 CALEA" Items 72.4.4, 72.4.5, 72.4.9, 72.8.1 regarding securing firearms, door security, security checks, panic or duress alarms, and 24 hour supervision should include gun lockers, cell monitoring via audio/visual equipment, panic alarms, cell checks, and hardware at all doors



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
DETENTION INTERVIEW ROOM

Date: 18 DECEMBER 2015

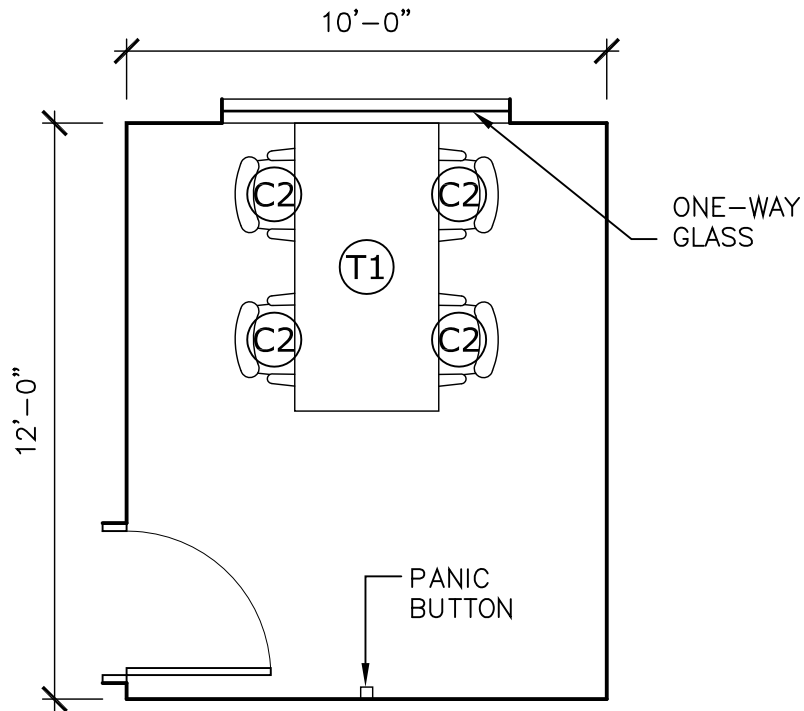
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P27

120 SF



(C2) GUEST CHAIR

(T1) SMALL CONFERENCE TABLE

ROOM OR SPACE

Room No: SKA-P28
Description: **Detention AV Surveillance**
Name:
Group: Detention

Quantitative Criteria: 1 64
Square feet

Functional Description: 1 Audio and video surveillance of interview room
2 Direct surveillance of interview room through one-way glass

Qualitative Description: 1 Secure workroom for video equipment

Locational Criteria: 1 Adjacent to Interview Room

Technical Criteria:

Walls: GWB
Floors: Resilient
Ceiling: Acoustic Tile
Windows: One way mirror
Plumbing: NA
HVAC: Standard Office Environment; AC needs dependent upon equipment
Ventilation: Standard Office Environment
Lighting: Direct/Indirect but keep light levels low for use with one-way glass
Power: Standard Office Environment
Tel/Data: Standard Office Environment
Security: Standard Office Lock
Equipment: One way glass mirror to Interview Room; head end for all surveillance
(building, cells, interview room, etc)

Furnishings: 1 Base and wall cabinets
2 Seating for (2)

Notes:



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POLICE:
DETENTION INTERVIEW ROOM

Date: 21 DECEMBER 2015

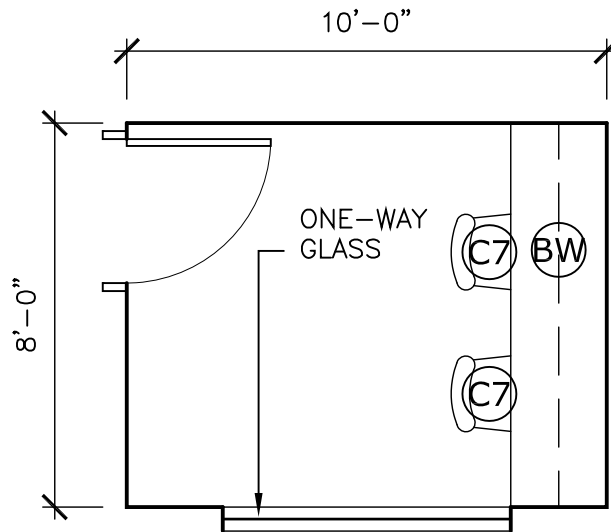
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P28

80 SF



ⓑ BASE AND WALL CABINET

ⓐ MANAGEMENT CHAIR WITHOUT ARMS

ROOM OR SPACE

Room No: SKA-P29
Description: **Detention Cell - Male**
Name:
Group: Detention

Quantitative Criteria: 1 144
Square feet
2 (2) cells at 72 square feet each

Functional Description: 1 Single occupancy lock-up for male detainee

Qualitative Description: 1 Durable, easy to clean materials
2 Secure
3 Suicide resistant
4 Sight / sound separation between males, females, juveniles

Locational Criteria: 1 Adjacent to Booking

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous; pitch to floor drain outside cell
Ceiling: Steel plate
Windows: NA
Plumbing: Standard penal fixture (minimum one HC accessible); floor drain outside cell

HVAC: Standard detention environment; suicide resistant grilles/registers
Ventilation: Standard detention environment; suicide resistant grilles/registers
Lighting: Direct; suicide resistant
Power: NA
Tel/Data: NA
Security: Standard cell doors/locks
Equipment: Video / audio monitoring; cell check and panic or duress alarm outside

Furnishings: 1 Steel bench with skirt to floor

Notes: 1 CALEA" Items 72.4.4, 72.4.5, 72.4.9, 72.8.1 regarding securing firearms, door security, security checks, panic or duress alarms, and 24 hour supervision should include gun lockers, cell monitoring via audio/visual equipment, panic alarms, cell checks, and hardware at all doors



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
MALE DETENTION CELLS

Date: 21 DECEMBER 2015

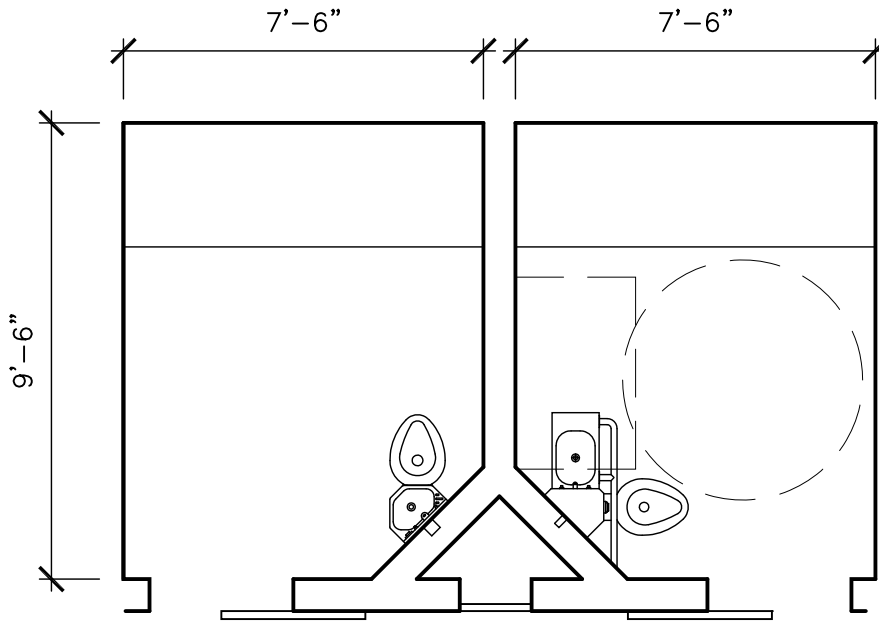
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P29

72 SF EACH



ROOM OR SPACE

Room No: SKA-P30
Description: **Detention Cell - Female**
Name:
Group: Detention

Quantitative Criteria: 1 72
Square feet
2 (1) cell at 72 square feet each

Functional Description: 1 Single occupancy lock-up for female detainee

Qualitative Description: 1 Durable, easy to clean materials
2 Secure
3 Suicide resistant
4 Sight / sound separation between males, females, juveniles

Locational Criteria: 1 Adjacent to Booking

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous; pitch to floor drain outside cell
Ceiling: Steel plate
Windows: NA
Plumbing: Standard penal fixture (one HC accessible); floor drain outside cell
HVAC: Standard detention environment; suicide resistant grilles/registers
Ventilation: Standard detention environment; suicide resistant grilles/registers
Lighting: Direct; suicide resistant
Power: NA
Tel/Data: NA
Security: Standard cell doors/locks
Equipment: Video / audio monitoring; cell check and panic or duress alarm outside

Furnishings: 1 Steel bench with skirt to floor

Notes: 1 CALEA" Items 72.4.4, 72.4.5, 72.4.9, 72.8.1 regarding securing firearms, door security, security checks, panic or duress alarms, and 24 hour supervision should include gun lockers, cell monitoring via audio/visual equipment, panic alarms, cell checks, and hardware at all doors



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

**POLICE:
FEMALE DETENTION CELL**

Date: 21 DECEMBER 2015

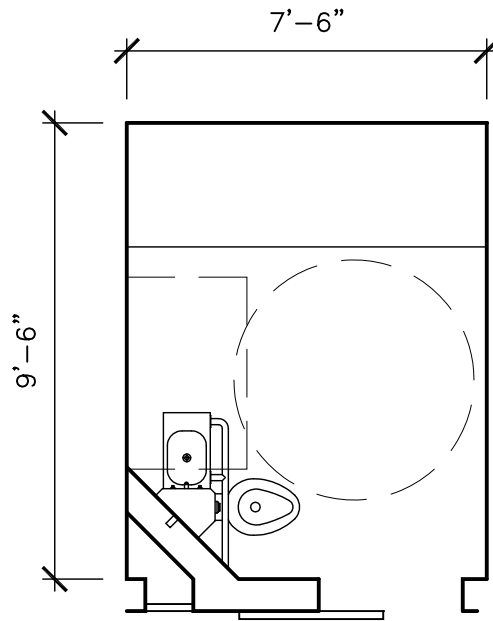
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P30

72 SF



ROOM OR SPACE

Room No: SKA-P31
Description: **Detention Cell - Juvenile**
Name:
Group: Detention

Quantitative Criteria: 1 72
Square feet
2 (1) cell at 72 square feet each

Functional Description: 1 Single occupancy lock-up for juvenile detainee

Qualitative Description: 1 Durable, easy to clean materials
2 Secure
3 Suicide resistant
4 Sight / sound separation between males, females, juveniles

Locational Criteria: 1 Adjacent to Booking
2 Adjacent to Matron

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous; pitch to floor drain outside cell
Ceiling: Steel plate
Windows: NA
Plumbing: NA
HVAC: Standard detention environment; suicide resistant grilles/registers
Ventilation: Standard detention environment; suicide resistant grilles/registers
Lighting: Direct; suicide resistant
Power: NA
Tel/Data: Standard
Security: Standard cell doors/locks
Equipment: Video / audio monitoring; cell check and panic or duress alarm outside

Furnishings: 1 Steel bench with skirt to floor

Notes: 1 CALEA" Items 72.4.4, 72.4.5, 72.4.9, 72.8.1 regarding securing firearms, door security, security checks, panic or duress alarms, and 24 hour supervision should include gun lockers, cell monitoring via audio/visual equipment, panic alarms, cell checks, and hardware at all doors



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

**POLICE:
JUVENILE DETENTION CELL**

Date: 18 DECEMBER 2015

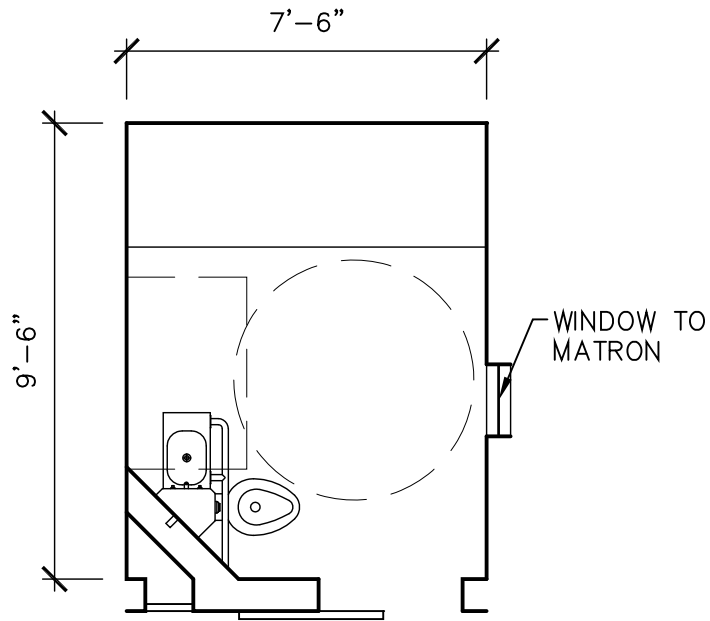
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P31

72 SF



ROOM OR SPACE

Room No: SKA-P32
Description: **Matron / Juvenile Soft Cell**
Name:
Group: Detention

Quantitative Criteria: 1 68
Square feet

Functional Description: 1 Matron sitting / work space
2 Single occupancy Soft lock-up for juvenile detainee

Qualitative Description: 1 Durable, easy to clean materials
2 Secure
3 Suicide resistant
4 Sight / sound separation between males, females, juveniles

Locational Criteria: 1 Adjacent to Booking
2 Adjacent to Matron

Technical Criteria:

Walls: CMU
Floors: Epoxy Resinous; pitch to floor drain outside cell
Ceiling: Steel plate
Windows: NA
Plumbing: NA
HVAC: Standard detention environment; suicide resistant grilles/registers
Ventilation: Standard detention environment; suicide resistant grilles/registers
Lighting: Direct; suicide resistant
Power: None
Tel/Data: Standard
Security: Standard cell doors/locks
Equipment: Video / audio monitoring; cell check and panic or duress alarm outside

Furnishings: 1 Desk with Pedestal
2 Chairs

Notes: 1 CALEA" Items 72.4.4, 72.4.5, 72.4.9, 72.8.1 regarding securing firearms, door security, security checks, panic or duress alarms, and 24 hour supervision should include gun lockers, cell monitoring via audio/visual equipment, panic alarms, cell checks, and hardware at all doors



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
MATRON / JUVENILE SOFT CELL

Date: 18 DECEMBER 2015

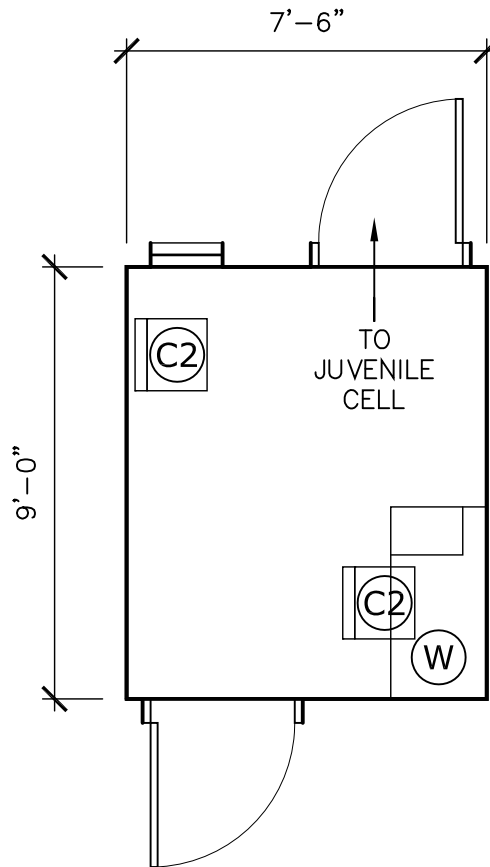
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P32

68 SF



(C2) GUEST CHAIR

(W) DESK WITH PEDESTAL

ROOM OR SPACE

Room No: SKA-P33
Description: **Vehicle Storage**
Name:
Group: Detention

Quantitative Criteria: 1 784
Square feet
2 (2) bays

Functional Description: 1 Garage for trailers, bikes, and ATV's

Qualitative Description: 1 Durable materials easy to clean and maintain
2 Good air quality

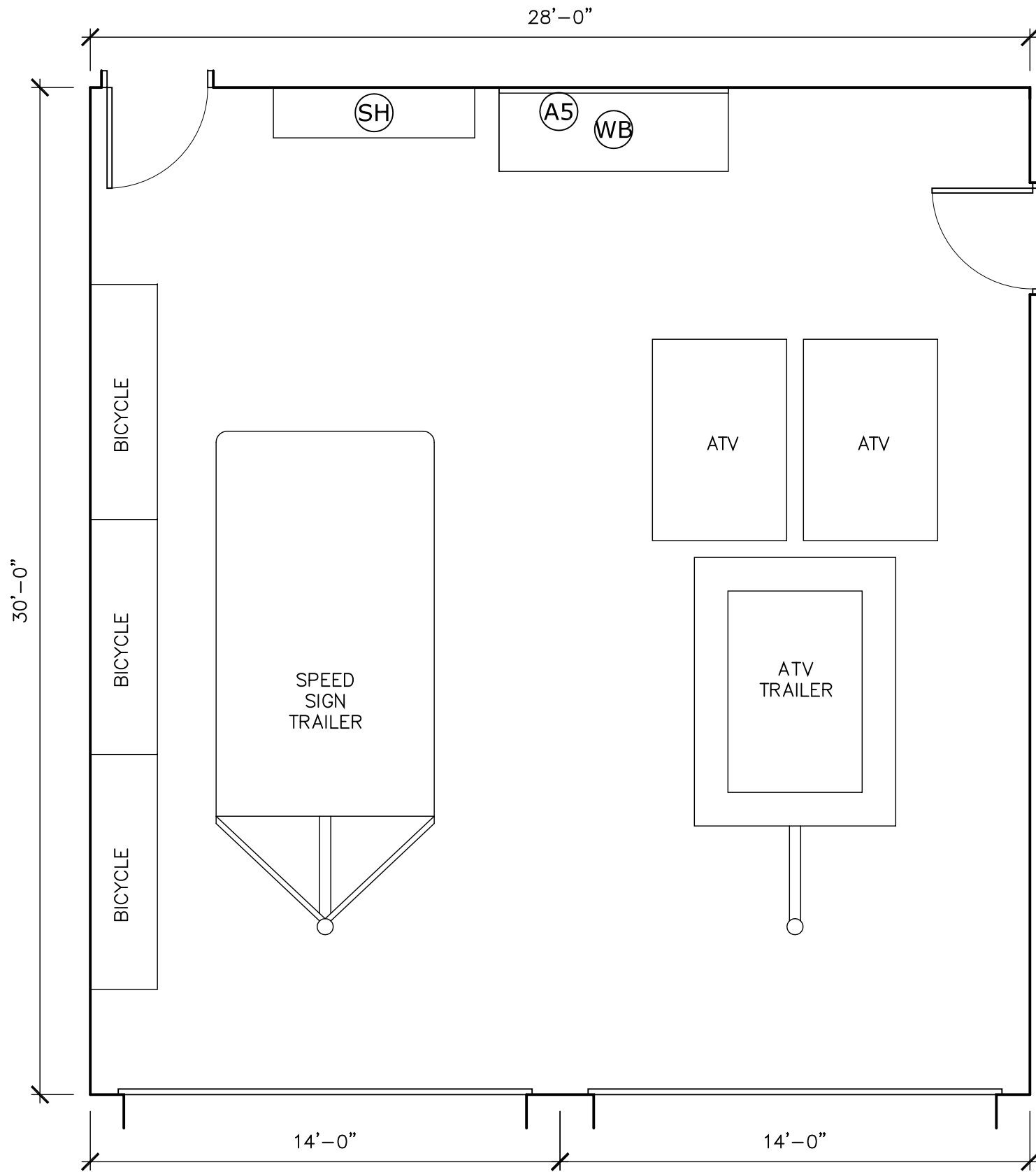
Locational Criteria: 1 Direct access to Parts Storage

Technical Criteria:

Walls: CMU
Floors: Concrete with non slip surface
Ceiling: Exposed to structure
Windows: NA
Plumbing: Floor drains; eyewash
HVAC: No air conditioning; Standard environment
Ventilation: Standard garage and emergency CO monitor and vent system
Lighting: Direct
Power: Standard environment
Tel/Data: Required: 2 locations
Security: Locked; overhead doors to have multiple systems for closing doors
Equipment: Air and water lines; overhead door controls

Furnishings: 1 Workbench
2 Hanging rack for brooms, shovels
3 Pegboard
4 Rack for tire storage - 10 on rims
5 Freezer for animal control

Notes: 1 2 ATV's, 3 bikes, 1 speed sign with trailer, trailer for ATV's



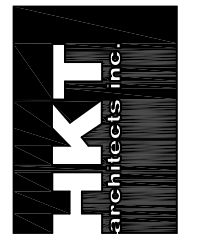
- (A5) PEGBOARD
- (SH) SHELVING ON STANDARDS
- (WB) WORKBENCH

840 SF

Date: 21 DECEMBER 2015
 Scale: 1/4" = 1'-0"
 Job num: 21512
 Drawn by: NJJ
SKA-P33

Project
MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX
 POLICE:
 STORAGE FOR OTHER VEHICLES

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ROOM OR SPACE

Room No: SKA-P34
Description: **Maintenance Storage**
Name:
Group: Detention

Quantitative Criteria: 1 100
Square feet

Functional Description: 1 Storage of tools and parts
2 Storage of tires
3 Air Compressor

Qualitative Description: 1 Secure storage

Locational Criteria: 1 Adjacent to Maintenance Bay

Technical Criteria:

Walls: CMU or high impact GWB
Floors: Epoxy resinous or concrete with hardener or sealer
Ceiling: Exposed to structure
Windows: NA
Plumbing: NA
HVAC: Standard storage environment
Ventilation: Standard storage environment
Lighting: Direct
Power: Standard storage environment
Tel/Data: NA
Security: Standard storage lock
Equipment: Air Compressor

Furnishings: 1 Tire storage rack
2 Adjustable 12' and 24" deep shelving on standards

Notes:



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
MAINTENANCE STORAGE

Date: 21 DECEMBER 2015

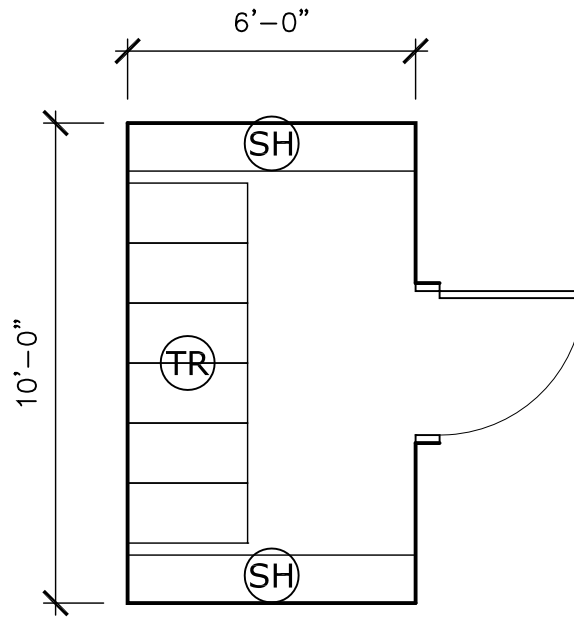
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P34

60 SF



(SH) SHELVING ON STANDARDS

(TR) TIRE RACK

ROOM OR SPACE

Room No: SKA-P35
Description: **Future Lab Processing**
Name:
Group: Operations - Police

Quantitative Criteria: 1 0
Square feet

Functional Description: 1 Lab work

Qualitative Description: 1 Clean and secure

Locational Criteria: 1 Near detectives

Technical Criteria:

Walls: GWB
Floors: Resilient
Ceiling: Acoustic Tile
Windows: NA
Plumbing: Sink
HVAC: Standard Lab Environment; AC needs dependent upon equipment
Ventilation: Standard Lab Environment
Lighting: Direct/Indirect
Power: Standard Lab Environment
Tel/Data: Standard Lab Environment
Security: Standard Office Lock
Equipment: Fume hood, undercounter refrigerator

Furnishings: 1 Lab wall and base cabinets
2 Desk height worksurface with lab material surface
3 Seating for (2)

Notes: 1 Currently this work is done by the State Police



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MERRIMAC FEASIBILITY STUDY PUBLIC SAFETY COMPLEX

POLICE:
LAB PROCESSING

Date: 21 DECEMBER 2015

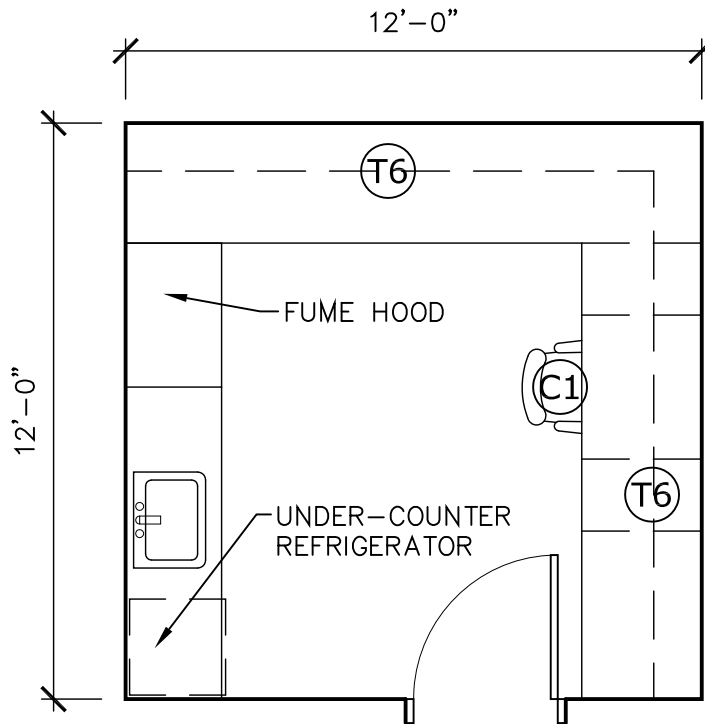
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P35

144 SF



(C1) MANAGEMENT CHAIR

(T6) LAB WORKSURFACE WITH OPEN SHELVING ABOVE
AND CABINETS / FILES BELOW

ROOM OR SPACE

Room No: SKA-P36
Description: **Staff Toilet**
Name:
Group: Staff Support - Police

Quantitative Criteria: 1 121
Square feet (121 per set)

Functional Description: 1 Men's and Women's Toilet
2 Fully accessible

Qualitative Description: 1 Toilet area

Locational Criteria: 1 General office area

Technical Criteria:

Walls: GWB/Ceramic Tile
Floors: Ceramic Tile
Ceiling: GWB or acoustic tile
Windows: NA
Plumbing: Standard Toilet Environment
HVAC: Standard Toilet Environment
Ventilation: Standard Toilet Environment
Lighting: Direct/Indirect
Power: Standard Toilet Environment
Tel/Data: NA
Security: Standard Toilet Room Lock
Equipment: NA

Furnishings: 1 Mirror
2 Soap dispenser
3 Towel dispenser/trash receptacle
4 Feminine dispenser and receptacle
5 Toilet paper dispenser
6 Coat hook

Notes:



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**MERRIMAC FEASIBILITY STUDY
PUBLIC SAFETY COMPLEX**

**POLICE:
STAFF TOILETS**

Date: 21 DECEMBER 2015

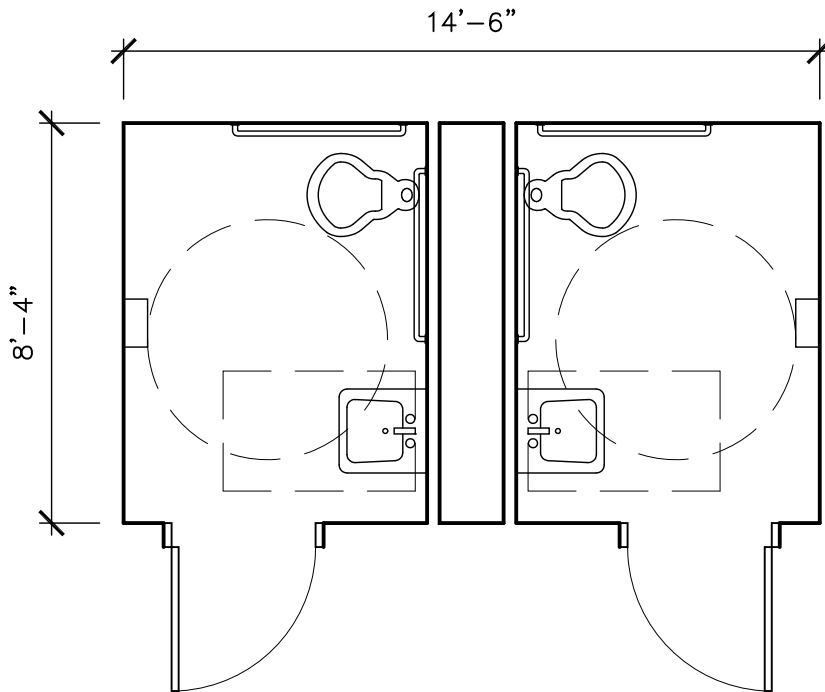
Scale: 1/4" = 1'-0"

Job num: 21512

Drawn by: NJJ

SKA-P36

121 SF



ROOM OR SPACE

Room No: SKA-P37
Description: **Carport**
Name:
Group: Staff Support - Police

Quantitative Criteria: 1 1600
Square feet

Functional Description: 1 Covered area for police cruisers

Qualitative Description: 1

Locational Criteria: 1

Technical Criteria:

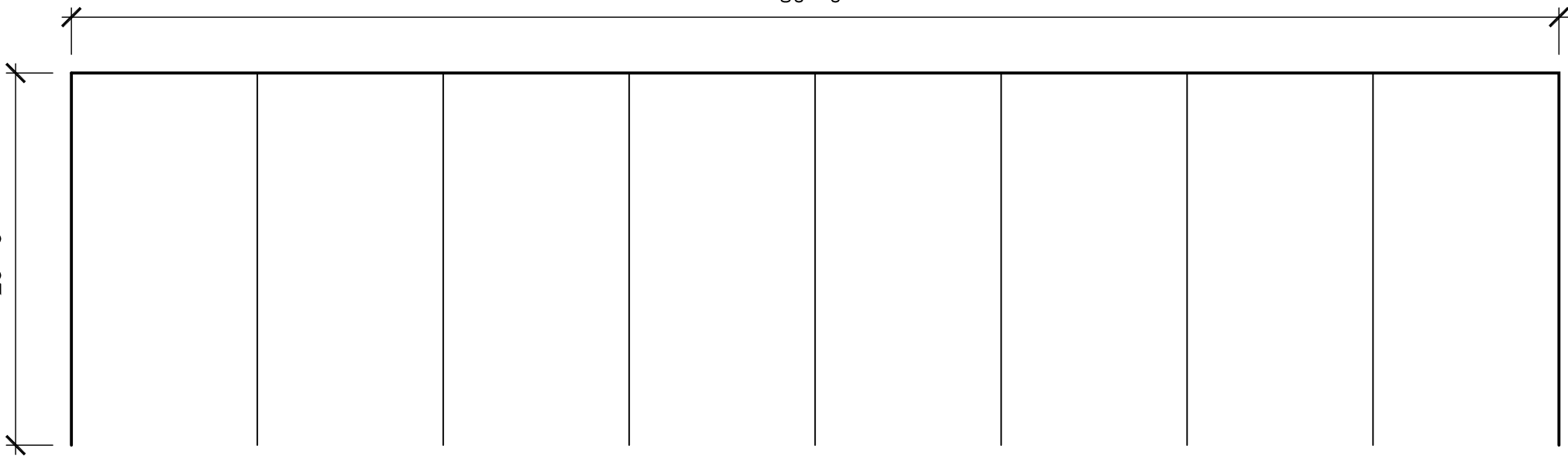
Walls:
Floors:
Ceiling:
Windows:
Plumbing:
HVAC:
Ventilation:
Lighting:
Power: Power for engine block heaters
Tel/Data:
Security:
Equipment:

Furnishings:

Notes: 1 This would be a three sided open front carport with sloping roof to drain; bituminous concrete and concrete piers supporting structural frame.

20'-0"

80'-0"



1,600 SF



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MERRIMAC FEASIBILITY STUDY - PUBLIC SAFETY COMPLEX

POLICE:
CARPORT

Date: 21 DECEMBER 2015

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

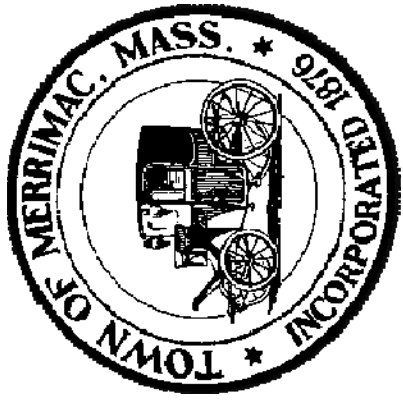
Job num: 21512

Drawn by: NJJ

PSKA-37



APPENDIX C: PRESENTATIONS

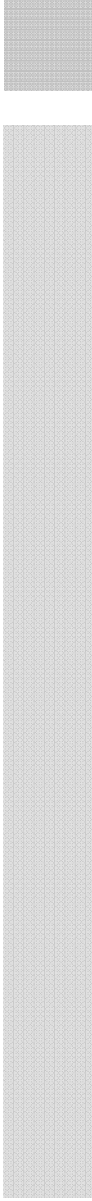


**FEASIBILITY STUDY FOR THE MERRIMAC
PUBLIC SAFETY COMPLEX**

**MERRIMAC, MASSACHUSETTS
NOVEMBER 12, 2015**

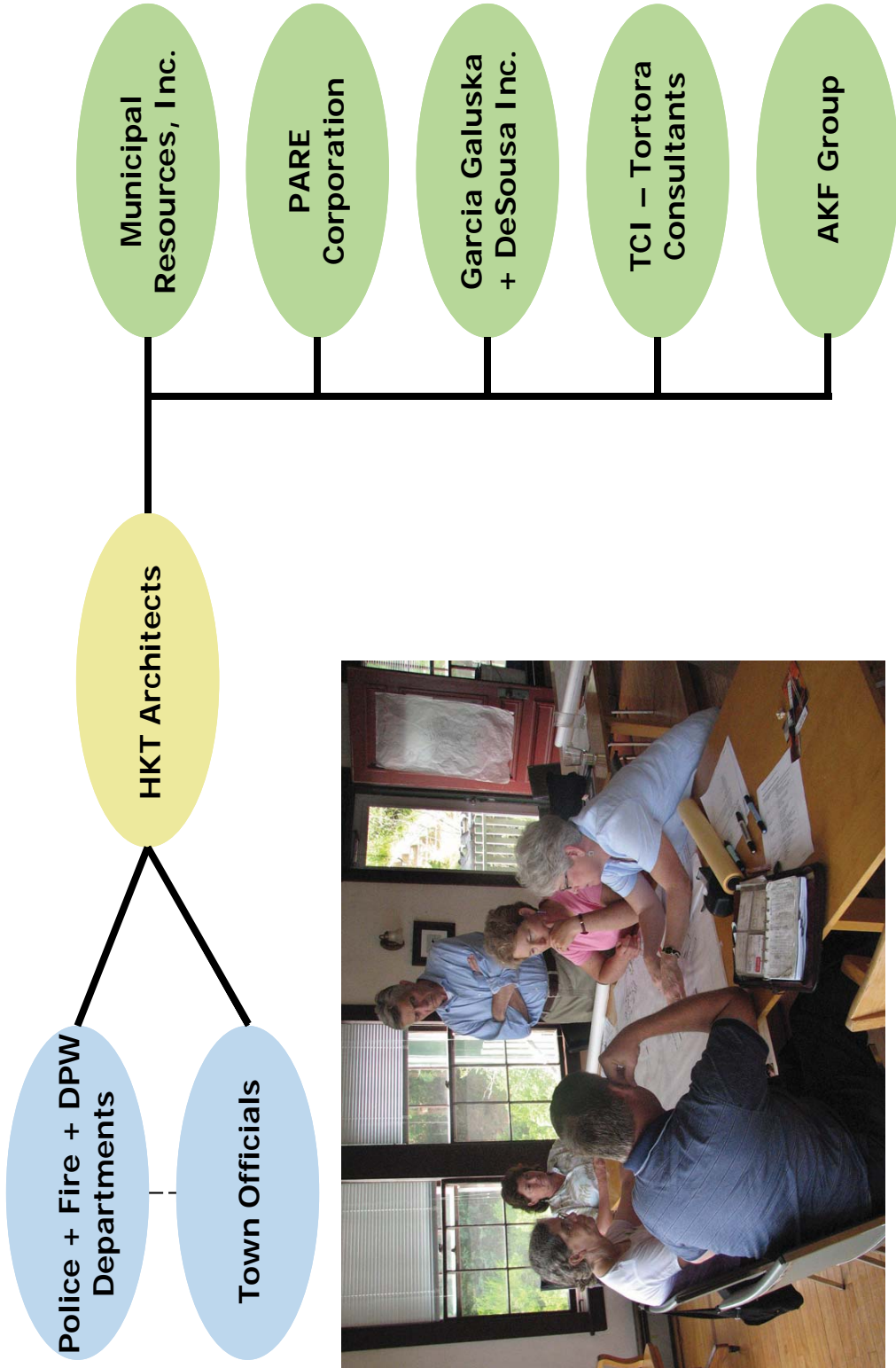
AGENDA

- Reintroduce HKT Architects
- Managing the Project
- Process
- Visioning



TEAM STRUCTURE

- The Team

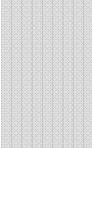
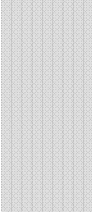
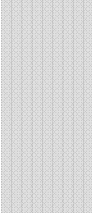
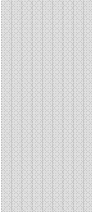
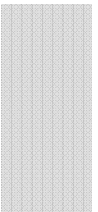
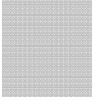
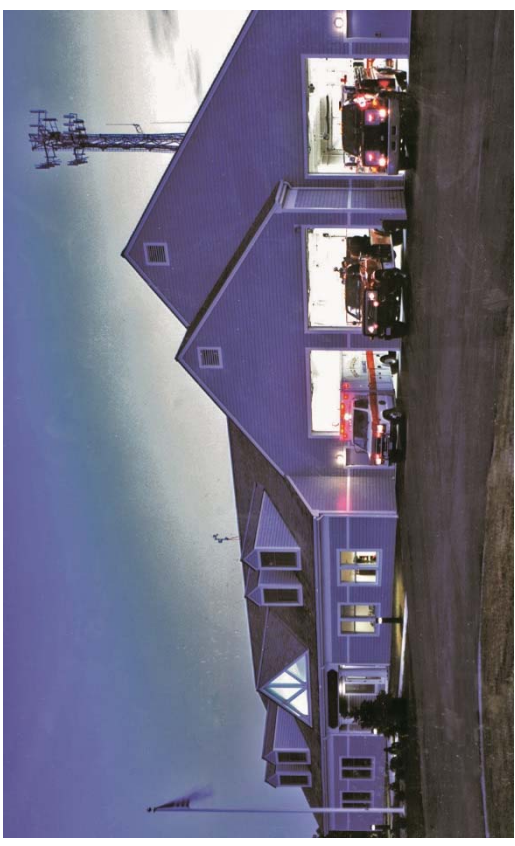


MERRIMAC, MA
PUBLIC SAFETY COMPLEX



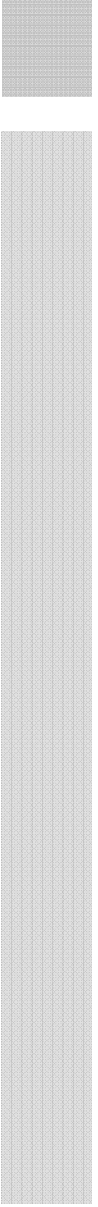
HKT ARCHITECTS

- Municipal Architecture Expertise



HKT ARCHITECTS

- Expertise Designing Spaces for Police / Fire / DPW Personnel



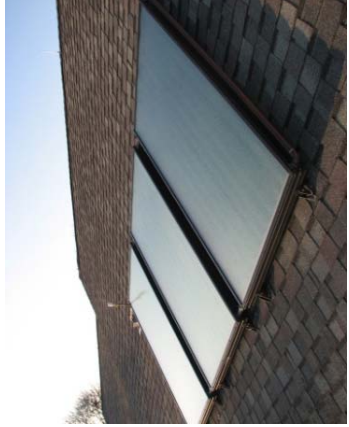
HKT ARCHITECTS

- Designing Spaces for Shared Needs + for the Community



HKT ARCHITECTS

- Sustainability



PROCESS: MANAGING YOUR PROJECT

Assessment Phase:

- Gather input and ideas from Town personnel
- Define the limitations of the existing building
- Outline the existing site restrictions
- Document the operational needs of the Police + Fire + DPW Departments
- Review other site possibilities

Design Phase:

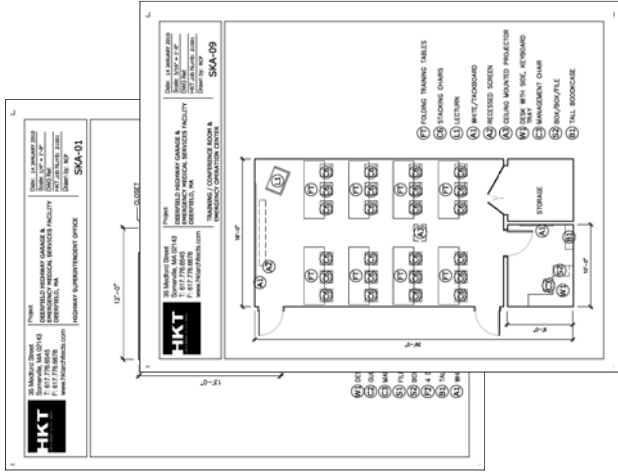
- Develop operationally sound conceptual options
- Present options to Committee and Community
- Develop Total Project Cost information
- Formalize Schedule and Report

MERRIMAC, MA PUBLIC SAFETY COMPLEX



PROCESS: STEPS

<p>Qualification Checklist</p> <p>1. Workgroup Size 11 Exceeded</p> <p>2. Workgroup</p>	<p>Qualification Checklist</p> <p>1. Workgroup Size 11 Exceeded</p> <p>2. Workgroup</p>
---	---



Room Data Sheets



Pre-Schematic Concept Elevations

Room Sketches



Pre-Schematic Concept Plans

Current Building /Site Suitability



Future Site Suitability

PROCESS: BUILDING ASSESSMENT FOR REUSE

Physical Issues:

- Vehicle Bays: length, height, and width
- Administration + Personnel Work space
- Building upgrades: snow, wind + seismic
- MA Codes: Building, Energy, Accessibility
- Systems: Mechanical/electrical plumbing + fire protection

- Envelope

Spatial Issues Affecting Operations



PROCESS: SITE ASSESSMENT

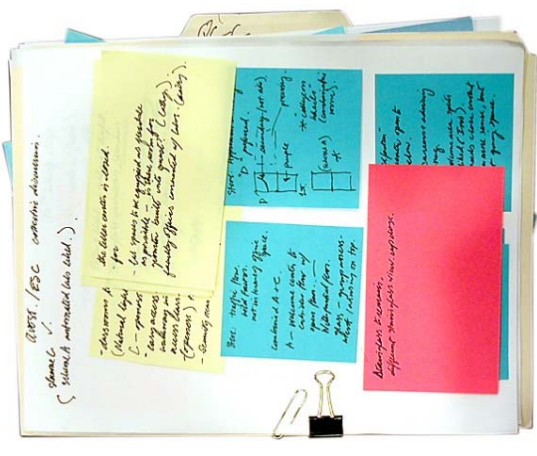
- Site Issues:
 - Zoning
 - Wetlands
 - Flood Zone
 - Stormwater Management
 - Protected Species
 - Topography
- Site Related Operations:
 - Emergency Vehicles
 - Community Use
 - Wayfinding



VISIONING: INTENDED RESULTS

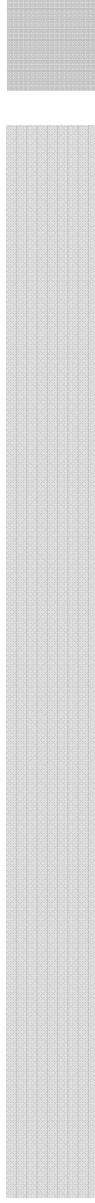
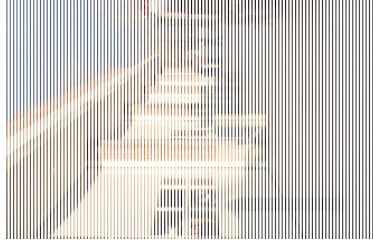
Visioning Provides an Opportunity to Establish Transparency and Inclusiveness

- Set project goals
- Build consensus
- Review programming process
- Outline sustainable goals
- Review budget
- Identify Boards + Committees that will influence the project
- Discuss community outreach opportunities



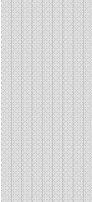
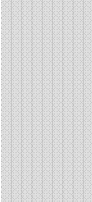
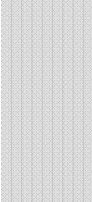
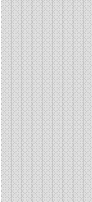
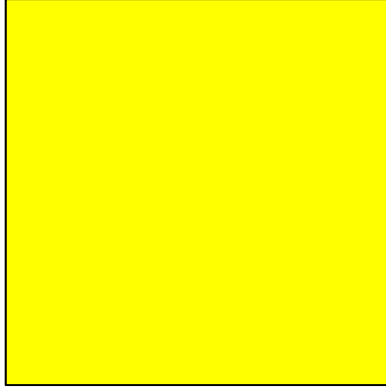
VISIONING: PROCESS

- 4 Questions
- Collect and sort responses
- Share responses
- Open Discussion



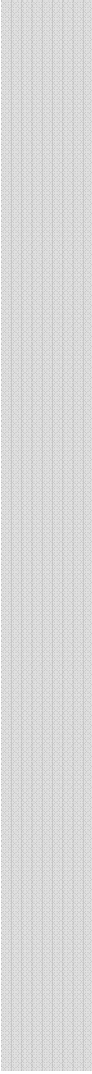
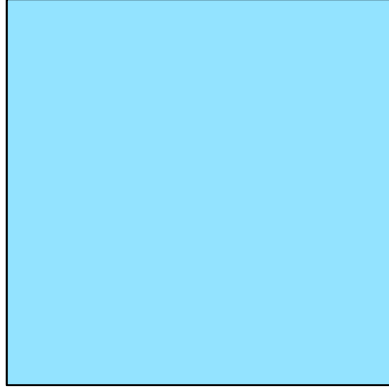
QUESTION #1

- What do you see as the best outcome for this study?



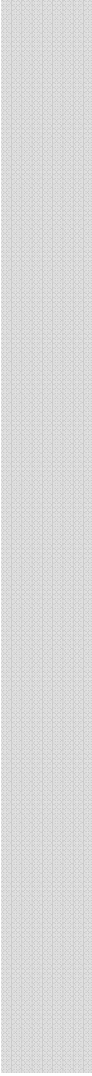
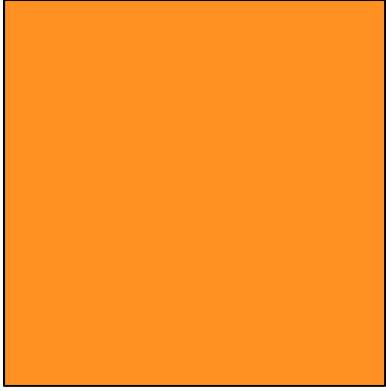
QUESTION #2

- What do you see as the biggest challenge(s) for the study?



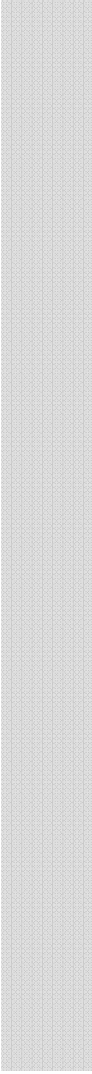
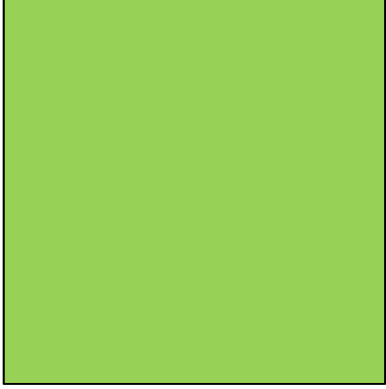
QUESTION # 3

- How does the current layout of the site impact the three functions on the site?



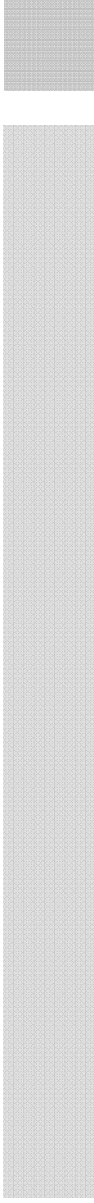
QUESTION # 4

- What are one or two critical details that we need to know about this project?

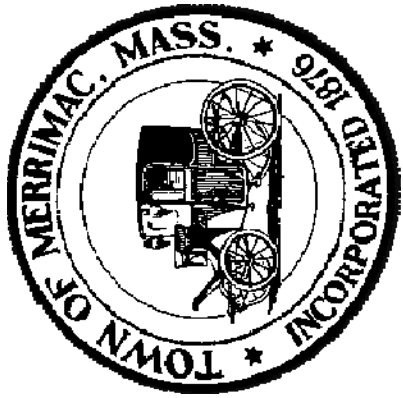


OPEN DISCUSSION

- Other constraints; perhaps intangible in nature
- Other Town efforts underway that may affect or influence the study
- Other information about the Town that we should know
- Identify Boards + Committees that might want to be involved
- Community outreach opportunities



THANK YOU



**FEASIBILITY STUDY FOR THE MERRIMAC
PUBLIC SAFETY COMPLEX**

MERRIMAC, MASSACHUSETTS

MAY 24, 2016

AGENDA

- Civil Review
- Structural review
- Historic Costs
- Next Step



CIVIL ASSESSMENT

Existing Conditions:

- **Zoning**
 - 25% site is "Agricultural Residential"; 75% is "Village Residential"
 - Abutting properties are "Village Residential" + "Agricultural Residential"
- **Natural Environment**
 - Topography: Site pitches east to west towards Cobbler Brook. The site is graded so that stormwater pitches away from building.
 - Soils: Site is classified as unrated Urban Land. Surrounding soils are classified as "Canton Fine Sandy Loam".
 - Regulated Areas: Wetlands to the west of the site with 100-foot buffer zone. 75% of site falls within that resource. A Natural Heritage + Endangered Species Program habitat is also mapped along the west side of the site.

CIVIL ASSESSMENT

Existing Conditions:

- **Infrastructure**
 - **Parking + Driveways:** Unmarked parking is provided throughout the site. Screening to abutting properties is not provided.
 - **Utilities:**
 - Stormwater not currently managed or treated. Site and drainage from roofs appear to collect and drain directly into wetlands.
 - Municipal sewer exists although size is unknown. It is also unknown as to where interior floor drains discharge to or how or if they are treated prior to discharge.
 - Water is supplied by a municipal system.
 - Electricity is operated by Merrimac Municipal Light Department and serviced via overhead wires.
 - Natural gas is provided by National Grid.

CIVIL ASSESSMENT

Future Steps:

- **Soils:** In depth geotechnical investigation and soil evaluation will need to be done to properly design foundations for future building + drainage improvements
- **Regulated Areas:** Further discussions on local wetlands regulations to understand prohibitions + exemptions as related to lawfully located structures. Better understanding of the habitat mapping and conversations with Conservation Commission on future building and site improvements and how they pertain to regulations.
- **Parking + Driveways:** Coordination with the Town to determine the quantity of parking required including the locations of accessible parking spaces.

CIVIL ASSESSMENT

Future Steps:

- **Utilities:**

- Future site and building improvements would also likely require mitigation and treatment of stormwater flows from building + site. Proposed drainage improvements will be required to meet MA DEP and MA Stormwater Handbook requirements.
- Sewer: Treatment of floor drains prior to discharging into a tight tank could be required depending on future building improvements.
- Water, Electric and Gas: Further analysis of demands on service will be required once end user and improvements are finalized to determine level of improvements required.

MERRIMAC, MA
PUBLIC SAFETY COMPLEX



Site entrance traffic controls



Front entrance and parking



West side and wetlands



Basement pump pipe outlet

STRUCTURAL ASSESSMENT

Condition Assessment Nomenclature

- **Good:** Structural elements have little to no observed deterioration and can perform their intended function. Steel members may have some light rusting. Concrete and masonry surfaces are clean with little to no cracking or spalling. Wood is clean with no staining or mold. Plaster surfaces are firm and crack free.
- **Fair:** Structural elements have low levels of deterioration and can perform their intended function, but may have some minor reduction in capacity. Steel members may have localized, minor corrosion. Concrete and masonry elements may have hairline cracks and localized spalling, efflorescence, and staining, but surfaces are largely intact and clear. Wood members may have some checking and localized staining/mold, but appear sound. Plaster surfaces may have some staining and minor cracking at corners, but surfaces are firm.
- **Poor:** Structural elements show advanced section loss or deterioration and have moderate reductions in capacity. Steel members may have extensive corrosion or delamination. Concrete may exhibit large spalls and/or extensive efflorescence. Large cracks may be observed in concrete or masonry elements. Wood may be stained and/or damp with mold and/or small areas of rot. Vertical elements may be out of plumb and have lost veneer elements. Floors/roofs may have rotted/missing finishes and/or are easily deflected.

STRUCTURAL ASSESSMENT

Existing Conditions:

▪ **Structural Systems**

- Concrete slab on grade with exterior concrete foundation walls; Structural slab on grade with basement below in portion of police department
- Second floor framing: Lumber joists and plywood floor supported by CMU partition walls
- Roof: Low slope constructed of wood planking supported by concrete encased steel beams. Beams span east-west and are supported by brick masonry piers.
- Walls: 12" thick multi-wythe brick masonry. Brick parapets along south elevation. Interior walls are mix of CMU and brick masonry.
- Lateral load resisting system: Due to age of building, plans do not designate system. Roof planking and second floor plywood deck likely act as horizontal diaphragms. Walls likely act as shear walls.

STRUCTURAL ASSESSMENT

Observations:

- **Fire Department + DPW Workshops**
 - Concrete slab on grade appears to be in good condition.
 - Existing roof planking appears to be in good condition. No areas of significant water staining or rot. Cracks observed in some of the concrete encasements of steel roof beams. Fill with epoxy adhesive to keep encasements intact.
 - Interior brick walls and CMU partitions appear to be in fair condition. Condition of mortar not visible. One stepped crack observed. Crack should be routed and filled with repair mortar.

STRUCTURAL ASSESSMENT

Observations and Recommendations:

- **Fire Department + DPW Workshops**
 - Exterior brick walls in fair-to-poor condition. Mortar joints are deteriorated or spalled in some areas. Walls generally appear plumb, however there are some areas of concern. All mortar joints should be cleaned of all deteriorated material and re-pointed. New mortar proportioned to match existing as close as possible. Consideration for covering brick walls with cladding to protect and extend life. Cracked and rotated brick jambs needs further investigation. Potential repairs include reconstruction of damaged portions of brick and or installation of metal rods within mortar joints to tie separated layers of brick together. Existing lintel appears to have separated and an evaluation to determine if lintel should be reset will need to be completed.

STRUCTURAL ASSESSMENT

Observations:

- **Police Station Foundation**
 - Foundation contains structural elements that, where visible, are in poor condition.
 - **Basement:** Partial filled basement with 3-4 feet of concrete – installed to keep water from infiltrating area. Extensive cracking observed on surface, air humid, standing water observed in sump pit (pump and dehumidifier not running at time of visit).
 - Building foundation consists of a perimeter wall as well as concrete beams and piers supporting 1st floor structural slab. Surface of perimeter wall and 1st floor slab largely covered by layer of concrete from pour, as well as some beams and piers, limiting visible inspection. Cracks and spalls are present along some beam piers and exposed steel is corroded. Diagonal cracks also observed at various locations on foundation wall.

STRUCTURAL ASSESSMENT

Recommendations:

- **Police Station Foundation**
 - Observed cracks may be indicative of differential settlement of foundation. Pare spoke with their geotechnical staff but based on the number of unknowns they recommended a comprehensive investigation be performed to determine extents for settlement, potential causes and remediation techniques/options. Further evaluation to determine the potential source of water infiltration should be performed.
 - Concrete layer covering structural elements should be removed as much as is practicable to assess condition.
 - Repair program should be developed.
 - This information can then be used to weigh the benefits vs. costs associated with future use of this portion of building.
 - Humidity and moisture should be evaluated by mechanical engineer to determine a more cost effective method of control

STRUCTURAL ASSESSMENT

Recommendations:

- **Police Station**
 - Roof appears to be in good condition. A small area of rot was observed. Cracks observed in some of the concrete encasements of steel roof beams. Fill with epoxy adhesive to keep encasements intact. A large spall was observed above garage/storage areas. This poses a safety hazard and should be removed and the void filled with patching mortar.
 - Interior brick walls and CMU partitions appear to be in fair condition. Condition of mortar not visible. Several stepped cracks were observed. Cracks should be routed and filled with repair mortar.
 - Exterior brick walls in same condition throughout.

MERRIMAC, MA
PUBLIC SAFETY COMPLEX



Typical exterior brick masonry wall



Infill openings and newer openings



Slight rotation at top of jamb + lintel separation



Typical roof construction + skylight



Stepped crack at interior brick wall



Typical crack in steel beam encasement



Concrete infill with surface cracking



Concrete layering at wall + beam – note cracking



Longitudinal crack/spall at beam with corroded embedded steel



Diagonal crack in foundation wall



Crack in booking area

STRUCTURAL ASSESSMENT

Building Code Review:

- **All portions of building**

The review is based upon the 8th edition of the Massachusetts Building Code. The 9th edition of the code is scheduled to be put into effect in the summer of 2016. Pare has reviewed a draft version of the 9th edition of the code (dated October 2015) and it appears that relevant structural provisions of the code discussed below will be relatively unchanged in 9th edition.

Based upon discussions with HKT, Pare understands that extensive renovation and re-programming would be required for the building to continue its use by the police department, fire department and/or DPW.

- This renovation would likely be classified as an "Alteration – Level 3" as the "work area" would exceed 50% of the aggregate area of the building. The "work area" is defined by the International Existing Building Code as "that portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents."

STRUCTURAL ASSESSMENT

Code Review:

- **All portions of building**
- The following structural provisions of the Massachusetts Building Code apply to "Alteration – Level 3" work:
 - Existing structural elements need to be analyzed (and retrofitted or replaced as necessary) if loads supported by those elements increase by more than 5%. For example, the existing roof structure would need to be analyzed, and retrofitted if necessary, to support new mechanical rooftop equipment.

STRUCTURAL ASSESSMENT

Code Review:

- **All portions of building**
 - Minimum seismic retrofits would be required as the existing structure consists of unreinforced load-bearing brick masonry.
 - **Wall anchorage:** Wall anchors shall be installed at roof and floor levels to tie the masonry walls to these structures. Wall anchors generally consist of thru-wall anchors or drill-and-epoxy anchors spaced evenly along the wall. The use of drill and epoxy anchors requires in-situ load testing to determine their structural capacity. Interior CMU partitions do not appear to be secured to the roof structure. Clip angles shall be added to the top of the CMU walls to tie them to the roof structure.
 - **Parapet bracing:** Parapets shall be braced back to the roof structure. Install angle braces and anchor to the roof and wall on the backside of the parapet.

STRUCTURAL ASSESSMENT

Code Review:

- **All portions of building**

- If the area of structural alterations exceeds 30% of the total floor and roof areas of the building, or if overall building weight is increased by more than 10%, then the structural work would be considered a “Substantial Structural Alteration” and the building must be analyzed and retrofitted to resist current building-code prescribed wind loads and reduced seismic loads. The areas to be counted toward the 30% structural alterations are those areas tributary to vertical load-carrying components (e.g. joists, decking, beams, walls, columns) that will be added, removed, or altered. Required retrofits may include, but not be limited to: adding new braced frames; strengthening existing or adding new shear walls; strengthening existing or adding new foundations to support these elements; and strengthening existing diaphragms.

STRUCTURAL ASSESSMENT

Code Review:

- **All portions of building**

- If the area of structural alterations is less than or equal to 30% of the total floor and roof areas of the building, or if overall building weight is increased by less than or equal to 10%, then the structural work would be considered a "Limited Structural Alteration". For a Limited Structural Alteration, only the component of the building's lateral-load resisting system that is being altered must be analyzed and retrofitted to meet current building-code prescribed wind loads and reduced seismic loads. This analysis needs to account for the cumulative effects of prior alterations made to the building (i.e. additions, renovations) to determine their effect on the component. For example, a steel braced frame may need to be added if a large opening is made in one of the existing brick-masonry walls. A "whole building" lateral load analysis/retrofit is typically not required for a Limited Structural Alteration.

ESTIMATED TOTAL PROJECT COSTS USING HISTORICAL DATA

New Construction:

- Hard Costs: Construction
 - Demolition as needed + Construction of Building
 - Construction of previously developed site with minimal complicating issues or construction at a new undeveloped site
 - Design, Estimating + Construction Contingencies + Escalation to Mid-Point of Construction
- Soft Costs: Administrative
 - Fees for design team, OPM, Clerk-of-Works, Special Services, Owners Contingency
 - Prequalification, Printing, Advertisement, Permitting, Legal, Financing, Commissioning + Testing
 - Furniture, Fixtures, Equipment, Low Voltage Systems
 - Utility Back Charges, Temporary Facilities and Moving Costs

COSTS FOR ALL NEW CONSTRUCTION

Existing Building at 22,406 +/-	Square Footage	Hard Costs @ \$390/sf + \$315 /sf	Soft Costs @ 25%	Total Project Costs
Fire, Police + DPW Combined	58,177	\$20,797,080	\$6,932,360	\$27,729,440
Fire + Police Combined	32,950	\$12,850,500	\$4,283,500	\$17,134,000
Fire + DPW Combined	47,745	\$16,728,600	\$5,576,200	\$22,304,800
Police + DPW Combined	41,022	\$14,106,630	\$4,702,210	\$18,808,840
Police Stand-Alone	15,531	\$6,057,090	\$2,019,030	\$8,076,120
Fire Stand-Alone	22,254	\$8,679,060	\$2,893,020	\$11,572,080
DPW Stand-Alone	26,789	\$8,438,535	\$2,812,845	\$11,251,380

THANK YOU



APPENDIX D: PHOTOGRAPHS

POLICE PHOTOS



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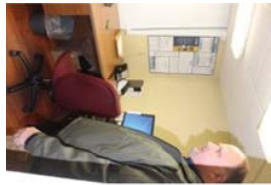
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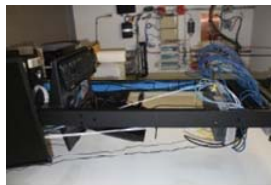
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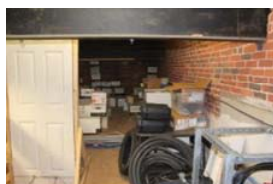
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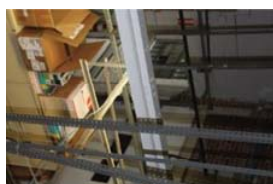
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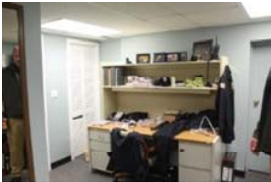
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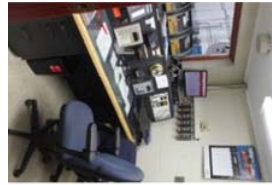
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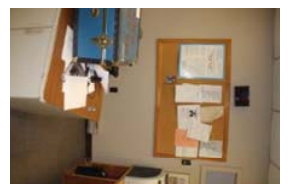
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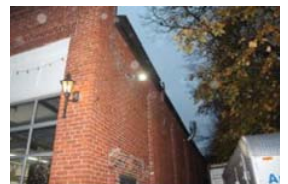
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DPW PHOTOS



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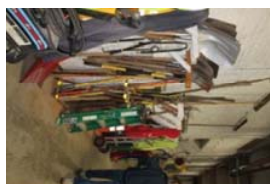
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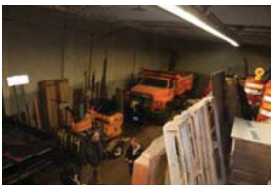
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CIVIL PHOTOS



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IMG_1625.JPG



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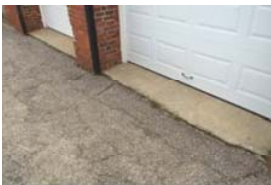
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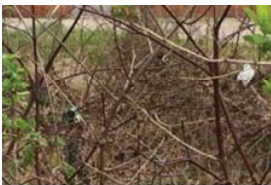
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STRUCTURAL PHOTOS



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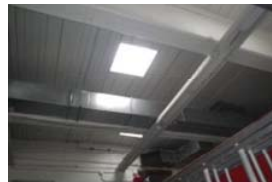
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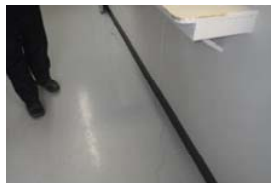
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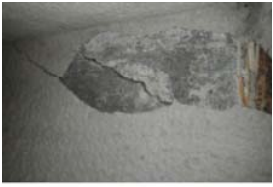
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