Extra Information
B.S Meeting
10-11-07
5

John Murray

From: Brian W. Humes [bhumes@jharchitects.net]
Sent: Friday, October 05, 2007 11:23 AM
To: John Murray; Fire Department
Cc: 'Mark Allen'
Subject: North Acton Fire/EMS
Attachments: northactonfire 10-5-07.pdf

John / Chief,

Based on our conversation this morning, please find a revised Space Needs Assessment, dated October 5, 2007, for your proposed North Acton Fire/EMS Facility.

I will await your review and further authorization to proceed to Schematic Design. Thanks,

Brian W. Humes, AIA
Jacunski Humes Architects, LLC

PLEASE NOTE OUR NEW ADDRESS

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Space Needs Assessment
for the
North Acton Fire / EMS Facility
Acton, MA

August 27, 2007
(Revised October 5, 2007)

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Space Needs Assessment
for the
North Acton Fire / EMS Facility
Acton, MA

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GENERAL INFORMATION

Date:	August 27, 2007 Revised: October 5, 2007

Department:	Acton Fire Department
Address:	371 Main Street Acton, Massachusetts 01720

Primary Contact:	Robert C. Craig, Fire Chief

Telephone No.:	(978) 264-9645
Fax No.:	(978) 266-2885
Email:	fire @ acton-ma.gov

2. *Apparatus Bays*

a.	Apparatus Bays	4,800	3,200

1. Apparatus storage bays for four (4) vehicles required, 14' high doors, drive-through configuration preferred at ladder truck bay
2. Apparatus to be housed include Engine, Ambulance, 105' ladder truck, and boat
3. 120 V. electric available @ each bay
4. Vehicle exhaust capture system, overhead, at each apparatus
5. Floor drains centrally located at each bay to tight tank
6. Radio speakers / intercom system / paging system
7. Compressed air available at bays
8. Ice Machine
9. Overhead water fill location at engines and ladder truck locations

b.	Decontamination Room	250	250

1. Deluge shower and eye wash station
2. Floor drain to tight tank
3. Containment of bodily fluids
4. Cleaning of soiled equipment according to NFPA 1581 standards
5. Industrial sized washer and dryer for gear use
6. Directly vented to exterior
7. Locate directly adjacent to Apparatus Bays with exterior entry location

c.	Medical Supply Storage	100	100

1. Shelving for medical supplies
2. Locate adjacent to Apparatus Bays

d.	SCBA Compressor Room	150	150

1. Clean air environment for SCBA compressor
2. Bottle storage racks
3. 3-phase electric power
4. Double door access
5. Locate adjacent to Apparatus Bays

e. General Storage 300 300

1. Workbench maintenance area w/ vise, grinder, drill press
2. Spare parts storage shelving
3. Hose racks
4. Emergency lighting
5. Portable pumps
6. Speedy dry
7. Air compressor, tools and supplies
8. Foam storage
9. Cleaning supplies
10. Protective clothing
11. Flammable / Hazardous materials storage lockers for gas / oils
12. Locate adjacent to Apparatus Bays

f. Gear Storage Locker Area 250 250

1. Protective gear locker storage, twenty-five (25) lockers minimum
2. Ventilated lockers to assist drying
3. Locker storage area for off-shift personnel, on-shift gear storage moved to apparatus floor
4. Locate adjacent to Apparatus Bays

3. *Watch Room*

a. Watch Room 150 150

1. Communications for fire alarm, fire / EMS communications only
2. Manual storage shelving
3. Scanner
4. Access controlled at points of entry
5. Locate adjacent to Apparatus Bays

4. *Shift Commander*

a. Shift Commander 175 0

1. Workstation for one (1), Captain
2. Visitor's chairs for two (2)
3. File storage cabinets, 1 per shift, minimum
4. Bookshelving, manual storage shelving
5. Locate adjacent to General Office, Watch Room, Firefighter's Functions

b. Storage Room 100 100

1. Equipment storage for radios, gear, scba, etc.
2. SAFEGRANT material storage
3. Located adjacent to Shift Commander's office

5. *General Office*

a. General Office 350 100

1. Workstation for one (1) Lieutenant
2. Bookshelving, manual storage shelving
3. Locate adjacent to Firefighter's functions

6. *Firefighter's Functions*

a. Male Toilet / Locker Room 350 300

1. Metal lockers for temporary use, five (5) minimum
2. Locker sizes: 18" x 18" x 72" with bench
3. Shower, one (1) required, handicap accessible design
4. Sink area
5. Toilet area w/ stall and urinal
6. Robe hooks at shower location
7. Full height mirror
8. Locate adjacent to Physical Fitness Room and Apparatus Bays

b. Female Toilet / Locker Room 350 300

1. Metal lockers for temporary use, five (5) minimum
2. Locker sizes: 18" x 18" x 72" with bench
3. Shower, one (1) required, handicap accessible design
4. Sink area
5. Toilet area w/ stall
6. Robe hooks at shower location
7. Full height mirror
8. Locate adjacent to Physical Fitness Room and Apparatus Bays

c. Break Room 450 400

1. Comfortable furniture, "living room" setting
2. TV / DVD
3. Table seating for ten (10)
4. Locate adjacent to Kitchen

d.	Kitchen		275	275

1. Operational kitchen for firefighter's use only
2. Stove
3. Microwave
4. Refrigerator / Freezer
5. Dishwasher / Sanitizer
6. Vending Machines, two (2) minimum
7. Individual locked storage cabinets for each shift (four (4) total)
8. Locate adjacent to Break Room, outside grill location

e.	Study Area / Reference Library		150	150

1. Firefighter's quiet study area
2. Bookshelving, library reference area
3. Computer workstations for three (3) minimum
4. High speed copy machine
5. Facsimile machine
6. Networked computer printer
7. Storage cabinets for office supplies
8. Mailboxes for fire personnel; individual, lockable units, twenty-five (25) minimum
9. Locate adjacent to Firefighter's Functions

7. *Bunk Rooms*

a.	Captain's Quarters	One (1) @ 100	100	0

1. Individual bunk room with wardrobe locker, linen storage, bed, bedside table
2. Wardrobe lockers, four (4) minimum
3. Desk workstation for one (1)
4. Reading lamps and overhead lighting
5. Twin size mattress
6. Acoustic separation from adjoining spaces
7. Radio communications and tone alerts
8. Locate adjacent to Locker Rooms and Apparatus Bays

b.	Lieutenant's Quarters	One (1) @ 100	100	80

1. Individual bunk room with wardrobe locker, linen storage, bed, bedside table
2. Wardrobe lockers, four (4) minimum
3. Reading lamps and overhead lighting
4. Twin size mattress
5. Acoustic separation from adjoining spaces
6. Radio communications and tone alerts
7. Locate adjacent to Locker Rooms and Apparatus Bays

c.	Firefighter's Bunk Rooms	Four (4) @ 80	320	320

1. Individual bunk rooms with wardrobe storage, linen storage, bed, bedside table
2. Wardrobe lockers, four (4) minimum per room
3. Reading lamps and overhead lighting
4. Twin size mattresses
5. Acoustic separation from adjoining spaces
6. Radio communications and tone alerts
7. Locate adjacent to Locker Rooms and Apparatus Bays

d.	Dormitory Quarters	One (1) @ 100	160	100

1. Individual bunk room with wardrobe storage, linen storage, bed, bedside table
2. Two (2) bunked twin size mattresses, bunked configuration
3 Wardrobe lockers, four (4) minimum per room
4. Reading lamps and overhead lighting
5. Acoustic separation from adjoining spaces
6. Radio communications and tone alerts
7. Locate adjacent to Locker Rooms and Apparatus Bays

8. Physical Training Room

a.	Physical Training Room	400	300

1. Locate adjacent to locker rooms / firefighter's areas
2. Exercise equipment (stationary equipment only)
3. Drinking fountain
4. Natural light, operable windows
5. Design for town staff access and use

9. Custodial Services

a.	Janitor Closets	One (1) @ apparatus, One (1) @ firefighter's area	160

1. One per floor (minimum)
2. Floor sink
3. Janitorial supply storage
4. Cart storage
5. Equipment and cleaning supplies storage

SPACE NEEDS SUMMARY

Summary Sheet	**Square Ft. Proposed**	
	8/27/07	**10/3/07**
Public	810	260
Apparatus Bays	5,850	4,250
Watch Room	150	150
Shift Commander	275	100
General Office	350	100
Firefighter's Area	1,575	1,425
Bunk Rooms	680	500
Physical Training Room	400	300
Custodial Services	160	160
Computer Room	150	150
Mechanical	1,150	1,150
Total Net Square Footage	**11,550**	**8,545**
Net to Gross Factor Estimate (1.10 @ apparatus bays)	585	425
Net to Gross Factor Estimate (1.35 @ all other areas)	1,995	1,500
Total Gross Square Footage Required	**14,130**	**10,470**

"Total Gross Square Footage Required" is utilized as an estimate of proposed construction needs. The formation of floor plans, design efficiencies, building elevations, and construction classifications will all impact the final square footage solution.

EXTERIOR CONSIDERATIONS

a. General Public Parking

1. Total number of spaces required = fifteen (15) spaces, minimum

b. Official Vehicle and Staff Parking

1. Total number of spaces required = twenty (20) space, minimum
2. Motorcycle parking area
3. Motorcycle parking on concrete pad

c. Apparatus Apron

1. Unimpeded access to Main Street (State Route 27)
2. Traffic control device
3. Heated pavement to prevent ice / snow accumulation (verify)

d. Flagpoles

1. USA
2. State
3. Internal halyard

e. Signs

1. Department identification signage, street number identification
2. Located on building or at roadway
3. Conforms to local zoning regulations

f. Lighting

1. Lighting at all public areas
2. Lighting at all parking areas
3. Illuminated walkways and apparatus apron areas
4. Illuminated entry locations
5. Lighting coordinated with CCTV locations

g. CCTV Cameras

1. Color, fixed focus cameras for building security and property surveillance
2. Monitoring at all points of entry

h. Handicap accessibility

1. Entire facility handicap accessible
2. Wheelchair access to public entry

i. Plant Material

1. Minimize maintenance
2. Avoid creating hiding places
3. Eliminate large ground cover

j. Trash Storage

1. No dumpster location required
2. Interior containment of trash / refuse for routine pick-up by town personnel

k. Snow Storage

1. Provide snow storage capacity on site / landscaped areas

l. Exterior Hose Bibb Locations

1. Provide varied locations around building
2. Car / Truck wash locations

m. Communications Antenna

1. Building mounted antennas only

n. Emergency Generator

1. Exterior, pad mounted emergency generator
2. Weatherproof, acoustic enclosure
3. Provide access location for refueling needs

o. Perimeter Fencing

1. Fencing at adjacent property lines to limit site access
2. Control points of access from adjacent playfields

p. Septic system and leach field

1. On-site septic tank and leaching field required
2. Conforms to Public Health Requirements

q. Tight tank storage containment

1. Underground, double wall storage of wastewater from floor drains
2. Convenient location for pumping on periodic basis

r. Training Tower

1. Site consideration for training tower
2. Apparatus access