

CODES AND REGULATIONS

International Building Code Review

- A. According to the International Building Code (IBC) 2009 this building occupancy type as B – Business.
- B. Accessible means of egress required.
1007.1 calls for no less than two *accessible means of egress* but an exception is listed:
2. One *accessible means of egress* is required from an *accessible mezzanine* level in accordance with Section 1007.3 [Stairways], 1007.4 [Elevators] or 1007.5 [Platform lifts].
- C. Number of Exits and Continuity
1021.2 Single exits. Only one exit shall be required from Group R-3 occupancy buildings or from stories of other buildings as indicated in Table 1021.2. Occupancies shall be permitted to have a single *exit* in buildings otherwise required to have more than one *exit* if the areas served by the single *exit* do not exceed the limitations of Table 1021.2. . . Basements with a single *exit* shall not be located more than one *story* below *grade plane*.
Table 1021.2 lists occupancy type B, first story or basement, with maximum 49 occupants per floor and 75 feet travel distance (may be increased to 100 feet in buildings fully equipped with an automatic sprinkler system).
- D. Wheelchair Lift
1007.5 Platform lifts. Platform (wheelchair) lifts shall not serve as part of an *accessible means of egress*, except where allowed as part of a required *accessible route* in Section 1109.7, Items 1 through 9. Standby power shall be provided in accordance with Chapter 27 for platform lifts permitted to serve as part of a *means of egress*.
1109.7 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required *accessible route* in new construction where indicated in Items 1 through 10. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.
3. An *accessible route* to spaces that are not open to the general public with an occupant load of not more than five.

Town of Arlington Bylaws

- A. Title V, Article 15, Section 2. Applicability: Alteration of a developed property resulting in an increase to the impervious area of a lot by more than 350 square feet.
- B. Article 8 Off Street Parking and Loading Regulations
 - 1. Section 8.03 – Existing Spaces (ART. 82, ATM 4/80): Parking or loading spaces being maintained in any district in connection with any existing use on the effective date of this Bylaw, or any spaces subsequently provided in accordance with this Bylaw, shall not be decreased or in any way removed from service to the use originally intended to be served so long as said use remains, unless a number of parking or loading spaces is constructed elsewhere on property under the same ownership, provided: this regulation shall not require the maintenance of more parking or loading spaces than is required according to the tables.
 - 2. Section 8.05 – Combined Facilities (ART. 12, ATM/5/91): Parking required for two or more buildings or uses may be provided in combined facilities on the same or adjacent lots, by special permit from the ZBA, or in cases subject to Section 11.06, the ARB where it is evident that such facilities will continue to be available for the several buildings or uses.

3. ART. 70, ATM 3/77 Community facility (town building, recreation, etc.) requires one parking space per each three employees on the largest shift.
- C. Article 3, Section 3.01 – Menotomy Manor Development is located in the Residence 5 (R5) Residential District.
- D. Article 4, Section 4.03 – Existing Buildings and Land, ART. 3, ATM 4/89: This Bylaw shall not apply to existing buildings or structures, nor to the existing use of any building or structure or of land, to the extent to which it is legally used at the time of adoption of this Bylaw, but it shall apply to any change of use thereof and to any alteration of a building or structure when the same would amount to reconstruction, extension or structural change, and to any alteration of a building or structure to provide for its use for a purpose or in a manner substantially different from the use to which it was put before alteration, or for its use for the same purpose to a substantially greater extent.
- E. Section 5.04 – Table of Use Regulations
 1. Institutional & Educational ART.2, STM 9/04 (Community Center, youth club. . . or other similar facility operated by an educational, religious or non-profit institution) in R5 requires special permit
 2. Accessory Use ART. 99, ATM/3/85: ART. 2, STM 9/04 (organized afterschool program) in R5 requires special permit
- F. Article 6, Section 6.03c – When a permitted main building to be used as a dwelling is to be located on the same lot with and beside a permitted nonresidential building, required front, side and rear yards shall be provided between each building and assumed lot lines shown upon the building permit application.
- G. Section 6.18 (ART. 15, ATM 5/91) – Setback of Accessory Buildings and Other Structures – In “R” districts, a detached accessory building or structure shall conform to the provisions set forth in the following schedule: R5 requires 20 feet from the front lot line and 6 feet from the side and rear lot lines.
- H. Section 6.00 – Table of Dimensional and Density Regulations: for District R5, Any other permitted principal structure:
 1. Lot Requirements: min 6,000 sf and 60’ of frontage
 2. Floor Area Ratio (FAR): 0.80
 3. Lot Coverage Minimum: NA
 4. Minimum Lot Area per Dwelling Unit: NA
 5. Minimum Front Yard: 20’
 6. Minimum Side Yard: 20’ (except as per Section 5.02; ART. 22, ATM 4/97; and Section 6.26)
 7. Minimum Rear Yard: 20’ (except as per Section 5.02; ART. 22, ATM 4/97; and Section 6.26)
 8. Maximum Height: 3 Stories, 35’
 9. Minimum Open Space: Landscaped 30%, Usable -
- I. Section 5.02 –Permitted Uses
 1. ART.10,ATM 4/98; ART.11,ATM 4/98
In the following Table of Use Regulations, the uses permitted by right in the district shall be designated by the word "yes," except that any use listed in the following Table of Use Regulations as a permitted use, the proposed location of which does not abut on a street which is laid out and approved by the Board of Survey as a traveled way, or which has not been built to subgrade, so that such way or street is passable for fire apparatus and other traffic, or which abuts on a street or way in which there is no public sewer or in which there is no water available for connection with the building after completion, may be allowed only by special permit. Those uses that may be

permitted by special permit in the district, in accordance with Articles 10 and 11, shall be designated by the letters "SP." Uses designated with a blank shall not be permitted in the district.

2. ART. 7, ATM 4/05

A lot or structure located in the R6, R7, B1, B2, B2A, B3, B4, B5, PUD, I, MU, and T districts may contain more than one principal use as listed in Section 5.04 "Table of Use Regulation." For the purposes of interpretation of this Bylaw, the use containing the largest floor area shall be deemed the principal use and all other uses shall be classified as accessory uses. In the case of existing commercial uses, the addition or expansion of residential use within the existing building footprint shall not require adherence to setback regulations for residential uses even if the residential use becomes the principal use of the property.

- J. ART. 22, ATM 4/97 – L is the length of a wall parallel (or within 45 degrees of parallel) to lot line, measured parallel to lot line, subject to the provisions of Section 6.26 for building of uneven alignment or height, H is height of that part of the building for which the setback or yard is to be calculated.

K. Section 6.26 • Buildings of Uneven Height or Alignment

- a. Where a building is not of the same height throughout its length parallel (or within 45 degrees of parallel) to any lot line, but where it is in one alignment along said length, required yards and setbacks shall be either $(H^1 + L^1)/6$ or $(H^2 + L^2)/6$ whichever is greater, where:

H^1 = the height of the taller portion of the building; H^2 = the height of the lower portion of the building;
 L^1 = the length of the taller portion of the building; and
 L^2 = the entire length of the building.

Where the formula 10 + U10 applies, L shall be defined as L^2 above.

- *b. Where a building is of the same height throughout its length parallel (or within 45 degrees of parallel) to any lot line, but where it is not in one alignment along said length, required yards and setbacks shall be $(H + L^1)/6$ for the portion of the building nearer the lot line; and $(H + L^2)/6$ for the portion of the building further from the lot line, where:

H = the height of the building;
 L^1 = the length of the portion of the building nearer the lot line; and
 L^2 = the entire length of the building.

Where the formula 10 + (U10) applies, the required yards and setbacks shall be 10 + $(L^1/10)$ for the portion of the building nearer the lot line; and 10 + $(L^2/10)$ for the portion of the building further from the lot line, with L^1 and L^2 defined as above.

- c. Where a building is not of the same height throughout its length parallel (or within 45 degrees of parallel) to any lot line, and where it is not in one alignment along said length, required yards and setbacks shall be calculated as follows:

- *1. Where the taller part of the building is nearer to the lot line required yards and setbacks shall be $(H^1 + L^1)/6$ for the portion of the building nearer to the lot line; and $(H^2 + L^2)/6$ for the portion of the building further from the lot line, where:

H^1 = the height of the taller part of the building; H^2 = the height of the lower part of the building;
 L^1 = the length of the taller part of the building; and
 L^2 = the entire length of the building.

2. Where the formula $10 + (U/10)$ applies, required yards and setbacks shall be $10 + (L^1/10)$ for the portion of the building nearer the lot line; and $10 + (L^2/10)$ for the portion of the building further from the lot line, with L^1 and L^2 defined as above.

*3. Where the taller part of the building is further from the lot line, required yards and setbacks shall be $(H^1 + L^2)/6$ for the portion of the building further from the lot line; and $(H^2 + L^1)/6$ for the portion of the building nearer the lot line, where:

H^1 = the height of the taller part of the building; H^2 = the height of the lower part of the building;
 L^1 = the length of the lower part of the building; and
 L^2 = the length of the entire building.

Where the formula $10 + (U/10)$ applies, the required yards and setbacks shall be $10 + (L^1/10)$ for the portion of the building nearer the lot line; and $10 + (L^2/10)$ for the portion of the building further from the lot line, with L^1 and L^2 defined as above.

- L. ART. 12, ATM 5/91, paragraph b. Under a special permit, the ZBA, or in cases subject to Section 11.06, the ARB may permit further modifications in the dimensional requirements specified in Article 6 as applied to Uses 2.05 and 2.07 to the extent necessary to allow reasonable development of such a use in general harmony with other uses permitted and as regulated in the vicinity.
- M. Section 11.06 – Environmental Design Review

APPLICABLE DHCD GUIDELINES AND STANDARDS

The Concepts Report included a checklist of applicable DHCD Guidelines and Standards. For Schematic Design the pertinent Sections and Categories are as follows:

- Asbestos Remediation & Lead-painted Materials Removal
- Waste Management (see page 23)
- Demolition
- Rough Carpentry
- Finish Carpentry
- Plastic and Composite Trim
- Building Insulation and Moisture Protection
- Sheet Metal Trim & Flashing
- Doors and Frames
- Entrances and Storefronts
- Door Hardware
- Gypsum
- Specialties (Toilet Accessories, Window Treatment, Entrance Mats)
- Residential Appliances
- Casework
- Fire Suppression – Sprinklers
- Electronic Safety and Security
- Earthwork
- Asphalt Paving
- Site Improvements
- Landscaping
- Site Utilities

The following filed-sub bid categories would be required (work exceeding \$20,000):

- Sealants
- Windows
- Resilient Flooring
- Painting
- Plumbing
- HVAC - Requires 15 CFM of outside air per person to be brought into the building. A normal split system will handle that air load, a roof top unit with a full economizer and power exhaust
- Electrical

Those Sections and Categories dependent on Design Development are as follows:

- Contaminated Site Material Removal
- Structural Steel
- Siding
- Gutters & Downspouts
- Soil Treatment

The filed sub-bid trades are dependent on the extent to which they will be incorporated into Design Development (work exceeding \$20,000):

- Unit Masonry – if salvage existing masonry for re-use.
- Miscellaneous & Ornamental Iron
- Waterproofing & Dampproofing
- Asphalt Roof Shingles
- Membrane Roofing
- Tile – if just the kitchen, food pantry and restrooms were to receive tile (flooring and wet wall tile wainscot), the total area would be less than \$20K. Installing tile in the entrance area(s) would trip the \$20K minimum, thus requiring FSB. If resilient flooring is used in the kitchen and food pantry, the tile FSB might not be needed.
- Elevator

01 74 19 Waste Management

Ongoing building operations



Existing waste management for the administration building is the same as for the residential buildings: residents have their respective trash barrels which they bring out to the curb (Fremont Court or Fremont Street) for regular trash pick-up, or waste is deposited in one of several trash receptacles at the corners or dumpsters that are located at the parking lots. Each residence has a blue recycling bin that is brought out for regular recycling pick-up.

Specifying recycled, reused or repurposed products and materials as appropriate for construction

According to the DHCD Design and Construction Guidelines and Standards (01 74 19), the specifications shall include the following:

- Clear direction to contractor and subcontractors that the waste management plan is mandatory and must comply with all local, state and federal authorities of jurisdiction; include discussion on WMP at the kick-off meeting
- Communication plan outlining how recycling will take place, who is responsible for oversight, acceptable submittal forms, schedule of submittals, expected recycle content and estimated quantities
- Materials and quantities that the contractor will be required to salvage or recycle, including packing materials
 1. Salvage brick from existing admin building for reuse in new building
 2. Salvage rolling door for use in the new building
 3. Separate metals to be recycled (window frames)
 4. Separate wood framing to be recycled
- Procedures for recycling: salvage, on-site reuse, mixed-waste recycling, etc.
- List of recycling facilities and contact information
- Reporting protocol for waste materials and ACM and lead-painted materials removed from the project
- Method for receiving authorization for alternative means of disposal
- Clearly marked construction bins, dumpsters, etc. to avoid mixed waste contamination; should include Directions to lock dumpsters after hours of operation

APPENDICES

Arlington Housing Authority
New Life & Skills Center at Menotomy Manor
Fremont Court

Concepts Submission
November 11, 2015 [\(rev. 12/24/15\)](#)

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EXISTING CONDITIONS REVIEW

Bid Docs Online scanned the drawings, specifications and other documents (for Hauser Apartment Building, Menotomy Manor, and other Arlington Housing Authority properties) that had been stored in Hauser. After they were scanned, the original hard copies were retained by Roland Demers, the Superintendent of Maintenance, and are stored in the second floor storage room.

Although the Menotomy drawings from 2007 kitchen/bath renovations were listed on BDO, they were not accessible. At the kick-off meeting, Bob Cronin said that the original Menotomy Manor building drawings might be in the attic of the administration building. On November 5th, a search in the attic was not fruitful, but drawings were found in the basement of Cusack Terrace and at the 2nd floor storage room of Hauser.

The 2007 kitchen and bath renovation drawings were found but do not contain a site survey. The 1949 drawings were found, including the original site survey with soil boring data. For the design of the New Life & Skills Center, a current site survey will be needed and soil tests.

The first week of visits included the following:

October 27th - Menotomy Manor Administration Building, 45 & 80 Fremont Court
October 28th - Menotomy Manor Site
November 5th - Menotomy Manor Site and Administration Building Attic

EVALUATION OF EXISTING ADMINISTRATION BUILDING

1. The Site

- a. Menotomy Manor family development is composed of three parcels of land: two of the parcels (with twelve wood-framed residences on the upper parcel and thirteen wood-framed residences on the lower parcel) are bounded by Gardner Street on the west, Sunnyside Avenue on the north and east, and Fremont Street on the south; Memorial Way separates these two parcels from each other; the third and main parcel, bounded by non-AHA properties on the west and north, Fremont Street on the south, and Gardner on the east, includes twenty-one two-story brick residential buildings plus the administration building centrally located on the site. The buildings were constructed in the 1940's, with a 2007 renovation of kitchens and baths but otherwise no major renovations.
- b. An internal driveway, called Fremont Court, enters the parcel off of Fremont Street and circles around the admin building and two of the residential buildings. There are small parking lots distributed around the site, and parking on Fremont Street and Gardner Street. Parking is prohibited along Fremont Court as it serves as the fire lane.
- c. Although the Mystic River is a couple of blocks north of it, the site, according to the Arlington Zoning Map, is not in the flood zone. Only the building (called #4 by AHA) located at the northern edge of the third parcel at Gardner Street has a history of water infiltration at the foundation.

2. The Administration Building

- a. The existing administration building is a gable-roofed, one-story, masonry structure with a basement. Given the exterior wall thickness, the stud back-up is probably 2x4. The overall

dimensions are approximately 36'-0"W x 23'-0" deep. The entry is up a few steps to a central door. When facing the front of the building, on the left side of the first floor is a service counter and desk for the police substation, the property manager's office, and one restroom. The floor to ceiling in the office area is about 8'-0", and about 8'-8" in the maintenance area.

- b. The main office area was packed with two refrigerators behind the desk, two leather club chairs, a table loaded with boxes of produce, shelving and a cold water dispenser.
- c. On the right side of the first floor is the maintenance shop which houses a work bench, tools, ladders, and stock materials. The maintenance shop can be accessed three ways: interior door from the office area and one step down, door on the right of the building to the exterior and two steps down, and a rolling door at the rear that ramps down via an asphalt surface to grade.
- d. The basement is accessed by wooden stairs from the maintenance area and is used primarily for storage. The basement floor to ceiling height is less than 7'-6". A gas meter is at the northwest corner, a slop sink located just past the base of the stairs, boiler and water heater next to the stairs. There did not appear to be a floor drain in the basement. A structural beam is aligned under the wall that separates the office area from the maintenance room. There are some jack studs adjacent to the structural beam, and Roland Demers explained that they had been centered under the maintenance room when the floor began to sag after the bobcat was stored in there. The concrete foundation was probably designed for a one-story structure, most likely not reinforced. The floor joists are covered but probably no more than 2x10s given the span between the central beam and the foundation walls.
- e. A larger bobcat is parked outside to the left of the building. Roland reported that the basement was once accessible by an external ramp (at the left side of the building) down which the equipment could be rolled into the basement for storage. The existing area of the parking lot to the left of the building does not appear to have enough length for a properly sloped ramp. One car was parked next to the bobcat, and no more than two cars were parked on the lot to the right of the building.
- f. Behind the admin building is a storage container that is approximately 6'-0"W x 12'-0" that houses lawn care equipment, snow blower, etc.

3. Operation Success and Boys' and Girls' Club

- a. Two after-school programs are currently housed in two separate townhouses (45 and 80 Fremont Court). Each of the townhouses has three bedrooms, kitchen, bathroom, and a basement. Neither program appears to use the basements, and the kitchens used mainly for storing snacks.
- b. The bedrooms in the Operation Success townhouse are used for computers and are locked when not in use. The living room has narrow tables for individual study.
- c. The bedrooms in the townhouse used by the Boys' and Girls' Club are sparsely furnished and mainly store toys and games. The living room has larger tables for group activities, and a whiteboard sits on the floor.

ASSESSMENT OF CODES AND REGULATIONS

Current codes -

IBC 2009 Residential Group R-2, Type IIIA Construction
NEC
ASHRAE
NFPA 14

Exterior and Interior Accessibility
ADA
MAAB - Group 2B
UFAS
504

International Energy Conservation Code (IECC) 2009
Stretch Energy Code (The Stretch Code was adopted by Arlington on April 28, 2010 and effective on July 1, 2011.)

Arlington Zoning Bylaws

According to the Town of Arlington zoning map, Menotomy Manor is located in an R5 Apartments Low Density zone.

Relevant Zoning Bylaws affecting Menotomy Manor

Because the New Life & Skills Center would require either an alternation or extension to the existing administration building, then the Bylaws are applicable, as stated below (underlined for emphasis):

Section 4.03 - Existing Buildings and Land

ART. 3, ATM 4/89

This Bylaw shall not apply to existing buildings or structures, nor to the existing use of any building or structure or of land, to the extent to which it is legally used at the time of adoption of this Bylaw, but it shall apply to any change of use thereof and to any alteration of a building or structure when the same would amount to reconstruction, extension or structural change, and to any alteration of a building or structure to provide for its use for a purpose or in a manner substantially different from the use to which it was put before alteration, or for its use for the same purpose to a substantially greater extent.

Allowable uses in R-5

Accessory use
8.08 organized afterschool program. . . providing day care for no more than six children at one time

Arlington Housing Authority
New Life & Skills Center at Menotomy Manor
Fremont Court

Concepts Submission
November 11, 2015 (rev. 12/24/15)

Requires special review

Institutional & Educational
2.01 Community Center, youth club, adult education center. . . operated by an educational, religious or non-profit institution

Section 6 Table of Dimensional and Density Regulations for R5 (permitted principal structure other than residential)

Lot Requirement: 6000 SF min.
Frontage: 60'
FAR: .80
Lot Coverage Maximum Percent: NA
Minimum Lot Area per Dwelling Unit: NA
Min. Front Yard Setback: 20'
Min. Side Yard Setback: 20'
Min. Rear Yard Setback: 20'
Maximum Height: 3 stories, 35'
Landscaped Open Space Minimum 30% of gross floor area

Section 6.18 - Set back of Accessory Buildings and Other Structures

In "R" districts, a detached accessory building or structure shall conform to provisions set forth in the following schedule: R5

Front Setback: 20'
Side and Rear Setback: 6'

Article 8 Parking

8.01 Off-street Parking
...[O]ff-street parking space shall be provided for every new structure, the enlargement of an existing structure, the development of a new land use or any change in an existing use in its entirety in accordance with the Table of Use Regulations (see Article 5), the Table of Off-Street Parking Regulations, and the other requirements contained herein.

ART. 70, ATM 3/77

Use: Community facility - One per each three employees on the largest shift

8.02 Off-Street Loading and Unloading Requirements

ART. 101, ATM 3/87

Use 3. Institutional & Educational, Public, Recreational, & Entertainment, Office
5,000 - 20,000 GSF = 1
20,001 - 50,000 GSF = 2
50,001 - 100,000 GSF = 3
plus one for each 100,000 (or fraction) over 100,000

Section 8.03 Existing Spaces

"shall not be decreased or in any way removed from service to the use originally intended to be served so long as said use remains, unless a number of parking or loading spaces is constructed elsewhere on property under same ownership

Section 8.05 Combined Facilities

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Parking required for two or more buildings or uses may be provided in combined facilities on the same or adjacent lots, by special permit from the ZBA, or in cases subject to Section 11.06 [Environmental Design Review], the ARB where it is evident that such facilities will continue to be available for several buildings or uses.

Section 9.10 Special Permit Uses: Repair, Reconstruction, Extension, Addition

Zoning Bylaw Sections to keep in mind during Schematic Design and Design Development:

6.26 Buildings of Uneven Height or Alignment

Article 7 Signs

8.10 Pavement of Parking Spaces

8.12 Parking and Loading Space Standards

8.13 Bicycle Parking

Article 10 Administration and Enforcement

11.06 Environmental Design Review

DESIGN APPROACH AND PRELIMINARY PROGRAM & SCOPE OF WORK

I. As discussed in the kick-off meeting, the project goals and general scope described in both RFS's exceed the available budget. In the descriptions that follow, EHA has attempted to include all observations that pertain to the options of expanding the administration building or creating a new building to house the Life & Skills Center at Menotomy Manor. During Schematic Design EHA will produce a priority list that includes a cost estimate, and options for phasing all or some of the RFS goals, as well as the life-safety, code and health considerations. With the given budgets, the project can be defined from the menu of options from the full spectrum to specific parts.

A. The Request for Architectural Services lists Project Goals and General Scope:

1. Define space and technical requirements for the various programs under consideration
2. Evaluate the suitability of the existing administration building for proposed expansion
3. Identify appropriate sites within the boundaries of the Menotomy Manor development for future satellite facilities
4. Develop a design, either for the existing administrative building or a new building at one of the satellite sites, to the Schematic level that meets the programmatic objectives of the AHA and is within the stipulated budget

B. Program space and technical requirements

At a meeting with John Griffin on August 19th and at the kick-off meeting on October 28th, the list of programmatic spaces that were mentioned include the following: Property Manager's office, police substation, food pantry, Operation Success, Boys and Girls Club, gathering area / speaking room, women's restroom, men's restroom, maintenance, parking & storage for maintenance vehicles and equipment, plus the building's mechanical, electrical, and circulation spaces.

Program	Existing Space (SF)	Proposed Space (SF)	Comments
Property Manager	110	120	Desk, chairs, small meeting table
Police substation	190	120	Desk, chairs, service counter
Food Pantry		150	The food pantry has two refrigerators that are in the same space as the police substation (could be re-used and placed in the proposed kitchen, or replaced by one large commercial refrigerator).
Operation Success	1000	300-500 500	Includes bathroom, kitchen (seldom used), three locked rooms for computers, and open area for study: <u>proposed will have two lockable offices and other open areas shared with other building programs</u>
Boys' & Girls' Club	1000	300-500 50	Includes bathroom, kitchen (seldom used) and open areas for play and for arts & crafts: <u>proposed to have 50 sf of designated storage space and will otherwise share most of the open areas with other building programs</u>
Kitchen	0 (in the existing Admin Building)	250-300 200	There could be one large commercial refrigerator designated for the food pantry; plus a smaller residential refrigerator/freezer for staff and after-school program, warming oven and range hood, commercial dishwasher,

			double-bowl sink with disposal, and counter space, maybe an island to serve the staff and development/community meetings or events needs. As a point of comparison, the Hauser community kitchen is about 320 sf and it is a warming kitchen as well as a distribution center for meal programs. <u>Keep separate from food pantry/distribution; should also be fully accessible but not commercial kitchen</u>
Gathering area / speaking room (should be able to subdivide into smaller rooms that can be used by the after-school programs)	0	3000 5000 <u>1000</u>	With 175 2- and 3-bedroom units at the development, a large gathering space could easily reach 5000 square feet or more. (As a point of comparison, the Hauser community room is about 2600 sf and serves the 144-apartments as well as the rest of Drake Village). And if the Menotomy Manor gathering space is open for the larger community, the area needed could be double that. There would be a need for stackable and/or folding chairs and possibly folding tables, and a room to store them. <u>AHA said most gatherings average 25 people, after-school programs average 15 kids</u>
Maintenance	400 + 550	500	Work benches, power tools, shelving, stock materials Half the basement is storage 400 sf, plus a storage container behind the building is about 150 sf. <u>The staff would like a break space, separate restroom (for some of the community service workers); lawn and snowblowing equipment usually switched out with the end of the season to central garage storage at Hauser site, so some kind of outdoor accessed storage closet to accommodate three lawnmowers and three snowblowers during the appropriate season.</u>
Women's room		450-200 <u>150</u>	The minimum required per plumbing code depends on the occupancy type. If Assembly, need 1 per 150 occupants. [Also required plumbing elsewhere in the building are one drinking fountain and one service sink]. If we assume Assembly with a maximum occupancy load of 350 (or 175 apartments x 2 persons), then 2 WC for men and 3 WC for women, and 1 lav each. <u>according to the IEBC, the use group is Business, and the CMR 248 Uniform State Plumbing Code calls for - 1 toilet per 25 females; 33% lav; 1 service sink per floor; 1 drinking fountain per floor</u>
Men's room		440-125 <u>100</u>	Same as above, plus the International Plumbing Code allows urinals as substitute for toilets, again dependent on occupancy type: substitute 1 in Educational and Assembly 419.2 Substitution for water closets. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly and educational occupancies. Urinals shall not be substituted for more than 50 percent of the required water closets in all other occupancies. <u>according to the IEBC, the</u>

			<u>use group is Business, and the CMR 248 Uniform State Plumbing Code calls for 1 toilet per 20 males; 33% lav; service sink and drinking fountain counted under Women's room</u>
Unisex restroom	40	90	Currently only one restroom and it does not meet MAAB. One accessible restroom should be available for any persons who may be transitioning.
Mechanical room	50	120	Slop sink, boiler and storage tank in basement currently
Electrical room	0	120	No separate room currently: <u>will house electrical, fire alarm control equipment, telecom and security camera hard drive cabinet.</u>
INTERIOR SUBTOTAL	3390	5330-7515 <u>3220</u>	<u>If Maintenance, Unisex Restroom, Mechanical, Electrical (totaling 830 sf plus circulation) are in basement, the main floor would total 2390 sf plus circulation.</u>
Circulation - excluding elevator related	60 sf	800-1130 <u>800</u>	Currently minimal hallway between restroom and maintenance, and stair to basement, but calculate 4525 % of total SF for proposed
Circulation - Elevator or lift related		1150-1400 <u>392-588</u>	200-96 SF per floor for hoistway, 400-100 SF for the machine room, plus 90 SF for lobby per floor <u>(this would be part of the general circulation square footage).</u> Range from two to three floors plus basement.
<u>Circulation – lift related</u>		<u>50-100</u>	<u>Need variance if split and have two lift areas: one to basement and one to upper floor (assuming basement plus 1st and 2nd floors)</u>
INTERIOR PLUS CIRCULATION TOTAL	3450	7280-10,042 <u>4020 excl elevator; 4070-4120 incl. lift; or 4412-4608, incl. elev.</u>	Assuming equal sized floors: 1820-2510 SF per floor on three floors, plus basement; 2425-3347 SF per floor on two floors, plus basement
Parking to be replaced if use existing Admin Bldg location	2240	1000-2600	Currently eight parking spots next to the Admin Bldg., but need at least five spots for administrative and maintenance staff and one for the bobcat. Zoning calculation would require 3 parking spots plus one designated for HC.
Parking to be replaced if use one of the two larger parking lots on site	3360-4560	3360-4560	The two larger parking lots on the site contain 16 and 22 spaces

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C. Possible locations at the development site for a new building

1. Expanding Existing Administration Building to House All Programmatic Needs
 - a. Advantages
 - i. maintain central, prominent location of the building

- ii. existing afterschool programs can continue during construction
- iii. lose minimum number of parking spaces
- b. Disadvantages
 - i. property manager, police substation and maintenance will have to be relocated temporarily
 - ii. limited footprint size because of curb, driveway and adjacent residential buildings
 - iii. existing admin building foundation will have to be enhanced to carry a second or third floor

2. Razing the Existing Administration Building and Constructing New Building to House All Programmatic Needs

- a. Advantages
 - i. maintain central, prominent location of the building
 - ii. existing afterschool programs can continue during construction
 - iii. lose minimum number of parking spaces
- b. Disadvantages
 - i. property manager, police substation and maintenance will have to be relocated temporarily
 - ii. limited footprint size because of curb, driveway and adjacent residential buildings

3. Constructing a New Building at One of the Two Larger Parking Lots on the Site

- a. Advantages
 - i. admin and other programs can continue during that construction until the new building is constructed
 - ii. footprint could be larger than where current admin building is
- b. Disadvantages
 - i. new building would be less prominent location than where current admin building is
 - ii. to maintain quantity of parking, current admin building would be razed to make room for the relocated parking
 - iii. parking would be the central focus when arrive at Fremont Court driveway (landscaping and plantings could provide a screen and nicer welcome to the site)

4. Divide programs into two smaller buildings:

- renovating and expanding existing admin building to house police substation and maintenance,
- constructing new building to house property manager's office, after school programs, and larger gathering space.
- a. Advantages
 - i. if new smaller building started, for example in one of the parking lots, then admin and after school programs can continue during that construction until the new building is constructed
 - ii. renovation of the existing building can be phased: adding a larger maintenance area while maintaining the police substation, and once the addition is constructed, the existing office area can be updated.
- b. Disadvantages
 - i. two construction projects
 - ii. will need to maintain two buildings instead of one
 - iii. lost parking (would need zoning relief)

E. Considerations for Schematic Design and Design Development

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1. site work, soil, and utilities (including utility pole behind admin building)
2. accessibility elevator or lift
3. overhead garage door for maintenance equipment storage, accessible at grade
4. aesthetics/style of the building

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The following table, organized by specification sections, compares the RFS goals and general scope of work with other considerations as found during the site visits and as discussed at the kick-off meeting.

Division	RFQ Scope	DHCD Requirements	Other Considerations	Priority
2 - Site	Earthwork, excavation, grading, paving			
	Site Utilities			
	Landscaping			
3 - Concrete	Foundation			
	Walkway, paving			
4 - Masonry	Envelope (to be determined)			
5 - Metals	Structural			
6A - Rough Carpentry	Framing & blocking			
6B - Finish Carpentry	Related to windows, doors, details			
7 - Cladding & Waterproofing	New envelope including walls and roofing			
	Patching or repairing of existing envelope (if current admin building is not razed)			
	Insulation			
8 - Windows	Replacement and new			
	Windows/Storefronts			
8 - Doors & Hardware	Exterior and interior			
9 - Finishes	Gypsum wall board, metal studs			
	Resilient and ceramic tile			
	Paint			
10 - Accessories	Bathroom accessories, including grab bars			
	Signage			
	Entry mats			
11 - Appliances	Range, refrigerator, dishwasher, range hood, disposal	DHCD requires all appliances be EnergyStar		

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12 - casework	Kitchen & any other built in service counters or work spaces			
13 - Trash Compaction			Trash compactor for maintenance area?	
13- Security	Tie in with existing			
14 - Elevator or lift	To be determined			
15A - Plumbing	new energy efficient fixtures (kitchen sink, faucets, lavatories, toilets).			
	Roof drains, floor drains			
15B - Fire Protection (sprinkler)	Meet IBC and Plumbing Code			
15C - HVAC	Building heating & air conditioning			
	Building Ventilation			
	Mechanical & maintenance area ventilation			
	Range hood venting, bath ventilation			
16A - Electrical				
		DHCD requires rough wiring for power operated doors at exterior entries		
		DHCD requires motion sensor lighting at all interior common areas and at exterior entry doors		
		DHCD requires that overhead light fixtures be able to accommodate 2700-lumen lamps		
		DHCD requires dimmable kitchen counter & vanity lights		
	LED lighting at kitchens & baths			
16B - Fire Alarm	Addressable			

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RECOMMENDATIONS FOR FOLLOW-UP INVESTIGATION & RESEARCH

While EHA continues to review existing conditions, drawings and other documents, and begins work on schematic design, we recommend the following:

Although a 1949 survey with soil boring data was found in the Hauser storage room, it reflects the site prior to any construction. If recent survey is unavailable, EHA recommends arranging a survey of site including soil testing to determine whether the building 4 water infiltration is an anomaly.



DIVISION 0 SUMMARY:

The Project at 100 Fremont Court includes demolition of the existing administrative building and construction of new Life & Skills Center for use by the residents of the Menotomy Manor Family Development 200-1, 200-2. The program includes the manager's office, maintenance, a police substation, after-school programs, flexible/gathering room, small meeting room, kitchen, food pantry, restrooms, mechanical and electrical rooms.

DIVISION 1 GENERAL REQUIREMENTS:

- I. DOCUMENTS: Except where authorized exceptions have been made due to un-changeable existing conditions, the plans, details, and specifications for the project are designed to meet or exceed the requirements of the Massachusetts State Building Code.
 - II. LOCAL CONDITIONS: The Architect must be apprised of any local conditions or requirements that require modifications to the plans, details and specifications.
 - III. DESIGN CRITERIA for this project are as follows:
 - A. Seismic Load: $S_s = 0.29$ $S_i = 0.068$
 - B. Wind Load: 105 MPH
 - C. Live Loads:
 1. Kitchen/Living Room/Dining Room 40 psf
 2. Sleeping 40 psf
 3. Ground Snow 45 psf
 4. Attic 30 psf
 5. Exterior Decks 60 psf
- A. Scope:
1. It is the responsibility of the General Contractor to inspect the building site to familiarize himself and/or herself with all existing site conditions. Failure to do so will not be accepted as a basis for claims or related Change Orders during the progress of the work.
 2. All work and materials shall conform to the current requirements of the International Existing Building Code, Massachusetts State Building Code, and all other applicable local, state and federal Codes and Ordinances –latest edition.
 3. The Contractor shall provide all labor, materials, and incidentals necessary to provide the Owner with a 100% complete project except for work or materials that is excluded as being by Owner.
 4. The Contractor shall secure and pay for all permits, fees, and licenses necessary to do the work except as noted as otherwise.
 5. The Contractor shall coordinate work of all trades.
 6. The Contractor shall provide a staging plan in cooperation with the Owner.
 7. The Contractor shall provide temporary facilities and utilities.
 8. The Contractor is responsible for securing the site and for the costs of any on site vandalism or theft at all times during the construction contract.
 9. Integrated Pest Management to include at a minimum:
 - a. Preventing rodent access through holes in exterior and foundations
 - b. Use appropriate materials: steel wool, sealants, and boric acid
 - c. Seal all exposed vertical and horizontal holes in walls and floors.
 10. The Contractor is responsible for construction waste management program that shall divert 75% by value of all construction waste from landfills.
 11. The Contractor is responsible for verifying all dimensions in the field before ordering any materials or fabricating items.

12. The Contractor is responsible for obtaining approval from the Owner for substitutions of equal products and/or deviations from drawings.
13. The Contractor shall, with the Architect, conduct weekly job meetings at the site, or as deemed required, and will include representatives of the sub contractors at such meetings whenever necessary.
14. The Contractor will need to provide invoices and labor costs to the Owner who shall apply for EnergyStar and various utility rebates for lighting fixtures, appliances, heating equipment, windows, and any other energy saving improvements wherever eligible. Submittals to the Architect shall include all information required to verify LEED for Homes requirements are met.
15. On site wages shall be governed by Davis-Bacon prevailing wages rules. Contract shall be governed by the Davis-Bacon Act prevailing wages in place at the time of the contract signing. Current DBA wage determinations by County in Massachusetts may be found at <http://www.gpo.gov/davisbacon/ma.html>.

B. Alternates

1. Metal Roof – Berridge or equal.

DIVISION 2A SITE WORK

- I. ALL SITE WORK is the responsibility of the General Contractor as well as the protection of existing and neighboring properties.

II. LANDSCAPE

A. Scope

1. New plantings at parking areas to serve as screen for the residential buildings.
2. Protection of existing trees during construction.
3. Clean up and maintenance of site.
4. Walkway and curb areas, refer to Division 3 Concrete.

DIVISION 2B DEMOLITION

ALL DEMOLITION WORK and engineering is the responsibility of the General Contractor. The demolition work includes but is not limited to the items below to achieve a finished project.

A. Scope

1. Waste management plan diverting 75% from disposal stream.
2. Demo and cap utility lines; make safe. See Divisions related to HVAC, Plumbing, Electrical
3. Protect adjacent residential buildings.
4. Salvage existing brick and existing rolling door
5. Coordinate demolition with asbestos abatement.
6. Coordinate disposal of lead-painted materials.

DIVISION 3 CONCRETE A.

Scope:

1. Repair of walkways in courtyard and north yard between residential buildings.
2. New concrete sidewalks at the southwest, south and southeast perimeter of the "island".
3. New walkways to the new building as shown on the proposed site plan.
4. New reinforced concrete foundation walls and reinforced concrete floor slab.

B. Materials:

1. 3000 psi at walkways, broom finish. WWM min. 1" coverage.
2. 4000 psi at walls, exterior stairs & slab; rebar per detail drawings.

DIVISION 4 MASONRY

A. Scope: Install brick veneer using salvaged and new brick as shown on elevation drawings.

1. Include proper back-up ties, weep holes,
3. Pointing with Type N mortar
4. Expansion and control joints.

B. Materials:

1. Submit for approval bricks and mortar that closely match the appearance of the existing salvaged brick.
2. Brick Vents for kitchen range hood ventilation.

DIVISION 5 METALS

I. ALL NAILS, SCREWS, BOLTS and other fasteners required for the installation of the building materials are to be included by the Contractor in each section of the work. Provide any steel reinforcing required for the foundations or masonry opening lintels.

A. Scope

1. Structural angles, anchor bolts, and related steel attachment accessories.
2. 3" metal decking
3. Masonry lintel for new overhead door and framing at openings greater than 6'-0"
4. Bearing plates
5. Light gauge steel (or wood--see divisions 6 & 9) framing for non-load bearing interior partitions.
6. Interior stair rails per plans

B. Materials.

1. Structural Steel shall be designed and fabricated in accordance w/ structural specifications of certified construction documents. Steel shall be specified with 80% recycled content.
2. 3" galvanized steel decking and fasteners
3. Anchor bolts and accessories for attachment of steel shall be designed and installed per
4. ASTM specifications.
5. A36 Hot dipped galvanized steel plates for new decking connections
6. Steel studs for the framing of non-load bearing partitions will be no thinner than 22 gauge, spaced at 16" o.c., and conform to ASTM A-653, A-924, A-568. Installation per ASTM C 754 & C-1002.
7. 1-1/4" outside diameter Galvalume-finished pipe rails at stairs.
8. See Flashing materials in Division 7.

DIVISION 6 WOOD AND PLASTICS

A. Scope: as required per plans

1. New framing (wood or metal - see division 5 for metal and division 9 for finishes)
2. Floor joists
3. Blocking for handrails, grab bars, and bathroom accessories and strapping as required for cabinets, counters, grab bars, etc.
4. Rough carpentry related to roofing

5. Rough carpentry related to fire protection, mechanical, heating/cooling, ventilation, electrical and fire alarm work.

B. Materials:

1. All Lumber: kiln dried, kept dry, moisture content of 19% or less, warp-free, except PPT that should be used as soon after treatment as possible.
2. Framing Lumber: No. 2 grade, seasoned (SPF) Hemlock Spruce, or Fir for studs, nailers, blocking and bridging per certified structural specifications.
3. No tropical woods shall be used.
4. Composite woods shall be low formaldehyde or No added urea formaldehyde (NAUF).
5. Plastic Laminate: Kitchen countertops shall be exterior or marine plywood substrate. WilsonArt, Plastic Laminate or equal. Plastic laminate backsplash.
6. Interior door & window casing: 3-1/2" "Stafford" style pine door casing paint grade pine, 3/4" MDO sill with Brosco #8645 painted-Pine window aprons.
7. Interior wall base: 3/4" x 5-1/2" wood speed base (paint grade).

DIVISION 7 THERMAL AND MOISTURE PROTECTION

A. Scope

1. Head, Jamb, and Sill Flashing: exterior windows and doors.
2. New tapered roof insulation, including recovery board. See Alternates Division 1.
3. New membrane roof, per plans. See Alternates Division 2.
4. New asphalt shingle roofing, per plan.
5. Fiber cement siding
6. New batt insulation where exterior walls opened up.
7. New rigid insulation at walls and roof
8. Select interior insulation for sound proofing.
9. Spray foam insulation at exterior cavities.
10. Flashing and sealants (urethanes and commercial grade silicones only).
11. Must pass EnergyStar Thermal Bypass Inspection Checklist. Contractor to notify Owner and Architect when envelope and HVAC related work is complete in order to perform the necessary testing (window air and water infiltration; blower door).
12. Emergency over flow roof scuppers. Relief scuppers are needed on the roofs with full perimeter parapets.

B. Materials

1. Head, jamb, and sill flashing new exterior doors: .019 aluminum Z-Flash with factory applied finish coating.
2. At exterior walls 1 1/2" polyisocyanurate rigid or composite polyiso insulation board (Firestone or equal) attached to stud walls with manufacturer-recommended fasteners.
3. All Flashing: minimum .019 aluminum with factory applied finish coating
4. Exterior & interior wall penetrations: spray foam polyurethane gap sealer.
5. Air Tightness: Air leakage ratio of maximum 3 ACH 50 Pascal for building to exterior and 7 ACH 50 Pascal for units to units. Special attention shall be paid to the sealing of shafts and demising walls.
6. Sealants and draft stop material applied per manufacturer's instructions: urethanes and commercial grade silicones: Sika-flex, Tremco, etc. All sealants shall be low VOC meeting South Coast Air Quality Management requirements.
7. Roofing by Carlisle, Firestone or equal. EPDM membrane to be light-colored; provide and install all related materials and accessories including roof drains (coordinate with Plumbing), cant strips, flashing, termination bars, stops, bonding adhesive, splicing cement, lap sealant, etc. Fifteen-year warranty of materials and labor.
8. Asphalt shingles by CertainTeed or equal. 20-year warranty.
9. Fiber cement siding by Hardie or equal.

DIVISION 8 DOORS AND WINDOWS

A. Scope

1. Thermally broken aluminum frame windows throughout building.
2. Aluminum storefront as shown on drawings.
3. Salvaged rolling door at maintenance.
4. Interior Unit and Closet Doors.
5. Door and Window Hardware, thresholds, and weather stripping.
6. Windows at the second floor to be equipped with opening-limiting mechanism.
7. Paddle-operated automatic door opener, meeting ADA requirements, at front and rear lobby doors. Coordinate with Division 16A Electrical.
9. Must pass EnergyStar Thermal Bypass Inspection Checklist. Contractor to notify Owner and Architect when envelope and HVAC related work is complete in order to perform the necessary testing (window air and water infiltration; blower door).
10. Locks and keying to be coordinated with and reviewed by Owner.

B. Materials

1. Windows to be fiberglass, double-glazed, argon-filled, low-e coated, by Pella, Marvin, or equal. Glazing to be U-.32 with SHGC greater than or equal to .40.
2. Aluminum commercial storefront by Kawneer or equal.
3. All windows above the first floor shall be provided with limiting hardware. Keyed slide bar locks to limit window travel. Key per Owner specifications.
4. Aluminum extrusion frame shall be of a color selected by the Architect from the screen manufacturer's line of standard, custom, and premium colors. Wire screen fabric shall be 12-mesh .028 charcoal stainless steel.
5. Exterior Secondary Door: 16 gauge factory finished, galvanized steel flush door, with polyisocyanurate core and 5" x 20" vision panel. Frame to be 14-gauge, galvanized steel with factory finish.
6. No tropical woods or tropical veneers shall be used.
7. Door Hardware (All exterior doors require new door lock hardware)
 - a. Exterior Entry Doors: Grade-1, Corbin-Russwin ML 2200 series mortised, 2-3/4" backset hardware locksets, and electric strikes tied to the intercom system, aluminum and hardwood adjustable thresholds, weather stripping, ball bearing hinges, panic device, and door closer.
 - b. Corbin-Russwin CL 3900 series throughout, Master keyed with interchangeable cores, "Satin Chrome" finish, and "Princeton" lever style
 - c. Door stops (at all doors) to be wall-mounted or floor-mounted where possible. No hinge mounted door stops will be accepted.

DIVISION 9 FINISHES

A. Scope

1. Gypsum Board: 5/8" type-x gypsum wallboard. Areas of ceiling to be smooth taped with a smooth finish. Light-gauge steel (or wood--see divisions 6 & 9) framing for non-load bearing interior partitions, soffits, and chases. This shall include light gauge steel studs, and light-gauge steel channels with metal ties to ceiling above as bracing or support as required.
2. Densglas 5/8" board at basement walls.
3. Cementitious backer board at tiled wall surfaces and behind the counter of the kitchen sink.
4. Ceramic Tile
 - a. 2" x 2" at restroom floors
 - b. 4" x 4" for wainscot at wet wall of restrooms

5. Resilient Tile 12" x 12" (kitchen, food pantry, flex/gathering, maintenance, electrical room)
6. Resilient Tile - strips with wood finish (offices, meeting room, Operation Success)
7. Closet flooring to match flooring of room.
8. Rubber treads and risers at stairs; and skirt to be painted wood. Risers to be in color contrasting from the treads.
9. Painting.

B. Materials

1. GWB shall be 80% or better recycled content: 5/8", Firecode 'Type X', mold resistant in areas without tile in full bathrooms (drywall shall be paperless). Cement-based backer board at tiled surfaces.
2. Ceramic tile: American Olean or equal: Ceramic wall tile for tub surrounds and unglazed porcelain for bathroom floors. Grout shall be sealed with low VOC sealant.
3. "Wood" Strip Resilient Flooring: Decoria Narrow Planks in Fine Grain finish selection, or equal.
4. 12x12 Resilient Flooring: Marmoleum or equal.
5. Rubber treads on low-rise internal apartment stairs: Johnsonite or other approved by architect.
6. Apply paint in a professional manner where all lumps and voids are eliminated prior to final coat. Paint to be "brush applied" to all woodwork, door slabs, and ironwork.
7. Painting Interior (low or no VOC's), Sherwin Williams or equal: meeting GreenSeal Standards, GS-11:
 - a. Ceilings: 1 coat latex primer, 1 coat flat ceiling paint.
 - b. Walls: 1 coat latex primer, 2 coats latex egg shell.
 - c. Bathrooms: 1 coat latex primer, 2 coats semi-gloss enamel.
 - d. Woodwork: 1 coat enamel undercoat, 2 coats semi-gloss enamel.
 - e. Ferrous metal: 1 coat rust-inhibiting primer, 1 coat enamel undercoat and 1 coat semi-gloss alkyd enamel. (This includes the malleable iron gas pipe and fittings between the meter and the foundation).
8. All adhesives shall be low- or no-VOC.

DIVISION 10 SPECIALTIES A.

Scope

1. Restrooms shall have toilet partitions, toilet paper holder, sanitary product dispenser, soap dispenser, mirrors, robe hook, baby-changing station, and paper towel/trash receptacle.
2. Street Address Building Number.
3. Signage: way-finding, room-identifying signage, stair emergency egress maps at each landing
4. Fire extinguishers in cabinets (one per floor)
5. Recessed floor entry mats.
6. Limiting Hardware (see Division 8).

B. Materials

1. Toilet Accessories: stainless steel or brushed nickel finish toilet paper holder, sanitary product dispenser, soap dispenser, mirrors, robe hook, and paper towel/trash receptacle by Hallmack, Nutone, Basco, or equal.
2. Toilet Partitions by Bobrick or equal.
3. Baby-changing station wall-mounted, fold-down by Koala or equal.
4. Street Address Building Number(s) Brushed nickel, 4" high, surface-mounted.
5. Signage to meet ADA/MAAB requirements.
6. Recessed mats: Mats Inc. Dri Track or equal.

DIVISION 11 EQUIPMENT

A. Scope

1. Residential appliances: 30" electric range and hood (over-the-range exhaust fan vented to the

- exterior), wall oven & cook top, two refrigerators, dishwasher.
2. All appliances to be EnergyStar certified.

B. Materials - Note: Appliances should be EnergyStar rated where applicable.

1. Range: 30" electric cook top and self-cleaning oven. Cook top and wall oven to meet MAAB. One-year parts and labor warranty.
2. Range hood by Broan Allure I, GE or equal: 30" ducted to the exterior, quiet operation rated at 2 sones or less, with two speed fan, and two light settings using compact fluorescent bulbs. At HC units, hood fan/light shall be switched at front of counter -- see Division 16 Electrical. One-year parts and labor warranty.
3. Refrigerators: 20-cu ft. min. side-by-side refrigerator-freezer or bottom-mounted freezer One-year parts and labor warranty.
4. Dishwashers: 24" front control by GE, Maytag or equal with front push button controls to meet MAAB. One-year parts and labor warranty.

DIVISION 12 FURNISHINGS

A. Scope

1. Kitchen cabinet casework
2. Plastic laminated countertops, backsplash, and backsplash at range.
3. Window shades
4. Wire shelving at closets.

B. Materials

1. Kitchen cabinets: Frames to be made with formaldehyde-free plywood with plastic laminate surfaces.
2. Kitchen Counter: high pressure, .050 thick, 1 piece (post-formed) plastic laminate, WilsonArt or equal, countertop w/ integral 4" coved backsplash and sidesplash.
3. Cooking Range Backsplash: Entire length of cabinets, .050 thick plastic laminate, WilsonArt or equal, w/chrome protective edging set from the underside of wall cabinet to 6" below countertop height (30" A.F.F.).
4. Window Shades: Non-vinyl fabric made with polyester, recycled, and/or natural materials with hanging hardware. (HotBlinds or Graber)
6. Wire shelving by Closetmaid, Rubbermaid or equal with commercial-grade brackets. Min. 12" deep shelves, two per closet.

DIVISION 13 SPECIAL CONSTRUCTION N/A

DIVISION 14 CONVEYING EQUIPMENT

A. Scope

1. Platform lift or
2. Passenger elevator

B. Materials

1. Garaventa Genesis Platform Lift
2. or 2000 lb. capacity passenger elevator

DIVISION 15A PLUMBING

A. Scope

1. Insulate all new piping for new work.
2. Drain, waste, and vent piping.
3. Gas piping for rooftop air handling units
4. Roof drains; coordinate with Division 7 Thermal and Moisture Protection
5. Floor drains
6. Kitchen and Bathroom fixtures shall be low flow.
7. Access panels as required.

B. Materials

1. Hot & cold water distribution: Cross linked polyethylene (PEX) installed with a home-run distribution manifold to eliminate (or minimize) the elbow and tee connections in the plumbing system.
2. Vandal resistant Josam, Zurn or equal hammer arrestors and Vacuum Breakers at hose bibs.
3. Kitchen Sink – Stainless steel sink (double-bowl) and single-lever faucet by American Standard or equal.
4. Lavatory: ADA compliant, wall-mount, vitreous china, Kohler K-2035 or equal and stainless steel single lever faucet by Moen L4621 Chateau with 0.5 aerator, or equal
5. Water Closet: Kohler Wellworth or Cimarron Comfort Height, Niagara Flapperless, 1.28 gals/flush max.

DIVISION 15B HEATING, VENTILATION, AND COOLING

A. Scope

1. split system, roof top air-handling unit with a full economizer and power exhaust
Meet ASHRAE Standard 6.2.
2. Kitchen range hood to be direct-vented to exterior.
3. Bath fans
4. Must pass EnergyStar Thermal Bypass Inspection Checklist. Contractor to notify Owner and Architect when envelope and HVAC related work is complete in order to perform the necessary testing (window air and water infiltration; blower door).

B. Materials

1. Ventilation in restrooms: Broan or equal.
2. Range vents by GE or equal: sidewall weather hood exterior vent with back-draft dampers, rigid metal duct (no flex).
3. Ventilation:
 - a. Carrier 15-ton or equal
 - b. Enthalpy Controlled economizer
 - c. Ducts to have 1" anti-bacterial, internal sound lining.
4. Air Cooled Liquid Chiller. Carrier or equal
5. All vents to exterior shall be completely sealed to prevent leakage to interior or hidden spaces.
6. Variable speed fan with speed control by Greenheck model # GB-081-4X-R2, 475 CFM at .375 static pressure

DIVISION 15C FIRE PROTECTION

A. Scope – new fire protection system to meet NFPA, state and local codes. Note UL tests.

1. An existing wet pipe sprinkler system per plans.
2. Seal all sprinkler penetrations in the vapor barrier or exterior and party wall to maintain air

tightness and sound transmission coefficients.

3. Provide completely all fire protection fixtures, devices, pipe, sleeves, hangers, and so forth, together with all appurtenances hereinafter specified or shown on the drawings in accordance with NFPA Bulletins 13, 13R and 14.
4. Provide working and certified fire protection service

B. Materials

1. Dry sprinkler heads in non-conditioned areas (exterior canopied areas)
2. Wet sprinkler heads in conditioned areas.

DIVISION 16A ELECTRICAL

A. Scope

1. Work included:
 - a. arc-fault circuit breakers, light fixtures, switches, receptacles, outlet boxes, raceways, GFCI and AFCI receptacles, connections necessary for appliances, HVAC motors and equipment, branch circuit wiring, feeder cables, service feeders, service equipment
 - b. wiring for power-open main lobby entry doors and gates at passageways, lighting control system, and all else shown or specified.
 - c. motion sensor lighting in all common areas
2. Ventilation: (refer also to Division 15B HVAC) Provide wiring to new fans and roof top AHU as needed to electrical panels.
3. Hardwired 120V photoelectric smoke/ CO detector combination according to Fire Dept. requirements. See 16B Fire Alarm.
4. New bollard lights at courtyard. Furnish and install new bollard lights as shown on plans.
5. Paddle-operated automatic door opener, meeting ADA requirements, at front and rear entry doors. Coordinate with Division 8 - Door Hardware.

B. Materials

1. Wiring Methods: Service feeder shall be type XHHW-2 copper in Rigid Conduit; Sub feeders shall be SER copper cable; branch circuits shall be type NM cable #14 AWG copper minimum; Telephone cable shall be CAT5E cable; TV Cable shall be
2. Switches & outlets: Leviton, Eagle or equal, dedicated outlet at boiler. Switches to be Decora or equal.
3. Light Fixtures: All fixtures to be UL Listed with a Class P ballast and classified for quiet operation meeting **EnergyStar** (non-dimming fixtures only) requirements: Light fixtures types and locations as shown in the Plans. LED lamps to replace all existing incandescent or fluorescent lamps. Overhead lights to accommodate 2700-lumen lamps.
4. New bollard lights at sloped walkways at courtyard.
5. Occupancy sensor shall be provided at stairways, halls, and basement.
6. Photocell controls shall be provided for all exterior lighting.

DIVISION 16B FIRE ALARM

A. Scope

1. Devices to be hardwired and meet national, state and local codes
 - a. Smoke detectors
 - b. Heat detectors
 - c. Horn/strobes, speaker/strobe
 - d. Carbon monoxide detectors
2. Control panel with communicator.
3. Emergency lights with battery back-up.
4. Exit signs to be LED illuminated and, where accessible path of egress leading to area of refuge or exit discharge, include International Symbol for Accessibility

B. Materials

1. Fire Alarm System: Notifier, Fire Control Instruments, Fire Lite or equal. The entire system should be under one manufacturer; coordinate existing equipment and devices to ensure compatibility.

End of Outline Specifications