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# The Commonwealth of Massachusetts

## Department of Public Safety

Architectural Access Board  
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Commissioner

Thomas P. Hopkins  
Director

### DECISION OF THE ARCHITECTURAL ACCESS BOARD

Date: **August 23, 2011**

Name of Property: **Durant-Kendrick Homestead**

Property Address: **286 Waverley Avenue, Newton, MA**

Docket Number: **V11-088**

Date of Hearing: **August 8, 2011**

Enclosed please find a copy of the decision relative to the above mentioned matter.

Sincerely:

ARCHITECTURAL ACCESS BOARD

By:

A handwritten signature in cursive script that reads "Kate Sutton".

Kate Sutton, Program Coordinator/Clerk for Proceedings

cc: Local Building Inspector  
Local Commission on Disabilities  
Local Independent Living Centers

COMMONWEALTH OF MASSACHUSETTS

SUFFOLK, ss

ARCHITECTURAL ACCESS BOARD  
Docket No. V11-088

In re )  
 )  
Durant-Kenrick Homestead )  
286 Waverly Avenue )  
Newton, MA )  
 )  
 )  
 )

BOARD DECISION

**Introduction**

This matter originally came before the Architectural Access Board (“Board”) as a variance request submitted to the Board on April 25, 2011, pursuant to 521 CMR 4.00, and submitted by Scott Aquilina of Ann Beha Architects, on behalf of the Newton Historical Society (“Petitioner”). The Petitioner requested variances from the following sections of 521 CMR:

- 25.2 - approach to the existing historic entrances
- 26.5 - lack of compliant clear width at existing doors
- 26.6 - lack of compliant maneuvering clearances at existing doors
- 26.10 - lack of compliant thresholds at existing doors
- 26.11 - lack of compliant door hardware at existing doors
- 27.2 - lack of compliant existing treads and risers
- 27.3 - lack of compliant stair nosings at existing stairs
- 27.4.1 - lack of compliant handrail locations at existing stairs
- 27.4.2 - lack of compliant handrail heights at existing stairs
- 27.4.3 - lack of compliant extensions heights at existing stairs
- 27.4.4 - lack of compliant handrail size at existing stairs
- 27.4.5 - lack of compliant handrail shape at existing stairs
- 28.1 - lack of vertical access to portions of the existing house

In accordance with M.G.L. c. 30A, §§ 10 and 11; 801 CMR 1.02 *et. seq.*; and 521 CMR 4.00, the Board convened a hearing on August 8, 2011 where all interested parties were provided with an opportunity to testify and present evidence to the Board.

Scott Aquilina, Architect from Ann Beha Architects, and Cynthia Stone, Director of the Newton Historical Society, both appeared on the Petitioner’s behalf. Both were sworn in by the Chairman.

**Applicable Laws**

The Board established jurisdiction pursuant to 521 CMR 3.3.2, which states that, “[i]f the work performed, including the exempted work, amounts to 30% or more of the *full and fair cash value* (see **521 CMR 5.00**) of the *building* the entire *building* is required to comply with 521 CMR.”

Under the requirements of 521 CMR 25.2, “[t]he approach to an *accessible entrance* shall be a paved *walk* or *ramp* with a slip resistant surface, uninterrupted by steps. *Entrance(s)* shall have a *level space* on the interior and exterior of the *entrance* doors complying with **Fig. 25a and 25b.**”

Section 26.5 of 521 CMR requires that, “[a]ll doorways and openings that are required to be *accessible* shall have a *clear* opening of not less than 32 inches (32" = 813mm). *Clear* opening of a door is measured from the face of the stop on the latch side to the face of the door when the door is open 90 degrees. For door types such as bifold, accordion, and pocket, the *clear* opening is measured when the door is in its most fully open position. See **Fig. 26b and 26c.**”

Per 521 CMR 26.6, “A minimum *clear* floor area shall be provided on both sides of all doors and gates. Exception: Doors equipped with automatic opening devices are exempt from 521 CMR 26.6.3, 26.6.4 and 26.8.”

521 CMR 26.10 states that, Thresholds at doorways shall comply with the following (See **Fig. 26h**):...26.10.1[,] Thresholds shall not exceed ½ inch (½" = 13mm) in height and shall be beveled on both sides with a slope no greater than one-in-two (1:2) (50%)...26.10.2[,] Changes in floor finish materials shall have an edge strip or threshold that is beveled at a ratio of one-in-two (1:2) (50%)...26.10.3[,] Exterior sliding door thresholds shall not exceed ¾ of an inch (¾" = 19mm) in height and shall be beveled both sides with a slope no greater than one-in-four (1:4) (25%).”

Pursuant to Section 26.11 of 521 CMR, door hardware “[s]hall comply with the following: 26.11.1, Type...26.11.2, Height...26.11.3, Operation...26.11.4, Special hardware....”

Pursuant to 521 CMR 27.2, “[o]n any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. Open risers are not permitted.”

Section 27.3 of 521 CMR states, “[t]he undersides of nosings shall not be abrupt. The radius of curvature at the leading edge of the tread shall be no greater than ½ inch (½" = 13mm). Risers shall be sloped or the underside of the nosing shall have an angle not less than 60 degree from the horizontal. Nosings shall project no more than 1½ inches (1½" = 38mm). See **Fig. 27b.**”

Under the requirements of Section 27.4.1 of 521 CMR, “[s]tairways shall have continuous handrails at both sides of all stairs. The inside handrail on switchback or dogleg stairs shall always be continuous. See **Fig. 27c.**”

521 CMR 27.4.2 states that, “[t]op of handrail gripping surface shall be mounted between 34 inches (34" = 864mm) and 38 inches (38" = 965mm) above stair nosings. Handrails shall be measured vertically from the top of the gripping surface of the handrails to the stair nosing.”

Pursuant to 521 CMR 27.4.3, “[w]here handrails terminate at the top and bottom of a stair run, they shall have extensions that comply with the following: a. At the top, extend at least 12 inches (12" = 305mm) beyond the top riser and parallel with the floor or ground surface. See **Fig. 27d.**...b. At the bottom, extend at least 12 inches (12" = 305mm) plus the width of one tread beyond the bottom riser. The handrail shall continue to slope for a distance of the width of one tread from the bottom riser; the remainder of the extension shall be

horizontal. See **Fig. 27d...c**. Handrail extensions need not extend if it would cause a safety hazard or if *space* does not permit. Extensions shall comply with **521 CMR 20.6, Protruding Objects.**”

Based on Section 27.4.4 of 521 CMR, “...[h]andrills shall have a circular cross section with an outside diameter of 1¼ inches (32mm) minimum and two inches (51mm) maximum.”

Pursuant to the requirements of 521 CMR 27.4.5, “...[t]he handgrip portion of the handrail shall be round or oval in cross-section.”

Per 521 CMR 28.1, “In all multi-story buildings and facilities, each level including *mezzanines*, shall be served by a passenger elevator. If more than one elevator is provided, each passenger elevator shall comply with 521 CMR 28. Accessible elevators shall be on an *accessible route* and located within the *space* with which it is intended to serve.”

### Exhibits

- Exhibit 1: Board Packet, AAB1-26, including all correspondence and plans submitted.  
Exhibit 2: Copy of presentation, to be submitted by the Petitioners via digital copy.

### Facts

The variance hearing was held on August 8, 2011 and based on the credited testimony of the witness, and the documents submitted, the Board finds the following facts:

- 1) The property in question was built in 1732 and has served as a house museum since 1974. The house has two floors, and an attic and a basement which are not open to the public. An ell at the back of the house is to be replaced by an accessible entry. (Exhibit 1 and Testimony of Carey).
- 2) The main structure of the Durant-Kenrick House (“House”) is to undergo substantial exterior restoration. The interior is to be preserved. Interior alterations will be limited to the removal of a 1970's era bathroom and the careful integration of new heating, air-conditioning and electrical systems, as well as widening of doorways to provide an accessible route to key program areas. The primary goal of the renovation project, since the inception of the project, has been to improve public accessibility to the house and site. An 1,800 square foot addition, as well as substantial site improvements, are planned to provide parking and an accessible entry and accessible visitor amenities, such as reception, toilets, and classroom space, as well as an outdoor activity terrace. The historic interior will continue to serve as a House Museum with supervised visitation. The Petitioners are proposing to adapt a detail developed for the Hancock-Clarke House in Lexington, MA to widen the currently narrow doorways to provide wheelchair access to first and second floor rooms. An elevator, to be installed in the addition, will provide access to offices, research library and a family resource room on the second floor. A secondary change in level between front and rear portions of the existing second floor (24 inches difference), as well as very narrow doorways, makes access to two front bedrooms infeasible. The Petitioners are proposing to provide a camera system and video presentation as an alternative to physical access to these rooms. The plans have received the approval of the Land Use Committee of the Newton Board of Alderman and preliminary approval from the Newton Historical Commission, which is administering a Preservation Restriction on the property on behalf of the Massachusetts Historical Commission. (Exhibit 1).
- 3) The proposed spending for the project is approximately \$1,800,000.00, with the assessed value of the building being \$242,600.00. (Exhibit 1).
- 4) The House currently has three entrances, none of which are accessible, and the approach to these entrances

is not even or paved. The Petitioners propose to construct a new, fully accessible entry, close to the accessible parking and drop-off, which will become the primary means of access. The existing east, south and west entrances to the existing 1732 structure will remain. Approaches to these doors are not accessible and their landings push/pull clearances, and door hardware are noncompliant. Because of their historical significance, the Petitioners propose to restore these doors in their existing configuration. Providing ramped access would have a deleterious effect on the historic landscape surrounding the building. Additionally, these entrances will be used only by employees and during emergency egress situations. All visitors and staff will primarily enter through the new, fully accessible entrance. (Exhibit 1 and Testimony of Stone and Aquilina).

- 5) The House has two primary levels, as well as an attic and basement, which are not open to the public. The proposed design includes a new LULA elevator in the addition which will serve the basement, first and second floors. However, the west portion of the second floor is elevated 24 inches above the eastern portion of the floor, which is served by the passenger elevator. The Petitioners studied options for integrating a wheelchair lift to provide access to the upper portion of the second floor; however, it requires significant modification of the historic fabric of the building. The Petitioners noted that the cost of the lift and effect on the historical character of the building would outweigh the benefit to users with limited mobility. In lieu of providing wheelchair access to the upper portion of the second floor, the Petitioners propose to provide video and still images of the two inaccessible front bedrooms. These would be available in one of the three accessible rooms on the eastern half of the second floor. (Exhibit 1 and Testimony of Aquilina).
- 6) Many historical doors are still in place in the House. The typical historic doors have a clear opening of 28 inches wide, with some as narrow as 24 inches. The Newton Historic Society would like to maintain as many of the existing doors and frames as possible. In order to meet this goal and provide an accessible route throughout the building, the Petitioners propose to modify several existing doors and frames, as well as replace some doors in select locations. At each modified door the historical hardware, which is noncompliant, would remain in place. Because all visitors would be supervised, assistance will always be available. The Petitioners further noted that because the majority of the spaces in the building are accessible, modifying any of the proposed historic doors that the Historic Society wishes to maintain, would incur additional costs and have a detrimental effect on the historical character of the building, while not providing significant additional benefits to users with limited mobility. In the proposed addition, typical doors will be 36 inches in width, providing the minimum required clear opening of 32 inches, and will be fully accessible. (Exhibit 1 and Testimony of Aquilina).
- 7) The House has two primary floor levels and a basement and attic that are not accessible to the public. These levels are currently accessed by existing wood stairs that are original to the building. At all locations, the treads and risers of these stairs are not in compliance with 521 CMR 27.2 and 27.3. The Petitioners would like to maintain as much of the historic fabric of the building as possible and are proposing a LULA elevator to serve the basement, first and second floors, in lieu of modifying these stairs. The proposed LULA will comply in full with the requirements of 521 CMR, including a cab size of 66 inches by 42 inches. Although the nosings do not extend more than 1 1/2 inches, and are not abrupt, the underside of the nosing is less than 60 degrees from the horizontal. The Petitioners noted that although the existing nosings do not comply with 521 CMR, these conditions do not pose a significant barrier to accessibility. Modifying the existing stairs would require extensive rework of the historic fabric of the building and would incur additional costs. The Petitioners noted that visitors with limited mobility can use the elevator to access all floors. (Exhibit 1 and Testimony of Aquilina).
- 8) The handrails at each historical stair are also not compliant. Handrails do not have adequate extensions, are not mounted at the proper height, and are not installed at both sides of each stair. At the rear (east) stair, the existing handrails are not original to the building and will be modified to comply in full with 521 CMR. At the front (west) stair, the existing wood handrails are considered historic and the Newton Historical Society seeks to retain them. As previously noted, the public levels of the building will be accessible by elevator, as well as the availability of a video and images of the second floor bedrooms provided in the Resource Room. Because of the historical significance and the limited benefit of replacement, the Petitioners wish to retain these handrails. Aquilina noted that the front stair includes historic wainscoting along the wall side which

would be high enough that a handrail would have to be mounted directly within the wainscoting. (Exhibit 1 and Testimony of Aquilina).

### Analysis

The Board established jurisdiction pursuant to 521 CMR 3.3.2, which states that, “[i]f the work performed, including the exempted work, amounts to 30% or more of the *full and fair cash value* (see **521 CMR 5.00**) of the *building* the entire *building* is required to comply with 521 CMR.” This is based on the fact that, the project will cost approximately \$1,800,000.00, with the assessed value of the building being \$242,600.00. Therefore, the building is required to be brought into full compliance with all applicable sections of 521 CMR.

The property in question was built in 1732 and has served as a house museum since 1974. The house has two floors, and an attic and a basement which are not open to the public. An ell at the back of the house is to be replaced by an accessible entry.

At the three existing entrances the Petitioners seek variances to 521 CMR 25.1/2, 26.6, 26.10, and 26.11. The House currently has three entrances, none of which are accessible, and the approach to these entrances is not even or paved. The Petitioners propose to construct a new, fully accessible entry, close to the accessible parking and drop-off, which will become the primary means of access. The existing east, south and west entrances to the existing 1732 structure will remain. Approaches to these doors are not accessible and their landings push/pull clearances, and door hardware are noncompliant. Because of their historical significance, the Petitioners propose to restore these doors in their existing configuration. Providing ramped access would have a deleterious effect on the historic landscape surrounding the building. Additionally, these entrances will be used only by employees and during emergency egress situations. All visitors and staff will primarily enter through the new, fully accessible entrance. Based on this information, the Board voted to *grant* the variances requested for 521 CMR 25.2, 26.6, 26.10, and 26.1, regarding the existing east, south and west entrances to the existing 1732 structure.

In regards to the variance requested for 521 CMR 28.1, and the lack of access to the elevated western portion of the second floor. The proposed design includes a new LULA elevator in the addition which will serve the basement, first and second floors. However, the west portion of the second floor is elevated 24 inches above the eastern portion of the floor, which is served by the passenger elevator. The Petitioners studied options for integrating a wheelchair lift to provide access to the upper portion of the second floor; however, it requires significant modification of the historic fabric of the building. The Petitioners noted that the cost of the lift and effect on the historical character of the building would outweigh the benefit to users with limited mobility. In lieu of providing wheelchair access to the upper portion of the second floor, the Petitioners propose to provide video and still images of the two inaccessible front bedrooms. These would be available in one of the three accessible rooms on the eastern half of the second floor. The Board noted that a variance for this change in level would be required under 521 CMR 29.2, not 28.1. Based on this information, the Board voted to *grant* a variance to 521 CMR 29.2, on the condition that video provided as well as any other visual access to allow viewing (i.e. the potential use of mirrors), as proposed by the Petitioners.

The Petitioners seek variances to 521 CMR 26.5, 26.6, and 26.11 regarding the existing historic doors that are proposed to remain. Many historical doors are still in place in the House. The typical historic doors have a clear opening of 28 inches wide, with some as narrow as 24 inches. The Newton Historic Society would like to maintain as many of the existing doors and frames as possible. In order to meet this goal and provide an accessible route throughout the building, the Petitioners propose to modify several existing doors and frames, as well as replace some doors in select locations. At each modified door the historical hardware, which is noncompliant, would remain in place. Because all visitors would be supervised, assistance will always be

available. The Petitioners further noted that because the majority of the spaces in the building are accessible, modifying any of the proposed historic doors that the Historic Society wishes to maintain, would incur additional costs and have a detrimental effect on the historical character of the building, while not providing significant additional benefits to users with limited mobility. In the proposed addition, typical doors will be 36 inches in width, providing the minimum required clear opening of 32 inches, and will be fully accessible. Based on this information, the Board made a motion to *grant* the variances to 521 CMR 26.5, 26.6, and 26.11 regarding the two doors by the entryway at the first floor, and the two doors into the second floor bedrooms from the stairway hall, based on the proposal that all other doors will be modified to be made fully compliant with the requirements of 521 CMR 26.

The Petitioners seek variances for 521 CMR 27.2 and 27.3, regarding the lack of compliant treads/risers and nosings at the existing historic stairs within the House. The House has two primary floor levels and a basement and attic that are not accessible to the public. These levels are currently accessed by existing wood stairs that are original to the building. At all locations, the treads and risers of these stairs are not in compliance with 521 CMR 27.2 and 27.3. The Petitioners would like to maintain as much of the historic fabric of the building as possible and are proposing a LULA elevator to serve the basement, first and second floors, in lieu of modifying these stairs. The proposed LULA will comply in full with the requirements of 521 CMR, including a cab size of 66 inches by 42 inches. Although the nosings do not extend more than 1 1/2 inches, and are not abrupt, the underside of the nosing is less than 60 degrees from the horizontal. The Petitioners noted that although the existing nosings do not comply with 521 CMR, these conditions do not pose a significant barrier to accessibility. They added that modifying the existing stairs would require extensive rework of the historic fabric of the building and would incur additional costs. The Petitioners noted that visitors with limited mobility can use the elevator to access all floors. Based on this information, the Board voted to *grant* the variances requested for 521 CMR 27.2 and 27.3, regarding the lack of compliant treads/risers and nosings at the existing historic stairs within the House.

The final variance requested is in regards to the existing noncompliant handrails at the historic stairs (521 CMR 27.4.1, 27.4.2, 27.4.3, 27.4.4 and 27.4.5). The handrails at each historical stair do not have adequate extensions, are not mounted at the proper height, and are not installed at both sides of each stair. At the rear (east) stair, the existing handrails are not original to the building and will be modified to comply in full with 521 CMR. At the front (west) stair, the existing wood handrails are considered historic and the Newton Historical Society seeks to retain them. As previously noted, the public levels of the building will be accessible by elevator, as well as the availability of a video and images of the second floor bedrooms provided in the Resource Room. Because of the historical significance and the limited benefit of replacement, the Petitioners wish to retain these handrails. Aquilina noted that the front stair includes historic wainscoting along the wall side which would be high enough that a handrail would have to be mounted directly within the wainscoting. Based on this information, the Board voted to *continue* the discussion regarding the lack of compliant handrails at the historic front (west) stair (521 CMR 27.4.1, 27.4.2, 27.4.3, 27.4.4 and 27.4.5), to have the Petitioners submit more information about providing at least one usable handrail by *October 1, 2011*.

The Board Members noted that a variance to 521 CMR 28.1 would be required for the use of a LULA elevator in the new construction of the addition, based on the fact that the work performed would trigger the requirement for a fully compliant elevator. Therefore, the Board voted to *require* that the Petitioners submit an amended variance request for the use of a LULA by *October 1, 2011*.

The Board also made a motion to *require* that all advertisements and documentation regarding the house publicize that the second floor bedrooms are not accessible, but that alternate means of viewing the rooms is provided at the second floor Resource Room.

## Conclusion

After reviewing the matter, the Board voted as follows:

- *GRANT* the variances requested for 521 CMR 25.2, 26.6, 26.10, and 26.11, regarding the existing east, south and west entrances to the existing 1732 structure. The motion is based on the fact that the Petitioners had proven that full compliance with the requirements of 521 CMR would be “impracticable”, as defined in 521 CMR 5.
- *GRANT* the variance to 521 CMR 29.2, based on the fact that the 24 inch change of level at the western portion of the second floor would be considered a change a level and not require a variance for 521 CMR 28.1. The motion is based on the condition that video provided as well as any other visual access to allow viewing (i.e. the potential use of mirrors), as proposed by the Petitioners. The Board also noted that the motion is based on the fact that the Petitioners had proven that full compliance with the requirements of 521 CMR would be “impracticable”, as defined in 521 CMR 5.
- *GRANT* the variances to 521 CMR 26.5, 26.6, and 26.11 regarding the two doors by the entryway at the first floor, and the two doors into the second floor bedrooms from the stairway hall, based on the proposal that all other doors will be modified to be made fully compliant with the requirements of 521 CMR 26. The motion is based on the fact that the Petitioners had proven that full compliance with the requirements of 521 CMR would be “impracticable”, as defined in 521 CMR 5.
- *GRANT* the variances requested for 521 CMR 27.2 and 27.3, regarding the lack of compliant treads/risers and nosings at the existing historic stairs within the House. The motion is based on the fact that the Petitioners had proven that full compliance with the requirements of 521 CMR would be “impracticable”, as defined in 521 CMR 5.
- *CONTINUE* the discussion regarding the lack of compliant handrails at the historic front (west) stair (521 CMR 27.4.1, 27.4.2, 27.4.3, 27.4.4 and 27.4.5), to have the Petitioners submit more information about providing at least one usable handrail by *October 1, 2011*.
- *REQUIRE* that the Petitioners submit an amended variance request for the use of a LULA by *October 1, 2011*.
- *REQUIRE* that all advertisements and documentation regarding the house publicize that the second floor bedrooms are not accessible, but that alternate means of viewing the rooms is provided at the second floor Resource Room.

A true copy attest, dated: August 23, 2011

### ARCHITECTURAL ACCESS BOARD

By:

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Donald Lang, Chairman (not present)

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Diane McLeod, Vice Chair (not present)





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Andrew Bedar, Member

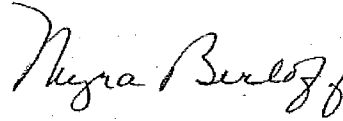


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Gerald LeBlanc, Member

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D. Mark Trivett, Member (not present)



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Myra Berloff, Director of Massachusetts  
Office on Disability



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Carol Steinberg, Member



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Walter White, Executive Office of Public Safety  
Designee, Acting Chair

A complete administrative record is on file at the office of the Architectural Access Board.