ATTN: Jean Rich, Chairwomen

RE: Goodridge Brook Estates - NFPA 1141

Chairwoman Rich:

Furnished herewith, for your and the ZBA's review, use and this application's Public Hearing record is NFPA 1141 Standard for Fire Protection Infrastructure for Development in Wildland, Rural, and Suburban Areas 2017. This is the NFPA Standard to be adhered to by the AHJ with respect to this development application. I direct your attention to the following:

Chapter 1 Administration

- 1.1 Scope. "This standard covers the requirements for the fire protection infrastructure in wildland, rural, and suburban areas where there is an intended change of land use or intended land development
- 1.3 Application. 1.3.1 "This standard shall apply to land development or changes in land use in wildland, rural and suburban areas."
- 1.3.3.3 Modifications. "The AHJ is authorized to modify any of the provisions of this standard upon application in writing by the owner,...... provided the intent of the standard shall be complied with, public safety secured, and substantial justice done."
- 1.3.4 Requirements. 1.3.4.1 "This standard shall be enforced by the authority having jurisdiction (AHJ) designated by the governing body."
- 1.3.4.4 Provisions in Excess of Standard Requirements. "Nothing in this standard shall be construed to prohibit a better development plan or change in land use, building construction type, fire protection infrastructure, or an otherwise safer condition than that specified by the minimum requirements of this standard"
- 1.3.4.6 Conflicts. 1.3.4.6.1 "When a requirement in a referenced document is less restrictive than this standard, the requirements of this standard shall apply."

- 1.3.5.4 "The AHJ shall review the applicant's land use or land development change proposal and public testimony and render a written final determination if the proposed land use or land development change complies with this standard"
- 1.3.6 Public Appeals Process. "Any person shall be permitted to appeal the decision of the AHJ. A process for appeal shall be made available to the public by the appropriate administrative body of the local adopting authority."

Chapter 3 Definitions

- 3.2.2 Authority Having Jurisdiction (AHJ)
- 3.2.5 Shall. "Indicates a mandatory requirement."
- 3.3.12 Fire Flow. "The flow rate of water a water supply, measured at 20 psi residual pressure, that is available for fire fighting"
- 3.3.15 Fire Lane. "An approved means of access or other passageway designated and identified to provide access for emergency apparatus where parking is prohibited.
- 3.3.30 Standpipe. "A pipe and attached hose valves and hose (if provided) used for conveying water to various parts of a building for fire-fighting purposes."

Chapter 4 General Requirements

- 4.1 General. "As a minimum, the AHJ shall require preliminary, working and as-built plans be submitted in a timely manner."
- 4.1.1 "Plans shall demonstrate compliance with this standard."
- 4.1.1.1 "The AHJ shall be permitted to require the review by an approved independent third party with expertise in this matter (NFPA 1141) to be reviewed at the developer's expense"
- 4.1.1.2 "The independent reviewer shall provide an evaluation and recommend necessary changes to the proposed plan development."
- 4.1.1.3 "The AHJ shall be authorized to require design submittals to bear the stamp of a registered design professional."
- 4.1.1.4 "Review and approval by the AHJ shall not relieve the applicant of the responsibility of compliance with this standard."

Chapter 5 Means of Access

- 5.2.3 "Roadways shall have a minimum width of 12 ft. for each lane of travel, excluding shoulders and parking."
- 5.3.6 "Fire lanes intended for one-way travel shall provide a minimum of 16 ft. in width of traveled way. Fire lanes providing two-way travel shall be minimum of 24 ft. in width of traveled way." (Note: By definition Fire Lane width excludes parking per 3.3.15)
- 5.3.14 "Dead-end fire lanes that exceed 300 ft. in length shall be provided with minimum 120 ft, diameter turnaround at the closed end of the fire lane.

Chapter 6 Building Access and Separation

- 6.2 Building Separation
- 6.2.1 "Unless governed by other locally adopted regulations, any building shall be separated from another building by at least 30 ft. and shall be set back at least 30 feet from the property line."
- 6.2.1.1 "If adjacent buildings are both protected with automatic sprinkler systems meeting NFPA 13 the separation between the structures or separation from a property line shall be permitted to be reduced to 15 ft."

Chapter 8 Fire Protection

- 8.2.1 Standpipe Systems
- 8.2.1.1. General. "The design and installation of standpipe systems shall be in accordance with this section and NFPA 14."
- 8.2.1.2 "Where municipal-type water systems are available, the requirements of 8.2.1.1 and 8.2.1.4 shall apply to all new buildings where any of the following conditions exist:
 - (1) More than 3 stories above grade"

Chapter 9 Water Supply

• 9.3.1 Required Fire Flow. "For areas with municipal-type water systems, required fire flow shall be determined as specified in NFPA 1142, Annex G, Municipal-Type Water System."

• 9.3.2 "For a required fire flow rate of 1500 gpm, the water supply system shall be capable of delivering that fire flow for at least 2 hours at 20 psi residual pressure."

Chapter 10 Fire Protection During Construction

• 10.1.4 "Fire department vehicular access to all buildings under construction shall be provided at all times."

Chapter 11 Community Safety and Emergency Preparedness

- Mutual Assistance Element
- 11.3.6.1 "Mutual assistance (mutual aid) agreements shall be developed that detail those services and resources available to support the management. ≰emergency incidents."

Chapter 12 Capacity of Fire Protect Services

- 12.1 Assessment
- 12.1.1 "An assessment shall be conducted to determine the impact of the land use change on fire protection services.
- 12.1.2 "The assessment shall address the following"
 - (5) <u>Dispatching.</u> "Are the current systems and staff able to handle the increased call volume likely to be generated by the build-out resulting from the land use change?"
 - (6) <u>Fire station locations.</u> "In order to maintain an acceptable level of fire department and emergency response times within the response area, are current fire station distributed and designed to service changing demands resulting from land use changes and development?"
 - (7) <u>Fire service resources.</u> "Are there adequate fire apparatus and staffing to meet the increased service demands likely to be generated by the build-out?"
 - (8) <u>Special services.</u> "Will the development introduce a need for special services not currently within the capability of the fire department?"

12.2 Mitigation. "Where the assessment determines that the existing fire department cannot maintain its current level of service delivery while providing services to the proposed development, the fire department and the developer shall jointly determine how to mitigate the impact on delivery of services or increase the capability of the fire department and how those services are to be provided."

Respectfully,

Arthur G. Johnson 121 Nicholas Drive, Lancaster, MA 978 846 2688