

6. SPECIAL REGULATIONS

6.1 Accessory Uses

6.1.1

Accessory uses shall be on the same lot with the building of the owner or occupant and shall not alter the character of the premises on which they are located nor impair the neighborhood.

6.1.2

There shall be permitted as an accessory use on residential property in the Single Residence A, Rural Residence – Conservation, and Institutional districts garage space for not more than three (3) cars and in the Single Residence B, General Residence, Business and Industrial districts garage space for not more than two (2) cars.

Upon application the Board of Appeals may issue a Special Permit for one additional garage space per lot, provided that the premises in questions are reasonably adaptable to such use and will allow proper layout thereof (including adequate separation of buildings or structures and open areas from adjacent premises), and provided further that the proposed use;

- (a) will not alter the character of the premises in which it is located,
- (b) will not have a material adverse effect on the value of the land and buildings or structures in the neighborhood, or on the amenities thereof, and
- (c) will not produce noise, odors or glare observable at the lot lines in amounts clearly detrimental to the normal use of adjacent property.

In acting upon applications for such Special Permits, the Board of Appeals shall be governed by the provisions of Section 7.2.

6.1.3

Uses, whether or not on the same parcel as activities permitted as a matter of right, which activities are necessary in connection with the scientific research or scientific development or related production, may be permitted upon issuance of a special permit by the Board of Appeals, provided the Board of Appeals finds that the proposed accessory use does not substantially derogate from the public good.

6.2 Boats, Motor Homes and Trailers

6.2.1 Occupancy

No boat, motor home or trailer, with or without motive power, hereafter put in place upon any land within the Town, shall be occupied for living purposes or business purposes within the Town for a period exceeding thirty (30) days in the aggregate in any one (1) year; provided, however, that the Board of Appeals may grant a special permit for such use on a temporary basis for no more than two (2) additional thirty (30) day periods.

In the event that a residence is destroyed by fire or other natural disaster, the owner or occupier of the residence may place a mobile home, motor home, or trailer on the site of such residence and reside in such mobile home, motor home, or trailer for a period not to exceed twelve (12) months while the residence is being rebuilt. Any such mobile home, motor home, or trailer shall be subject to the provisions of the State Sanitary Code.

6.2.2 Storage

No boat, motor home or trailer shall be placed on a lot closer than five (5) feet to any lot line in any district except that the Board of Appeals may grant a special permit for distances less than five (5) feet, where unfavorable physical conditions, such as topography or the width and the size of the lot, warrant special consideration and where the granting of a special permit would not be detrimental to the public safety.

6.3 Filling Stations and Commercial Garages

6.3.1

Every filling station pump hereafter installed shall be located at least fifteen (15) feet inside the building setback line and no filling shall be done except on the property of the filling station.

6.3.2

No permit shall be issued for a commercial garage or for a filling station, if any portion of the premises to be devoted directly or incidentally to such garage or filling station use would be located within 300 feet of any portion of premises devoted directly or indirectly to church or school use.

6.4 Outdoor Parking of Vehicles

Outdoor parking in conjunction with the sale or leasing of new or used vehicles on applications filed after September 28, 1978 is subject to the requirements as contained within this Section and such further requirements as the Board of Appeals may deem necessary.

6.4.1 Basic Requirements

- (a) The minimum lot area shall be 15,000 square feet.
- (b) The minimum frontage on one street shall conform to the minimum frontage as noted in Sections 4.2.1, 4.2.2, 4.2.3 and 4.2.4 for the zone in which the lot is located.
- (c) The width of a driveway for one-way traffic shall be a minimum of twelve (12) feet and a maximum of eighteen (18) feet; for two-way traffic the width shall be a minimum of eighteen (18) feet and a maximum of twenty-four (24) feet.
- (d) The minimum distance of driveways, measured at the lot line shall be as follows:
 - (1) from corner lot line, 20 feet;
 - (2) from interior side lot line, 10 feet;
 - (3) from other driveway on same lot, 20 feet.
- (e) Properties which are used for residential purposes and which abut an outdoor vehicle sale lot shall be protected from headlight glare by either:
 - (1) a strip at least four feet wide, densely planted with shrubs or trees which are at least four feet high at the time of planting and which are of a type that may be expected to form a year-round dense screen at least six feet high within three years, or
 - (2) a wall, barrier, or fence of uniform appearance at least four (4) feet high either opaque or perforated if not more than fifty (50) percent of the face is open.
 - (3) Such screening shall be maintained in good condition at all times. Such screening or barrier may be interrupted by normal entrances or exits and shall have no signs hung or attached thereto other than those permitted in the district.
- (f) All illumination on outdoor vehicle sales lots shall be shielded so as not to shine directly upon any property in a residential district.
- (g) No repair work of any kind shall be performed.

6.4.2 Review Criteria

In reviewing an application for a special permit under this section, the Board of Appeals shall also consider the following factors:

- (a) Ingress and egress to property and proposed structures thereon with particular reference to automotive and pedestrian safety and convenience, traffic flow and control and access in case of fire or catastrophe;
- (b) Off-street parking and loading areas where required with particular attention to the items in paragraph (a) and noise, glare, or odor effects of the use on adjoining properties and properties generally in the district;
- (c) Refuse collection or disposal and service areas, with particular reference to items in paragraphs (a) and (b) above;
- (d) Screening and buffering with reference to type, dimensions, and character;
- (e) Signs, if any, and proposed exterior lighting with reference to glare, traffic safety, compatibility and harmony with properties in the district;
- (f) Required yards and other open space;
- (g) General compatibility with adjacent properties and other property in the district;
- (h) Reasonable hours of operation.

6.5 Limited Heliports

6.5.1

Unless otherwise prohibited under this Zoning By-Law, Special Permits for Limited Heliports may be granted in accordance with Section 7.5.2 of the By-Law in the Industrial Districts and in the Highway Commercial 1 District, which shall be consistent and in conformance with the standards and criteria enumerated herein and any other conditions that may be required by the Board of Appeals.

6.5.2 Basic Requirements

- (a) The proposed limited heliport is found to be desirable for public convenience and welfare.
- (b) No part of the limited heliport shall be less than 1,000 feet from a residentially zoned district (excluding Commonwealth of Massachusetts land currently devoted to the Route 128 circumferential highway as shown on the Needham Zoning Map), nor less than 800 feet from any part of a television or radio tower that is more than 150 feet in height, nor less than 1,200

feet from the base of a television or radio tower that is more than 150 feet in height, nor less than 4,500 feet from any other limited heliport, nor less than 100 feet from a public way (excluding Commonwealth of Massachusetts land devoted to Route 128 and related ramp areas).

- (c) The limited heliport shall not be utilized by a helicopter craft with a seating capacity of more than five.
- (d) The applicant shall submit a noise assessment consistent with Federal Aviation Administration guidelines contained in Advisory Circular Number 150/5020-2 or any subsequent amendments, to evaluate the acoustic impacts on the environment in the area of the proposed limited heliport.
- (e) The applicant shall submit a site plan certified by an individual possessing qualifications satisfactory to the Board of Appeals showing the direction of prevailing winds, the approach/departure pattern (including the horizontal plan and elevation profile of the flight paths to be used) and the location and height of any structures within the glide path.
- (f) Heliport landing areas at ground level shall have a minimum area of 100 feet by 100 feet which shall be paved and kept free of loose material.

The landing area shall be enclosed by a fence at least four feet in height. Heliport landing areas constructed on buildings and other elevated places shall be of a size and construction consistent with federal and state standards. In no event shall a heliport be constructed on a building or other elevated place if it is determined by the Needham Fire Department to be at a height beyond the fire fighting capabilities of its equipment.

- (g) Heliport landing areas shall be provided with means for safe collection and disposition of fuel spilled in an emergency. Adequate fire protection and firefighting equipment shall be provided in accordance with federal, state, and local requirements and shall be regularly inspected and tested.
- (h) Heliport landing areas shall be provided with lighting and wind direction indications in conformity with Federal Aviation Agency and Massachusetts Aeronautics Commission regulations and recommendations.
- (i) Unless otherwise specified in this section or within the decision of the Board of Appeals, Limited Heliport land areas shall be of a design and construction consistent with the appropriate state and federal standards.
- (j) The Board of Appeals may require evidence of application, certification and/or approval by the Massachusetts Aeronautics Commission, the Federal Aviation Administration, Civil Aeronautics Board, or other appropriate agency prior to the granting of a special permit for a limited heliport.

- (k) The Board of Appeals shall specify the hours of operation of limited heliports and the frequency of use.
- (l) A special permit granted under this section shall be subject to review by the Board of Appeals on an annual basis. The Building Commissioner shall report on an annual basis to the Board of Appeals whether or not all conditions of the original special permit for the heliport have been met and if any complaints have been filed concerning the operation of the heliport with the Building Commissioner or the Board. The Building Commissioner shall respond to any complaints consistent with Chapter 40A.

6.6 Complex Developments

6.6.1 Intent

The intent of Complex Development provisions is to assure that in the Avery Square Business and Hillside Avenue Business districts large-scale developments are carefully tested against the Town's decision criteria relating to locations and uses, and to assure that adequate provisions are made for impacts of development.

6.6.2 Applicability

Uses made subject to Section 6.6 by designation ("SPC") in Section 3.2 Use Regulation Schedule are defined as "Complex Developments", and shall comply with the following.

Complex Developments require authorization through a special permit granted by the Planning Board under this Section, which shall serve in lieu of any special permit otherwise required under Section 3.2 Use Regulations. Application for any other special permits which might be required by the project, such as those under Section 3.4 Aquifer Protection District, regardless of agency designations elsewhere in the By-Law, may be consolidated with the Complex Development application, and acted upon by the Planning Board as Special Permit Granting Authority, proceeding as provided at Sections 7.5.2 and 7.6.1.

6.6.3 Submittal Requirements

The applicant shall submit the following materials, in report format, to allow the Planning Board to determine potential compliance with the decision criteria of Section 6.6.4 and other provisions of this By-Law without need for extensive further analysis by the Planning Board. This will entail:

- (a) Site plans with contents as required for Site Plan Review under Section 7.4, except that only schematic-level detail is required; and schematic building plans.

- (b) Impact analyses on topics which are germane to the case, including identification of public facility improvements anticipated to be made by others and those being committed by the applicant.
- (c) Description of the project timing and phasing.

6.6.4 Decision Criteria

The following shall be the basis for decisions on special permits for Complex Developments. Special permits for Complex Developments shall be granted by the Special Permit Granting Authority only upon its written determination that the proposed use will be in general harmony with the purpose and intent of the Zoning By-Law, and will not have adverse effects which over-balance its beneficial effects for either the neighborhood or the Town, in view of the particular characteristics of the site and of the proposal in relation to that site. The determination shall indicate consideration of each of the following considerations which are applicable, among others. At the time of application, the applicant shall submit complete documentation regarding each of these considerations which are applicable, including description of any discussion efforts made with neighborhood groups or other affected parties.

6.6.4.1 Circulation

- (a) Increases in either average daily or peak hour vehicular traffic are adverse effects, even if coupled with capacity increases maintaining the level of service.
- (b) Causing the diversion of traffic onto residential streets is an adverse effect.
- (c) To avoid adversity, pedestrian and vehicular movement to, from, and within the site should be safe and convenient, and arranged so as not to disturb abutting properties.

6.6.4.2 Utilities and Other Public Services

Any unusual public problem in providing adequate water, sewerage, drainage, public safety, or other public services for a use would be an adverse effect.

6.6.4.3 Environmental Impacts

- (a) Environmental damage due to wetland loss, habitat disturbance, erosion, or damage to valuable trees or other natural assets are adverse effects.
- (b) Damage or risk to air, land, or water resources because of planned processes or unplanned contingencies are adverse effects.

6.6.4.4 Land Use Compatibility

- (a) Preempting land having special qualities suiting it for other uses, such as land having rail access being preempted from use by a non-rail using activity, is an adverse effect.
- (b) Damaging the utility and enjoyment of nearby land uses through off-site impacts is an adverse effect.

6.6.4.5 Visual Compatibility

- (a) Visibility of parking and service areas from nearby public streets is an adverse effect which can be minimized through site arrangement, use of tree cover, and other means.
- (b) Increases above the architectural scale of buildings on abutting and nearby premises is an adverse effect, except where the departure would serve some community design purpose.

6.6.5 Conditions

The Planning Board shall impose appropriate conditions to its approval as necessary to assure implementation of the intent of these provisions.

6.7 Wireless Communications Facilities

6.7.1 Intent

The purpose of this section is to accommodate the communication needs of the general public while promoting the health, safety and general welfare of the community. These purposes are to be achieved by minimizing the adverse visual effect of wireless communication equipment towers, facilities and devices, by providing safeguards for the general public, by avoiding potential damage to adjacent properties, by maximizing the use of existing towers and buildings, by concealing new equipment within or on existing towers or buildings, and by encouraging co-location of equipment to accommodate the needs of wireless communication in order to reduce the number of towers needed to service the community.

6.7.2 Definitions

For the purposes of this section, the following words and phrases shall have the following meanings:

Antenna – a device, usually a metal rod, dish or panel, for receiving and transmitting electromagnetic signals, including, but not limited to radio, video, telephone or data transmissions.

Building-mounted wireless communication equipment – both roof-mounted and façade-mounted wireless communication equipment.

Carrier – a company that provides wireless service.

Co-location – the use of a single mount on the ground by more than one carrier (vertical co-location) and/or several mounts on an existing building or structure by more than one carrier.

Environmental Assessment (EA) – the document required by the Federal Communications Commission (FCC) and the National Environmental Policy Act (NEPA) when a personal wireless service facility is placed in certain designated areas.

Equipment Shelter – an enclosed structure, cabinet, shed or box at the base of the mount within which are housed batteries and electrical equipment.

Façade-mounted wireless communication equipment – wireless communications equipment attached to a vertical wall, exterior surface or ornamental feature other than the roof of a building or structure.

Free Standing Device – a monopole wireless service facility not requiring guy wires for support; and any other device mounted on the ground and not mounted on any existing building or structure.

Guyed Tower – a monopole or lattice tower that is tied to the ground or other surface by diagonal cables.

Height – a distance measured from the average grade of the land surrounding the device to its highest point, surface or projection, in the case of free-standing devices, or a distance measured from the average grade of the land surrounding the exterior walls of a building to the highest point, surface or projection of the device, in the case of devices mounted on existing buildings.

Interior-mounted wireless communication equipment – wireless communications equipment that is wholly within a building or structure, including such equipment within a mechanical penthouse, steeples, bell towers, cupolas or other architectural features which are not completely enclosed.

Lattice-Tower – a type of mount that is self-supporting with multiple legs and cross-bracing of structural steel.

Monopole – the type of mount that is self-supporting with a single shaft of steel or concrete and a platform for antennas arrayed at the top.

Personal Wireless Services – Wireless telecommunications services regulated by the Federal Communications Commission (“FCC”) and defined as “personal wireless services” in Section 704, or other sections, of the Federal Telecommunications Act of 1996 as amended; by way of example but not limitation, personal wireless services include cellular telephone services, so-called personal communications services (“PCS”) and paging services.

Radio Frequency (RF) Engineer – an engineer specializing in electrical or microwave engineering, especially the study of radio frequencies.

Roof-mounted wireless communication equipment – wireless communications equipment attached to the primary roof of a building.

Security Barrier – A locked, impenetrable wall, fence or berm that completely seals an area from unauthorized entry or trespass.

Wireless Communication Equipment – any device or other apparatus, fixed at a location, for transmission and reception of telecommunication that performs the function of antennas, together with any supporting structures, equipment and facilities ancillary and/or accessory thereto, including, but not limited to panel antennas, whip antennas, free-standing monopoles (not lattice shaped towers except as allowed in sections 6.7.3.1 (b), 6.7.3.1 (c), 6.7.3.3 (h) and 6.7.3.3 (k) below), dish and cone shaped antennas, satellite earth station antennas, personal wireless communication systems facilities, paging service facilities, cellular telephone service facilities, commercial mobile radio service facilities and related equipment boxes serving personal wireless services exclusively or, for purposes of this section 6.7, serving municipal public safety communication purposes.

It is recognized that technology is rapidly changing and the definitions herein are intended to encompass such wireless communication equipment as it evolves over time.

6.7.3 Use Regulations

6.7.3.1 Permitted As of Right

The following wireless communication equipment is allowed as-of-right, subject to the criteria of section 6.7.5 and the review process of section 6.7.6, if applicable:

- (a) Equipment used solely for receiving or transmitting wireless communication customary for private residential use, even if such equipment is used in conjunction with non-residential structures, including but not limited to, a conventional television or radio antenna, fixed wireless personal communication system, direct broadcast satellite antenna one (1) meter or less in diameter, and multipoint distribution service antenna or home satellite dish of not more than two (2) meters in diameter or measured diagonally; provided that in the case of a home satellite dish that is free-standing, such satellite dish shall be installed in the rear yard only.
- (b) Equipment owned and operated by an amateur radio operator licensed by the FCC, which device shall be installed at the minimum height necessary for the functioning of amateur radio communication in accordance with the licensing requirements for that location. Such equipment, which may include a ground-mounted lattice style tower, shall be allowed in accordance with the setback requirements for primary structures in the district in which it is located. No commercial use of equipment or supporting structures which were installed for amateur radio operation is permitted.
- (c) Towers used for the purposes set forth in M.G.L. Chapter 40A, Section 3.
- (d) Antennas attached to an existing utility pole or utility structure, such as the support for an electrical transmission tower or electrical distribution pole, but no higher than ten (10) feet above the existing structure, provided that the total height from the ground to the top of the antenna does not exceed fifty-five (55) feet and provided that all control and operating equipment associated with the antenna shall be camouflaged or completely screened from view in some other manner. Antennas shall be placed on any structure so as to minimize the visual impacts off-site. This provision shall not apply within 150 feet of the right-of-way of any scenic roadway where such use shall not be permitted.
- (e) Roof-mounted wireless communication equipment in the commercial, industrial, and institutional districts (a) which does not extend more than ten (10) feet above the height of an existing building, (b) which is set back from the edge of the roof the distance it is high, and (c) whose equipment will be housed within the existing building or on the rooftop in such a way as to be not visible from the street level or to be constructed in such a way and of such material as to appear as part of the existing structure.

- (f) Façade-mounted equipment located in the commercial, industrial, and institutional districts
 - (a) which does not extend above the face of any wall or exterior surface in the case of structures that do not have walls, (b) which is concealed within or behind existing architectural features or within material consistent with the design features and materials of the building, (c) which does not obscure any window or other architectural feature, and (d) which has been finished in a color and style to blend with the surface on which it is mounted.
- (g) All interior-mounted wireless communications equipment is allowed in commercial, industrial and institutional districts. In residential districts interior-mounted wireless communication equipment shall be permitted in existing steeples, bell towers, cupolas, and spires of non-residential buildings or structures existing on January 1, 2000.
- (h) 1) An antenna used solely to receive direct broadcast satellite services, including direct-to-home satellite service, or to receive or transmit fixed wireless signals via satellite, or used to receive video programming services via multi-point distribution services, including multichannel multipoint distribution services, instructional television fixed services and local multi-point distribution services, or to receive or transmit fixed wireless signals other than via satellite. The antenna must be one meter or less in diameter or diagonal measurement, not customary for private residential use and to be located on property within the exclusive control of the antenna user where the user has ownership or a leasehold interest in the property, provided that the antenna is not being placed on a site, building, structure or object included in, or eligible for inclusion on the National Register of Historic Places, as set forth in the National Historic Preservation Act of 1966, as amended, 16 U.S. Code 470 and provided that application is made to the Building Commissioner for a building permit which includes sufficient information and documentation to determine that the antenna meets the requirements of this subsection and payment of a permit fee of \$100 is made.

2) In the case of an antenna that is used to transmit fixed wireless signals, a label must be affixed to the antenna that provides adequate notice of radio frequency safety hazards and references the applicable FCC adopted limits for radio frequency exposure specified in 47 CFR 1.1310.

6.7.3.2 Prohibited

Lattice style towers, guyed towers, and facilities requiring three or more legs and/or guy wires for support shall not be allowed except for those set forth in 6.7.3.1 (b), 6.7.3.1 (c), 6.7.3.3 (h), and 6.7.3.3 (k). Lattice style towers, guyed towers, and facilities requiring three or more legs and/or guy wires existing or approved on the effective date of this by-law may be used for wireless communications equipment, subject to section 6.7.3.3 (f).

6.7.3.3 Special Permit

The Board of Appeals may issue a special permit under the provisions of section 7.5.2 and subject to the criteria of section 6.7.5 for:

- (a) Antennas attached to an existing utility pole or utility structure not otherwise allowed in section 6.7.3.1 (d) hereof.
- (b) Roof-mounted wireless communication equipment in the commercial, industrial and institutional districts not otherwise allowed in section 6.7.3.1 (e) hereof.
- (c) Façade-mounted equipment located in the commercial, industrial and institutional districts not otherwise allowed in section 6.7.3.1 (f) hereof.
- (d) Any interior-mounted wireless communication equipment in non-residential buildings or structures not otherwise allowed in section 6.7.3.1 (g) hereof.
- (e) Satellite earth station antennas not otherwise allowed as-of-right.
- (f) Modification or addition of wireless communication equipment on or to existing free-standing monopoles or towers, except those monopoles and towers constructed for the purposes allowed in section 6.7.3.1 above.
- (g) Any equipment ancillary to antennas otherwise allowed under sections 6.7.3.1 or 6.7.3.3 hereof, which cannot be located in the rear yard and/or does not meet the setback requirements for the district in which it is located. An applicant may apply for a special permit allowing an alternate location by showing that such equipment (i) is required for successful transmission or reception or is otherwise required by the FCC, (ii) cannot due to its size or other health or safety reasons be located within the building, and (iii) cannot be located in the rear yard and/or within applicable setbacks for one or more of the following reasons: the size of the equipment; the size of the rear, front and/or side yards; the location within the rear yard or applicable setbacks would result in the removal of required parking; and the aesthetic purposes of the By-Law would be better served by such alternate location.
- (h) Free-standing monopoles and free-standing lattice towers serving personal wireless services located in the Wireless Communications Facilities Tower Overlay District which meet the criteria outlined in section 3.7.3.2 (b).
- (i) Wireless Communication Equipment serving the Town of Needham's public safety communication purposes, located on a preexisting and lawfully permitted tower, and ground based equipment accessory thereto.
- (j) Free standing monopole owned and operated by the Town of Needham for public safety communication purposes exclusively, and wireless communication equipment accessory thereto, where such monopole and equipment are located on the site of the Town of Needham's Police and Fire Department Headquarters, as shown on the "Lot Consolidation Plan of Land 70 & 88 Chestnut Street, 89 & 99 School Street, and 43 Lincoln Street Prepared for the Town of Needham, Massachusetts" dated July 23, 2018 and to be recorded with the Norfolk County Registry of Deeds, and do not exceed 130 feet in height.

- (k) Free standing monopole or free-standing lattice tower, owned and operated by the Town of Needham for public safety communication purposes, and wireless communication equipment accessory thereto, where such monopole, lattice tower, and equipment are located on the site of the Town of Needham's Recycling and Transfer Station, shown of record as the lot containing 71.667 +/- acres on the "Plan of Land in Needham, Mass. Showing Property of the Town of Needham" dated February 11, 1991 and recorded with the Norfolk County Registry of Deeds in Plan Book 619 at Page 36 and Lot 2 on Land Court Subdivision Plan 21906-C, all of said land being within the Wireless Communications Facilities Tower Overlay District, and do not exceed 199 feet in height.

6.7.4 Submittal Requirements

Ten copies of the following information must be submitted for an application to be considered complete:

- (a) Name, address and telephone number of applicant and any co-applicants as well as any agents for the applicant or co-applicant with original signatures.
- (b) A locus plan at a scale of 1" = 200' which shall show all property lines, the exact location of the proposed structure(s), street landscape features, dwellings and other structures within one-hundred (100) feet of the property line.
- (c) Equipment brochures for the proposed wireless communication facility such as manufacturer's specifications or trade journal reprints shall be provided for the antennas, mounts, equipment shelters, cables as well as cable runs, and security barrier, if any.
- (d) Materials of the proposed wireless communication facility specified by generic type and specific treatment (e.g., anodized aluminum, stained wood, painted fiberglass, etc.). These shall be provided for antennas, mounts, equipment shelters, cables as well as cable runs, and security barrier, if any.
- (e) Colors of the proposed personal wireless facility showing actual color proposed on a color board. Colors shall be provided for the antennas, mounts, equipment shelters, cables, as well as cable runs, and security barrier, if any.
- (f) Dimensions of the proposed wireless service facility specified for all three directions: height, width and breadth. These shall be provided for the antennas, mounts, equipment shelters and security barrier, if any.
- (g) Appearance shown by at least two photographic superimpositions of the wireless communication facility with its antennas and/or panels presented to scale. For satellite dishes or antennas, a color photographic imposition illustrating the dish or antenna at the proposed location is required. A color photographic imposition shall also be prepared illustrating a view of the tower, dish or antenna from the nearest street or streets.

- (h) The following information must be prepared and signed by a registered professional engineer:
- (i) a description of the facility and the technical, economic and other reasons for the proposed location, height and design.
 - (ii) confirmation that the facility complies with all applicable Federal and State standards.
 - (iii) a description of the capacity of the facility including the number and type of panels, antennas and/or transmitter receivers that it can accommodate and the basis for these calculations.
 - (iv) if applicable, a written statement that the proposed facility complies with, or is exempt from, applicable regulations administered by the Federal Aviation Administration (FAA), Federal Communications Commission (FCC), Massachusetts Aeronautics Commission and the Massachusetts Department of Public Health.
 - (v) a schedule for periodic (at least annually) maintenance.
- (i) In the case of a special permit application, an application for Site Plan Review as outlined in section 7.4.4.

6.7.5 Decision Criteria

All wireless communication equipment, except that described in section 6.7.3.1 (a) must satisfy the following criteria:

- (a) Wireless communication equipment shall be installed, erected, maintained and used in compliance with all applicable federal and state laws and regulations, including, but not limited to, radio frequency emissions regulations issued pursuant to the Telecommunications Act of 1996 including all successors to such laws and regulations. An applicant seeking to construct or install wireless communication equipment shall submit a report from a qualified engineer or other appropriate professional certifying that the proposed equipment meets the requirements of these regulations. This report shall be submitted prior to any site plan approval or special permit application or at the time of a building permit application if there is no review.
- (b) Wireless communication equipment must at all times be maintained in good and safe condition and comply with all applicable FCC standards and shall be removed within 90 days of the date when all use of such equipment ceases. This provision shall apply to all wireless communication equipment and structures in support of that equipment, including such equipment and structures existing on the effective date of this section. Continued compliance

with these conditions shall be maintained by the operator of the equipment and the owner of the structure. Failure to comply with these conditions shall constitute a zoning violation.

- (c) All wireless communication equipment except equipment described in section 6.7.3.1, subsection (h), shall be sited, screened, and/or painted or otherwise colored or finished to blend in with the building or structure on which it is mounted or in a manner which aesthetically minimizes the visibility of the devices in the surrounding landscape or on the building or structure to which they are attached. In certain circumstances, additional architectural features or changes to the façade may be necessary to maintain the balance and integrity of the design of the building or structure with building-mounted wireless communication equipment.
- (d) Wireless communication facilities shall be designed and installed at the minimum height necessary for the proper functioning of the telecommunications services to be provided at that location.
- (e) There shall be no advertising or signs on or in the vicinity of the wireless communication facility, except for no trespassing signs and a required sign, not exceeding four square feet, which shall display a phone number where a person responsible for maintenance can be reached on a twenty-four hour basis, or other signs as may be required by law.
- (f) Any fencing used to control access to wireless communication equipment shall be compatible with the visual character of the structures in the surrounding neighborhood, to the extent possible.
- (g) Equipment boxes for building-mounted wireless communication equipment must be either interior to the building on which it is located, camouflaged, and/or screened from view from the public way to the maximum extent practical.
- (h) All network connections from the communications site shall be via underground land lines except as allowed by special permit.
- (i) All free-standing wireless communication equipment must meet any setback requirements of the district in which it is located and, to the greatest extent possible, shall be screened from the public way by fencing and/or landscaping. Such equipment shall be located in the rear yard of the lot on which it is located.
- (j) No part of any building-mounted wireless communication equipment shall be located over a public way.
- (k) The construction of wireless communication equipment shall avoid major topographic changes and shall minimize the removal of trees and soil in order for any topographic changes to be in keeping with the appearance of neighboring properties.
- (l) Wireless communication facilities shall not be located in wetland.

- (m) No hazardous waste shall be discharged on the site of any wireless communication facilities. If any hazardous materials are to be used on site, there shall be provisions for full containment of such materials.
- (n) The installation of wireless communication equipment shall avoid the removal or disruption of historic resources on and off-site. Historic resources shall include designated historic structures or sites, historical architectural elements or archaeological sites.
- (o) There shall be no illumination of the wireless communication equipment except as required by state and federal law. Lighting of equipment structures and any other facilities on site shall be shielded from abutting properties. There shall be total cutoff of all light at the property lines of the parcel to be developed, and foot candle measurements at the property line shall be 0.0 initial foot candles when measured at grade.
- (p) An applicant seeking to construct or install any external noise producing equipment ancillary to antennas shall use best efforts to minimize noise emanating from such equipment by the use of air-tight seals and noise absorbing materials on the walls and ducts of such equipment. The use of batteries as the back up power source is preferred over generators.
- (q) Free standing monopoles and free-standing lattice towers, owned and operated by the Town of Needham for public safety communication purposes that are located within the Wireless Communications Facilities Tower Overlay District shall be subject to Section 3.7.3.2(b)(2) and 3.7.3.2(b)(4).

6.7.6 Design Review for Wireless Communication Equipment

Except for wireless communication equipment described in section 6.7.3.1 (a) and 6.7.3.1 (h) hereof, no wireless communication equipment shall be constructed or installed pursuant to section 6.7.3.1 until an application has been submitted to the Building Commissioner as described in section 6.7.4. The applicant shall simultaneously file a copy of said application with the Design Review Board. The Design Review Board shall submit an advisory report to the Building Commissioner within three weeks of the application filing date. In making their report, the Design Review Board shall evaluate the application based on the requirements of section 6.7.5 and may seek input from relevant Town departments. The Building Commissioner shall not approve wireless communication equipment until the advisory report of the Design Review Board has been received or three weeks have elapsed without receipt of such report, and until all required departmental approvals have been issued. The Building Commissioner has the authority to deny any building permit application which the Inspector determines does not comply with the requirements of section 6.7.5.

6.7.7 Modifications

A modification to a wireless communication facility shall be considered equivalent to an application for a new wireless communication facility and will require a special permit when the following events apply:

- (a) The applicant and/or co-applicant wants to alter the terms of the special permit by changing the wireless communication facility in one or more of the following ways:
 - (i) Change in the number of facilities permitted on the site;
 - (ii) Change in the technology used for the wireless communication facility;
 - (iii) Change in the original permitted use of wireless communication.
- (b) The applicant wants to add any equipment or additional height not specified in the original design filing.

6.7.8 Monitoring and Maintenance

Once a year if requested by the Building Commissioner, the owner and/or operator of a wireless communication facility shall file with the Building Commissioner an updated maintenance schedule as well as evidence that the wireless communication facility complies with the applicable standards of the Federal Communications Commission, the Federal Aviation Administration and the American National Standards Institute, and that the wireless communication facility remains in use.

The applicant and co-applicant shall maintain the wireless communication facility in good condition. Such maintenance shall include, but shall not be limited to, painting, structural integrity of the mount and security barrier, and maintenance of the buffer areas and landscaping.

6.7.9 Abandonment or Discontinuation of Use

At such time that a carrier plans to abandon or discontinue operation of a wireless communication facility, such carrier shall notify the Town by certified mail of the proposed date of abandonment or discontinuation of operations. Such notice shall be given no less than 30 days prior to abandonment or discontinuation of operations. In the event that a carrier fails to give such notice, the wireless communication facility shall be considered abandoned upon such discontinuation of operations.

Upon abandonment or discontinuation of use, the carrier shall physically remove the wireless communication equipment within 90 days from the date of abandonment or discontinuation of use. “Physically remove” shall include, but not be limited to:

- (a) Removal of antennas, equipment shelters and security barriers from the subject property.
- (b) Proper disposal of the waste materials from the site in accordance with local and state solid waste disposal regulations.
- (c) Restoring the location of the wireless communication facility to its natural condition, except that any landscaping and grading shall remain in the after condition.

6.7.10 Reconstruction or Replacement of Existing Towers and Monopoles

Guyed towers, lattice towers and monopoles in existence at the time of the adoption of this By-Law may be reconstructed, altered, extended or replaced on the same site by special permit, provided that the Board of Appeals finds that such reconstruction, alteration, extension or replacement will not be substantially more detrimental to the neighborhood and/or the Town than the existing structure. In making such a determination, the Board of Appeals shall consider whether the proposed reconstruction, alteration, extension or replacement will create public benefits such as opportunities for co-location, improvements in public safety, and/or reduction in visual and environmental impacts. No reconstruction, alteration, extension or replacement shall exceed the height of the existing facility by more than twenty (20) feet.

6.7.11 Severability

A determination that any section or portion of this By-Law is invalid shall not invalidate any other portion or provision thereof, nor shall it invalidate any special permit previously issued thereunder.

6.8 Intensity of Use Special Permit Criteria for the NEBC, HC-128, and MU-128 Districts.

6.8.1 Applicability

Development in the NEBC, HC-128, and MU-128 districts that seeks a special permit for an increase in the floor area ratio over what is permitted by right shall be subject to the following additional special permit provisions. Provided, however, that nothing contained herein shall impair the rights conferred by Section 1.4 of this By-Law.

- (a) In granting a special permit the Planning Board (Board) shall consider all the factors noted in item b. below, and any proposed mitigation measures proposed by the applicant. The Board shall make findings as to whether the benefits, if any, of the proposed project outweigh the costs and adverse impacts, if any, to the Town. If the Board, after considering all factors noted below, finds that the proposal would benefit the Town, the Board may grant a special permit with or without specific conditions.
- (b) The Board, at a minimum, shall examine the following factors:
 - The ability of existing public infrastructure to adequately service the proposed facility without negatively impacting existing uses, including but not limited to, water supply, drainage, sewage, natural gas, and electric services.
 - Impact on traffic conditions at the site, on adjacent streets and in nearby neighborhoods, including the adequacy of roads and major intersections to safely and effectively provide access to and from the areas included in the New England Business Center, Highland Avenue Corridor, and Wexford/Charles Street Industrial District Plan, dated June 2001 (District Plan), and the areas immediately adjacent to said areas.

- The environmental implications of the proposal and the relationship of the proposal to open space and conservation plans adopted by the Town.
 - The short and long term fiscal implications of the proposal to the Town of Needham.
 - The consistency of the project with the goals of the New England Business Center, Highland Avenue Corridor, and Wexford/Charles Street Industrial District Plan, dated June 2001, as set forth in the document titled “Goals of the June 2001 New England Business Center, Highland Avenue Corridor, and Wexford/Charles Street Industrial District Plan”, as adopted by the Planning Board on December 11, 2001(Goals of the District Plan).
- (c) Consistent with Massachusetts Law, the Board, pursuant to regulations duly promulgated by the Board, may require the applicant to provide financial assistance so that the Board may hire professionals to assist it in the review of any factors noted in items b. and c. above.
- (d) Traffic Improvement Fee. The Board shall determine how many additional square feet of development, above those allowed by right, will be created by the grant of the special permit under this Section 6.8. Applying the Needham Zoning Bylaw Section 5.1.2. Required Parking, the Board shall determine the appropriate number of off-street parking spaces required to service that portion of the development which exceeds that permitted by right. The Board shall then require payment of a one time Traffic Improvement Fee (Fee) of \$1,500 for each such parking space. Said fee shall be paid by the applicant or the applicant’s designee to the Town and shall be placed in a special revenue account entitled “Traffic Mitigation Fund” to be used for the purpose of addressing long term traffic improvements clearly related to and directly benefitting the uses within the area covered by the District Plan. The area covered by the District Plan is defined as follows: the districts themselves, the intersections of Kendrick Street and Hunting Road, all portions of the existing intersection of Interstate Route 95 and Highland Avenue, the intersection of Highland Avenue and Needham Street, Highland Avenue between Interstate Route 95 and the city of Newton line, Kendrick Street from the intersection with Hunting Road to the city of Newton line, and any planned or proposed intersection on Interstate Route 95 directly servicing the business zoning districts included in the District Plan.
- (e) Payment of Traffic Improvement Fee (Fee). The applicant may pay the entire Traffic Improvement Fee prior to receipt of the building permit for the project. In the alternative, the applicant may pay in two installments: half prior to receipt of the building permit for the project, and the other half prior to receipt of the occupancy permit for the project, provided, however, that interest on the second installment will accrue at 12% per annum from the date of payment of the first installment and must be paid with the second installment.
- (f) Site mitigation. The payment of the Fee shall not exempt developers from any on-site or access-related traffic improvements required by the special permit, or the site plan review process, and any conditions resulting from said process. Further, payment of the Fee shall not exempt any developer from any costs associated with providing other forms of infrastructure improvements, such as water, sewer, or drainage improvements, in order to provide safe and efficient use of the site.

(g) The Planning Board shall have the discretion to require at least one or more Transportation Demand Management (TDM) programs to reduce AM peak hour volumes, as listed below:

- Provide staggered work hours (one hour increments) for at least 10% of the non-management work force.
- Provide preferential parking locations for all employees arriving in a car pool comprised of at least two licensed drivers.
- Provide a cash incentive for all car pools of two or more licensed drivers. Said incentive shall be at least 40 dollars per month per car pool.
- Provide a shuttle or van service to and from public transportation terminals. Said service must have the capacity to accommodate at least 10% of the employees on the largest shift.
- Provide a work at home option for at least one day per week for at least 10% of the total work force.
- Provide subsidized public transportation passes of at least 20% of the monthly pass cost.
- Other programs designed by the applicant and approved by the Planning Board in lieu of or in addition to those listed above.

All TDM plans shall be submitted to the Planning Board as part of the special permit review process relative to this section, i.e., section 6.8. All TDM plans shall be subject to review by the Planning Department every two (2) years for compliance with previously approved TDM program terms and measures. At said time, if a particular TDM program is not being properly implemented, the applicant may revise said TDM program, and the Planning Board may make revisions to maintain or improve its effectiveness. However, to meet the requirements of the special permit all projects must maintain the minimum number of TDM programs required by the Board as long as the development in question is operating under a special permit.

6.9 Outdoor Seating

6.9.1 Applicability

Section 6.9.2 shall apply in any business district in which eat-in restaurants are permitted under Section 3.2.2 of this By-Law.

6.9.2 Basic Requirements Seasonal Outdoor Seating

Seasonal temporary (i.e. April through October) outdoor seating, including but not limited to tables, chairs, serving equipment, planters, and umbrellas, for eat-in restaurants is permitted during normal hours of operation, subject to minor project site plan review with waiver of all requirements of Sections 7.4.4 and 7.4.6 except as are necessary to demonstrate compliance with Section 6.9 by the Planning Board in the case of (a) below and the Select Board in the case of (b) below, provided that:

- (a) It is within the front yard, rear yard, or side yard of the restaurant's owned or leased property, but only if said yard abuts a public right-of-way, public property, or other public uses, provided that:
 - (i) Such use is clearly related to the restaurant conducted inside the principal building;
 - (ii) A minimum width of forty-eight inches (48"), or as otherwise provided by law, shall be continuously maintained and unobstructed for the sidewalk or entrance into the principal building, or any other designated sidewalks or pedestrian paths, as shown on the plan provided to the Planning Board;
 - (iii) Outdoor seating is prohibited in designated or required landscaped areas, parking lots, or drive aisles;
 - (iv) Such use does not obstruct or otherwise interfere with visibility at intersections;
 - (v) Except as otherwise provided in subsection (b), the outdoor seating must be on the same lot as the establishment; and;
 - (vi) During all operating hours and thereafter, the area of outdoor seating must be kept clean, including clearing of all tables and removal of all trash.
- (b) It is within the public sidewalk abutting the front, rear, or side yard of the restaurant's owned or leased property or on a public way or on other public property abutting the front, rear, or side yard of the restaurant's owned or leased property, provided that:
 - (i) No temporary outdoor restaurant seating shall be permitted, unless the Select Board authorizes the placement of temporary outdoor seating within the public right-of-way, public sidewalks and/or on public property;
 - (ii) Such use is clearly related to the restaurant conducted inside the principal building;
 - (iii) A minimum width of forty-eight inches (48"), or as otherwise permitted by law, shall be continuously maintained and unobstructed for the sidewalk or entrance into the principal building, or any other designated sidewalks or pedestrian paths, as shown on the plan provided to the Select Board;
 - (iv) Outdoor seating shall not be authorized in designated or required landscaped areas, parking lots, or drive aisles, or in parking spaces located within a public way, except for good cause, and where the Select Board finds, after holding a public hearing, that pedestrian and vehicular circulation, the safety of restaurant patrons and the public, and parking for patrons of restaurants, retail establishments and service establishments in the vicinity of the outdoor seating, shall be adequately provided for;
 - (v) Such use does not obstruct or otherwise interfere with visibility at intersections;
 - (vi) The outdoor seating must be adjacent to the restaurant establishment and in front, to the rear, or to the side of, as the case may be, the front face of the restaurant's owned or leased property; and;
 - (vii) During all operating hours and thereafter, the area of outdoor seating must be kept clean, including clearing of all tables and removal of all trash.

The Select Board may authorize seasonal temporary outdoor seating under this Section 6.9.2 (b) earlier than April 1 and later than October 31 of each year.

Items (a)(i), (a)(iii), (a)(v) and (b)(ii), (b)(iv), and (b)(vi) shall not apply during special town-wide festivals or events during the year as designated by the Select Board.

Where there is authorization for the placement of seasonal temporary outdoor restaurant seating and where such seating could be interpreted to be an increase in the number of seats serving a restaurant, such seating shall not be counted toward the off-street parking or loading requirements, provided that (1) such seating remains seasonal and temporary; and (2) such seating does not increase capacity by more than thirty percent (30%) unless such increase is authorized by the Special Permit Granting Authority that granted the special permit allowing the use of the premises as a restaurant, with or without a hearing, as said Special Permit Granting Authority shall determine.

6.10 Special Permit Criteria for a Medical Marijuana Treatment Center or Off-Site Medical Marijuana Dispensary

In granting a special permit for a Medical Marijuana Treatment Center or Off-Site Medical Marijuana Dispensary, in addition to the general criteria for issuance of a special permit as set forth in Section 7.5.2 of this By-Law, the Planning Board shall find that the following criteria are met:

- (a) The site on which the Medical Marijuana Treatment Center or Off-Site Medical Marijuana Dispensary is located is at least one thousand (1,000) feet distant from a public or private elementary school, middle school, or secondary school, or a municipal park or playground, or if not located at such a distance, but located at least five hundred (500) feet distant from such protected use, it is determined by the Planning Board to be sufficiently buffered from such protected use such that its users will not be adversely impacted by the operation of the Medical Marijuana Treatment Center or Off-Site Medical Marijuana Dispensary. The distance under this section is measured in a straight line from the nearest point of the property line of the protected use identified in this section to the nearest point of the proposed Medical Marijuana Treatment Center or Off-Site Medical Marijuana Dispensary.
- (b) The Medical Marijuana Treatment Center or Off-Site Medical Marijuana Dispensary is not located in a building that contains a licensed daycare center, or any facility providing educational, recreational or social programs or activities attended primarily by children enrolled in such facility.

6.11 Retaining Walls

6.11.1 Purpose and Intent

The Town of Needham adopts this section to accomplish and ensure the following:

- (a) To allow for the review of retaining walls of a size that may impact surrounding buildings, land, and uses;
- (b) To require the construction of retaining walls in a manner consistent with engineering and construction best practices; and
- (c) To lessen the impact of large retaining walls on abutting properties and the public by encouraging the use of landscaping and aesthetically pleasing design elements.

6.11.2 Applicability

The regulations and requirements contained herein shall apply to all retaining walls erected in the Town of Needham.

6.11.3 General Provisions

- (a) Determining Retaining Wall Height - The height of a retaining wall shall be the distance from the grade at the base of the face of the wall to the top of the finished wall. Terraced walls shall be measured in the same manner.
- (b) Walls Within Yard Setbacks – No retaining wall shall be built within the required yard setback except a retaining wall (i) with a face not greater than four (4) feet in height at any point and a length that does not exceed forty (40) percent of the lot's perimeter, or (ii) as allowed by a Special Permit issued in accordance with Subsection 6.11.5 of this Section. Notwithstanding the above, retaining walls may graduate in height from four (4) to seven (7) feet in height when providing access to a garage or egress entry doors at the basement level, measured from the basement or garage floor to the top of the wall. The wall is limited to seven (7) feet in height for not more than 25% of the length of the wall.
- (c) Walls Outside Yard Setbacks. No retaining wall with a face greater than twelve (12) feet in height shall be built except as allowed by Special Permit issued in accordance with Subsection 6.11.5 of this Section.
- (d) Fall Protection - All retaining walls over four (4) feet in height shall be required to provide fall protection if so determined by the Building Commissioner. Fall protection systems may include, but shall not be limited to, permanent landscaping or fencing as approved by the Building Commissioner.

- (e) Terracing - Terracing of retaining walls is allowed and encouraged. In a terraced retaining wall system, if two (2) retaining walls are separated by a distance at least one times (1x) the height of the higher of the two (2) walls, the walls shall be considered as separate walls; if two (2) retaining walls are separated by a distance less than one times (1x) the height of the higher of the two (2) walls, the walls shall be considered as a single wall.
- (f) Nonconforming Retaining Walls - Retaining walls legally constructed prior to the adoption of these regulations shall be allowed to remain in their existing state; however, significant changes or alterations to such walls shall be made in conformity with these regulations. The repair and routine maintenance, as determined by the Building Commissioner, of nonconforming retaining walls shall be allowed without requiring conformity with these regulations.

6.11.4 Design Review and Permitting

- (a) Design Review - Design Review shall be required for all retaining walls requiring a special permit. The Design Review Board shall review retaining walls in accordance with Section 7.7, Design Review, and shall consider such requests under those criteria contained in Subsection 7.7.4, Design Criteria, of Section 7.7. The Design Review Board shall submit an advisory recommendation to the applicant and the permit granting authority prior to the issuance of a special permit.
- (b) Permitting - A building permit shall be required, consistent with the requirements of the Town of Needham Building Department, for all retaining walls that retain four (4) or more feet of unbalanced fill.

6.11.5 Special Permit Provisions

The Board of Appeals shall consider requests for special permits in accordance with this Section and Section 7.5 of the Zoning Bylaw and a Special Permit for a retaining wall may be issued provided the Board of Appeals finds:

- (a) That the retaining wall will not cause an increase of water flow off the property;
- (b) That the requested retaining wall will not adversely impact adjacent property or the public;
- (c) That the report of the Design Review Board has been received and considered.

6.12 Affordable Housing

Any mixed-use building in the Neighborhood Business District (NB) with six or more dwelling units shall include affordable housing units as defined in Section 1.3 of this By-law. Any building in the Highway Commercial 1 District with six or more dwelling units shall include affordable housing units as defined in Section 1.3 of this By-law. The requirements detailed in paragraphs (a) thru (i) below shall apply to a development that includes affordable units in the Neighborhood Business District. The requirements detailed in paragraphs (a), (c), (d), (e), (f), (g), and (h) below shall apply to a development that includes affordable units in the Highway Commercial 1 District.

- (a) At least twelve and one-half percent (12.5%) shall be affordable units. For purposes of calculating the number of affordable units required in a proposed development, any fractional unit of $\frac{1}{2}$ or greater shall be deemed to constitute a whole unit.
- (b) To facilitate the objectives of this Section 6.12 the minimum lot area per dwelling unit normally required in the A-1 zoning district (as applicable to the Neighborhood Business District), shall be reduced by that amount necessary to permit up to two additional units (one affordable unit and one market unit) on the lot over the number required in section 6.12(a) above. The additional floor area permitted herein shall be counted toward the maximum floor area ratio allowed by special permit in the NB district.
- (c) In a home-ownership project the affordable unit(s) shall be sold to households with incomes at or below eighty (80) percent of area median income. In a rental project the affordable rental units must be provided to households with incomes at or below 80% of area median income. However, if the applicant provides at least one-half of the affordable units for households with incomes at or below fifty (50) percent of area median income, the remaining affordable units may be rented to households with incomes up to 100 percent of area median income even if the latter units are not eligible for the Subsidized Housing Inventory, regardless of any requirements to the contrary set forth in Section 1.3.
- (d) Affordable units shall be dispersed within the building and not concentrated in one area or on one floor. They shall generally be comparable in size and energy efficiency to the development's market-rate units.
- (e) The affordable units shall be constructed in proportion to the number of market-rate units in the development. Proportionality shall be determined by the number of building permits or certificates of occupancy issued for the affordable units and market-rate units, as applicable, or otherwise in accordance with a schedule set by the Planning Board in conditions imposed on the Special Permit.
- (f) The selection of eligible homebuyers or renters for the affordable units shall be in accordance with a marketing plan approved by the Needham Planning Board prior to the issuance of any building permits for the development.
- (g) The affordable units shall be subject to an affordable housing restriction as defined in Section 1.3 of this By-Law with limitations on use, occupancy, resale prices or rents, as applicable,

and which provides for periodic monitoring for compliance with the requirements of said restriction.

- (h) For affordable units with not more than one bedroom, the minimum number of parking spaces under Section 5.1 shall be reduced to one space per unit.
- (i) The SPGA may authorize that an alternative method of compliance be used, in accordance with the following:

(1) Cash Payment: The SPGA may grant a special permit to provide affordable housing through a cash payment to the Needham Affordable Housing Trust Fund, in lieu of providing one or more of the affordable units required under this Section. The cash payment shall be equal to the most current Total Development Costs set forth in the MA Department of Housing & Community Development's Qualified Allocation Plan in its Low Income Housing Tax Credit Program, for the areas described as within Metro Boston/Suburban Area, adjusted for the type of project and number of units. The cash payments shall also be in accordance with a schedule of affordable housing payments as outlined hereafter in Section 6.12(i)(2) and guidelines adopted and amended from time to time by the SPGA, following a public hearing, in consultation with the Needham Department of Planning and Community Development (DPCP);

(2) For a covered development having 10 units or less that provides affordable housing through a cash payment in lieu of affordable units, the cash payment shall be made as a pro-rated percentage (%) of the Total Development Cost referenced in Section 6.12(i)(1), based on the total number units in the project and the following percentages: 10 units - 100%; 9 units- 90%; 8 units - 80%; 7 units - 70% and 6 units - 60%. The DPCD shall not sign off on Certificate(s) of Occupancy until the Petitioner pays 100% of the required cash in lieu payment.

6.13 Accessory Uses – Solar Energy Systems

6.13.1 Basic Requirements

- a) Roof-mounted Solar Energy Systems shall be permitted in all use districts as-of-right. The installation of Roof-mounted Solar Energy Systems that: (i) comply with the regulations provided in this section; (ii) are located on properties with nonconforming uses or structures; and (iii) do not increase the nonconformity of such nonconforming uses or structures except with respect to the dimensions of the Roof-mounted Solar Energy System in question shall not be considered a change, extension or alteration that requires a finding by the Zoning Board of Appeals per M.G.L. c.40A s.6.
- b) In residential districts: Small-scale Ground-mounted Solar Energy Systems shall be permitted in rear and side yards as-of-right at the District-level setback as defined in Section 6.13.2.c)4). Small-scale Ground-mounted Solar Energy Systems may be permitted in the front yard by a Special Permit from the Board of Appeals at the applicable District-level

setback as defined in Section 6.13.2.c)4). Screening or landscaping of such systems from view from abutting lots or from a street, by plantings, walls, fences or other devices shall be provided. Solar Parking Canopies shall be permitted in rear and side yards as-of-right. Medium-scale Ground-mounted Solar Energy Systems shall be permitted in the rear and side yards as-of-right subject to site plan review by the Planning Board.

- c) In nonresidential districts: Small-scale Ground-mounted Solar Energy Systems shall be permitted in rear and side yards as-of-right. Medium-scale Ground-mounted Solar Energy Systems and Solar Parking Canopies are permitted in the rear and side yards as-of-right subject to site plan review by the Planning Board. The same regulations shall apply in residential districts for uses allowed by operation of M.G.L. c.40A s.3, or other state and federal statutes.
- d) In the New England Business Center (NEBC) District, Mixed Use-128 (MU-128) District and in the portion of the Highland Commercial-128 (HC-128) District located a) north of Highland Avenue and b) south of Highland Avenue and west of Second Avenue Solar Energy Building-mounted Canopy Systems are permitted as-of-right subject to site plan review by the Planning Board. In the Business (B), Chestnut Street Business (CSB), Center Business (CB), Avery Square Business (ASB), Hillside Avenue Business (HAB), Neighborhood Business (NB), Elder Services (ES), Industrial (I), Industrial-1 (IND-1), Highway Commercial 1 (HC-1), and Institutional (I) districts, and for municipal buildings in all districts, Solar Energy Building-mounted Canopy Systems are permitted by special permit subject to site plan review by the Planning Board.
- e) BIPV Solar Energy Systems and Surface-integrated Solar Energy Systems shall be permitted as of right as part of any use or site otherwise allowed in any zoning district.

6.13.2 Dimensional Requirement

a) Maximum Percentage (%) Lot Coverage

- 1) For the purpose of regulating lot coverage, the area of Active Solar Energy Systems shall count toward the Maximum Percentage (%) Lot Coverage as defined and regulated in the Dimensional Regulations provided in Section 4 of the Needham Zoning By-Laws.
- 2) An Active Solar Energy System's contribution toward Maximum Percentage (%) Lot Coverage shall be calculated as the total area of the system's panels. For example, if a system includes ten (10) panels that are each three (3) feet by five (5) feet, the system's contribution to Maximum Percentage (%) Lot Coverage would equal 150 square feet.
- 3) Such part of a Building-mounted Solar Energy System or Solar Parking Canopy that extends beyond the impervious area over which it is placed shall count toward Maximum Percentage (%) Lot Coverage.

4) For Ground-mounted Solar Energy Systems, the total surface area of the Solar Energy System shall count toward Maximum Percentage (%) Lot Coverage.

5) To avoid double counting, the surface area of any Active Solar Energy System that is above an existing impervious surface shall not be included in the calculation of Maximum Percentage (%) Lot Coverage (i.e. the addition of a Roof-mounted Solar Energy System shall not increase the calculated Maximum Percentage Lot Coverage on a lot because it will be located within a surface area - the building's footprint - that is already counted).

b) Height

1) Building-mounted Solar Energy Systems:

System Type	Roof Pitch	Siting	Maximum Height
Roof mounted Solar Energy System	Pitch is greater than or equal to 3.2:12 (a fifteen (15) degree angle)	All districts	Roof-mounted Solar Energy Systems may extend up to one (1) foot above the roof surface on which the system is installed beyond applicable building height limits. Systems shall be surface-mounted and installed parallel to the roof surface.
Roof-mounted Solar Energy System	Pitch is less than 3.2:12 (a fifteen (15) degree angle)	All districts	Roof-mounted Solar Energy Systems may extend up to three (3) feet above the roof surface on which the system is installed beyond applicable building height limits. If the surface on which the system is to be mounted is below maximum building height, the Roof-mounted Solar Energy System may extend up to six (6) feet above the roof surface on which the system is installed, provided it does not exceed building height limits by more than three (3) feet; and provided further that any Roof-mounted Solar Energy System that extends more than three (3) feet above the roof surface on which the system is installed must be installed at least three (3) feet from the roof's edge.

Building-mounted Canopy Solar Energy System	Flat Roof with predominately zero pitch	NEBC, MU-128 & HC-128 districts Municipal buildings in all districts	May extend up to fifteen (15) feet above the roof surface on which the system is installed beyond applicable building height limits.
Building-mounted Canopy Solar Energy System	Flat Roof with predominately zero pitch	B, CSB, CB, ASB, HAB, NB, ES, IND, IND-1, HC-1 & I districts	May extend up to fifteen (15) feet above the roof surface on which the system is installed up to the applicable building height limit of the district.
Other Building-mounted Solar Energy System (e.g., awnings)	Not Applicable	All districts	No greater than the highest point of the roof.

2) Ground-mounted Solar Energy Systems:

System Type	Siting	Maximum Height
Small-Scale Ground-mounted Solar Energy System	SRB & GR districts	Eight (8) vertical feet from grade.
	All other districts	Ten (10) vertical feet from grade.
Medium-Scale Ground-mounted Solar Energy System	SRB & GR districts	Eight (8) vertical feet from grade.
	All other districts	Ten (10) vertical feet from grade.
Solar Parking Canopy	All districts	Seventeen (17) vertical feet from grade.

c) Setbacks

- 1) Ground-mounted Solar Energy Systems that move along an axis, unfold, or open shall be located so that the entirety of the equipment's reach at all angles falls within the setback requirements.
- 2) Solar Parking Canopies in residential districts shall meet setback requirements for accessory structures.

3) Solar Parking Canopies and Surface-integrated Solar Energy Systems in non-residential zones shall be allowed where parking is permitted in accordance with the requirements defined in Section 5.1.3, Parking Plan and Design Requirements. The requirements for the planting of trees in landscaped strips within the parking area as defined in Section 5.1.3, Paragraph (k) Landscape Areas and Paragraph (l) Trees may be met elsewhere on the lot. Landscaping for parking lots located under a canopy shall be designed to manage runoff from the panels and to be shade tolerant.

4) All other Ground-mounted Solar Energy Systems shall meet the requirements for Setbacks of principal structures as defined in Section 1.3 and Section 4.2 of the Needham Zoning By-Laws, as regulated for each use district in Section 4 (“District-level setback”) provided, however, that a Small-Scale Ground-mounted Energy System in the Rural Residence-Conservation, Single Residence A, Single Residence B, and General Residence Districts located in a side or rear yard may instead meet the setback requirements applicable to accessory structures under Section 4.2.9. A Small-Scale Ground mounted Solar Energy System constructed nearer to any lot line than the setback applicable to a principal structure pursuant to the forgoing provision shall require screening or landscaping of such systems from view from abutting lots and/or from a street, by plantings, walls, fences or other devices with said screening having a minimum height of six feet.

5) Any extension of a Building-Mounted Solar Energy System shall comply with the setback requirements for that building.

6.13.3 Supplemental Regulations

- a) BIPV Solar Energy Systems and Surface-integrated Solar Energy Systems shall be subject to any requirements in the Needham Zoning By-Laws that relate to the material or structural element into which the system is integrated or functions as. For example, solar roofing would be subject to regulations for roofing; solar pavement would be subject to regulations for pavement.
- b) The impervious portion of Ground-mounted Solar Energy Systems and Surface-integrated Solar Energy Systems shall be subject to any requirements in the Needham Zoning By-Laws that relate to paving, including impervious lot coverage requirements within the Aquifer Protection District. The systems shall also comply with regulations identified in the Town of Needham’s Stormwater By-Law, Article 7 of the General By-Laws.

6.13.4 Site Plan Review

- a) Site Plan Review: Medium-scale Ground-mounted Solar Energy Systems in all districts, Solar Parking Canopies in non-residential districts, and Solar Energy Building-mounted Canopy Systems in the New England Business Center, Mixed Use 128, and Highland Commercial-128 districts, are subject to site plan review by the Planning Board prior to construction, installation or modification as provided in this section and in accordance with Section 7.4 Site Plan Review. In reviewing a Special Permit application under Section 6.13.1

b) the Board of Appeals shall also apply the Site Plan Review Document Requirements of Section 6.13.4 b) and the Site Plan Review Design Standards of Section 6.13.3 c). In reviewing a Special Permit application under Section 6.13.1 d) the Planning Board shall also apply the Site Plan Review Document Requirements of Section 6.13.4 b) and the Site Plan Review Design Standards of Section 6.13.3 c).

b) Site Plan Review Document Requirements: The project proponent shall provide a Final Site Plan to the Planning Board in compliance with Section 7.4 Site Plan Review, Subsection 7.4.4.Procedure. In addition, applicants shall submit the following:

- 1) Name, address, and contact information for proposed system installer.
- 2) Name, address, contact information and signature of the project proponent, as well as all co-proponents or property owners, if any.
- 3) The name, contact information and signature of any agents representing the project proponent.
- 4) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures.
- 5) Blueprints or drawings of the solar energy system showing the proposed layout of the system, any potential shading from nearby structures, the distance between the proposed solar collector and all property lines and existing on-site buildings and structures, and the tallest finished height of the Solar Energy System.
- 6) All submitted plans must be stamped by electrical, civil, and structural engineers or architects and landscape architects for their respective scope of work. Systems that are installed on existing structures must have a structural analysis stamped by a Professional Engineer that demonstrates the structure can handle the additional deadloads of the system as well as uplift wind loads per the local and state building codes.
- 7) Ground mounted solar structures must include geotechnical reports and engineering of any foundations associated with the new solar system per local and state building codes.
- 8) Plans must include stormwater analysis with erosion control plans for proposed solar systems as well as stormwater control measures. Site modifications must meet the current stormwater by-laws for stormwater infiltration requirements. Impervious areas will include all impervious surfaces associated with the new solar system.
- 9) Documentation of the major system components to be used, including the panels, mounting system, and inverter.
- 10) Operation and Maintenance Plan including measures for maintaining safe access to the installation, stormwater controls, as well as general procedures for operational maintenance of the installation.

11) Locations of active farmland, permanently protected open space, Priority Habitat Areas and BioMap 2 Critical Natural Landscape Core Habitat mapped by the Natural Heritage & Endangered Species Program (NHESP) and “Important Wildlife Habitat” mapped by the Massachusetts Department of Environmental Protection (MassDEP) in relation to the site.

- c) Site Plan Review Design Standards: The Planning Board shall consider the following criteria and standards, in addition to those listed in Section 7.4.6, Review Criteria for Site Plan Review when reviewing site plan submittals made under this section:

1) Utility Notification: No solar photovoltaic system shall be installed until evidence has been given to the Planning Board that the owner has submitted notification to the utility company of the customer’s intent to install an interconnected customer-owned generator. Off-grid systems are exempt from this requirement.

2) Utility Connections: Reasonable efforts, as determined by the Planning Board, shall be made to place all utility connections from the solar photovoltaic installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

3) Safety: The owner or operator shall provide a copy of the Site Plan Review application to the Needham Fire Department and shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar installation shall be clearly marked. The owner or operator shall identify a person responsible for responding to municipal officials, throughout the life of the installation.

4) Height and Layout: The Planning Board shall also review the height and physical layout of the Solar Energy Systems, utility connections, and appurtenant infrastructure as it relates to the convenience and safety of emergency vehicles, private vehicles and pedestrian movement on the site.

5) Visual Impact: Reasonable efforts, as determined by the Planning Board, shall be made to minimize visual impacts by preserving natural vegetation, screening abutting properties, or other appropriate measures.

6) Land Clearing, Soil Erosion and Habitat Impacts: Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of ground-mounted solar energy systems or as otherwise prescribed by applicable laws, regulations, and By-Laws.

7) Stormwater: The Planning Board shall review the existing and post stormwater analysis to meet the current stormwater by-law infiltration requirements.

8) Lighting: The Planning Board shall review the physical lighting of the site, including the methods of exterior lighting for convenience, safety and security within the site, and in

consideration of impacts of neighboring properties and excessive light pollution. Where feasible, lighting of the Solar Energy System shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.