

# ***ARTICLE 700 DESIGN STANDARDS FOR PLANNED DEVELOPMENTS***

## **701 PURPOSE**

This section of the Bylaw establishes standards for the design and review of a development application for a planned development. Guidelines are stated under which considerable design flexibility and evaluation can be exercised. Further, general municipal regulations governing the improvements on the site are identified to establish a basis upon which modifications may be substantiated.

## **702 UNDEVELOPABLE LAND**

### **702.1 Classifications**

Certain lands shall be classified as undevelopable as being in the Wetlands Protection Overlay District, and specifically located on the site and identified upon the Land Classification Map under Section 807.3.3. Applicants are encouraged to include the wetlands and waterbodies within the open space; however, they do not count towards the open space requirement.

### **702.2 Use Restrictions**

The utilization of such undevelopable land shall be restricted and preserved in the manner provided as follows:

1. Common Open Space.
2. Concept and Implementation Method  
Common open space shall be preserved by a method approved by the Board of Appeals (such as public donation, conservation or historical easement or restriction, covenants or deed restriction in conjunction with a trust or homeowners' or residents' association), whereby both the Town and the residents of a planned development are granted enforceable rights with respect to such preservation.
3. Maintenance Fees.  
A fee structure for the preservation, improvement and maintenance of common open space shall be approved by the Town and contained in an agreement filed with the Town. The maximum and minimum fees shall be specified. Under no circumstances shall fees reflect the cost of land acquisition, improvements shown in the common open space analysis, or facilities for which public use is permitted on a regular basis.
4. Open Space Maintenance.  
In the event that the organization established to own and maintain common open space shall fail to maintain it in reasonable order and condition, the Board of Selectmen may serve written notice of such failure upon such organization or upon the residents within or owners of the planned development and shall include a demand for correction within thirty days and shall state the date, time and place of a hearing thereof which shall be held within fourteen days of the notice. If the deficiencies are not corrected or the Board's demand modified, the Town, acting through the Board of Selectmen, may enter upon the common open space and maintain the same for a period of one (1) year. Before the expiration of the year, a second public hearing shall be called by the Board at which time the organization or the residents shall show cause why such maintenance should not continue for a

succeeding year. If the Board determines that the need of Town maintenance no longer exists, the Board shall cease to maintain the common open space. All costs incurred by the Town shall be assessed against the properties within the planned development and shall become a lien on those properties which may be collected and enforced in the manner fixed by law for the collection and enforcement in the manner fixed by law for the collection of taxes. Notice of lien shall be recorded in the Registry of Deeds.

### **702.3 Planning Requirements**

Access shall be provided to undevelopable lands by means of trails or paths installed by the developer. Only land uses that are inseparable from waterfront locations and that do not diminish the present or prospective value of surface water for supply, recreation, land use policy for marshes, flood and water storage, wildlife habitat and fish spawning grounds shall occupy undevelopable lands subject to the Wetlands Protection Overlay District regulations. Land uses that do not diminish operation of the primary roles of marshes include recreation, cranberry bogs and certain other agricultural uses. Cranberry bogs along with associated ponds shall be included as natural elements in the open space system calculations. The aquifer or water-bearing stratum shall be protected and managed. All precautions shall be undertaken to accomplish these goals. Steep slopes, for reasons of erosion, are unsuitable for development and shall remain in their natural state when determined to be in the public interest by the Town. No paving shall be located on undevelopable land.

### **702.4 Nature Center**

Nature centers requiring the establishment of permanent fixtures designed for use by the public may be installed on undevelopable land, provided this use has been indicated on the Open Space and Community Facilities Map and in the reports filed, and is consistent with the provisions of Article 400. A detailed plan of proposed improvements shall be filed indicating the manner in which the center shall be operated and funded. No paving shall be located on undevelopable land.

## **703 COMMUNITY CONSIDERATIONS**

The following considerations shall be made in favor of the Town.

### **703.1 Buffer Widths**

An open space buffer shall be preserved along boundaries of the site as follows:

1. Separating proposed detached single-family dwellings from a street line or land developed for residential uses at density (dwelling units/acre) twenty-five percent (25%) or more below that proposed: seventy-five (75) feet wide.
2. Separating other proposed structures or their parking areas from any use (including undevelopable land) other than common or public open space or other developments in the same category of use: one hundred and twenty-five (125) feet wide.
3. In the case of a residential or institutional structure in existence prior to March 13, 1973, on a tract of land zoned planned development district, a buffer shall be provided extending a distance of three hundred feet measured in all directions from the sides of such existing structure, except those areas in a neighborhood business district. Within this protective buffer, residential and institutional development shall

be allowed as permitted in a residential compatibility district under the provisions of this Bylaw. This buffer may be reduced or waived upon the written recommendation of the Planning Board, which shall consider any unique historic, architectural, or visual qualities of that structure in determining the necessity for protection. At other locations, none are required.

4. Requirements for buffers adjacent to existing roads may be reduced, following the written recommendations of the Planning Board, if the surrounding area has been previously developed, and the existing character of the neighborhood will be retained.

### **703.2 Buffer Materials**

1. Preferred landscaping is retained natural woodlands. Grass and mounds shall be approved buffer material provided suitable indigenous shrubs and other plant material are used for screening. Lands used for buffer may be maintained either as common open space or as private open space subject to a suitable deed restriction.
2. On sites in which insufficient land is available for a landscaped buffer of the full width required, fences may be used in conjunction with a reduced width of landscaped area, provided the fencing material selected is compatible with the vicinity.

### **703.3 Setbacks**

Buildings shall be setback from the property line by the buffer zone plus a distance equal to the height of the building. In the neighborhoods that are presently developed, the setbacks of new buildings may be reduced to conform to front yard and rear yard setbacks of existing buildings. Setback areas may be utilized for paving and non-structural community facilities.

### **703.4 Building Height**

New buildings located beyond two hundred feet of existing buildings shall not exceed thirty-five (35) feet in height. New buildings located within two hundred (200) feet of existing buildings shall not exceed the roofline plane as increased by an angle of ten degrees at a point two hundred (200) feet from the lot boundary to a maximum of thirty-five (35) feet of building height. On development sites of less than ten acres, which are located in developed areas, the allowable building heights shall not exceed those shown to be typical of the neighborhood. In no case shall a planned development use type exceed thirty-fives (35) feet in height or two and one-half (2.5) stories. If any part of any floor level is more than four feet (4) above finished grade, it shall be considered as one story.

### **703.5 Neighborhood Access**

No development site shall reduce vehicular access to an existing neighborhood. The extension of existing cul-de-sac streets to serve a planned development shall not be permitted.

### **703.6 Building Character**

The proposed development shall be designed to retain and reflect certain characteristics of the neighborhood in which it is to be located. Design characteristics shall be stated in the development application and shall include, but not be limited to: building materials, architectural design, street furniture and site and building landscaping.

## **704 RESIDENTIAL BUILDINGS**

### **704.1 Single-Family Buildings**

Single-family buildings shall have individual entrances. Each dwelling unit shall have its own front and rear yard. At least one yard shall be thirty-five (35) feet in width consisting of landscaped open space. No detached building shall be closer than its height to any other building.

### **704.2 Semi-Detached Buildings**

Semi-detached buildings shall be designed around a common party wall. The separation between exterior building walls shall be a minimum of ten (10) feet if there are no windows or the building location of the adjacent buildings is changed by a minimum of eighty degrees. All other spacing shall be at least equal to the average height of the buildings. An architectural theme shall be carried out by use of common building materials, color, exterior detailing, bulk and/or roof lines. Rigidity in design shall be avoided by variations in building location, landscaping, planting and building coverage.

### **704.3 Three- and Four-Family Buildings**

Three- and four-family buildings shall have a common rear yard of at least twenty (20) feet in depth. Direct access to a parking area shall be provided.

### **704.4 Multifamily Buildings**

Multifamily buildings shall have a landscaped front yard as determined under Section 703. It is preferred that multifamily housing shall be only one dwelling unit deep or that each dwelling unit extend through the building.

### **704.5 Breaks In Multifamily Buildings**

Attached buildings and multifamily buildings shall have breaks in both the roof line and the front and rear building walls as specified below. Breaks shall be utilized so as to minimize earth moving and removal or impacting due to cut or fill on adjacent existing vegetation.

#### **1. Vertical Breaks**

A total break footage of four vertical feet in minimum increments of eighteen inches shall be included in every one hundred and sixty horizontal building feet or within three firewalls.

#### **2. Horizontals Breaks**

A total break footage of eight (8) horizontal feet in minimum increments of three feet shall be included in every one hundred sixty (160) horizontal building feet or within three firewalls. In addition, angles in the building wall of twenty-two degrees or more shall be considered equivalent to a five-foot break. However, no building shall exceed one hundred sixty (160) feet in length. Breaks in walls shall be varied by a change in building texture provided a common architectural theme is carried out by means of consistent exterior detailing, materials and colors.

### **704.6 Bedroom Count**

In any planned development, no dwelling unit in any building of two or more dwelling units shall be designed, constructed or altered to have more than two bedrooms. For the purpose of this provision, each room in excess of three rooms, exclusive of bathrooms,

closets or other small service rooms of less than sixty-eight (68) square feet, shall be considered a bedroom. Adjacent enclosed floor areas separated by any common party partition exceeding four percent (4%) of their common dimension shall constitute separate rooms. In any cluster development, if a special permit has been granted as of July 1, 2001, the allowable number of bedrooms as defined above shall not exceed three times the number of dwelling units proposed, unless a larger number is authorized upon determination by the Board of Appeals, following recommendation by the Planning Board, that either visual overcrowding will be avoided and Town school facilities will not be unreasonable burdened, or that the larger number of bedrooms is appropriate in order to serve an important housing need.

#### **704.7 Residential Use Types**

A minimum of three different residential uses shall be required in any special permit application for a planned development. Residential use types are defined as (1) single-family detached building, (2) single-family attached building, semi-attached building or townhouse, and (3) multifamily or garden apartments. In no case shall there be any more than seventy percent (70%) of the total number of dwelling units in any residential use type in any planned development. In Planned Development Districts 1 and 2, detached single-family dwellings shall be at least five percent (5%) of the required mix.

### **705 NONRESIDENTIAL BUILDINGS**

#### **705.1 Office**

Office buildings shall be designed with a parking area and access to a public way separate from that provided for residential buildings. A common architectural theme shall be reflected by means of building materials, architectural style and/or color coordination. No lighting system shall create a glare on adjacent residential buildings. No manufacturing or retail sale of goods shall be permitted, except those pertinent to office operations such as newsstands or cafeterias. No building shall exceed thirty-five (35) feet or two and one-half (2.5) stories in height.

#### **705.2 Community Facilities**

Community facilities involving a building or structural coverage of thirty-five hundred (3,500) square feet or greater shall have a parking area and access to a public way separate from that provided for residential buildings. A separate pedestrian and/or bikeway access shall be provided to connect with common open space. Lighting shall be so designed that no glare extends onto residential buildings. Entrances and areas adjacent to residential buildings shall be landscaped with plantings. A common architectural theme shall be reflected by means of building materials, architectural style and/or color coordination.

### **706 COMMON OPEN SPACE**

#### **706.1 Land Qualities**

Land credited towards meeting common open space requirements shall either be land which, because of its resource value to the Town, should be preserved in an undeveloped state, or land which has qualities making it useful to residents of the development for either passive or active recreation, and will be "developed" to serve that purpose, or land which serves an important visual role in separating the development from existing public ways or

from other existing or potential developments, or which is of value in dividing the development into coherent sub-areas.

**706.2 Location**

Common open space shall be located so as to serve the qualities cited immediately above, and also so that all dwellings are close to, if not abutting, common open space and residents can reach it without long distances along streets, so that pedestrian and/or bikeway access separate from the street system interconnects all significant portions of the development, so that a major portion of the common open space is in one or two large areas of substantial depth rather than being fragmented and largely linear, and so that those large areas have public visibility.

**707 DESIGN RATIOS**

Design ratios are intended to provide a guide for the preparation of a development application and as a means of evaluation of a development application.

**707.1 Coverage Ratio**

The amount of impervious coverage shall depend on the land classification and evaluation standards as specified in Article 800. Maximum coverage by density shall be defined:

| Use District              | Maximum Allowable Coverage/Site | Maximum Allow./Coverage Site (Residential Cluster Devel. Only if a special permit has been granted as of July 1, 2001) |
|---------------------------|---------------------------------|--|
| Residential Compatibility | 15%                             | 10%  |
| Planned Development 1     | 20%                             | 14%  |
| Planned Development 2     | 28%                             | 17%  |
| Planned Development 3     | 35%                             | 20%  |

**707.2 Common Open Space Ratio**

The amount of common open space shall depend upon the residential category specified by Sections 708 and 807.3.3. Minimum common open space required shall be:

|  | Standard No. Persons Per Unit | Minimum Square Feet of Common Open Space Per Person |
|--|-------------------------------|---|
| Single-family detached                   | 3.5                           | 1,000   |
| All other single-family and multi-family | 2.0                           | 1,000   |

In no case shall the common open space be less than twenty-five (25%) percent of the total site. The minimum common open space required herein shall be deed restricted against future structural development and shall be held in common open space uses pursuant to one of the methods of holding common open space land set forth in definitions in Section 725.

**707.3 Nonresidential Parking Ratio**

The amount of parking for nonresidential uses shall depend upon the type of nonresidential land use intended for the site. The Planning Board may recommend adjustments in the paved area requirements except that the areas for the required spaces must be reserved and not included in any open space calculations. In case the actual use indicates that the reserved parking spaces are needed, the developer shall be responsible to improve those areas to the same character as the exiting parking spaces. Maximum nonresidential parking space ratios shall be:

| Non-Residential Use | Parking Spaces per 1,000 Square Feet of Floor Area         |
|---------------------|--|
| Office              | 4  |
| Community Facility  | 2 per 1,000 square feet or 20 spaces, whichever is greater |

**707.4 Residential Parking Ratio**

Minimum residential parking space ratios shall be:

| Residential Use           | Parking Space Per Unit |
|---------------------------|------------------------|
| Single-family detached:   |                        |
| With 4 or more bedrooms   | 3.0                    |
| With 2 or 3 bedrooms      | 2.0                    |
| Multifamily and attached: |                        |
| With 2 bedrooms           | 2.0                    |
| With 1 bedroom            | 1.5                    |

**708 USE INTENSITY AND LOCATIONAL STANDARDS**

Use intensity and location standards are intended to provide a guide for the preparation of a development application and as a means of evaluation of a development application.

**708.1 Use Intensity Standards**

The use intensity shall be the maximum number of dwelling units permitted per gross acre excluding Wetland Protection Overlay District land. This intensity shall depend upon the residential land use category specified in Section 708. Maximum use intensity shall be:

| Residential Land Use   | Dwelling Units per 40,000 Sq. Feet and 60,000 Sq. Feet if in an Aquifer Protection Overlay District | Dwelling Units per 40,000 Sq. Feet and 60,000 Sq. Feet if Outside the Aquifer Protection Overlay District |
|--|---|---|
| Cluster Development (if a Special Permit has been Issued as of July 1, 2001) | 1   | 1   |
| Planned Development 1  | 1   | 1 to 2.5  |
| Planned Development 2  | 1   | 1 to 4  |
| Planned Development 3  | 1   | 1   |

### **708.2 Single-Family Detached Building Lot Standards**

Single-family detached building lots shall be designed so that the depth shall be no less than one and one-half or more than three times the frontage at the building setback line. All lots shall have direct access only to ways classified as local streets.

### **708.3 Building Location Standards**

Buildings shall be located substantially as indicated on the site plan as approved by the Board of Appeals. If departure is necessitated by site conditions not known at the time of approval, the building may be relocated or reoriented no more than ten feet in any direction from the location indicated on the approved site plan, in accordance with applicable dimensional requirements, following approval of the Zoning Enforcement Officer and consultation with the Design Review Board.

Building location and orientation shall reflect:

1. Relationship to the street line and to other buildings in the development if in close proximity, in order to protect privacy and create visual coherence.
2. Views, solar access, and access to open space, in order to reflect occupant's interest.
3. Organization of large developments into recognizable sub-areas in order to provide scale and identity.
4. Avoidance of topographic change and removal of native trees and vegetation, in order to protect the environment.
5. Reduction of visual intrusion into abutting premises, in order to protect existing character.

### **708.4 Road Location Standards**

Roads shall be designed to converge traffic flows at convenient access points. Road design shall minimize traffic flows in residential areas. Gridiron arrangements shall not be allowed. To facilitate traffic flow at major intersections turning lanes shall be installed at offices and community centers and may be required at other impacted intersections. Specified construction regulations for ways are contained in Section 709.

## **709 WAYS**

### **709.1 Existing Regulations**

Where regulations for ways are not prescribed by this section, the requirements in the subdivision regulations of the Planning Board shall be used unless otherwise modified by the Board of Appeals.

**709.2 Paved Width**

The minimum width of paving for a new or improved local or feeder street shall depend on projected traffic use as interpreted by the Planning Board. Minimum width of paving shall be as follows:

| Traffic Projection (ADT)* | No Park | Parallel Park One Side | Parallel Park Two Sides |
|---------------------------|---------|------------------------|-------------------------|
| Under 1,000               | 20 feet | 26 feet                | 36 feet                 |
| 1,000 or over             | 22 feet | 28 feet                | 38 feet                 |

\*(ADT) Average Daily (24-hour) Traffic

| Traffic Projection (ADT)* | 45-Degree Park-One Way | 90-Degree Park, One side | 90-Degree Park, Two sides |
|---------------------------|------------------------|--------------------------|---------------------------|
| Under 1,000               | 44 feet                | 42 feet                  | 62 feet                   |
| 1,000 or over             | 46 feet                | 44 feet                  | 64 feet                   |

\*(ADT) Average Daily (24-hour) Traffic

**709.3 Right-of-Way Width**

The minimum width of a right-of-way for a new local or feeder street shall depend on the paved width and road classification. Minimum widths shall be as follows:

| Paved Width        | Right-of-Way Width |               |          |
|--------------------|--------------------|---------------|----------|
|                    | Local Street       | Feeder Street | Parkway  |
| Under 26 feet      | 40 feet            | 50 feet       | 100 feet |
| 26 feet or greater | 50 feet            | 60 feet       | 120 feet |

**709.4 Grades**

The maximum grade for a new local or feeder street shall depend on the road classification. Maximum grades shall be as follows:

Local Street – 12%

Feeder Street - 6%

**709.5 Sight Distance**

The minimum sight distance for a new or improved local or feeder street shall depend on the design maximum speed. Minimum sight distances shall be based on the standards established by the American Association of State Highway Officials (AASHO) or seven times the design speed whichever is greater.

**709.6 Cul-de-Sac Length**

The maximum length of a cul-de-sac street shall not exceed five hundred (500) feet, subject to the discretion of the Planning Board under unusual conditions.

**709.7 Cul-de-Sac Turnaround**

The minimum outside radius of a cul-de-sac turnaround shall depend on whether parking is provided. Minimum radii shall be as follows:

|                 | Paved With Radius | Right-of-Way Radius |
|-----------------|-------------------|---------------------|
| With parking    | 65 feet           | 75 feet             |
| Without parking | 50 feet           | 60 feet             |

The interior portion of a turnaround may be left unpaved and improved as a landscaped area.

**709.8 Construction**

All ways shall be constructed according to the requirements in the subdivision regulations of the Planning Board or as otherwise modified by the Board of Appeals.

**710 INTERSECTIONS**

**710.1 Existing Regulations**

The Planning Board subdivision regulations or as otherwise modified by the Board of Appeals shall apply to development applications submitted under this Bylaw except for intersections between local and/or feeder streets. Regulations for these streets shall be as prescribed in this section.

**710.2 Clear-Sight Triangles**

Clear-sight triangles shall be provided at all street intersections. Within such triangles, no vision-obstructing object shall be permitted which exceeds a height of thirty inches above or projects below ten feet above the elevation of the intersecting streets. The required dimensions of the sides of the clear-sight triangle shall depend on the maximum design traffic approach speed and the movement restrictions and shall be as follows or as established by the AASHO, whichever is greater:

| Classification | Controlled Intersection | Uncontrolled Intersection |
|----------------|-------------------------|---------------------------|
| 45 mph*        | 135 feet                | 200 feet                  |
| 35 mph         | 105 feet                | 150 feet                  |
| 25 mph         | 75 feet                 | 110 feet                  |

\*mph = miles per hour

**710.3 Grades**

Intersections shall be approached on all sides by a straight leveling area of at least fifty feet from the nearest intersection right-of-way line, the maximum grade shall be determined by the design traffic approach speed, subject to the discretion of the Board of Appeals under unusual conditions. The maximum grades shall be five percent (5%) or as established by the AASHO, whichever is greater.

**710.4 Separation**

Intersections shall be separated from other road intersections on the same or opposite side by a minimum distance which shall be determined by the maximum design traffic approach speed and the type of intersection. Minimum distances shall be as follows and maximum speed classification at a mixed speed intersection shall govern:

| Classification | Full or "T" Intersection |
|----------------|--------------------------|
| 45 mph         | 400 feet                 |
| 35 mps         | 300 feet                 |
| 25 mps         | 150 feet                 |

**710.5 Angle of Intersection**

Both feeder and local streets shall intersect at an angle not to exceed one hundred (100) degrees not less than eighty (80) degrees.

**710.6 Arcs**

Street intersections shall be rounded by tangent arcs with a minimum radius determined by the road classification. Radii depend on traffic speed and road width. In any event design radii shall permit the largest fire vehicle to negotiate any intersection freely with a car stopped in the opposite lane. Minimum radii shall be as follows:

| Classification    | Radii   |
|-------------------|---------|
| Local and local   | 25 feet |
| Local and feeder  | 35 feet |
| Feeder and feeder | 45 feet |

**711 UTILITIES**

All utilities shall be placed underground. Common trenches shall be utilized where practical. The minimum easement width shall be ten feet and shall be within the street right-of-way lines. Care shall be taken to avoid excessive clearing and to maintain control of grading.

**711.1 Building Setback**

Buildings shall be set back twenty feet from all utility easements except those providing direct service. Setbacks from natural gas transmission lines shall be fifty (50) feet.

**711.2 Construction**

All utilities shall be constructed according to the applicable requirements of the department or board charged with their maintenance.

**711.3 Sanitary Sewage**

The regulations of the Board of Health and, where other applicable, the State Sanitary Code, Title 5, shall apply to all on-site disposal systems. The Board of Appeals, or the Board of Health, may impose additional requirements to protect the Town’s water resources and wetlands.

#### **711.4 Other Utilities**

The construction regulations of the public utilities or governmental agencies charged with the maintenance of the utility to be provided shall be applicable.

#### **711.5 As-Built Drawing**

As-Built drawings showing the location of utility easements shall be required upon completion of the development for submission to the appropriate Town department or board.

### **712 STORM DRAINAGE**

#### **712.1 Use of Existing Facilities**

Existing storm sewers maintained by the Town shall be utilized in those instances where they are reasonably accessible and have available capacity. New facilities interconnecting with existing ones shall be constructed according to the requirements of the Town and in conformity to the Master Drainage Plan as interpreted by the Department of Public Works Director.

#### **712.2 Natural Systems**

The use of existing natural drainage systems shall be employed providing that the discharge into adjacent properties at the point of discharge shall not be increased nor create measurable damage. To facilitate the retention of stormwater, to protect against siltation and to prevent measurable damage, on-site improvements such as retention basins, diversion ditches, sodded swales or rubble swales may be required by the Board of Appeals under Section 807.4.5.

#### **712.3 Streets**

All streets shall be designed to provide for the discharge of surface water from the paved areas and shoulders. Provisions to accommodate stormwater runoff shall be designed to meet the needs of the site. Swales shall be constructed to meet the requirements of the Town as interpreted by the Department of Public Works Director. Sodded swales may be substituted for curbs provided a gravel base is extended to prevent pavement deterioration, on-street parking is prohibited and scouring velocity will not be reached.

#### **712.4 Erosion Controls**

Proposed methods of controlling erosion during construction shall be incorporated into the appropriate documentation submitted with the development application. This may include temporary improvements such as the use of grass or ground cover or impounding basins for erosion control both during and after construction.

### **713 RIGHT-OF-WAY IMPROVEMENTS**

#### **713.1 Curbs**

Curbs or berms, if provided, shall be installed along both sides of ways. Construction shall meet the requirements in the subdivision regulation of the Planning Board or as otherwise modified by the Board of Appeals.

### **713.2 Bikeways and Walkways**

A pedestrian access system shall be provided along side streets as shown under Section 807.3.5 or preferably in common open space under Section 807.3.7. Walkways shall be constructed in accordance with the specifications in the subdivision regulations of the Planning Board or as otherwise modified by the Board of Appeals and shall be at least four (4) feet in width. Bikeways shall be at least ten (10) feet in width; land and improved trails shall be at least five (5) feet in width. Pedestrian access shall be provided to all community facilities and recreation areas. All bikeways and walkways shall be separated from a way by a minimum ten (10) feet.

### **713.3 Fire Hydrants**

Fire hydrants shall be installed within five hundred feet (500') of all proposed buildings at locations determined by the Fire Department and installed in a manner approved by the Duxbury Water Department. Locations shall be specified in the utilities map as described in Section 807.3.6.

In areas where no municipal water supply is available, a municipal water supply shall be provided by the developer.

### **713.4 Street Lights**

Street lights shall be installed at appropriate locations in an approved manner as specified on the road and parking map as described in Section 807.3.5. Lighting fixtures shall be approved by the Board of Appeals and the electric utility company. Care shall be taken to insure uniform illumination, to avoid glare and to respect the quality of the Town.

### **713.5 Shade Trees**

Shade trees shall be planted at appropriate locations along all ways when required so that the number shall not be less than one (1) tree for each forty (40) feet of road edge. Locations shall be specified on the road and parking map as described in Section 807.3.5. Required planting may be reduced where existing trees are fully protected and retained.

## **714 IDENTIFICATION**

### **714.1 Concept**

The regulations of this section shall apply to identification signs for the development. Other Town regulations shall remain in force for other sign locations within the development.

### **714.2 Entrance Signs**

An approved sign or symbol may be permanently affixed at all entrances to the development. Such signs or symbols may be attached to a building or may be freestanding. No sign or symbol shall exceed twenty-five (25) square feet per face and shall be in a character respecting the quality of the Town.

### **714.3 Street Names and Housing Numbers**

Street names shall not conflict or be mistaken for existing street names in the Town unless a new street is a logical extension of an existing street. The numbering system shall be in accordance with the General Bylaws of the Town. Proposed street names shall be referred to the Town Historian for comment and recommendation.

#### **714.4 Other Identification**

Any development may utilize special symbols particularly related to the development on street posts, lights and approved traffic signs. Logos and other symbols must be approved by the Board of Appeals.

### **715 GRADING**

#### **715.1 Drainage**

All land adjacent to buildings or paved areas shall be graded to secure proper drainage away from the improvement and to prevent the undesirable collection of stormwater near buildings. Free movement shall not be impaired.

#### **715.2 Excavation**

No excavation shall be made with a cut face steeper than the natural angle of repose for the material of the area unless a structurally sound and properly engineered wall is provided to support the face of the excavation.

#### **715.3 Fill**

No fill shall be deposited which creates any exposed surface steeper than a two on one slope unless a structurally sound and properly engineered wall is provided to support the face of the fill. Fill shall be placed in even lifts of six inches to twelve inches for stability and compacted to within ninety-five percent (95%) of its maximum density, optimum moisture content.

Top soil shall not be used except as top dressing. Vegetative materials and/or refuse may be used to create mounds or other improvements above natural grade provided they are intermixed with clean sub-soil and covered with a minimum of twelve inches of top soil. Fill shall not be spread over existing natural vegetation. Trees shall be protected with an adequate tree well as required.

### **716 PARKING**

#### **716.1 Spaces**

No off-street parking space shall have a stall depth of less than twenty (20) feet nor a width of less than nine and one-half (9.5) feet. Parallel parking shall have a minimum depth (length) of twenty-two (22) feet. All spaces shall have a minimum of one hundred ninety (190) square feet.

#### **716.2 Setbacks**

All off-street parking areas shall be separated from vehicular paved areas by a minimum landscaped setback of two (2) feet.

#### **716.3 Stops**

All off-street parking spaces adjacent to an open area shall be provided with a parking stop or bollard. No vehicle shall overhang an open area.

**716.4 Planting**

A minimum of twenty percent (20%) of the interior of a parking area shall be maintained as open space with indigenous plantings or by the retention of existing trees. All planting shall be protected with curbs, bumpers, or bollards as shown in the road and parking map.

**716.5 Location**

The required parking spaces under Section 707.3 and 707.4 shall be located within a radius of a building entrance depending on the use as follows:

| Classification | Parking Radius |
|----------------|----------------|
| Residential    | 150 feet       |
| Office         | 300 feet       |

**717 DRIVEWAYS**

**717.1 Common Driveways**

No more than two single-family units shall be served by a common driveway.

**718 INCLUSIONARY HOUSING REQUIREMENTS**

The provisions of Section 560 of the Zoning Bylaw shall, so far as applicable, apply to Planned Developments.

**725 DEFINITIONS**

In this Bylaw, the following terms shall have the following meaning in relation to planned developments permitted under Article 700 and Article 800. Words used in the singular include the plural and words used in the plural include the singular. Words used in the present include the future.

**Buffer**

An open space, landscape strip, earth mounds or natural woodlands utilized to separate uses or to separate planned developments site from all boundary uses.

**Building, Attached**

A dwelling unit connected on both sides to an adjacent unit by a common or party wall with a separate exterior entrance for each unit.

**Building, Detached**

A dwelling unit which stands alone and has not party walls or walls in common with an adjacent building except for a garage or other appropriate accessory attachment.

**Building, Multifamily**

Three or more dwelling units within a building with a unit contained on one floor and with units sharing an exterior door.

**Building, Semi-Detached**

A dwelling unit connected on one side to an adjacent unit by a common or party wall with a separate exterior entrance for each unit.

**Coverage Ratio**

The maximum proportion of impervious ground coverage permitted in a planned development, inclusive of all buildings and pavement, determined by design ratios set forth in Article 700.

**Developer**

The person, persons, corporation, trust, firm or partnership or other legal entity who shall be responsible for the development of land and/or structures or is charged with the execution of a planned development under this Bylaw.

**Development Schedule**

A schedule of the rate of construction of housing, business units and improvements required under a special permit granted for a development application.

**Home Owners' or Residents' Association**

A legal organization approved by this Bylaw composed of all resident owners in a planned development responsible for owning or maintaining common property, providing for compulsory membership for each resident, equitable voting rights and effective participation opportunities.

**Impervious Coverage**

Referring to the condition in which portions of a lot are rendered impervious by structures which cover previously natural or undeveloped land area, therefore, potentially altering natural drainage and groundwater recharge characteristics.

**Nonresidential Uses**

Uses other than residential intended to be utilized in conformance with an approved planned development application.

**Open Space**

Land area which is not covered by any building or other impervious structure.

**Open Space, Common**

A restricted parcel or parcels of land or an area of water, or a combination of land and water within a site, designed and intended for the common use and enjoyment of the residents of a planned development, exclusive of rear, side and front yards, and owned or controlled by the residents or an organization controlled thereby, the Town or other public agency or charitable organization.

**Open Space Ratio, Common**

The minimum number of square feet or open space required per resident in a planned development.

**Parking Perimeter Radius**

The maximum distance from a principal entrance in which the required number of parking spaces shall be located.

**Planned Development**

A plan under this Bylaw for a number of dwelling units and accessory uses which is prepared in conformance with preliminary qualification and site analysis requirements and processed as a development application through the special permit procedure administered by the Board of Appeals.

**Preliminary Qualifications**

The determination of the suitability of a site, landowner, developer, and conditions for the submission of a development application for a planned development.

**Site**

A land area submitted for planned development.

**Site Analysis**

The determination of the use intensity, restricted development areas, public improvements and protected areas for a planned development.

**Town**

Town of Duxbury

**Use Intensity**

The maximum number of housing, business units per acre overall or that portion of a site allocated for that purpose.

**Use Restriction**

A qualification placed upon any or all parts of a site which shall define the uses permitted on the land.

**Way**

Any public way or private way shown in a plan approved under the provisions of the Subdivision Control Law or any way in existence when the provisions of said Subdivision Control Law became effective in the Town, having in the opinion of the Planning Board suitable width, suitable grades and adequate construction to provide for the needs of vehicular traffic in relation to the purposed use of land abutting thereon or served thereby and for the installation of municipal services to serve such land for the buildings erected or to be erected thereon.

**Yard**

The minimum width of open space required adjacent to a building.