



**PLANNING BOARD**

**Report to Town Meeting**

**ARTICLE 29      STEEP SLOPES  
(Petition - O'Connor)**

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**To see if the town will vote to amend the Zoning Bylaw by adding the following to the appropriate place in Section 12 “Definitions” and renumbering succeeding sections as necessary:**

***Steep Slopes:      Notwithstanding any other provision of this Bylaw, no portion of any parcel which has a slope of more than 15%, except a lot existing as of February 1, 2008 for a one- or two-family dwelling or for a permitted subdividable dwelling, shall count toward meeting any dimensional requirement of this Bylaw except frontage.***

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Recommendation

The Planning Board voted unanimously (7-0) to recommend that Town Meeting refer Article 29 back to the Planning Board for further study.

The Planning Board began development of an alternative amendment that would have addressed a number of the technical difficulties inherent in this article, but the Board instead determined that the significant policy issues raised by the amendment would require both more study and a more comprehensive public review process than was possible in the time remaining prior to Town Meeting.

Background

Article 29 is a petition article which seeks, through the creation of a new definition, to discourage and reduce development on steep slopes in Amherst. It defines “steep slopes” as areas with grades of 15% or more. The principal purposes of the amendment, as stated by the petitioner, are to: 1) reduce the density of residential development on properties that included steep slopes, by disallowing the inclusion of steep areas from the total lot area used in the calculation of maximum density (min. lot area, additional lot area/family), and 2) prevent steeply sloped areas from being counted as usable open space for purpose of recreation. The petitioner also wanted to prevent construction on potentially unsafe steep areas. As worded, however, this amendment is not targeted in that fashion, and so it does not have all of the effects intended. Selected existing (but unbuilt) lots are exempted.

*What This Does & Doesn't Do*

This petition amendment proposes to prohibit the use of any portion of an individual property with a slope whose gradient is over 15 percent to meet any dimensional requirement. The absence of some necessary elements and the very broad approach create unintended consequences.

No Threshold - The amendment lacks a minimum “threshold”—a more exact definition describing how much steep slope must exist before the regulation applies. There is nothing in the amendment to tell an applicant or Town enforcement officials whether the regulation begins to apply to every linear inch of 15% slope, wherever it might appear on the property, or to ten or one hundred continuous linear feet along the slope, or whether some specific minimum area (square feet) must exist. Without a minimum threshold of this kind, the regulation is neither clear nor reasonable, and its interpretation and enforcement would be very difficult.

Density Impacts - The proposed amendment would not allow areas with slopes over 15% in gradient to be counted as part of minimum lot area, additional lot area/family, total building coverage, and total lot coverage. Each of these would have the effect of reducing potential development density on any property in any zoning district where slopes of this gradient existed. Further, although the language of the amendment only specifically addresses residential uses, it does not limit its effects to residential uses. In the absence of such a limitation, all uses—commercial, institutional, industrial, etc.—would be affected.

Exemptions – The proposed amendment specifically exempts lots created and permitted prior to February 1, 2008 for single family homes, duplexes, or subdividable dwellings (flexibly-designed residential buildings which, once created under a Special Permit, can shift in unit count from 1 to 3 units with minimal permitting). So, for the purposes of meeting the zoning requirements, properties on which single family homes, duplexes, and subdividable dwellings might be planned in the future could not count any areas of 15% slope or greater for meeting the requirements for minimum lot area or several other critical dimensional requirements. This is a significant policy proposal, and requires more study and public discussion.

The amendment does not exempt or address converted dwellings. Converted dwellings are existing non-residential buildings proposed to be ‘converted’ into residential dwellings. In some cases, a conversion applies not to attics, basements, or sheds or garages within or attached to an existing dwelling, but instead to free-standing outbuildings, some of which may well have been built on sloped land. The lack of reference or guidance for interpretation of how this amendment would apply to converted dwellings could complicate permitting for conversion and make it more difficult. Converted dwellings are a form of infill density that has only moderate impact on existing neighborhoods, and so should be encouraged (see *Where Should This Apply*, next page).

Other Dimensional Regulations – The amendment specifically exempts minimum lot frontage from the effects of this new regulation—that is, street frontage would count, regardless of how steep it was. But the amendment makes no similar exemption for minimum front setback, side and rear setbacks, maximum floors or building height, all of which establish dimensional requirements where the steepness of a slope might have little or no meaning or application. Because these requirements are not exempted

or otherwise addressed, this amendment is likely to create confusion and difficulty in interpretation and enforcement of the Bylaw.

#### *How Steep is Steep?*

A general review of the ‘steep slope’ regulations of other communities indicates that local regulations that directly restrict construction or affect potential density usually begin doing so at steeper slopes—20% or 25%, or even steeper. Easthampton, for instance, is currently considering a zoning amendments that would only apply to areas with slopes of 20% or greater. Slopes of 15% are more commonly used in regulations as part of a definition for overlay districts aimed at protecting views of hillsides or for other ‘special resource’ purposes. A more careful review of the range of existing local slope regulations and their specific applications should be undertaken before Amherst creates any regulations for this purpose.

#### *Where Should This Apply?*

Imposing a limitation on using steeply sloped areas in calculating potential residential density in outlying residential districts (R-O and R-LD) or as part of a new overlay district—to protect the Holyoke Range, for instance—might be a reasonable public purpose, assuming Town Meeting agreed. In other areas of Amherst, however, such a limitation could run counter to the sustainable principle of trying to focus and increase density and development in existing built areas. Based on the results of the master plan public outreach process, Amherst citizens support increased density in some areas of the community (downtown, village centers, adjacent developed neighborhoods) and want it reduced or prevented in others (outlying open areas). The broad and unrestricted application of this petition article runs counter to the community’s intentions for its future development.

#### *Put New Rules in the Right Places*

Proposing this amendment under Article 12, Definitions, of the Zoning Bylaw is not the best solution from a technical standpoint. Although there is some precedent for creating effective regulation through how zoning terms are defined (the definition of a buildable lot is one example), it would make more sense and be clearer to those using the Bylaw if the different elements of this proposed change were also located in those parts of the Zoning Bylaw where regulations addressing dimensions already and logically appear—ex., Section 3.1, Article 6, Table 3, etc.

#### *Other Potential Impacts*

**Cost** - When the supply of available developable land area is deliberately reduced through regulation, the value/cost of the remaining buildable land goes up, and housing prices overall experience an increase. Like squeezing a balloon, this is an inevitable and unavoidable market response, and must always be borne in mind when contemplating the addition of new restrictions on development.

**Public Safety** - Issues of public safety and sound engineering for construction on steep slopes are currently addressed through local implementation of the Massachusetts Building Code (which includes stringent new seismic regulations), and by review of the Town Engineer during the zoning permit process. A consultation with the Town Engineer regarding this amendment resulted in the following

response, in part: “there is no blanket rule to apply to every application of 15% or greater. Most of these cases end up being covered by our current review processes on a case by case basis as they should.”

Sustainable Design - Building on steep slopes can have some advantages, particularly in terms of energy efficiency. One long-established approach to energy-efficient construction is to build portions of new buildings into existing steep slopes (or to create new slopes around a building). This allows the structure to take advantage of the relatively constant temperature of subsoil—an inexpensive and effective form of insulation—thereby driving down overall heating and cooling costs. It also facilitates the creation of green roofs. Further, south-facing steeper slopes are excellent sites for utilizing solar gain, along with earth insulation.

### Public Hearing

The Planning Board held a public hearing on Article 29 on March 19, 2008. After presentations by the petitioner, the Zoning Subcommittee, and staff, and comments from the public, the Planning Board voted unanimously (7-0) to recommend that Town Meeting refer Article 29 back to the Planning Board for further study.