

Town of Haddam, CT
Wednesday, April 22, 2015

Chapter 302. SUBDIVISION REGULATIONS

Article IV. Design and Construction Standards

§ 302-36. Passive solar energy techniques.

- A. The applicant shall demonstrate to the Commission that he (she) has considered, in developing the plan, using passive solar energy techniques. "Passive solar energy techniques" mean site design techniques which maximize solar heat gain, minimize heat loss and provide thermal storage within a building during the heating season and minimize heat gain, and provide for natural ventilation during the cooling season. The site analysis to be submitted by the applicant shall include, but not be limited to, an evaluation of:
- (1) House orientations;
 - (2) Street and lot layout;
 - (3) Vegetation;
 - (4) Natural and man-made topographical features; and
 - (5) Protection of solar access within the development.
- B. Incorporation of such site design techniques shall be reviewed and discussed, on a preliminary basis, with the Town Planner and/or with the aid of the Passive Solar Subdivision Design Checklist attached to the subdivision application. Where such techniques are found to be appropriate and feasible, as weighed against other Commission concerns for the particular site, they shall be included as part of the presentation of the proposed subdivision.
- C. In analyzing the appropriateness and feasibility of incorporating passive solar energy techniques into a subdivision plan, the Planner shall consider the following when attempting to apply the five basic design techniques mentioned above:
- (1) Where topographic, soil, vegetation and other physical (natural and man-made) conditions allow or to the extent practical:
 - (a) Street and building orientation.
 - [1] The plan shall show principal buildings located and oriented so that the longest side of the building faces within 30° of true south, the primary and reserve areas for septic systems shall be located to the south of the proposed building, and the building shall be located to avoid shadows cast by other buildings, vegetation or other features.

- [2] Plans shall provide for east-west street orientation; and for the purpose of this regulation, the east-west street refers to any street with its axis within 30° of true east.
 - [3] Where lot sizes are sufficiently large and on south-facing slopes or flatland, efforts shall be made to orient the street(s) within 30° of true south when an east-west orientation is not feasible.
- (b) Plans shall show vegetation that could be removed and places where vegetation should not be planted on a lot to take full advantage of a lot's solar potential. This would include areas in which vegetation would block sunlight more than 10% of the time on any given day on the south face of a building. Vegetation (except for some deciduous plant life) should remain outside the solar access zone (i.e., 45° off the south-facing corners of the building).
 - (c) Development shall be encouraged on south-facing slopes, and buildings should be arranged and measures taken so as to minimize north exposure. Regrading activity that would decrease solar access or increase north exposure shall be minimized.
 - (d) No building or structure should be sited or constructed if the effect of such construction will interrupt solar access. Solar easements may prove necessary in order to effectively carry out and maintain the above solar considerations.
 - (e) The applicant shall indicate on the subdivision plan which lots are "particularly suited for passive solar energy" and demonstrate why.
- (2) Lots for which solar access cannot be achieved through minimal cutting, orientation or other measures necessary to avoid casting shadows within the solar access zone shall be labeled, "poor passive solar energy potential."