

ALTERNATIVE GEOMETRIC ROADWAY DESIGN STANDARDS LOW VOLUME RESIDENTIAL STREETS

Purpose:

In order to incorporate the concept of low-impact design as a means of promoting the construction of sustainable residential neighborhoods, the Planning Board has adopted the following Alternative Geometric Roadway Design Standards for low volume residential streets. The intent of these alternative minimum standards is to promote the creation of aesthetically enhanced residential environments while recognizing the needs of motorists to safely and efficiently travel low volume residential streets.

Applicability:

1. The use of these alternative geometric roadway design standards shall be limited to low volume residential streets anticipated to serve an Average Daily Traffic volume (ADT) of 400 or fewer vehicles per day. In making a determination as to whether or not these alternative standards may be applied to a specific residential land development proposal, the Planning Board shall consider the following:
 - The anticipated volume of site generated traffic calculated in accordance with a methodology consistent with the recommendations of the Institute of Transportation Engineers (ITE) or other methods acceptable to the Board. The resulting site generated traffic volume must be less than or equal to 400 vehicles per day (vpd);
 - The potential for through traffic volumes being accommodated by the construction of those streets to be platted, both initially and in the future. In no case shall these alternative standards be applied to a specific land development proposal whose streets are projected to one day accommodate in excess of 400 vpd; and
 - Lastly, the prevailing character of existing residential neighborhoods in the immediate vicinity of the land development proposal under consideration. Specifically, the Planning Board reserves the right to direct an applicant to design and construct “conventional” streets if the Board believes the needs of the community would be better served by the applicability of those prevailing geometric design standards found elsewhere in these Subdivision Regulations. In general, it is the intent of the Planning Board that these alternative standards have applicability in the following circumstances: (a) low volume public and private residential streets in traditional “grid” subdivisions of fee simple lots; (b) low volume residential streets in planned residential developments; and (c) multi-family and age-restricted residential developments.

- In all circumstances, the Planning Board reserves the right to determine whether or not the alternative geometric roadway design standards contained in this Section may be implemented at any given location.
2. The geometric design standards contained in this Section of the Subdivision Regulations shall supersede the minimum requirements of those roadway design standards contained elsewhere in these Regulations where and when permitted by the Planning Board. All other minimum geometric design standard(s) identified elsewhere in these Subdivision Regulations shall be deemed to apply to all applications unless specifically amended by these Alternative Geometric Roadway Design Standards.

Alternative Geometric Roadway Design Standards:

The intent of these alternative geometric roadway design standards is to promote the creation of low-impact residential neighborhoods with enhanced “livability” for residents. Therefore, it is essential these standards are applied in such a way as to realize a complimentary relationship between a neighborhood and its streets. Based on these stated goals and objectives, the following shall apply to any residential land development proposal advanced in accordance with these standards:

1. All roadways designed in accordance with these standards shall conform to the requirements of the attached Table of Alternative Geometric Design Standards (Table 1).
2. Pedestrian accommodations in the form of sidewalks, conforming to the requirements of Table 1, shall be constructed on one side of all residential streets having a projected ADT of 51 vpd or more and along both sides of all residential streets having a projected ADT of 151 vpd or more. All sidewalk construction shall conform to applicable requirements of the Americans with Disabilities Act (ADA). In applications where sidewalk is to be constructed along uncurbed streets, the outer edge of the walk shall be situated so as to be coincident with limit of street right-of-way. In applications where sidewalk is to be constructed along curbed streets, the inner edge of the walk shall be situated 5-feet behind the face of curb.
3. All utilities serving the residential neighborhood shall be constructed underground in accordance with applicable requirements of the specific utility providers involved. All transformers, risers and similar equipment and appurtenances shall be situated at or beyond the limits of right-of-way and/or no closer than 20-feet from the centerline of the planned residential street.

4. Sufficient off-street parking shall be provided so as to deter on-street parking by visitors and residents. The Planning Board shall review each application and reach a finding sufficient off-street parking opportunities have been provided prior to approving an application advanced under these alternative standards.
5. No single residential dwelling unit shall have more than one point of access to a street platted in accordance with these alternative standards.
6. A minimum of one indigenous shade tree, with a minimum caliper diameter of 2.5-inches at the time of planting, shall be installed per each 50-feet of roadway frontage throughout any residential development platted in accordance with these alternative standards. Individual street trees shall be situated at the limit the platted street right-of-way. The Planning Board may permit the preservation of existing specimen trees as an alternative to this street tree planting requirement when and where appropriate.
7. The use of hardscape enhancements (such as stonewalls, granite mail box posts and period street lighting) is encouraged, but subject to review and approval by the Planning Board on a case by case basis if proposed within a future public right-of-way.
8. The final plat of any development proposal containing streets or drives not intended for public dedication and acceptance shall contain the following notation: "the ways shown on this plan are intended by the applicant and the municipality to be platted, constructed and maintained as private ways. The recording of this plan shall not be construed as an offer of public dedication of those ways as public highways under New Hampshire Law of Dedication and Acceptance".

TABLE 1

**TABLE OF ALTERNATIVE GEOMETRIC ROADWAY DESIGN STANDARDS
LOW VOLUME RESIDENTIAL STREETS**

	ADT (vpd)		
	<u>1-50 vpd</u>	<u>51-150 vpd</u>	<u>151-400 vpd</u>
Design speed:	20 mph	25 mph	30 mph
Min. right-of-way width:	50'	50'	50'
Min. angle of intersection:	75 degrees	75 degrees	90 degrees
Min. tangent length at intersections & between successive horiz. curves:	N/A	N/A	100'
Min. street grade:	1 %	1%	1%
Max. street grade:	8%	8%	8%
Max grade within 50-feet of intersection:	3%	3%	3%
Min. K-values for vert. curves:			
Sag:	17	26	37
Crest:	7	12	19
Min. intersection sight dist.:	225'	280'	335'
Min. pavement & shoulder width (Uncurbed):	18'/2'	20'/2'	22'/2'
Min. pavement width (Curbed):	20'	22'	24'
Min. sidewalk width:	N/A	4' (1-side)	4' (2-sides)