TOWN OF HINESBURG
ROAD POLICY AND STANDARDS

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1 PURPOSE and INTRODUCTION

This road policy is a consolidation of the Town's various policies pertaining to roads into one comprehensive document to articulate the Town's expectations and to facilitate implementation of Town guidelines for municipal boards, developers and residents.

Ideally, the Town would like this policy to help in the development of a road network that enhances the community by preserving the rural character of outlying areas while enhancing the more structured "Town Center" character of the Village. In both settings we seek to provide safe travel for people in vehicles, on foot and those using bicycles or other forms of transport. We also seek to provide connections and linkages between residences, neighborhoods, schools, businesses and community services.

In general, it is the policy of the Town of Hinesburg to minimize the number of roadways that will become public roads. Roads that may become through, interconnecting routes of obvious benefit to the Town and its residents are the most likely to be taken over by the Town, but even these will be reviewed and accepted on a case by case basis. Dead end roads and streets are least likely to become public. The Town encourages all future developments which build and utilize private roads to form Homeowner Road Associations, comprised of all lots or living units within the development, to manage, maintain and control the roadway infrastructure.

All of these goals supplement the basic impetus for developing this road policy: to encourage high quality, low maintenance road construction, while minimizing the environmental impact of our roads.

2 REGULATORY AUTHORITY

This policy is adopted by the Hinesburg Selectboard under authority granted to them by Title 19 of the Vermont State Statutes Annotated.

The Hinesburg Development Review Board (DRB), when applicable to its review of a development or subdivision, may administer the "Road Standards" portion of the Town Road Policy (Section 7).

2.1 Modifications

The Selectboard may, at its discretion, modify the requirements contained herein if strict enforcement would cause undue hardship due to unusual conditions, provided the general objectives of these requirements are satisfied. "Undue hardship" shall not be simply construed to mean "expensive". It shall mean that site conditions are such that compliance with these standards is impossible, impractical or will result in severe environmental impacts.

2.2 Right-of-Way Access

The Selectboard shall control access into the road right-of-way for the installation or repair of utilities and for access of driveways, entrances and approaches. Refer to Section 7.15 of this policy for additional details

2.3 Overweight Vehicles

The Selectboard, in accordance with 23 VSA, Chapter 13, shall issue permits for vehicles exceeding posted load limits. Refer to the Selectboard's comprehensive overweight permit policy, on file in the Town Clerk's office, for additional information.

2.4 Posting and closure

No public or private road of any class may be intentionally closed or obstructed by anyone other than the Selectboard. The Selectboard may post a road in accordance with 19 VSA 1100.

2.5 Compliance with Other Regulations

This policy is written to establish and clarify standards of construction and the authority of the Selectboard and its agents. All other ordinances and regulations adopted by the Town of Hinesburg shall remain in full force and effect.

The Hinesburg Development Review Board may impose additional requirements with respect to roads, in connection with the Hinesburg Zoning Ordinance, Hinesburg Subdivision Regulations, or any other ordinances or policies of the Town of Hinesburg.

3 ROAD CLASSIFICATIONS

Existing public roads in the Town of Hinesburg are classified as Class 1, Class 2, Class 3 or Class 4 roads in accordance with 19 VSA 302. An official Town Road Map supplied by the State Agency of Transportation will be available for inspection in the Town Administrator's Office.

3.1 Functional Classification

These classifications can also be applied to Town roads with respect to their actual or expected function.

3.1.1 Class 1 roads are Vermont State Routes which provide passage through Town for vehicles and travelers going to or from points outside the Town, and have a much reduced emphasis on providing access to adjacent properties. Class 1 roads tend to be relatively high speed, high traffic volume facilities, and are connected to other elements of the regional highway system.

3.1.2 Class 2 roads provide for interconnection between Class 1 roads and other Class 2 roads. They handle somewhat lower traffic volumes than Class 1, but they serve traffic other than that destined for properties that abut them. Class 2 roads need not be as high speed as Class 1 roads. Direct access onto Class 2 roads shall be minimized where possible.

3.1.3 Class 3 roads primarily provide access to properties located along them and generally intersect with Class 2 roads. They tend to be low volume, low speed roads with multiple access points and driveways.

The Class 1 and 2 road system should be designed to serve both Town-wide needs and regional needs. Identification of this system grows logically from the development of the comprehensive Town Plan. Since these roads serve a regional as well as a local function, it is important that planning and design include coordination with the Chittenden County Metropolitan Planning Organization (CCMPO). All Class 1 and 2 roads are and shall be public roads, either State or Town respectively.

Class 3 roads, whether proposed by the Town or a developer, shall be designed to serve local development with connections to Class 1 or 2 roads. Intersections shall have adequate sight distance and shall not seriously disrupt the flow of the Class 1 or 2 road.

Map 1 shows the Town Road System classified as described above.

3.2 Road Re-classification

The Town shall periodically review the statutory Town Road classifications, taking into consideration increasing highway need, changing traffic patterns and growing populations, including identification of key roads that link towns and major arteries. The Selectboard may also discontinue certain roads, either classifying them as trails while retaining a right-of-way or abandoning any claim to a right-of-way.

The process for reclassifying or discontinuing roads is detailed in State Statute, 19 VSA sections 708-712 and sections 771-775.

3.3 Class 4 Roads

Class 4 roads are all existing public roads not falling under definitions of Class 1, 2, or 3 roads. Class 1, 2, and 3 are defined for the purpose of receiving state aid. Class 4 roads are not maintained year-round.

Existing rights-of way of Class 4 roads shall be retained by the Town for purposes of recreational multi-use activities, access to private property, and agricultural and forest management.

The Town will grade Class 4 roads serving five or more home sites, existing as of November 20, 1995, up to twice a year, if requested by the residents, as scheduling allows. The Town will not provide any other summer or winter maintenance of Class 4 roads with the exception of maintenance of existing drainage structures.

Class 4 roads may be reclassified to trail status, discontinued, or upgraded to Class 3 or higher status by the Selectboard. The Selectboard will change the status in accordance with Title 19 VSA 708-716 upon finding that the public interests will be substantially advanced by such change.

3.4 Private Roads

As stated in the introductory section, most, if not all, new roads constructed in the Town will be private roads which will serve as access to new residential, commercial or industrial property uses. As described in the preceeding "functional classification" section, they will match the definition of Class 3 roads and therefore will be required to be constructed to Class 3 standards.

4 ROAD CONSTRUCTION AND MAINTENANCE

Road and related improvements shall be constructed or installed in accordance with this policy, sound engineering practice and the Vermont Agency of Transportation Standard Specifications for Construction.

4.1 Construction of New Roads

4.1.1 Class 1 and 2 Roads: It is not anticipated that any new Class 1 or 2 roads will be constructed.

4.1.2 Class 3 Roads: Class 3 roads exist primarily to provide access to adjacent properties. In general, the Town will require that developers construct new Class 3 roads as part of development projects, but there may be specific instances where construction of a specific Class 3 segment may further other Town objectives. In such cases the Town may construct the segment.

4.2 Rebuilding Existing Town Roads

All roads have a finite life span, after which they require substantial rebuilding. In some cases this involves not only improving the surface, but also rebuilding the foundation and drainage. Absent a serious safety problem, rebuilding Class 2 roads should have higher priority than rebuilding Class 3 roads.

It is also recognized that not all existing Town roads are constructed to the standards called for in this document. On a case by case basis, the Town Selectboard may choose to upgrade a deficient segment of an existing road to proper standards by widening, reducing grades, straightening curves, adding shoulders or by some other applicable treatment. It is recognized that some segments of existing Town roads

may not be able to be brought up to these standards because of pre-existing conditions.

One consideration in this decision making process will be the traffic volume on or expected to be using the road. The Town will assign 10 vehicle trips per day for each dwelling unit on the segment in question in order to estimate the total traffic volume produced by the residents on that segment.

4.2.1 Class 2 Roads: Highest priority will be given to rebuilding those portions of the Class 2 road system that do not presently have adequate base and drainage. The 1994 Town of Hinesburg Highway Network Evaluation has identified these roads as being suitable for "rebuild." This Evaluation is available at the Town Administrator's Office.

4.2.2 Class 3 Roads: Repair of portions of Class 3 roads that are impassable for extended periods of time will be given high priority.

4.2.3 Upgrading Class 3 roads to Class 2 standards: Only those Class 3 roads which have an important connecting function and high traffic volumes, should be upgraded to Class 2 road status. Priority should be based on existing and anticipated traffic volumes. Upgrading should occur within the existing right-of-way except where it is necessary to improve horizontal alignment.

Rebuilding Class 3 roads serving substantial tracts of currently undeveloped land should be a low priority.

4.2.4 Resurfacing (overlay or surface coat) should occur only on road segments having adequate base and drainage.

4.2.5 Surface maintenance (patching, crack filling, seal coating, etc.) should concentrate on roads with adequate base and drainage. Surface repair without attention to base and drainage should be discouraged.

4.2.6 Source material All improvements to Town roads will utilize Town gravel.

4.3 Special Circumstances

In some cases, the rebuilding and/or upgrading of a specific road may be given high priority because it is critical to the successful achievement of some other Town objective. For instance, upgrading a Class 3 road serving a future school site to Class 2 standards may be undertaken, even though it is not presently a high volume road and is not in serious disrepair.

5 REVIEW PROCESS FOR NEW ROADS

It is the policy of the Town of Hinesburg to entertain applications for the construction of new roads and to adopt and adhere to an orderly procedure for the receipt of and action upon such applications.

5.1 General Requirements

An applicant shall secure all other necessary governmental permits for a land subdivision or for road construction as a condition precedent to the construction of a road.

All questions arising during road construction relative to construction methods, materials or specifications shall be answered by reference to this Policy and to the Vermont Standard Specifications for Construction.

The Selectboard shall make final decisions over all questions arising during construction of new roads and shall approve all field changes.

5.2 Upgrade of Class 4 Roads

A written request for the upgrade of a Class 4 road to a Class 3 status will be entertained by the Selectboard only if:

A. The road does or will serve at least five year round dwelling units or other year round establishments.

B. The road meets the standards for Class 3 roads outlined in this policy.

The cost of bringing the road up to the prescribed standards shall be borne by the owners of adjoining property who will benefit from the change in status. The Selectboard, through a site visit and public hearing, will determine whether the public good, necessity and convenience of the residents of the Town require the upgraded status.

The Board will follow and applicants will be expected to adhere to the application and acceptance procedures outlined below.

5.3 Application, Plans and Plats

A plan of any proposed road shall be submitted to the Development Review Board (DRB) for review. The plan shall be in harmony with existing and/or proposed roads. As far as practicable, new roads shall follow natural contours. If the proposed road is part of a proposed subdivision, the conceptual road design shall be submitted to the DRB with the preliminary plat application and the final road design shall be submitted to the DRB with the final plat application.

Conceptual Road Design shall include a sketch plan of the entire proposed road layout at a scale not less than 1"=200'. On the plan shall be the following items within 150 feet of the right-of-way:

A. Contours at 10' intervals. Use of USGS maps is permitted. (10' contours are available through GIS -- see the Vermont Center for Geographic Information for details).

B. All wetlands, streams and watercourses (including drainage areas of a seasonal nature).

C. A road profile showing the grade of the road at all points with clearly marked points of change in grade.

D. Location of all natural site characteristics such as wooded areas, large trees, ponds, fields, etc.

E. Location of all other site characteristics such as power lines, trails, stonewalls and structures.

F. Cross sections of any areas requiring significant cut or fill

G. Proposed drainage courses and drainage structures.

Final Road Design shall address all requirements of Section 7 and any conditions and recommendations in the "Letters of Approval" from the Fire Chief, the Police Chief, the President of the Iroquois First Response and the Public Works Director. Plans based upon field surveys and drawn at a scale of not less than 1" = 50' shall be provided and the following shall be included:

A. Plan and profile showing existing and finished grade

B. Cross sections at all areas of significant cut or fill

C. Typical cross section(s)

D. Drainage – structures as well as length and location of ditches

E. Erosion control

F. Construction details as applicable

G. Storm water system maintenance plan and details

H. Engineer's stamp and signature that the work presented for final approval meets the standards of this policy and all prior recommendations and conditions of the Town.

I. Proposed road name to be considered for assignment by the Selectboard. In most cases, proposed names will be accepted unless in conflict with or similar to an existing road name. References to natural or historic features of the area are encouraged.

Conflicting Guidelines Where two or more guidelines within this policy and another adopted ordinance or policy, specification or bylaw addressing the same item conflict with one another, the Selectboard shall determine which shall apply based on the conditions and circumstances of the individual situation.

5.4 Fees

A fee of $150 shall accompany each application to cover the cost of bookkeeping and recording. Additional fees will be required to cover the cost for the Town to hire an engineer to review the design and construction.

A fee of $100 per road sign will be charged to cover the cost of installation of each sign. Signs as approved by the Selectboard will be billed to the Owner at cost, and the payment must be received before final acceptance of the road. This fee shall also apply to private roads.

5.5 Inspection

Prior to construction, the developer shall schedule a preliminary meeting with the Selectboard or its representative. Upon completion, the developer shall schedule a final inspection with the Selectboard or its representative. All site preparation and roadway construction shall be certified by the developer or his/her representative. The Selectboard or its representative may inspect the road site throughout each phase of construction. Prior to starting construction, the developer shall provide the Selectboard with a construction schedule including the activities listed below. The Selectboard shall be notified of any changes in the schedule.

A. Clearing;
B. Rough grading;
C. Construction of drainage facilities;
D. Graveling;
E. Paved surface treatment; and
F. Final inspection.

The developer shall have stakes set on centerline or on an offset from centerline with finish grades marked on them at least every 100 feet for the entire length of the street before each inspection.

Before final inspection, the developer shall remove all trash from the right-of-way and shall repair any damage done to the roadway, shoulders, drainage structures and related road items. All slopes shall be seeded and mulched.

The Town may make inspections and take samples or core tests as it deems necessary to ensure compliance with the approved plans. All costs incurred under this Section shall be reimbursed to the Town by the developer.

5.6 Work Schedule

No construction shall occur between November 1 and April 15. No final inspection will be conducted nor will any final approval be granted between November 1 and April 15.

5.7 Conveyance

All rights of way, slope rights, and easements for public roads shall be conveyed to the Town by warranty deed in fee simple and shall be free of all encumberances. All rights of way, slope rights and easements for private roads shall be similarly conveyed to a homeowners' association or other single entity.

All monuments shall be of a permanent nature and shall be shown on the survey plat.

6 ACCEPTANCE POLICY FOR EXISTING PRIVATE ROADS

The Town of Hinesburg Selectboard may take over any existing private road that has been constructed to the standards for a Class 3 road if it feels that this action is in the Town's best interest.

6.1 Application for Acceptance

A written application for the acceptance of an existing road shall be submitted to the Town. The application shall be accompanied by a Final Road Plan at a scale of no less than 1" = 50', in conformance with Section 5.3 of this policy, and a proposed warranty deed of the land to be conveyed for highway purposes. There shall be a recordable survey plat included with the deed.

6.2 Waivers for Existing Roads

Waivers of any specification or standard in these guidelines shall only be permitted when extenuating physical limitations (not financial) are present on the site and the Selectboard agrees to such specific waiver request in writing.

6.3 Criteria for Acceptance

A. In general, it is the policy of the Town of Hinesburg to minimize the number of roadways that will become public roads. Roads that may become through, interconnecting routes of obvious benefit to the Town and its residents are the most likely to be taken over by the Town, but even these will be reviewed and accepted on a case by case basis. Dead end roads and streets are least likely to become public.

B. All existing roads proposed for acceptance by the Town shall be reviewed by the Fire Chief, the Police Chief, the President of Iroquois First Response and the Public Works Director. Letters from each stating that year-round access is possible to all structures by emergency vehicles must be received with the application.

C. No existing private road will be considered for acceptance as a public road by the Town unless:

1. The road has been constructed or improved to meet the requirements of a Class 3 road;
2. An engineer has certified that the road complies with current specifications for a Class 3 road;
3. The road remains in substantial compliance with the standards of this policy for a two-year review period after the date of certification;

D. If it becomes apparent that serious maintenance problems exist on the road during the two year period, the applicant will be required to make necessary improvements. The applicant may be required to maintain the road for an additional two-year term to insure that improvements are adequate. Once a two-year period has passed and no need for additional repairs or improvements is noted, the deed will be recorded and the road will become a Town road.

7 PUBLIC AND PRIVATE ROAD STANDARDS

Roads vary in their functional use. The standards to which a road is constructed are important to its proper function. As the quantity of traffic on a road increases, so must the standards change. Consequently, the standards that follow are minimum standards for all public and private roads and are subject to modification by the Selectboard after a study of local conditions.

Requests for a waiver of any portion of these standards shall be made in writing to the Selectboard.

Vermont Agency of Transportation Standards A-21, A-22, A-23, A-24, A-25, A-26, A-76 and B-71 have been adopted by the Town of Hinesburg and will be consulted as supplemental

criteria under this policy. Where specifics of this policy/standard differ from the State standards, this policy shall govern.

7.1 Right-of-Way Width

The right-of-way shall be a minimum of 50 feet in width with wider slope and drainage rights if deemed necessary by the Selectboard. The centerline of the road shall be located in the center of the right-of-way.

7.2 Traveled Way Width

The minimum traveled way width of roads shall be as noted in Table 1, Hinesburg Road Standards.

7.3 Clearing and Grubbing

The right-of-way shall be cleared of all trees, brush and stumps for a minimum width of 40 feet on all roads unless designated "scenic" under the provisions of 19 VSA 1018(a) and 1019(a). Burning shall be done in accordance with State and Town fire regulations. No fallen trees shall remain in the right-of-way. All stumps shall be removed and disposed of outside the ROW in accordance with current State and Town requirements.

7.4 Subgrade

All loam, muck, stumps and other improper foundation material shall be removed from within the limits of the fully extended road slopes. In embankment areas, suitable foundation material shall be placed in one-foot layers and compacted to form a stable subgrade. Compaction shall be 95% of maximum dry density as determined by the Standard Proctor test.

In areas of ledge excavation, all ledge shall be removed to the subgrade level and ledge shall be shattered to a depth of 2'-6" below the subgrade level prior to the placement of any subbase material.

Compaction is required on any portion of the subgrade which has been disturbed by excavation or which has been filled during the construction of the subgrade. Compaction shall be accomplished using equipment specifically intended for such purpose such as rollers or compactors. All ditches and drains shall be constructed so that they effectively drain the subgrade prior to the placement of any subbase material.

In areas where the subgrade material is clay or silt (greater than 8% by weight of material passing the #200 sieve or plasticity index greater than 6 and liquid limit greater than 25) or in areas where the seasonal ground water table is within 3' of finished grade, the subgrade shall be lowered by 12" to accommodate an additional 12" of bank run gravel, underdrains shall be constructed along each edge of the

roadway and roadway fabric equal to Mirafi 500X shall be placed on top of the subgrade.

7.5 Subbase Material

The subbase shall be composed of two layers, a base course of 12" of bank run gravel and a surface course of 6" of crushed gravel. In areas where additional depth of subbase is required to account for silts, clays or high seasonal ground water, the base course of bank run gravel shall be 24" thick. The maximum stone size in the bank run gravel shall be 4". All subbase material shall be spread in uniform layers and compacted to 95% of maximum dry density as determined by the Standard Proctor test.

The bank run gravel shall meet the following gradation requirements:

Sieve Designation	Percentage Passing by Weight	
	Total Sample	Sand Portion
#4	20 – 60	100
#100		0 – 12
#200		0 – 6

The crushed gravel shall meet the following gradation requirements:

Sieve Designation	Percentage Passing by Weight
2"	100
1-1/2"	90 – 100
#4	30 – 60
#100	0 – 12
#200	0 – 6

7.6 Shoulders

Shoulders shall be a minimum of two feet in width on each side and shall be constructed to the same specifications as the subgrade and subbase. Shoulders shall be a minimum of four feet wide at guardrail sites.

7.7 Paving

It is not always beneficial to the Town to require bituminous concrete pavement on all roads that are constructed in the Town. Such a categorical requirement creates undesirable expense and establishes a policy that does not best serve the orderly growth and development of roads and properties in the Town. The following criteria shall be considered by the Selectboard in determining what method of road finishing and surfacing will be required as a condition of road approval:

A. Type of projected use of the proposed road. Class 2 roads are defined as roads that will be normally and customarily used as a route of travel to destinations other than the properties fronting upon said roads. A Class 2 road will normally require pavement. A Class 3 road is used primarily for ingress and egress to the properties fronting on or connected to said road and will not normally require pavement.

B. Density of properties served by proposed road. Where there are to be more than 2 units per acre fronting on or connected to the proposed road, the Selectboard may require pavement.

C. Rural or urban characteristics of the neighborhood in which the proposed road is located. The Selectboard will be guided by prevailing characteristics of the surrounding area as well as the proposed development in deciding whether to require the paving of a proposed road. Roads and streets in the "Village, Commercial and Industrial Districts" will generally be required to be paved.

D. Terrain, course, hazards and suitability of proposed road. Safety to the traveling public and inhabitants along the road shall be considered in deciding whether to require pavement.

E. Future use of the road. Future foreseeable connection with or intensified use of a proposed road shall be considered in determining whether or not to require paving.

Bituminous concrete shall be machine laid and rolled by experienced crews in two layers. The base course, consisting of ¾" aggregate, shall be laid to a compacted depth of 2 inches and the wearing course, consisting of ½" aggregate, shall be laid to a compacted depth of 1 inch. All work shall be done in a professional manner.

Unless otherwise approved, the base course of paving shall be VTrans Type 2 bituminous concrete and the wearing course shall be VTrans Type 3 bituminous concrete. Paving shall not be laid between November 1 and May 1 unless otherwise approved by the Town. Paving shall not be placed when the ambient air temperature is less than 40 degrees nor shall it be placed upon frozen ground.

Any wearing course placed immediately after the base course may be laid without further surface preparation; however, any wearing course placed on a dirty base course or after 30 days of placement of the base course shall be preceeded by an application of asphalt emulsion.

When new pavement is to match to existing bituminous pavement, the existing pavement shall be vertically saw cut and the cut surface shall be coated with an asphalt emulsion.

7.8 Crown

Roads and streets shall have a cross slope from centerline to the edge of pavement or traveled way of 1/4 inch per foot and from the edge of traveled way to the edge of shoulder of 3/4 inch per foot.

7.9 Ditches, Culverts and Headwalls

Drainage ditches shall be provided where necessary and shall be constructed to prevent infiltration of water into the gravel sub-base and to conduct storm drainage to waterways and absorption areas. Accordingly, drainage ditches adjacent to roads are normally to be 6 inches below the gravel sub-base. Ditches shall be shaped to prevent excessive erosion on either side of the ditch cross-section and shall be surfaced as follows:

Seed and mulch for gradients less than 2.5%.
Seed and erosion control matting for gradients between 2.5 and 5%.
Stone lining for gradients greater than 5%.

Underdrain will be required where soil and ground water conditions make it necessary.

Culverts shall be installed during the construction of the road and prior to road subbase placement. Backfill of excavations for culverts shall be compacted to 95% Standard Proctor to prevent settling in surface, shoulders or slopes. Culverts should be covered with a minimum of 24 inches of material.

Headwalls shall be installed at the inlet of all culverts and may be either 8" thick reinforced concrete, large flat rock dry laid, or large flat rock bedded in mortar. The inside edge of headwalls shall be at least 4' feet from the outside edge of the shoulder. Pressure treated wooden marker posts 6" inches in diameter shall be installed at both ends of the culvert.

Culverts shall be installed in all low spots and shall be of sufficient size to handle the anticipated run-off from a 25 year storm. Minimum size shall be 18" for roadway culverts and 15" for driveway culverts. All culverts shall extend at least 1' beyond fill slopes, measured at the bottom of the culvert. Culverts may be high density polyethelene pipe equal to Advanced Drainage Systems, Inc. N-12 Prolink Ultra or N-12 HC pipe for installations with 18" or more cover over the top of pipe. When cover is less than 18", culverts shall be 16 gage asphalt coated corrugated galvanized steel pipe equal to that manufactured by Lane Enterprises, Inc.

Culverts shall be spaced no greater than 300 feet apart in one continuous ditch line.

7.10 Slopes

Vertical or steep cut faces, except in ledge cuts, shall not be permitted. Slopes shall be no steeper than 1 vertical to 2 horizontal (1 on 2). Soil stability of slopes shall be a design consideration. Slopes shall be designed and constructed to prevent instability, slides, washes or other disturbance to the slope surface or sub-surface. Slopes shall not interfere with snow removal. After construction and final grading, slopes shall be seeded and mulched to minimize surface erosion. Retaining walls, cribbing or riprap shall be provided where necessary. In some cases, because of severe topographic constraints, slopes may be constructed as steep as 1 on 1.5; however, such slopes shall be stabilized with 18" of rock measuring 4" – 12" in size. Slopes in ledge cuts shall be no steeper than 4 vertical to 1 horizontal (4 on 1).

7.11 Guardrails

Steel beam guardrail shall be provided, where necessary, to meet essential traffic control and safety needs, and shall not interfere with snow removal. Normally, any highway slope falling away steeper than 1 on 4 from the road surface, and which is 10 feet or higher in vertical rise, shall be protected with guardrail unless such requirement is waived by the Town in approving the road plan and application. Guardrail shall also be provided to warn and protect traffic from ledge or other hazards where necessary in consideration of traffic volume, road width, and safety. Installation shall conform to Vermont Agency of Transportation requirements. The face of guardrail shall be at least 2' from the edge of traveled way.

7.12 Grades

Maximum grades on all roads shall adhere to the values shown in Table 1, Hinesburg Road Standards.

7.13 Horizontal Curves

Radii of curves shall be as designated in Table 1, Hinesburg Road Standards. Trees and boulders shall be removed to permit adequate sight on all curves.

A tangent of at least 50' shall be introduced between reverse curves on all roads.

If at all possible, the use of compound curves shall be avoided; however, if found to be absolutely necessary, the radius of the flatter curve shall not exceed the radius of the sharper curve by more than 50%. The "broken back" arrangement of curves (a short tangent between two curves in the same direction) shall be avoided by ensuring that any such tangent is at least 50' long.

7.14 Vertical Curves

Every change in grade of a roadway shall be connected by a vertical curve such that the minimum stopping sight distance as required in Table 1, Hinesburg Road Standards is attained.

7.15 Driveways, Entrances and Approaches

A permit from the Selectboard is required to:

A. Develop, construct, regrade (except for purposes of periodic restorative maintenance) any entrance to a Town road;

B. Convert an existing farm, field or back lot access road to a residential, commercial or industrial drive or roadway; or

C. Build a fence or structure, or deposit material of any kind within, or in any way affect the grade of a Town road right-of-way;

7.15.1 Review Procedure. The applicant shall submit a sketch plan showing dimensions and other useful features relative to the access requested to be permitted.

Before any permit may be issued the Selectboard or its designated agent shall conduct a site survey. The applicant or his designated agent must prove that the following conditions related to access have been met and satisfied, or will be satisfied at the time of completion of construction:

7.15.2 Driveways and Road Cuts

A. Drainage

i. Driveways and other proposed entrances to the Town right-of-way cannot interrupt the natural or ditch line flow of drainage. Where shallow ditch lines or natural drainage courses exist, a driveway water bar may be constructed at a point beyond the road shoulder to divert the flow of storm water. In all other cases,

driveways must have sufficiently sized culverts installed and maintained for one year by the homeowner or developer.

Under no circumstances shall a driveway permit allow construction which will result in drainage or flow directly onto a town road.

ii. Culverts will be maintained in working condition by the owner if outside of the Town right of way and by the Town if the culvert is within the Town right of way, after the initial one year period.

iii. The material, diameter, length and depth of bury of the culvert shall be determined by the Selectboard, but in no case shall the culvert pipe under a driveway be less than 15" in diameter. Culvert material shall be as specified in Section 7.9.

B. Intersection

i. Sight Distance. Corner sight distances in both directions, as noted in Table 1, Hinesburg Road Standards, must exist for a building permit to be issued. Trees, brush, stonewalls, posts, etc., shall be removed if they obstruct the roadway visibility. It shall be the owner's responsibility to maintain adequate roadway visibility as defined herein.

ii. Intersection Angle. Driveways shall intersect roadways at an angle of 90 degrees.

iii. Intersection Offset. No driveway will be permitted to be constructed within 150 feet of an intersecting street.

To maintain the functional capacity of the different categories of roads, the minimum distance between driveways should be as follows: Class 1 Roads: 1,000 ft. in open areas, 400 ft. in settled areas; Class 2 Roads: 300 ft; Class 3 Roads: 250 ft, except in the Village and Commercial Districts where the minimum distance between centerline offsets of driveways may be 40 ft.

C. Entrances

i. Minimum Driveway Width: Minimum entrance width shall be 28 feet, measured at the edge of the traveled surface of the Town road. The minimum width of the paved or graded surface of the driveway shall be 12 feet (18 feet for shared drives), measured at the edge of the of the Town right-of-way. Recommended clearway for the length of the driveway shall be a minimum width

7.17 Corner Radius

Intersection corners of Class 3 roads shall have a minimum edge of traveled way radius of at least 20'. Class 2 road corner radii shall be at least 30'.

7.18 Sidewalks, Street Trees and Curbs

Sidewalks and street trees are required in the Village, Commercial and Industrial districts (as defined in Hinesburg's Zoning Bylaw).

Sidewalks shall be at least 5 ft. wide and shall be constructed of 3000 psi cement concrete. Sidewalk thickness shall be 5" but shall be increased to 6" across residential driveways and 8" across commercial or industrial driveways. A subbase of crushed gravel 6" thick shall be constructed beneath the sidewalk under most conditions; however, when soil or groundwater conditions require the modified roadway cross section (30" of subbase and fabric), the subbase of the sidewalk shall be 12". The sidewalk shall be scored 1" deep every 5' and an expansion joint shall be placed every 20'.

Curbs may be required in the Village, Commercial and Industrial districts. Concrete curbs shall be constructed of 3000 psi cement concrete. Dimensions shall be 18" in height, 6" in thickness at the top and 9" in thickness at the bottom. Curb reveal shall be 8". The top front and back edges shall be radiused to ½" and ¼" respectively. Concrete curb shall be constructed with 1/8" score lines every 10' and with ½" expansion joints every 20'. Granite curbs shall be 18" high and 6" thick, set with an 8" reveal. Curbs shall be constructed on a minimum of 6" of gravel subbase and shall be backfilled with gravel. Where curbs come to an end, the final 5' section shall taper downward to a 1" reveal.

7.19 Street Signing

Street signs shall be in conformance with the Manual on Uniform Traffic Control Devices (MUTCD) and paid for by the developer.

7.20 Signing for E911

All new dwelling units constructed in the Town of Hinesburg shall erect a legible sign at the end of the entrance drive noting the designated E911 address number.

7.21 Bridges

Plans for bridges must be submitted for review prior to construction. Construction will be authorized only after a review by the State Agency of Transportation indicates that the bridge will meet all applicable Vermont Agency of Transportation Specifications.

TABLE 1 – HINESBURG ROAD STANDARDS

	Single Driveway	Shared Driveway	Class 3 Road	Class 2 Road
Traffic Function	Serves 1 dwelling	Serves 2+ dwellings	Property access	Through traffic
Design Speed	--	--	25 mph	40 mph
Traveled Way Width	12'	18'	18'	24'
ROW Width	--	--	50'	50'
Cleared Width	18'	20'	40'	50'
Shoulder Width	--	--	2'	2'
Maximum Grade	10%	10%	10%	8%
Minimum Curve Radius	25'	25'	150'	575'
Subbase Depth	12"	12"	12" bank run + 6" crushed	12" bank run + 6" crushed
Surface Material	Gravel	Gravel	Gravel or 3" bituminous pavement	Gravel or 3" bituminous pavement
Intersection Angle	90 deg.	90 deg.	80 deg.	80 deg.
Drive to Road Intersection Offset	--	--	150'	150'
Road to Road Intersection Offset	--	--	250'; 40' in Village, Commercial, Industrial	300'
Minimum Stopping Sight Distance	--	--	150'	275'
Minimum Corner Sight Distance	--	--	275'	440'
Sidewalk and Curb	No	No	Yes in Village, Commercial, Industrial	No

NOTES:

1. The traveled way width in the Village, Commercial and Industrial districts is 22'.
2. The traveled way width on Village streets with parking on one side is 30'.
3. The traveled way width on Village streets with parking on both sides is 38'
4. Where guardrails are warranted, shoulder width shall be increased by 2'.
5. The maximum road grade within 25' of any intersection is 5%. The maximum grade on any roadway curve with a radius of less than 250' is 8%. The maximum grade on any driveway or Class 3 road may be increased to 12% if the surface is paved.
6. The minimum curve radius of 575' for a Class 2 road assumes the inclusion of a 4% superelevation.
7. The presence of silt, clay or a high groundwater table in the subgrade will require an additional 12" of bank run gravel subbase, the installation of underdrains and the use of roadway fabric for the construction of Class 2 and 3 roads.
8. Roads and streets within the Village, Commercial and Industrial districts will normally be paved.
9. Corner sight distance is measured from a point on the intersecting road or driveway which is 15' back **from the edge of the traveled way of the intersected road.**
10. **These dimensional and construction requirements shall apply to private roads as well as to public roads.** In most cases, private roads will conform to the requirements for Class 3 roads.