

Town of Surry, NH – Road Standards Ordinance

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Effective 3/14/2006
Revised 03/12/20

Price \$ 3.00

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Article I PURPOSE

The purpose of this ordinance is to provide minimum standards for the layout and construction of town maintained roads in order to prevent design and construction defects that may create traffic hazards or may shorten the expected life of the road and thereby needlessly increase maintenance costs.

Article- II APPLICABILITY:

This ordinance shall be applicable to the construction or reconstruction of all Class V highways and the upgrading of any existing Class VI highway to Class V by either the town or a sub divider. As used in this ordinance the following definitions, as taken from Chapter 229:5 NH RSA as amended, shall apply:

Class V highways shall consist of all of the traveled highways which the town has the duty to maintain regularly and shall be known as town roads.

Class VI highways shall consist of all other existing public ways. It shall include all highways discontinued as open highways and made subject to gates and bars, and all highways which have not been maintained and repaired by the town in suitable condition for travel thereon for five (5) successive years or more.

Highways are only such as are laid out in the mode prescribed by statute, or roads which have been constructed for public travel over land which has been conveyed to a city or town or to the state by deed of a fee or easement interest, or roads which have been dedicated to the public use and accepted by the town or city in which such roads are located, or roads which have been used as such for public travel other than travel to and from a toll bridge or ferry, for twenty years prior to January 1, 1968, and shall include the bridges thereon.

Article III AUTHORITY

The Selectmen are hereby authorized and directed to administer and enforce the provisions of this ordinance.

Article IV TYPE OF STREETS:

Streets shall be typed as defined in the Town Master Plan or Official Map or by the Planning Board where such Master Plan or Official Map does not exist. The typing of new streets shall be determined by the Planning Board at the time of subdivision.

Streets shall be typed as local service, collector or arterial depending upon their primary use and average daily traffic count.

Local Service Street: A street used primarily to give access to abutting properties.

Collector Street: A street which serves primarily to carry traffic from local service streets to arterial streets and to public and other receptors of traffic concentration.

Arterial Street: A street or highway used primarily for heavy and/or through traffic.

Article V SITE PREPARATION

Unsuitable material, roots and stumps within the limits of the roadbed shall be completely removed, and topsoil or loam removed to its total depth. Topsoil or loam shall be removed from areas that will be filled. Where loam or improper road foundation material exists, such material shall be excavated and replaced with bank run gravel or broken rock. Topsoil so removed will be stockpiled and used within the limits of the right-of-way as necessary to landscape the unpaved area.

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Trees existing outside the grassed shoulder of local service roads will not be removed except where required to provide 150 foot all-season safe-sight distance. Where so removed on local service roads or where trees do not exist on any road, the surface to the limits of the right-of-way will be covered with a minimum of three inches of loam and seeded

Unsuitable loose material within the limits of the right of way, generated during construction, shall be removed from the area before final grading.

Article VI STORM DRAINS AND DITCHES

- (a) Storm drainage shall be designed to handle a storm of 2 inches per hour for the anticipated drainage area.
- (b) Catch basins shall be located to adequately catch all storm water and to prevent erosion problems.
- (c) Open ditches, where allowed, shall be designed so that there is no standing water, so that there is no erosion of the bottom or banks and so they can adequately handle the anticipated run off. A typical section of grass-lined or stone-paved ditch should have a flat bottom and side slopes of one vertical on two horizontal with the top of the slope at least one foot higher than the design water surface. The maximum allowable design velocity should be 3 feet per second in earth or grass lined channels and 8 feet per second in stone-lined channels. In determining capacity and velocity of channels, the Manning formula should be used with a coefficient of friction "N" equal to .030.
- (d) Any drainage which creates a hazard to the public or a nuisance to the owner; or occupants of adjacent premises by reason of discharge into, onto or across any adjacent premises or highway shall be abated by the road contractor sub divider of the improperly drained area.
- (e) Pipe shall be bituminous coated corrugated metal pipe with paved invert, or corrugated plastic or aluminum pipe. The minimum size shall be 15" diameter.
- (f) Headwalls shall be at least one foot larger at all points than, the pipe.
- (g) Materials and methods of construction shall be in accordance with Section 603, "Culverts and Storm Drains", and Section 60.4, "Catch Basins, Drop Inlets, and Manholes of the State of New Hampshire Department of Transportation Specifications.

Article VII SIDEWALKS

- (a) Sidewalks shall be installed at locations required by the Planning Board for pedestrian safety.
- (b) Sidewalks shall have minimum width of 5 feet and a minimum base of 6 in. of gravel.
- (c) Sidewalks shall be a minimum of 2 in. thick bituminous concrete or 4 in. Portland Cement concrete.
- (d) Materials and methods of construction shall be in accordance with Section 608, "Sidewalks", of the State of New Hampshire Department of Transportation Specifications.

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Article VIII CURBS:

- (a) Curbs will be installed at all locations where the street grade exceeds 5% and wherever else the Planning Board requires.
- (b) Curbs shall be a minimum of 6” high Belgian blocks or bituminous concrete meeting the requirements of Section 609, “Curbs”, of the State of New Hampshire Department of Transportation specifications.

Article IX ROADS

- (a) Geometric and structural details shall conform to figure 1.
- (b.) Fill shall meet the requirements of Section 201 of the State of New Hampshire Highway Specifications.
- (c) The base shall consist of gravel and crushed gravel to a depth shown in Figure 1., and 6 in. of sand if ledge is within 2 ft 6 in. of the finished grade of the road. Materials and methods of construction shall be in accordance with Section 304, “Sand, Gravel and Crushed Gravel Base Courses” of the State of New Hampshire Department of Transportation Specifications.
- (d) Road surface for local service roads shall be Type I Hot Asphaltic Concrete having a nominal thickness of 2”, consisting of, optimally, a 1 in. binder course and a 1 in. wearing course, or a combined binder/wearing course, of approximately 0.115 tons per square yard.
- (e) Road surface for collector roads shall be Type I Hot Asphaltic Concrete having a nominal thickness of 2” consisting of a 1 in. binder course and a 1 in. wearing course of approximately 0.115 tons per square yard.
- (f) Road surface for arterial roads shall be Type I Hot Asphaltic Concrete having a nominal thickness of 3in., laid in two courses, a 2in. binder course and a 1 in. wearing course, of approximately 0.170 tons per square yard.
- (g) Materials and methods of construction shall be in accordance with Sections 403,410 of the State of New Hampshire Department of Transportation Specifications.

Article X LOAM and SEED

- (a) All unpaved areas within the right-of-way shall be covered with 3” of loam and seeded with lawn type grass seed. It shall be the contractor’s responsibility to insure that the grass grows.
- (b) A 4” high grass berm (curb) shall be constructed at the edge of the pavement in fill sections to insure that storm water reaches catch basins.

Article XI STAKING OUT OF LOTS

- (a) Iron pipes shall be set at all corners.
- (b) Concrete or granite bounds shall be set at all points of tangency for the roads.
- (c) Accuracy of all pins and monuments shall be in accordance with the standards of the New Hampshire Land Surveyors Association.

Article XII RESPONSIBILITY

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- (a) The contractor shall be responsible for the design of all improvements, and may be required to submit calculations indicating the basis for his designs. All designs shall be based upon sound engineering practices.
- (b) A complete set of original drawings showing existing and proposed profiles, cross-sections, contours and layout of all improvements shall be submitted to the Planning Board for approval prior to the start of construction.
- (c) All details of construction, materials and products to be used shall be approved by the Selectmen prior to the start of construction.
- (d) All work shall be in accordance with the approved plans.

Article XIII INSPECTION

All improvements shall be subject to inspection and approval of the Selectmen, who shall be notified by the contractor at least twenty four (24) hours prior to the start of construction. No under-ground installation shall be covered until inspected by the Selectmen or his authorized agent.

Article XIV SURETY

The Planning Board or Board of Selectmen may, at its discretion, require such guarantees or surety as it considers necessary to insure compliance with the conditions of this ordinance. Surety shall be released by the Planning Board or Board of Selectmen only upon certification by the Selectmen that all improvements and requirements have been completed in accordance with plans and specifications.

Article XV VALIDITY

The invalidity of any section or provision of this ordinance shall not invalidate any other section or provision thereof.

Article XVI EFFECTIVE DATE

This ordinance shall take effect upon its passage, but shall not affect any contract awarded prior to that date.

Article XVII EXCEPTIONS

Exceptions to and waivers of the provisions of this ordinance applicable to the rebuilding or upgrading of a town road may be made at any regular or special town meeting by a majority of voters present and voting.

ADOPTED March 2, 1976
RETYPED November 15, 2002
Amended 3/14/2006

**Town of Surry, NH – Road Standards Ordinance
Geometrical and Structural Guides for Town Roads**

	Local Service	Collector Service	Arterial Service
Average Daily Traffic (1)	0-250	250-400	400-up
Minimum Right of Way-feet	50	50	100
Minimum Pavement Width-feet	24	30	36
Minimum Shoulder Width ,Each Side-feet	2	4	8
Minimum Center of Road to Ditch-feet	16	23	Variable
Gravel Base Course Depth-inches	12	12	16
Crushed Gravel Base Course Depth-inches	4	6	8
Minimum Horizontal Curve Radii-feet	100	200	500
Minimum Length of Tangents-feet	100	200	500
Minimum Grade	0.5%	0.5%	0.5%
Maximum Grade (2)	10%	8%	5%
Minimum Horizontal Sight Distance-feet (3)	200	300	400
Minimum Vertical Sight Distance-feet (3)	200	250	300

Figure 1

(1) Shall be future anticipated traffic, assuming 8 trips per day per dwelling unit.

(2) Except 3% within 50 feet of the edge of pavement of an intersecting street.

(3) Sight distance shall be measured between two points along the centerline of the street on a straight line entirely within the street right-of-way and clear of obstructions; one of the points to be at the surface and the other 4 ½ feet above the surface. For sag curves, the headlight height shall be considered to be 2 ½ feet and have a one degree upward divergence of the light beam above the longitudinal axis of the vehicle.

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Street Classifications and Type

Street	Class	Type
Crain	II	State
Dam	V	C
Dort	V	L
E. Surry	V	C
Gilsum	II	State
Hallwood	V	L
Hayward	V	L
Joslin	V	C
London	VI	--
Malcolm	V	L
Merriam	VI	--
Mine Ledge	V&VI	L
Old Walpole	V	A & State
Old Summit	V	L
Pond	V	C
Village	II	State
Webster	V	L
Wilber	V&VI	L
Rt 12A	II	State
Rt 12	II	State
Farm Road	V	L
Cider Mill Rd.	V	L
Mason Drive	V	L

TYPE of STREETS:

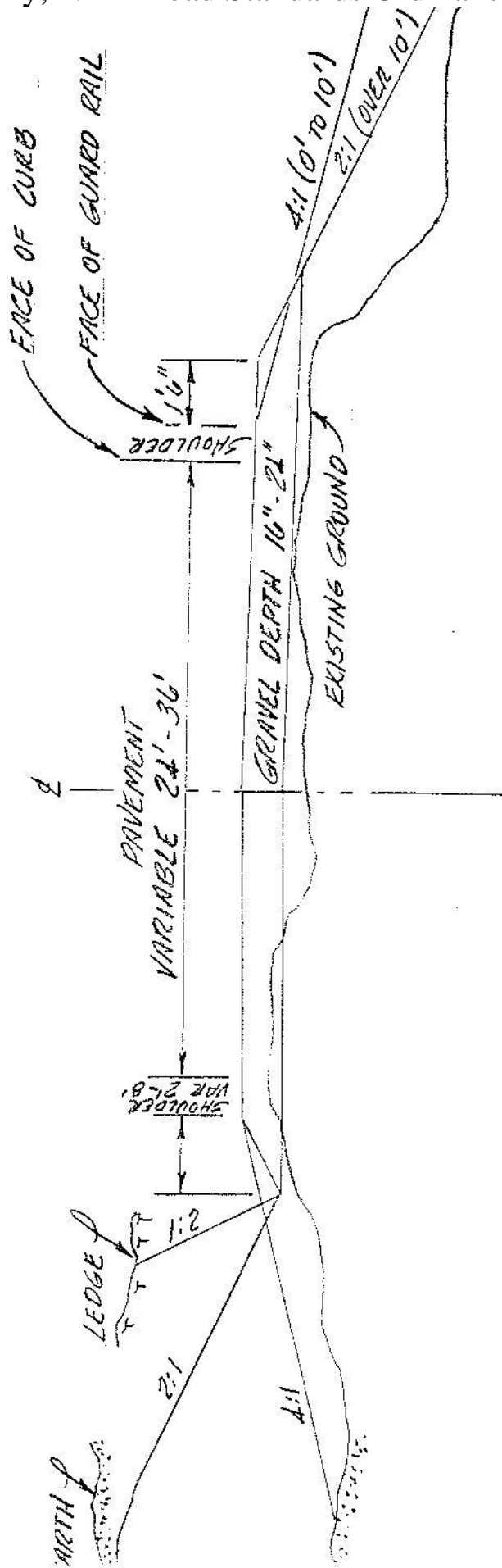
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TYPICAL SECTION
FOR TOWN ROADS
TOWN OF SURRY, NEW HAMPSHIRE