

SUBDIVISION REGULATIONS

TOWN OF LITTLETON, NH

ADOPTED

January 9, 1967

AMENDED

March 6, 1973

October 26, 1984

June 27, 1989

January 19, 1993

July 3, 2007

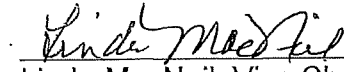
March 16, 2010


July 19, 2016

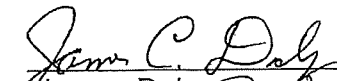
ADOPTION


The Littleton Subdivision Regulations are hereby amended as provided for under RSA 675:6.


Littleton Planning Board


Linda MacNeil, Vice Chair

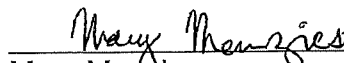

Waldemar Poulsen


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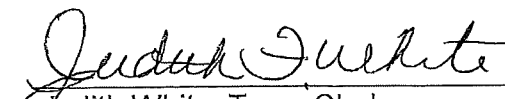

Anthony J. Ilacqua


Milton Bratz, Ex-Officio


Mary Menzies

Colin Trahan

I certify this to be a true copy:


Judith White, Town Clerk
Littleton, New Hampshire

Adopted this 16th day of August, Two thousand and sixteen.

TABLE OF CONTENTS

SECTION 1. AUTHORITY AND PURPOSE

- A. Authority
- B. Purpose
- C. Requirements for Subdivision Approval

SECTION 2. DEFINITIONS

SECTION 3. PROCEDURE

- A. Preliminary Consultation and Review
- B. Completed Application
- C. Filing and Submission of Application
- D. Board Action on Completed Application
- E. Public Hearing
- F. Hearing Notices
- G. Fees

SECTION 4. PLAN REQUIREMENTS

- A. Layout
- B. Final Plat
- C. Lot Line Adjustment or Boundary Adjustment

SECTION 5. STANDARDS

- A. General
- B. Utilities
- C. Sediment and Erosion Control
- D. Open Space and Recreation
- E. Special Flood Hazard Areas

SECTION 6. ADMINISTRATION AND ENFORCEMENT

- A. Administration
- B. Approval Period
- C. Acceptance of Streets
- D. Modification of Regulations
- E. Penalties for Transferring Lots in Unapproved Streets
- F. Conflict with Other Regulations
- G. Amendment
- H. Separability
- I. Appeal

APPENDIX A

- FORM 1.** Surveyor's Certification
- FORM 2.** Certification from the Water & Light Department
- FORM 3.** Certificate from the Public Works Department
- FORM 4.** Certificate on Road Construction
- FORM 5.** Certificate on Drainage Provisions
- FORM 6.** Certificate of Approval for Recording
- FORM 7.** Certificate of Approval

APPENDIX B – FEES

APPENDIX C – ROAD SPECIFICATIONS

BIBLIOGRAPHY

SECTION 1. AUTHORITY AND PURPOSE

A. Authority

Pursuant to the authority vested in the Town of Littleton Planning Board by the voters of the Town of Littleton and in accordance with the provisions of Chapter 674:35-39, New Hampshire Revised Statutes Annotated, 1955, (1988 Supplement), the Town of Littleton Planning Board adopts the following regulations governing the subdivision of land in the Town of Littleton, New Hampshire.

B. Purpose

The purpose of this Ordinance is to promote the development of an economically sound and stable community in a manner consistent with acceptable standards for the municipality and to provide uniform procedures and standards for observance by the Planning Board and subdividers. The provisions of this Ordinance shall apply to all land within the boundaries of the municipality.

Additional purposes of this Ordinance include providing against scattered and premature subdivision of land, providing for the harmonious development of the Town, to guide the future growth and development of the community in accordance with the Littleton Master Plan, to prevent overcrowding of the land and undue congestion of population, and to provide for the proper arrangement and coordination of streets within subdivisions in relation to other existing or planned streets, streets with adequate width for present and future traffic and emergency vehicle use, and for open spaces of adequate proportions.

C. Requirements for Subdivision Approval

Whenever any subdivision of land is proposed, before any construction, land clearing or building development is begun, before converting any existing developed property to condominium or time-sharing, before any permit for the erection of any building in such proposed subdivision shall be granted, and before any subdivision plat may be filed in the Office of the Register of Deeds of Grafton County, the subdivider or his authorized agent shall apply for and secure approval of such proposed subdivision in accordance with the following procedure.

SECTION 2. DEFINITIONS

All definitions or terms not listed in these regulations are found in the Littleton Zoning Ordinance.

ABUTTER means any person whose property is located in New Hampshire and adjoins or is directly across the street or stream from the land under consideration by the Board. For purposes of receiving testimony only, and not for the purpose of notification, the term "abutter" shall include any person who is able to demonstrate that his land will be directly affected by the proposal under consideration.

BOARD means the Planning Board of the Town of Littleton, New Hampshire.

BOUNDARY LINE AGREEMENT means the mutual agreement between two or more abutters to resolve a boundary line.

BUILDING DEVELOPMENT means the process of changing the character of the land from its existing condition to a more usable condition by the construction or placement of a building or buildings thereon.

CESSION means formal surrender of property rights.

COMPLETED APPLICATION means the official Subdivision Application form and submission as defined in Section 4 and Section 3.D of these Regulations.

CONTOUR LINE means a line on a map or chart connecting all points of the same elevation (or depth) in a particular area.

CONDOMINIUM means multi-family, group, or cluster housing, wherein dwelling units are individually owned, but wherein open space and group facilities are held in common ownership. Condominium shall be considered a subdivision of land as outlined in RSA 479-A and reviewed accordingly.

LOT means a parcel of land designated on a plat to be filed with the Register of Deeds by its owner or owners as a separate lot. For purposes of these Regulations, a lot shall have boundaries identified with those recorded with the Register of Deeds.

LOT LINE ADJUSTMENT OR BOUNDARY LINE ADJUSTMENT means a relocation of the lines of two (2) or more lots included in a plat which is filed or recorded, for the purpose of making necessary adjustments to building sites.

PLAT means the final map, drawing, or chart on which the subdivider's plan of subdivision is presented to the Littleton Planning Board for approval, and which, if approved, will be submitted to the Register of Deeds of Grafton County for recording.

SUBDIVISION means the division of a lot, tract, or parcel of land into two or more lots, plats, sites, or other divisions of land for the purpose, whether immediate or future, of sale, rent, lease, condominium conveyance, or building development. It includes resubdivision, and, when appropriate to the context relates to the process of subdividing or to the land or territory to be subdivided. The division of a parcel of land held in common and subsequently divided into parts among several owners shall be deemed a subdivision. Any transfer, conveyance, or sale of land held in one ownership but already divided into lots or parcels of land by an existing public right-of-way shall not be considered a subdivision. Division for the purpose of annexation in which there is merely a sale, conveyance, or exchange of adjacent land among two or more owners and which does not reduce the acreage of a lot below that originally approved for the subdivision (when applicable) need not apply as a subdivision.

YEAR-ROUND means winterized, having utilities (at least heat, electric, water and sewer) and being insulated so as to be equipped for the winter months. Also included in Road Standards

SECTION 3. PROCEDURE

A. Preliminary Consultation and Review

An applicant shall have a preliminary consultation and review with Town Staff to discuss a proposed subdivision in conceptual form and to ask specific questions regarding application procedures and the information criteria. Sketches or drawings may be utilized when necessary to clarify geographical or topographical relationships or to help in the determination of applicable subdivision regulations and zoning ordinances. The Board should review the relationship of the proposal to the Master Plan. The applicant shall be informed of the status of his subdivision and of the necessity to obtain other local or state permits.

Such an informal consultation shall not require public notice nor shall it result in any decision, agreement, or action binding upon the applicant or the Planning Board.

B. Subdivision

A Subdivision shall follow the requirements for a completed application as described in the following provisions.

C. Completed Application

A completed application sufficient to invoke jurisdiction of the Board must include sufficient information to allow the Board to proceed with consideration and to make an informed decision. The following shall be required for and constitute a completed application:

An application for subdivision approval properly filled out and executed by the applicant and filed with the Board in accordance with Subsection E. together with the following:

- i. The names and addresses of the applicant and all abutters as indicated in Town records not more than five (5) days before the day of filing;
- ii. A check payable to the Board to cover filing fees, mailing, advertising, recording and other costs; and
- iii. One digital and one 11" x 17" copy of the preliminary layout in accordance with and accompanied by the information required in Section 4.A.

D. Filing and Submission of Completed Application

1. The completed application shall be filed with Town Staff at least eighteen (18) days prior to a scheduled public meeting of the Board.
2. The completed application shall be formally submitted to and accepted by the Board only at a regularly scheduled public meeting after due notification to applicant, abutters, and the general public of the date the completed application will be submitted and received by the Board.

E. Board Action on Completed Application

1. The Board shall consider the completed application and hold a public hearing within thirty (30) days of its acceptance.
2. The Board will study the layout and shall take into consideration the general requirements of the community, the best use of the land to be subdivided and that of adjoining areas, and the general requirements for land subdivision in Section 5.
3. After such review and the public hearing, the Board shall communicate, in writing, to the subdivider the specific changes, if any, which it will require in the preliminary layout and request that the subdivider prepare a final plat as required in Section 4 with the changes incorporated. The Board may disapprove of the layout in its entirety, but shall state its reasons for such disapproval.
4. The Board shall act to approve or disapprove the final plat or completed application, subject to extension or waiver as provided by RSA 676:4. Any bond or performance guarantee shall have been developed and approved as described in Section 4.B2.
5. Subdivision plats are to be signed by two Board members, the Board's Chairman and Vice Chairman if they voted on the subdivision in question and are available for signing, or otherwise, other Board members who voted on the subdivision in question. Said endorsement shall include any restrictions to which subdivision approval is held subject by the Board. Town Staff shall transmit a copy to the Register of Deeds of Grafton County for recording. The subdivider shall be responsible for payment of all recording fees. In case of disapproval of any plat submitted, the grounds for such disapproval shall be adequately stated in the records of the Planning Board and written notice given to the applicant.
6. If the Board has not taken action to approve or disapprove the completed application within ninety (90) days of its acceptance and has not obtained an extension or waiver, the subdivider may obtain from the Selectmen an order directing the Planning Board to act within fifteen (15) days. Failure of the Board to act upon such order shall constitute grounds for the Superior Court, upon petition of the applicant; to issue an order approving the application if the court determines that

Amended July 2016

the proposed subdivision complies with existing subdivision regulations and zoning ordinances.

F. Public Hearing

Prior to approval of a subdivision, a public hearing shall be held as required by RSA 676:4(l) e. and notice to applicant and abutters and the public shall be given in accordance with Subsection H. The public hearing shall be held within thirty (30) days after submission of the completed application.

G. Notices

Notices of the submission of a plan for a completed application shall be given by the Board to the abutters and the applicant by certified mail, mailed at least ten (10) days prior to the submission, and to the public at the same time by posting in at least two public places in the Town or publication in a newspaper of general circulation. The notice shall give the date, time, and place of the Board meeting at which the application will be formally submitted to the Board, and shall include a general description of the proposal which is subject of the application or of the item to be considered and shall identify the applicant and location of the proposed subdivision. If the notice of public hearing has been included in the notice of submission or any prior notice, additional notice of the public hearing is not required, nor shall additional notice be required of an adjourned session of a hearing, proper notice if the date, time, and place of the adjourned session was made known at the prior hearing.

H. Fees

See appendix for prevailing fees.

Failure to pay a fee prior to hearing shall constitute an incomplete application.

The Board may require special investigative studies, environmental assessments, a legal review of documents, administrative expenses, and other matters necessary to make an informed decision. The cost of such studies and investigations shall be paid by the applicant prior to the approval or disapproval of the final plat.

SECTION 4. PLAN REQUIREMENTS

A. Layout

1. Proposed subdivision name, name and address of owner of record, subdivider and designer, tax map and lot number, date, north point, and scale.
2. Names and addresses of owners of record of abutting properties, abutting subdivision names, streets, easements, building lines, alleys, parks, and public open spaces and similar facts regarding abutting property.
3. Location of property lines and their approximate dimensions, existing easements, buildings, zoning district classification, water courses, ponds or standing water, rock ledges, and other essential features.
4. Existing water mains, sewers, culverts, drains and proposed connections or alternative means of providing water supply and disposal of sewerage and surface drainage.
5. Location, name and widths of existing and proposed streets and highways with their grades and profiles and the elevations of sufficient points on the property to indicate the general topography of the property.

Amended July 2016

6. Where the topography is such as to make difficult the inclusion of any facilities mentioned above within the public area so laid out, the preliminary layout shall show the boundaries of proposed permanent easements over and under private property. Such easements shall not be less than 20 feet in width and shall have satisfactory access to existing or proposed public ways.
7. Soil types.
8. Topography, with five-foot contour intervals.
9. Flood Hazard areas and all wetland areas.
10. Location of all parcels of land proposed to be dedicated to public use, and the conditions of such dedication, and a copy of such private deed restrictions as are intended to cover all or part of the tract.
11. Preliminary designs of any bridges or culverts that may be required.
12. Where the layout submitted covers only a part of the subdivider's entire holding, a sketch of the prospective future street system of the unsubmitted part shall be furnished and the street system of the submitted part will be considered in the light of adjustments and connections with the street system of the part not submitted.
13. Review of subdivisions by the Public Works Department, the Fire Department, the Police Department, the Water and Light Department, the School Board and others deemed necessary by the Planning Board.

B. Final Plat

1. The subdivider, after official notification by the Board with respect to any revisions of the preliminary plan shall file a final polyester plat and street profiles, if required, along with three paper copies and one digital copy. Sheet size shall be no larger than 22" x 34" and shall have a three-inch margin for binding on the left side of the plat. Adequate space shall be provided for the necessary endorsements. The scale shall not exceed 100 feet to the inch and shall show:
 - a. Proposed subdivision name or identifying title, the name and address of owner of record and subdivider, and the name, license number, seal and certification of the surveyor, date, scale, and north point;
 - b. Boundary survey including bearings, distances, and location of permanent markers (see B-#4);
 - c. Tax Map and lot number assigned by the Assessing department, lot lines, dimensions, acreage, and numbering;
 - d. Building setback lines;
 - e. Topography from field data at five-foot contour intervals, and at two (2) foot contour intervals when conditions warrant this information;
 - f. Existing and final proposed lines of streets, ways, lots, easements for utilities and/or drainage and public areas within the subdivision;
 - g. Sufficient data to determine the exact location, direction, and length of every street line, easement, lot line and boundary line and to reproduce these lines upon the ground. All dimensions shall be shown to hundredths of a foot and bearings to at least degrees, minutes and seconds. The error of closure shall exceed 1 to 10,000 for both raw traverse and plat closure;
 - h. Existing and proposed streets with names and right-of-way widths;
 - i. Final road cross-sections and profiles certified by a licensed Professional Engineer;
 - j. Final drainage system certified by a licensed Professional Engineer;
 - k. Location of soils, groundwater and percolation test pits;
 - l. Buildings and other man-made features to remain;
 - m. Open space;

Amended July 2016

- n. A time schedule indicating the anticipated starting and completion dates of the subdivision;
- o. The following certificates or statements shall be attached to the final plat when applicable:
 - A licensed surveyor's certification (see Appendix A);
 - Certificate or statement of approval from the Water and Light Department on the availability and installation of water and/or electricity in the proposed subdivision (see Appendix A);
 - Certificate or statement of approval of the sewerage disposal system by the Public Works Department in the proposed subdivision (when applicable) (see Appendix A);
 - Certificate or statement of approval of Road Construction Plan (when applicable) (see Appendix A);
 - Certificate or statement of approval of drainage provisions (when applicable) (see Appendix A);
 - Subdivision approval number by NH Department of Environmental Services, Water Supply and Pollution Control (when applicable);
 - Certificate or statement of accuracy by a licensed Professional Engineer as to the final drainage systems, final cross section and profiles of roads and water supply and sewage facilities (when applicable);
 - Wetland Certificate when applicable; and
 - Certificate of approval for recording by the Planning Board (see Appendix A).
- p. Deed restrictions, including drainage easements for each parcel, including, but not limited to, right-of-way and maintenance agreements (when applicable).

2. Performance Guarantee

As a condition of approval, the Planning Board shall require the subdivider to post a performance guarantee in an amount sufficient to cover the costs of the preparation and installation of streets, public utilities, the extension of public water and sewer lines - where available, the installation of storm drains, underdrains, monuments, erosion control, and other improvements to the public utility where reasonable or necessary. The amount of the guarantee shall be based on the estimate of costs provided by the subdivider and, at the discretion of the Planning Board, reviewed by a registered/licensed engineer. The cost of such a review shall be borne by the subdivider.

- a. This guarantee shall be approved as to form and sureties by the Board of Selectmen and the Town Counsel and conditioned on the completion of such improvements within two (2) years of the date of the performance guarantee. Said guarantee may be: (1) a surety bond, issued by a surety company authorized to do business in New Hampshire and filed with the Board in a manner and amount satisfactory to it, or (2) cash, letter of credit or other financial instruments endorsed to the Town and deposited with the Board.
- b. The amount of the performance guarantee shall include fees to cover the cost of periodic inspections.
- c. Where electric lines or other utilities are to be installed by a corporation or municipal department or public utility, a letter of intent shall be required stating that the work will be done in reasonable time and without expense to the Town.
- d. Each approved plat shall contain a time limit for the completion of streets and public improvements.
- e. The performance guarantee shall not be released until the Board of Selectmen have certified completion of the required improvements in accordance with approved

subdivision plans, and those deeds covering land to be used for public purposes, easements and right-of-ways, and rights-to-drain are submitted in a form satisfactory to Town Counsel. Ten (10) percent of the performance guarantee will be withheld by the Town to cover the cost of potential deficiencies for a period of one year from the date of completion or acceptance.

3. Offers of Cession

The Subdivider shall tender offers of cession in a form certified as satisfactory by the corporation counsel of all land included in streets, highways, or parks not specifically reserved by him; however, approval of the plat by the Board shall not constitute acceptance by the Town of dedication of any street, highway, park, or other public open space.

4. Monuments

A minimum of two concrete monuments (or other permanent monument system approved by the Planning Board) at least three (3) feet long and four inches in diameter or square and reinforced with steel rods shall be set at frontage corners. The top of the monuments shall identify the surveyor's registration number, which shall be embossed on the top of the monument and shall be set flush or up to six inches above the finished grade. All other lot corners shall be marked with solid steel rods or iron pipes not less than 5/8 inches in diameter and at least thirty-six (36) inches long and driven so as to be flush or up to six inches above the finished grade.

C. Lot Line Adjustment or Boundary Line Agreement

1. The final plat shall be submitted in permanent black ink on a film and three blue or black line paper prints. Sheet size shall be in accordance with requirements of the Register of Deeds but no larger than 22"X 34". Space shall be reserved on the plat for the endorsement by all appropriate agencies.
2. The final plat shall identify itself as a "lot line adjustment" or "boundary line agreement" and shall contain the following statement:

"The subdivision regulations of the Town of Littleton, New Hampshire are a part of this plat, and approval of this plat is contingent on completion of all requirements of said subdivision regulations, excepting only any variances or modifications made in writing by the Board and attached hereto."
3. The final plat shall be based on an "on the ground" boundary survey with a minimum error of closure of 1 in 10,000 certified by a registered licensed land surveyor in the State of New Hampshire. The subdivision's boundary and survey shall be referenced to the nearest USGS survey elevation benchmark (when applicable).
4. The plat shall contain the following information:
 - a. Names of all owners of lands involved and corresponding map and lot numbers;
 - b. Names of all abutters (as indicated in town records not more than 5 days before the day of filing);
 - c. Existing buildings, streets, right-of-ways, streams and easements;
 - d. Lot areas and dimensions;
 - e. Building setback lines;
 - f. Natural features in the vicinity of the affected land;
 - g. Name, address and seal of surveyor; and
 - h. A small locational map indicating parcels in relation to major streets and intersections, the tax sheet and parcel numbers and the zoning district.

D. ADDITIONAL BUILDING SITE

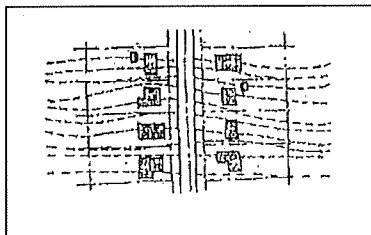
RSA 672:14 – SEE APPENDIX A (MEETS ALL OTHER SUBDIVISION CRITERIA).

SECTION 5. STANDARDS

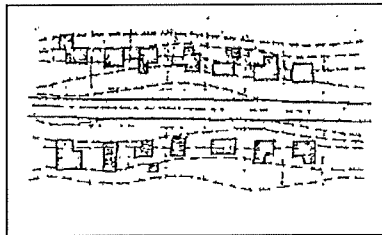
A. GENERAL

1. Lots should be laid out reasonably in relation to topography and conform to zoning, sanitation and other appropriate requirements.

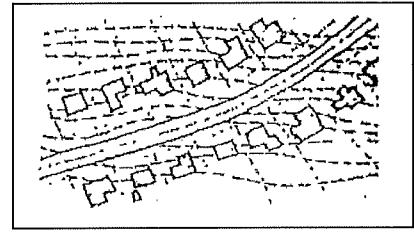
Streets and Topography



Poor – street running perpendicular to and slope creates excessive grades



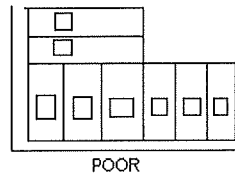
Poor – lots on one side higher than others.
Retaining walls may be needed.



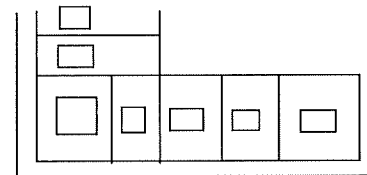
Good – Avoids excessive grades
costly retaining walls.

Lot Design

Residential corner lots should have an adequate width for building setbacks.

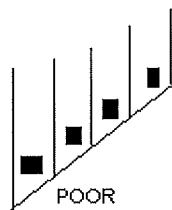


POOR

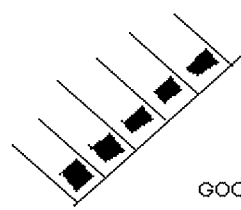


GOOD

Lot lines should be perpendicular to the street line -- radial on curved streets.

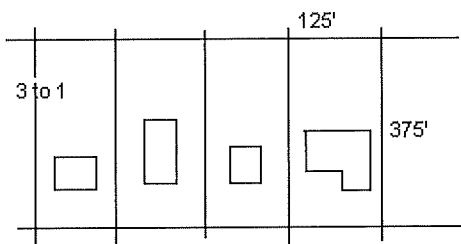


POOR



GOOD

2. Land of such character that it cannot be safely used for building purposes because of exceptional danger to health or peril from fire, flood, excessive slopes or other menace shall not be platted for residential occupancy, nor for such other uses as may endanger health, life, or property, or aggravate the flood hazard, until appropriate measures have been taken by the owner or his agent to lessen such hazards.
3. Scattered or premature subdivision of land as would involve danger or injury to health, safety, or property by reason of the lack of water supply, drainage, transportation, schools, fire department or other public services, or necessitate an excessive expenditure of public funds for the supply of such services shall not be approved.
4. The Board may require the installation or construction of any of the following improvements in the subdivision, if warranted by the needs of the subdivision, its location and proximity to public services, and the character of the land and the neighborhood: roads, water supply, sewage disposal, storm drainage, solid waste disposal, parks or open space or recreation facilities, fire protection facilities, street signs, sidewalks.
5. If the Board determines that the proposed subdivision will adversely affect existing off-site public facilities such as highways, sidewalks, drainage, sewer, and water so as to be inadequate to meet the additional needs created by the proposed subdivision, then the subdivider shall pay for such upgrading of the public facilities, but only to the extent necessitated by the subdivision. If other properties would also benefit from the upgrading of such off-site improvements, then the Board shall determine the amount to be paid by the subdivider, taking into consideration the following:
 - a. Character of the area;
 - b. Extent that other public and private property will be benefitted by the upgrading; and
 - c. Any other factor that the Board deems appropriate to establish a rational connection to the needs created by subdivision and the amount to be paid by the subdivider.
6. Pavement and drainage facilities, curbs and sidewalks, when required, shall be installed in accordance with the standard specifications of the Town of Littleton.
7. Unless special circumstances are evident, the relation of the depth of any single family lot to its width shall not be greater than three (3) to one (1).



APPROXIMATELY 3 TIMES THE WIDTH

8. Any natural drainageways and their easements shall be so incorporated that no flooding will occur and all storm water can be disposed of properly.
9. The Board shall indicate any requirements imposed upon the subdivider to preserve and protect the existing features, trees, scenic views, brooks, streams, rock out-croppings, water bodies,

Amended July 2016

stone walls, boundary markers, other natural resources and historic landmarks.

10. The Planning Board may require redesign of a subdivision when concerns of public health, safety and welfare are involved. In particular, when these concerns relate to drainage, soil conditions, topography, wetlands and utility easements.
11. Manufactured Housing Parks, Cluster Housing Developments and Planned Unit Developments are also subject to these regulations and are provided for in the Littleton Zoning Ordinance.

B. Utilities

All subdivisions shall make adequate provisions for water supply, storm water and sanitary sewage disposal, and required utilities and improvements. If existing public water and/or sewer lines are within a reasonable distance of a proposed subdivision, then in the sole judgement of the Board, the Board may require the extension of public water and sewers to and within a proposed subdivision, without cost to the Town.

1. Installation of Laterals - The subdivider shall install laterals from all utilities (water & sewer) in the street right-of-way to 5 feet inside the property line of each building lot within the subdivision.
2. Water Supply - In areas not currently served by water, the subdivider shall provide information to prove that each lot is able to supply an adequate amount of water acceptable for domestic use.
3. Sewage Disposal - In areas not currently served by public sewer, the subdivider shall provide information to prove that the area of each lot is adequate to permit the installation and operation of an individual septic system. This shall consist of the WSPCC subdivision application and approval on less than 5 acres and the report of the Town's Health Officer.
4. Utilities - Utility poles, hydrants, telephone stands, and other like, above-ground utilities must be placed at the edge of the road easement right-of-way. The intent of this regulation is to keep utilities well away from the traveled surface.

C. Sediment and Erosion Control

The purpose of this section is to control soil erosion and the resulting sedimentation from occurring in subdivision areas by requiring proper provisions for water disposal and the protection of soil surfaces during and after construction in order to promote the public health, safety, convenience and general welfare of the community.

The following standards shall be observed by the subdivider in the design, layout and engineering of the proposed subdivision in both the Preliminary Layout (Section 4.A.) and the Final Plat (Section 4.B.)

1. Stripping of vegetation, regrading, or other development shall be done in such a way that will minimize soil erosion.
2. Whenever practical, natural vegetation shall be retained, protected, and supplemented.
3. The disturbed area shall be kept to a minimum and the duration of exposure shall be under a maximum of 6 months. In no case shall completed areas be left past October 1 without being seeded.
4. Temporary seedings and/or mulching shall be used to protect exposed critical areas during development.
5. Provisions shall be made to accommodate the increased runoff caused by changed soil and surface conditions during and after development.

6. Sediment in the runoff water shall be trapped until the disturbed area is stabilized by the use of sediment basins or other acceptable methods.
7. Diversions, sediment basins, and so forth, shall be constructed prior to any on-site grading or disturbance of existing surface vegetation.

D. Open Space and Recreation

Areas set aside for parks and playgrounds to be dedicated or to be reserved for the common use of all property owners by covenant in the deed, whether or not required by the Board, shall be of reasonable size and character for neighborhood playgrounds or other recreational uses. Park areas may be required in large subdivisions.

E. Special Flood Hazard Areas

For subdivisions and site plans that involve land designated as "Special Flood Hazard Areas" (SFHA) by the National Flood Insurance Program (NFIP):

- A. The Planning Board shall review the proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State Law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- B. The Planning Board shall require that all proposals for development greater than 50 lots or 5 acres, whichever is lesser, include Base Flood Elevation (BFE) data within such proposals (i.e. floodplain boundary and 100-year flood elevation).
- C. The Planning Board shall require the applicant to submit sufficient evidence (construction drawings, grading and land treatment plans) so as to allow a determination that:
 - i. All such ;proposals are consistent with the need to minimize flood damage;
 - ii. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage; and
 - iii. Adequate drainage is provided so as to reduce exposure to flood hazards.

F. ROAD STANDARDS

SEE APPENDIX C

SECTION 6. ADMINISTRATION AND ENFORCEMENT

A. Administration

1. The Littleton Planning Board (or its duly-authorized agent) shall administer these Regulations.
2. Applications for subdivision approval shall be in the form specified by the Planning Board (see Section 4).
3. The Littleton Planning Board herein designates the Town Planner or other staff member to receive applications and to notify applicants if, in their judgment, an application does not contain all information the Planning Board will require to determine that the application is complete.

Amended July 2016

B. Approval Period

When the Planning Board's approval of an application is contingent on any conditions precedent, the applicant has six (6) months from the date of the Board's conditional approval to meet the conditions and notify the Board. A conditional approval shall lapse and become null and void if conditions precedent are not timely completed.

When the Planning Office receives notification that conditions precedent have been completed, the application will be brought before the Planning Board at a subsequent meeting. If the Board finds the conditions have been met satisfactorily, the Board will vote to grant final approval and the designated Board members will sign the plat and have it recorded at the Grafton County Registry of Deeds.

If at the end of the six (6) month period, the Board finds that the conditions have not been satisfactorily completed, the approval shall be considered null and void. The Board may grant an additional period of time for compliance with the conditions precedent where, upon written request of the applicant, the Board finds that the delay in compliance was due to conditions beyond the control of the applicant.

C. Acceptance of Streets

Any new street within a subdivision will not be considered for acceptance by the Town until such time as all improvements have been completed as shown on the Final Plat, in accordance with these Regulations and Town Road Construction Specifications and subject to any conditions established by the Planning Board at the time of approval of the Final Plat. The Town shall be under no obligation to accept the dedication of any street or public land, and approval of a subdivision shall not be deemed to constitute or result in an acceptance thereof.

D. Modification of Regulations

The Planning Board may grant a waiver of specific provisions of these Subdivision Regulations when, in the opinion of the Board, (1) strict conformity would pose an unnecessary hardship to the applicant and the waiver would not be contrary to the spirit of the intent of the regulations, or (2) specific circumstances relative to the subdivision, or conditions of the land in such a subdivision, indicate that the waiver will properly carry out the spirit and intent of the regulations. The Board must also find that granting the waiver will not adversely affect the public convenience, safety, health, and welfare. The Planning Board may set higher requirements for the waiver with respect to any of the standards if conditions, in the opinion of the Board, warrant such action.

E. Penalties for Transferring Lots in Unapproved Subdivisions

An owner, or agent of the owner, of any land located within a subdivision, who transfers or sells any land within the subdivision before a subdivision plat has been approved by the Planning Board and recorded at the Grafton County Register of Deeds shall pay a civil penalty of five hundred (\$500) dollars for each lot or parcel transferred or sold. The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the transaction from such penalties. In an action to recover the penalties, the Town may recover the civil penalties as well as reasonable court costs and attorney's fees.

F. Conflict With Other Regulations

Where a provision of these Regulations is found to be in conflict with a provision of any other ordinance, regulations, code, or covenant in effect in the Town of Littleton, the provision which is

the more restrictive shall prevail.

G. Amendment

These regulations may be amended or rescinded by the Planning Board, but only following a public hearing on the proposed change. The Chairman or Vice Chairman of the Planning Board shall transmit a record of any changes so authorized to the Littleton town Clerk.

H. Separability

The invalidation of any section, sub-section, paragraph, sentence, clause, phrase, or word of these regulations shall in no way affect the validity of any other section, sub-section, sentence, clause, phrase, or word of these Regulations.

I. Appeal

An applicant may appeal the decision of the Littleton Planning Board to the Superior Court or the Littleton Board of Adjustment, if applicable.

APPENDIX A

The following samples shall be the basis of the certification statements required in these regulations:

FORM 1. SURVEYOR'S CERTIFICATION

"I hereby certify that this (subdivision plan, boundary line adjustment or site plan) was prepared by me or under my direction. This survey was made on the ground and accurately represents the parcels shown hereon. Reference was made to the deeds and to existing monumentation found at the site."

Seal, number and signature of surveyor

FORM 2. CERTIFICATION FROM THE WATER AND LIGHT DEPARTMENT

"I hereby certify that the (water supply and/or electric supply) is available and that the proposed installation and the surety provided therefore in _____ (name if subdivision/site plan) fully meets with the requirements of the Littleton Water and Light Department and are hereby approved as shown."

Date: _____ Signed: _____
Superintendent
Littleton Water & Light Dept.

FORM 3. CERTIFICATE FROM THE PUBLIC WORKS DEPARTMENT

"I hereby certify that the public sewerage disposal system is available and that the proposed installation and the surety provided therefore in _____ (name of subdivision/site plan) fully meets with the Littleton Public Works Department are hereby approved as shown."

Date: _____ Signed: _____
Superintendent
Littleton Public Works Dept.

FORM 4. CERTIFICATE ON ROAD CONSTRUCTION

"I hereby certify that the streets proposed for installation and the surety provided therefore in _____ (name of subdivision/site plan) fully meet the requirements of the Town of Littleton and are hereby approved as shown."

Date: _____ Signed: _____
Highway Superintendent
Town Engineer or designee

Amended July 2016

FORM 5. CERTIFICATE ON DRAINAGE PROVISIONS

"I hereby certify that the drainage provisions as shown and that the appropriate surety provided for _____ (name of subdivision/site plan) meets the requirements of the Town of Littleton."

Date: _____

Signed: _____
Chairman

Vice Chairman

FORM 6. CERTIFICATE OF APPROVAL FOR RECORDING

"Pursuant to the Subdivision Regulations of the Town of Littleton, New Hampshire, and all requirements of approval having been fulfilled, this Final Plat was given final approval by the Littleton Planning Board on _____, 20____." Planning Board case number PB-_____.

Signed: _____
Chairman

Vice Chair

FORM 7. CERTIFICATE OF APPROVAL

"In accordance with RSA 672:14, this plan illustrates two or more sites for the purpose of building development, including this plan's recording as the approved plan.
PLAN APPROVAL DOES NOT SUBDIVIDE THIS PARCEL OR CREATE ADDITIONAL LOTS."


Date: _____

Signed: _____
Chairman

Vice Chairman

APPENDIX B

PREVAILING FEES

Subdivision (Includes subdivision for additional sites) @ \$50.00	0.00
Lot Line Adjustment @ \$50.00	0.00
New Mobile Home Park @ \$50.00	0.00
Subsequent decision letters @ cost per PO	0.00
Certified letters, applicant and abutters @ cost per PO	0.00
Follow-up letters, applicant and abutters @ cost per PO	0.00
Newspaper Notice @ \$50.00	50.00
Recording Fees @ current cost	0.00
Merger @ current cost	0.00
TOTAL	

Fees must be paid prior to hearing

Appendix A - updated 3-16-2010

APPENDIX C

ROAD SPECIFICATIONS

Amended July 2016

Standards for New Roads

Town of Littleton

Purposes and Acknowledgements

These model standards provide New Hampshire cities and towns with a set of recommendations for inclusion in their regulations governing new roads. Nearly all are technical, quantitative requirements that will ensure long lasting roads. That is, if a city or town accepts a road constructed according to these standards, it will assume responsibility for a safe, properly designed and constructed road.

Municipal officials should regard these as minimum technical standards for new roads in their subdivision regulations. Moreover, they should exceed them whenever considerations of safety or cost effectiveness warrant. Conversely, specific situations, such as topography and other physical factors, might require a one-time exception to these standards. Municipal officials should approve an exception only after considering all factors, and based on an engineering study where appropriate.

Two attachments are included in these model standards. Table I, "Roadway Geometric Design Standards," provides minimum standards by classification as defined in section 2 below. Figure 1 and its accompanying table, entitled "Geometric Cross Section Design Elements," provides minimum standards for various ranges of average daily traffic (ADT). Both should be included in documents that make these standards official policy.

In the text below, "roads" means roads, streets, and highways. A separate "Definitions" handout suggests usage and terms definitions for subdivision regulations. Consistent with those definitions, "Board" is used below to mean the Town Board of Selectmen.

Numbers in parentheses refer to sources in the **References** section, which should also be included in policy documents. "*State Specification*" refers to the NHDOT's "*Standard Specifications for Road and Bridge Construction*" (5). "*State Plans*" refers to NHDOT's "*Standard Plans for Road and Bridge Construction*" (6).

Text of Recommended Technical Standards

1. **GENERAL STREET PLAN.** Approval of the general development street plan is required before construction of any phase of the plan. The street plan shall conform to References (1), (3), and (6) except as described below. Any other variation shall be justified by engineering judgment and approved by the Board.
2. **PERMITS.** Owners, builders, contractors, and subcontractors shall comply with all federal and state construction and environmental permits.
3. **STREET LAYOUT.**
 - **General.** All subdivisions shall have adequate provision for a safe and suitable access to a Class V or better road, or shall make provisions for the construction and dedication of a Class V or better road, to obtain safe and suitable access to the subdivision. Where the

Board determines an existing access street to be substandard, it may require the upgrading of said street. Where traffic from a proposed subdivision will adversely impact a nearby street or intersection, provisions shall be made for the mitigation of said impacts. Proposed streets shall be of suitable location, width, grade, and improvement to accommodate prospective traffic and afford satisfactory access to police, fire fighting, emergency equipment, snow removal, sanitation, and road maintenance equipment. The arrangement and character of all streets in a subdivision shall conform to any and all other Town regulations, and shall compose a safe and convenient system in relation to other existing and planned streets, to topographic conditions, and to the proposed uses of land to be served by the street. Existing stone walls shall be retained where possible or relocated and restored as required by the Board.

- **Access.** No subdivision shall be approved unless the property to be subdivided shall have access from an existing Class V or better road. Each lot shall have a safe, independent and direct access from a Class V or better road. Where warranted, the Board may require that a driveway be shared by two (2) lots. All portions of such a drive which are commonly shared shall be improved to facilitate two (2)-way traffic flow beyond Town right-of-way. Rights of passage over and across such driveway shall be established by easement for each of the lots so served and recorded with the plat plan, or

Corresponds in its location and lines with:

- (1) A street shown on the official map; or
- (2) A street on a subdivision plat approved by the planning board; or
- (3) A street on a street plat made by and adopted by the planning board; or
- (4) A street located and accepted by the local legislative body of the municipality, after submission to the planning board, and, in case of the planning board's disapproval, by the favorable vote required in RSA 674:40; or
- (c) Is a class VI highway, provided that:
 - (1) The local governing body after review and comment by the planning board has voted to authorize the issuance of building permits for the erection of buildings on said class VI highway or a portion thereof; and
 - (2) The municipality neither assumes responsibility for maintenance of said class VI highway nor liability for any damages resulting from the use thereof; and
 - (3) Prior to the issuance of a building permit, the applicant shall produce evidence that notice of the limits of municipal responsibility and liability has been recorded in the county registry of deeds; or
- (d) Is a private road, provided that:
 - (1) The local governing body, after review and comment by the planning board, has voted to authorize the issuance of building permits for the erection of buildings on said private road or portion thereof; and
 - (2) The municipality neither assumes responsibility for maintenance of said private roads nor liability for any damages resulting from the use thereof; and
 - (3) Prior to the issuance of a building permit, the applicant shall produce evidence that notice of the limits of municipal responsibility and liability has been recorded in the county registry of deeds for the lot for which the building permit is sought; or
- (e) Is an existing street constructed prior to the effective date of this subparagraph and is shown on a subdivision plat that was approved by the local governing body or zoning board of adjustment before the municipality authorized the planning board to

approve or disapprove subdivision plats in accordance with RSA 674:35, if one or more buildings have been erected on other lots on the same street.

- **Arrangement.** Streets shall be laid out so as to intersect at right angles as nearly as possible. No street shall intersect another at less than 60 degrees. Streets shall be continuous and in alignment with existing streets as much as possible. All streets shall be integrated with the existing and proposed street system. The Applicant shall provide for a hammer head at the end of all proposed roads for all phases and situations where thru streets are not provided in the design. Where extension of existing roadways is proposed, the existing turnaround shall be removed in its entirety.
- **Classification.**
 - a. Arterial Streets are intended to carry traffic from collector streets to the system of highways; that is, to move through traffic to and from major attracters.
 - b. Collector Streets carry traffic from local streets to the major system of arterial streets and highways. They are intended to collect and distribute traffic in minor traffic generating areas.
 - c. Local Streets provide primarily for access to abutting properties, They are designed and intended to carry through traffic.
 - d. Cul-de-sacs and Loop Streets have only one point of access from an approved street that has multiple points of access.
 - e. Private Streets are on property held under private ownership and are not maintained by the Town.
- 4. **DEAD-END STREETS.** Streets designed to be permanent, dead-end streets shall be shorter than 1,000 feet, and shall be provided with a hammer head with dimensions of a minimum of 25' in width, 35' in length. Snow Storage Area to be approved by Public Works Director or Designee.
- 5. **STREET NAMES.** All streets shall be named to comply with the provisions of the "Enhanced 911 System" (RSA 106-H:2 and RSA 106-H:10), and shall be subject to the approval of the Board.
- 6. **TRAFFIC AND STREET SIGNS.** The location and type of sign to be installed shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).
- 7. **STREET LIGHT.** Street lights shall be provided if required by the Board.
- 8. **GUARDRAIL.** Guardrail shall be used in locations where the New Hampshire Department of Transportation's typical warrant for guardrail is met and/or as required by the Board. Guardrail shall be metal beam on wood posts, meeting *State Specification* 606 and, as applicable, *State Plans* GR-1 through GR-8. All guardrail installation must end safely using a MELT-type terminal unit. FLEAT or ELT-type units may be permitted by the Road Department.
- 9. **RIGHT-OF-WAY.** The minimum width of right-of-way shall be 50 feet. A greater width may be required to construct roads and ditches of the widths as described in Figure 1. The Board may require greater right-of-way width where, in its judgment, the width is warranted due to present or future demands. Slope easements may be required when the Superintendent of Public Works determines it necessary.

10. **HIGHWAY RIGHT-OF-WAY BOUNDS.** Highway bounds, of a type approved by the Board, shall be installed at each point of curvature (PC), point of tangent (PT), and changes in property at all intersection of streets, at all points of change in direction and at any other points the Board may deem necessary to designate the street lines.

- **Type**

- a. Stone or Concrete Bounds shall be of concrete or stone, not less than thirty-six (36) inches in length, not less than four (4) inches square or five (5) inches in diameter, and marked on top with a cross, brass plug, iron rod, or other durable material securely imbedded.
- b. Iron Pipes shall be at least thirty-six (36) inches long and seven-eighths (7/8) inch in diameter or square.

- **Location**

- a. Bound Locations. The external boundaries, rights-of-way lines, block corners, etc. of a subdivision shall be monumented on the field by bounds. These bounds shall be placed not more than 1,400 feet apart in any straight line and at all corners, at each end of all curves, at the point a curve changes its radius, at all angle points in any line, said points to be not less than twenty (20) feet from the bank of any river or stream.
- b. Iron Pipe Locations. The lines of all lots and any other points not monumented by bounds shall be monumented by iron pipes. Those iron pipes located along rivers and streams shall be located along the meander line.
- c. GPS. All boundaries are to be GPS'ed & provide to the Town of Littleton mapping system.

- **Placement.** Bounds shall be set flush with finished grade. No permanent bounds shall be set until all construction which would disturb or destroy the monuments is completed. All bounds shall be set under the direction of a registered professional engineer or a registered land surveyor.

11. **ALIGNMENT AND GRADES.** Table 1 provides minimums for curves, grades, and other geometry.

- **Exception.** Where, in the opinion of the Board, and where it has been demonstrated to the satisfaction of the Board by the Applicant, that adherence to the maximum grade specified in Table 1 will cause local streets to be constructed in what the Board considers to be excessive cuts or fills, a waiver from the above specified maximum grade may be granted, provided:
 - a. The maximum allowable grade be twelve percent (12%);
 - b. The maximum length of such grade, measured between vertical points of intersection (PVI) is five-hundred (500) feet;
 - c. No other such slope greater than six percent (6%) occurs within five-hundred (500) feet measured along the centerline of the road from PVIs.
 - d. Slope easements required for slopes more than 2 to 1.
 - e. Slope easements may be required when the Superintendent of Public Works determines it necessary.

12. **CONSTRUCTION SUPERVISION.** Applicants shall ensure that roadways, drainage facilities, sidewalks, curbs and all other elements of the highway are constructed under the supervision of and with the approval of the Board of Selectmen, or its designated

representatives. If the [city/town] chooses to provide independent construction testing and inspection, the following applies.

- Whenever a proposed subdivision will involve road construction, the installation of drainage structures, or other required improvements, the costs incurred by the Town in having the required improvements inspected shall be borne by the applicant. Prior to receiving final approval of a subdivision involving required improvements, the applicant shall deposit with the Treasurer of the [city/town] a sum as estimated by the Selectmen or their designated agent. The amount deposited under this section shall be held in a special escrow account by the Treasurer for the purpose of paying the Selectmen or their designated agent to perform the necessary inspections and construction observations.
- Whenever the actual amount required to make necessary inspections exceeds the amount deposited under this section, such amount in excess of the deposited amount shall be paid to the Treasurer prior to the final acceptance of the improvements and prior to the release of any bond money deposited. See Section 7.00 of these regulations for bond and construction requirements.
- Any amount deposited under this section and not used for the purposes stated herein shall be returned to the applicant upon final acceptance of the required improvements. Escrow amounts shall be returned to the Owner.

13. **CLEARING AND GRUBBING.** The entire area of each roadway shall be cleared and grubbed of all stumps, brush, roots, boulders, like materials and all trees not intended for preservation, and shall not be used for fill or buried on site. Clearing and grubbing shall conform to Section 201 of the *State Specifications*.
14. **SUBGRADE PREPARATION.** All loam, humus, soft clay, and other yielding material shall be removed from within the limits of the roadway area to a depth of no less than twenty-four (24) inches below subgrade grade and/or to a depth that may be required by the Town Engineer. Ledge occurring anywhere in the full cross-section of the roadway must be cleared to a minimum depth of twenty-four (24) inches below the finished surface. Ledge occurring in pipe trenches must be cleared so as to have a gravel cushion of at least one (1) foot below and on both sides of the pipe.
15. **STORM DRAINAGE.** The proposed development shall provide for proper surface drainage so that removal of surface waters will not adversely affect any neighboring properties or the public storm water system and will help reduce flooding, erosion, and sedimentation. When necessary a hydrologist's study will be required. The drainage system shall be designed so that the post-development runoff rate does not exceed the pre-development runoff rate. Surface water runoff shall be controlled and directed in a system of catch basins, pipes, swales, drainage ways, culverts, or channels to a natural watercourse or existing drainage facilities. Where a subdivision is traversed by a watercourse, drainage way, channel, or stream, there shall be provided an easement conforming to the lines of such watercourse. When a proposed drainage system will result in water encroaching on land outside a subdivision, appropriate drainage rights must be secured and indicated on the plan. Where the Board of Selectmen determines that the existing downstream, offsite drainage system is substandard, the Planning Board may require the Applicant to improve the drainage system. Whenever required, longitudinal storm drainage systems will be provided. Construction shall

be in accordance with *State Specifications* Sections 603, 604 and 605, and *State Plans* Standards DR-1, DR-2, DR-3, DR-4, and DR-5.

- Design Computations. A drainage study/stormwater management report shall be submitted for review and shall include:
 - a. A table of contents;
 - b. A narrative statement indicating how the Applicant has met the requirements of Section 7 and describing the methodology and results of the analyses;
 - c. A summary table comparing existing and post-development rates of runoff for each individual drainage basin/watershed to abutting properties. All watersheds and drainage areas shall be consistently labeled in the tables, calculations and plans;
 - d. A summary table of each pipe indicating project location, pipe size, type, length, slope, Manning's "n" value, peak discharge, depth of flow, and peak velocity for the design storm. The summary table shall also include hydraulic grade line (HGL) elevations at each location in closed conduit piping systems;
 - e. A summary table of each swale and channel indicating project location, cross-section/channel width, slope, Manning's "n" value, peak discharge, depth of flow, and peak velocity for the design storm;
 - f. The project location and watershed area shown on USGS quadrangle as a figure in the report;
 - g. A watershed area plan for the existing condition showing topography and existing ground elevations at two (2)-foot contour interval for the project site. The plan shall clearly show the boundary of each drainage area and subarea with identifying label and size indicated in acres.
 - h. A watershed area plan for post-development conditions showing existing and proposed topography at two (2) -foot contour intervals for the project site. The plan shall clearly show the boundary of each drainage area and subarea with identifying label and size indicated in acres. The post-development area shall be shown on a separate plan from the existing condition;
 - i. Runoff calculations shall be completed for the existing and post-development conditions using Soil Conservation Services (SCS) methods as described in the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire for the appropriate design storms as required by the regulations;
 - j. Flood routing calculations shall be provided for the design of each detention pond using acceptable methods such as Modified Plus, Storage Indication, or as may be approved by the Town Engineer. In addition to the design storm, a fifty (50)-year storm analysis shall be conducted to establish the fifty (50)- year elevation at the detention basin. A minimum of twelve (12) inches of free board shall be provided above the fifty (50)-year storm to the minimum elevation of embankment at the detention basin;
 - k. Water quality treatment facilities shall be designed to New Hampshire Department of Environmental Services standards and are in addition to the requirements if these regulations;
 - l. Riprap design calculations shall be provided to the requirements of the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing

- Areas in New Hampshire for each pipe outfall location and where necessary for open channels and swales; and
- m. The report shall be stamped by a licensed professional engineer in the State of New Hampshire.
- Hydraulic Grade Line (HGL).
 - a. Closed Conduit: Closed conduit systems shall be designed to convey the appropriate design storm required by the regulations under gravity flow conditions with no more than full flow pipe conditions;
 - b. Open Channels and Swales: For open channels and swales, the HGL shall be shown for the appropriate design storm required by the regulations; and
 - c. Detention Basins/Ponds: The HGL shall be shown for the fifty (50)-year flood event.
 - Flow Computations. Flow computations shall be in accordance with the following:
 - a. Manning's formula shall be used to compute capacities for all open channels, swales, and closed piping drainage systems; and
 - b. The capacity of cross culverts shall be computed in accordance with Manual on Drainage Design for Highways – New Hampshire Department of Transportation.
 - Design Runoff. The rainfall frequency to be used for calculations shall be as follows:
 - a. Residential Areas: 10 years;
 - b. Commercial Areas: 25 years;
 - c. Industrial Areas: 25 years; and
 - d. Flood Protection Works: 50 years
 - Placement of Drain Lines All off-site drain lines shall be placed within right-of-way dedicated for public street unless use of easements is specifically approved by the Board.
 - Pipe Size, Velocity and Type.
 - a. Minimum allowable pipe diameter in any storm drain system shall be fifteen (15) inches;
 - b. The minimum design velocity in pipes shall be two (2) feet per second and the maximum velocity shall be ten (10) feet per second;
 - c. The minimum depth of cover for storm drain lines shall be thirty-six (36) inches from the top of pipe to finished grade.
 - d. Bedding shall be three-quarter (3/4)-inch crushed stone. Bedding shall be a minimum six (6)-inch depth in earth and twelve (12)-inch depth in ledge; and
 - e. Acceptable pipe material as recommended and approved by the Town Engineer and Planning Board.
 - f. Maximum length between drain manholes shall be three hundred (300) feet.
 - Drainage Structures. Manholes and other drainage structures shall be pre-cast concrete meeting H-20 loading and constructed and installed in accordance with New Hampshire Department of Transportation Standards and Specifications for Road and Bridge Construction. Drainage structures shall not exceed eighteen (18) feet in depth (rim to bottom of structure). Outlet structure at detention basins, when necessary, shall be submitted for approval.
 - Driveway Culverts. The location, length, size, bedding and backfill of all driveway culverts shall be approved through the driveway permit system prior to construction.

Driveway culverts shall be located a minimum of eight (8) feet off edge of roadway pavement. Driveways and driveway culverts and related items shall be designed and approved and incorporated in the subdivision plan.

16. **CURBS.** The Board **may** require roadways be curbed on both sides and drained appropriately. Construction shall be in accordance with *State Specifications* Section 609, and *State Plans* Standards CR-1 and CR-2 and approved by the Superintendent of Public Works or his designee.
17. **SIDEWALKS.** The Board may require construction of sidewalks for pedestrian access to schools, parks, shopping areas and transit stops or where population density and/or traffic volume conditions are such that the Board determines the construction of sidewalks to be prudent. In commercial and industrial districts, sidewalks may be required on both sides of the street. In residential districts, sidewalks may be required on one side of the street. Sidewalks shall be a minimum of 5 feet wide (minimum), no closer than 22 feet to the street centerline, and constructed with granite curb, 6 inches thick gravel (*State Specification* 304.2, except maximum size shall be 2 inches), 3 inches crushed gravel (*State Specification* 304.3), and 3 inches of asphalt pavement (*State Specification* 608). Curb shall be set in Portland Cement Concrete. Curb ramps and sidewalks shall be constructed to comply with reference (2).
18. **Pathways.** The Board may require construction of pathways for pedestrian access to access roads and/or sidewalks or pathways. There shall be a section between the pathway and the road of at least 5 feet in width. Construction shall be as follows: A minimum of 5 feet wide, 6 inches thick gravel (*State Specification* 304.2, except maximum size shall be 2 inches), 3 inches crushed gravel (*State Specification* 304.3), and 3 inches of ledge-pack. It is to be understood that pathways will not be maintained in the winter by the Public Works Department. All pathways are to be approved by the Superintendent of Public works or his designee.
19. **DRIVEWAYS.** Driveway width for commercial and industrial subdivisions shall be in accordance with the [city/town] Zoning Ordinance. Maximum driveway width for residential single family and duplex lots shall be determined as approved per the Driveway Permit System.
 - When a proposed driveway is located on a Town road, the Applicant is responsible for certifying the proper sight distance is provided at the location indicated on the plans. For all residential driveways located on the lot serving a single family or duplex lot, the minimum proper all season sight distance shall be two-hundred fifty (250) feet in all directions and consistent with the latest version of AASHTO. For all other driveways (common, commercial, industrial, multi-family, etc.), the minimum all season sight distance shall be three-hundred sixty-five (365) feet in all directions meeting the requirements for roadway intersections and consistent with the latest version of AASHTO. Proper visibility easements shall be provided to meet the sight distance requirements. The Applicant is responsible for obtaining a driveway permit from the [city/town] Road Department prior to the issuance of a building permit; and
 - When a proposed driveway is located on a State road, the Applicant is responsible for obtaining the necessary approval and permits from the State. A copy of the permit shall

also be submitted to the [city/town] and the New Hampshire Department of Transportation approval number shall be shown on the plan;.

20. **BASE COURSE.** The road base course shall be of materials, and at least the widths and thicknesses, indicated in Figure 1. Crushed gravel shall conform to Pay Item 304.3 in *State Specification* Section 304. Gravel shall conform to Pay Item 304.2 in *State Specification* Section 304, except that the maximum size stones shall be 3 inches. All other provisions of *State Specification* Section 304 are part of these standards.
21. **ASPHALT SURFACE.** Where designated in Figure 1, “Asph. Surf. Treated” surfaces shall be a two-layer Bituminous Surface Treatment in accordance with *State Specification* Section 410. “Hot Mix” surfaces shall be Hot Bituminous Pavement in accordance with *State Specification* Section 403. Widths and thicknesses shall be at least as indicated in Figure 1. At least a 44 feet wide pavement is required in areas where on-street parking is expected on both sides of the travel way. Angle parking is not allowed.
22. **GRAVEL SURFACE.** In cases of very low traffic volumes, defined herein as up to 50 vehicles per day,) where the Board determines an asphalt surface is not required, the total usable roadway width shall be a minimum of 22 feet. Provision for a wider section should be considered to allow for future upgrading to an asphalt surface as recommended above. The gravel wearing course shall conform to *State Specification* 304.2, except that the maximum size stones shall be $\frac{3}{4}$ inches. All other provisions of *State Specification* Section 304 are part of these standards. The first 150 feet is to be paved off of the access road
23. **GRAVEL SHOULDERS.** Gravel shoulders, and their base courses, shall be at least the depths, widths, and thicknesses indicated in Figure 1. Gravel shall conform to *State Specification* 304.33. All other provisions of *State Specification* Section 304 are part of these standards.
24. **BRIDGES.** Bridges, as defined by State Law (RSA 234:2), are structures of 10.0 feet or greater clear span, and shall be designed to MS-18 (HS-20) loading (AASHTO Specifications). The minimum roadway width shall be 24 feet. Bridges shall be designed by a professional engineer, and constructed in accordance with that design.
25. **ENVIRONMENTAL IMPACTS AND PERMITS.** The Applicant shall be responsible for determining the applicability of any and all environmental regulations that apply to this project, for acquiring the necessary permits, for taking whatever action is necessary to comply with applicable regulations and permits, and, if necessary, for terminating the necessary permits. The applicable work could include, but not be limited to,
 - Any fill, dredge, excavation, etc that impacts wetlands or other jurisdictional areas;
 - All temporary and permanent measures and treatment devices necessary to prevent erosion and control sediment during and after construction;
 - Any construction activity proposed to disturb one (1) or more acre of land as defined by US EPA NPDES permits
 - Any disturbance of more than 100,000 square feet of terrain (50,000 sq. feet. if within the protected shoreland) as defined by NHDES rules for a “Site Specific” permit.

26. **UTILITIES.** Utility poles should be kept close to the right-of-way line, in no case closer than the ditch back slope and always well back of a curb. Water and sewer mains should be constructed outside the surface area, and preferably outside the ditch line.
27. **SAFETY.** Safety is an important factor on all roadway improvements. On development roads it may not be possible or practical to obtain obstacle-free roadsides but every effort should be made to provide clear areas within the maintenance limits. The use of flatter slopes, the use of guardrail where necessary, and the use of warnings signs are other safety factors to be considered. These areas are addressed in the publication *Roadside Design Guide* by AASHTO, 2002.

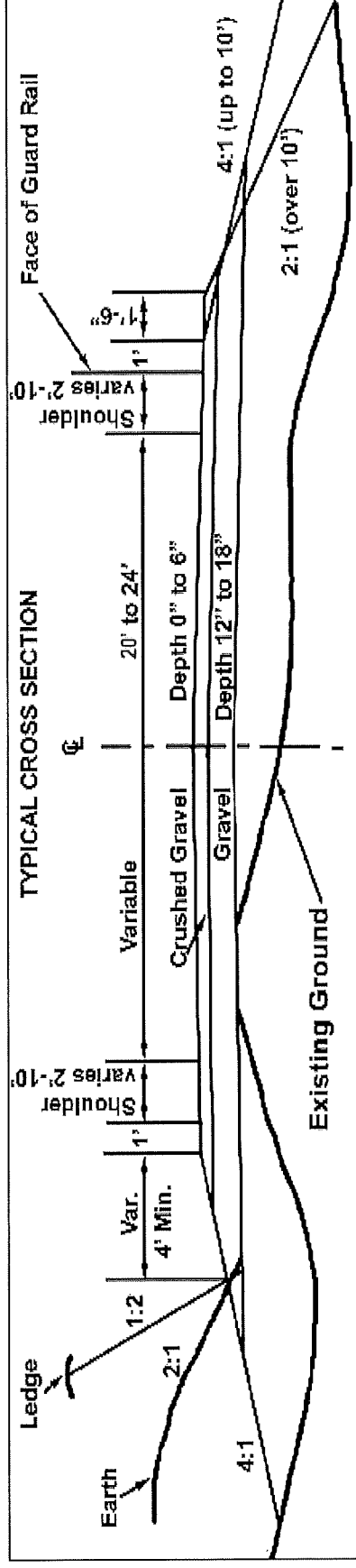
References

- (1) *A Policy on Geometric Design of Highways and Streets*. 2001 or later edition. AASHTO.
- (2) *Designing Sidewalks and Trails for Access, Part II of II: Best Practices Design Guide*.
- (3) *Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT<400)*. 2001 or later edition. AASHTO.
- (4) *Roadside Design Guide*. 2002 or later edition. AASHTO.
- (5) *Standard Specifications for Highway Bridges*. 17th Edition (2002) or later. AASHTO.
- (6) *Standard Plans for Road and Bridge Construction*. 2001 or later edition. NHDOT.
- (7) *Standard Specifications for Road and Bridge Construction*. 2002 or later edition. NHDOT.
- (8) *Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire*. 1992 or later edition. Rockingham County Conservation District.

TABLE 1
Roadway Geometric Design Standards

	Arterial	Collector	Local
Right-of-way width	80 feet	60 feet	50 feet
Traveled way width	24 feet	24 feet	20 feet
Shoulder width	10 feet	4 feet	2 feet
Minimum Grade	1%	1%	1%
Maximum Grade	12.0%	12.0%	12.0%
Maximum grade within 100 feet of intersections	2.0%	2.0%	2.0%
Minimum angle of intersection	75	75	75
Minimum centerline radii	600 feet	300 feet	200 feet
Intersection radii: Arterial to Collector to Local to	50 feet 50 feet 30 feet	50 feet 30 feet 30 feet	30 feet 30 feet 30 feet
Rate of super elevation (Use AASHTO Chart)	.08 feet	.08 feet	.04 feet
Rate of super elevation through intersection	.04 feet	.04 feet	.04 feet
Cross slope of pavement (minimum)	2%	2%	2%
Slope of shoulder (minimum)	5%	5%	5%

Figure 1
Geometric Cross Section Design Elements



Average Daily Traffic (vehicles/day)	0-50	50-200	200-750	750-1500	1500 & over
Pavement Width (feet)	18 (min.)	20	20	20	24
Shoulder Width (feet) (Note 1)	2	2	2	2	8-10
Center of Road to Ditch Line (feet)	15	16	18	19-21	Varies
Cross Slope of Roadway	4%	3%	2%	2%	2%
Wearing Surface Type (Note 2)	*Gravel or Hot Mix asphalt	Hot mix asphalt	Hot mix asphalt	Hot mix asphalt	Hot mix asphalt
Wearing Surface Thickness (inches)	Mix asphalt	Varies	1 1/2	2	2
Wearing Surface Specification (Note 3)	UNH T ² Handout	UNH T ² Handout or Type C	Type C	Type B	Type A
Pavement Base Thickness (inches)			3	3	4
Pavement Base Specification (Note 3)			Type F	Type E	Type D
Crushed Gravel Thickness (inches)	3	4	4	6	6
Crushed Gravel Specification (Note 4)	NHDOT 304.3	NHDOT 304.3	NHDOT 304.3	NHDOT 304.3	NHDOT 304.3
Gravel Thickness (inches) (Note 5)	12	12	12	12	18
Gravel Specification (Note 4)	NHDOT 304.3	NHDOT 304.3	NHDOT 304.3	NHDOT 304.3	NHDOT 304.3

Notes: 1. For average daily traffic over 1000 vehicles/day, paved shoulders should be considered.

2. Gravel surfaces should be paved where steep grades occur (over 6%).

3. "Type" is defined in Section 401 of NHDOT Standard Specifications for Road and Bridge Construction.

4. "NHDOT 304.3" is defined in Section 304 of NHDOT Standard Specifications for Road and Bridge Construction.

5. Gravel base course thickness should be increased in areas of poor soils.

6. * Gravel roads are approved by the Board if first 150 feet of road off of access road is paved.