

**SUBDIVISION
REGULATIONS**

TOWN OF WHITEFIELD

AS AMENDED:

03/07/1989

06/02/1992

03/09/1995

04/04/2012

***SUBDIVISION REGULATIONS
TOWN OF WHITEFIELD, NH***

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**SUBDIVISION REGULATIONS (AMENDED)
TOWN OF WHITEFIELD, N.H.**

EFFECTIVE DATE: _____

A. AUTHORITY AND PURPOSE

1. *Pursuant to the authority vested in the Whitefield Planning Board by the voters of the Town of Whitefield and in accordance with the provisions of New Hampshire RSA 674:35-36, as amended. The Whitefield Planning Board adopts the following regulations governing the subdivision of land in the Town of Whitefield, New Hampshire, which shall be administered by the Whitefield Planning Board.*

2. *The purpose of these regulations is:*
 - a. *To promote the development of an economically sound and stable community;*

 - b. *To avoid subdivision of land which would involve danger or injury to health, safety or prosperity in our community;*

 - c. *To avoid an excessive expenditure of public funds;*

 - d. *To provide fair and understand guidelines for subdivision which will enable the community to provide for safe and prosperous growth without imposing unfair burdens upon the individuals in our community.*

B. DEFINITIONS OF TERMS

1. **ABUTTER:** *Any person whose property is located in New Hampshire and adjoins or is directly across the street or stream from the land being considered for subdivision by the Planning Board. For purposes of receiving testimony only, and NOT for purposes of receiving 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.*

2. **EASEMENT (or right-of-way):** *A property right conveyed by the owner of a certain piece of land to one or more other people for the purpose of enabling said people to use a designated portion of owner's land either as a right-of-way for travel purposes or as an avenue for utility line, water line, drainage ditch or other facility to benefit the land of said people.*
3. **LOT:** *The word "lot" shall mean land occupied or to be occupied by a building with or without an accessory building and including such open spaces as are required by the Zoning Ordinance or the municipality, and having its principal frontage upon a public street or officially approved place. The word "lot" includes the word "plot" or "parcel".*
4. **STREET:** *A public way established or maintained under public authority, or a way dedicated to the use of the public and appearing on the official map of the municipality and having minimum right-of-way width of 50' 0".*
5. **PRIVATE ENTRANCE:** *Accesses only one lot which abuts a road.*
6. **DRIVEWAY:** *Accesses up to three lots.*
7. **PRIVATE ROAD:** *Accesses more than 3 lots.*
8. **SUBDIVIDER:** *An individual, firm, association, syndicate, partnership, corporation, trust, or any other legal entity, or agent thereof, that undertakes the activities governed by this ordinance. The term "subdivider" is intended to include the term "developer" and "builder".*
9. **SUBDIVISION:** *The division of a lot, tract, or parcel of land into two or more lots, plots, sites or other divisions of land for the purpose, whether immediate or future, of sale, rent, lease, condominium conveyance or building development. It includes re-subdivision and, when appropriate to the context, relates to the process of subdividing the land or territory subdivided. The division of a parcel of land held in common and subsequently divided in parts among several owners shall be deemed a subdivision under this chapter.*

C. GENERAL PROCEDURE

1. *Whenever any subdivision of land is proposed, before any construction, land clearing or building development is begun, before any permit for the erecting 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 Coos County, the subdivider or his authorized agent shall apply for and secure approval of such proposed subdivision in accordance with the following procedure.*

D. PRE-APPLICATION REVIEW

1. Preliminary Conceptual Consultation:

The applicant may appear at a regular meeting of the Planning Board to discuss a proposal in conceptual form and in general terms. Such consultation shall not bind either the applicant or the board and statements made by planning board members shall not be the basis for disqualifying said members or invalidating any action taken. The board and the applicant may discuss proposals in conceptual form only and in general terms such as desirability of types of development and proposals under the master plan. Such discussion may occur without the necessity of giving formal public notice.

2. Design Review:

The board may engage in non-binding discussions with the applicant which involve more specific design and engineering details; provided, however, that the design review phase may proceed only after identification of and notice to abutters and the general public.

The applicant may elect to forego or engage in pre-application review or either phase thereof. Pre-application review shall be separate and apart from formal consideration. Time limits shall not apply until formal application is submitted.

E. APPLICATION, NOTICE AND PUBLIC HEARING REQUIREMENTS

1. All applications for subdivision approval shall contain the following information in order to invoke jurisdiction of the Planning Board:

- i. The names and addresses of the applicants and all abutters.*
- ii. The name of the subdivision.*
- iii. The name of the licensed land surveyor who is preparing the subdivision plan.*
- iv. The approximate location of the property being subdivided.*
- v. The number of proposed lots.*
- vi. A statement explaining whether or not any of the proposed lots are under five (5) acres.*

- vii. *A statement explaining whether or not the proposed lots can presently be serviced by Town water and/or sewerage facilities.*
 - viii. *The name and address of any engineer being consulted other than the surveyor.*
 - ix. *The purpose of the subdivision and any development plans.*
 - x. *Signatures of owner or authorized representative and date.*
 - xi. *A statement of whether development plans include excavation of more than 100,000 square feet.*
 - xii. *A copy of any restrictive covenant to be used when conveying the proposed lots.*
 - xiii. *A completed checklist.*
 - xiv. *A soils overlay map may be required prior to final approval.*
2. *The completed application must be filed with the Planning Board or its designated agent at the latest, by noon of the fifteenth (15th) day prior to the Planning Board meeting at which the application will be considered for acceptance, said application to be accompanied by a check for all the applicable fees plus the cost of notification to abutters and newspaper notice. The applicant will also be responsible for all other necessary expenses.*
3. *No completed application may be denied or approved without a public hearing before the Planning Board during which said application shall be considered. Said public hearing shall be held within (30) days of the submission of the application to the Planning Board. Notice of the submission of a completed application for subdivision approval shall be given by the Planning Board to the applicant and the abutters by certified mail at least ten days prior to the date upon which the application will be formally submitted to and considered by the Planning Board at a public hearing. Notice of said public hearing shall be given at the same time to the general public by posting a copy of the notice to the applicant and abutters in two (2) public places within the town limits and by publishing a copy of said notice in a newspaper of general circulation in the area. These notice provisions shall also apply to any subsequent public hearing at which this application will be considered for approval. The notice shall include a general description of the proposed subdivision which shall include the identification of the land proposed for subdivision.*

4. *Abutters and other people with a direct interest in the matter may testify in person or in writing at any public hearing held by the Planning Board during which said matter is being considered. Other persons may testify on the matter at the hearing subject to the authority of the Chairman to limit testimony in case of excess or redundancy.*
5. *Public hearings need not be held under the following circumstances:*
 - a. *The applicant requests approval of minor lot adjustments or boundary line agreements which do not create additional lots, except that notice to abutters shall be given prior to approval of the application and any abutter may be heard on the application based upon request;*
 - b. *Disapprovals of applications based upon failure of the applicant to supply information to the Planning Board required herein, failure of the applicant to meet reasonable deadlines established by the Board or failure of the applicant to pay all fees or costs required herein.*
6. *The subdivider or his agent shall submit to the Planning Board a minimum of three copies of the subdivision plan at the first public hearing at which the subdivision is being considered for final approval.*
7. *In addition to the subdivision plan, the Board may require the subdivider or others to undertake studies where deemed necessary or desirable to protect the public convenience, safety, health and welfare. Such studies may include, but are not limited to, a drainage plan, sediment and erosion control plan, and a utilities plan or traffic study. All expenses for said studies to be borne exclusively by the applicant.*
8. *The final plan shall be accompanied by certification from authorized local officials and/or State agencies that the design of sewer and drainage facilities, street and utilities in the proposed subdivision conform to the requirements of all pertinent State and local codes and ordinances. The cost of certification and/or inspection shall be borne by the subdivider.*

F. SUBDIVISION PLAN REQUIREMENTS

1. *All subdivision plans or plats submitted to the Planning Board for approval shall be, when practical, on a standard sized sheet, any size allowed by State Law. Three paper copies must accompany the plat.*

2. *All plans shall be drawn legibly at no smaller scale than 400 feet to the inch, using either blue or black ink, unless otherwise directed by the Planning Board.*
3. *All plans shall include a location map showing the relationship of the proposed subdivision to adjacent properties and public access.*
4. *All plans shall include the following:*
 - a. *Name of subdivision, owner, engineer (if any) and licensed land surveyor and said surveyor's seal pursuant to RSA 310-A:67 II.*
 - b. *Graphic scale, date and north point.*
 - c. *Boundaries of entire tract of land being subdivided.*
 - d. *Indication of acreage as to all lots of subdivided tract, including the remainder of said tract not divided into lots, if any.*
 - e. *Existing zoning, if any.*
 - f. *Name, location, width, profile, cross-section, radius of curves, angles of change in direction and center line length and specifications on all existing and/or proposed streets, other public ways, private roads, building lines, driveways and easements in the subdivision. All street names shown for proposed street located in a subdivision shall be checked against local records to assure that none are duplicates or existing street names or so similar as to cause confusion.*
 - g. *Type, location, profile and cross-section of all existing and/or proposed surface water drainage.*
 - h. *Location of and specifications for all existing and/or proposed utilities – water, gas, electricity or sewer if connecting to a Town maintained utility.*
 - i. *Location of all existing and/or proposed sanitary sewers showing size, profile and cross-section; or description, plan, location of other means of sewage disposal with evidence of successful percolation tests and location of test pits.*
 - j. *Topography at five foot contour intervals, unless otherwise prescribed by the Board. In addition, the location of existing natural or man-made features including existing buildings and soils conditions influencing the layout of the proposed subdivision shall be shown.*

- k. *Lot lines and approximate dimensions.*
 - l. *Proposed public access, if any.*
 - m. *Existing and final proposed lines of streets, ways, lots, easements for utilities and/or drainage and public areas within the subdivision.*
 - n. *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.*
 - o. *Location of all permanent monuments existing and/or proposed.*
 - p. *A number to designate each lot.*
 - q. *The seal(s) of the registered architect, engineer, planner or other professional person responsible for preparation of the subdivision proposals.*
 - r. *The legend, source of data and location where further information on data may be obtained for soil mapping overlay if mapping is required by the Board.*
5. *All plans shall indicate that all corners and angle points of the subdivision boundaries and that all street intersections are marked by an iron pin or pipe having a diameter of at least one inch.*

G. MISCELLANEOUS REQUIREMENTS

- 1. *Any proposed subdivision shall be in conformity with the Whitefield Master Plan, in any, and with the provisions of all pertinent New Hampshire Statutes and case law and local ordinances.*
- 2. *Land designated for public use may not be subdivided for any other purpose.*
- 3. *Scattered or premature subdivision of land as would involve danger or injury to health, safety, or prosperity by reason of lack of water supply, drainage, transportation, school, fire department, or other public services, or that a lack of these facilities would be a hazard, or necessitate an excessive expenditure of public funds for the supply of such services shall not be approved by the Board.*

CAUSES: The following items shall be considered in determining whether the proposed subdivision is scattered or premature and the subdivider may be

required to have studies made under guidelines established by the Planning Board to determine the effect that the proposed subdivision may have on:

- a. Distance from nearest elementary school.*
 - b. Capacity of school system and effect on school bus transportation.*
 - c. Adequacy of access street(s) and/or sidewalks.*
 - d. Potential health problems due to on-site sewerage systems and for water supply.*
 - e. Adequacy of water supply for domestic and fire fighting purposes.*
 - f. Potential fire protection problems due to location and/or special conditions relative to type of use.*
 - g. Potential special policing problems.*
 - h. Potential drainage problems both on the site and downstream.*
 - i. Cause an excessive expenditure of public funds.*
 - j. Other potential problems within the meaning or the purpose of this section.*
- 4. Any proposed subdivision shall be so designed that every lot has access to a dedicated street or public right-of-way.*
 - 5. When a street, private road or driveway is proposed or an existing street or streets must be upgraded because of additional use due to a subdivision, the Board will require a statement of the work necessary in order to meet the minimum standards set herein, including cost estimates and the methods of meeting such cost. The subdivider may be required to make any necessary improvements at his expense. Additionally, a form of performance guarantee may be required.*
 - 6. Subdivisions having land designated as "Special Flood Hazard Area" by the Federal Insurance Administration (HUD) are subject to the following submission requirements:*
 - a. Sufficient evidence (construction drawings, grading and land treatment plans) shall be submitted so as to allow the Board to determine that:*

- (1) *All such proposals are consistent with the need to minimize flood damage.*
- (2) *All public utilities and facilities, such as sewer, gas, electrical, and water systems are located, elevated and constructed to minimize or eliminate flood damage.*
- (3) *Adequate drainage is provided so as to reduce exposure to flood hazards.*
- (4) *Permits for all proposed construction or other development in the community, including the placement of mobile homes, so that it may determine whether such construction or other development is proposed within flood-prone areas.*
- (5) *The review of proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal and State Law, including section 404 of the Federal Water Pollution Act Amendments of 1972, 33 U.S.C. 1344.*
- (6) *The review of all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements (including the placement of prefabricated buildings and mobile homes) shall*
 - (i) *be designated (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure.*
 - (ii) *be constructed with materials and utility equipment resistant to flood damage.*
 - (iii) *be constructed by methods and practices that minimize flood damage.*
- (7) *The review of subdivision proposals and other proposed new development to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposals is in a flood-prone area, any such proposal shall be reviewed to assure that*

- (i) *all such proposals are consistent with the need to minimize flood damage within the flood-prone area,*
- (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 to reduce exposure to flood hazards.*

(8) *Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems, and*

(9) *Require within flood-prone areas*

- (i) *new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters from*
- (ii) *onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.*

b. *Adequate design information shall also be submitted to the Board assuring that new or replacement water supply systems and/or sanitary sewerage systems are designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and that onsite waste disposal systems are located as to avoid impairment of them or contamination from them during flooding.*

7. *Land susceptible to flooding, and land not suitable for development because of soils characteristics which may also be hazardous to life, health or property shall not be accepted as part of a proposed subdivision, but may be used subject to approval by the Board and other pertinent authorities for open space purposes, public or otherwise.*
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 may require that a proposed subdivision design show respect for such features as trees, streams, topography and other natural assets.*
10. *As a condition of approval of the final plan, the Board may require that an area of open space be offered for dedication to the Town. The Board shall not require such dedication in excess of 15 percent of the total area of the subdivision without reasonable compensation, and if the Town does not take steps within a period of one year from the date of approval of the subdivision plat to acquire the portion of the open space in excess of said 15 percent, the subdivider may submit to the Board a plan for subdivision of such portion, provided such additional subdivision meets requirements of these subdivision regulations.*

In the case of cluster subdivision or planned unit development, open space shall have sufficient legal restriction recorded in the Town's land records to assure permanence of use as open space. Open space land in private ownership shall be deeded in such a way that will assure operation or maintenance of the land in an orderly manner suitable for the purpose intended.

11. *An iron pin or pipe shall be set at all corners and angle points of the subdivision boundaries, and at all street intersections. Said pins and/or pipes shall have a diameter of at least one inch, shall be at least one foot long and shall be located in the ground at final grade level.*
12. *Grades of all driveways/private roads/streets shall be reasonable minimum but shall not be less than 0.5% or more than 8% unless specifically approved by the Board.*
13. *All driveways/private road/street intersections and curves shall be so designated as to permit adequate visibility for both pedestrian and vehicular traffic. Curves in general shall have a minimum center line radius of 100 feet.*
14. *A dead-end street or cul-du-sac shall be provided with suitable turn around at the closed end. When a turning circle is used, it shall have a minimum outside radius of 60 feet.*
15. *All bridges shall be constructed in accordance with the standard specifications for bridge construction of the State of New Hampshire Dept. of Transportation, and any amendments or supplements thereto.*
16. *Driveways shall have a travel width of no less than 14 feet with 2 foot shoulders and shall have a gravel bed.*

17. *Private roads shall consist of 50 foot right-of-way, and shall conform to TRA specifications. Roads must be gravel to gravel or asphalt to asphalt.*
18. *If specifically required by the Planning Board, a public water supply system shall be installed at the expense of the subdivider, or, if in the opinion of the Board, service to each lot by public water supply system is not feasible, the Board may allow individual wells to be used, which shall likewise be installed at the expense of the subdivider.*
19. *Where a subdivision is traversed by a watercourse, drainageway or future sewer line, or where the Board feels that surface water drainage to be created by the subdivision should be controlled for the protection of the subdivision and land owners of the property abutting it, there shall be provided an easement or drainage right-of-way and culverts, catch basins or other means of channeling surface water within such subdivision and over the property of owners abutting upon it of such nature, width and location as the Board deems necessary.*
20. *The subdivider shall file with the Board an estimate of the cost of public improvements made necessary by his subdivision, if one is required. The subdivider shall file with the Board at the time of submission of the final plan a performance guarantee in an amount sufficient to defray the expenses of such needed improvements. This may be tendered in the form of a certified check payable to the municipality or a faithful performance bond running to the municipality and issued by a Surety Company acceptable to the municipality. The conditions and amount of such a certified check or performance bond shall be determined by the Planning Board or the municipality with the advice of the various municipal departments and agencies concerned.*

H. ADMINISTRATION

1. *The Planning Board shall begin formal consideration of the application within 30 days after submission of the completed application and shall act to approve or disapprove said application within 90 days after submission; provided that the Board may apply to the Whitefield Selectmen for an extension not to exceed an additional 90 days before acting to approve or disapprove. Upon failure of the Board to approve, disapprove or conditionally approved the application, the applicant may obtain from the selectmen an order directing the board to act within 15 days per RSA 676:4, I(c).*
2. *No application for subdivision approval shall be approved or disapproved by the Planning Board before a duly notified public hearing is held at which said application is considered for approval.*

3. *In case of disapproval of any plat submitted, the ground for such disapproval shall be adequately stated upon the records of the Planning Board and written notice given the applicant via certified mail, return receipt requested, within 48 hours.*
4. *No plans of a subdivision of land within the municipal boundaries of the municipality shall be hereafter filed or recorded in the Registry of Deeds until a Final Plan thereof shall have been approved by the Board, in accordance with all of the requirements, design standards and specifications set forth in this ordinance, and until such approval shall have been entered on such Final Plan by a legal majority of the Board. The recording of a plat without the approval required by these regulations is void.*
5. *The Board may recommend a maximum extension of twelve (12) months to the guaranteed performance period when the subdivider can demonstrate, to the satisfaction of the Board and other interested officials or agencies, good cause for such extension. Such recommendation for extension shall be referred to the Governing Body of the municipality for official action.*
6. *Before a subdivider may be released from any obligation required by his guaranteed performance, the Board will require certification from the various departments and agencies concerned to the effect that all improvements have been satisfactorily completed in accordance with all applicable standards, State and local codes and ordinances.*
7. *The approval of an application for subdivision approval shall be attested to by the signature of the chairman or acting chairman of the Planning Board on two copies of the Final Plan. The attestation shall also include the date of approval. One copy shall be recorded by the Planning Board in the Coos County Registry of Deeds.*
8. *The approval as indicated on said Final Plan shall not be deemed as an acceptance by the Town of Whitefield of the dedication of any street or other public ways on grounds that are indicated on said plan or are physically located on the subdivided tract of land which the Final Plan encompasses.*
9. *An appeal may be taken from the decision of the Planning Board to the Superior Court as provided in RSA 677:15 as amended.*
10. *A waiver of the strict application of the subdivision regulations may be permitted when, in the opinion of the Board, topography or other consideration warrants such variation provided that public convenience, safety, health and welfare will not be affected adversely.*

11. *The invalidity of any section, subsection, paragraph, sentence, clause, phrase, or word of these regulations shall not be held to invalidate any other section, subsection, paragraph, sentence, clause, phrase, or word of these regulations and to this end the provisions of these regulations are declared to be severable.*

12. *Any person who causes or allows anything to be physically done to or on his land or executes any document or causes or allows any plan to be recorded which would amount to a subdivision as defined herein without written approval by the Planning Board, as made evident by the recording of a copy of a subdivision plan relevant to said land which includes approval of the Planning Board indicated thereon, or any applicant who in person or through his agent gains subdivision approval because of one or more material misrepresentations of fact or who fails to comply with any of the regulations, shall be subject to a fine of up to \$500.00 for each above-defined action which would, on its own, amount to the creation of an unapproved subdivision. Furthermore, the Planning Board may request that the Town of Whitefield petition the Coos County Superior Court for injunctions and other equitable relief, whether it be to deem such unapproved actions legally void, to enjoin further unapproved actions by such person or to require that any such person take certain steps which would eliminate the conditions which created the unapproved subdivision or approved subdivision gained because of misrepresentation or unauthorized failure to comply with said regulations, if such person would not do so under his own volition after being so requested in writing by the Planning Board.*

I. EXCAVATIONS

1. Definitions:

- A. **"Earth"** means sand, gravel, rock, soil or construction aggregate produced by quarrying, crushing or any other mining activity or such other naturally-occurring unconsolidated materials that normally mask bedrock.

- B. **"Excavation"** means a land area which is used, or has been used, for the commercial taking of the earth, including all slopes.

- C. **"Dimension Stone"** means rock that is cut, shaped, or selected for use in blocks, slabs, or other construction units of specified shapes or sizes and used for external or interior parts of buildings, foundation, curbing, paving, flagging, bridges, revetments, or for other architectural or engineering purposes. Dimension stone includes quarry blocks from which sections of

dimension stone are to be produced. Dimension stone does not include earth as defined in RSA 155-E:1 I.

2. Permit Required:

No owner shall permit any excavation of earth on his premises without first obtaining a permit therefore, except:

- a. Excavation that is incidental to the lawful construction or alteration of a building or structure or the lawful construction or alteration of a parking lot or way including a driveway on a portion of the premises where removal occurs.*
- b. Excavation that is incidental to agricultural or silvacultural activities, normal landscaping or minor topographical adjustment.*
- c. Excavation from an area contiguous to or from contiguous land in common ownership with, stationary manufacturing and processing plants in operation as of the effective date of this chapter which use earth obtained from such areas.*
- d. Excavation from a granite quarry for the purpose of producing dimension stone.*
- e. Excavation performed exclusively for the lawful construction, reconstruction or maintenance of a class I, II, III, IV, or V highway by a unit of government having jurisdiction for the highway or an agent of the unit of government which has a contract for the construction, reconstruction or maintenance of the highway provided that a copy of the pit agreement executed by the owner, the agent and the government unit shall be filed with and accepted by the Planning Board prior to the start of excavation but such excavation shall not be exempt from the provisions of this regulation.*
- f. A person owning land abutting a site which was taken by eminent domain or by any other governmental taking upon which construction is taking place may stockpile earth at a later date after written notification to the Planning Board.*

3. Application for permit:

Any owner or owner's designee subject to this chapter shall, prior to excavation of his land, apply to the Planning Board for a permit for excavation. The applicant shall also send a copy of the application to the

Conservation Commission of the town. Such application shall be signed and dated by the applicant and shall contain at least the following information:

- a. The name and address of the owner of the land to be excavated, the person who will actually do the excavating and all abutters to the premises on which the excavation is proposed;*
- b. A sketch and description of the location and boundaries of the proposed excavation, the number of acres to be involved in the project and the town in which the project lies;*
- c. A sketch and description of the access and visual barriers to public highways to be utilized in the proposed excavation;*
- d. The breadth, depth and slope of the proposed excavation and the estimated duration of the project;*
- e. The elevation of the highest annual average ground water table within or next to the proposed excavation;*
- f. A plan for the restoration of the area affected by the excavation at least in compliance with RSA 155-E:5, including a timetable thereof as to fully depleted sites within the excavation area during said project; and*
- g. Such other information as the Planning Board may reasonably require.*

4. Prohibited Projects:

The Planning Board shall not grant a permit:

- a. Where an excavation is proposed below road level within 50 feet of any highway right-of-way unless such excavation is for the purpose of said highway;*
- b. For excavation within 50 feet of the boundary of a disapproving abutter or within 10 feet of the boundary of an approving abutter unless approval is requested by said abutter;*

- c. *When excavation is not permitted by zoning or other applicable ordinance;*
- d. *When the issuance of the permit would be unduly hazardous or injurious to the public welfare;*
- e. *Where existing visual barriers in the areas specified in RSA 155-E:3, III would be removed , except to provide access to the excavation.;*
- f. *Where the excavation would substantially damage a known aquifer, so designated by the United States Geological Survey;*
- g. *When excavation is planned beneath or adjacent to inland surface waters in such a manner that a permit is required from the Water Supply and Pollution Control Commission, the Water Resources Board, the special board on the dredge and fill or other state or federal agencies with jurisdiction over the premises; but the Planning Board may approve the application when all the necessary permits have been obtained; or*
- h. *Where the project cannot comply with the restoration provisions of RSA 155-E:5.*

5. Restoration:

Within 12 months after the expiration date in the permit therefor or the completion of the excavation, which ever first occurs, the owner of the excavated land shall restore, or cause to be restored, the area affected by the excavation to meet each of the following minimum conditions:

- a. *Except for exposed rock ledge, said area shall be covered with vegetation suitable to prevent erosion and with soils suitable to sustain such vegetation.*
- b. *Debris resulting from the excavation shall be buried or removed;*
- c. *All slopes shall be graded to natural repose for the type of soil of which they are composed; and*
- d. *The elimination of any standing bodies of water created in the excavation project as may constitute a hazard to health*

and safety unless the Planning Board specifies different restoration.

6. Hearing:

Prior to the Planning Board approving an application for an excavation permit or an application for an amended excavation permit, a public hearing shall be held within 30 days on such application. A notice of said hearing shall be sent to all abutters and shall specify the grounds for the hearing as well as the date, time and place and at least 14 days notice of the time and place of such hearing shall be published in a paper of general circulation in the town and a legal notice thereof shall also be posted in at least 3 public places in town; the 14 days shall not include any Saturdays, Sundays and legal holidays within said period. Within 20 days of said hearing or any continuation thereof, the Planning Board shall render a decision approving or disapproving the application, giving reasons for disapproval.

7. Issuance of a Permit:

If the Planning Board after the public hearing approves the application for a permit and determines it is not prohibited by RSA 155-E:4 it shall, upon receipt of an excavation fee determined by the Planning Board, not to exceed \$50.00 and the posting of a bond or other such surety with the municipal treasurer in an account, as it requires, reasonably sufficient to guarantee compliance with the permit, grant a permit to the applicant for an excavation. A copy of the permit shall be prominently posted at the excavation site or the principal access thereto. A permit shall not be assignable or transferable without the prior written consent of the Planning Board. A permit shall specify the date upon which it expires. The Planning Board may include in a permit such reasonable conditions as are consistent with the purpose of this section including the provisions of visual barriers to the excavation.

J. CHANGES AND AMENDMENTS

These regulations may be amended, change, altered, added to, or rescinded from time to time whenever this action is deemed necessary or advisable by the Planning Board, but only following public hearing on the proposed amendments, change, alteration, addition, or rescission, and a statement, signed by the chairman or secretary of the Planning Board, indicating any variance thus authorized from such regulations as were previously filed, shall be transmitted to the Coos County Registry of Deeds.

Pursuant to RSA 674, the following amendment to the Subdivision Regulations was approved at a Public Hearing held on June 2, 1992;

SUBDIVISION HAVING LAND DESIGNATED AS "SPECIAL FLOOD HAZARD AREAS"

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 USC 1334.

The Board, or its designated agent, shall require that all subdivision proposals and other proposed new developments greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data.

Sufficient evidence (construction drawings, grading and land treatment plans) shall be submitted so as to allow determination that:

- (1) all such proposals are consistent with the need to minimize flood damage,*
- (2) all public utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damage, and*
- (3) adequate drainage is provided so as to reduce exposure to flood hazards.*

Pursuant to RSA 674, the following amendment to the Subdivision Regulations was approved at the Public Hearing held on March 9, 1995:

COPIES OF FINAL SUBDIVISION APPROVALS

Pursuant to RSA 485-A:29 I, the Planning Board shall submit one copy of such plans which receive final approval to the Division of Water Supply and Pollution Control for informational purposes within 30 days of granting such final approval.

Whitefield Planning Board Preface to the Recommended Technical Standards for New Subdivision Roads

The attached Recommended Technical Standards for New Subdivision Roads as prepared by the UNH Technology Transfer Center will ensure long lasting roads, which if constructed properly, will allow safe and reliable passage of emergency vehicles and road maintenance equipment under all weather conditions. All private subdivision roads constructed after October 10, 2007 shall comply with these standards. If at a future date the Town votes to accept a subdivision road built to these standards, then the Town can be assured that it will assume responsibility for a safe, properly designed, and constructed road. For the purposes of determining the proper roadway cross section to be built in Figure 1., the Planning Board and Applicant shall assume that there shall be 9.5 vehicles per day generated by each residential dwelling unit.

***Note- #10 under -Placement should read: ...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 land surveyor. (Omitting the direction of a registered professional engineer)*

Certified as a true copy to Town Clerk
by: Edin Betz, Chairperson,
Whitefield Planning Board.

Date of Acceptance: October 9, 2007.

Recommended Technical Standards for New Roads

UNH Technology Transfer Center

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 city/town Planning Board.

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 impact. 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 the Master Plan, and 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 stonewalls 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 frontage on and 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. Unless a driveway is shared, it must be located a minimum of fifteen (15) feet from any and all property lines.
 - **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 circular terminus 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 turn around having an inside road surface diameter of at least 100 feet.
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.
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.
- **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

b. In excessive cuts or fills, a waiver from the above specified maximum grade may be granted, provided:

- a. The maximum allowable grade be ten percent (10%);
- b. The maximum length of such grade, measured between vertical points of intersection (PVI) be 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.

12. **APPLICATION TECHNICAL REVIEW.** At a regularly scheduled meeting the Planning Board will review the application for completeness and determine its acceptability for further processing. The Board will determine the need for review and special investigative studies, and advise the applicant of the time and the need for financial support from the applicant. The Applicant shall pay those fees and charges, plus the costs of any required publications, costs of posting notices, and the cost of mailing notices of hearings. Failure to pay these costs, as specified, will be valid grounds for termination of consideration of the application.

13. **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 within 30 working days.

14. **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*.

15. **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.

16. **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. 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 Puls, 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 by the Epsom Road Department 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.

17. **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.

18. **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).

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 twelve (12) feet at the right-of-way with five (5)-foot radius at the edge of pavement of the street.

- When a proposed driveway is located on a Town road, the Applicant is responsible for certifying the proper sign 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 foot 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 1 1/4 inches. All other provisions of *State Specification* Section 304 are part of these standards.
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.

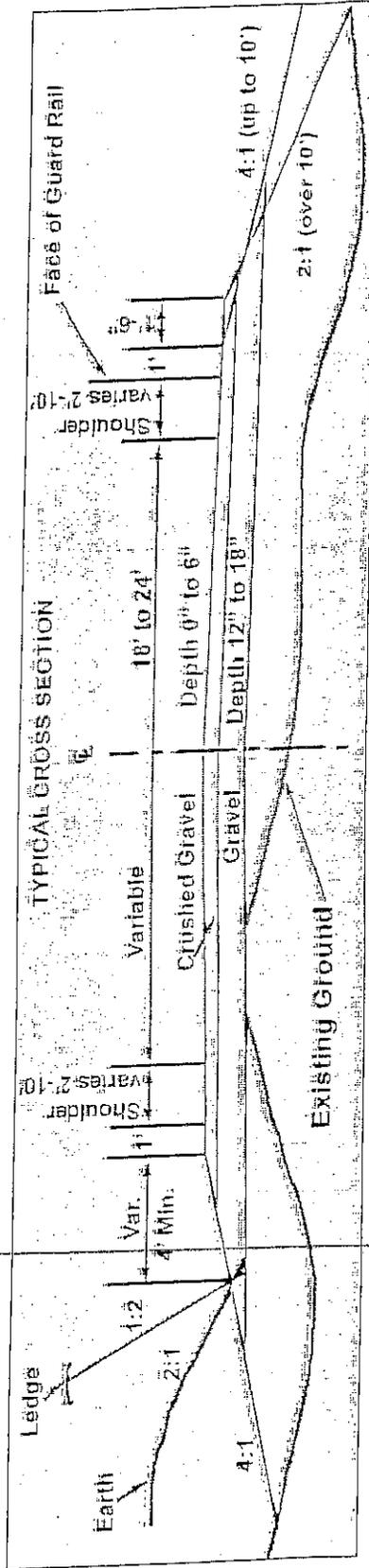
References

- (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	22 feet
Shoulder width	10 feet	4 feet	3 feet
Minimum Grade	1%	1%	1%
Maximum Grade	8.0%	8.0%	8.0%
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	50 feet	50 feet	30 feet
Collector to	50 feet	30 feet	30 feet
Local to	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



Parameter	0-50	50-200	200-750	750-1500	1500 & over
Average Daily Traffic (vehicles/day)	18 (min.)	20	20	22	24
Pavement Width (feet)	2	2	4	4	8-10
Shoulder Width (feet) (Note 1)	15	16	18	19-21	Varies
Center of Road to Ditch Line (feet)	4%	3%	2%	2%	2%
Cross Slope of Roadway	Gravel	Double chip seal or HMA	Hot mix asphalt	Hot mix asphalt	Hot mix asphalt
Wearing Surface Type (Note 2)	3	Varies	1 1/2	2	2
Wearing Surface Thickness (inches)	UNH T ² Handout	UNH T ² Handout	Type C	Type B	Type A
Wearing Surface Specification (Note 3)	or Type C				
Pavement Base Thickness (inches)	3	3	3	3	4
Pavement Base Specification (Note 3)		Type F	Type E	Type D	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.
 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.