

Commonwealth of Massachusetts

TOWN OF NORTHFIELD

REGULATIONS

FOR THE

SUBDIVISION OF LAND

FINAL, 11.17.2021

Effective Date of Subdivision Control Law in Northfield: April 25, 1973

Revised: November 12, 1992; Updated/Adopted: November 17, 2021

**SECTION 1
Authority and Purpose**

	Page
§ 1.1 Statutory Authority.-----	5
§ 1.2 Purpose. -----	5

**SECTION II
General**

§ 2.1 Definitions. -----	6
§ 2.2 Compliance of Rules with Subdivision Control Law.	9
§ 2.3 Unapproved Subdivision Prohibited. -----	10
§ 2.4 Compliance of Lots with Zoning By-law. -----	10

**SECTION III
General Regulations**

§ 3.1 Limit of one building or principal structure per lot. ---	10
§ 3.2 Plan believed not to require approval. -----	10
§ 3.3 Planning Board approval required for subdivision. ----	13
§ 3.4 Access Adequacy. -----	13

**SECTION IV
Procedure for Submission and Review of Plans**

§ 4.1 Pre-submission review. -----	14
§ 4.2 Preliminary Plan requirements. -----	14
§ 4.3 Definitive Plan. -----	16
§ 4.4 Subdivision standards in the Floodplain. -----	33

**SECTION V
Design Standards**

	Page
§ 5.1	Streets. ----- 34
§ 5.2	Easements. ----- 37
§ 5.3	Natural features. ----- 37
§ 5.4	Open spaces. ----- 37
§ 5.5	Drainage. ----- 38
§ 5.6	Sewerage. ----- 38
§ 5.7	Water. ----- 39
§ 5.8	Passive solar design. ----- 39

**SECTION VI
Required Improvements for Approved Subdivisions**

§ 6.1	Installation schedule. ----- 39
§ 6.2	Clearing and grubbing of right-of-way. ----- 39
§ 6.3	Foundation of roadway. ----- 40
§ 6.4	Surfacing of roadway. ----- 41
§ 6.5	Curbs. ----- 42
§ 6.6	Sidewalks. ----- 43
§ 6.7	Tree belts and trees. ----- 44
§ 6.8	Utilities. ----- 45
§ 6.9	Street signs. ----- 45
§ 6.10	Street-lighting. ----- 45
§ 6.11	Monuments and markers. ----- 45

	Page
§ 6.12 As-built plans. -----	46
§ 6.13 Final cleanup. -----	46
§ 6.14 Street acceptance. -----	46

**SECTION VII
Administration**

§ 7.1 Inspections. -----	47
§ 7.2 Permission required. -----	48
§ 7.3 Waiver of compliance. -----	48
§ 7.4 Outside Consultants and other expenses. -----	48
§ 7.5 Severability. -----	49
§ 7.6 Higher standard to govern. -----	49
§ 7.7 Statutory rules and regulations. -----	49

**APPENDIX A
Development Guidelines by Landscape Type**

**APPENDIX B
LID Site Planning and Design Checklist
Street Layout Strategies
Storm-water Management Strategies
Site Work Strategies**

SECTION I
Authority and Purpose

§ 1.1 Statutory authority.

Under the authority vested in the Planning Board (the “Board”) of the Town of Northfield by MGL C. 41 § 81- Q, as amended, and by all subsequent amendments thereto, said Board hereby adopts these rules and regulations governing the subdivision of land in the Town of Northfield, in accordance with the Subdivision Control Law, MGL C. 41 § 81-K to 81-GG.

§ 1.2 Purpose.

- A. These Subdivision Regulations for the Town of Northfield have been enacted for the purpose of protecting the environment and the rural and historical character of the town, and for the safety, convenience and welfare of the inhabitants of Northfield by regulating the laying out and construction of ways in subdivisions providing access to the several lots therein but which have not become public ways and by ensuring sanitary conditions in the subdivisions and, in proper cases, parks and open areas. The powers of the Planning Board and of the Board of Appeals under these regulations shall be exercised with due regard for:
- (1) The provision of adequate vehicular, pedestrian, and bicycle access to all of the lots in a subdivision by ways that will be safe and convenient for travel.
 - (2) Minimizing congestion in such ways and in the adjacent public ways.
 - (3) Reducing danger to life and limb in the operation of motor vehicles.
 - (4) Securing safety in the case of fire, flood, panic, and other emergencies.
 - (5) Ensuring compliance with the applicable Zoning Bylaws of the Town of Northfield. All subdivisions must fully comply with the Town of Northfield Zoning Bylaw.
 - (6) Mitigating the impact of new development on the environment by minimizing impervious surfaces, clearing of vegetation and grading, through the use of Low Impact Development (LID) site design and storm-water management practices.
 - (7) Securing adequate provision for water, sewerage, drainage, underground utility service, street lighting, police, fire and other requirements, where necessary, in a subdivision.
 - (8) Coordinating the ways in a subdivision with each other, with the public ways in the Town of Northfield and with the ways in neighboring subdivisions.

- (9) Ensuring consistency of the rural and historical character with the most current Town of Northfield Master Plan, Open Space and Recreation Plan, and any other relevant planning documents.

B. It is the intent of the Subdivision Control Law that any subdivision plan filed with the Planning Board shall receive the approval of said Board if said plan conforms to the Subdivision Control Law, the recommendations of the Board of Health, and to the rules and regulations of the Planning Board pertaining to subdivisions of land; provided, however, that such board may waive when appropriate, as provided for in MGL C. 41, § 81-R, such provisions of the rules and regulations as deemed advisable (MGL C. 41, § 81-M).

SECTION II General

§ 2.1 DEFINITIONS

In construing these Regulations, the definitions in Section 81-L of Chapter 41 of the General Laws shall apply (unless a contrary intention clearly appears). In addition, the following words shall have following meanings:

ABUTTER - Shall mean abutters and property owners of land directly opposite on any public or private street or way and abutters to the abutters within three hundred feet of the property line all as they appear on the most recent applicable tax list.

APPLICANT – The person or persons who apply for approval of a proposed subdivision plan. The “applicant” or “applicants” must be the owner or owners of all the land included in the proposed subdivision. An agent, representative or his assign may act for an owner, provided that written evidence of such fact is submitted. Evidence, in the form of a list of its officers and the designated authority to sign legal documents, shall be required for a corporation.

BASIC REQUIREMENTS - No person shall make a subdivision within the meaning of the Subdivision Control Law of any land within the Town or proceed with the improvement or sale of lots in a subdivision, or the construction of ways, or the installation of utilities and municipal services therein, unless and until a Definitive Plan of such subdivision has been submitted to and approved by the Planning Board as hereinafter provided, and subsequently recorded at the Franklin County Registry of Deeds and, in the case of registered land, with the recorder of the Land Court.

BUILDING - A dwelling, shed, garage or other structure, not to be interpreted as a sewer, water or other utility line. This definition should be consistent with that in the Zoning By-Laws.

COMMON DRIVEWAYS -. A private way providing access to two or more lots. Common driveways shall not provide frontage to lots and are prohibited in the Town of Northfield.

CONSULTANTS OR CONSULTING SERVICES - Includes, but is not limited to, architects, biologists and other environmental experts, chemists, engineers, geologists, landscape architects, planners, lawyers, sanitarians, surveyors, and archaeologists.

DEAD-END STREET – A street which joins another street at only one (1) end.

DEFINITIVE PLAN – A map of a proposed subdivision, acetate overlays, together with all other forms, documents, scale drawings, information, filing fees, and reimbursement payments required by these Regulations, submitted to the Planning Board for its approval.

EASEMENT - A right acquired by public authority to use or control property for a public utility or private entity or individual other designated purpose.

EMERGENCY ACCESS WAY - A public or private way for secondary emergency access that is not generally available for vehicular travel, with a minimum twenty (20) foot right-of-way, a minimum ten (10) foot wide paved or gravel surface, three (3) foot shoulders, and posts or gates installed at all entrances. Emergency access ways do not provide frontage.

ENGINEER – A Massachusetts registered professional engineer.

LOT – An area of land in ownership, with definite boundaries, used, or available for use, as the site of one (1) or more buildings or structures.

LOW IMPACT DEVELOPMENT - Low impact development (LID) is an approach to site design and storm-water management that seeks to maintain the natural features of a site, reduce impervious surfaces like roads and parking lots, and allow storm-water runoff to infiltrate the ground close to where it falls by using small, decentralized storm-water best management practices (BMPs). These techniques reduce soil erosion and sedimentation and the amount of pollutants that storm-water can pick up from lawns and road-ways, and helps to recharge groundwater levels. Examples include, but are not limited to: sensitive site design; narrower, shorter roads and driveways; vegetated swales and filter strips; rain gardens and bioretention areas; rainwater harvesting; street trees; preservation of mature trees and vegetation; and permeable or porous pavement.

RESTRICTIVE COVENANT – Contract between the Applicant and the Board or other public authority concerning the use of the land described on the Definitive Plan, or contained in a separate document referred to on the Definitive Plan

SINGLE ACCESS STREET - A cul-de-sac street, a dead-end street, or other street having only one terminus onto a through street and providing access to other cul-de-sac streets, dead-end streets, or streets forming a closed loop or circle.

STATE CONSTRUCTION STANDARDS, MASS. Dept. of Transportation
CONSTRUCTION STANDARDS These specifications are published by the

Massachusetts Department of Transportation. They are entitled Standard Specifications for Highways and Bridges, and include all supplements, updates, revisions or future editions covering substantially the same subject matter.

SUBDIVISION STREETS

- a. Major Street – a street which collects or may reasonably be expected to collect traffic from several secondary or minor streets, or which handles traffic equivalent to that generated by fifty (50) dwelling units or more, or which serves commercial or industrial abutting property in Northfield or abutting towns.
- b. Secondary Street – a street that carries traffic generated by fewer than fifty (50) dwelling units and no traffic serving commercial or industrial property in Northfield or abutting towns.
- c. Minor Street – a street that carries traffic generated by ten (10) or fewer dwelling units and no traffic serving non-residential abutting property.
- d. Dead End Street/Cul-de-Sac – a public or private vehicular right-of-way which affords the principal means of access to property and which joins another thoroughfare at only one end. Any such thoroughfare, which joins or intersects a dead end street/cul-de-sac, shall have adequate access from a Town, County or State public way adjacent to the subdivision.

SUBDIVISION

- A. The division of a tract of land into two (2) or more lots and shall include re-subdivision and, when appropriate to the context, shall relate to the process of subdivision of the land or territory subdivided; provided, however, that the division of a tract of land in two (2) or more lots shall not be deemed to constitute a “subdivision” within the meaning of the Subdivision Control Law if, at the time when it is made, every lot within the tract so divided has frontage on:
 - (1) A public way or a way which the clerk of a city or town certifies is maintained and used as a public way; or
 - (2) A way shown on a plan theretofore approved and endorsed in accordance with the Subdivision Control Law; or
 - (3) A way in existence on April 25, 1973, the date when the Subdivision Control Law became effective in the Town of Northfield, having, in the opinion of the Planning Board, sufficient width, suitable grades, and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby and for the installation of municipal services to serve such land and the buildings erected or to be erected thereon (see Section 3.2 C.).
- B. Such frontage shall be of at least such distance as is then required by zoning or other bylaw, if any, of the Town of Northfield, for the erection of a building or structures on such lot, and if no distance is so required, such frontage shall be of at least twenty feet. Conveyances or other instruments adding to, taking away from, or changing the size and shape of lots in such a manner as not to leave any lot so affected without the frontage above set forth, or the division of a tract of land in

which two (2) or more buildings were standing when the Subdivision Control Law went into effect in the Town of Northfield into separate lots on each of which one (1) of such buildings remains standing, shall not constitute a “subdivision.”

SURVEYOR - A registered professional land surveyor

WAY, PATH - A general term denoting a public or private way for purposes of public non-vehicular travel, including the entire area within the right-of-way. Such ways or paths do not provide frontage.

ZONING - he Town of Northfield Zoning Bylaw

§ 2.2 COMPLIANCE OF RULES WITH SUBDIVISION CONTROL LAW

These rules contain for the reader's convenience, either verbatim or in slightly modified form relevant statutory provisions of MGL Ch. 41, the Subdivision Control Law. These rules are intended to comply with the Subdivision Control Law and should be read to incorporate future changes in the Subdivision Control Law. However, many aspects of the subdivision of land are not completely covered by the Subdivision Control Law and these rules contain definitions, procedural requirements, and design standards that are intended to be specific to the Town of Northfield.

§ 2.3 UNAPPROVED SUBDIVISION PROHIBITED

No person shall make a subdivision within the meaning of the Subdivision Control Law of any land within the Town of Northfield, or proceed with the improvement or sale of lots in a subdivision, or the construction of streets and ways, or the installation of municipal services therein, unless and until a definitive plan of such subdivision has been submitted to and approved by the Board as hereinafter provided.

§ 2.4 COMPLIANCE OF LOTS WITH ZONING BY-LAW

All proposed lots within a subdivision shall comply with the Zoning By-Law of the Town of Northfield.

SECTION III General Regulations

§ 3.1 Limit of one building or principal structure per lot.

Not more than one (1) building, designed or available for use for dwelling purposes, or not more than (1) non-residential principal structure or facility shall be erected and placed or converted to use as such on any lot in the Town of Northfield unless more than one building or principal structure is specifically authorized by the Northfield Zoning Bylaws.

Such authorization may be conditional upon the provision of adequate access to each building or principal structure.

§ 3.2 Plan believed not to require approval. (ANR)

- A. Any person who wishes to record a plan of land at the Registry of Deeds or to file a plan of land with the Land Court and who believes that said plan does not require approval (“ANR Plan”) under the Subdivision Control Law shall submit said plan and application (use Form A) to the Town Clerk, accompanied by the necessary evidence to show that the plan does not require approval and *the filing fee of \$50.00 per lot*. One Mylar original, four (4) paper copies and a digital copy in PDF format of said plan shall be furnished to the Town Clerk. Said plan shall be prepared by an engineer or surveyor and shall describe the land to which the plan relates, sufficient for identification, and shall include the name and address of the owner(s) of the subject land. Plans submitted for a determination that approval under the Subdivision Control Law is not required, shall be delivered to the Town Clerk or shall be sent by registered mail to the Planning Board c/o the Town Clerk, postage prepaid. If so mailed, the date of receipt by the Town Clerk on behalf of the Planning Board, shall be the date of submission of the plan.
- B. A plan submitted under §3.2 shall be prepared in accordance with the applicable requirements of the Franklin County Registry of Deeds, and shall, at a minimum, show the following information:
- (1) The name(s) of the record owner(s) of the subject land, and the names of the owners of all adjacent land (abutters) as determined from the most recent tax records of the Town;
 - (2) The location of all existing buildings on the subject land;
 - (3) The location of all easements and rights of way located on or serving the subject land;
 - (4) The existing and proposed boundaries of the subject land and of each parcel and lot created or altered by the plan;
 - (5) The zoning classification of the subject land;
 - (6) A locus plan at a scale sufficient to show the subject land in relation to the nearest intersecting street(s);
 - (7) The locations, widths, and names of all abutting ways;
 - (8) A notation reading:

Endorsement of this ANR Plan does not certify that the lots shown on the Plan qualify as building lots under the Town of Northfield Zoning Bylaw.

C. Frontage on Ways In Existence - In determining whether an existing way or a way in existence prior to April 25, 1973, revised November 1992, when the Subdivision Control Law came into effect in Northfield, provides adequate frontage to qualify a plan as not a subdivision, the Board will consider the following:

- (1) Is the right-of-way at least 30 feet wide and of reasonable horizontal alignment?
- (2) Does the existing horizontal and vertical alignment of the roadway provide safe visibility?
- (3) Is the roadway at least sixteen (16) feet wide with an additional two (2) feet of shoulder on each side (20 feet wide in total) to provide space for snow removal?
- (4) Is the roadway constructed with at least 18" of gravel with adequate provisions for drainage?
- (5) If the road could ever service more than ten dwelling units, is it bituminous surfaced or have provisions been made for such surfacing without cost to the town?
- (6) Have provisions been made for public utilities without cost to the town?
- (7) Is the grade less than or equal to 8%?

The Board will not normally find a way in existence when the Subdivision Control Law became effective in Northfield to provide adequate frontage unless it meets all of the above standards, provided, however, that the Board may waive strict compliance with these standards upon its determination, following consultation with the Select Board, Highway Superintendent, Police Chief and Fire Chief, that the way will, in fact, be adequate to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby, and for installation of municipal services to serve such land and the buildings or structures erected or to be erected thereon.

D. Frontage on a Public Way - When the lots shown on a plan presented for endorsement under §3.2 are claimed to have frontage on a public way, the way must physically exist on the ground and must provide safe and viable access to the proposed lots. Additionally, the Planning Board may require documentation evidencing the layout and acceptance of the way as a public way.

E. Frontage on a Subdivision Way - A way shown on an approved subdivision plan will be considered as frontage for purposes of §81L only if either: (a) the way and any associated municipal services are fully constructed in accordance with the Planning Board's approval of such subdivision plan, or (b) such construction has been adequately secured in accordance with M.G.L. c. 41, §81U.

- F. Adequacy of Access - In addition to determining that all lots shown on a plan presented for endorsement under §3.2 have the required frontage on one of the three types of ways specified in M.G.L. c. 41, §81L, before endorsing a plan as “Planning Board approval under the Subdivision Control Law not required,” the Planning Board must also determine that each lot shown on the plan has practical and permanent access from the way upon which the lot fronts or another public way, in that there are no legal or physical impediments which prevent present adequate access to the lot. Such way must provide adequate access for emergency and public safety vehicles in terms of grade, width and road construction. Access to the lot should be through the frontage unless a Special Permit is granted by the Planning Board based on their determination that there is adequate access in terms of grade, width, and construction of the way to provide access for emergency and public safety vehicles.
- G. Time Limit – Pursuant to M.G.L. c. 41, §81P, if the Board fails to act upon a plan submitted under §3.2, or fails to notify the Town Clerk and the Applicant of its action within *twenty-one (21)* days after the plan submission, the Board shall be deemed to have determined that approval under the Subdivision Control Law is not required, and shall forthwith make such endorsement on the plan. If the Board fails to make such endorsement, the Town Clerk shall issue a certificate to the same effect.
- H. If the Board determines that the plan does not require approval, it shall forthwith, at a regularly scheduled Planning Board meeting and without a public hearing, endorse on the plan the words “Planning Board approval under the Subdivision Control Law not required.” The Board shall then sign said endorsement. Said plan shall then be returned to the applicant, and the Board shall notify the Town Clerk of its action. The Applicant shall provide the Board with two (2) copies of the endorsed print. In the event that there is not a regularly scheduled Planning Board meeting within the *twenty-one (21)* day time limit, the Chair of the Planning Board may schedule a Planning Board meeting to review the ANR plan at his or her discretion.
- I. If it deems necessary, the Planning Board shall have the plan reviewed by an Engineer before making a determination. The cost shall be borne by the Applicant (see Section 7.4).
- J. The Planning Board will notify the Applicant within 21 days of the submittal of an ANR Plan if it does not meet the requirements of this section and the reason for denying approval of the ANR Plan.

§ 3.3 Planning Board approval required for subdivision.

No person shall make a subdivision, within the meaning of the Subdivision Control Law, of any land within the town or proceed with the improvement or sale of lots in a subdivision or the construction of ways or the installation of municipal services therein unless and until a Definitive Plan of such subdivision has been submitted and approved by the Planning Board as hereinafter provided.

§ 3.4 Access Adequacy.

- A. General. Plans shall be endorsed as not requiring approval under the Subdivision Control Law, and subdivision plans shall be approved only if each building lot to be created by such plan has adequate access as intended under the Subdivision Control Law, MGL C. 41, § 81-K through 81-GG.
- B. Standards of Adequacy. Streets within a subdivision shall be considered to provide adequate access if, and only if, complying with all of the standards established in this regulation.
- C. Obligations. The Board may require as a condition of its approval of a subdivision plan, that the developer dedicate a strip of land for the purpose of widening access ways to a width as required above and that they either make physical improvements within such way or compensate the town for the cost of such improvements in order to meet the standards specified above.
- D. Ways Providing Access to Streets within a Subdivision. Ways providing access to streets within a subdivision shall normally be considered to provide adequate access only if they comply with all of the standards herein for subdivision streets including but not limited to: the right-of-way width; pavement width; maximum grade; foundation and surfacing materials, and sight distance requirements of this regulation. The Board may waive strict compliance with these access requirements only upon its determination, following consultation with the Select Board, Superintendent of Streets, Police Chief and Fire Chief, that the way will be sufficient to serve the access needs of the potential uses of land in the subdivision.

SECTION IV
Procedure for Submission and Review of Plans

§ 4.1 Pre-submission review.

Prior to investing in extensive professional design efforts for preliminary or definitive subdivision plans, it may be beneficial for the prospective Applicant to discuss his/her ideas with the Planning Board. It may be useful in avoiding problems at a later stage of the subdivision review process. Pencil sketches of the prospective subdivision will be helpful in the discussion.

§ 4.2 Preliminary Plan requirements.

- A. General. A Preliminary Plan of a residential subdivision may be submitted by the Applicant to the Planning Board and to the Board of Health for discussion and tentative approval, modification or disapproval by each board. However, in the case of a nonresidential subdivision, a Preliminary Plan must be filed. The submission of such a Preliminary Plan will enable the Applicant, the Planning Board, the Board of Health, and other municipal boards as appropriate to discuss and clarify the problems of such subdivision before a Definitive Plan is prepared.

Therefore, it is strongly recommended that a Preliminary Plan be filed in all cases. During the Preliminary Plan review, applicants should be prepared to discuss issues in a general way that will be addressed by the Environmental Impact Report that accompanies the Definitive Plan (see Section 4.3 E). A properly executed application Form B shall be filed with the Preliminary Plan submitted to the Planning Board.

B. Filing procedure.

- (1) Any person who submits a Preliminary Plan shall deliver such plan and shall give notice to the Town Clerk or shall send such plan by certified or registered mail to the Planning Board c/o the Town Clerk. Receipt of such plan stamped by the Town Clerk on behalf of the Planning Board, shall constitute the date of submission. Such plan shall be accompanied by the completed Form B and a *filing fee of three hundred dollars (\$300) plus seventy five dollars (\$75) per buildable lot* in the form of a certified check or money order made payable to the Town of Northfield. In addition, any person who submits a Preliminary Plan shall also submit the plan to the Board of Health at the same time (see 4.2.B (2)).
- (2) The Applicant shall file the original Preliminary Plan and four (4) copies with the Planning Board c/o the Town Clerk and two (2) copies with the Board of Health. Each copy submitted by the Applicant shall have a tag or form attached (see Form L) listing the Board or municipal official that should receive it. The original Preliminary Plan date stamped should be placed in the Planning Board files. The Planning Board or their staff shall distribute the hard copies of the Preliminary Plan to the Planning Board, Select Board, Fire Chief, and Highway Superintendent. The Applicant shall also submit an electronic PDF version of the Preliminary Plan to the Planning Board, transferred through a medium specified by the Board. The electronic PDF version of the Preliminary Plan will be distributed by the Planning Board or their staff to the Planning Board, Board of Health, Select Board, Conservation Commission, Fire Chief, Police Chief, Highway Superintendent, Building Commissioner, Water District, Sewer Commission, Superintendents of Schools, Historical Commission, and Agricultural Commission. The above Town officials shall, within thirty (30) days after the filing of the plan, report in what respects, if any, the proposed subdivision streets and improvements could fail to comply with the standards for design, layout, and construction by the Town, could fail to support adequate public services such as fire protection, wastewater treatment or public water supply, or could present other development concerns.

C. Contents. The Preliminary Plan shall be drawn at a scale of one (1) inch to forty (40) feet on a sheet of paper twenty-four by thirty-six (24 x 36) inches. The plan shall include the following:

- (1) The subdivision name, boundaries, true North arrow, date, scale, legend and title "Preliminary Plan."

- (2) The names and addresses of the owners of record, the Applicant and the engineer or surveyor. The seal and certificate number of the engineer or surveyor shall appear on the Preliminary Plan.
- (3) The names of all abutters, as determined from the most recent tax list.
- (4) Existing and proposed lines of streets, ways, lots, easements and any public or common areas within the subdivision, in a general manner. The proposed names of new streets shall be shown in pencil until they have been approved by the Planning Board.
- (5) Major site features such as existing wetlands, water bodies, stone walls, fences, historic markers, buildings or other structures, and large trees and rock outcroppings.
- (6) A brief narrative description of the proposed storm-water management system, with the proposed location of LID structures shown on the plan and a completed LID Site Planning and Design checklist (see Appendix B).
- (7) The proposed sanitary sewer system and water distribution system, in a general manner.
- (8) The approximate boundary lines proposed, with approximate areas and dimensions.
- (9) The names, approximate locations and widths of adjacent streets.
- (10) The topography of the land, in a general manner.
- (11) An index plan at a scale of one (1) inch equals two hundred (200) feet, when multiple sheets are used.
- (12) A key plan at a scale of one (1) inch equals one thousand (1,000) feet.
- (13) Initial findings, in a general way, of the environmental impact analysis required with the Definitive Plan.
- (14) In the case of a subdivision covering less than all of the land owned by the Applicant, a plan showing, in a general manner, the proposed overall development of all said land.

D. Action by the Board

- (1) Within *forty-five (45)* days of submission of the Preliminary Plan, the Board shall act to:
 - (a) Approve the Preliminary Plan as presented;
 - (b) Approve the Preliminary Plan with modifications; or

- (c) Disapprove the Preliminary Plan.

The Planning Board must file its decision with the Town Clerk and submit its decision to the Applicant by certified mail within *forty-five (45)* days of submission of the Preliminary Plan.

- (2) In the case of disapproval, the reasons why shall be stated. Approval of the Preliminary Plan does not constitute the approval of a subdivision, and no Register of Deeds shall record a Preliminary Plan.

§ 4.3. Definitive Plan.

A. General.

- (1) A Definitive Plan shall be governed by the Subdivision Regulations in effect at the time of submission of such plan or in effect at the time of submission of a Preliminary Plan, provided that a Definitive Plan evolved therefrom shall have been submitted to the Planning Board within seven (7) months from the date of submission of the Preliminary Plan.

- (2) A Definitive Plan shall also be governed by the Town of Northfield Zoning

Bylaws in effect at the time of submission of such plan or a Preliminary Plan from which a Definitive Plan is evolved, in accordance with the provisions of MGL C. 40A, § 6, as amended.

B. Filing procedure.

- (1) Any person who submits a Definitive Plan of a subdivision shall give notice and deliver such plan to the Town Clerk or shall send such plan by certified or registered mail to the Planning Board c/o the Town Clerk. Receipt of such plan and filing fees by the Town Clerk on behalf of the Planning Board, shall constitute the date of submission. In addition, any person who submits a Definitive Plan shall also submit copies of the plan to the Board of Health at the same time (see Section 4.3.B (3)). The Planning Board or their staff shall distribute the hard copies of the Definitive Plan to the Planning Board, Select Board, Highway Superintendent, and Fire Chief. The electronic PDF version of the Definitive Plan will be distributed by the Planning Board or their staff to the Planning Board, Board of Health, Select Board, Conservation Commission, Fire Chief, Police Chief, Highway Superintendent, Building Inspector, Water District, Sewer Commission, Superintendents of Schools, Historical Commission, and Agricultural Commission.

- (2) The Applicant shall file with the Planning Board the following:

- (a) An original reproducible drawing of the Definitive Plan and four (4) copies of the plan and application thereof. Each copy submitted by the Applicant shall have a tag or form attached (see Form L) listing the

Board or municipal official that should receive it. The original drawing may be returned to the Applicant after a decision on the Definitive Plan by the Board. The Applicant shall also submit an electronic PDF version of the Definitive Plan to the Planning Board, transferred through a medium specified by the Board.

- (b) One (1) properly executed application including Form C.
 - (c) A filing fee of five hundred dollars (\$500) per plan plus seventy-five dollars (\$75) per lot shown on the Definitive Subdivision Plan if a Preliminary Plan has been filed. If no Preliminary Plan has been filed then the filing fee shall be five hundred dollars (\$500) per plan plus two hundred dollars (\$200) per lot shown on the Definitive Subdivision Plan. The filing fee shall be in the form of a certified check or money order made payable to the Town of Northfield. Any additional expenses for professional assistance related to the application including the review of the plans, survey or inspections shall also be paid by the Applicant (see Section 7.4). In addition, the Applicant will be billed for the cost of the newspaper publishing the legal notices.
 - (d) A certified list of abutters.
 - (e) A list of any waivers requested pursuant to Section 7.3 Waivers and the reason for the request.
- (3) The Applicant shall file with the Board of Health the following:
- (a) At the time of the filing of the Definitive Plan with the Town Clerk, two (2) copies shall also be filed with the Board of Health.
 - (b) Two (2) copies of the application with the properly executed Form C.

C. Board of Health Review

The Board of Health shall report, in writing, to the Planning Board and Applicant its approval or disapproval of said Definitive Plan. In the event of disapproval, it shall make specific findings as to which, if any, of the lots or areas shown on said plan cannot be used as building sites without injury to the public health. The Board of Health shall include specific findings and the reasons therefore in such report, and, where possible, it shall make recommendations for adjustments necessary for the Plan's approval. Any approval by the Planning Board shall be on the condition that lots or areas deemed injurious to the public health shall not be built upon without prior consent of the Board of Health. The Planning Board shall endorse on the Definitive Plan such conditions, specifying the lots to which said conditions apply. Failure by the Board of Health to report on the proposed subdivision within *forty-five (45)* days after the filing of the plan shall be deemed approval of the Plan by the Board of Health. When the Definitive Plan shows that no public or community sewer is to be installed to serve any lot thereon, approval of the Definitive Plan by the Board of Health shall not be treated as, nor deemed to be approval of a permit for the construction and use on any lot of an individual sewage

system; and approval of a Definitive Plan for a subdivision by the Board of Health shall not be treated as, nor deemed to be, an application for a permit to construct or use an individual sewage system on any lot contained therein. Such application for a permit to construct or use an individual sewage system must be filed with the Board of Health.

D. Contents of the Definitive Plan.

- (1) The Definitive Plan shall be prepared by a registered civil engineer, registered landscape architect, and/or registered land surveyor. It shall be clearly and legibly drawn in black ink upon Mylar. The plan shall be at a scale of one (1) inch to forty (40) feet, unless otherwise specified by the Planning Board. Sheet size shall not exceed thirty six by forty two (36 x 42) inches. If multiple sheets are used, they shall be accompanied by an index sheet showing the entire subdivision. The data required below may be on separate sheets as is necessary.
- (2) The Definitive Plan shall have the following information:
 - (a) The subdivision name, boundaries, true North arrow, date, scale, legend and bench mark. All elevations shall be tied to the United States Geological Survey bench marks if within five hundred (500) feet of the subdivision.
 - (b) The names and addresses of the owners of record, the applicant, the engineer and/or surveyor and their official seals.
 - (c) The names of all abutters, as determined from the most recent tax list.
 - (d) Existing and proposed lines of streets, rights-of-way, lots, easements and public or common areas within the subdivision. Proposed names of new streets shall be shown in pencil until they have been approved by the Planning Board. The purpose of easements will be indicated.
 - (e) The location, names and present widths of street(s) bounding, approaching or within one thousand (1,000) feet of the subdivision.
 - (f) Zoning districts, including overlay districts, of all the areas shown on the plan.
 - (g) A key plan showing the location of the subdivision at a scale of one (1) inch equals one thousand (1,000) feet and an index plan at a scale of one (1) inch equals two hundred (200) feet or at a scale matching that used on the Assessor's maps.
 - (h) Existing (solid line) and proposed (broken line) topography at two-foot contour intervals, including the finished grade of all lots.
 - (i) Lot numbers, street frontage including lengths, and areas of lots.
 - (j) The location of all natural waterways, water bodies, wetlands, certified

vernal pools, drainage courses, floodplains, public water supply recharge areas (Zone 2), NHESP Priority and Estimated Habitats of rare species, significant and high hazard dam inundation areas, and prime farmland or forestland within and adjacent to the subdivision.

- (k) The location of significant site features, such as existing stone walls, fences, buildings or structures, large trees exceeding twelve (12) inches diameter at breast height, and rock outcroppings.
- (l) The site planning process corresponding to the subdivision plan as submitted shall be documented in narrative form and shall include the following steps:
 - i. Identify and map natural features and critical environmental resources (as described in Section 4.3D (j) and (k) herein);
 - ii. Delineate potential building envelopes that avoid natural features and environmental resource areas, minimize clearing and grading, and maximize vegetation and soil retention; and
 - iii. Delineate location of roads, driveways, and sidewalks/pathways to minimize impervious surfaces, and to protect and preserve open space, natural features and critical environmental resources.
- (m) The locations of all permanent monuments or historical monuments, properly identified as to whether proposed or existing.
- (n) The location and results of all percolation and soil tests to evaluate subsurface conditions for each lot requiring a septic system or for any community or shared septic system in the prospective subdivision. The tests will be done in accordance with the Department of Environmental Protection's Title 5 regulations and local health and septic regulations, if any. A registered Professional Engineer or sanitarian must stamp the plan and the test results. If the proposed subdivision will be served by the municipal wastewater treatment facility then the Applicant must obtain a letter from the Wastewater Treatment Facility Chief Operator certifying that there is sufficient wastewater treatment capacity to serve all the lots in the subdivision.
- (o) The size and location of existing and proposed water supply facilities either private wells or public water supply. If the proposed subdivision will be served by a water district, then the Applicant must obtain a letter from the applicable water district superintendent certifying that there is sufficient capacity available to provide potable water to all lots in the subdivision.
- (p) Sufficient data, including the length, bearings, radii and central angle, to determine the exact location, direction and length of every street, way, lot line and boundary line and to establish these lines on the ground. If the proposed subdivision is within five hundred (500) feet of a monument of the Massachusetts coordinate mapping system, it shall be tied into said system.

- (q) Street profiles shall be prepared as follows:
- i. A horizontal scale of one (1) inch equals forty (40) feet shall be used.
 - ii. A vertical scale of one (1) inch equals four (4) feet shall be used.
 - iii. The existing grade of the road center line shall be drawn in a fine black solid line.
 - iv. The existing right side line shall be drawn in a fine black dotted line.
 - v. The existing left side line shall be drawn in a fine black dashed line.
 - vi. All elevations shall refer to the United States Coast and Geodetic Survey bench marks if within five (500) feet of the proposed subdivision.
 - vii. Proposed roadway center-line grades shall be drawn in heavy red lines with precise elevations at points of vertical tangency, points of vertical contact high point and low point.
 - viii. Proposed right side line shall be drawn in heavy red lines with precise elevations at points of vertical tangency, points of vertical contact high point and low point.
 - ix. Proposed left side line shall be drawn in heavy red lines with precise elevations at points of vertical tangency, points of vertical contact high point and low point.
 - x. Rates of roadway gradient shall be shown in percentage.
 - xi. The structural details for all components of the proposed drainage systems and storm-water management facilities, including all measures for the detention, retention or infiltration of water, and descriptions of LID best management practices (BMPs). If applicable, the size, location and rates of gradient of proposed storm-water drains, sewer lines, catch basins and manholes, as well as any other drainage facilities shall be shown. The sizes of all pipes shall be shown.
 - xii. The invert and rim elevations of each manhole or catch basin shall be shown.
 - xiii. As long as the work is related to the proposed subdivision, profiles shall be shown, even if the new work is outside said subdivision.

- xiv. The size and location of all water supply lines. Water mains will be shown in profile to show grade and to demonstrate sufficient clearance from other structures.
 - xv. The size and location of all other utilities to be placed in the right-of-way shall be shown. These shall be placed so as to minimize flood damage.
 - xvi. The location of any intersected public or private way shall be shown.
- (r) Cross sections shall include street sections showing paving, crown, berm, shoulder, sidewalks, planting strips, curbs and distance to the right-of-way line, as well as cross sections for any drainage trench.
 - (s) An erosion and sedimentation control plan designed to mitigate and prevent erosion/sedimentation of disturbed areas during and after construction activities. The plan shall show, in detail, what and when such measures will be implemented, on both a temporary and permanent basis, including land disturbances for house construction.
 - (t) A completed Low Impact Development (LID) Site Planning & Design checklist (see Appendix B).
 - (u) The Applicant shall identify, in writing to the Planning Board, any proposed waivers of subdivision requirements.
 - (v) Suitable space to record the action of the Board and signatures of Board members.
 - (x) Any other information that the Board may deem necessary.

E. Environmental impact report.

- (1) In order to more fully ensure the health, safety and welfare of the Town of Northfield and its inhabitants, all prospective subdivisions of ten (10) or more lots or ten (10) acres in size shall be required to submit a detailed environmental impact report. Further, the Board may require said report or portions of it for smaller subdivisions where the information contained in such a report would be necessary to evaluate the prospective subdivision's impact upon a particular piece of land. The report should include the following:
 - (a) A description of the topography, geology and soil characteristics of the proposed subdivision and contiguous area and an analysis of the natural land features to sustain the proposed development; an analysis of storm-water runoff, soil erosion and other potential land capability effects of the proposed subdivision; and a description of the measures planned to protect

the natural land features against potential deterioration resulting from the proposed subdivision.

- (b) Identification of surface and subsurface water features within the proposed subdivision, as well as those water features potentially affected by it, including underground aquifers, brooks, streams, rivers, lakes and wetlands, and a description of the measures planned to protect those surface and subsurface features against potential deterioration resulting from the proposed subdivision.
 - (c) A description of special physical conditions existing within the proposed subdivision, (e.g., floodplains, unique landscape features, etc.) and a description of the measures to accommodate these special conditions.
 - (d) An analysis of airborne emissions to be generated by the proposed subdivision or incident to it, in relation to state and federal air pollution standards, as well as nearby off-site emission sources potentially affecting air quality of the proposed subdivision.
 - (e) Identification of any existing or potential on- or off- site sources of noise which might significantly inhibit speech or sleep [above forty (40) dBA] and a description of the measures to alleviate the problem.
 - (f) Identification of any notable aesthetic characteristics on or near the proposed subdivision, including stone walls, features of historical, architectural, archaeological or scenic interest, as identified in the Northfield Open Space and Recreation Plan and other relevant plans, and a description of the measures designed to protect these aesthetic features.
- (2) A storm-water management plan.
- (a) Low Impact Development (LID) techniques should be used whenever feasible to manage storm-water within the proposed subdivision.
 - (b) The storm-water management plan shall be prepared according to the requirements of the Town of Northfield and should include the following:
 - i. A description and delineation of existing storm-water conveyances, impoundments, and wetlands, wetland buffer zones, 100-year floodplains, water supply areas, swimming beaches or other environmental resources on or adjacent to the site into which storm-water flows.
 - ii. The existing and proposed topography at 2-foot contour levels.
 - iii. A recharge area analysis that calculates pre-and post-project annual groundwater recharge rates on the parcel.

- iv. Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the 2-year, 10-year, and 25-year, 24-hour storm event. The 100-year 24-hour storm event must be evaluated for downstream impacts. Peak discharge rates must be calculated using the point of discharge or the down-gradient property boundary. Separate drainage calculations shall be submitted for each point of discharge of flow from the site. The most current data on storm intensities from the Northeast Regional Climate Center at Cornell University (<http://www.nrcc.cornell.edu/>) shall be used for storm-water calculations.
 - v. Soils information from test pits performed at the location of proposed storm-water management retention, detention and infiltration structures, including soil descriptions, depth to seasonal high groundwater and depth to bedrock. Soils information will be based on site test pits logged by a Massachusetts Certified Soil Evaluator.
 - vi. Structural details of all components of the proposed storm-water management system, including materials to be used, construction specifications, and typical construction details.
 - vii. Operations and Maintenance Plan of the storm-water management system to ensure that it functions as designed. The O&M Plan shall include: a.) the name and contact information of the owners of all components of the system; b.) a map showing the location of the storm-water management devices including all structural and nonstructural components; c.) maintenance agreements that specify names and addresses of person(s) responsible for operation and maintenance and its financing, an Inspection and Maintenance schedule, including an O&M estimated budget, maintenance tasks to be performed, a list of easements with the purpose and location of each and the signature(s) of the owner(s).
- (3) A biotic study.
- (a) A description of the biotic community, listing types of vegetation and animals found within the proposed subdivision and contiguous area.
 - (b) Identification of any rare or endangered species potentially affected by the proposed subdivision, a description of any potential disruption of wildlife habitat which may result from the proposed subdivision and the methods to be taken to limit the loss of wildlife habitat.
- (4) A land use study and a Property Owners Association Agreement.

- (a) An analysis of land use within the proposed subdivision in relation to surrounding land uses, including:
 - i. Any loss of farmland or decrease in farm production or viability;
 - ii. Impact on contiguous tracts of forestland;
 - iii. Potential for trail and/or wildlife connections to adjacent or nearby undeveloped lands, if any; and
 - iv. Potential for pedestrian and bicycle connections to adjacent residential development, nearby schools, shopping, and recreation.

- (b) An assessment of the fiscal impact of the proposed subdivision upon education (the number of additional children in the school system), the demand for municipal services and facilities (water, sewage treatment, solid waste management, road maintenance, fire and police protection and recreation), traffic, utilities and streetlights.

- (c) Provision of a Property Owners Association Agreement which shall provide for an incorporated Homeowners' Association that will be responsible for the ownership and maintenance of the streets, including snow removal, and all associated improvements in the proposed subdivision whereby each lot owner in the development is automatically a member and each lot is subject to a charge for a share of the maintenance expenses or through a comparable arrangement satisfactory to the Planning Board and Town Counsel.

- (5) A traffic study. The Applicant shall submit a traffic analysis using trip generation standards by the Institute of Transportation Engineers. Explain traffic impacts, types of streets, opportunity for public transit access, if any, and impacts on vehicle, pedestrian, and bicycle circulation.
 - (a) Estimated daily and peak hour vehicle trips generated by the proposed use.

 - (b) A plan to minimize traffic impacts and provide safety on the proposed project through such means as physical design and layout concepts, promoting use of public transit or van- or carpooling, encouraging pedestrian and bicycle access to the site, or other appropriate means.

 - (c) Provide the existing level of service (LOS) on all roads within ½ mile of the subdivision and any other roads determined by the Planning Board to be potentially affected. Demonstrate that the project, including any concurrent road improvements, will not decrease the LOS of any area roads or intersections affected by the project below the existing conditions when the project is completed. Such analysis shall consider the incremental nature of development and the cumulative impacts on the LOS.

F. Compliance with the Wetlands Protection Act. In accordance with MGL C. 131, § 40, no person shall remove, fill, dredge or alter any watercourse, pond, floodplain or wetland without filing a written Notice of Intent to perform said work with the Local

Conservation Commission and with the Commonwealth Department of Environmental Protection. Permission for such work must be obtained from the Conservation Commission.

G. Review by other Town officials.

- (1) Town officials (see Section 4.3.B.(1)) shall, within forty five (45) days after the filing of the plan, report in what respects, if any, the proposed subdivision streets and improvements could fail to comply with the standards for design, layout, and construction by the Town, could fail to support adequate public services such as fire protection, wastewater treatment or public water supply, or could present other development concerns. Town officials may also make such recommendations and suggestions to the Planning Board for other town services, including public safety, which, in their opinion, would improve the subdivision and its future development as an integral part of the entire town.

H. Public hearing.

- (1) Before approval, modification, or disapproval of the Definitive Plan is given, a public hearing shall be held by the Planning Board. Said public hearing shall be held after the Board of Health and other Town officials report on the plan, or after the forty-five day period to report expires. Notice of the specific time and place of the Public Hearing shall be given by the Planning Board at the expense of the Applicant by advertisement in a newspaper of general circulation in the Town of Northfield once in each of two (2) successive weeks, the first publication being not less than fourteen (14) days before the date of such hearing. Such Public Hearing notice shall also be posted in Town Hall for fourteen (14) days prior to the date of the Public Hearing. A copy of the Definitive Plan shall be available to the public through the Town Clerk's office not less than fourteen (14) days before the date of the public hearing.
- (2) A copy of said notice of the public hearing shall be mailed by the Board, by registered or certified mail, to all owners of land abutting the proposed subdivision and to the abutters of the abutters within three hundred (300) feet of the site. The Planning Board shall also send notice of a public hearing to the following: the Select Board, the Board of Health, the Conservation Commission, the Fire Department, the Police Department, the Highway Department, the Building Commissioner, the Water District, the Wastewater Treatment Facility Chief Operator, the Superintendents of Schools, Historical Commission, Agricultural Commission, and the Town Secretary for posting on the Town Website. The expense of these notifications and publications shall be borne by the applicant.

I. Approval, modification or disapproval.

After the required public hearing but within ninety (90) days from the date of submission, in the case of a subdivision where a Preliminary Plan has been filed, the Planning Board shall take final action upon the Definitive Plan. In the case of a subdivision plan where no Preliminary Plan has been submitted, the Planning Board

shall take final action within one hundred and thirty-five (135) days from the date of submission. The Planning Board shall approve the Definitive Plan as submitted, approve the Definitive Plan with modifications, or disapprove the Definitive Plan. If the Board modifies or disapproves the Definitive Plan, it shall state with its vote reasons for its action. Final action is the filing of the Planning Board decision with the Town Clerk and submission of its decision to the Applicant by certified mail. An extension may be granted if mutually agreed to in writing by the Applicant and the Planning Board and filed with the Town Clerk.

J. Performance guarantee.

Before endorsement of the Board's approval upon a Definitive Plan of a subdivision, the Applicant shall agree to complete the required improvements specified in Article VI of these rules and regulations for all lots within the subdivision within a specified period of time. Such construction and installation shall be secured by one, or in part by one and in part by another, of the following methods, which may from time to time be varied by the Applicant with the written approval of the Board.

- (1) The Planning Board shall require from the Applicant a detailed cost estimate for all construction within the proposed roadway layout and any utility easements, certified by the project's Registered Professional Engineer. Said estimate shall be based on the current edition of the Massachusetts Department of Transportation's "Standard Specifications for Highways and Bridges," and shall include:
 - (a) Quantity, unit price and total amount for each construction item.
 - (b) Total amount for cost of completion of project.
 - (c) Costs adjusted to account for municipal prevailing wages rates, and all municipal procurement requirements under State law and Northfield bylaws and Northfield practices for construction projects.
 - (d) Costs adjusted to add a minimum 25% inflation/overrun contingency factor up to 50% as determined by the Planning Board.
 - (e) Engineering inspection, materials testing, legal and other soft costs.
 - (f) The Planning Board reserves the right to increase the required amount deposited as necessary over time to insure sufficient performance guarantee.
- (2) Types of performance guarantee.
 - (a) Proper bond. The Applicant shall file a proper bond, sufficient in the opinion of the Planning Board to secure performance of the construction of ways and the installation of municipal services required for lots in the subdivision shown on the plan, and the Planning Board may require that the Applicant specify the time frame within which such construction

shall be completed. Performance time shall be subject to Planning Board approval; or

- (b) Deposit of money or negotiable securities. The Applicant shall file money or negotiable securities, sufficient in the opinion of the Planning Board, after consultation with Town Counsel, to secure performance of the construction of ways and the installation of municipal services required for lots in the subdivision shown on the plan, and the Planning Board may require that the Applicant specify the time frame within which such construction shall be completed. The Applicant shall provide proof that the deposit of money or negotiable securities shall remain available to the Town of Northfield until such time as the Planning Board approves a release of said monies; or
- (c) Restrictive covenant. The Applicant shall file a restrictive covenant executed and duly recorded by the owner of record, running with the land, whereby such ways and services shall be provided to serve any lot before such lot may be built upon or conveyed, other than by mortgage deed; provided that a mortgagee who acquires title to the mortgaged premises by foreclosure or otherwise and any succeeding owner of such premises or part thereof may sell any such lot, subject to that portion of the covenant which provides that no lot shall be built upon until such ways and services have been provided to serve such lot; and provided further, that nothing herein shall be deemed to prohibit a conveyance by a single deed, subject to such covenant, of either the entire parcel of land shown on the subdivision plan or of all lots not previously released by the Planning Board. A deed of any part of the subdivision in violation hereof shall be voidable by the grantee prior to the release of the covenant but not later than three years from the date of such deed; or
- (d) Funds retained by lender. The Applicant shall deliver to the Planning Board an agreement between the Applicant and the lender executed after the recording of the first mortgage covering the premises shown on the plan or a portion thereof given as security for advances to be made to the Applicant by the lender. Such agreement shall provide for the retention by the lender of funds sufficient in the opinion of the Planning Board to secure the construction of ways and installation of municipal services. The Applicant and the lender shall demonstrate to the satisfaction of the Planning Board, which may consult with the Treasurer/Collector and/or Town Counsel for this purpose, that a) lender is of sound financial condition or b) the funds to secure such an agreement are beyond the reach of the Applicant's or lender's creditors and will be available regardless of the bank's financial condition at the time of entering into the agreement and thereafter. In the event the Applicant and Lender are unable to demonstrate that the funds will be available in the event of a default or failure of performance, then the Planning Board, in its sole discretion and determination, may reject such agreement as insufficient to serve as a performance guarantee. Said agreement shall also provide for a schedule of disbursements which may be made to the Applicant

upon completion of various stages of work, and shall further provide that in the event the work is not completed within the time set forth by the Applicant, any funds remaining undisbursed shall be available to the Town of Northfield for completion

- (3) Form of performance guarantees. Performance guarantees shall be filed with the Planning Board and shall be subject to the following requirements:
- (a) If performance is guaranteed by means of a restrictive covenant pursuant to Subsection J(2)(c), such restrictive covenant shall be in the form and contain the language as shown in the form entitled “Approval with Restrictive Covenant,” or as otherwise required or approved by the Planning Board.
 - (b) If performance is guaranteed by means of a bond pursuant to Subsection J(2)(a), a deposit of money or negotiable securities pursuant to Subsection J(2)(b), or an agreement whereby the construction lender retains loan funds pursuant to Subsection J(2)(d), the performance guarantee shall comply with the following:
 - i. It shall define the Applicant’s obligation as “the construction of streets and ways, the installation of municipal services and the construction of certain other improvements for lots as shown in the Definitive Plan entitled ‘ _____,’ dated _____, and approved by the Planning Board on _____, including without limitation the work described in attached Schedule ‘A’ (Subsection ---).
 - ii. It shall specify a scheduled completion date on which the construction of the approved subdivision streets and improvements shall be completed by the Applicant. The Planning Board may extend such time as it deems appropriate after receipt of a written request by the Applicant and received by the Planning Board at least 45 days prior to the scheduled date of completion.
 - iii. It shall state that it shall not expire until the Planning Board, upon written request, certifies that all road work and improvements have been completed according to the approved plan and that the performance guarantee is released.
 - iv. It shall state that it applies in full to all successors of the Applicant whose performance is guaranteed.
 - v. It shall state that the full amount of the guarantee shall be due immediately to the Town of Northfield in case of the default of the Applicant or his/her successor in constructing the streets and ways, municipal services and other improvements in accordance with the approved Definitive Plan. Default of the Applicant or successor shall be defined in the performance guarantee as meaning:

- a. Failure to complete all roadways or other improvements according to the approved Definitive Plan by the scheduled completion date; or
 - b. Bankruptcy of the Applicant for the benefit of the creditors of the Applicant, or the foreclosure of any mortgage on all or part of the land of the approved subdivision before the scheduled completion date; or
 - c. Notice to the Planning Board of the withdrawal or termination of any performance guarantee given hereunder, or of a request to substitute performance guarantee hereunder, prior to the scheduled completion date of the work, unless it is given 45 days prior to the anticipated date of such withdrawal, termination or substitution; or
 - d. Any other condition or circumstance that constitutes default, in the opinion of the Planning Board.
- vi. The performance guarantee shall include a detailed scope of work to be completed under the performance guarantee and may provide for a schedule of partial releases, in accordance with Subsection 5 below, which may be made to the Applicant upon completion of various stages of work (Schedule A).
 - vii. The performance guarantee shall not contain any language which contradicts the above-stated requirements.
 - viii. A cost estimate may be requested by the Planning Board once prior to the establishment of the performance guarantee and once with each subsequent full or partial performance guarantee release; the estimate will remain effective for 90 days. The estimate will reflect the cost to the Town for completing the work as a public works project which may necessitate legal fees, public bidding, additional staff time, prevailing wage, etc.
- (4) Partial Release. Prior to final release of a performance guarantee, the Planning Board may grant one or more partial releases from the required performance guarantee for partial completion of improvements, provided that:
- (a) No lot(s) shall be released from the restrictive covenant unless construction of streets and ways, and installation of municipal services and other improvements in accordance with the approved Definitive Plan for said lots, has been completed or another form of security has been substituted, sufficient to complete said streets and ways, municipal services and other improvements. The form entitled “Release of Lots – Certificate of Performance,” or the form entitled “Release of Lots – Provision of Surety,”

whichever is appropriate, shall be submitted when applying for a partial release of lots from a restrictive covenant.

- (b) No reduction in the amount of the performance guarantee shall reduce the performance guarantee to a value below the estimated cost of completing the unfinished portions of the improvements. The penal sum of any such bond held under Subsection J(3)(a), or deposit held under Subsection J(3)(b), or any amount of funds retained pursuant to an agreement under Subsection J(3)(d) shall bear a direct and reasonable relationship to the expected cost, including a contingency amount of at least 25% but no more than 50% of the expected cost to guard against the effects of inflation or to provide for an overrun contingency necessary to complete the subject work.
 - (c) No partial release of security shall be granted until the Planning Board has received written verification from the Town's consulting engineer that a minimum of 50% of the required improvements have been satisfactorily completed.
- (5) Final release. Upon the completion of the construction of streets and ways, and the installation of municipal services and other improvements in accordance with the approved Definitive Plan, the Applicant may request release of the covenant, bond, deposit of money or securities, or funds retained by lender by sending a statement of completion and a request for release by registered mail to the Town Clerk and the Planning Board. The Board shall act on such request within forty-five (45) days.
- (a) Such statement shall be accompanied by the following:
 - i. Written certificate from a registered civil engineer of the Planning Board's choosing that the streets, drainage, and utilities conform to the Planning Board's requirements in accordance with the approved Definitive Plan.
 - ii. Written certificate from a registered civil engineer of the Planning Board's choosing that the water mains, sanitary sewers, storm sewers and hydrants conform to specifications and the Planning Board's requirements in accordance with the approved Definitive Plan.
 - iii. Written certificate from a registered land surveyor of the Planning Board's choosing, that all permanent bounds and monuments on all street lines and on all lots within the subdivision are in place and are accurately located in accordance with the approved Definitive Plan, and that the as-built plan submitted accurately reflects the conditions in the completed subdivision and are in compliance with the approved Definitive Plan.

- iv. Written certificate from a registered civil engineer of the Board's choosing that the streets, drainage, and storm-water management system shall have been in use through one (1) full year and shall have performed as designed.
 - v. Written confirmation from the head of the Highway Department that the road construction including paving and associated improvements have been exposed to one (1) full year without damage, or that damage, if incurred, has been repaired to the satisfaction of the Highway Department.
 - vi. Written confirmation from the Tree Warden that installation of the street trees and other plantings required by the approved Definitive Plan have been completed satisfactorily and that damaged plantings have been replaced. A one (1) year warranty for trees and plantings shall be required.
 - vii. The address of the Applicant.
 - viii. Two copies, plus one original mylar, and one electronic PDF version, of an as-built plan of the streets and ways within the subdivision.
 - ix. Written evidence that all fees to cover inspection for release of the performance guarantee have been paid by the Applicant.
- (b) If the Planning Board determines that said construction or installation has been completed, it shall release the interest of the Town in such performance guarantee. If performance was secured by means of a restrictive covenant, the interest of the Town shall be released by execution of a "Lot Release – Certification of Performance."
 - (c) If the Planning Board determines that said construction or installation has not been completed in accordance with the approved Definitive Plan, it shall specify in a notice sent to the Town Clerk and, by registered mail, to the Applicant, the details wherein said construction or installation fails to comply with the approved Definitive Plan. Failure of the Planning Board to do so within 45 days after the receipt by the Town Clerk of the statement from the Applicant requesting release of the Town's interests will result in the termination of obligations under the performance guarantee and any deposit shall be returned and any such restrictive covenant shall become void. In the event that said 45-day period expires without such specification by the Planning Board or without the release of the performance guarantee as aforesaid, then the Town Clerk shall, upon request, issue a certificate to such effect, duly acknowledged, which may be recorded.

- (d) Even though all improvements covered by the performance guarantee have been completed, the Planning Board may refuse to release the performance guarantee if completion of construction on any remaining undeveloped or partially developed lot(s) poses a substantial risk or injury to the covered improvements.

K. Recording of the plan.

The Applicant shall record the Definitive Plan as approved and endorsed by the Planning Board, at the Franklin County Registry of Deeds and, in the case of registered land, with the recorder of the Land Court. The Applicant shall notify the Planning Board in writing within ten (10) days after the recording of the Definitive Plan of such recording and shall provide the book, page number and date of recording.

L. Definitive Plan – Rescission.

Failure of the Applicant to record the Definitive Plan at the Franklin County Registry of Deeds within six (6) months of its endorsement or to comply with the construction schedule of the performance agreement or to have made a material misrepresentation of facts in securing approval of the plan, whether willful or not, shall constitute sufficient cause for rescission of such Definitive Plan approval by the Planning Board, in accordance with the requirements of MGL C. 41 § 81-W, as amended.

M. Endorsement.

- (1) Upon approval of the Definitive Plan, a majority of the Board shall endorse it. This shall be done following the twenty-day statutory appeals periods, provided that the Town Clerk notifies the Board that no appeal has been filed within this period. After the approved Definitive Plan has been endorsed, the Applicant shall file with the Board one (1) reproducible copy, three (3) contact prints, and one (1) electronic copy in PDF form transferred through a medium specified by the Board, of said Definitive Plan.
- (2) Approval of the Definitive Plan does not constitute the laying out or acceptance by the Town of Northfield of streets or easements within a subdivision.
- (3) A failure by the Applicant to request endorsement of the plan or failure by the Applicant to provide an adequate performance guarantee within six months of the Planning Board's vote of approval shall result in automatic rescission of the Definitive Plan approval.

N. Definitive Plan – Appeal

Appeal of a decision of the Planning Board may be made to the Superior Court or Land Court, in accordance with G.L. Chap. 41, Sec. 81 (BB).

§ 4.4. Subdivision standards in the Floodplain

All subdivision proposals shall be reviewed to determine whether such proposals will be reasonably safe from flooding. If any part of a proposed subdivision is located within the Special Flood Hazard Area as defined by the Federal Insurance Administration (FIA) Flood Hazard Boundary Maps or within the 100-Year Floodplain as defined by the Federal Emergency Management Agency's Flood Insurance Rate (FIRM) maps, it shall be reviewed to assure compliance with the Town of Northfield Zoning Bylaw and the following:

- A. The proposed subdivision design is consistent with the need to minimize flood damage.
- B. All public and private utilities and facilities, such as sewer, gas, electrical and water systems, shall be located and constructed outside of the Flood Hazard Area and the 100- Year Floodplain.
- C. All primary and accessory structures shall be located outside of the Flood Hazard Area and the 100-Year Floodplain to the extent practicable. Any structures proposed within the Flood Hazard Area or 100-Year Floodplain must meet the requirements of the Town of Northfield Zoning Bylaw.
- D. Adequate drainage systems shall be provided to reduce exposure to flood hazards.
- E. Base flood elevation (the level of the one-hundred-year flood) data shall be provided for proposals greater than five (5) lots or five (5) acres, whichever is the lesser, for that portion within the Flood Hazard Area or the 100-Year Floodplain.

SECTION V Design Standards

Except as herein noted, the provisions of the following documents shall be used as design standards. Where a difference between the standards and these Regulations exists, these Regulations shall be followed unless a waiver is granted by the Planning Board:

- A. Streets, sidewalks, water systems, sanitary sewers, storm drain systems, public and private utilities and other infrastructure shall be constructed in accordance with the current editions of the Massachusetts Department of Transportation's "Standard Specifications for Highways and Bridges," the "Supplemental Specifications to the Standard Specifications for Highways and Bridges," and the "Construction Standard Details" ("Standard Specifications").
- B. Roads shall be designed in accordance with the current American Association of State Highway and Transportation Officials (AASHTO) "A Policy on Geometric Design of Highways and Streets," also known as the Green Book, or "Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT \leq 400)" design manuals for 20 mile per hour design speed, or a greater speed, if appropriate, as determined by the Planning Board.
- C. Road signs and pavement markings should be designed in accordance with the current "Manual on Uniform Traffic Control Devices" (MUTCD), published by the Federal Highway Administration.

- D. LID storm-water BMPs shall be designed in accordance with Northfield requirements and the most current edition of the Massachusetts Department of Environmental Protection's Massachusetts Storm-water Handbook, the Massachusetts Clean Water Toolkit (also known as the Massachusetts Nonpoint Source Pollution Management Manual), or equivalent design guidelines and specifications approved by the Planning Board.

§ 5.1. Streets.

A. Location.

- (1) All streets in the subdivision shall be designed so that they will provide safe vehicular, pedestrian, and bicycle travel. Due consideration shall also be given by the Applicant to the attractiveness of the street layout, in order to obtain the maximum livability and amenity of the subdivision. As far as practicable, streets should follow natural contours. Common driveways shall not be used to provide vehicular access to lots within a subdivision if, in the opinion of the Planning Board, they are being used to circumvent the requirements of these Subdivision Regulations or the Zoning Bylaws.
- (2) The design and layout of the proposed subdivision shall conform, so far as is practicable, to the Development Guidelines contained in Appendix A, the LID Site Planning and Design checklist in Appendix B, and to the, Town Master Plan, Open Space and Recreation Plan, or Community Development Plan, as adopted by the Planning Board or the Town.
- (3) Provision should be made, satisfactory to the Planning Board, for the proper projection of streets or for access to an adjoining property which is not yet subdivided or developed. A right-of-way from the end of all dead-end roads to an adjoining property must be part of the street layout and must be shown on the street acceptance plans. Such right-of-way shall provide for a future road or pedestrian path that will link future subdivisions unless there is compelling evidence that the adjoining property will never be developed as a subdivision.
- (4) Reserve strips prohibiting access to streets or to adjoining property shall not be permitted.
- (5) Generally, it is preferred that new roads loop back to the existing road instead of being dead-end streets (see Dead-end streets below).
- (6) Dead-end streets shall not be longer than eight hundred (800) feet unless, in the opinion of the Planning Board, a greater length is necessitated by topography or other special conditions. Whether temporary or permanent, dead-end streets shall be provided at the closed end with a cul-de-sac which shall include a landscaped center island and a one way drive lane a minimum of 20 feet in width. Where site conditions are favorable, cul-de sac islands shall be designed to treat and infiltrate storm-water runoff utilizing LID stormwater management techniques. A minimum island radius of twenty (20) feet and a property line radius of at least

sixty (60) feet shall be provided. The minimum turning radius to accommodate fire trucks is 25 feet inside and 50 feet outside although the Fire Department strongly prefers 60 feet.

B. Street Design Specifications.

- (1) Roads shall be designed based on land uses and projected traffic volume generated by the development based on average daily trips (ADT) as determined in the most recent edition of the Institute of Transportation Engineer's (ITE) "Trip Generation Manual," and by expected future growth outside the development that will utilize the road. Streets shall be classified as one of the following:
 - (a) Industrial/Commercial Street: A street serving only commercial and/or industrial uses.
 - (b) Mixed-Use Street: A street serving a mix of residential, commercial, and/or light industrial uses.
 - (c) Residential Street: A street serving residential dwelling units expected to generate more than 400 ADT.
 - (d) Minor Residential Street: A street serving residential dwelling units expected to generate less than 400 ADT.

Minimum Specifications	Industrial/Commercial Street	Mixed-Use Street	Residential Street	Minor Residential Street
ROW width (feet)	60	60	50	40
Paved width (feet)¹	24 - 30	24 - 30	24	20
Intersection angle	70°	70°	60°	60°
Street centerline off-set, same side of road (feet)	300	300	300	300
Street centerline off-set, opposite side of road (feet)	150	150	150	150
Stopping site distance (at 3.5 feet above pavement)	200	155	115	115
Curb radius (feet)	30	25	15	15
Centerline radius (feet)	300	180	100	100
Minimum grade	1.5%	1.5%	1.5%	1.5%
Maximum grade²	6%	8%	8%	8%
Curbing requirements	Yes, granite	Yes, granite	Determined by the Board	Determined by the Board
Tree belt, both sides of street (feet)	6	6	6	6
Sidewalk requirements³	One or both sides of street	Both sides of street	One or both sides of street	Determined by the Board
Bicycle facilities	Bike lanes, separated bike lanes, or multi-use path	Bike lanes, separated bike lanes, or multi-use path	Shared street or multi-use path	Shared street or multi-use path

¹ Paved width for Industrial/Commercial and Mixed-Use Streets will depend on the presence of truck traffic, bike lanes, and on-street parking.

² The Planning Board may modify these requirements where, in its opinion, unusual topography conditions so require.

³ A multi-use path may be substituted for one sidewalk.

- (2) The subdivision road(s) shall be set back at least twenty-five feet (25) from any adjacent property lines that are not part of the subdivision.

E. Adequate Access from Public Ways.

- (1) Where the street system within a subdivision does not connect with or have, in the opinion of the Planning Board, adequate access from a public way, the Planning Board may require, as a condition of approval, that such adequate access be

provided by the Applicant, or that the Applicant make physical improvements to and within such a way in accordance with the provision of these regulations from the boundary of the subdivision to a public way (see Section 3.4).

(2) Where the physical condition or width of the public way from which a subdivision has its access is considered by the Planning Board to be inadequate to carry the traffic expected to be generated by such subdivision, the Planning Board may require the Applicant to dedicate a strip of land for the purpose of widening the abutting way to a width at least commensurate with that required in a subdivision, and to make physical improvements to and within such public way to the same standards required within the subdivision. Any such work performed within such public way shall be made only with the permission of the governmental agency having jurisdiction over such way, and all costs of any such widening or construction shall be borne by the Applicant.

§ 5.2. Easements.

- A. Easements for utilities shall be at the side or rear of the lots wherever possible. They shall be contiguous from lot to lot. Easements shall be at least twenty (20) feet in width.
- B. Where a subdivision is bisected by or adjacent to a watercourse, either natural or man-made, the Planning Board may require that there be a storm-water or drainage easement of at least twenty (20) feet in width to conform to the path of the watercourse and to provide for any construction related to that watercourse.
- C. The Board may require an easement for watercourses that are not within a subdivision but

§ 5.3. Natural features.

Natural features including large trees over 12 inches in diameter at breast height, watercourses, scenic vistas, locations of historic significance and similar community assets shall be preserved. To the extent feasible, land clearing, alteration of natural topography, removal of topsoil, destruction of vegetation, soil compaction, and cut and fill shall be minimized.

§ 5.4. Open spaces.

Before approval of a plan, the Planning Board may also require the plan to show protected open space suitable for passive recreation (e.g. walking trails) or a park or parks suitably located for playground or recreation purposes or for providing light and air. If an applicant elects to provide open space, the park or parks shall not be unreasonable in area in relation to the land being subdivided and to the prospective uses of such land. The Board may also require that no building or structure be erected upon such area until the land is either purchased by the town or is deeded in gift to the town or to a neighborhood civic association.

§ 5.5. Drainage.

- A. The storm drainage system shall be designed to meet the standards established in the most current edition of the Massachusetts Department of Environmental Protection's Storm-water Management Handbook and Northfield's requirements. Low Impact Development (LID) techniques should be used whenever feasible to manage storm-water within the proposed subdivision.
- B. The storm-water management system shall be designed so that the post-development peak discharge rates do not exceed the pre-development discharge rates for a 2-year, 10-year, and 25-year 24-hour storm, based on the most recent rainfall data from the Northeast Regional Climate Center at Cornell University (<http://www.nrcc.cornell.edu/>). The system shall be designed so that there are no increased flooding impacts off-site from the 100-year, 24-hour storm event.
- C. Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to the maximum extent practicable. The annual recharge from the post-development site should approximate the annual recharge from the pre-development or existing site conditions based on soil types.
- D. Wherever possible, storm-water should be directed into the nearest part of the drainage system. Where storm drainage encroaches on privately owned land, a drainage easement shall be acquired by the developer.
- E. No open water body or wetland shall be altered unless in compliance with the Massachusetts Wetlands Protection Act.
- F. Where a portion of a subdivision lies within an aquifer recharge area or other critical area, as defined by the MA DEP Storm-water Management Handbook, the proposed drainage should incorporate Best Management Practices for managing storm-water in Zone II or Interim Wellhead Protection Areas or critical areas, according to the Storm-water Management Handbook, as amended.

§ 5.6. Sewerage.

If a public sewerage system is available and the connection is feasible the subdivision should be connected through the construction of sewer pipes and related equipment such as manholes and connecting Y's, in conformity with the specifications of the Town of Northfield. Where a public sewerage system connection is not available or feasible, a private on-site sewerage system shall be designed and constructed in conformity with Title 5 of the Sanitary Code of the Massachusetts Department of Environmental Protection and subject to approval by and inconformity with the Town of Northfield Board of Health rules and regulations. The Planning Board may require installation of so-called "dry sewers" in conformity with the specifications of the Town of Northfield in any street where, in its estimation, sanitary sewers may become accessible within a period of two (2) years.

§ 5.7. Water.

Water pipes and related equipment, such as hydrants and main shutoff valves, shall be constructed to serve all lots on each street in the subdivision in conformity with specifications of the applicable water district. Where, in the opinion of the Planning Board, existing public water mains are not reasonably accessible, the plan may be approved without provision of street water lines, provided:

- A. Private on-lot water systems shall be located and constructed in accordance with the Board of Health Regulations governing private wells in the Town of Northfield and in accordance with the setback and other requirements of Title 5 for private septic systems. Such water systems shall be subject to the approval of the Town of Northfield and the Northfield Board of Health.
- B. In addition, a local water supply should be provided within the subdivision for fire-fighting purposes as deemed necessary by the Fire Chief.

§ 5.8. Passive solar design.

In order to encourage energy conservation, and to allow for the maximum number of buildings to receive direct sunlight sufficient for the operation of solar energy systems for space, water, or industrial process heating and cooling, buildings should be oriented so that a building's longest plane is positioned no more than 30 degrees off the east/west axis to the extent possible.

SECTION VI Required Improvements for Approved Subdivisions

§ 6.1. Installation schedule.

The improvements required herein must be installed to the satisfaction of the Planning Board or their duly appointed representative. A schedule for installations of improvements should be filed with the Select Board, Highway Superintendent, and the Planning Board. The Planning Board will provide the developer with checklists of required inspections. Failure to file such schedule, or otherwise to give adequate notice (a minimum of three (3) business days required for notice) as to when improvements can be inspected, will significantly delay certification of such improvements and subsequent release of performance guarantee.

§ 6.2. Clearing and grubbing of right-of-way.

- A. No clearing or excavating shall be started on any part of the street until the Tree Warden has designated, in writing, those trees which are to remain in the tree belt. If the construction of a new subdivision road will impact a road designated as a local scenic road according to Chapter 40, Section 15C, review and approval by the Planning Board to cut or remove trees is required. The area within the drip line of trees to be preserved shall be protected during construction by fenders or boxes, and their root systems shall

be disturbed as little as possible. Any trees recommended for preservation that are lost as a result of and/or during construction shall be replaced.

- B. The entire area of each street or way shall be cleared of all stumps, brush, roots, boulders, like material and all trees not intended for preservation.

§ 6.3. Foundation of roadway.

- A. Sub-base.

- (1) Within the roadway area, including driveway aprons, sidewalks and grass strips, all material shall be removed to subgrade, and any unsuitable material below subgrade, in the opinion of the town-appointed engineer, shall be removed and shall be replaced with proper bankrun gravel and brought to proper compaction. The depth of the subgrade will be a minimum of sixteen inches but may be greater based on existing conditions as specified by the town-appointed engineer.
- (2) Where fill is required, it shall be placed in uniform lift layers not deeper than eight (8) inches and shall be spread uniformly with the large stones at the bottom.
- (3) Any gravel used as fill in the subbase shall be composed of hard, durable stone and coarse sand, practically free from loam and clay and containing no stone having a dimension greater than six (6) inches, and, when spread and compacted, shall present a stable foundation.
- (4) Each layer shall be thoroughly compacted to the proper density, and rolling shall continue until a firm, even surface true to line and grade is achieved. Any depressions shall be filled and rerolled, and any soft or unsuitable areas shall be removed and replaced with suitable material and rolled.
- (5) The subgrade shall be shaped and finish graded at the required depth below and parallel to the proposed pavement surface, in conformance with the typical street cross section.
- (6) Inspections shall be required after completion of the subgrade (see Section 7.1).

- B. Gravel base.

- (1) The gravel base course shall consist of not less than eighteen (18) inches of well-compacted gravel placed upon the subgrade, for the entire width of the roadway, in layers not greater than six (6) inches deep.
- (2) When spreading the gravel, care should be taken to rake forward and distribute the largest stones so they will be at the bottom of the gravel base course and evenly distributed.
- (3) Each layer shall be thoroughly compacted to the proper density, and rolling shall continue until a firm, even surface true to line and grade is achieved. Any

depression that appears during or after rolling shall be filled with gravel and rerolled.

- (4) The gravel used in the base course shall conform to the specifications of the subgrade (Subsection 6.3.A.(3)), except that it shall contain no stones having a dimension greater than four (4) inches. The top three (3) inches of gravel shall be screened or crushed with a maximum stone size of one (1) inch.
- (5) The gravel base surface shall be shaped and finish graded at the required depth below and parallel to the proposed pavement surface, in conformance with the typical street cross section.
- (6) Extreme care shall be taken to ensure that all trenches for utilities have been thoroughly compacted to prevent future settling. Subdrains shall be installed if necessary.
- (7) Inspections shall be required before commencement and after completion of the gravel base (see Section 7.1).

§ 6.4. Surfacing of roadway.

- A. The roadway and driveway aprons shall be paved the entire width, including under the berms, and the surface treatment shall be compacted bituminous concrete placed in two (2) layers.
- B. The first layer or binder course shall be Class I bituminous concrete pavement, Type I-1, binder course mix, laid at a thickness of two (2) inches, in accordance with Section 460 of Massachusetts Department of Transportation's "Standard Specifications for Highways and Bridges," latest edition.
- C. The second layer or surface course shall be Class I bituminous concrete pavement, Type I-1, top course mix, laid at a thickness of one (1) inch, in accordance with Section 460 of Massachusetts Department of Transportation's "Standard Specifications for Highways and Bridges," latest edition.
- D. The plant mix material shall be delivered to the site in a hot (minimum of 270 degrees) and easily workable condition when weather conditions are satisfactory so that it can be properly placed on the appropriate base. Irregularities in the existing foundation material shall be eliminated by the use of extra bituminous material.
- E. All bituminous concrete shall be spread by an approved mechanical spreader in a uniformly loose layer to the full width required and to such thickness that each course, when compacted, shall have the required thickness and shall conform to grade and the typical street cross section. Hand spreading of bituminous concrete material will be allowed only for special areas which do not permit mechanical spreading and finishing.
- F. Each course of bituminous material shall be rolled with a self-propelled, equally balanced, tandem roller weighing not less than five (5) nor more than ten (10) tons.

Places inaccessible to the power roller shall be compacted by means of hand or vibratory tampers. Any displacement caused by the roller shall be corrected by raking and adding fresh mixture where required.

- G. Traverse joints shall be formed by laying and rolling against a form of the thickness of the compacted mixture placed across the entire width of the pavement. When the laying of the mixture is resumed, the exposed edge of the joint shall be painted with a thin coat (asphalt tack coat) of hot asphalt or asphalt cement thinned with naphtha. The fresh mixture shall be raked against the joint and thoroughly tamped with hot tampers and rolled.
- H. The final bituminous surface shall show no deviation greater than one-fourth (1/4) inch when tested with a sixteen-foot straightedge placed parallel to the center line of the surface course.
- I. Finished roadway and driveway apron surfaces less than the required thickness or containing any soft or imperfect places will not be approved.
- J. All roadways shall be brought up to the finish grade as shown on the Definitive Plan, and all manhole covers, gate boxes, gas drips and other access to underground utilities shall be set flush with the surface of the road, grass strip or sidewalk.
- K. Inspections shall be required upon completion of the binder and surface courses (See Section 7.1).

§ 6.5. Curbs.

- A. Curbing shall be constructed to meet the requirements of Massachusetts Department of Transportation's "Standard Specifications for Highways and Bridges," and installed in accordance with the following specifications:
 - (1) Industrial / Commercial Street and Mixed Use Street: Granite curb throughout.
 - (2) Residential Street: Granite curbs at intersections and steep grades and other locations, as determined by the Board.
 - (3) Minor Residential Street: As determined by the Board.
- B. Curbing at an intersection shall include the full length of the curve, plus six (6) feet of tangent in each direction; curbing on steep grades shall mean on all grades in excess of 6%. Curbing may be required on minor streets where the Planning Board deems that special conditions of topography, drainage, alignment, or unusually high densities so require. All curb inlets shall be granite, of standard design.
- C. Where curbing is required, perforated or invisible curbs (flush with the road) shall be allowed in areas where roadside swales, bioretention, or other Low Impact Development

(LID) storm-water management features are proposed, and shall be approved by the Town Engineer before installation.

- D. Open drainage with roadside swales is preferred in all situations where curbing is not required. Vegetated swales, bioretention, and other LID storm-water management techniques should be used whenever feasible to manage storm-water runoff from roads.
- E. Inspections shall be required upon completion of curbs (see Section 7.1).

§ 6.6. Sidewalks.

- A. Sidewalk of not less than five (5) feet in width shall be constructed between the roadway and the property line, and as close to the property line as practicable, as follows:
 - (1) Industrial / Commercial Street. For streets serving only industrial uses, one side; for streets serving commercial uses, both sides.
 - (2) Mixed Use Street: Both sides unless specified otherwise by the Planning Board.
 - (3) Residential Street: One or both sides, determined by the Planning Board.
 - (4) Minor Residential Street: Determined by the Planning Board.
- B. To the maximum extent practicable, permeable paving (porous asphalt or pervious concrete) shall be used for sidewalks, provided the appropriate soil and slope conditions exist. Permeable sidewalks shall be designed according to University of New Hampshire Storm-water Center specifications for porous asphalt or pervious concrete. Impermeable sidewalk construction shall be of bituminous concrete or cement concrete upon a sub-base consisting of at least six inches of good gravel or crushed stone after compaction. No surface shall be laid until sub-base shall have been inspected and approved. Paving shall conform to the same requirements as for street surfaces, and meet requirements set forth in Massachusetts Department of Transportation's "Standard Specifications for Highways and Bridges," latest edition. All sidewalks shall be designed to meet the Massachusetts Architectural Access Board and Americans with Disabilities Act standards.
- C. Sidewalks shall be separated from the travelled way by a tree belt of varying width but at no place (except intersections) to be less than six feet. Sidewalks may meander as necessary to accommodate and protect existing topography, trees, ledge, and other site features. Sidewalks must connect with existing sidewalks on adjacent roadways. In the event there are no connections to be made, the sidewalk shall terminate with a ramp out to the pavement.
- D. A multi-use path within the road right-of-way, or if outside of the right-of-way within an easement for the public use, may be authorized by the Planning Board in lieu of one sidewalk where sidewalks are required, and for Minor Residential streets. Paths shall be a minimum of eight (8) feet wide for Minor Residential and Residential streets, and ten

(10) feet wide for Mixed Use or Industrial / Commercial streets. The path shall be continuous, with no breaks at streams or elsewhere, to allow users safe travel off of the roadbed. Paths shall include a secure bed of compacted gravel and be finished with asphalt, crushed stone, or gravel, provided drainage is adequate, and shall conform to the requirements of the Massachusetts Architectural Access Board and Americans with Disabilities Act standards.

- E. Inspections shall be required upon completion of the sidewalks (see Section 210-7.1).

§ 6.7. Tree belts and trees.

- A. Tree belts a minimum of six (6) feet wide shall be provided on each side of the roadway. When sidewalks are required, the tree belt shall be between the curb and the sidewalk with the trees planted along the center line of the tree belt. Except where LID storm-water management features are proposed, the top six (6) inches of the tree belt shall consist of good quality loam extending to the right-of-way, screened, raked, and rolled with lawn grass seed applied in sufficient quantity to assure adequate coverage, rolled when the loam is moist.
- B. Storm-water management features utilizing LID techniques are encouraged within the tree belt when feasible to infiltrate and treat storm-water runoff from the sidewalk and roadway.
- C. No utility poles, transformers, or similar items shall be placed in the tree belt unless a waiver is granted by the Planning Board.
- D. Shade trees shall be on both sides of subdivision streets in the tree belt. There shall be one tree planted an average of every thirty (30) feet of street frontage along each lot and not less than two trees per lot. Any mature deciduous shade trees preserved in the tree belt or within five (5) feet of the Right of Way may be applied toward this average.
- E. Street trees shall be deciduous native shade trees no less than three inch (3") caliper (at a point 6" above the ground) at time of installation. Trees shall be single stemmed with a single, straight leader. No more than 35% of any one species shall be used throughout a subdivision. Species, size, and planting procedure for such trees shall conform to current practice of the Town in planting roadside trees.
- F. The Applicant shall submit a landscape plan showing existing and proposed street trees and other plantings.
- G. Inspections shall be required after the installation of street trees and landscaping (see Section 7.1). Trees must survive one year after planting prior to the release of performance guarantees.

§ 6.8. Utilities.

All gas, telephone, electricity, cable antenna television, and all other conduits shall be installed underground within a grass strip along the edge of the right-of-way when space is available, or beneath the edge of the tree belt, with a minimum cover of three feet. When Low Impact Development (LID) storm-water features are proposed in the tree belt, utilities may be placed under the roadside edge. If located within a flood-prone area, as determined by the Planning Board, transformers, switching equipment or other vital components shall be flood-proofed and approved by the Planning Board or a Board-appointed engineer at the Applicant's expense. If the Planning Board determines that undergrounding the utilities is impractical because of ledge, high groundwater or flooding, then the utility poles must be set back at least seven feet from the edge of the road or shoulder if any.

§ 6.9. Street signs.

Street signs of a design conforming to the type in general use in the Town shall be furnished, set in concrete and erected at all street intersections under the direct supervision of the Superintendent of Highways, prior to the occupancy of any house on the street. Signs may be purchased through the Town of Northfield Highway Department.

§ 6.10. Street lighting.

Street lighting shall be installed at intersections and along any street the Planning Board deems appropriate. Street lighting shall utilize LED bulbs and be designed with shielding that has full cut-off housing to avoid unnecessary glare or light pollution. In residential subdivisions, and commercial or industrial subdivisions where the Planning Board deems appropriate, street lighting shall be pedestrian-scale in design.

§ 6.11. Monuments and markers.

- A. Permanent monuments of granite or concrete shall be installed at all street intersections, at all points of change in direction or curvature of streets and at all points required by good engineering practice. Such monuments shall conform to industry standards or the standard specifications of the Superintendent of Highways and shall be set according to such specifications.
- B. Iron rods or other markers suitable to the Planning Board shall be installed at every corner of each lot within the subdivision. Their locations shall be noted on the Definitive Plan.
- C. No permanent monument or marker shall be installed until all construction which would disturb or destroy the monument or marker is completed.
- D. Certification in writing shall be made by the registered engineer of the developer to the Superintendent of Highways that all monuments and markers have been properly set in accordance with the final plan. All monuments and markers shall be installed before final release of the security for the performance guarantee.

§ 6.12. As-built plans.

After final approval of all the roadways, utilities, storm-water drainage facilities, landscaping and any other improvements required by the Definitive Plan in the subdivision and before the final release of the performance guarantee, the Applicant shall furnish the Planning Board with three (3) complete sets of as-built plans, certified by a registered professional engineer, which shall indicate that streets, storm-water management BMPs, storm drains, sewers, water mains and their appurtenances, and any other improvements required by the Definitive Subdivision Plan have been constructed in accordance with the Definitive Plan and are accurately located as shown upon the as-built plans. The location of all underground electric, telephone, and gas lines shall also be indicated on the as-built plans.

§ 6.13. Final cleanup.

After completion of construction and before release of the performance guarantee, the Applicant shall remove all temporary structures, debris, surplus materials and rubbish and shall otherwise leave the area in a neat and orderly appearance. Burning of the rubbish and waste material is prohibited.

§ 6.14. Street acceptance.

The approval of a Definitive Plan by the Planning Board does not make any street shown thereon a public way. Existing laws of the Commonwealth of Massachusetts and bylaws and procedures of the Town of Northfield must be complied with for the acceptance of any street. Furthermore, such acceptance is at the discretion of Town Meeting and there shall be no presumption that a street shall be accepted as a public way by Town Meeting. The Applicant will be responsible for forming a

Homeowner's Association responsible for maintaining the street(s), including snow removal, and all associated improvements, including but not limited to lighting, sidewalks, storm-water BMPs, and street trees, in the event the Town does not accept the new subdivision street(s) as public ways. The ownership and maintenance of the streets and all associated improvements shall be permanently assured through an incorporated nonprofit Homeowners' Association, covenant or other land agreement through which each lot owner in the development is automatically a member and each lot is subject to a charge for a share of the maintenance expenses or through a comparable arrangement satisfactory to the Planning Board. Such land agreement documents shall be submitted with the Definitive Plan and shall be subject to approval by the Planning Board and Town Counsel.

ARTICLE VII Administration

§ 7.1. Inspections.

- A. General requirement.
- (1) Inspections shall be carried out at appropriate times during the development of the subdivision when the following stages of progress have been reached.
 - (a) Before clearing and grubbing, the Tree Warden shall designate those trees which are to be preserved in the tree belt.
 - (b) Inspection of site erosion controls prior to commencement of site work.
 - (c) The roadway shall be inspected at the stages of subbase, gravel base, binder course and surface course.
 - (d) The sanitary and storm drainage systems before the filling of utility trenches.
 - (e) Storm-water management BMPs prior to backfilling of any underground drainage or storm-water conveyance structures; and evaluation of the system within 24 hours of a 2-year storm event, if possible.
 - (f) Sidewalks shall be inspected upon completion of the subbase, permanent binder and finish courses.
 - (g) Curbs, loaming and seeding operations, and street trees may also be inspected by a Board-appointed engineer.
 - (2) At the completion of all improvements in the subdivision, the Board-appointed engineer shall make an inspection before final release of the performance guarantee.
- B. A qualified engineer or surveyor chosen by the Planning Board shall carry out such inspections on behalf of the Town. The Applicant shall give the proper inspector a minimum of three business days notice of the proper time for inspection.
- C. Construction of streets and installation of utilities may be phased, provided that each section shall not be less than five hundred (500) feet in length.
- D. Inspection costs shall be borne by the Applicant, and shall be paid to the satisfaction of the Planning Board before final release of the performance guarantee.
- E. Each specified construction stage should be completed to the satisfaction of the inspector, in writing, before further work will be done. Further work performed without this approval will result in returning the construction to the status necessary to perform the required inspection.

- F. The developer has the responsibility to ensure that the approved construction plans are implemented and construction criteria are met. Surveillance and field revisions by town officials and inspectors cannot be construed as fulfilling this responsibility.

§ 7.2. Permission required.

No building or structure shall be erected within a subdivision without permission from the Building Inspector, and no permit shall be issued except in compliance with any subdivision approval and related covenant, if applicable.

§ 7.3. Waiver of compliance.

Strict compliance with the requirements of these rules and regulations may be waived when, in the judgment of the Planning Board, such action is in the public interest and not inconsistent with the Subdivision Control Law.

§ 7.4. Outside Consultants and other expenses.

Expenses for advertising, notices, inspections and professional review will be borne by the applicant.

- A. As provided by M.G.L. Ch. 44 §53G, the Northfield Planning Board may impose reasonable fees for the employment of outside consultants, engaged by the Planning Board, for specific expert services. Such services shall be deemed necessary by the Planning Board to come to a final decision on an application submitted to the Planning Board pursuant to the requirement of: The Town of Northfield Zoning Bylaws, Town of Northfield Subdivision Regulations, or any other state or municipal statute, bylaw or regulation, as they may be amended or enacted from time to time. The Planning Board may also impose fees for other consultant services for the review of the plans, survey or inspections under any of the above-referenced laws or regulations.
- B. Special Account. Funds received pursuant to these rules shall be deposited with the town treasurer who shall establish a special account for this purpose. Expenditures from this special account may be made at the direction of the Planning Board without further appropriation as provided in G.L. Ch. 44 §53G. Expenditures from this account shall be made only in connection with a specific project or projects for which a consultant fee has been collected from the applicant. Expenditures of accrued interest may also be made for these purposes.
- C. Consultant Services. In hiring outside consultants, the Planning Board may engage professional engineers, planners, landscape architects, wildlife scientists, lawyers, designers, or other appropriate professionals able to assist the Planning Board and to ensure compliance with all relevant laws, ordinances, bylaws and regulations. Specific consultant services may include but are not limited to analysis of applications, storm-water system designs, title searches, mapping of lot and/or municipal boundaries and/or right of way, and environmental or land use law. Services may also include on- site monitoring during construction, or other services related to the project deemed

necessary by the Planning Board. The consultant shall be chosen by, and report only to, the Planning Board and/or its administrator.

- D. An Applicant may make an administrative appeal from the selection of the outside consultant to the Select Board. The grounds for such an appeal shall be limited to claims that the consultant selected has a conflict of interest or does not possess the minimum, required qualifications. The minimum qualifications shall consist either of an educational degree in, or related to, the field at issue or three or more years of practice in the field at issue or a related field. The required time limit for action upon an application by the Board shall be extended by the duration of the administrative appeal. In the event that no decision is made by the Select Board within one month following the filing of the appeal, the selection made by the Board shall stand.

§ 7.5. Severability.

The invalidity of any of the foregoing rules, regulations and requirements shall not affect the validity of the remainder. Any part of these regulations subsequently invalidated by a new

Commonwealth law or modification of an existing Commonwealth law shall automatically be brought into conformity with the new or amended law and shall be deemed to be effective immediately and the Town's Subdivision Regulations will be amended in accordance with the procedures outlined in State law.

§ 7.6. Higher standard to govern.

Whenever these rules and regulations made under the authority hereof differ from those prescribed by any local bylaw or other local regulation, the provision which imposes the greater restriction or the higher standard shall govern.

§ 7.7. Statutory rules and regulations.

For matters not covered by these rules and regulations, reference is made to MGL C. 41, § 81-K to 81-GG, inclusive.

APPENDIX A

Development Guidelines by Landscape Type

The following provides criteria for categorizing land into four (4) landscape types, based on landform, vegetation and existing development. For each landscape type, guidelines are provided for development consistent with town goals and character. The layout and construction of ways within subdivisions should be designed to comply with these guidelines and so as to facilitate vegetative cover and building development consistent with them. Included in these guidelines are considerations beyond subdivision control, such as suggested building materials. These are included here as a reference, for possible implementation at the developer's option.

Developers who believe that alternative guidelines would better meet the general goals being sought are encouraged to state those alternative guidelines as a part of their plan submittal.

Open Plain

IDENTIFICATION -- Flat land generally cleared of trees, now cropland or fields.

OBJECTIVES -- To maintain the open sweep of the land; avoid shapeless suburbia.

BUILDING SITING -- Cluster tightly, avoid scattered structures, repetitive yard dimensions.

ROAD LOCATION -- Lanes in clusters possibly rectilinear, others curving in response to minor land features.

VEGETATIVE COVER -- Protect any existing tree belts, plant street trees within clusters; mow, plow, graze.

BUILDING DESIGN -- Strong colors and textures, wood preferred; variation in basic building designs encouraged.

OTHER CONSIDERATIONS -- Agriculture encouraged.

Wooded Plain

IDENTIFICATION -- Flat land, generally wooded.

OBJECTIVES -- To avoid "suburban" development character, protect forest ecology.

BUILDING SITING -- Cluster preferred; scattered buildings away from or on edges of clearings, screened from roads.

ROAD LOCATION -- Frequent curves, staggered intersections.

VEGETATIVE COVER -- Preserve existing vegetative cover to the extent feasible. Clear underwood and only selectively clear trees in building envelope areas.

BUILDING DESIGN -- Less critical than in other areas.

OTHER CONSIDERATIONS -- Better suited to development than most landscape types.

Mountain

IDENTIFICATION – Mountainous land and associated highlands, predominantly steep and wooded.

OBJECTIVES -- To protect the fragile mountain ecology, protect the visual quality of the town's backdrop.

BUILDING SITING -- Cluster on less steep portions and in land folds, away from crests.

ROAD LOCATION -- Follow contours, minimizing cuts and fills.

VEGETATIVE COVER -- Preserve existing cover to maximum degree possible.

BUILDING DESIGN -- Low structures, slope-following; no large, light surfaces, bright paint or exposed metal; muted color, soft form; wood, earth, weathered silvers, grays, browns.

OTHER CONSIDERATIONS -- Extraordinary care necessary to avoid erosion; development generally undesirable.

Village

IDENTIFICATION -- Land in the vicinity of concentrated development, whose character is established by existing development.

OBJECTIVES -- To continue and provide consistency with the pattern and character of existing development.

BUILDING SITING -- Compact clustering; avoid scattered structures.

ROAD LOCATION -- Short rectilinear segments in clusters, others curving in response to land features.

VEGETATIVE COVER -- Retain or plant street trees, preserve other trees where feasible.

BUILDING DESIGN -- Anything consistent with scale, texture and colors of nearby structures; wood preferred; variety in basic building designs encouraged.

OTHER CONSIDERATIONS -- Better suited to development than most landscape types.

APPENDIX B

LID SITE PLANNING AND DESIGN CHECKLIST	
<p>The Applicant must document specific LID site planning and design strategies applied for the project. If a particular strategy was not used, a justification and description of proposed alternatives must be provided. If a strategy is not applicable (N/A), applicants must describe why a certain method is not applicable at their site.</p>	
SITE PLANNING STRATEGIES	Incorporated into Project?
a. Natural vegetation has been retained to the maximum extent possible.	<input type="checkbox"/>
b. Cut and fill have been minimized.	<input type="checkbox"/>
c. Impacts to sensitive resources such as floodplains, steep slopes, erodible soils, wetlands, surface waters, and their riparian buffers has been avoided or minimized.	<input type="checkbox"/>
d. Impervious lot coverage has been minimized to the extent possible (not applicable to the Central Business and Historic Industrial Zoning Districts)	<input type="checkbox"/>
<p><i>Explanation of constraints and/or proposed alternatives:</i></p>	
STREET LAYOUT STRATEGIES	Incorporated into Project?
a. Street and driveway lengths are minimized, and avoid steep hillsides and important natural features.	<input type="checkbox"/>
b. Pavement width has been kept to the minimum requirements of the Subdivision Rules and Regulations, unless otherwise specified by the Planning Board.	<input type="checkbox"/>
c. Permeable pavement is used for sidewalks, overflow parking areas, or driveways, provided the appropriate soil and slope conditions exist.	<input type="checkbox"/>
<p><i>Explanation of constraints and/or proposed alternatives:</i></p>	

STORM-WATER MANAGEMENT STRATEGIES	
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a. Vegetated roadside swales or bioretention areas are used to collect, hold, and treat runoff from roadways and parking lots. Where curbs are deemed necessary to protect the roadside edge, perforated (that allow runoff to flow into swales) or “invisible curbs” (flush with the road surface) are used.	<input type="checkbox"/>
b. Vegetated filter strips are used to filter and treat runoff from roadways, parking lots, and driveways.	<input type="checkbox"/>
c. Constructed wetlands are used for storm-water retention and pollutant removal.	<input type="checkbox"/>
d. Rain gardens or bioretention areas are used to collect, treat, and infiltrate runoff.	<input type="checkbox"/>
e. Runoff from roofs is discharged to lawn areas, rain gardens, and/or rain barrels.	<input type="checkbox"/>

Explanation of constraints and/or proposed alternatives:

SITE WORK STRATEGIES	Incorporated into Project?
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f. Clearing of the right-of-way will be limited to what is necessary to construct the roadway, drainage, sidewalk, and utilities, and to maintain site lines.	<input type="checkbox"/>
g. Permeability of soils that have been compacted by construction vehicles will be reestablished (for example, by rototilling lawn areas prior to seeding, etc.)	<input type="checkbox"/>

Explanation of constraints and/or proposed alternatives: