Town of Ashburnham

Planning Board
Rules and Regulations
Governing the Subdivision of Land

Ashburnham, Massachusetts

Adopted after a duly advertised public hearing in accordance with Section 81Q, Chapter 41, Massachusetts General Laws, as amended on April 26, 1955:

Amended September 6, 1967
Amended February 12, 1986
Amended July 28, 1988
Amended September 25, 2003
Amended September 14, 2006

ASHBURNHAM PLANNING BOARD

John MacMillan, Chair
Robert MacLeod
Joseph Kalagher, Vice Chair
Bruce Whitney, Clerk
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RULES AND REGULATIONS
GOVERNING THE SUBDIVISION OF LAND
ASHBURNHAM, MASSACHUSETTS
(ADOPTED UNDER THE SUBDIVISION CONTROL LAW)
SECTIONS 81-K TO 81-GG INCLUSIVE, CHAPTER 41, M.G.L.

1. PURPOSE (Section 81M of Chapter 41, Mass. G.L.)

"The subdivision control law has been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of the cities and towns in which it is, or may hereafter be, put in effect by regulating the laying out and construction of ways in subdivisions providing access to several lots therein, but which have not become public ways, and ensuring sanitary conditions in subdivisions and in proper cases parks and open areas. The power of the Planning Board and of a board of appeal under the subdivision control law shall be exercised with due regard for the provision for adequate access to all of the lots in a subdivision by ways that will be safe and convenient for travel; for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic and other emergencies; for insuring the compliance with the applicable zoning and ordinances or bylaws; for securing adequate provision for water, sewerage, drainage and other requirements where necessary in a subdivision; and for coordinating the ways in a subdivision with each other and with the public ways in the city or town in which it is located and with the ways in neighboring subdivision."

2. AUTHORITY

Under the authority vested in the Planning Board of the Town of Ashburnham by § 81-Q of Chapter 41 of the General Laws, said board hereby amends those rules and regulations governing the subdivision of land in the Town of Ashburnham which took effect on the 26th day of April 1955. Such amended rules and regulations shall be effective on and after September 14, 2006.

3. GENERAL

3.1 DEFINITIONS

For the purposes of these regulations, the terms and words defined in the subdivision control law shall have the meaning given herein, unless a contrary intention clearly appears in these definitions. The following other terms and words are defined as follows:

AASHTO: American Association of State Highway and Transportation Officials.

APPLICANTS: Person applying for approval of plan hereunder, including owner, agent or assigns of the owner.

BENCH MARK: Mark made in durable object of known position and elevation as reference point.

BOARD: The Planning Board of Ashburnham.

CERTIFICATION/ENDORSEMENT BY THE PLANNING BOARD: As applied to an instrument required or authorized by the subdivision control law to be recorded, shall mean certification/endorsement signed by a majority of the members of the board, or any other person authorized by it to certify/endorse, and named by written statement to the register of deeds and recorder of the land court, signed by a majority of the board (c.41, § 81L).

EASEMENT: A right in land acquired in public authority or other person to use or control property for a utility or other purpose.

ENGINEER OR SURVEYOR: Person registered by the Commonwealth of Massachusetts to perform professional civil engineering or land surveying services.

FORMS/CHECKLISTS: The forms, applications and checklists for the administration of these regulations are available in the Town of Ashburnham Land Use Office. These documents are not part of the regulations and their content may be revised from time to time by administrative action of the Board, without a public hearing.

OWNER: The person(s), partnership, association, group, corporation, or other legal entity holding fee simple title to a parcel of land shown on record of the Registry of Deeds of Northern Worcester County, Registry of Probate, or Land Court.

LOT: Area of land in one ownership with definite boundaries used or available for use, as the site of one or more buildings. Areas endorsed by the board upon a plan as "not available for building purposes" shall not be considered lots.

RECORDED: Recording in the Registry of Deeds for Worcester County and, where registered land is affected, filing with the recorder of the land court (c.41, § 81L).

SIDEWALK: A way within the right of way of a street normally parallel to the street designed primarily for pedestrian use.

STREET, MINOR ROADS & STREETS: A street which, in the opinion of the Planning Board, is likely to be used only by vehicles traveling to or from lots on that street.

STREET, SECONDARY COLLECTOR: A street, other than a primary collector or arterial which, in the opinion of the Planning Board, is likely to carry traffic other than just to or from lots on that street.

STREET, PRIMARY COLLECTOR: A street which, in the opinion of the Planning Board, is likely to carry large volumes of through traffic.

STREET, ARTERIAL: A street of regional significance which carries high volumes of traffic between and through towns; such streets may also provide direct access to abutting parcels.

STREET, CUL-DE-SAC: A single continuous stretch of road which, in the opinion of the Planning Board, is open at one end and closed at the other end by a paved circle or bulb.

STREET, DEADEND: A single continuous stretch of road which, in the opinion of the Planning Board, is open at one end and closed at the other end which is not a cul-de-sac.

SUBDIVISION: Division of a tract of land into two or more lots, including re-subdivision, provided that such division shall not be deemed to constitute a subdivision under the subdivision control law (M.G.L., c.41, §§ 81K to 81GG) if at the time it is made, every lot within the tract has sufficient frontage on a public way, a way which the town clerk certifies as maintained and used as a public way, a way shown on a plan theretofore approved and endorsed in accordance with the subdivision control law, or a way in existence as of February 18, 1954 meeting the standards of the board as set out in § 4.1.3 of these regulations. (For other provisions, see M.G.L., c.41, § 81L)

TOWN ENGINEER: The Town's engineer or the Planning Board's consulting engineer

UTILITIES: Private and municipal services to be furnished within the subdivision, including telephone, cable TV, electric light and power, gas lines, sanitary sewers, water drains, water pipes and appurtenances.

WAY MAINTAINED AND USED AS A PUBLIC WAY: For purpose of determining whether a proposed division of lots is a subdivision, a way shall be certified as used and maintained as a public way only if it meets the standards of § 4.1.3.

WAY IN EXISTENCE WHEN SUBDIVISION CONTROL LAW BECAME EFFECTIVE IN THE TOWN: For purposes of determining whether a proposed division of lots is a subdivision, a way in existence as of February 18, 1954 shall not be deemed adequate by the board except if it meets standards of § 4.1.3.

WAY AND PUBLIC: Any road which has been accepted as a public way pursuant to M.G.L., c.82, plus any way known as public before 1846, or any way established by court decree to be a public way of dedication, prescription or otherwise.

3.2 GENERAL REQUIREMENTS

3.2.1 BASIC REQUIREMENT

No person shall make a subdivision within the meaning of the Subdivision Control Law of any land within the town, or proceed with the improvements or sale of lots in a subdivision, or the construction of ways, or the installation of municipal services therein, unless and until a plan has been endorsed "PLANNING BOARD APPROVAL NOT REQUIRED", or a definitive plan of such subdivision has been submitted to, approved and endorsed by the Planning Board as herein provided, and recorded at the Registry of Deeds.

3.2.2 LIMITATION OF ONE DWELLING ON ANY LOT

Not more than one building designed or available for use for human habitation shall be erected, or placed, or converted to use as such on any lot in a subdivision, or elsewhere in the town, without the consent of the Board, and such consent may be made conditional upon the providing of adequate ways furnishing access to each site for such building, in the same manner as otherwise required for lots within a subdivision.

3.2.3 EFFECT OF PRIOR RECORDING

The recording of a plan of subdivision within the town in the Registry of Deeds of Northern Worcester County prior to the effective date of the Subdivision Control Law in the Town of Ashburnham shall not exempt the land within such subdivision from the application and operation of these Rules and Regulations except as specifically exempt by M.G.L., c.41, § 81FF.

3.2.4 COMPLETENESS OF APPLICATION

Before the Planning Board may act on an application filed pursuant to these Rules and Regulations, the Board shall first determine whether the submitted application is complete and properly submitted. In order for an application to be considered a proper submittal, the submission requirements and the Plan Form application, corresponding Plan Form Checklist, and Contents requirements shall be fulfilled.

If additional required application material is submitted after the initial submission date, the date when all required items or data are furnished to the Planning Board shall be considered the legal date of submission for the entire application. In order to have the additional information considered part of the application, the applicant shall complete Form D acknowledging the new submission date and file them with the Planning Board and Town Clerk.

If an application is determined not to be a proper submittal, it shall be denied without need of a public hearing but with prior written notice to the applicant that the Planning Board will be considering whether the application is a proper submittal. A determination that an application is not a proper submittal shall be filed with the Town Clerk within seven (7) days following the vote of the Planning Board.

For purposes of clarification, "incomplete" plans can be defined as lacking critical information and or entire sections of the subdivision regulations that would be cause for the board or staff member to not

have sufficient information to determine compliance with, or meeting the requirements of, the subdivision regulations. e.g. not including drainage analysis when required is considered incomplete.

3.2.5 WAIVERS

A subdivision approved and endorsed by the Planning Board must still comply with all Rules and Regulations for the subdivision of land, unless a specific waiver is granted, regardless of what is shown on the endorsed plan

The Planning Board may, in special and appropriate cases, waive strict compliance with such portions of these Rules and Regulations, as provided for in M.G.L., c.41, § 81R, where such action is in the public interest and not inconsistent with the purpose and intent of the Subdivision Control Law. Waivers are only granted for projects which provide, in the sole opinion of the Planning Board, clear and significant improvements to the quality of a project compared with a project which meets the minimum of the subdivision regulations.

A request for a waiver of a requirement, rule, or regulation shall be made in writing by the applicant, and submitted, whenever feasible, with the submission of the Preliminary Plan. If the Planning Board approves the request for a waiver, it shall endorse conditions of such waiver (if any) on the plan or set them forth in a separate instrument attached to and referenced to the plan, which shall be deemed a part of the plan. The Planning Board shall notify the applicant in writing of its approval, disapproval, or approval with conditions.

3.2.6 MORE RESTRICTIVE STANDARDS TO APPLY

These regulations are not intended to interfere with, abrogate or annul any other bylaw, regulation, statute, or other provision of law. If any provision of these regulations imposes restrictions different from those imposed by any other provision of these regulations or any other regulation, bylaw or other provision of law, whichever provision is more restrictive or imposes a higher standard shall apply.

3.2.7 SUBMISSION OF PLANS TO THE PLANNING BOARD

It is the preference of the Planning Board that the submission of plans for the Planning Board's consideration is done by delivering all required application materials to the Land Use Office during weekday office hours. However, The Planning Board will accept other procedures for submission as provided for in M.G.L., c.41, §§ 81O, 81T, and 81U. Plans intended for review at a regular meeting of the Planning Board shall be forwarded to the Planning Board at least ten (10) days prior to the next scheduled meeting. The day of the next regular board meeting shall be considered to be the date of submission for all plans, except the date of mailing shall be the date of submission for definitive plans sent by registered mail to the Planning Board in care of the Town Clerk. For plans transmitted to the Planning Board other than at a regular Board meeting or other than through the Town Clerk, the date of submission shall be considered to be the day of the next regular Planning Board meeting after such transmittal. Plans shall in no case be considered "submitted" until all required documentation and fees have been received and the application is considered complete per § 3.2.4. All submitted materials will be date stamped and one copy of all materials will be transmitted to the Town Planner to verify completeness of the application.

3.2.8 AUTHORIZATION TO SUBMIT A PLAN

Where any plan is submitted by an individual or agency other than the owner of the affected land, the applicant must provide an original letter from the owner authorizing the applicant to submit the plan with an original notarized signature. A copy of any Purchase and Sale agreement, along with evidence of the owner's rightful ownership of the land, such as a deed must be submitted with all applications. Where the owner is a corporation, corporate documents must be submitted indicating who has signed

authority to enter into agreements on behalf of the corporation. All applications shall include a Municipal Lien Certificate, or similar document, indicating no outstanding taxes or assessments are due on the property.

3.2.9 EXTENSION

An applicant may request an extension to the statutory limits for the Planning Board to take action on an application in order to provide additional time to discuss issues related to an application filed pursuant to these Rules and Regulations. The request shall be made in writing on Form S, giving a description of the application and plan, the statutory deadline for action, any previously approved extensions, the length of the requested extension, and the proposed date for final action. A request greater than six (6) months shall require re-notification of all abutters and re-advertising the legal notice at the owner's expense.

A copy of the request for an extension, once approved, shall be filed with the Town Clerk.

3.1.10 REFERENCES

The attention of all Applicants submitting a plan for approval under these Rules and Regulations is also directed to the provisions of the Wetland Protection Act (M.G.L., c.131, § 40), Massachusetts Department of Environmental Protection (DEP) Stormwater Management Policy requirements, Stormwater Pollution Prevention Plan (SWPPP), all of the Massachusetts General Laws, MEPA requirements, NPDES permit requirements, State of Massachusetts' Standard Specifications for Highways and Bridges, as amended, Manual on Uniform Traffic Control Devices (MUTCD), all requirements of the Federal Americans with Disabilities Act (ADA) and Massachusetts Architectural Access Board (AAB) and applicable Ashburnham Zoning Bylaws, Ashburnham General Bylaws and Ashburnham Wetland's Bylaws, Board of Health, Board of Water/Sewer Commissioners, Board of Selectmen, Highway Department, Police Department, and Fire Department. Compliance with the requirements of the aforementioned provisions may necessitate major or minor changes/modifications in any subdivision plan submitted to the Board.

Approved Definitive Subdivision Plans modified under an Order of Conditions of the Conservation Commission may require a modification to the Definitive Plan as authorized by M.G.L., c.41, § 81W

For matters not covered by these Rules and Regulations, reference is made to the provisions of M.G.L., c.41, §§ 81K through 81GG, inclusive.

3.2.11 SNOW PLOWING AND SANDING ON UNACCEPTED PUBLIC WAYS

Upon the occasion of a snow and/or ice event requiring the Town to snow plow and/or sand the Town accepted public ways, (see definition of "Way and Public" in § 3.1) the owner and/or applicant shall snow plow and/or sand unaccepted ways within their subdivision in a timely fashion. In the event that the owner and/or applicant fails to snow plow and/or sand unaccepted ways within their subdivision in a timely fashion, the Town may do so at the owner's and/or applicant's expense when so ordered by a Town Selectman or when in the opinion of the DPW Director, Police Chief, Fire Chief, and Planning Board it becomes a matter of public safety.

Upon the occupancy of one or more single family residences or residence units within a subdivision, it is the responsibility of the owner and/or applicant to insure that arrangements are made to snow plow and/or sand unaccepted ways [roads] within their subdivision in a timely fashion to ensure that the residents and emergency vehicles have safe, unimpeded access to and from an existing Town accepted public way. The surface area of the unaccepted way shall be maintained at a condition equal to or better than Town accepted public ways.

4. PROCEDURE FOR THE SUBMISSION AND APPROVAL OF PLANS

4.1 PLANS NOT REQUIRING APPROVAL UNDER SUBDIVISION CONTROL LAW

4.1.1 SUBMISSION

a. Any person who wishes to cause to be recorded in the Registry of Deeds or to be filed with the Land Court a plan of land and who believes a plan does not require approval under the Subdivision Control Law, may submit a plan, a description of the land and application Form A, and corresponding Form A Check List, and application fee, Mylar and two (2) full size 24" x 36" copies and seven (7) copies in an 11 x 17 inch format to the Planning Board accompanied by the necessary evidence to show that the plan does not require approval. See Form A and corresponding Form A Checklist for additional requirements.

b. **Electronic filing requirements:** All plans submitted under this section shall also be submitted on a Windows compatible 3.5" diskette(s) or CD in DXF (drawing exchange file) format. All plans with six (6) or more lots shall be referenced to Massachusetts State Plane coordinates using the North American Datum of 1983 (NAD83) and the North American Vertical Datum of 1988 (NAVD88). Whenever possible, plans with five (5) or less lots shall also be "tied into" real world State Plane coordinates using the datum specified above. To demonstrate this tie down, all features shall be stored in the Massachusetts State Plane Coordinate System and the plan location and coordinate values of at least two points shall be included in the submitted CAD file. To ensure that all plans are submitted to the Town in a consistent format, the CAD file shall use the layering scheme listed in Appendix A.

4.1.2 CONTENTS

a. Title boundaries, north point, date and scale;

b. Locus Map showing location of subdivision with adjacent streets and landmarks clearly indicated;

c. Name and address of record owner and engineer or surveyor, with appropriate certification of a registered land surveyor;

d. Frontage and area of any remaining adjoining land owned by the applicant;

e. Suitable space to record the action of the board, the signatures of the members of the Board and the following words shall be inscribed on each "Approval not Required" plan endorsed under this section:

> **PLANNING BOARD ENDORSEMENT OF THIS PLAN INDICATES ONLY THAT THE PLAN IS NOT A SUBDIVISION UNDER M.G.L. CHAPTER 41, SECTION 81L AND DOES NOT INDICATE THAT THE LOT IS BUILDABLE OR THAT IT MEETS ZONING, HEALTH, CONSERVATION OR GENERAL BYLAW REQUIREMENTS.**

f. Sufficient data to determine existing lines of every street and way line to include both side lines of the streets and abutters on both sides of the street;

g. House numbers shall be shown on each and every lot according to the practice of the Town of Ashburnham, i.e.; 40' rule;

h. Proposed lot boundaries, with areas of lots (shown in square feet if less than two acres) and lot frontage; and

i. Evidence that each lot on the plan, or altered by it, meets one of the following four criteria:

1. Has all the frontage required under zoning on:

(a) a public way, or

(b) a way which the town clerk certifies is maintained and used as a public way;

(c) a way shown on a plan theretofore approved, endorsed and registered in accordance with the subdivision control law and adequate assurances to complete such way or ways have been met under § 4.1.19 of the Ashburnham Planning Board Rules & Regulations.

(d) a private way in existence on February 18, 1954 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;

2. Has been clearly marked on the plan to be either; joined to or made a part of an adjacent lot, or "not available for building purposes" or

3. Contains a building which existed prior to February 18, 1954; or

4. Constitutes an existing parcel with no new lot divisions.

4.1.3 STANDARDS OF ADEQUACY

a. In determining whether an existing way is adequate to qualify a plan as not constituting a subdivision, the Board shall consider following standards, among others;

	Development 1-5 lots	Potentially Served 5 or more lots
Minimum right of way	40 feet	40 feet
Gravel foundation minimum	12 inches	12 inches
Surface type	gravel	3" bituminous Concrete
Surface width minimum	18 feet	24 feet
Sight distance minimum	Shall meet current AASHTO Standards for existing speed limit (Police Department to provide current speed limit).	
Maximum grade*	8%	8%

* And meet the requirements of § 5.1.3 (b) below

b. Have provisions been made for public utilities and drainage without cost to the town?

c. Where direct access to a lot from the abutting street is not possible due to non access strips or easements or due to steep grades, wetlands, watercourses or other physical constraints, the Planning Board may consider the lot as not having sufficient frontage to allow a division of land without approval under the Subdivision Control Law.

4.1.4 BOARD ACTION

a. The Board shall evaluate the ANR plan to determine if it shows a subdivision. The Board shall determine first, whether each and every lot shown on the plan has the minimum frontage required by the Ashburnham Zoning By-Law on a suitable way (§ 4.1.2, i); and second whether

vital, direct, practical, and traversable access exists from an abutting way to the buildable portion of the lot(s)

The Board shall determine whether vital, direct, practical and traversable access to municipal services exists from the abutting way to the buildable portion of a lot. The access shall be safe and convenient for travel. Where access is illusory due to the existence of steep grades, or other physical barriers, constraints or impediments, the Board shall not consider the lot as having sufficient frontage to allow a division of land without approval under the Subdivision Control Law.

b. If the Board determines that the plan does not require approval, it shall forthwith, without hearing and within 21 days of submission, endorse on the plan by a majority of the Board, or by a person authorized by the Board, the words "Planning Board approval under Subdivision Control Law not required", or words of similar impact with appropriate name or names signed thereto. Such endorsement shall not be withheld unless such plan shows a subdivision. Said plan shall be returned to the applicant and the Board shall notify the Town Clerk of its action in writing.

c. If the Board determines that the plan does require approval under the Subdivision Control Law, it shall, within 21 days of submission of said plan, give written notice of its determination to the Town Clerk and to the applicant. Said plan shall be returned to the applicant.

d. If the Board fails to act upon the plan, or fails to notify the Town Clerk and the applicant of its action within 21 days after its submission, it shall be deemed to have determined that approval under the Subdivision Control Law is not required, and the Board shall forthwith make such endorsement on said plan, and on its failure to do so forthwith, the Town Clerk shall issue a certificate to the same effect. The plan bearing such endorsement or the plan and such certificate, as the case may be, shall be delivered by the Board, or in the case of the certificate, by the Town Clerk, to the applicant.

4.1.5 ADMINISTRATION

One print of the plan shall be retained in the files of the Planning Board and one print shall be transmitted to the Board of Assessors.

4.2 PRELIMINARY PLAN

4.2.1 GENERAL

A Preliminary Plan of a subdivision may be submitted by the applicant to the Board of Health, Conservation Commission and to the Board for discussion and approval by the Board. The submission of such a Preliminary Plan will enable the subdivider, the Board, and other municipal agencies 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 filled in every case. Prior to submitting a preliminary plan, the applicant should discuss the proposed plan with the Town Planner and the Board. All Preliminary Plan submittals shall meet § 5.15 "Major Residential Development" of the Town of Ashburnham Zoning Bylaw.

4.2.2 SUBMISSION

If such review and approval are desired, a properly executed Application Form B shall be filed with Two (2) full size 24" x 36" copies of the Preliminary Plan and eleven (11) copies in an 11" x 17" format submitted to the Board. The Preliminary Plan shall be submitted by delivery at a regularly scheduled meeting of the Board, or by registered mail, postage prepaid, to the Board. If so mailed, the date of mailing shall be the date of submission of the Plan. In addition, written notice of such submission using Application Form B shall be given by the applicant to the Town Clerk by delivery or by certified

mail, postage prepaid. If notice is given by delivery, the Town Clerk shall, if requested, give a written receipt to the person who delivered such notice.

4.2.3 CONTENTS

The Preliminary Plan shall be drawn on blueprint or similar type media 24" x 36" format at a scale of 1" = 100'. Said Preliminary Plan shall show sufficient information about the subdivision to form a clear basis for discussion of its problems and for the preparation of the Definitive Plan. Such information shall include the following:

a. Proposed subdivision name or identifying title, boundaries, north point, date, scale, legend and title "Preliminary Plan", and block for approval;

b. Name and address of record owner or owners, applicant, engineer or surveyor or other designer of preliminary plan layout, with professional stamp, if any;

c. Names and Assessors Map and Parcel numbers of all abutters, and 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 of the petitioner as they appear on the most recent applicable tax list.

d. Existing or proposed lines of streets, sidewalks, ways, lots, easements and public or common areas within the subdivision in a general manner. The centerline of the proposed roadway and all property lot lines shall be adequately and accurately staked or flagged on the site sufficient for identification by the Planning Board members and their agents.

e. Easements and rights of ways appurtenant to the land;

f. Locus map at a scale of 1" = 2000', showing location of subdivision with adjacent streets and landmarks clearly indicated.

g. Approximate boundary lines of all proposed lots or division of land with their approximate areas and dimensions. Lots to be numbered in sequence;

h. Topography of the land in a general manner at contour intervals of 10' minimum, based on USGS data including major features such as wooded areas, ditches, wetland water bodies, stonewalls and fences;

i. Proposed system of drainage, including the location of all swamp, marsh and lowland, water bodies, streams, open drains and ditches, natural or man-made, and flowage rights, public and private, adjacent to or within the proposed subdivision, in a general manner;

j. Estimates of the grades of proposed streets and ways or profiles of the same;

k. Statement of existing zoning and any easements, Covenants or restrictions applying to the area proposed to be subdivided.

4.2.4 ACTION BY BOARD

The Preliminary Plan will be studied by the board and within 45 days after submission, the board shall approve, approve with modifications suggested by the board, or agreed upon by the person submitting the plan, or disapprove the Preliminary Plan. Disapproval by the board will be accompanied by a detailed statement of reasons for the action. Notice of its action must be given by the Board to the applicant and the Town Clerk within 45 days of the date of submission. Prior to taking action the Board may request comments from the Board of Health, Fire Department, Police Department, Water/Sewer Commission and Building Commissioner.

4.3 DEFINITIVE PLAN

4.3.1 PREAPPLICATION

a. Prior to investing in extensive professional design costs for preparation of subdivision plans, the applicant is invited to review the proposed development of the parcel of land with the Town Planner and the Board, in order to explore general conditions involving the site and to discuss potential problems. Pencil sketches, which need not be professionally prepared, will assist in this discussion, and should show the critical features of a Preliminary Plan.

b. The Definitive Plan shall conform substantially to the Preliminary Plan as approved, but may constitute only the portion which is proposed to be recorded and developed at that time. The Planning Board may disapprove a Definitive Plan if it violates sound land use planning principles and design, even though all requirements hereafter enumerated are met. All Definitive Plan submittals shall meet § 5.15 "Major Residential Development" of the Town of Ashburnham Zoning Bylaw.

c. The subdivision rules and regulations and zoning in effect at the time of the submission of the Preliminary Plan shall govern the Definitive Plan if it is duly submitted within seven months.

d. No tract of land proposed for use in a subdivision shall be stripped of its vegetation or have earth removed until approval of the Definitive Plan has been granted and the appeal period expired. See § 5.1.29 for tree and planting requirements.

4.3.2 SUBMISSION REQUIREMENTS

a. Any person who submits a DEFINITIVE PLAN of a subdivision to the Planning Board for approval shall file with the Board the following:

1. Two (2) complete full size 24" x 36" sets of prints drawn on blueprint or similar type media. Multiple color lines are acceptable. Original Mylar drawing(s) to be submitted at time of final endorsement;

2. A properly executed Application Form C and corresponding Form C Checklist;

3. Two (2) copies of Drainage calculations certified by the engineer who prepared them;

4. A certified list of names of all abutters, and 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 of the petitioner as they appear on the most recent applicable tax list;

5. Eight (8) copies of the Street Plans and Complete set of prints submitted in an 11"x17" format.

6. Eight (8) copies of Lotting and street profile plans only, submitted in an 11" x 17" format

7. Electronic filing requirements: All plans submitted under this section shall also be submitted on a Windows compatible 3.5" diskette(s) or CD in DXF (drawing exchange file) format. All plans with six (6) or more lots shall be referenced to Massachusetts State Plane coordinates using the North American Datum of 1983 (NAD83) and the North American Vertical Datum of 1988 (NAVD88). Whenever possible, plans with five (5) or less lots shall also be "tied into" real world State Plane coordinates using the datum specified above. To demonstrate this tie down, all features shall be stored in the Massachusetts State Plane Coordinate System and the plan location and

coordinate values of at least two points shall be included in the submitted CAD file. To ensure that all plans are submitted to the Town in a consistent format, the CAD file shall use the layering scheme listed in Appendix A.

b. Submit to the Town Clerk by delivery or certified mail:

1. A notice stating the date of Definitive Plan submission to the Planning Board; and

2. A copy of the completed Application Form C.

c. Submit to the Board of Health;

1. One (1) copy of the Definitive Plan;

2. Applicant shall supply Board with proof that plan was received by the Board of Health and the date that it was received.

d. Within three weeks of the definitive plan's filing with the Planning Board, evidence that a professionally prepared sign, nine (9) square feet (3' x 3') has been erected on the parcel which is the subject of said subdivision plan, conspicuously located and visible from at least one public or private way. Said sign to read "This parcel is subject of a public hearing for land subdivision, Plans available at Land Use Office, Town Hall".

4.3.3 CONTENTS

The Definitive Plan shall be prepared by a registered engineer and registered land surveyor. The Plan shall be at a scale of one-inch equals forty (40) feet, or such other scale as the Board may accept to show details clearly and adequately. Sheet sizes shall not exceed 24" x 36". If multiple sheets are used, they shall be accompanied by an index sheet showing the entire subdivision. The Definitive Plan shall contain the following information;

a. Subdivision name, boundaries, north point, legend, date and scale;

b. Locus Map at a scale of 1" = 2000';

c. A Title Block, in the lower right hand corner, with subdivision name, boundaries, north point, date, scale, names and address of owner of record and applicant, names, signatures and seals of the Engineer and Surveyor that actually prepared the plan, and space for revision dates. Certification that the plans have been prepared in accordance with these regulations.

d. A list of all other local, state and federal permits required, with status of each at time of filing.

e Location and names, with current Assessors Map and Parcel number, of all the abutters as they appear on the most recent tax list, including property owners on the opposite side of the any streets abutting the subdivision. Abutting land owned or under control of the owner/applicant.

f. Existing and proposed lines of streets, ways, lots, easements, and public or common areas within the subdivision. Street names to be shown as Road A, Road B, etc. until official names have been approved by the Board;

g. Sufficient data to determine the location, direction and length of every way and street line, lot line and boundary line, and to establish these lines on the ground;

h. Location of all permanent monuments properly identified as to whether existing or proposed;

i. Location, names and present widths of streets bounding, approaching or within reasonable proximity of the subdivision;

j. The frontage and area of each lot in square feet. Lot frontage shall meet the requirements of § 4.32 of the Ashburnham Zoning Bylaw;

k. Lot numbers shown enclosed in a circle and street numbers enclosed in a square;

l. Existing and proposed watercourses and ponds;

m. Reference identifying applicable Street Plans and Profiles, Covenants, or other relevant documents, whether recorded or not;

n. At two (2) foot intervals, existing topography, including topography within 100' of the site, and topography resulting from development of streets, drainage, and other required improvements. One (1) foot intervals may be required in flat areas, and additional topographic detail may be required if requested by the Planning Board or its engineer.

o. Existing and proposed drainage, drainage easements, including drainage areas inside the subdivision, areas outside the subdivision which drain into it, and the route, for existing and proposed drainage discharging from the subdivision, to the primary receiving water course or other body of water. Cross sections of each drainage ditch or pond shall be included;

If surface water drains will discharge onto adjacent existing streets, or onto adjacent properties not owned by the applicant, the applicant shall clearly indicate what course the discharge will take, and shall present to the Board evidence from his engineer that such discharge is satisfactory;

p. Proposed layout of water supply; size and location of existing and proposed water supply mains and there appurtenances and hydrants: and, Storm drains and their appurtenances, and easements pertinent thereto, and curb and curb dimensions;

q. Location of base flood elevation if encountered within 100' of the subdivision.

r. Suitable space for endorsement by the Planning Board, with spaces for annotating date of approval and date of endorsement. If approval of the Definitive Subdivision Plan is conditional, endorsement space shall read:

CONDITIONALLY APPROVED
ASHBURNHAM
PLANNING BOARD

4.3.4 STREET PLANS AND PROFILES

For each street there shall be a separate plan at 1" = 40', and profile at 1" = 40' horizontal, 1" – 4' vertical, elevation referenced to the town datum, showing the following data –

a. The plan shall show bearings and distances, radii and arcs, central angle and tangent distances on all curves with stationing on the center line;

b. The profile shall show the existing ground on the center line in a solid black line, the existing right side in a short dash line, and the existing left side in a long dash line, the proposed grade shall be shown in a heavy black line with the elevation shown at each 50 foot station, with the rate of grade indicated;

c. The grade of all streets intersecting the proposed streets shall be shown for at least 100 feet each side of the intersection of the street center line;

d. The proposed drainage, catch basins, manholes, pipes and any other drainage facilities shall be shown on both plan and profile;

e. Existing and proposed sidewalks, bikeways and walkways shall be shown with widths and grade elevations;

f. All plans and profiles shall include a notation on each drawing that the same is one of an indicated total number of sheets;

g. Site Distance - The applicant must demonstrate that, for vehicles entering from a proposed street onto an existing street, adequate site distance exists in accordance with current AASHTO standards. Applicants also must demonstrate that adequate site distance exists along the proposed roadways in accordance with AASHTO standards. Sight distance computations shall be prepared by a professional engineer registered in the Commonwealth of Massachusetts. This information shall be shown on the Definitive Plan. Existing Road speed limits to be determined by the Ashburnham Police Department.

h. Existing and proposed fire protection mechanisms (i.e., Fire Cisterns, Hydrants, etc.)

i. Such additional information as the Board may deem necessary.

4.3.5 ACCOMPANYING STATEMENTS, DATA, and STAKING REQUIREMENTS

The Definitive Plan shall be accompanied by eight (8) copies of written statements on:

a. Existing zoning and any easements, Covenants, and restrictions applying to the area proposed to be subdivided;

b. Staking – To facilitate review of the Definitive Plan by the appropriate authorities, at the time of filling the Definitive Plan, the applicant shall stake the lot boundaries and the center line, right-of-way, and approximate limits of grading of all proposed streets on fifty foot (50') center line stations. Cut or fill dimensions to finished grade profile shall be marked on the stakes.

   Roads staked in connection with a Preliminary Plan submittal shall be updated to include any alignment or grade changes made.

c. Drainage calculations prepared by the applicant's engineer, including design criteria, drainage area and other information sufficient for the Board to verify the size of any proposed drain, swale, drain-field, culvert, bridge or catch basin. Said calculations shall be made separately for each drainage facility showing its location, the total upstream drainage area, and the percentage of impervious surfaces, the run-off per acre, the design run-off, facility size, slope and capacity, and the velocity of water through it. See § 5.1.9, Street Drainage for additional details.

d. Logs of results of all test pits made.

4.3.6 DEVELOPMENT IMPACT STATEMENTS

a. The applicant shall submit eight (8) copies of all impact statements, the purpose of which is to enable the officials of the Town to determine what methods are to be used by the applicant to promote the environmental health of the Community and to minimize adverse effects on the natural resources of the Town. This statement will also address the economic impact resulting to the Town as the result of the development, as well as its effects on Town demographics and traffic during and after construction. The statement shall be a technical document with references for all statements whenever possible. The Development Impact Statements shall clearly and methodically assess the relationship of the proposed development to the natural

and man-made environment of Ashburnham. This report shall be prepared by an interdisciplinary team of professionals qualified, experienced, and where applicable, licensed in their fields. The applicant shall bear the cost of this analysis.

b. In reviewing the statements, the Town boards, department heads and other officials will consider the degree to which water is recycled back into the ground, the maintenance and improvement of the flow and quality of surface waters, historic sites, unique geological, botanical, zoological, and archaeological features, existing or potential trails and accesses to open space area, proposed land management, and the health and safety of the inhabitants of the area.

c. The Planning Board may waive any section or sections of the Impact Statements which it deems inapplicable to the proposed project. The subdivider should discuss the requirements with the Board prior to the preparation of the statement and prior to the submission of the Definitive Plan.

d. Environmental Impact Statement shall contain the following:

1. Physical Environment:

(a). Description of the general physical conditions of the site, including amounts and varieties of vegetation, general topography, unusual geologic, scenic and historical features, stonewalls, tree preservation per § 5.1.29, trails and open space links and indigenous wildlife;

(b). Description of how the project will affect these features;

(c). A complete physical description of the project and its relationship to the surrounding area.

2. Surface Water and Soils:

(a). Description of the location, extent and type of existing water and wetlands, including existing surface drainage characteristics, both within and adjacent to the project;

(b) Description of the methods to be used during construction to control erosion and sedimentation; i.e. use of sediment basins and type of mulching, matting or temporary vegetation; description of approximate size and location of land to be cleared at any given time and length of time of exposure; covering of soil stockpiles and other control methods to be used;

(c) Evaluation of the effectiveness of the proposed methods on the site and on the surrounding areas;

(d) Description of the permanent methods to be used to control erosion and sedimentation. This description shall include a description of:

(1) Any areas subject to flooding or ponding;

(2) Proposed surface drainage system;

(3) Proposed land grading and permanent vegetation cover;

(4) Methods to be used to protect existing vegetation;

(5) The relationship of the development to the topography;

(6) Any proposed alterations of shore lines, marshes or seasonal wet areas;

(7) Any existing or proposed flood control or wetland easements;

(8) Estimated increase of peak run-off caused by altered surface conditions and methods to be used to return water to the soils.

(e). Complete description of the sewage disposal methods.

(f). Evaluation of the impact of the disposal methods on surface water, soils and vegetation.

3. Sub-Surface Conditions:

(a). Description of any limitations on the proposed project caused by sub-surface soil and water conditions and methods to be used to overcome them;

(b). Description of the procedure and findings of percolation tests conducted on the site;

(c). Evaluation of the impact of sewage disposal methods on the quality of sub-surface water.

e. General Impact statement on shall contain the following:

1. On Town Services:

(a). Description of the locations and numbers of vehicles accommodated in parking areas;

(b). Description of the effect of the project on police and fire protection services;

(c). Description of the effect of the project on public works department services;

(d). Description of the effect of the project on educational services;

(e). Description of the effect of the project on the Town water supply and distribution system.

2. On the Human Environment:

(a). Tabulation of the proposed buildings by type, size (number of bedrooms, floor area), ground coverage, and a summary showing the percentage of the tract to be occupied by buildings, parking and other paved vehicular areas, and usable open land;

(b). Description of the type of construction, building materials used, location of common areas, location and type of service facility (laundry, trash, garbage disposal);

(c). Description of the lighting, screening and security provisions;

(d). Statement of the proximity to transportation, shopping and educational facilities;

(e). Description of the proposed recreational facilities, including active and passive types, and age groups participating and a statement of the extent to which recreational facilities and open space will be available to all Ashburnham residents.

4.3.7 EROSION AND SEDIMENTATION CONTROL PLANS

a. A plan for erosion and sedimentation control covering all proposed excavation, filling and grade work for improvements shall be required. Said plan shall be prepared and certified by a Registered Professional Engineer.

b. Such plans shall show proper measures to control erosion and reduce sedimentation, as set forth in § 5.1.8. Such Erosion and Sedimentation Control Plan shall consist of:

   1. Location of areas to be stripped of vegetation and other exposed or unprotected areas.

   2. A schedule of operations to include starting and completion dates for major development phases, such as land clearing and grading, street, sidewalk, and storm sewer installation, and sediment control measures.

   3. Seeding, sodding, or re-vegetation plans and specifications for all unprotected or un-vegetated areas.

   4. Location and design of structural sediment control measures, such as diversions, waterways, grade stabilization structures, debris basins, etc.

   5. General information relating to the implementation and maintenance of the sediment control measures.

c. The Planning Board may require the Applicant to post a performance guarantee, to insure proper implementation of the Erosion and Sedimentation Control Plan during construction. The intent of the performance guarantee is to provide the Planning Board with a specific surety designated for:

   1. Construction and ongoing maintenance of measures outlined in the Erosion and Sedimentation Control Plan;

   2. Construction and maintenance of additional erosion and sedimentation controls, as may be warranted by particular site conditions;

   3. Construction of interim measures, as may be required, for stabilization of disturbed areas and/or repairs to eroded areas.

d. If, in the opinion of the Planning Board, the Developer fails to adequately execute the Erosion and Sedimentation Control Plan, or fails to satisfactorily control sediment at the site, the proceeds of the performance guarantee shall be made available to the Town of Ashburnham, for the purpose of correcting sedimentation and erosion control issues, and for the purpose of bringing the site into compliance with the Erosion and Sedimentation Control Plan.

e. The form of the performance guarantee shall be as agreed by the Planning Board and shall be maintained and extended by the Applicant/Developer until such time as earthwork operations are completed and all disturbed areas have been adequately vegetated. The dollar amount of the performance guarantee shall be based on the area (in square feet) of land to be disturbed, as shown on the Definitive Plans, times the unit price of $0.25 per square foot. The Planning Board may, at their reasonable discretion, modify the amount of the performance guarantee in response to particular site conditions or constraints.

4.3.8 LANDSCAPE PLAN

A Landscape Plan prepared and stamped by a Registered Landscape Architect shall be submitted with all applications for a Definitive Plan. The landscape architect should be included in the design process to assure integration of landscaping with other features of the subdivision and to promote the preservation and enhancement of the natural landscape. The Landscape Plan shall show the following:

a. All proposed landscaping including plantings at the entrance, planted cul-de-sac islands, screening for stormwater management facilities such as detention/retention basins, and other landscaped areas.

b. All land proposed to remain in an undisturbed, natural state, either through designation as a no-cut zone, subject to a deed restriction or conservation easement, or otherwise intended to be dedicated as open space, with boundaries clearly defined and type of protection indicated by a note on the plan. See § 5.1.29 for detailed requirements.

c. Existing and proposed stone walls, existing and proposed fencing, existing and proposed retaining walls, unique specimen trees, existing trees with diameters greater than 10" (dbh), wooded areas, and other significant vegetation.

d. The number, size, species and cultivated variety of proposed plantings shall be shown on the Landscape Plan. Plant names shall include both botanical and common names. See § 5.1.29 for detailed requirements.

e. Details of the proposed method for planting trees and shrubs shall be shown.

f. Construction details of proposed retaining wall(s), including location, length, height, and detail of stone facing or other surface treatment.

g. Specified times for plantings and seeding.

4.3.9 DRAFT HOMEOWNERS AGREEMENT

The applicant shall submit a draft Homeowner's Agreement establishing a Homeowner's Association with any application for a Definitive Plan showing detention/retention drainage devices, other stormwater facilities and fire protection systems serving the subdivision which are proposed to be located outside the layout of the subdivision's street(s.) This Agreement shall include maintenance of all subdivision roads until such time as they are accepted by the town, and may include maintenance of shared on-site sewage disposal systems if shared maintenance is recommended and approved by the Board of Health. The Homeowner's Agreement shall allocate the costs of operation and maintenance of specified components of drainage, stormwater management systems, fire protection systems, and street lighting to a Homeowner's Association. The Homeowner's Agreement shall include an Operation and Maintenance Plan prepared by a Registered Professional Engineer and shall identify:

a. The present owner of the drainage system and the land on which it is located.

b. The components of the drainage system, and the parties proposed to be responsible for their operation and maintenance for the following time periods: during construction, after the road is completed but before it is accepted by Town Meeting, and after the road is accepted by Town Meeting.

c. The source of funding for operation and maintenance for each major component of the drainage system during construction, before road acceptance and after road acceptance.

d. A detailed description of the type and frequency of inspections and maintenance for each component of the drainage system. This shall typically include inspections and/or maintenance

required after accumulation of specific depths of sediment, after major storm events and at regularly established time intervals. The method for disposal of sediment shall be described. The Board may require that certain technical inspections be performed by a Registered Professional Engineer.

e. A requirement that the Homeowner's Association report the results of inspections no less frequently than once per year, and provide a description of maintenance to the Board and Highway Department within thirty (30) days after any maintenance has been performed. The Board may require that inspections or maintenance be performed at specific times of the year when they are expected to be most effective.

f. A requirement that the Homeowner's Association informs the Board and Highway Department of the name, address and telephone number of a current responsible party or contact person for the Homeowner's Association. The Homeowner's Association shall inform the town of changes of this responsible party as soon as possible, but no later than seven days after the change has been made.

g. A requirement that the Homeowner's Association maintain any fencing or other appurtenances associated with detention/retention devices or other components of the drainage system they maintain.

h. A mechanism to enforce maintenance by the Homeowner's Association and maintains funding for maintenance.

i. The Board may require a performance guarantee to ensure the continued operation and maintenance of drainage and other common facilities.

j. The Board may require submission of the first year's contracts for maintenance of the detention basin and other common facilities.

k. A requirement that the Highway Department shall have the right of access to the detention basin and other drainage facilities. The Homeowner's Agreement shall be provided to the Board for their approval and reviewed by Town Counsel at the applicant's expense prior to endorsement of the Definitive Plan. Applicants may use a standard format available in the Planning Board office to help in drafting the Homeowner's Agreement.

4.3.10 EASEMENTS

Draft language for proposed easements shall be provided to the Board prior to approval of the Definitive Plan.

4.3.11 AERIAL PHOTOGRAPH

An aerial photograph at 1:1,200 or scale showing greater detail, from 2001 or later, indicating the property to be subdivided, the proposed street layout, lot lines, and easements. Information on where aerial photographs may be obtained for this purpose is available from the Town Planner.

4.3.12 LOCATION OF ENDANGERED SPECIES HABITAT

A copy of the appropriate quadrangle map(s) from the most recent published edition of the Massachusetts Natural Heritage Atlas, showing the location of the project site relative to estimated Habitats of Rare Wildlife and Certified Vernal Pools unless already submitted as part of a Preliminary Plan application.

4.3.13 TRAFFIC STUDY

For all non-residential subdivisions and for residential subdivisions of fifteen (15) dwelling units or more, the Applicant shall submit a traffic study to address the impact the subdivision will have on congestion, safety and convenience of the roadway system providing access to the subdivision. The Planning Board may request a traffic study on subdivisions with less than 15 dwelling units if special conditions warrant. Impacts on both vehicular and pedestrian travel shall be addressed. The study shall be prepared by a registered Professional Engineer qualified in the field of traffic engineering. Seven (7) copies of the traffic study shall be submitted. The traffic study shall include the following:

a. Review of available prior studies for the area including studies by other consultants, Mass Highway, the regional planning agency, the town and other recent in-house efforts, as may be available.

b. Visit to the site to observe conditions and gather information that can affect site access and traffic circulation.

c. Contact the Town to identify other roadway and development projects that might affect traffic volumes in the area and planned or recently completed area roadway improvements.

d. Based on available data and field observations, the applicant and Town staff will jointly identify the potential study area for subsequent detailed analyses and traffic study.

e. Perform morning, evening, and/or weekend peak hour traffic counts at intersections in the vicinity of the proposed development to understand the existing characteristics of the area and develop a baseline condition for traffic in the area of the proposed development. The locations will be specifically identified after preliminary discussions with the Town.

f. Perform two 3-day traffic counts along area roadways serving the site using Automatic Traffic Recorders (ATRs) to identify the hourly and daily traffic volumes along the roadways. One 3-day traffic count shall include Saturday and Sunday.

g. Research existing vehicular crash information along study area roadways using the Mass Highway Department's Accident Record System for the most recent three-year period. In specific instances, the Ashburnham Police Department may need to be contacted to identify specific issues relating to the proposed development's traffic impact.

h. Perform Trip Generation calculations using standard industry procedures using the most recent version of the ITE Trip Generation manual. This will be performed in order to determine the potential number of vehicular trips that could be generated by the proposed development. If empirical data is available and is relevant, the developer may elect to use this information in addition to the ITE data.

i. Develop a trip distribution pattern to understand the distribution of the projected site traffic onto the local roadway network. This would be based on an evaluation of population densities, U.S. Census journey-to-work data, the efficiency of the existing roadway system, and available empirical data.

j. Review the development plan for adequate access and circulation for vehicles, emergency vehicles and pedestrians.

k. Qualitatively evaluate existing roadway conditions and site access and describe potential traffic impacts and possible mitigation measures. This will include an evaluation of the study area intersections using the means and methods contained in the most recent version of the Highway Capacity Manual.

l. Develop and propose mitigation actions aimed at addressing the locations where traffic impacts of the proposed development reduce the level of service (LOS) of any individual intersection and/or approach to an intersection to a LOS of E or F.

m. Summarize the findings of the assessment in a traffic memorandum for submission to the Board.

4.3.14 WAIVERS

If the application requires waivers of the Subdivision Rules and Regulations, a statement shall be submitted including a description of the waiver, identification of the applicable Section of the Rules and Regulations, and the reason the waiver should be considered in the public interest. Refer to § 3.2.5 above.

4.3.15 ADDITIONAL INFORMATION THAT MAY BE REQUIRED

Before approval of a Definitive Subdivision Plan is granted, the Planning Board may request additional information in order to evaluate the submission with respect to adequacy of stormwater facilities, adequacy of access, traffic circulation and safety, coordination of improvements with existing municipal road, drainage and sewer infrastructure and other public or private utilities, and compliance with objectives of the Master Plan such as protection of natural, historic and cultural resources, proper provision of affordable housing when proposed, and provision of amenities consistent with neighborhood or community character. To assist the Board in this regard, it may request additional input or review, or completion of studies.

4.3.16 REVIEW PROCEDURES BOARD OF HEALTH

a. The Board of Health shall, within 45 days of filing, report to the Planning Board in writing with signatures of a majority of its members or the Boards agent its approval or disapproval of the plan, as required by M.G.L., c.41, § 81-U. If the Board of Health disapproves said plan, it shall make specific findings as to which, if any, of the lots shown on such plans cannot be used for building sites without injury to the public health, and include such specific findings and the reason therefore in such report, and where possible, shall make recommendations for the adjustment thereof. Approval of the plan by the Planning Board shall then only be given provided that the applicant documents having reviewed his plan with the Board of Health, and only on condition that the lots or land as to which specific findings were made shall not be built upon without prior consent of the Board of Health. The Board shall notify the Planning Board of any lots or land which said conditions apply. In the event approval by the Board of Health is by failure to make a report within 45 days, the Planning Board shall note on the plan that health approval is by failure to report.

b. Any lot so located that it cannot be served by a connection to the municipal sewer system shall be provided with an on-site system satisfactory to the Board of Health.

4.3.17 ACTION BY THE BOARD

a. Public Hearing

Before approval of the definitive plan is given, a public hearing shall be held by the Planning Board. Notice of such hearing shall be given by the Board at the expense of the applicant by advertisement in a newspaper of general circulation in the Town of Ashburnham in each of two successive weeks, the first publication being not less than fourteen days before the day of such hearing. A copy of such notice shall be mailed to the applicant and to all owners of land abutting upon the subdivision, including those on the opposite side of the street, as appearing in the most recent tax list.

b. Decision

After the public hearing and within 90 days of submission of the definitive plan the Planning Board shall approve, modify and approve, or disapprove the definitive subdivision plan submitted. Criteria for action by the Board shall be the following:

1. Completeness and technical adequacy of all submissions;
2. Conformity with all applicable zoning requirements;
3. Consistency with the purposes of the Subdivision Control Law;
4. Conformity with the Board's design and construction standards;
5. Conformance with the recommendations of other boards as may be required, i.e.; Conservation Commission, Board of Health, etc.

Following such action, the Board shall file a certificate of its action with the Town Clerk, and shall send notice of its action by registered mail to the applicant at his address stated in the application.

4.3.18 ENDORSEMENT OF THE PLAN

a. Before requesting that the Planning Board endorse the Definitive Subdivision Plan, the subdivider shall be the owner of record, agent, or representative.

b. Unless an appeal is taken from the action of the Planning Board to the Massachusetts Courts, and a written notice of such appeal is received by the Town Clerk within twenty (20) days of the Town Clerk receiving written determination of the Planning Board's final action, the Town Clerk shall endorse the Definitive Subdivision Plan with a certificate that no appeal has been filed. Endorsement shall be made by a majority of the Planning Board. All Lotting Plans required to be recorded with the Registry of Deeds shall have the endorsement of a majority of Planning Board members. All other Plan sheets may be initialed by the Chairman. The Planning Board shall endorse an approved Definitive Subdivision Plan only after the Town Clerk has certified that no appeal has been filed as indicated above and all necessary legal documents have been approved by the Board. The Planning Board shall require that the Definitive Subdivision Plan contain reference to its Conditions of Approval or any instrument describing such conditions.

c. If an appeal is filed, the Planning Board shall endorse the plan only if the appeal is not successful in overturning the approval and no further court appeal is initiated within the permitted time limits.

d. If a Definitive Subdivision Plan is approved by the failure of the Planning Board to act within the required time, the Town Clerk shall issue a certificate stating the date of submission of the plan, any extensions to that time period that were recorded with the Town Clerk, that the Planning Board has failed to file notice of final action with the Town Clerk within the required time and that the approval by failure of the Planning Board to act has occurred. If twenty (20) days following the issuance of the certificate pass without notice of an appeal, the Town Clerk shall at the request of the applicant endorse the subdivision plan certifying that no appeal has been received.

e. If the applicant fails to submit the required performance guarantees, easements and other documentation and the endorsement of the Definitive Plan by the Planning Board is delayed more than six (6) months after the expiration of the twenty (20) day appeal period, the Planning Board, on its own motion, may exercise its power to modify, amend, or rescind its approval of the subdivision plan or to require a change in the plan as a condition of said plan retaining the status of an approved plan.

4.3.19 PROVISION OF PERFORMANCE GUARANTEE

a. Prior to endorsement by the Planning Board of a Definitive Subdivision Plan, the subdivider shall provide for long-term provisions for the maintenance of proposed streets within the subdivision. Such provisions shall be in the form of a recordable instrument. The subdivider, or any heir or successor, shall be bound by such provisions until such time as the street or streets are formally accepted by the Town. The Planning Board/Town does not want ownership of infrastructure outside Right-of-way.

b. Before endorsing an approved Definitive Subdivision Plan the Planning Board shall require that the subdivider file with the Planning Board a performance guarantee to secure the construction of ways and the installation of municipal services. The following section outlines the kinds of performance guarantees permitted under M.G.L. c.41, § 81-U. The guarantees are of two kinds: a Covenant as described in § 4.3.19, c, 1 and sureties as described in §§ 4.3.19, c, 2 and 4.3.19, c, 3. While the method may be selected and varied from time to time by the subdivider or successor in interest, the Planning Board prefers the use of a Covenant and may submit other forms of performance guarantee to Town Counsel for review as to form, and manner of execution.

c. Listed below are the methods by which the installation of ways and municipal services are secured, and which are allowed and specified in M.G.L. c.41, § 81-U:

1. By a Covenant, executed and duly recorded by the owner of record and running with the land, providing that the ways and services shall be constructed to serve any lot before such lot may be built upon or conveyed, other than by mortgage deed. However, 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 Definitive 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 (3) years from the date of such deed. See Form F for Covenant format.

   This Covenant shall be referred to on the Definitive Subdivision Plan as follows:

   "A Conditional Approval Covenant between the Ashburnham Planning Board and _____(the subdivider and owner) to secure the completion of required ways and utilities has been executed and is recorded at the Worcester North County Registry of Deeds with this plan. Book _____and Page_____."

2. By a deposit of money or negotiable securities, or by 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, each bond or deposit shall be contingent upon the construction and such installation within such period as the Planning Board shall determine.

   All cost estimates submitted by the subdivider shall be reviewed by the Town Engineer for adequacy. The bond amount submitted to the Planning Board shall include 40% of the subtotal as contingency against any damages to the subdivision and estimated inflation, and 10% of the subtotal as contingency to cover administrative overhead,

and bidding for the completion of the outstanding subdivision improvements in the event that the subdivision is declared in default.

If the Planning Board shall decide at any time during the term of the performance guarantee that the character and extent of the subdivision requires additional improvements, previously waived, then the Planning Board may modify its requirements in accordance with M.G.L. c.41, § 81W for any or all such improvements and the face value of such performance bond, or amount of deposit of money or value of securities may be increased by an appropriate amount. Such increase may be requested by the Planning Board and consented to by the applicant, or imposed through the procedure for amending an approved Definitive Subdivision Plan

3. By delivery to the Planning Board of an agreement executed after the recording of a 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, which agreement shall be executed by the applicant, and the lender shall provide for the retention by the lender of funds sufficient in the opinion of the Planning Board and otherwise due the applicant, to secure the construction of ways and the installation of municipal services. Said agreement shall also provide for a schedule of disbursements which may be made to the applicant upon completion of various stages of the 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 undisturbed shall be available to the Town of Ashburnham Planning Board for completion of the required ways and utilities.

d. Time Period and Extensions for Construction of Required Improvements

1. Construction of all required improvements shall be completed within three (3) years of the date of recordation of the approved Definitive Subdivision Plan.

   A subdivider may request an extension to the three (3) year period in which the required improvements must be constructed. The request must be submitted in writing to the Planning Board stating what further time period to complete the required improvements is required and the reasons why an extension is requested. The Planning Board may grant an extension of not more than one (1) year on the motion of four members. More than one (1) extension may be granted.

2. As a condition of permitting the extension, the Planning Board shall have the right to revise the amount of sureties to ensure that sufficient adequate funds to insure the completion of the required improvements are retained and shall have the right to revise the Covenant to reflect the increased construction period and any additional conditions to ensure satisfactory completion of the subdivision improvements. The cost estimate to complete the required improvements shall be reviewed by the Town Engineer, and any bonds held by the Planning Board shall be adjusted as necessary to reflect any increased cost of construction, and to require that the bond amount include 40% of the subtotal as contingency against any damages to the subdivision and estimated inflation, and 10% of the subtotal as contingency to cover administrative overhead, and bidding for the completion of the outstanding subdivision improvements in the event that the subdivision is declared in default.

4.3.20 RECORDING OF THE PLAN

a. After an acceptable performance guarantee has been provided to the Planning Board and the Definitive Subdivision Plan has been endorsed, the applicant shall record the endorsed plan together with any related easements, Covenants, Conditional Approval Covenant, and any other required documents. The applicant is responsible for paying the cost recording.

b. Where the subdivision has been approved subject to a Conditional Approval Covenant as noted on the Definitive Subdivision Plan, the Building Commissioner shall not issue a permit for the construction of a building on any lot within the subdivision until the Planning Board releases the lot from the title restrictions of the Covenant. (Form K)

4.3.21 CALCULATION OF AMOUNT OF GUARANTEE

a. The amount of a bond or deposit of money required shall include, but shall not be limited to:

1. the estimated costs of all materials to be used in the construction of proposed ways and other public improvements calculated by linear foot, cubic yard, square foot, and other appropriate itemizations of quantities. All other related installation and construction costs, including but not limited to engineering fees, construction management, supervision fees, contingencies, and any increased cost due to inflation over the proposed construction period, and;

2. Amount of estimated cost to complete as-built plans, and street acceptance plans for ways proposed to be offered for acceptance as public ways, plus

3. Amount of increased construction and contingency costs estimated for a period of twice the proposed construction completion date, plus one year. Total amount not to exceed 150% of estimated costs

4. All Estimates shall be reviewed by the Planning Board town engineer at the expense of the applicant. The amount of such guarantee shall be recalculated in the manner provided herein when the applicant may request this or when the construction completion date is requested to be extended by the applicant, and the agreement shall be amended accordingly.

   The sum of any such financial guarantee may, from time to time, be reduced by the Planning Board and the obligations of the parties thereto released by said Board in whole or in part.

b. Use of Performance Guarantee In Case of Default

1. If the developer fails to complete such work to the satisfaction of the Planning Board and in accordance with all applicable agreements, plans, regulations, and specifications, the Planning Board shall be entitled to enforce such bond or to use such deposit or other securities for the benefit of the Town to the extent necessary to complete all such required work without delay. The performance guarantees shall be used to cover all costs to the Town of completing such construction and installation.

2. The Town, at its option, may enter upon the premises and itself or through others supply whatever materials and perform whatever work it deems necessary to remedy such failure and complete all work called for to be performed by the applicant. If the financial guarantee posted by the applicant is not sufficient to complete the required subdivision improvements and/or to remedy any failure of installed improvements, the Town at its option may initiate proceedings to recover the additional costs necessary from the subdivider to correct and complete all required work. The

proceedings shall include an amendment to the approved subdivision plan to increase the amount of the financial security. If the subdivider does not provide the additional security, the Planning Board may initiate action in the Massachusetts Courts to ensure compliance.

4.3.22 PROCEDURES FOR RELEASE OR REDUCTION IN PERFORMANCE GUARANTEE

Upon completion of some or all of the improvements for which a performance guarantee was given, the subdivider may request a full or partial release of the bond, deposit, or Covenant by sending a statement of completion and a request for release by registered mail to the Planning Board.

Such written request shall be accompanied by two (2) copies of a certificate by a Registered Professional Engineer which shall describe work completed in the subdivision and its conformity with the approved Definitive Subdivision Plan. The Planning Board, upon receipt of such written notice and certificate, shall consult with the Town Planner and Town Engineer to determine whether the subdivider or developer has complied with all requirements of the Approved Definitive Subdivision Plan and these Rules and Regulations.

In the event of deviation from the Approved Definitive Subdivision Plan, such deviation shall be described in the certificate from the Registered Professional Engineer, and shall be accompanied by two (2) copies of the street layout plan and road profile showing the deviation.

If the Planning Board, in consultation with the Town Engineer, determines that said construction or installation has been completed in accordance with these Rules and Regulations, it shall release the full or partial interest of the Town in such land, or deposit to the person who furnished the same, or release the Covenant or specific lots within the Covenant by an appropriate instrument, duly acknowledged, which may be recorded. (Form K)

If the Planning Board determines that required construction or installation has not been completed, it will specify the details wherein the construction or installation fails to comply with its Rules and Regulations in a notice sent to the applicant and delivered to the Town Clerk.

4.3.23 REQUIREMENTS FOR A PARTIAL RELEASE OF PERFORMANCE GUARANTEE

a. Request

For a partial release of a Covenant, surety, or deposit, the subdivider shall submit a written request as set forth below, detailing what work is claimed to be satisfactorily completed, and which lots, if any, are to be released.

The subdivider or developer shall also provide a detailed estimate, specifying the remaining incomplete improvements and their construction costs, and shall calculate the amount of guarantee to secure the remaining work. All Estimates shall be reviewed by the Town Engineer.

b. Partial Release of a Surety

The Planning Board, if satisfied that the work has been satisfactorily completed as specified in the subdivider's request, and satisfied that the proposed reduced amount of surety is sufficient to cover the cost of completing the remaining work, shall accept a new surety in the revised amount and release the previously provided surety.

c. Partial Release of Lots from a Covenant

When only a portion of the streets and other improvements shown on the Definitive Subdivision Plan have been constructed or installed and a release of Covenant is requested, the Planning Board shall consider as satisfactorily completed only such lengths and parts as will in and of themselves form convenient and adequate systems without the necessity of further extension or improvement, and shall consider as eligible for release only such lots that front on, are connected, or are otherwise served by such streets, utilities, and other improvements. Work on the ground adjacent to a particular lot will normally be considered by the Planning Board as work necessary to adequately serve such lot, regardless of the degree to which the lot is dependent on said work for its access or utility service.

No release of lots from the restrictions of a Covenant shall be granted by the Planning Board, unless the subdivider constructs a temporary turn-around at the end of the constructed portion of each street in the subdivision (except where such street ends in a junction with another existing street) and such other interim facilities as are necessary to provide a reasonable operating system of streets and utilities. The subdivider shall also propose appropriate arrangements for later disposition of such interim facilities including temporary turnarounds which must be acceptable to the Planning Board as part of the partial release.

d. Conversion of a Covenant to another Performance Guarantee

If the developer desires that lots be released from a Covenant and secured by means of another form of guarantee or surety the remaining public improvements related to a subdivision, a formal written request shall be given to the Planning Board which sets forth and includes:

1. The extent and scope of remaining work to be completed to satisfy the requirements for the installation of all proposed ways and municipal services;
2. An estimate, pursuant to § 4.3.21 of these Regulations, which reflects all remaining costs related to the construction of all proposed ways and the installation of municipal services, and;
3. The form and type of guarantee being given to the Planning Board to secure all remaining improvements.

The Planning Board, in consultation with its professional staff and other municipal departments, including the Town Engineer, and will make a determination on the sufficiency of the submitted estimate, and, if such estimate is accepted, a new performance guarantee will be given to the Planning Board. Upon acceptance by the Planning Board of the new performance guarantee, all applicable lots shall be released from the Covenant.

e. Conversion of a Surety to a Covenant

If the developer desires to secure, by means of a Covenant, the construction of ways and the installation of municipal services in a portion of a subdivision for which no building permits have been granted nor any lots have been sold, and to have the Planning Board release the bond, deposits, or negotiable securities previously furnished to secure such construction and installation, the developer shall submit to the Planning Board three (3) copies of the Definitive Subdivision Plan, limited only to that part of the Plan which is to be subject to such Covenant. Upon approval of the Covenant by the Planning Board, reference thereto shall be inscribed on such section of the Plan, and it shall be endorsed by the Planning Board and recorded with the Covenant at the expense of the developer. Certified copies of all documents which the subdivider records at the Registry of Deeds shall be provided to the Planning Board as set forth in § 4.3.20(a) of these Rules and Regulations.

f. Requirements for Final Release and Durability of Required Improvements

No subdivision shall be accepted and no final release of a performance guarantee shall be given by the Planning Board until:

1. The integrity of road pavement and drainage has been verified following a full winter in place. The Planning Board shall retain a surety in the sum of fifteen (15%) percent of the total cost of improvements which shall be released following the verification that the utilities have withstood the winter or have been repaired to the Planning Board's satisfaction.

2. Any required planting areas have been installed for a sufficient time and are in a healthy condition so that the Planning Board may be satisfied that the vegetation has been established. The required time period shall be one (1) year plus whatever time through to July 1st for grassed area and two (2) years plus whatever time through to July 1st for shrubs and trees. The Planning Board shall retain a surety in the amount of five (5%) percent of the total cost of improvements to ensure the establishment of the vegetation.

3. All improvements proposed in the Definitive Subdivision Plan have been completed and have been verified as completed by the Town Engineer.

g. Conveyance of Utilities and Services

Before the Planning Board will release a surety bond or deposit, or in the case of a Covenant, issue a Certificate of Performance, for subdivisions in which the ways and utilities are proposed to be offered for acceptance as public ways, the developer shall execute an instrument transferring to the Town valid, unencumbered title to all sanitary sewers, storm water drains, water mains and all appurtenances thereto constructed and installed in the subdivision and conveying to the Town, without cost and free of all liens and encumbrances, perpetual rights and easements to construct, inspect, repair, renew, replace, operate, and forever maintain such sanitary sewers, storm water drains, water mains, and all appurtenances thereto and to do all acts incidental thereto, in, through and under the whole of all streets in the subdivision, and if such sewers, storm water drains, water drains, and water mains have been constructed and installed in land not within such streets, then in, through and under the easements, as shown on the Definitive Subdivision Plan, and if such sewers, storm drains, water drains, and water mains have been constructed and installed in land not within streets, then in, through and under the easements, as shown on the Definitive Subdivision Plan, and where no easements are shown, in, through, and under a strip of land extending ten (10) feet in width on each side of the centerline of all such drains and mains. (The Planning Board/Town does not want ownership of infrastructure outside right-of-way). The above shall not be construed to relieve the developer and his successors in title to a portion of land or street in the subdivision of responsibility to complete all construction, as required by developer's Covenants and agreements with the Town, and to thereafter maintain all streets and utilities in a satisfactory condition until they are accepted by the Town.

Acceptance by the Planning Board of the improvements required for a Definitive Subdivision Plan does not constitute the laying out or acceptance of by the Town of any streets, bikeways, or footpaths within a subdivision.

If the Town must maintain a portion of, or enter the subdivision for the purposes of public safety, emergency purposes, or otherwise, the Town reserves the right to charge the applicant for services rendered.

The subdivider shall retain title to the fee of each street, path, or easement in or appurtenant to the subdivision until conveyed to the Town and accordingly accepted under M.G.L., c.82;

and the subdivider shall maintain and repair the roads and drainage facilities in a manner satisfactory to the Planning Board during that period. In order to retain the fee in the street, the subdivider must clearly define lot lines when selling individual lots, to make it clear that the lot stops at the street layout. Otherwise, the owners of the individual lots will by convention, own the street to the centerline. If this occurs, the Town cannot accept the street, since any conveyance of the street from the subdivider to the Town will be meaningless.

If the subdivider chooses not to offer the right-of-way and other access easements in fee to the Town, this shall be noted on the Definitive Subdivision Plan and the subdivider will have proposed and implemented mechanisms for perpetual maintenance.

If the subdivider declared the intent to offer the right-of-way and other access easements to the Town, the subdivider shall submit all necessary documentation for street acceptance, including "Street Acceptance" Plans in a form acceptable to the Registry of Deeds and the Town Engineer, legal descriptions, easements, list of owners and mortgagees of lots having rights in the street, and any grants of rights necessary, for use by the Town for formal acceptance of the way by Town Meeting. A Street Acceptance Plan shall be prepared pursuant to the requirements of § 4.3.26. Any "As-built Plan" prepared pursuant to § 4.3.25 shall not be suitable for use as a Street Acceptance Plan

Where a portion of a subdivision is serviced by an on-lot sewerage system or systems, the Planning Board shall not release the subdivision until satisfied that such system or systems were installed in accordance with the requirements of Title 5 of the Environmental Code of the Commonwealth of Massachusetts and the Ashburnham Board of Health.

4.3.24 RESCISSION

Failure of an applicant to record the Definitive Plan and Covenant documents within six (6) months of its endorsement at the Worcester North District Registry of Deeds or at the Land Court; or to comply with the construction schedule incorporated into the performance agreement; or to initiate construction of improvements in a subdivision within two (2) years of the approval of the Definitive Plan; or to comply with the applicable Town of Ashburnham Zoning By-law requirements; or to comply with the approved plans and any conditions of approval; shall constitute grounds for rescission of approval in accordance with the requirements and procedures set forth in M.G.L., c.41, § 81W.

4.3.25 AS-BUILT PLANS

a. Upon completion of construction, and before release of the performance guarantee, the subdivider shall have prepared and submitted AS-BUILT PLANS at the same scale as the street plans, which shall indicate the actual location of all of the following:

1. Boundaries of the right of way;

2. Street lines;

3. Traveled way edges;

4. Path locations;

5. Permanent monuments;

6. Location and inverts, with elevation of the required utilities and drainage;

7. Locations of any other underground utilities, such as electricity, telephone lines, street lighting, water and sewer mains.

8. Driveway locations;

9. Lot boundaries;

10. Centerline stationing.

11. Location of all buildings, wells and septic systems

12. Required landscape improvements

b. The accuracy of such as-built plans shall be certified by a Registered Land Surveyor or Registered Professional Engineer retained by the subdivider.

c. Electronic filing requirements: All As-Built-Plans submitted under this section shall also be submitted on a Windows compatible 3.5" diskette(s) or CD in DXF (drawing exchange file) format. All plans with six (6) or more lots shall be referenced to Massachusetts State Plane coordinates using the North American Datum of 1983 (NAD83) and the North American Vertical Datum of 1988 (NAVD88). Whenever possible, plans with five (5) or less lots shall also be "tied into" real world State Plane coordinates using the datum specified above. To demonstrate this tie down, all features shall be stored in the Massachusetts State Plane Coordinate System and the plan location and coordinate values of at least two points shall be included in the submitted CAD file. To ensure that all plans are submitted to the Town in a consistent format, the CAD file shall use the layering scheme listed in Appendix A.

d. Approval by the Board of a definitive subdivision plan shall not constitute the laying out or acceptance of by the Town of any streets, bikeways, or footpaths within the subdivision.

4.3.26 STREET ACCEPTANCE

For ways proposed to be offered to the Town as public ways, the subdivider shall have prepared and submitted a "Street Acceptance Plan" prior to final release of the performance guarantee. Such plans shall be suitable for recording at the Registry of Deeds. At a minimum, Street Acceptance Plans shall contain the following information:

a. Title block indicating the name of the subdivision, the name of the way, the name and address of the subdivider, the name and address of the engineer and/or surveyor, and the date of preparation;

b. Locus map;

c. The Boundaries and area of the right of way;

d. The location and identification of the owners of lots and all properties abutting the way;

e. Additional pertinent information as may be required by the Planning Board shall be provided on the plan. Such plans shall be accompanied by deeds, easements, and other appropriate documentation required for the conveyance of the way to the Town. Any As-Built Plan prepared pursuant to § 4.3.25 shall not be suitable for use as a Street Acceptance Plan.

4.3.27 DEFINITIVE PLAN CHANGES AFTER APPROVAL

a. After approval of any Definitive Plan, the location and width of ways shown thereon, or any street or way subject to the Subdivision Control Law, shall not be changed unless the plan is amended in accordance with the provisions set forth in M.G.L. C.41, § 81W, and approved by the Planning Board.

b. In the event the applicant desires to alter or change the grade of a street or the size, location or layout of a storm sanitary or water line or appurtenant structure, he shall provide the Planning Board with a written statement requesting such alteration or change and with two (2) prints of the original Definitive Plan with the proposed changes drawn on said prints in red. No change or alteration shall be permitted unless such change or alteration has been approved by the Planning Board.

5. DESIGN STANDARDS

All standards in these regulations shall be considered minimum standards, and may be varied from or waived where the Board considers that alternate conditions will serve substantially the same objective.

5.1 STREETS

5.1.1 LOCATION AND ALIGNMENT

a. All streets in the subdivision shall be designed so that, in the opinion of the Board, they will provide safe vehicular travel. Due consideration shall also be given by the subdivider to the following features:

1. Volume of cut and fill;
2. Area over which existing vegetation will be disturbed, especially if within 200 feet of a river, wetland or water body, or in areas having a slope of more than 15%;
3. Number of trees to be removed having a diameter over Ten inches (10”);
4. Extent of waterways altered or relocated;
5. Dimensions of paved areas (including streets) except as necessary to safety and convenience, especially in aquifer/recharge areas;
6. Use of collector streets to avoid traffic on streets providing house frontages;
7. Visual prominence of natural features of the landscape;
8. Maintenance within the subdivision of runoff and vegetative cover equivalent to conditions before development.

b. The proposed streets shall conform to a Master Plan as adopted by the Board.

c. Provision satisfactory to the Board shall be made for the proper projection of streets, or for access to adjourning property which is not yet developed.

d. Reserve strips prohibiting access to streets or adjourning property shall not be permitted, except where, in the opinion of the Board, such strips shall be in the public interest.

e. Access to Arterial Street. Intersections of collector and residential minor roads & streets with arterial streets will not normally be allowed at intervals of less than 450 feet. Subdivisions of 50 or more lots will be required to have more than one access to an existing arterial street which is built in conjunction with the proposed subdivision.

f. Street Jogs. Street jogs in arterial and collector streets with centerline offsets of less than 500 feet shall not be allowed. Street logs in residential streets with centerline offsets of less than 125 feet should be avoided.

g. The minimum centerline radii of curved streets shall be 100 feet for lanes and secondary streets. 150 feet shall be required for collector streets.

h. Streets shall be laid out so as to intersect as nearly as possible at right angles. No street shall intersect any other street at less than sixty degrees.

i. Property lines at street intersections shall be rounded or cut back to provide for a curb radius of not less than 25 feet.

j. Visibility from the centerline of the street shall meet current AASHTO Standards.

k. Access through another municipality: In case access to a subdivision crosses land in another municipality, the Board may require certification by the appropriate officials that such access is in accordance with the zoning and subdivision requirements of such municipality, and that a legally adequate performance bond has been duly posted, and that such access is adequately improved to handle prospective traffic.

5.1.2 WIDTH

a. The width for two-way, paved streets shall be as follows:

STREETS	STREET PAVEMENT WIDTH	RIGHT OF WAY WIDTH
Minor roads & streets	24 feet	40 feet
Secondary collector	26 feet	50 feet
Primary Collector	28 feet	50 feet
Arterial	(as per state highway dept. standards.)	

b. Greater width shall be required by the Board when deemed necessary for present and future vehicular travel.

c. The width may be reduced if approved by the Planning Board for the following reasons:

1. The reduction in width is complemented by enforceable parking regulations for streets where widths are reduced.

   (a) On cul-de-sacs and lanes with no on street parking, the width may be reduced to 20 feet, or 22 feet with parking permitted on one side only;

   (b) On a secondary street with no on-street parking permitted on one side only, the width may be reduced to 24 feet.

2. The minimum one-way width for each direction of a paired system shall be 20 feet. The minimum width for a one-way loop street shall be 20 feet.

3. Reductions which are part of an overall drainage plan to reduce the impervious surfaces in the subdivision and reduce runoff from the parcel shall be permitted if plans for safety, parking, pedestrian circulation and other factors are deemed adequate by the Planning Board to accommodate the requested reductions.

5.1.3 GRADE

a. Grades of streets shall be not less than 0.5%. Grades shall not be more than 6.0 % for primary collector streets, nor or more than 8% for secondary collector streets, minor roads or streets.

b. A leveling area shall be provided having a maximum slope of 2% for the first forty feet measured from the nearest exterior line of the intersecting street and a maximum slope of 4% for the next thirty feet.

c. Vertical curves are required wherever the algebraic difference in grade between the center line tangents is 2% or more. Vertical curves shall be one hundred feet long for every 4% algebraic difference in grade.

5.1.4 DEAD-END STREETS/CUL-DE-SACS

Dead-end streets, designed to be so permanently, shall not exceed a length of 600' and shall have a turnaround area or back up area, paved as required for streets, at the closed end. The minimum radius for a circular turnaround shall be 100 feet for the exterior line of a street and 50 feet for temporary turnaround easement. Hammerhead or T-shape backup strips and alternative layouts may be permitted, under unusual circumstances, if designed to accommodate an emergency vehicles.

5.1.5 ACCESS STREETS

a. Each subdivision shall be provided with more than one street for access and exit unless in the opinion of the Planning Board the area contained in the subdivision and/or the topography of the land would not allow for more than one access.

b. Where the street system within a subdivision does not connect with or have, in the opinion of the Planning Board, adequate vehicular access from a Town, County or State public way or private way, the Planning Board shall require, as a condition of approval of a plan, that such adequate access be provided by the developer, and/or that the developer make physical improvement(s) of access to and within such a way, in accordance with the provisions for these Subdivision Regulations, either from the boundary of the subdivision to a Town, County or State public way or private way, or along such public way for a distance which, in the opinion of the Planning Board is sufficient to provide adequate access to the subdivision.

c. Where the physical condition or width of a public way from which a subdivision has its access is considered by the Planning Board to be inadequate to either provide for emergency services or carry the traffic which is expected, in the opinion of the board, to be generated by such subdivision, the Planning Board shall require the developer to dedicate a strip of land for the purpose of widening the abutting public way to a width commensurate with that required within the subdivision and to make physical improvements to and within such public way to the same standards required within the subdivision or by these Subdivision Regulations. Any such dedication of land for the purpose of the way and any such work performed within such public way shall be made only with permission of the governmental agency having jurisdiction over such way, and all costs of any such widening or construction shall be born by the developer.

d. The Planning Board shall disapprove of a subdivision plan where, in the opinion of the Planning Board, the existing surrounding municipal infrastructure (e.g. street width and construction, sanitary sewer, public water, storm sewer, etc.) is insufficient and/or incapable of handling the additional volumes (e.g. traffic, sewage, storm water, etc.) anticipated, by the Planning Board, to be generated by the project. Planning Board may accept or require off-site improvements to mitigate any of these impacts.

5.1.6 EASEMENTS

a. Easements for utilities across lots or centered on rear side lot lines shall be provided where necessary, and shall be at least 20 feet wide;

b. Where a subdivision is traversed by a water course, drainage way, channel or stream, the Board may require that there be provided a storm water easement or drainage right-of-way of adequate width to conform substantially to the lines of such water course, drainage way, channel or stream, and to provide for construction or other necessary purposes. In no case shall the width be less than 20 feet, or the side slope be steeper than two horizontal, or one vertical.

c. Access easements or parcels to adjacent property shall be provided, if required by the Board, for use by emergency vehicles and for the benefit of the Town. They shall be a minimum width of 20 feet. Bikeways or walkways may satisfy this requirement.

d. Slopes adjacent to roadways, natural or man-made, may be placed within easements on individual properties rather than acquired as rights-of-way.

e. Lots shall be prepared and graded consistent with drainage into the subdivision, and in such manner that development of one shall not cause detrimental drainage on another or on areas outside the subdivision, to the extent permitted by law. If provisions are necessary to carry drainage to or across a lot, an easement or drainage right-of-way of a minimum width of 20 feet and proper slope shall be provided.

5.1.7 PROTECTION OF NATURAL FEATURES

Protection of Natural Features: In laying out a subdivision, the subdivider shall give due regard for all natural features such as large trees, watercourses, scenic or historic spots, aquifers, flood plains, habitats of rare or endangered species, and similar community assets which, if preserved, would add attractiveness and value to the subdivision. These features shall be left undisturbed wherever practical and the Board may waive design requirements in order to protect important natural features.
See § 5.1.29 Trees and Plantings for further requirements.

Unsuitable Land: Land which the Planning Board finds to be unsuitable for development due to flooding, improper drainage or adverse drainage, adverse topography, poor soils, bedrock, location of utility easements, or other features which the Board has reason to believe would be harmful to the safety, health and general welfare of the present or future inhabitants of the subdivision and/or its surrounding area, shall not be subdivided or developed unless adequate measures are formulated by the subdivider and approved by the Board to eliminate any short-term or long-term impacts created by development of the unsuitable land.

Self-Imposed Restrictions: If, as part of a subdivision application, the subdivider or owner places voluntary restrictions on any of the land contained in the subdivision which are greater than the requirements of these Regulations or of the Town of Ashburnham Zoning Bylaw, such restrictions or references thereto shall be indicated on the Definitive Plan and recorded in the Worcester North Registry of Deeds.

5.1.8 EROSION AND SEDIMENT CONTROL

In order to reduce erosion accompanying the installation of ways, utilities and drainage, and the resultant pollution of streams, wetlands and natural drainage areas, the applicant shall submit a sediment control plan achieving the following:

a. An absolute minimum of existing vegetative cover shall be disturbed during the construction period.

b. Only the smallest practical area of land shall be exposed at any one time during development.

c. When land is exposed during development, the exposure shall be kept to the shortest practical period of time.

d. Where necessary, as determined by Planning Board, temporary vegetation and/or mulching shall be used to protect areas exposed during development.

e. All disturbed areas shall be properly and neatly graded and shaped as soon as possible. Final grading shall include removal of all large rocks, stumps, debris, and all other deleterious materials from the finished surface.

f. At the toe of all cut and fill slopes in excess of ten (10) feet in height, staked baled hay or other erosion checks shall be installed.

g. All disturbed areas shall be protected from potentially erosive runoff from up-slope areas by means of Diversions, Benches, and/or other acceptable means.

h. Cuts and fills shall not endanger adjoining property.

i. Fill shall be placed and compacted so as to minimize sliding or erosion of the soil.

j. Grading shall not be done in such a way so as to divert water onto or impound water on the property of another landowner with out the written consent of that landowner.

k. Fills shall not encroach on natural watercourses or constructed channels.

l. During construction, necessary measures for dust control shall be exercised.

5.1.9 STREET DRAINAGE

a. Street drainage utilizing curbs and gutters shall be designed to keep the velocity of the flow of water in the gutter below levels which are hazardous to pedestrian safety.

b. Storm drains, culverts, and related facilities shall be designed to permit the unimpeded flow of all natural water courses, to ensure adequate drainage at all low points along streets, to control erosion, and to intercept storm water run-off along streets at intervals reasonably related to the extent and grade of the area being drained. To the maximum extent feasible, storm water shall be recharged rather than piped to surface water.

c. New drainage systems shall be properly connected to any existing drains in adjacent streets or easements which may exist. Where no adequate drainage system exists, or where it is inadequate, it shall be the responsibility of the subdivider to extend his system outside the subdivision in a manner specified or approved by the Board to dispose properly of all the drainage from the proposed subdivision.

d. When the subdivision causes a requirement for drainage improvements outside its area, the sub divider shall be required to secure the necessary approvals and provide such improvements in the public interest.

e. Where the adjacent property is not subdivided, adequate provisions shall be made for the extension of the drainage system beyond the boundaries of the subdivision, and for it to carry the additional load that may be placed on the system. This shall be done by providing drains of adequate size and at proper slopes as specified by the Planning Board in order to permit their extension to the boundaries, and the proper connection of those of future subdivisions in the adjacent area.

f. Storm drains and culverts shall be a minimum of twelve inches inside diameter, and shall be greater when required by the Board. Minimum slope on pipes to be 0.5%. The proper drain size may be calculated by using "Manning's Formula" with a "Kutter's" "n" value of .013 for concrete pipe, and .024 for corrugated metal pipe.

g. All storm drains shall be reinforced concrete pipe of adequate strength, or equivalent as approved by the Planning Board and Town Engineer. In off-street locations bituminous coated, galvanized, corrugated metal pipe or pipe arch may be used if approved by the Board and Town Engineer (PB consulting engineer). Concrete pipe shall conform to the State of Massachusetts' Standard Specifications for Highways and Bridges, as amended.

h. Water velocities in pipes and gutters shall be between two and ten feet per second, and not more than five feet per second on ground surfaces. All undeveloped tributary areas shall be assumed to be fully developed in accordance with the Zoning By-law.

Consideration will be given to flatter slopes if adequate provisions are made for cleaning the pipes. All plans having drains with slopes which will produce pipe velocities less than two feet per second, flowing full, shall be accompanied by a letter stating the reason for approval by the Planning Board or its agent, and the drain shall not be constructed until the letter has been approved.

i. Catch basins shall be installed on both sides of the roadway on continuous grades at intervals not to exceed 300 feet, at low points and sags in the roadway, near the corners of the roadway at intersecting streets, and at other such locations as required by the Board. Such catch basins shall be provided with granite headers with storm inlets. Drain pipes shall extend through a maximum of three catch basins and, thereafter, through manholes to the point of discharge, with a manhole being required at every change in direction, slope or diameter in the drain pipes. All catch basins, except for the first three, shall discharge into the drain through a manhole. Any catch basins and manholes used shall be at least six feet deep and four feet diameter (inside measurements), with a thirty inch or greater sump below pipe invert, and shall be constructed of concrete blocks or precast concrete units. Manhole covers and grates shall be in conformance with Massachusetts DPW Specifications, designed and placed so as to cause no hazard to bicycles.

j. Inlets shall have an adequate waterway opening to pass the design storm with not more than 0.2 feet of surcharge. Grates and frames shall be cast iron suitable for the loads which can occur either during the construction or afterward. Inlets shall be constructed either of brick and mortar with eight inch thick walls, precast segmental concrete blocks

not less than six inch thick mortared in place, or of precast pipe sections. Inlets shall be set on a base of either poured concrete eight inches in thickness, or precast segmental base blocks not less than four inches in thickness. Inlets shall be used in off street locations, and the grate frame shall be mortared in position with the top 0.2 feet below the grade of a grate if the quantity of runoff exceeds the capacity of a grate of reasonable size, as approved by the Planning Board or its agent. Inlets shall be 4.0 feet inside diameter below the corbelling, and shall not be used on drains greater than thirty inches in diameter. A shaped invert is not required, but the bottom of the inlet shall be finished at the same grade as the lowest pipe invert. At inlets where the outlet pipe is larger than the inlet pipe, the crown of the outlet pipe shall be at the same elevation or lower than the crown of the inlet pipe.

k. A design analysis shall be submitted with each definitive plan submitted for approval. The design analysis shall include at least the following information:

1. Storm Drainage System. The data shall include consideration of the entire watershed, and the calculations used in designing the drainage system including area calculations, intensity of rainfall, coefficient of runoff, and time of concentration, discharge, pipe coefficient of roughness and quantity and velocity of flow under design conditions. Design sketches showing the hydraulic gradient and the energy gradient for each run of sewer pipe shall be included.

   The hydraulic analysis shall be based on Soil Conservation Service TR-55 methodology for the 2, 10 and 100 year frequency storm events. The rainfall input data shall be from the National Weather Bureau TP-40. The average antecedent condition (AMC II) shall be used for the analysis.

2. Storm sewers and retention basins shall be based on a twenty five-year frequency storm, and culverts shall be based on a fifty-year frequency storm, with consideration given to damage avoidance for a one hundred-year storm.

3. Any areas designed as drainage areas are tested for adequate permeability and mounding calculation for infiltration components of drainage system.

4. Stormwater design and management shall meet the requirements of the Massachusetts Stormwater policy, as amended.

5.1.20 CURBING

a. Curbing shall be installed as required by the Planning Board, and may consist of granite, bituminous concrete, portland cement or other materials, depending upon factors of safety, convenience and cost.

b. Curbs and gutters will be required when they are:

   1. Necessary to handle run-off for the section of the roadway to which they are applied;

   2. Necessary for the maintenance of the pavement and the prevention of pavement edge reveling;

   3. Necessary for safety;

   4 Curbs and gutters may be eliminated along certain roadways when drainage is provided in swales which are designed to reduce the rate of run-off, restore and/or supply needed water to vegetation in the street right-of-way.

5.1.21 UTILITIES AND MUNICIPAL SERVICES

Where adjacent property is not subdivided, or where all the property of the applicant is not being subdivided at the same time, provisions shall be made for the extension of the utility system by continuing the mains the full length of streets and to the exterior limits of the subdivision at such grade and size which will, in the opinion of the Board, permit their proper extension at a later date.

5.1.22 UTILITIES

All electric utilities including, telephone, cable and fire alarm shall be installed underground and meet the specification and requirements of the Ashburnham Municipal Light plant, telecommunications companies and the Ashburnham Fire department. All above ground utility Appurtenances should include screening from the roadway.

5.1.23 SANITARY SEWERS

a. Town sanitary sewers will be required if the subdivision connects with a way which has an existing town sanitary sewer or if the Town sanitary sewer is accessible to the subdivision.

b. Sanitary sewers, including all appurtenances, shall be designed to serve as many lots in a subdivision as possible, and to provide connection to municipal sewerage system, as approved by the sewer commissioners.

c. Sewer mains, laterals and appurtenances shall be of the size, material and location as directed by the Sewer commissioners or its agent.

d. Manholes shall be no more than 300 feet apart.

5.1.24 WATER SUPPLY

a. Town water supply will be required if the subdivision connects with a way which has an existing town water supply or if the Town water supply is accessible to the subdivision.

b. Water mains, laterals and appurtenances shall be of the size, material and location as directed by the water commissioners or its agent.

c. Hydrants, with valves of a type approved by the chief of the fire department and the water commissioners, shall be installed on all water mains at a spacing of not more than 500 feet. In addition, there shall be a hydrant or blow-off and valve placed at the end of every water main, as directed by the chief of the fire department or the water commissioners. Minimum fire flow requirements (gallons per minute required to control a fire) shall meet National Fire Protection standards and be approved by the Fire Department.

d. Evidence shall be submitted to satisfy the Board of Health that adequate and potable water supply is available for each lot in the subdivision. Where a connection to the public water system is not feasible, the Planning Board shall approve a subdivision only upon its determination that the well(s) on each lot is likely to be able to provide a sustained yield of five (5) gallons per minute with water quality meeting the Massachusetts Department of Environmental Protection's "Drinking Water Regulations of Massachusetts" as may be amended from time to time. One (1) test well may be required of the applicant per ten (10) potential lots, or the Planning Board's determination may be based upon the written statement of a hydro geologist following his analysis of well records on nearby premises, subsurface conditions, and potential sources of contamination.

d. Rural Fire Protection. Provision shall be made for fire protection in the subdivision. The applicant shall review plans for fire protection with the Chief of the Fire Department and reach an agreement as to the method of providing adequate fire protection. A subdivision plan shall be approved only upon presentation of evidence to the Board, subject to the approval of the Fire Chief, that adequate provisions for fire protection have been made. No certificate of occupancy shall be issued for any dwelling unit in a subdivision until all components of the fire protection system are fully operational.

Where a connection to the public water system is not feasible, the Planning Board shall approve a subdivision only upon its determination that the following provision for fire protection shall be met and approved by the Fire Chief:

1. A reliable year-round water supply readily accessible to the Fire Department shall be provided from natural or constructed bodies of water, such as ponds, streams or cisterns. Said water supply shall be as designated by the Planning Board after consultation with the Fire Chief.

2. Design, construction and capacity of natural and constructed bodies of water shall be approved by the Fire Department and shall comply with National Fire Protection Association (NFPA) standard 1142, "Water Supplies for Suburban and Rural Fire Fighting." See Appendix B.

3. Cisterns shall have a minimum capacity of thirty thousand (30,000), gallons available for firefighting as provided for in NFPA 1142.

4. Cisterns shall be inspected by the Fire Department during construction.

5. Subdivisions in which all houses have residential Sprinklers installed in conformance with NFPA 13, 13D or 13R shall not require additional fire protection.

5.1.25 STREET LIGHTING

Street lighting shall be installed at the direction of the Planning Board. Street Lighting light post and lamp shall be installed to meet the specifications of the Ashburnham Municipal Light Plant at the expense of the developer. All street light energy costs are to be assumed by an applicable homeowner's association.

All lighting systems should comply with the recommendations of the International Dark-Sky Association. See Appendix D for additional information.

5.1.26 FIRE ALARM

Fire alarm boxes shall be installed, if directed by the Ashburnham Fire Department. The applicant shall furnish and install the necessary ducts, fire alarm boxes and electric cable.

5.1.27 PEDESTRIAN AND BICYCLE CIRCULATION SYSTEM

a. Sidewalks shall be placed parallel to the roadway(s) providing direct access to:

1. Commercial/retail facilities

2. Schools

3. Public recreational facilities

4. Elsewhere in accordance with the pedestrian circulation system as necessary.

b. Sidewalks may also be eliminated along one or both sides of the streets if the subdivision provides an alternative pedestrian circulation system. Ordinarily only one sidewalk will be required except on major collectors.

c. Pedestrian-vehicular separation shall be considered where possible. Design solutions that achieve this separation shall receive priority consideration. Planting strips shall be a minimum of two feet.

d. Walkways connecting existing trails should be created wherever reasonable, and developed in new locations.

e. Paths or sidewalks shall be located within the street right-of-way. However, horizontal alignment may be varied to minimize disturbance of land vegetation. If necessary a sidewalk easement shall be obtained when the sidewalk goes outside the minimum street right-of-way.

f. Sidewalks shall be pitched or sloped towards the roadway to maximize run-off of water.

g. Sidewalks shall have a minimum width of four feet and conform to the grade of the road unless otherwise specified by the Board.

h. Sidewalks shall be constructed in accordance with the latest revision of the Rules and Regulations of the Massachusetts Architectural Access Board (521 CMR).

i. All subdivisions with 10 or more lots located in an area where school busing is provided or is likely to be provided in the future must provide at least one bus waiting area for school children. This area must be between 30 square feet and 100 square feet, depending on the size of the subdivision (number of students generated). The waiting area shall be located at the entrance(s) to the subdivision, abut the edge of the sidewalk and shall contain a bench. The waiting area may be incorporated with the requirements of the United States Postal Service pertaining to mailboxes.

j. The Planning Board may require construction of sidewalks or bike paths along road frontage of external roadway(s).

5.1.28 LOTS

Lots, buildings and structures involved in subdivision shall comply with the Town zoning by-law then in effect as varied there under.

5.1.29 TREES AND PLANTINGS:

a. Purpose

To protect the critical identified forested areas in Ashburnham from deforestation; to preserve trees in order to prevent erosion on disturbed areas and control stormwater drainage; and to protect the forested and rural character of Ashburnham.

b. Tree Preservation

1. The landscape shall be preserved in its natural state insofar as practical by minimizing tree removal, except in connection with a property used for tree farming. If established areas are to be cleared, special attention shall be given to the planting of replacement trees. Land should not be clear-cut for the sole purpose of offering land for sale. Clear-cutting is defined as the removal of sixty-five (65%) of trees ten (10) inches in diameter at breast height (DBH) or larger, on a single parcel.

2. Every effort shall be made through the design, layout, and construction of a subdivision to save as many existing trees as possible, especially those over ten (10) inches DBH. Accordingly, the subdivider shall institute alternative site designs to assure the best chance of tree survival whenever the following criteria can not be adhered to. The following is a list of recommended measures for the protection of existing trees:

(a) There should be no operation of heavy equipment or storage of any materials under said tree within its natural drip line.

(b) Wherever possible, no grading or filling should be done within the drip line.

(c) Supplemental irrigation should be provided to all trees as needed during the summer months to ensure healthy maintenance.

(d) No black top paving or vehicle parking should be located under evergreen trees.

(e) No more than twenty (20) percent of the area under any deciduous trees natural drop line may be paved.

(f) All drainage from paved areas should be directed away from root zones.

3. On wooded lots, subdivider's are required to submit a Tree Preservation Plan. The Plan must be prepared by a registered landscape architect or forester. The Tree Preservation Plan must include a scaled Site Plan including the following information:

(a) A tree inventory indicating the size, species, location, and condition of all significant trees and clumps of not significant trees within the limits of the proposed activity; also location of existing and proposed structures, improvements, utilities, and existing and proposed contours. Significant trees are defined as any living, healthy tree measuring 10 inches DBH or greater.

(b) Specific protection techniques and disease control, if applicable, that will be utilized to minimize disturbance to all trees remaining on site.

(c) A reforestation plan indicating size, species, location, and planting specifications of all street trees, yard trees, and replacement trees.

i. The reforestation plan shall utilize a variety of tree species with emphasis on native species when possible.

ii. Replacement trees shall be a minimum of 4 inch DBH if deciduous, or six (6) feet in height if coniferous.

c. Street Trees

1. The subdivider is required to plant suitable broad-leaved deciduous shade trees along all streets. Said trees shall be located outside the street right-of-way unless the Planning Board has approved otherwise. All trees shall be the equivalent of well rooted nursery grown stock, free of injury, harmful insects, and diseases. They shall be well branched and the branching structure should be sound and not interfere with traffic visibility. In certain cases, where the subdivider's Tree Preservation Plan demonstrates, to the satisfaction of the Planning Board, that suitable trees will be retained within the right-of way, the Board may waive a portion of all the required street trees.

2. The subdivider shall install street trees as follows:

(a) The distance between trees shall not exceed 30 feet along the way.

(b) All trees to be planted shall have a minimum height of 8-10 feet at planting and shall be of at least 4 inches DBH.

(c) The species and variety of the trees to be planted shall be species native to New England and selected and approved by the Tree Warden.

(d) No evergreen trees such as pine, fir, spruce or hemlock shall be planted as public shade trees along the way.

(e) No trees or shrubs shall be planted at any corner or intersection where they could become a traffic hazard by obstructing vision or preventing safe vehicular travel.

(f) All cut bankings that tend to wash or erode shall be planted with a low growing evergreen shrub such as Creeping Juniper (Juniperus horizontalis) and seeded with a deep rooted perennial grass or groundcover, such as Bearberry (Archtostaphylos uva-ursa) to prevent erosion.

(g) All trees should be planted on one-half (1/2) cubic yard of loam mulched with four (4) inches of chips and shall be properly wrapped and guyed in a manner to ensure

their survival. h. In a subdivision, the subdivider will be liable for all planted trees as to their erectness and good health for two calendar years after planting as determined by the Planning Board or its agent.

d. Tree Replacement

1. The subdivider shall provide replacement trees on each lot at the ratio of at least one tree for each 2,000 square-feet of open area on such lot. Such open area shall be calculated as the total area of the lot less the proposed impervious area on the lot as set forth in the hydraulic calculations submitted with the Definitive Subdivision Plan. Any trees left in good growing condition, as judged by the Planning Board or its agent, on the site may be counted toward this requirement.

2. Selection of replacement trees in regard to their number, size and species, shall be determined by the Planning Board or its agent, on the basis of an analysis of tree canopy conditions, soil conditions, and other relevant factors.

3. When possible, trees shall be species native to New England. Please see "List of Recommended Trees" for preferred tree species. See Appendix C.

4. Use of exotic plants, such as Norway Maple (Acer platanoides), Crimson King Norway Maple (Acer platanoides 'Crimson King'), Ailanthus (Ailanthus altissma), Amur Corktree (Phellodendron amurense), Rhamnus cathartica (Common Buckthorn) and Fragula alnus (Glossy Buckthorn) is prohibited.

e. Remediation

1. Any tree shown to be saved on the above mentioned Tree Preservation Plan which, however, is removed or whose survival is irredeemably jeopardized in violation of these conditions shall be replaced in a manner to be determined solely by the Planning Board or its agent in accordance with the following guidelines:

   (a) Each such removed or jeopardized tree of less than 6-inch DBH shall be replaced in kind by a tree of not less than 4-inch DBH in as close to the original location as possible,

   (b) Each such removed or jeopardized tree of a caliper between 6 inches and 12 inches DBH shall be replaced in kind by two trees of not less than 4 inches DBH in as close to the original location as possible,

   (c) Each such removed or jeopardized tree of greater than 12-inch DBH shall be replaced in kind by two trees of not less than 6-inch DBH at locations determined by the Planning Board or its agent.

2. Failure by the subdivider to comply with these conditions expeditiously may result in the Planning Board rescinding its approval of the Definitive Subdivision Plans and cause the revocation of any or all construction issued in connection with the subdivision; in addition the Planning Board reserves the right to withhold from bond reductions or releases in connection with the subdivision sufficient sums to cover the Town's costs of remediation.

f. Enforcement

The Planning Board or its agent shall conduct periodic inspections of the site during land clearance and construction in order to ensure compliance with these conditions. Should the Conservation Agent, Building Inspector, Town Engineer, Police Officer, or any other town official observe violations or possible violations of these conditions, such official shall immediately report same to the Town Planner.

6. REQUIRED IMPROVEMENTS FOR AN APPROVED SUBDIVISION

6.1 CONSTRUCTION GUIDES

6.1.1 All streets, street drains, catch basins and appurtenances thereto shall be installed without expense to the Town of Ashburnham;

6.1.2 All wells shall be located to prevent street drainage contamination;

6.1.3 As each construction operation is completed, approval of it must be obtained from the Board or its agent before work may be started on the succeeding operation or operations, according to a schedule of inspections to be promulgated by the Board for the subdivision. See § 8.1.4, Inspection Schedule;

6.1.4 All construction details, materials, methods and specifications shall conform to the current requirements of the "COMMONWEALTH OF MASSACHUSETTS, STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, BOSTON, MASSACHUSETTS" and shall be under the supervision of the Board or an agent designated by the Board.

6.1.5 All rolling on roadways shall be done with a roller of not less than ten (10) tons.

6.1.6 All right of way lines, all drain lines and all underground municipal services shall be laid out as to line and grade by a Registered Professional Engineer or Registered Land Surveyor.

6.1.7 A pre-construction meeting shall be held prior to any construction. The meeting will be between the applicant and Town Planner, Planning Board, Conservation Agent, Conservation Commission, Town Engineer or Planning Board consulting engineer. A "Project Construction" schedule shall be presented at the pre-construction meeting.

6.1.8 All construction activities shall be limited to 7AM - 7PM Monday thru Friday and 8AM – 6PM on Saturday. No construction activities shall be permitted on Sunday. Construction activity includes starting and /or warming up construction vehicles.

6.2 ROADWAY CONSTRUCTION

6.2.1 Each street shall be constructed on the center lint of the right-of-way unless otherwise authorized by the Board;

6.2.2 Clearing: The roadway shall be cleared of all obstruction of any kind for a distance equal to the sum of the specified width of the pavement plus the required shoulder and any sidewalk or swale on each side of the pavement. A greater width may be required at corners and on the inside of curves for visibility;

6.2.3 Preparation of the roadway;

a. All materials shall be removed for the full length and width of the roadway (pavement and shoulder) to a depth of at least fifteen (15) inches below the finished surface as shown on the profile plan; provided however, that if the soil is soft and spongy, or contains undesirable material, such as clay, sand pockets, tree stumps, stones over six (6) inches in diameter, or any other material detrimental to the sub grade, a deeper excavation below the sub grade shall be made, as directed by the Board or its designated agent.

b. At this point of preparation, all pipes shall be laid in accordance with appropriate specifications.

c. The excavated area below the sub grade shall be filled to sub grade with good, clean bank gravel or other well-compacted material satisfactory to the Board or its designated agent.

d. The entire roadway then shall be rolled, forming the sub grade with a 3/8" per foot crown.

6.2.4 Completion of roadways:

a. An inspection must be made of the sub grade by the Board or the Town Engineer before any foundation gravel is spread. All underground utilities, such as telephone, cable, fire alarm and electricity, shall be installed prior to placing of roadway surfaces; the gravel base shall be spread in two layers per SSH&B Section 401.60 – Gravel Sub base. Before the gravel is spread, the roadbed shall be shaped to a true surface conforming to the proposed cross-section of the road. The bottom right (8) inch layer shall be spread and rolled (minimum 10 ton roller) with a gravel meeting SSH&B M. 1.03.0 type A (no stones over six (6) inches in diameter). The top four (4) inch layer shall be spread and rolled with a gravel meeting SSH&B M. 1.03.0 type B (no stones over three (3) inches in diameter);

b. The roadway shall have a crown of 3/8" per foot and be paved with SSH&B Section 460 – class I bituminous pavement. The paving shall consist of a binder course 2-1/2" compacted measure on collector streets, 1-1/2" on other streets, followed by a finished course 1-1/2" compacted measure (minimum 10 ton roller).

6.2.5 Shoulders: Roadways shall have shoulders with minimum widths as follows:

Primary & Secondary Collector – five (5) feet
Minor roads & streets – five (5) feet
Cul-de-sac – three (3) feet

Shoulders shall pitch at 3/8" per foot towards the curb or swale. This area shall have a nine (9) inch gravel foundation, and be loomed or other good topsoil conductive to the growing of grass, rolled and seeded with lawn grass seed.

6.2.6 Wall or slope support

a. Embankments outside, within or adjoining the right-of-way shall be evenly graded and pitched at a slope of not greater than two (2) horizontal to one (1) vertical in fill. Where cuts are made in ledge, other slopes may be determined with the approval of the Planning Board. Where terrain necessitates greater slopes, retaining walls, terracing, fencing, or rip-rap may be used either alone or in combination to provide safety and freedom from maintenance, but must be done in accordance with plans filed with and approved by the Planning Board. Whenever embankments are built in such a way as to require approval by the Planning Board, the developer must furnish to the Town duly recorded access easements free of encumbrances for maintenance of the slopes, terraces or retaining walls. All such slopes shall be grassed in accordance with the specifications for the area between the roadway and sidewalk or roadway and boundary of the right-of-way.

b. Except as otherwise provided, all cut bankings shall be planted with a low growing shrub or vine and wood chipped to a minimum depth of six (6) inches or seeded with a deep-rooted, perennial grass to prevent erosion. Every effort shall be made to preserve existing trees within the proposed right of way as well as within individual lots shown on the subdivision plan.

6.3 OTHER IMPROVEMENTS

6.3.1 Sidewalk construction shall have a foundation of eight (8) inches or more of compacted gravel. The pavement shall be class I bituminous concrete rolled to 1-1/2" thickness, with a ¼" per foot cross-slope.

6.3.2 Private driveways

a. Driveway entrances shall be constructed so to prevent drainage onto public ways. Driveways at intersections and cul-de-sacs shall be spaced so as to facilitate snow removal.

b. All driveways extending from the completed road surface to the lot lines must have a topping of at least three (3) inches of bituminous concrete. All driveway slopes must end at the street right-of-way, and then continue forward to the completed road surface in the same grade as the sidewalk strip and/or shoulder in order to allow proper drainage of surface water.

c. Curb cuts for driveways shall be at least ten (10) feet wide and shall have a three (3) foot radius flare at the pavement

d. Driveways shall meet the requirements of Chapter XI § 1 of the Ashburnham General Bylaw.

6.3.3 Monuments:

a. Street lines shall have bounds placed at all angle points, at the beginning and end of all curves, and every 1000' feet on straight lines. Such bounds shall be of sound granite, not less than three (3) feet long and not less than five (5) inches square, with a dressed top and ½" drill hole;

b. Four major corners of each lot shall be marked with bounds. Where not coincident with the above, such bounds shall be sound granite, not less than three (3) feet long and not less than three (3) inches square, with ½' drill hole; any other permanent marker, such as steel survey mark may be substituted for sound granite at the rear of the lot.

c. Monuments shall be installed only after all construction which would disturb them is completed, and shall, in general, have their top a minimum of three (3) inches above final grade surface.

6.3.4 Street signs shall be installed at all intersections in conformity with the Manual on Uniform Traffic Control Devices (MUTCD) and the specifications of the Ashburnham Highway Department. Until such time as each street is accepted by the Town as a public way, the sign posts at the intersection of such street with any other street shall have affixed thereto a sign designating such street as a private way. Temporary street signs shall be maintained by the developer during construction.

The Planning Board may require additional traffic control signage, if conditions warrant, on existing public right-of-way. The applicant shall obtain approval from the Board of Selectmen for any such street signage to be located within an existing public right-of-way.

6.3.5 The entire area must be cleaned up so as to leave a neat and orderly appearance free from debris and other objectionable materials and without unfilled holes or other artificially created hazards.

§ 7.Center Village District Design Site Plan Review Principles
Continued on next page

7. CENTER VILLAGE DISTRICT SITE PLAN REVIEW PRINCIPLES

7.1 GENERAL PRINCIPLES

7.1.1. Every reasonable effort shall be made to preserve the distinguishing original qualities of a building, structure or site and its environment. The removal or alteration of any historic material or architectural features should be avoided when possible.

7.1.2. All buildings, structures and sites shall be recognized as products of their own time. Alterations that have no historical basis and that seek to create an earlier appearance shall be discouraged.

7.1.3. Stylistic features distinctive to the architecture of a specific building, structure or landscape, or examples of skilled craft which characterize a building, structure or site shall be conserved or preserved where feasible and appropriate, and may be considered for use as the basis for design additions. Their removal or alteration should be avoided whenever possible.

7.1.4. Contemporary design for new structure or sites, and alterations or additions to existing properties shall not be discouraged when such new development, alterations or additions do not destroy significant historical, architectural or cultural material, and when such design is compatible with the design character of the surrounding environment.

7.1.5. The design of alterations and additions shall, where reasonable and appropriate, strive to improve the quality, appearance and usability of existing buildings, structures and sites.

7.1.6. Development shall be reasonably consistent with respect to setbacks. Placement of parking, landscaping and entrances and exits with surrounding buildings and development. (See Zoning Bylaws 4.2, Schedule of Dimensional Regulations and 5.3 Off-street Parking and Loading Requirements.)

7.1.7. If there is more than one building on the site, the buildings should relate harmoniously to each other in architectural style, site location and building exits and entrances.

7.1.8 The location and number of curb cuts shall be such to minimize turning movements and hazardous exits and entrances.

7.2 DESIGN REVIEW STANDARDS

7.2.1. The Planning Board shall consider, at a minimum, the following standards in the course of the design review of a proposed action:

7.2.2. Height – The height of any proposed alteration should be compatible with the style and character of the building, structure or site being altered and that of the surroundings. (See Zoning Bylaw § 4.2, Schedule of Dimensional Regulations.)

7.22. Proportions – The proportions and relationships of height to width between windows, doors, signs and other architectural elements should be compatible with the architectural style, character and period of the building or structure and that of the surroundings.

7.23. Relation of Structures and Spaces – The relation of a structure to the open space between it and adjoining structures should be compatible with such relations in the surroundings. Facades and their parts should reflect the characteristic rhythm of facades along the street. If the building is large it can be broken into smaller bays to reflect neighboring rhythms. (See Zoning Bylaw § 4.2.)

7.2.3. Shape – The shape of the roofs, windows, doors and other design elements should be compatible with the architectural style, character and period of a building or site, and that of its surroundings.

7.2.4. Landscape – Proposed landscape development or alteration should be compatible with the character and appearance of the surrounding area. Landscape and streetscape elements, including topography, plantings and paving patterns, should provide continuity and definition to the street, pedestrian areas and surrounding landscape. Screening should be provided for storage areas, loading docks, dumpsters, rooftop equipment, utility buildings and similar features. (See Zoning Bylaws §§ 4.2, 5.103.8, Table A Required Landscaping and § 5.104 b.)

7.2.5. Scale – The scale of a structure or landscape alteration should be compatible with its architectural or landscape design style and character and that of the surroundings. The scale of ground-level design elements such a building entryways, windows, porches, plazas, parks, pedestrian furniture, plantings and other street elements should be determined by and directed toward the use, comprehensions and enjoyment of pedestrians. The addition of elements, which maintain a human scale, should be encouraged. (See zoning Bylaw § 4.2 and § 5.103.8.)

7.2.6. Directional Expression – Building facades and other architectural and landscape design elements shall be compatible with those of others in the surrounding area with regard to the dominant vertical or horizontal expression or direction related to use and historical or cultural character, as appropriate.

7.2.7. Architectural and Site Details – Architectural and site details including signs, lighting, pedestrian furniture, planting and paving, along with materials, colors, textures and grade shall be treated so as to be compatible with the original architectural and landscape design style of the structure or site and to preserve and enhance the character of the surrounding areas. In the downtown business districts, these details should blend with their surroundings to create a diverse functional and unified streetscape. (See Zoning Bylaw § 5.23, Signs in the Village Center District.)

7.2.8. Signs – The design of signs should reflect the scale and character of the structure or the site and its surroundings. Signs should simply and clearly identify individual establishment, buildings, locations and uses, while remaining subordinate to the architecture and larger streetscape. (See Zoning Bylaw § 5.23, Signs in the Village Center District.) The choice of materials, color, and size, method of illumination and character of symbolic representation on signs should be compatible with the architectural or landscape design style of the structure or site, and those of other signs in the surroundings.

§ 8 Administration – Continued on next page

8. ADMINISTRATION

8.1 INSPECTIONS

8.1.1 PURPOSE

All work performed as a consequence of these Rules and Regulations shall be subject to the review of the Board which shall approve and accept, or disapprove and reject, each phase or portion of such work and at completion shall recommend the acceptance of all work or disapproval of the work with reasons therefore. The Board may employ a registered professional engineer to act as its agent in the inspection of the work to insure compliance with these Rules and Regulations, and to report to the

Board his recommendations as to the approval or disapproval of the work. Such engineer will make certain inspections as prescribed herein in order to check the adequacy of the work at various stages, prior to such work being covered by subsequent work. However, the Board, its engineer, and such other persons as the Board may designate, shall have the right to inspect the work at any time. Inspection fees to be at the developer's expense. See Planning Board "Regulations Governing Fees and Fee Schedule".

8.1.2 ACCESS

The applicant will provide safe and convenient access to all parts of the subdivision, for the purposes of inspection, to representatives of the Board or other town agencies and boards.

8.1.3 NOTIFICATION

a. After approval of the Definitive Plan, the Board will notify the applicant of the name and address of the engineer designated as its representative to perform the inspections as required herein, and otherwise act as the Boards agent to insure compliance with these Rules and Regulations. The applicant shall keep the engineer fully informed as to the status and progress of the work, and shall notify the engineer directly (by mail or in person by telephone) at least forty-eight hours (excluding weekends and holidays) in advance that the work has progressed to a stage that an inspection is required.

b. In the event that the engineer is unable for forty-eight hours (excluding weekends and holidays) after the work is ready to make such inspection or examination, the applicant shall notify the chairman of the Board of such effect, who will designate an alternate to make such inspection, and shall so notify the applicant.

c. In the event that the engineer makes an inspection of the work at the time designated and finds that such work is not at the proper stage of completion, or that the work has been covered or otherwise obscured, the engineer shall notify the applicant and the Board as to the additional steps the applicant shall take to complete the work to the point required, or to the extent the work shall be uncovered or exposed to full view. The applicant shall notify the engineer again when the work is ready as prescribed in a. and b. above.

d. The applicant shall notify all applicable town agencies and boards when prepared for other inspections not within the jurisdiction of the Planning Board. Such inspections shall include water line and sewer line tests and inspections.

8.1.4 INSPECTION SCHEDULE

It is assumed that under normal conditions work will proceed in accordance with the following construction schedule and site inspections will occur as indicated, or as approved by the Planning Board. The contractor will provide the Planning Board with a detailed construction schedule. Phasing will require a repeat of site inspections.

Inspection shall be for the following purposes:

<u>SITE INSPECTION #1</u>

1. Establish Construction Control
2. Clearing and grubbing; including excavating or stripping poor material.

3. Preparation of sub-base; including necessary cuts and fills.
4. Confirm Erosion and Sedimentation controls

SITE INSPECTION #2
5. Installation of drainage pipes, retention/detention basins
6. Installation of other underground utilities.
7. Confirm Erosion and Sedimentation controls.

SITE INSPECTION #3
8. Application of material for sub-base.
9. Application of gravel in or above sub-base.
10. Confirm Erosion and Sedimentation controls.

SITE INSPECTION #3
11. Removal or application of material for slopes.
12. Application of bituminous concrete base course.
13. Confirm Erosion and Sedimentation controls.

SITE INSPECTION #4
14. Installation of curbing.
15. Application of gravel in sidewalks.
16. Application of and installation sidewalks.
17. Application of bituminous concrete finish course.
18. Final installation of drainage appurtenances.
19. Application of loam for lawns and slopes.
20. Installation of bounds, street signs and other items.
21. Clean up/punch list.

Inspectional services are provided by the Planning Boards authorized engineer at the expense of the developer. See Planning Board "Regulations Governing Fees and Fee Schedule".

8.2 APPLICATION FEES AND EXPENSES

8.2.1 ADMINISTRATIVE FEES

All Planning Board fees are non refundable filing fees to cover the cost of processing applications. All expenses for advertising, publication of notices, engineering, professional planning review, legal review, plans, inspection of construction, recording and filing of documents required by the Planning Board or its agent shall be the responsibility of the applicant. Administrative Fees are not part of the regulations and their content may be revised from time to time by administrative action of the Board, without a public hearing. The Administrative Fee Schedule is available in the Land Use Office.

8.2.2 LEGAL AND ENGINEERING COSTS

Legal, engineering and other professional review costs of proposed plans and documents submitted during the consideration of Preliminary Plans, Definitive Plans, As-Built-Plans, Street Acceptance Plans are the responsibility of the applicant. See Planning Board "Regulations Governing Fees and Fee Schedule".

8.3 INVALIDATION BY STATE LAW

Any part of these Rules and Regulations subsequently invalidated by a new state law or modifications of an existing state law shall automatically be brought into conformity with the new or amended law,

and shall be deemed to be effective immediately, without recourse to a public hearing and the customary procedures for amendment or repeal of such regulation.

8.4 SEPARABILITY

If any section, paragraph, sentence, clause or provisions of these Rules and Regulations shall be adjudged not valid, the adjudication shall apply to the material so adjudged and the remainder of these Rules and Regulations shall be deemed to remain valid and effective.

8.5 AMENDMENTS

These Rules and Regulations or any portion thereof may be amended, supplemented or repealed from time to time by the Board after a public hearing, on its own motion or by petition.

Town Of Ashburnham Planning Board

RULES and REGULATIONS
APPENDIX A

DESCRIPTION OF LAYERS – GIS REQUIREMENTS

LAYER DESCRIPTION	LAYER NAME	LAYER NUMBER	COLOR
Base Map			
Road Centerlines	RDCLINE	1	Black
Right of Way	ROW	2	Black
Existing pavement	PVMT_EXI	3	Black
Proposed pavement	PVMT_PRO	4	Black
Easements	EASEMENT	5	Black
Sidewalks	SWALK	6	Black
Building footprints	BLDGS	7	Red
Streams and ponds	HYDRO	8	Blue
Wetlands & wet areas	WETAREA	9	Green
Driveways & parking areas	DRIV_PRK	10	Grey
Parcel boundary lines	PARCELS	11	Black
Property markers (monuments) & metes and bounds text	PROPMRK	12	Black
Topography			
Existing contours & spot elevations	CONT_EXI	13	Grey
Proposed contours	CONT_PRO	14	Black
Utilities			
Existing water system (lines & appurtenances)	WAT_EXI	15	Cyan
Proposed water system (lines & appurtenances)	WAT_PRO	16	Cyan
Public or private wellhead locations	WELLS	17	Cyan
Existing sewer system (lines & appurtenances)	SEW_EXI	18	Yellow
Proposed sewer system (lines & appurtenances)	SEW_PRO	19	Yellow
Existing drain system (lines & appurtenances)	DRN_EXI	20	Blue
Proposed drain system (lines & appurtenances)	DRN_PRO	21	Blue
Elect. system & st. lgting (lines,poles,appurt.)	ELECTRIC	22	Orange
Cable TV system (lines,poles,appurtenances)	CATV	23	Grey
Existing gas system (lines & appurtenances)	GAS_EXI	24	Magenta
Proposed gas system (lines & appurtenances)	GAS_PRO	25	Magenta
Other Features			
Zoning boundaries & classification text	ZONE	26	Magenta
Lot numbers/street addresses	LOT_ADD	27	Black
Fences & walls	FENCE	28	Red
Wooded areas (treelines)	WOODS	29	Green
FEMA FIRM zone boundaries & text	FLOOD	30	Cyan
Large trees (4” diameter)	TREES	31	Green
Proposed landscaping	LAND_PRO	32	Green
Coordinate locations and text	COORDS	33	Black
Notes/miscellaneous notations	NOTES	34	Black
Additional Layers: Proponents discretion on naming, however, documentation on all layer names should be provided to the Ashburnham Planner.			

Town Of Ashburnham Planning Board

RULES and REGULATIONS
APPENDIX B

Rural Fire Protection – Fire Cisterns

Ashburnham Fire Department and Ashburnham Planning Board
October 2005 – v. B

Design Standard - NFPA 1142 latest edition.

1.0 Fire Cistern requirements v. B based on NFPA 1142, 2001 edition.

2.0 Plans for Fire Cistern(s) must meet requirements of the Fire Chief and be approved by the Planning Board and the Town's engineer.

3.0 Fire Cistern Requirements

3.1 General Requirements

3.1.1 The design shall be trouble-free and last a lifetime (50 years)

3.1.2 The minimum capacity shall be 30,000 gallons

3.1.3 Cisterns shall be located no more than 2,500 ft truck travel distance from the nearest lot line of the furthermost lot.

3.1.4 Cistern shall be equipped with a raised 32 inch watertight manhole with padlock.

3.1.5 The design drawing of the cistern shall be submitted to the planning board for approval prior to construction. All plans will be signed by a MA licensed/registered professional engineer.

3.1.6 The entire cistern with ground cover shall be rated for highway loading H-20.

3.1.7 Each cistern will be sited to the particular location(s) by a MA licensed/registered professional engineer and location(s) approved by the Fire Chief and the Planning Board.

3.1.8 Cast-in-place concrete should achieve a 28-day strength of 4000 psi. It shall be placed with a minimum slump and vibrated in a professional manner.

3.1.9 The concrete shall be mixed, placed, and cured without the use of calcium chloride. Winter placement and curing should follow the accepted American Concrete Institute (ACI) codes.

3.1.10 All backfill material should be screened gravel with no stones larger than 1-1/2 in and shall be compacted to 95% ASTM 1557.

3.1.11 Bedding for cast in place units shall be a minimum of 12 in of ¾ in to 1-1/2 in crushed, washed stone, compacted. Bedding for pre-cast units shall be to manufacturer requirements. No fill shall be used under stone.

3.1.12 Backfill over cistern should be one of the following:

a. 4 ft of fill;

b. The top and highest 2ft of the sides of cistern shall be insulated with vermin-resistant foam insulation and 2 ft of fill.

3.1.13 All backfill shall extend 10ft beyond edge of cistern and to have a maximum 3:1 slope, loamed and seeded.

3.2 Suction Connection

3.2.1 All suction (8 in min) piping shall be ASTM Schedule 40 steel, except suction piping within the cistern shall be Schedule 10 Type 304 Stainless Steel with 48 in x 48 in x ¼" thick anti-vortex Type 304 Stainless Steel plate connected to suction pipe 6 above the bottom of cistern. All above ground steel pipe shall be painted with a lasting protective paint with colors approved by the Fire Chief, or his agent.

3.2.2 The suction piping system shall be capable of delivering 1000 gpm for 75% of cistern capacity.

3.2.3 The final suction fitting shall be 6" NH male hard coat anodized aluminum Fire Department grade with cap approved by the Fire Chief, or his agent, and shall be 20 in – 24 in above the access road at vehicle wheels.

3.3 Fill and Vent Details

3.3.1 All fill piping shall be 6 inch ASTM Schedule 40 steel. All above ground steel pipe shall be painted with a lasting protective paint with colors approved by the Fire Chief.

3.3.2 The fill connection shall have one, 4 inch Storz hard coat anodized aluminum Fire Department grade fitting with 45 degrees elbow facing down with cap.

3.3.3 The fill pipe shall be 36 inches above final grade.

3.3.4 All vent piping shall be 8 inch ASTM Schedule 40 steel with screens installed to prevent access by wildlife. All above ground steel pipe shall be painted with a lasting protective paint with colors approved by the Fire Chief, or his agent.

3.3.5 The fill pipe shall be not less than 36 inches above final grade.

3.4 Vehicle Parking Area

3.4.1 Pitch of shoulder and vehicle pad from edge of pavement to suction connection shall be 1 to 4 percent downgrade.

3.4.2 Shoulder and vehicle pad should be of sufficient length and width to permit convenient access to the suction connection when pumper is set at 45 degrees to the road. Road or street shall not be blocked when pumper is set in the above manner to draft water.

3.4.3 Bottom of suction pipe to the suction connection should not exceed 14 ft vertical distance.

3.5 Inspections

3.5.1 Inspections shall be made – Site prep prior to tank install, prior to backfill, prior to filling tank, during leakage and flow testing. Final testing to include signage.

3.5.2 The entire cistern shall be completed and inspected prior to filling.

3.5.3 All horizontal suction piping shall slope slightly uphill toward suction connection.

3.5.4 The completed cistern shall be tested per NFPA 22. The tank shall be filled and left to stabilize for 48 hours. The liquid level loss will be monitored over the next 72 hours to determine any net leakage. The loss due to porosity and evaporation will be calculated and deducted to determine any net leakage.

3.5.5 Tank shall be tested for required flow of 1000 gpm; all tests will be witnessed by a Fire Department Representative.

3.6 Water Supply to Cistern

3.6.1 Drilled well – 5 GPM minimum flow

3.6.2 The equipment enclosure shall be protected from freezing and secured by locks.

3.6.3 Pump size and piping shall be designed to match the tested flow rating of well measured by the contractor during drilling.

3.6.4 The pump controls will maintain the cistern to a level equal to 97% of capacity. If the level drops below 94% capacity a red warning light visible from the street will turn on, with a sign installed to advise the public to call the phone number _____ to report this condition.

3.6.5 An hour meter shall be installed on the pump control to record run hours of the pump. This meter shall not have a reset. A log shall be maintained of readings during normal maintenance.

3.7 Site Work

3.7.1 Cistern and piping shall be protected from potential vehicle damage by:

a. Steel, concrete filled bollards no less 8” in diameter, or

b. Large rocks, or

c. Fencing, or

d. Any combination of above

3.7.2 Signage as required by the Fire Chief, or his agent.

3.7.3 A Rapid Entry System approved by the Fire Chief, or his agent, shall be installed containing labeled keys for all locks on site.

3.8 As-Built Plans

As-built plans shall be certified by the design engineer prior to acceptance by the Planning Board and the Fire Department.

3.9 Maintenance

Maintenance shall be according to the “Operation and Maintenance Plan” approved during the Definitive Plan approval process.

Town Of Ashburnham Planning Board

RULES and REGULATIONS
APPENDIX C

RECOMMENDED TREES

LIST OF RECOMMENDED TREES
(An asterisk * denotes a species native to North America. These should in general be preferred to non-native species, as they contribute to the local ecology in ways that exotic species can not.)

Scientific Name	Common Name	Height	Notes
Acer campestre	Hedge Maple	25'-40'	Handsome street tree
Acer ginnala	Amur Maple	15'-20'	Good fall color
Acer griseum	Paperbark Maple	25'-35'	Interesting Bark
*Acer rubrum**	Red Maple	50'-75'	Tolerates wet sites
*Acer saccharum**	Sugar Maple	60'-80'	Salt intolerant, vivid fall colors
*Amelanchier laevis**	Serviceberry	15'-30'	4-season interest, edible berries
*Betula nigra**	River Birch	40'-75'	Cultivars
*Catalpa speciosa**	Catalpa	50'-60'	Large leaves, flowers & pods
*Celtis occidentalis**	Hackberry	50'-60'	Attracts birds, good street tree
Ceridiphyllum japonicum	Katsura	40'-60'	Prefers moist ground
*Cercis Canadensis**	Redbud	15'-25'	Tolerates shade, strong spring color
*Cladrastis kentukea**	Yellowwood	30'-50'	Spreading and low branching, good in lawns
*Cornus alternifolia**	Pagoda Dogwood	20'	Underused but desirable native
Cornus kousa	Kousa Dogwood	15'-30'	Wider than tall
Corylus colurna	Turkish Filbert	75'	Tolerates drought
*Crataegus phaenopyrum**	Washington Hawthorn	25'	Fall berries attract birds
*Fraxinus americana**	White Ash	50'-80'	Grows wide as well as tall
*Fraxinus pennsylvanica**	Green Ash	50'-60'	Fast growing, tough
Ginko biloba	Ginko	45'-55'	Plant only males
Gleditsia tricanthos (thornless)*	Honeylocust	40'-80'	Gives filtered shade, fall gold
*Gymnocladus dioicus**	Kentucky Coffeetree	50'-70'	Male preferably, an underused tree
*Liquidambar styraaciflua**	Sweet Gum	60'-75	Fall color, star-shaped leaf
*Liriodendron tulipifera**	Tuliptree	70'-90'	Tallest native tree
Maakia amurensis	Amur Maakia	20'-30'	Good street tree, underused

*Machura pomifera**	Osage Orange	60’	Interesting orange bark, large fruits (female only)
Magnolia stelleta, esp. ‘Centennial’	Star Magnolia	15’-25’	Needs moisture, flexible usage even on street
Malus spp.	Flowering Crabapples	20’-25’	Many cultivars
*Nyssa sylvatica**	Tupelo, Gum Tree	40’-70’	Good in groves, moisture
Ostrya virginiana	American Hophornbeam	25’-40’	Unique capsules, handsome bark
*Oxydendrum arboretum**	Sourwood	25’	4-season interest
Platanus x acerifolia	London Planetree	70’-100’	Interesting bark
*Platanus occidentalis**	American Sycamore	70’-100’	Interesting bark
*Quercus, spp. **	Oak species	60’-80’	The National Tree, grows very well
*Robinia pseudoacacia**	Black Locust	40’-50’	Tolerates very poor soil
Sophora japonica	Japanese Scholartree	50’-70’	Mid-summer flowers
*Tilia americana**	Basswood	60’-80’	Fragrant Blossoms
Tilia cordata ‘Greenspire’	Littleleaf Linden	40’-60’	Neat Shape
*Ulmus americana ‘Princeton’ **	American Elm	60’-80’	Disease resistant
Ulmus parvifolia	Lacebark Elm	40’-50’	Disease resistant, beautiful bark
Zelcova serrata	Zelcova	60’-70’	Hardy

UNDESIRABLE TREE SPECIES

If you have these trees, consider removing them.

Acer platanoides	Norway Maple		Invasive
Ailanthus altissima	Tree of Heaven		Invasive
Rhamnus cathartica, and *Fragula alnus* (formally known as *Rhamnus frangula*)	Common Buckthorn Glossy Buckthorn		Both invasive

Town Of Ashburnham Planning Board

RULES and REGULATIONS
APPENDIX D

OUTDOOR LIGHTING

International Dark-Sky Association

www.darksky.org

History

The International Dark-Sky Association (IDA) was incorporated in 1988 as a tax-exempt non-profit organization operating exclusively for educational and scientific purposes under Section 501(c)(3) of the United States Internal Revenue Code of 1987 (Federal Identification Number 74-2493011). As such, IDA lawfully solicits donations and applies for grants in order to maintain the organization and further its mission; see our page on funding sources for details.

IDA operates under a set of formal bylaws that were established at the time of incorporation. These bylaws were revised in February 1989, in September 1990, and in December 2005.

Headquarters

International Dark-Sky Association (IDA)
3225 North First Avenue
Tucson, Arizona 85719
United States
Telephone: 520-293-3198
Fax: 520-293-3192
Email: gro.ykskrad@retsambew

Mission statement

The mission of the International Dark-Sky Association (IDA) is to preserve and protect the nighttime environment and our heritage of dark skies through quality outdoor lighting.

Goals

1. Stop the adverse effects of light pollution on dark skies, including
    - Energy waste and the air and water pollution caused by energy waste
    - Harm to human health
    - Harm to nocturnal wildlife and ecosystems
    - Reduced safety and security
    - Reduced visibility at night
    - Poor nighttime ambience
2. Raise awareness about light pollution, its adverse effects, and its solutions
3. Educate everyone, everywhere about the values of quality outdoor lighting
4. Help stop other threats to our view of the universe, such as radio frequency interference (RFI) and space debris

To achieve these goals, IDA takes an award-winning unified approach that supports the individual efforts of our members and of others who advocate dark skies. In fighting light pollution we work with communities, astronomers, ecologists, and lighting professionals; we are active on local, national, and international stages. We have already accomplished much, but our work is not yet done. With your help, in time we will succeed in conserving, preserving, and restoring our natural dark skies.

Efforts

Current efforts undertaken by IDA to reduce light pollution include:

Programs

- Public outreach and Programs
- Light pollution research
- Awards for lighting and dark sky advocacy
- The International Dark Sky Community program
- The IDA-Approved™ Dark Sky Friendly Fixture Seal of Approval™ program
- Retrofit America

Publications

- Newsletter of the International Dark-Sky Association
- IDA/IESNA Model Lighting Ordinance
- IDA-Approved™ Dark Sky Friendly Fixture Directory
- Information sheets
- Educational publications from brochures to videos

Public relations

- Annual meeting and conference
- Speakers' bureau
- Media kits and press releases

IDA Lighting Code Handbook

The full text of the Handbook is available on the IDA web site (www.darksky.org). Note that it is a long document (about 60 printed pages) and it will take a long time to download for most users.

IDA Lighting Code Handbook V1.14 Sep 2002