



SUBDIVISION

RULES AND REGULATIONS GOVERNING
THE SUBDIVISION OF LAND
FITCHBURG, MASSACHUSETTS

EFFECTIVE 9/13/88 WITH AMENDMENTS THROUGH NOVEMBER 20, 2007
(Adopted under the subdivision Control Law, Sections 81-K to 81-GG inclusive,
Chapter 41, of the Massachusetts General Laws.)

SECTION 1. PURPOSE AND AUTHORITY

PURPOSE

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 the several lots therein, but which have not become public ways, and ensuring sanitary conditions in subdivision and in proper cases parks and open areas. The powers of a planning board and of a board of appeals under the subdivision control law shall be exercised with due regard for the provision of adequate access to all 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 or other emergencies; for insuring compliance with the applicable zoning ordinances or by-laws; for securing adequate provisions for water, sewerage, drainage, underground utility services, fire, police and other similar municipal equipment, and street lighting 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 the neighboring subdivisions. It is the intent of the subdivision control law that any subdivision plan filed with the planning board shall receive the approval of such board if said plan conforms to the recommendation of the board of health and to the reasonable rules and regulations of the planning board pertaining to subdivision of land; provided, however, that such board may, when appropriate, waive, as provided for in section eight-one R, such portion of the rules and regulation as is deemed advisable: (Section 81-M of Chapter 41, M.G.L.)

AUTHORITY

Under the authority vested in the Planning Board of the City of Fitchburg by Section 81-Q Chapter 41 of the General Laws, said Board hereby adopts these rules and regulations governing the subdivision of land in the City of Fitchburg. Such rules and regulations shall be effective on and after September 13, 1988.

SECTION 2. GENERAL

2.0 Definitions

Applicant - The person who applies for the approval of a plan of a proposed subdivision. The applicant or applicants must be the owner or owners of all land included in the proposed subdivision. An agent or representative may act for an owner, provided written evidence of such fact is submitted. Evidence in the form of a list of the officers and designated authority to sign legal documents shall be required for a corporation.

Abutter - Owners of land abutting upon the land included in a proposed subdivision.

Board - The Planning Board of the City of Fitchburg, Massachusetts or its designated agent.

City - The City of Fitchburg, Massachusetts.

Collector Street - A street which collects, or may reasonably be expected to collect traffic from several minor streets, or which handles traffic equivalent to that generated by 100 homes or more, or which serves non-residential abutting property.

Developer or Subdivider - The owner of land being subdivided, acting directly or through an authorized agent or assigns.

Development Impact Statement (DIS) - A documented, written analysis of a proposed subdivision which provides the Planning Board and its agents with information necessary for plan review. Prepared by the applicant. A DIS shall follow the format presented in Appendix A of this document.

Engineer - Any person who has been registered or otherwise legally authorized by the Commonwealth of Massachusetts to perform civil engineering services.

Lot - An area of land in one ownership with definite boundaries ascertainable or to be ascertainable of record, and use, or set aside and available for use, as a site of one or more buildings and building accessory thereto for any other definite purpose.

Minor Street - A Street which primarily provides, and can be expected to provide access to property abutting the street rather than to intersecting streets. For example, streets serving subdivisions.

Open Space and Recreation Plan - Refers to "An Open Space and Recreation Plan for Fitchburg, 1987 -1992" prepared by the Fitchburg Conservation Commission and the Office of the Planning Coordinator.

Owner - The owner of record as shown by the records in the Northern Worcester County Registry of Deeds.

Preliminary - A plan submitted prior to the Definitive Plan in order to present the broad outline of the project to the Planning Board. Preliminary Plans are mandatory for all non-residential projects and optional, but recommended, for residential projects.

Review Period - In the case of a subdivision showing lots in a residential zone, any person, before submitting his or her definitive plan for approval, may submit to the Planning Board and to the Board of Health, a preliminary subdivision plan, and shall give written notice of plan submittal to the Fitchburg City Clerk by delivery or by registered mail, postage prepaid.

In the case of a non-residential subdivision, any person before submitting his or her definitive plan for approval shall submit to the Planning Board and the Board of Health, a preliminary plan, and shall give written notice to the clerk by delivery or by registered mail, postage prepaid, that he or she has submitted such plan.

In either case, if the notice is given by delivery, the City Clerk shall, if requested, give a written receipt therefore. Within forty-five (45) days after submission of a preliminary plan, the Planning Board shall notify the applicant and the clerk, by certified mail, either that the plan has been approved, or that the plan has been approved with modifications suggested by the board or agreed upon by the person submitting the plan, or that the plan has been disapproved and in the case of disapproval the board shall state in detail its reasons therefore. The Planning Board shall notify the City Clerk of its approval or disapproval, as the case may be. Except as is otherwise provided, the provisions of the subdivision control law relating to a plan shall not be applicable to a preliminary plan, and no register of deeds shall record a preliminary plan.

In the case of a non-residential subdivision where a preliminary plan has been duly submitted and acted upon or where forty-five (45) days has elapsed since submission of the said preliminary plan, and then a definitive plan is submitted, the failure of a Planning Board either to take final action or to file with the City Clerk a certificate of such action regarding the definitive plan submitted by an applicant within ninety (90) days after such submission, or such further time as may be agreed upon at the written request of the applicant, shall be deemed to be an approval thereof. Notice of such extension of time shall be filed forthwith by the Planning Board with the City Clerk.

In the case of a subdivision showing lots in a residential zone, where a preliminary plan has been acted upon by the Planning Board or where at least forty-five days have elapsed since submission of the preliminary plan, an applicant may file a definitive plan. The failure of a Planning Board either to take final action or to file with the City Clerk a certificate of such action on the definitive plan within ninety (90) days after such submission, or such further time as may be agreed upon at the written request of the applicant, shall be deemed to be an approval thereof. Notice of such extension or time shall be filed forthwith by the Planning Board with the City Clerk.

In the case of subdivision showing lots in a residential zone, where no preliminary plan has been submitted and acted upon or where forty-five (45) days has not elapsed since

submission of such preliminary plan and a definitive plan is submitted, the failure of a Planning Board either to take final action or to file with the City Clerk a certificate of such action regarding the definitive plan submitted by an applicant within one hundred and thirty-five (135) days after such submission, or such further time as may be agreed upon at the written request of the applicant, shall be deemed to be an approval thereof. Notice of such extension of time shall be filed forthwith by the Planning Board with the City Clerk.

Roadway - That portion of the way, right-of-way or street layout which has been prepared and constructed for vehicular traffic.

Shall - Where used, shall to be understood as mandatory.

Should - Where used, should to be understood as advisory

Subdivision - The division of a tract of land into two or more lots and including resubdivision, and when appropriate to the context, relating to the process of subdivision of the land or territory subdivided; provided, however, that the division of a tract of land into two or more lots shall not be deemed to constitute a subdivision within the meaning of the Subdivision Control Law if, at the time when it is made, every lot within the tract so divided has frontage on: (a) a public way, or a way which the City Clerk certifies is maintained and used as a public way, or (b) a way shown on a plan previously approved in accordance with the Subdivision Control Law, or (c) a way in existence when the Subdivision Control Law became effective in the City having, in the opinion of the 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. Such frontage shall be of at least such a distance as is then required by the Fitchburg Comprehensive Zoning Ordinance for erection of a building on such lot, and if no distance is so required, such frontage shall be of at least twenty feet. Conveyances, or other instruments adding to, taking away from, or changing the size and shape of lots in such a manner as not to leave any lot so affected without the frontage above set forth; or the division of a tract of land, on which two or more buildings were standing when the Subdivision Control Law went into effect in Fitchburg (August 26, 1958) into separate lots on each of which one of such buildings remain standing, shall not constitute a subdivision.

Subdivision Control Law - Sections 81-K to 81-GG, inclusive, of Chapter 41 of the General Laws of the Commonwealth of Massachusetts, entitled "The Subdivision Control Law."

Surveyor - any person who has been registered or otherwise legally authorized by the Commonwealth of Massachusetts to perform land surveying services.

2.1 Plan Believed Not to Require Approval

2.10 ANR Submittal requirements

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 that said plan does not require approval under the Subdivision Control Law shall submit the following to the Office of the Planning Coordinator at least 48 hours prior to a regular scheduled Planning Board meeting.

2.11 Procedural Requirements

- a. One (1) original plan prepared by a registered land surveyor on mylar.
- b. Four (4) paper prints.
- c. Two (2) completed copies of a Form "A".
- d. One (1) \$80.00 check or money order made payable to the "City of Fitchburg

2.12 Drafting Requirements

- a. Plan sizes shall be a minimum of eight and one-half inches by eleven inches ($\frac{1}{2}$ " x 11") and a maximum of twenty-four inches by thirty-six inches (24" x 36")
- b. Plans being presented for recording shall be on linen or polyester film, single matte with a thickness of .004 mils, and must have an opacity so as to allow consistent diazo and microfilm reproduction.
- c. All plans shall be prepared using a compatible ink with excellent cohesiveness which will produce a permanent bond and result in a plan with long term durability.
- d. Linen or polyester reproductions shall be accepted for recording provided they contain original signatures and comply with the other requirements for the recording of plans.
- e. Each plan shall have three-quarter inch ($\frac{3}{4}$ ") borders.
- f. The minimum letter size on plans presented for recording shall be one-eighth inch (1/8")
- g. Each plan presented for recording shall include a graphic scale, and the scale shall be not less than 1 inch equals 40 feet unless specifically allowed by the Planning Board.

- h. Each plan shall have an area reserved-to receive planning board recitation or contain a surveyor's certification as per Chapter 380, Acts of 1966.
- i. Each plan shall have a three and one-half inch (3½") square reserved for Registry use.
- j. Each plan must contain a certification clause signed by the preparer stating that he/she has conformed with the rules and regulations of the Register of Deeds in preparing the plan.

2.13 Sheet Layout Requirements

Each sheet shall include the following items:

- a. Name of applicant.
- b. North arrow and bar scale
- c. Existing zoning district(s)
- d. Context or loci map.
- e. Legend for miscellaneous items on plan.
- f. Date.
- g. Registered land surveyor's seal, name and address
- h. Space for the signatures of the Planning Board members and approval date, and a three and one-half inch (3½") square reserved for Planning Board use.

2.14 Plan Requirements

All plans shall at a minimum include the following information:

- a. Names, widths and exterior lines of any existing ways, public or private, that run through or are adjacent to the parcel being subdivided. Label each way; public or private as appropriate.
- b. Lines, boundaries and areas of all lots being subdivided.
- c. The data necessary to determine the location, bearing and length of every way line, lot line and other boundary lines shown on the plan whether straight or curved, sufficient to be reproduced the same on the ground.
- d. Buildings
- e. Walks and drives

- f. Fences and wails
- g. Water bodies and water ways
- h. Easements (public and private)
- i. In the case of a recombination or a conveyance, the plan shall include the entire parcel being conveyed and the entire parcel to which the land is being conveyed. The plan shall also indicate the area of the parcels before the conveyance and the total area of the parcel after the conveyance.
 - 1. In the instances where a parcel which, in itself, is not an acceptable lot under the rules and regulations governing the subdivision of land, is being conveyed to an abutter, a note shall be placed on the plan which shall state that parcel "A" is being combined with parcel "B" so as to create a new, single parcel.

2.15

If the Board determines that the plan does not require approval, the Board or its agent shall forthwith without a public hearing endorse on the plan the words "Approval under Subdivision Control Law Not Required" or words of similar import. Such endorsement shall not be deemed to constitute any determination of compliance with requirements of the Zoning Ordinance. The original mylar of said plan shall be returned to the applicant.

2.16

If the Board determines that the plan does require approval under the Subdivision Control law, it shall forthwith so inform the applicant and return the original mylar of the plan. The Board shall also notify the City Clerk of its determination.

2.17

If the Planning Board fails to act upon a plan submitted under this section within twenty-one (21) days after its proper submission, it shall be deemed to have determined that approval under Subdivision Control Law is not required.

2.18

The Planning Coordinator, or his designee, is authorized to deny approval of a plan submittal under M.G.L., Chapter 41, Section 81-P and Section 2.1 herein, where such plan fails to comply with the aforesaid Subdivision Rules and Regulations, Zoning Ordinance and applicable M.G.L.

2.2 Subdivision

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

2.3 Compliance with Zoning

No subdivision plan shall be approved by the Planning Board unless the size, shape, width, and frontage of all lots within the subdivision comply with the applicable provisions of the Zoning Ordinance. Under-sized lots may be included on a plan only if the Board records on the mylar that said lots are unbuildable.

2.4 Effect of Prior Recording of Plan

Notwithstanding the foregoing, the recording of a plan of a subdivision within the City in the Registry of Deeds of Northern Worcester County prior to August 26, 1958, shall not exempt the land within such subdivision from the operation of the subdivision control law except with respect to lots which had been sold and were held in ownership separate from that of the remainder of the subdivision when said law went into effect in the city or town, and to rights of way and other easements appurtenant to such lots.

2.5 Development Impact Statement

2.51 Components

The Planning Board may require a developer of a subdivision or of more than one building on a lot to submit a Development Impact Statement (DIS) on the effects the proposed action has or will have on: (1) the immediate neighborhood or land area, (2) surrounding neighborhoods or land areas, and (3) the community at large. The DIS shall include a detailed assessment of the probable impacts of the proposed action on a wide variety of environmental, fiscal, and socioeconomic elements and factors. Environmental impacts shall mean any destruction, damage, or impairment, actual or probable, to any of the natural resources of the City and shall include but not be limited to water pollution, air pollution, improper sewage disposal, pesticide pollution, excessive noise, impairment and eutrophication of rivers, streams, floodplains, lakes, ponds, or other surface or subsurface water resources; destruction of wetlands, open spaces, natural areas, park or historic districts or sites. The Development Impact Statement shall contain detailed information describing the nature and extent of the proposed work and its environmental impact; all measures being utilized to minimize environmental damage; any adverse short-term and long-term environmental consequences which cannot be avoided should the work be performed; and, alternatives to the proposed action and their environmental consequences.

Fiscal and socioeconomic impacts shall include traffic circulation and safety, neighborhood character, school enrollment, public facilities, associated fiscal

expenditures and revenues, and effect on housing and other development activity.

2.52 Procedure

Upon submission to the Planning Board of a Preliminary/Definitive Subdivision Plan, Cluster Development, or Planned Unit Development, the applicant is required to submit a general statement of notification of the proposed action summarizing the following points:

- a. A brief description of the proposed action and the area(s) or activities affected;
- b. Existing baseline conditions with a summary of probable impacts;
- c. A brief analysis of available alternatives and their effect.

Based on a review of the above three items, developer the Planning Board will determine whether a complete Development Impact Statement (see Appendix A) will be required of the applicant. If required, the entire cost of the Development Impact Statement will be the responsibility of the applicant. The DIS shall be prepared by a registered professional engineer or member of the American Institute of Certified Planners.

At a preliminary scoping session to be held between the applicant and the Planning Staff, and upon submission of evidence from the developer, the Board may waive any section(s) of the requirements which it deems non applicable to the proposed project or may require additional information on any aspect of the requirements.

2.6 Procedures

2.60 All plans and all procedures relating thereto shall in all respects comply with the provisions of these Rules and Regulations, unless the Board authorizes a variation therefrom in specified instances.

2.61 The Building Commissioner shall not issue any permit for the erection of a building until first satisfied that the lot on which the building is to be erected is not within a subdivision, or that a way furnishing the access to a lot within a subdivision as required by Subdivision Control Law is shown on a recorded plan and that any conditions endorsed thereon limiting the right to erect or maintain buildings on such lot have been satisfied.

2.62 The Board may assign as its agents appropriate City agencies or officials and may from time to time hire professional assistance to review plans and inspect improvements at the cost of the applicant.

2.63 The Board on its own motion or on the petition of any interested person shall have the power to modify, amend or rescind its approval of a plan of a subdivision, or to require a change in a plan as condition of its retaining the status of an approved plan after due notice and opportunity to the owner to be heard in accordance with Section 81W of Chapter 41 of the General Laws as amended. The time requirements shall be the same as in the case of the Definitive Plan.

2.7 Development Review Fees

The Board under the authority of M.G.L., Chapter 44, Section 53 (Chapter 593 of the Acts of 1989), may at its discretion impose certain reasonable fees on applicants under these regulations to allow for the employment of outside consultants. The employment of such consultants will be in conformance with the Planning Board's Development Review Fee Regulations, adopted March 20, 1990, and on file with the Office of the City Clerk and the Office of the Planning Coordinator. ***Effective date March 21, 1990.***

SECTION 3. PROCEDURE FOR THE SUBMISSION AND APPROVAL OF PLANS

3.0 Pre-Submission Review

Prior to investing in extensive professional design efforts for subdivision plans, it will often prove useful to review the proposed development of a parcel of land with the Planning Staff, in order that general approaches and potential problems can be freely explored. Pencil sketches, which need not be professionally prepared, will assist the discussion, and might show some but not all of the information shown on a Preliminary Plan. In special circumstances, this pre-submission review may eliminate need for such a Preliminary Plan.

3.1 Preliminary Plan

3.10 General

A Preliminary Plan of a subdivision should be submitted for discussion and approval by the Board in cases of residential subdivisions and said plan shall be submitted in cases of non-residential subdivisions. The submission of such a Preliminary Plan will enable the subdivider, the Board, other municipal agencies and owners or property abutting the subdivision to discuss and clarify the problems of such subdivision before a Definitive Plan is prepared. Therefore, it is strongly recommended that a Preliminary Plan be filed in every case.

Application shall consist of original and four copies of Form B, an application fee of one hundred dollars (\$100.00), together with the plan and nine (9) copies thereof, one copy of which shall be transmitted by the Planning Board to the Board of Health. Applications and plans shall be submitted to the Office of the Planning Coordinator by delivery (receipt required) or by registered mail, followed by the filing of a copy of Form B indicating the date of said submission with the City Clerk either by delivery (receipt required) or registered mail.

3.11 Contents

The Preliminary Plan shall be drawn by a Massachusetts registered surveyor or engineer, or member of the American Institute of Certified Planners on paper 22 by 34 inches, in pencil, at a scale of not greater than one inch equals ten feet or less than one inch equals one hundred feet, and nine prints shall be filed at the Office of the Planning Coordinator. Said Preliminary Plan shall show all the information set forth in Paragraph 3.110 below, so as to form a clear basis for the preparation of the Definitive Plan.

3.110 “Preliminary Plan” shall mean a plan of a proposed subdivision or re-subdivision of land showing:

- a. The subdivision name, boundaries, north point, date, scale, legend and title “Preliminary Plan”;

- b. The names of the record owner and the applicant and the name of the designer or surveyor;
- c. The names of all abutters, as determined from the most recent local tax list; including adjacent existing natural waterways, in a general manner;
- d. The existing and proposed lines of streets, ways, easements and any public areas within the subdivision in a general manner;
- e. The proposed system of drainage, including adjacent existing natural waterways, in a general manner;
- f. The proposed sanitary sewer system and water distribution system, in a general manner;
- g. The approximate boundary lines of proposed lots, with approximate areas and dimensions;
- h. The names, locations and widths of adjacent streets. Proposed exiting sight distances shall be indicated.
- i. The topography of the land in a general manner at 5' contour intervals;
- j. An index plan at a scale of one inch equals 200 feet (1" = 1,000') (when multiple sheets are used);
- k. A locus plan at a scale of one inch equal 1000 feet (1" = 1,000') on all preliminary plans;
- l. Zoning districts of all area shown on the plan;
- m. The applicant is urged to prepare mylar overlays and a Development Impact Statement with the Preliminary Plan in order to expedite Planning Board review.
- n. A sketch plan of the applicant's contiguous, unsubdivided land, if such land exists.
- o. During discussion of the Preliminary Plan the complete information required for the Definitive Plan and the financial arrangements (Section 3.22) will be developed.

3.12 Approval and Disapproval

The Planning Board may give such Preliminary approval, with or without modification. Such approval does not the approval of a subdivision but does facilitate the procedure in securing final of the Definitive Plan.

The Planning Board may also disapprove a plan. A disapproval shall be accompanied by a statement of reasons for the action. Disapproval does not disqualify the plan, but does record the Planning Board's position that changes may be required for Definitive Plan approval.

3.2 Definitive Plan

3.20 General

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

A Definitive Plan shall be governed by the zoning in effect at the time of submission of each plan or a Preliminary Plan from which a Definitive Plan is evolved in accordance with the provisions of Section 6 of Chapter 40A of the General Laws of the Commonwealth.

Any person submitting a Definitive Plan shall give written notice thereof to the City Clerk by delivery or registered mail; such notice shall identify the tract, the date of submission and the name and address of the owner.

The applicant shall file the original mylar drawing of the Definitive Plan Map, nine (9) contact prints, nine (9) copies of a Development Impact Statement with the Planning Board, and a submittal fee of \$75.00 per lot. Requirement for a Development Impact Statement may be waived by the Planning Board based on a demonstration of the non-applicability of requirements by the applicant. The Planning Board shall distribute one copy of each to the following agencies: the Building Commissioner, the Commissioner of the Department of Public Works, the City Engineer, the Water Superintendent, the Conservation Commission, the Fire Department and the Police Department. The applicant shall also file one set of contact prints and a Development Impact Statement with the Board of Health. The original drawing and a copy of the Development Impact Statement will be reserved for signatures to be returned to the applicant after approval or disapproval by the Planning Board. The format for a Development Impact Statement may be found in Section 2.5 and Appendix A. The application shall consist of the following:

- a. Original reproducible drawings at 1"=40' of the Definitive Plan consisting of Plot Plan, Site Plan, Street Plan, Sewer Plan (storm drainage and sanitary sewer) and Water Plan with reproducible copies of the original drawings including a mylar or reproducible cloth copy of the Plot Plan, and nine contact prints thereof, dark line on white background. The reproducible copies and the original Plot Plan will be returned to the applicant after approval or disapproval.
- b. Four copies of a properly executed application Form C.
- c. Evidence that the Definitive Plan conforms to the approved Preliminary Plan or that the Definitive Plan includes the modifications required by the Board's action on the Preliminary Plan.
- d. In the event that the Planning Board determines that expert technical opinion is necessary for unusual or special circumstances about a subdivision and its impact, the cost of that expertise shall be paid by the applicant.
- e. A Designer's Certificate (Form D.)
- f. Results of percolation tests required by the Board of Health.
- g. Prior to endorsement of approval, the applicant shall pay a \$500 per lot fee for maintenance of stormwater facilities by City. Fee is to be deposited in a separate stormwater maintenance account, not the general fund. The Planning Board may waive or adjust this fee depending on the size and impact of proposed development. **Adopted 11-20-07.**

3.21 Contents

The Definitive Plan shall be prepared by a surveyor and an engineer and consist of the following:

3.210 General Requirements

- a. Plan shall be drawn clearly and legibly in black India ink upon mylar.
- b. Plan size shall be 22 inches high by 34 inches wide and shall have a 2 inch border on the left side and $\frac{3}{4}$ inch border on all other sides.
- c. The scale shall be 1" = 40' horizontal and 1" = 10' vertical.
- d. A title block shall be located at the lower right hand corner and shall contain the subdivision name, the surveyor's and/or engineer's name and seal, the name and address of the owner and/or applicant, and the date.

- e. An inset location map at a scale of 1" = 1,000', showing the proposed roads and the subdivision in relation to the surrounding street system furnished on the first sheet.
- f. Suitable space, located at the lower left hand corner, shall be reserved for recording the action of the Board, the date, and the signatures of the Board. Additionally, space shall be reserved for certification by the City Clerk that no appeal has been filed within the statutory 20 day appeal period.
- g. All elevations with a base of City Datum where possible. Where existing bench marks do not exist within a reasonable distance from the subdivision, at least two permanent bench marks shall be set.
- h. Relative error of closure shall not be greater than 1:12,000. A signed statement to this effect shall appear on the tracing.
- i. Property line information shall tie into State Plane Coordinates. Property line data shall also be submitted in digital format.
Adopted 11-20-07
- j. Estimate the amount of cut and fill required for site development. Determine the amount of excess earth material, if any, to be removed from the site. **Adopted 11-20-07**
- k. To the extent practical, applicant shall incorporate "Low-Impact Development" principles in the development, including the drainage system, landscaping and subdivision layout. **Adopted 11-20-07**

3.211 Plot Plan

The Plot Plan shall include:

- a. Names of all abutters, as they appear on the most recent tax list, including owners of land separated from the subdivision only by a street.
- b. Existing and proposed lines of streets, lots, rights-of-way, easements, and public or common areas within the subdivision. The proposed names of proposed streets shall be shown in pencil until they have been approved by the City Council. The purpose of easements shall be indicated.

- c. Site plan shall show existing and proposed topography at one-foot contours of all proposed disturbed areas. Lot grading around all dwellings shall be shown. **Adopted 11-20-07.**
- d. Location, names, and present widths of streets bounding, approaching, and within three hundred (300) feet of the subdivision.
- e. Boundary lines, areas in square feet, and dimensions on all proposed lots, with all lots designated numerically and in sequence. The boundary lines and areas of other adjoining land of the applicant not included in the subdivision shall also be shown.
- f. Location and description of existing bench marks.
- g. Location and description of existing and proposed bounds.
- h. Where the owner or subdivider also owns or controls unsubdivided land adjacent to or across the street from that shown on the Definitive Plan, the applicant shall submit a sketch plan showing a possible or prospective street layout and the present drainage, natural and constructed, for such adjacent land, unless such a plan has already been submitted to the Board with a Preliminary Plan.
- i. Location and description of all existing and proposed easements of any nature on the land to be subdivided.

3.212 Site Plan

The Site Plan shall include:

- a. Items d. through f. required under section 3.211 Plot Plan.
- b. Major site features such as waterways, wetlands and water bodies, existing buildings, large trees, rock ridges and outcroppings, and scenic vistas.
- c. Existing and proposed topography within 50 feet outside the subdivision with a 5-foot contour interval, unless the Board agrees that the natural surface of the ground may be adequately represented by contours with larger intervals or by figures of elevation. Site plan shall show existing and proposed topography at one-foot contours of all proposed disturbed areas. Lot grading around all dwellings shall be shown.
- d. Existing and proposed buildings and those parts of buildings within 50 feet outside the property.

- e. Location of all the following improvements unless specifically waived in writing by the Board: street paving, sidewalks, street lighting standards, all utilities above and below ground (i.e. telephone, cable television, gas), curbs, gutters, storm drainage, all easements, and hydrants.
- f. Location and placement of all erosion and sediment control measures needed and proposed for the protection of the site during and after construction on the site.

3.213 Street Plan

The Street Plan shall consist of both a plan and profile with the corresponding stationing on the same sheet and shall include the information indicated below. Where more than one sheet is required, the stationing shall overlap by at least 100 feet.

- a. Sidelines, permanent line (in pencil), sidewalk lines (in pencil), widths and names on all existing and proposed streets.
- b. Existing and proposed property lines extending approximately 50 feet beyond the street sidelines.
- c. Centerline stationing of all proposed streets starting at station 0+00 on the sideline of an existing street and tied to the centerline of the existing street.
- d. Centerline and sideline street layout data including all curve data, bearings, centerline stations and centerline angles of intersecting streets. Sideline point of curvature and point of tangent shall be referred by centerline stationing where sideline curves exist and centerline curves do not.
- e. Street profile showing existing centerline grade (dashed line) and proposed centerline grade (solid line) with elevations at every even 50 foot station shown, except in a vertical curve where they shall be shown on every even 25 foot station. Existing right side line and left side line grades shall also be shown.
- f. All vertical curve data, including curve length, PVC, PVI, and PVT with elevations and low or high points.
- g. Location and description of all existing bench marks.
- h. Location and description of existing and proposed bounds.

- i. Location, purpose, and width of all easements outside of street sidelines.
- j. Location, names, and present widths of streets bounding, approaching, and within reasonable proximity of the subdivision.

3.214 Sewer Plan (storm drains and sanitary sewers).

The sewer plan shall consist of a plan and profile with the corresponding stationing on the same street and shall include the information indicated below. Where more than one sheet is required, the stationing shall overlap by at least 100 feet.

- a. Sidelines, widths and names of all existing and proposed streets.
- b. Centerline curve data and bearings required item 3.1.1.3.3 under Street Plan.
- c. Existing and proposed street, sewer and drain profiles with grades, except the existing street grades Pipe length between manholes, invert elevations, and slopes of pipes shall also be shown.
- d. Finished invert elevations for the storm drains and sanitary sewers at 50 foot intervals.
- e. Location and description of all existing bench marks.
- f. Location and description of all existing and proposed bounds.
- g. Location, width and purpose of all easements outside of street sidelines.

3.215 Water Plan

The Water Plan shall include:

- a. Sidelines, widths and names of all existing and proposed streets.
- b. Centerline stationing as required in item 3.2.1.3.2 under Street Plan.
- c. Locations, size and type of existing and proposed water lines overlaid with existing and proposed topography.
- d. Location and size of all valves, hydrants, corporation cocks, water shut-offs, and service connections at the property lines.

3.22 Performance Guarantee

Before endorsement of approval of a Definitive Plan of a subdivision, the subdivider shall either (1) file a performance bond secured by surety or deposit money or negotiable securities in an amount determined by the Board to be sufficient to cover the cost of all or any part of the improvements plus a ten percent (10%) contingency factor, or (2) follow the procedure outlined in Section 3.2.2.1 or 3.2.2.2.

3.220 Approval with Bonds or Surety

Such bond or surety, if filed or deposited, shall be approved as to form and manner of execution by the City Solicitor and as to a sureties by the City Treasurer and shall be contingent on the completion of such improvements within two (2) years of the date of the bond.

If the Board shall decide at any time during the term of the performance bond that:

- a. Improvements have been installed in satisfactory manner in sufficient amount to warrant reductions in the face amount of such bond, or
- b. The character and extent of the subdivision requires additional improvements, previously waived,

then the Board may modify its requirements for any or all such improvements and the face value of such performance bond shall thereupon be reduced or increased respectively by an appropriate amount. Such a reduction will only occur upon a review of costs by the City Engineer, a positive vote of the Planning Board and the submittal of a letter to the City Treasurer informing him of the Board's decision.

3.221 Approval with a Covenant

Instead of filing a bond or depositing surety, the subdivider may request approval of his Definitive Plan on condition that a covenant running with the land will be duly executed and recorded and inscribed on the Plan, or on a separate document referred to on the Plan, in accordance with Section 81-U of Chapter 41, General Laws. Such covenant shall provide in part that no lot may be built upon nor sold until all of the improvements as required in these Regulations have been completed and approved as provided thereafter.

In this case, before endorsement of approval of a Definitive Plan, there shall be filed by the subdivider a properly executed Approval with Covenant Contract in accordance with Form E, Appendix B.

Prior to delivering to the subdivider a Certificate of Release (Forms G, H) whereby the restrictions relating to the lot or lots listed therein shall be

terminated, the Board shall determine to its satisfaction that such improvements have been completed so as to adequately serve such lot or lots, in part by requiring that the subdivider submit to the Board the following:

- a. Written evidence from the City Engineer that the streets and drainage conform to the Planning Board requirements in accordance with the approved Definitive Plan, with the exception of the application of the bituminous concrete road-wearing course.
- b. Written evidence from the City Engineer that the water mains, sanitary sewers, storm sewers and hydrants conform to specifications and the Board requirements in accordance with the approved Definitive Plan.
- c. If applicable, written evidence from the Conservation Commission of satisfactory performance by the applicant in completing any Conservation Commission requirements.
- d. A certificate from a Registered Surveyor, to be obtained at the subdivider's expense, that all permanent bounds and monuments on all street lines and on the lot or lots to be released are in place and are accurately located in accordance with the approved Definitive Plan.
- e. A performance bond secured by surety or by a certified check payable to the "City of Fitchburg" in an amount determined by the Board to be sufficient to cover the cost of surfacing and any remaining or uncompleted work (if not already completed as allowed in Section 3.2.2.1(a)) and approved as to form and sureties by the City Treasurer conditioned on the completion of the remaining improvements within one year of the date of the check or bond. Release of the check or bond shall be subject to the written approval of the City Engineer that the work has been completed in accordance with requirements.
- f. Upon completion of such required improvements, the subdivider shall so notify the Board and the City Clerk, by delivery or registered mail, requesting release from such covenant. The Board shall act on such request within forty-five days.

3.222 Approval with a Mortgage Agreement

Following 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 subdivider by the lender, the Board may, at its option, release lots from the operation of the covenant given pursuant to Section 3.221 without receipt of a bond or deposit of money upon delivery to the Board of an agreement with said Board, which shall be executed by the subdivider and the lender and shall provide for retention by the lender of

sufficient funds otherwise due the subdivider to secure the construction of ways and the installation of municipal services. Said agreement shall also provide for a schedule of disbursement which may be made to the applicant upon completion of various steps of the work, and shall further provide that in the event the work is not completed within the time set forth by the subdivider as determined by the City Engineer, any funds remaining undisbursed shall be available to the City of Fitchburg for completion of the unfinished work and correction of deficiencies. All of the above as specified under the provisions of General Laws, Chapter 41, Section 81U, as amended.

3.23 Review by Board of Health as to Suitability of the Land

If the Board of Health is in doubt as to whether any of the land in the subdivision can be used as building sites without injury to the public health it shall so notify the Planning Board in writing. Any approval of the plan by the Planning Board shall then only be given on condition that the lots or land as to which such doubt exists shall not be built upon without prior consent of the Board of Health, and shall endorse on the plan such condition, specifying the lots or land to which said condition applies.

3.24 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 at least fourteen days prior thereto by advertisement in a newspaper of general circulation in the City of Fitchburg. A copy of said notice shall be mailed to the applicant and to all owners of land abutting upon the subdivision as appearing on the list submitted by the assessors.

3.25 Approval Conditional upon Compliance with the Wetlands Protection Act

Any plan approved by the Board, with or without condition, which is revised in order to comply with the Wetlands Protection Act (Massachusetts General Laws, Chapter 131, Section 40, as amended), shall constitute a revised plan and shall be resubmitted to the Board for review and approval.

3.26 Approval Conditional upon Compliance with Massachusetts Environmental Policy Act -Regulations (MEPA)

Where applicable, any approval by the Planning Board will be conditional upon full compliance with the Massachusetts Environmental Policy Act Regulations, (301 CMR 11.00)

3.27 Certificate of Approval of Plan

The action of the Board shall be in the form of a letter to the City Clerk. If the Board modifies or disapproves such plan, it shall state in its vote the reasons for its action. Final approval, if granted, shall be endorsed on the original drawing of the Definitive Plan by the signatures of a majority of the Board, but not until the statutory twenty day appeal period has elapsed following the filing of the

certificate of the action of the Board with the City Clerk and said Clerk has notified the Board that no appeal has been filed.

Final approval of the Definitive Plan does not constitute the laying out or acceptance by the City of streets with a subdivision.

3.28 Recording of Plan

Within ten (10) days after the Definitive Plan, as approved and endorsed, has been recorded at the Northern Worcester County Registry of Deeds and, in the case of registered land, with the recorder of the Land Court, the applicant shall notify the Board in writing of such recording, covenants or agreements, if any. Following plan approval, endorsement and recording, the applicant shall provide the Board with one mylar, five prints of the Definitive Plan, one of which shall be certified by the Registry of Deeds as having been recorded, and one copy of final covenants and restrictions, noting book, page number and date of recording for each. One copy of the Definitive Plan shall be transmitted to the Building Inspector and the City Engineer by the Planning Board.

Failure to comply with the procedural and other requirements of these Rules and Regulations may result in rescission of the approval given hereunder by the Board.

3.29 Revocation of Approval

The Board reserves the right to revoke granted approval of a Definitive Plan in accordance with Section 81-W of the Subdivision Control Law. Notice of such action shall be given to the applicant, the City Clerk, and the Northern Worcester County Registry of Deeds.

3.210 Release of Performance Guarantee

Upon the partial or full completion of improvements required under Section 4, herein, and/or the approved Definitive Subdivision Plan, security for the performance of which was given by Bond, Surety or Mortgage Agreement, the applicant shall provide a duly completed Form I, Request For Release of Funds. A partial release of funds, and certification of completion in no way releases the applicant from the requirements of filing complete As-Built drawings. If the Board determines that said construction or installation has not been completed, it shall specify to the applicant in writing the details wherein said construction and installation fails to comply with the requirements contained under Section 4.

Upon failure of the Board to act on such application within forty-five (45) days after the receipt of the application by the Planning Board, all obligations under the bond shall cease and terminate by operation of law, and any deposit shall be returned and any such covenant shall become void. In the event that said forty-five (45) day period expires without specification, or without the release and return of the bond or return of the deposit or release of the covenant as aforesaid, the City Clerk may issue a certificate to such effect, duly acknowledged, which may be recorded.

3.211 Evidence of Satisfactory Performance

Before the Board will release the interest of the City in a performance bond or deposit, or in the case of approval with covenant, issue a release of covenant:

3.2110 The applicant shall file with the Board a certified copy of the Definitive Plan of the required subdivision (or, in the case of approval with covenant, of the street or streets serving the lots for which a release is desired) The plans shall provide record information of the subdivision improvements as actually constructed as required under "As-Built Drawings", Section 4.19. Certification shall be by the engineer and surveyor employed by the applicant at his or her own expense, and shall indicate that all streets, sidewalks, sewers, storm drains, and water mains, and their appurtenances have been constructed in accordance with the lines and grades of said plan and are accurately located as shown thereon.

3.2111 The Board shall obtain in writing from the Commissioner of the Department of Public Works and/or the City Engineer a statement that all work required by these rules and regulations has been inspected by the Commissioner or his agents and completed in each street in the subdivision (or the street or streets serving the lots in question), including sewers, storm drains, bridges, sidewalks and water mains and their appurtenances and that the Commissioner has approved the methods of construction and materials used in the performance of such work.

3.2112 The Board shall obtain in writing from the Board of Health a statement that each already installed on-lot sewerage system was installed in accordance with the Fitchburg Board of Health rules and regulations and Title V State Environmental Code and each on-lot water system was installed in accordance with the standards of the Board of Health.

3.2113 The applicant shall execute an instrument, in a form approved by the Board transferring to the City or to an approved public utility company without cost, valid unencumbered title to all sanitary sewers, water mains, and appurtenances thereto, and other utilities constructed and installed in the subdivision or approved portion thereof, and conveying to the City or approved public utility company 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 and water mains, with any manholes, pipes, conduits, and other appurtenances, and to do all acts incidental thereto, in, through, and under the whole of all streets in the subdivision or' approved portion thereof, and if any such sewers or water mains have been constructed and installed in

land not within such streets, then in, through, and under a strip of land extending 10 feet in width on each side of the centerline of all such sewers and water mains.

3.212 Rescission

Failure of the developer to record the Definitive Plan within six months of its endorsement, or to either initiate construction or improvements or sell lots in a subdivision or portion thereof within two years of the approval of the Definitive Plan, shall constitute sufficient reason for the rescission of such approval in accordance with the requirements of Section 8I-W, Chapter 41, General Laws.

3.213 Fee to Streets and Easements

The developer shall retain title to the fee of each street, road, way or walkway in the subdivision, and shall convey to the City said fee without encumbrance and for a nominal consideration upon layout of the street by the City Council. The developer shall also convey to the City any easement right within or appurtenant to the subdivision for a nominal consideration upon request by the City Council. Notation that this is to be done shall be placed upon the Definitive Plan.

3.214 One Year Retainage Period to Insure Adequate Work. At the time of the Board's release of the bond or the deposit to the person who furnished the same, the Board shall retain an amount not to exceed 10% (ten percent) of the total cost of the improvements to insure adequate construction and installation of the streets and utilities for twelve months, or until the streets are accepted by the City, whichever comes first. The total cost of improvements shall be calculated by the Board's Engineer. If the required improvements were secured by a covenant, at the time of the Board's release of the covenant the applicant shall post surety not to exceed ten (10) percent of the cost of improvements to insure adequate construction and installation of the streets and municipal services for the time period specified above.

Prior to acceptance of the subdivision street(s) as a public way, applicant to submit certification that the streets have been constructed in substantial conformance with the approved subdivision plan, or listing the deviations there from. ***Adopted 11-20-07***

SECTION 4. REQUIRED IMPROVEMENTS IN SUBDIVISIONS, DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS

4.0 Basic Requirements

4.00 The subdivider shall provide all of the improvements required herein to be installed at his or her own expense. All work done under this section shall be done under the direction of the Board, the Commissioner of Public Works and the City Engineer. No aforementioned bond or covenant shall be released until all streets have been in place over at least one winter (December 1 to April 15) and full approval in writing of all work done under this section is received from the City Engineer.

In addition, the following minimum specifications shall govern the installation of all roadways, utilities and other improvements in all subdivisions,

4.01 Clearing and Grubbing of Right-of-Way

Trees over four inches in diameter located more than five (5) feet from the proposed edge of pavement shall require permission of the Board if removal is desired by the developer. All other trees and shrubs shall be removed within the right-of-way as dictated by sound design and landscaping.

4.02 Responsibility

The responsibility for adequate drainage shall rest with the developer. This shall include the risk involved in connecting with existing drainage facilities provided by the City.

Where property adjacent to the subdivision, but within the same watershed, is not subdivided, provision shall be made for proper projection of the drainage systems by continuing appropriate drains and easements to the exterior boundaries of the subdivision at such size and grade as will allow for such projection. Drainage rights which are appropriate, sufficient, and necessary to handle drainage from the subdivision and adjacent areas shall be secured for the City.

4.03 Sanitary Sewers

Sanitary sewer pipes and related equipment, such as manholes, connecting Ys, and laterals, shall be constructed to serve each building or portion thereof in conformity with the City of Fitchburg Sewer Construction Specifications as promulgated and amended from time to time. Where, in the opinion of the Board, existing public sewers are not reasonably accessible, a Definitive Plan may be approved without provision of sanitary sewers, provided:

- a. that no lot shall be built upon without the provision of on-lot sewage disposal facilities specifically approved by the Board of Health in conformity with the regulations of said Board as promulgated and amended from time to time; and

- b. that the Planning Board may require installation of so-called "dry sewers", in conformity with the DPW Sewer Plan, in any street where in its estimation, sanitary sewers may become accessible within a period of five years.

4.04 Water

Water pipes and related equipment, such as hydrants and main shut-off valves, shall be constructed to serve each street or portion thereof in a subdivision in conformity with the General Conditions and Specifications of the City of Fitchburg Water Department as promulgated and amended from time to time. Where, in the opinion of the Board, existing public water mains are not reasonably accessible, a Definitive Plan may be approved without provision of water lines provided:

- a. that no lot shall be built upon without the provision of on-lot water facilities specifically approved by the Board of Health in conformity with the regulations of said Board as promulgated and amended from time to time;
- b. that the Board may require such special provisions of water for fire fighting as are deemed necessary by the Chief of the Fire Department; and
- c. that the Board may require of the applicant Hydrological Studies relating to the pre and post-development flow and pressure conditions at the site and at any off-site areas impacted by the project. This information may be required at the discretion of the Planning Board and/or the Water Superintendent.

4.05 Utilities

All new gas, telephone, electricity and cable antenna television lines shall be installed underground.

4.06 Roads, Berms, and Curb Cuts

Wherever a sidewalk or bicycle path intersects a roadway, curb cuts shall be provided. Wheelchair access shall also be provided at intersections. Roadways, berms, curbs, curb cuts, and shoulders will be constructed in accordance with the City of Fitchburg, Street Construction Specifications.

4.07 Sidewalks and Bicycle Paths

Unless the Board determines that pedestrian movement is otherwise provided for, sidewalks on both sides of the roadway, having a width of not less than five (5) feet shall be constructed between the roadway and the right-of-way line, as close to the latter as practicable, and generally parallel with the roadway.

Pedestrian access other than by routes parallel with roadways may be permitted, provided easements are established.

The Planning Board may require a bicycle path from four (4) to eight (8) feet in width within a subdivision. In certain cases the sidewalk requirement may be waived where bicycle paths are provided.

Sidewalks shall be concrete, not bituminous.

** If a waiver of this requirement is requested, the Planning Board may decide to waive one sidewalk, and the Board may consider a donation equal in value to the dollar amount saved to be deposited in the City's sidewalk revolving fund to be used for the installation of new sidewalks as well as the repair or upgrade of existing sidewalks. **Adopted 11-20-07**

4.08 Groundwater Drainage

As construction progresses, unforeseen ground water conditions may be encountered which require additional subdrains or curtain drains. These conditions include potential problems if construction is in progress at a time of low water table or other dry conditions. All drainage systems must be in place for the months of March - May before approval may be given. The Board reserves the right to require appropriate systems to accommodate the problem.

4.09 Retaining Walls

Retaining walls shall be installed where deemed necessary by the Board and they shall be designed by a Registered Professional Engineer.

4.010 Erosion Control

Proper temporary and permanent erosion and sedimentation control, will be required, at the discretion of the Planning Board, and/or its agent(s) . Measures shall include, but not be limited to, staked hay bales, sediment control fences, temporary seeding, proper storage of materials and limiting excessive cuts and fills

4.011 Trees and Plantings

a. Existing Trees.

Trees on the site, especially those over twelve (12) inches in diameter, should be preserved. Following is a list of recommended measures for the protection of trees:

1. There shall be no operation of heavy equipment or storage of any materials under said tree within its natural drip line trees as needed during the summer months to aid growth.
2. Wherever possible, no grading or filling should be done within the drip line.
3. Supplemental irrigation shall be provided to new trees as needed during the summer months to aid growth.

4. No bituminous concrete paving or vehicle parking should be located under conifers. No more than twenty percent (20%) of the area under any deciduous trees' natural drip line may be so paved.
5. All drainage from paved areas should be directed away from root zones.

b. Street Trees

1. The subdivider is required to plant suitable broad leaved deciduous trees along roads or ways between roadway and sidewalk, unless specifically exempted by the Board. 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 of sound structure.
2. Large-growing trees shall be spaced at intervals of 50 feet, medium-growing trees at intervals of 40 feet, and small-growing trees at intervals of 30 feet. Trees on one side of the street may be set either opposite or diagonally to trees on the opposite side. If overhead wires are present large or medium-growing trees to be planted along the same side as such wires should be planted within the set-back area of the property rather than adjacent to the paved way. Small growing trees with low-branching characteristics should be planted within the front yard set-back area in all cases.
3. Minimum acceptable sizes of trees to be planted shall be as follows:
4. Large-growing: 2 1/2" trunk diameter, caliper 1' above ground.
5. Medium-growing: 2 1/2" trunk diameter, caliper 1' above ground.
6. Small-growing: 9' crown height, 5' spread.
7. Planting operations shall be as specified in Section 8, Subsections A, C, E, and F, of the Recommended Standard Specifications for Planting Trees, Shrubs, and Vines, compiled and issued by the Associated Landscape Contractors of Massachusetts, Inc.
8. Requirements for support stakes, guy wire and cable, ground anchors, hose, and wrapping material shall be those contained in Section 6 of the Recommended Standard Specifications for Planting Trees, Shrubs and Vines, compiled and issued by the Associated Landscape Contractors of Massachusetts, Inc.
9. The subdivider shall be responsible for maintenance of planted trees and replacement of those which have died or become diseased from the time of planting through one full year.

c. Bank Plantings

1. All cut or fill bankings with slopes greater than 3:1 must be planted with suitable, well-rooted, low-growing plantings. All plants shall be the equivalent of nursery-grown stock in good health, free from injury, harmful insects, and diseases.
2. Perennial grass turf installed as sod is an acceptable alternative for the planting of banks.
3. If bank plantings are of a type which are properly spaced at close intervals, 8" to 12" of loam shall be spread over the entire bank. If the plantings are to be widely spaced they may be planted in loam pits.
4. Mulch (wood chips or equivalent) shall be spread to a minimum depth of 6" among plants for weed and erosion control.
5. The subdivider shall be responsible for maintenance of bank plantings and replacement of those which have died or become diseased from the time of planting through one full year.

d. Corner Plantings. Requirements for plantings adjacent to street intersections shall be the same as those for Bank Plantings with the following exceptions:

1. Turf may be provided by seeding as well as by planting sod.
2. Bushy shrubs and herbaceous plantings that would tend to obscure visibility are not permitted within twenty (20) feet of the intersection of the curbs adjacent to the corner lot.

e. Grass Strip All cleared areas of a right-of-way, not to be planted with ground cover plantings, including all disturbed area over all culverts in drainage easements, shall be loamed with not less than six (6) inches compacted depth of good quality loam, seeded with lawn grass seed. Seeding shall be done at appropriate times of the year and in a manner to insure growth of grass. No utility poles, transformers, signs or similar items shall be placed within the grass plot within three (3) feet of the edge of the pavement (i.e., place at back of sidewalk).

4.012 Street Signs

Street name signs of a design conforming to the type in general use in the City shall be furnished, set in concrete and erected at all street intersections prior to the occupancy of any house on the street. They will be provided with "break-away" sign supports. Signs may be purchased from the supplier of signs for the City of Fitchburg Highway Department, and shall be installed prior to the release of occupancy permits by the Building Commissioner.

4.013 Street Lights

Installation of street lights shall be governed by standards and styles approved by the Planning Board and on file with the Fitchburg Gas and Electric Light Company. Street lights should be provided at intersections of streets and should not exceed a standard separation of 250 feet.

4.014 Guard Rails

Guard rails and fences shall be installed at any location where slopes off of the proposed street exceed 3:1.

4.1 Streets

Streets shall be constructed in all subdivisions at no expense to the City and shall be constructed in conformance with these regulations.

4.10 Location and Alignment

- 4.1.0.0 All streets in the subdivision shall be designed so that, in the opinion of the Board, they will provide safe vehicular travel and natural drainage with no drainage pockets, and so that they are adjusted to the topography provide the minimum number of intersections with existing and collector streets. Due consideration shall also be given by the subdivider the attractiveness of the street layout in order to obtain the maximum ability and amenity of the subdivision.
- 4.1.0.1 Provision satisfactory to the Board shall be made for the proper projection of streets, or rights of ways for access to adjoining property which is not yet subdivided.
- 4.1.0.2 Reserve strips prohibiting access to streets or adjoining property shall not be permitted except where, in the opinion of the Board, such strips shall be in the public interest.
- 4.1.0.3 Offset street intersections with centerline offsets of less than 175 feet shall not be allowed.
- 4.1.0.4 Dead-end streets shall not be longer than 500 feet unless, in the opinion of the Board, a greater length is necessitated by topography or other local conditions. Length shall be measured from the intersection of the

dead end street with the centerline the intersecting street.

- 4.1.0.5 Dead end streets shall be provided at the closed end with a turnaround having an outside roadway diameter of at least 100 feet and a property line diameter of at least 120 feet.
- 4.1.0.6.0 A dead end street shall not have a grade greater than two (2) percent for the last one hundred (100) feet at the closed end.
- 4.1.0.6.1 A cul-de-sac shall not have a grade greater than four (4) percent for the last one hundred (100) feet of street approaching the cul-de-sac.
- 4.1.0.6.2 Temporary dead-end streets shall similarly provide for a turnaround, which may be located in part on easements over lots so long as contractual assurance is provided that upon extension of the street the terminated turnaround will be removed and replaced with loam and appropriate planting.
- 4.1.0.6 The minimum centerline radii of curved streets shall be not less than the following:
 - Minor Streets - 150 feet
 - Collector Streets - 500 feet
- 4.1.0.7 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.
- 4.1.0.8 Property lines at street intersections shall be rounded to a radius of not less than twenty-five feet at intersections with a collector street and twenty feet for intersections involving only minor sets.
- 4.1.0.9 Roadways shall be constructed for the full length and width. The centerline of such roadway shall coincide with the centerline of the street right-of-way, unless a minor waiver is specifically approved by the Board.

- 4.0.1.10 All reverse curves on collector streets shall be separated by a tangent at least one hundred (100) feet long.
- 4.0.1.11 Subdivisions containing twelve (12) or more lots shall have at least two (2) separate means of access/egress with a street or streets either existing or shown on an approved subdivision plan for which a performance guarantee has been filed.
- 4.0.1.12 Streets shall not be built within twenty-five (25) feet of any watercourse, except where a stream crossing has been approved by the Conservation Commission. A street may cross land which is flood prone provided the lots served may be reached by another means of access which is not subject to periodic flooding.

4.1.12 Width

- 4.1.1.0 The width of street right-of-ways and travelled ways shall not be less than the following:

	<u>Right of Way</u>	<u>Travelled Way</u>
Minor Streets	50 feet	28 feet
Collector Streets	60 feet	34 feet

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

- 4.1.1.1 The street cross section shall comply with Typical Street Sections, contained in Appendix C herein.

4.1.2 Grade

- 4.1.2.0 Grades of streets shall not be less than 0.5%. Grades shall not be more than 6.0% for collector streets, 8.0% for minor streets.
- 4.1.2.1 On any street where the grade exceeds 6.0% on the approach to an intersection or cul-de-sac, a leveling area with a slope of not more than 4.0% shall be provided for a distance of not less than 100 feet measured from the nearest exterior line of the intersecting street.

4.1.2.2 Vertical curves are required whenever the algebraic difference in grade between centerline tangents is 2.0% or more, providing a forward sight distance of 200 feet on minor streets, and 300 feet on collector streets.

4.1.2.3 Street grades shall be designed in relation to existing grades such that the volume of cuts and fills made within the right-of-way approximately balance, except to offset peat, boulders, or other unusable material to be removed.

4.1.3 Adequate Access

4.1.3.0 The Planning Board will evaluate the adequacy of the existing and resulting roadway network system to support the vehicular and pedestrian traffic flows generated by a proposed subdivision. The following criteria will be employed in this evaluation:

- a) The existing and resulting level of service (LOS) at all affected intersections.
- b) The existing and resulting volume to capacity ratios of adjoining road-ways.
- c) The geometric design of all existing and resulting affected intersections.
- d) The physical condition of existing roadways, including, but not limited to, pavement width, pavement condition, horizontal and vertical alignments, sight impairments, surface drainage facilities and pedestrian facilities.

4.1.3.1 The Planning Board will require the following minimum post-development standards for the surrounding roadway network:

- a) Affected intersections shall operate at a Level of Service "C" or better.
- b) Volume to capacity ratios shall not exceed .50 on adjoining roadways used for access or egress from the subdivision.

- c) All geometric designs of affected intersections shall conform to the minimum roadway design requirements of these regulations.
- d) The physical condition of existing roadways used for access or egress from the subdivision shall conform to the minimum roadway design requirements of these regulations including, but not limited to, pavement width, pavement condition, horizontal and vertical alignments, sight distances, surface drainage facilities and pedestrian facilities.

4.1.3.2 The Planning Board will require the applicant to provide all needed improvements, at no cost to the City to meet the minimum standards established above to ensure adequate access for a proposed subdivision.

Add new section 3.2.3., “Adequate Access from Public Way”

3.2.3.1 *The street system within a subdivision shall connect with and have, in the opinion of the Planning Board, adequate vehicular, pedestrian, and bicycle access from a public way or private way that connects to the greater network of streets.* Adopted 11-20-07

3.2.3.2 *The physical condition or width of a public way from which a subdivision has its access must be sufficient, in the sole opinion of the Planning Board to either provide for emergency services or carry the traffic which is expected to be generated by such subdivision. If such access is insufficient, the applicant is responsible for improving that access. If not improved the Planning Board has b* Adopted 11-20-07

3.2.3.3 *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.* Adopted 11-20-07

4.1.4

Preparation of Roadway

4.1.4.0 Clearing. The roadway shall be cleared of all obstructions 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 curve for visibility.

4.1.5

Street Subgrade

4.1.5.0 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 subgrade, a deeper excavation below the subgrade shall be made, as directed by the City Engineer.

4.1.5.1 At this point, all pipes and utilities shall be laid as specified in Sections 4.7, 4.8, and 4.9.

4.1.5.2 An inspection must be made of the subgrade by the City Engineer before any foundation gravel is spread.

4.1.5.3 The excavation shall be back-filled to three inches below subgrade and well compacted with approved gravel consisting of hard durable stone and coarse sand practically free from loam and clay, uniformly graded and containing no stone having a dimension greater than six inches.

4.1.6

Street Sub-base

4.1.6.0 Before the base is spread, the gravel borrow subbase shall be shaped to a true depth of 12 inches conforming to the Typical Street Sections included herein. The subbase installation shall be in conformance with the Massachusetts Department of Public Works Standard Specifications for Highways, Bridges, and Waterways, as last revised Section 401. It shall be compacted to 95% maximum density in

layers not exceeding eight inches in depth, except the last layer shall not exceed four inches in depth.

4.1.7 Street Base Course (collector streets only)

4.1.7.0 On collector streets a base course of three inches of Class I bituminous concrete base course shall be laid in a separate course over the subbase in accordance with the materials and standards designated by the Massachusetts Department of Public Works Standard Specifications for Highways, Bridges, and Waterways, Section 420.

4.1.8 Street Surface

4.1.8.0 The surface course shall be laid in two separate operations, consisting of a 1½ inch binder course of Class I bituminous concrete, Type I-1 and a 1½ inch surface course of Class I bituminous concrete, Type I-1 in accordance with Section 460 of the above-given state specification. The roadway shall be paved to the full width specified. The finished surface must be uniformly placed true to line and grade to form a close, even union around all curbs and projecting frames. It is the contractor's responsibility to see that all manhole frames, gate boxes and catchbasin frames are at street grade to ¼" below grade (not projecting) and accessible for their intended use.

4.1.8.1 Sewer, water, electricity, telephone conduits, gas connections, and any other utilities shall be installed to the lot line (back of sidewalk) prior to the surfacing of the road.

4.2 Sidewalks

4.2.0 Sidewalks shall be provided on both sides of streets, unless at the discretion of the Planning Board, one sidewalk will adequately serve the anticipated pedestrian traffic.

4.2.1 Sidewalks shall be not less than five feet in width on collectors and four feet on minor streets and shall be located so that the back of the sidewalk conforms to the lot lines.

4.2.2 The sidewalks shall have a transverse slope or crown of 1/4 of an inch per foot, sloping towards the street.

4.2.2 *The Board may impose as a condition of approval on a Definitive Plan that construction of all ways and all installation of municipal services shown on the plan be completed within three (3) years of the date of approval, unless the applicant obtains a written extension from the Planning Board. The applicant must request in writing at least 30 days prior to the date of required completion, an extension (in up to one year increments) to complete the construction and installation of municipal services.* Adopted 11-20-07

4.2.3 Preparation of the base shall be accomplished by removing material to a depth of 10 inches below finished design grade. Any soft spots of undesirable material shall be removed and replaced with gravel. The excavated area shall be filled with a minimum eight inches of gravel and well compacted (i.e., two passes of roller or vibratory compactors)

4.2.3 *The Planning Board shall hold all lot covenants, or at least twenty (20%) percent of the original approved cost estimate or fifty thousand dollars (\$50,000), whichever is greater until one-year after the completion of all pavement, drainage facilities, and landscaping to ensure the success of those features. Only at the successful completion of this one-year warranty shall these covenants or funds be released. The required subdivision improvements are not considered complete, in accordance with the state subdivision control law, until this warranty period is complete and it has been documented that the improvements are well enough constructed to last this warranty period.*

- 4.2.4 Forms shall be set to grade, then a one inch compacted binder and one inch compacted surface course of Type I bituminous concrete shall be placed, except at driveways where the binder thickness shall be two inches.
- 4.2.5 At all intersections the sidewalks shall be constructed across the grass plot to the edge of the travelled way.

4.2.6 In addition, public off-street walkways, bikeways, or bridle paths may be required by the Board to provide circulation or access to schools, playgrounds, parks, shopping, transportation, open space, or community facilities, or to break up long blocks, or for such other reason as the Board may determine. Such ways may or may not be part of normal sidewalk provisions, but they shall not be a part of any lot in the subdivision.

4.3 Curbing and Shoulders

4.3.0 Curbing shall be installed along the edge of each roadway in all streets.

4.3.1 Curbing shall consist of Class I bituminous concrete, Type I-1, Cape Cod style berms except along the curve at all intersections and cul-de-sacs, driveway openings, and catchbasin inlets where standard granite curbing is required.

4.3.1 Curbing shall consist of ***granite curbing which shall conform to the specification of Type 3 curbing in Section 501 of the Massachusetts Department of Public Works Specifications for Highways, Bridges, and Waterways and shall be 12-15 inches wide at the bottom, four inches wide at the top, and six inches high.***

4.3.2 Bituminous concrete curbing shall conform to the specification of Type 3 curbing in Section 501 of the Massachusetts Department of Public Works Specifications for Highways, Bridges, and Waterways and shall be 12-15 inches wide at the bottom, four inches wide at the top, and six inches high.

4.3.3 Granite curbing shall conform to the specification of Type VA curbing in Section 501 of the Massachusetts Department of Public Works Specifications for Highways, Bridges, and Waterways and shall be six inches wide by 18 inches high and shall be laid with a seven inch reveal.

4.3.4 All catchbasins shall have granite inlet stones. Where bituminous concrete berm meets the granite inlet a three (3) foot granite transition stones shall be installed at each end of the basin inlet stone.

4.4 Grass Strip

4.4.0 Grass strips shall be provided on each side of the roadway between the roadway and the sidewalk on the side of the street. Where no sidewalk is to be installed, the grass strip shall extend between the roadway and the street side line. The minimum width shall be as follows:

Collector: 5 feet if with sidewalk
 10 feet if no sidewalk

Minor: 5 feet if with sidewalk
 8 feet if no sidewalk

4.4.1 The finished grade of such planting strips shall be 3/4 inch/foot sloping toward the roadway. Where unusual physical land characteristics or topographic conditions exist, the Board may approve the construction of a planting strip at a slope greater than 3/8 inch/foot provided the finished slope will not project above or below a plane sloped two horizontal to one vertical upward or downward from the edge of the roadway, and provided such variation is indicated on the Definitive Plan.

4.4.2 The strip shall have a 9" gravel foundation and the top four inches of planting strips shall consist of good quality loam, screened, raked, and rolled with at least a 100-pound roller to grade. The loam shall be fertilized and seeded with lawn grass seed applied in sufficient quantity to assure adequate coverage, rolled when the loam is moist.

4.4.3 The Board may require such banks and all other disturbed area adjacent to the traveled way to be loamed and seeded to grass. However, it is suggested that consideration be given to the surrounding growth and terrain. Roadsides should be made to blend with the woods or natural surroundings that exist, and plantings in such areas should be chosen accordingly.

4.4.4 The subdivider shall be responsible for replacing all dead or diseased plantings for one full year from the time of planting.

4.5 Street Trees

4.5.0 Existing trees, which in the opinion of the Board are suitable for street trees, shall be preserved, and where such are inadequate, new trees shall be provided on both sides of all streets in accordance with the provisions of Section 4.0.11 herein.

4.5.1 The subdivider shall be responsible for replacing all dead or diseased plantings for one full year from the time of planting.

4.6 Bounds

4.6.0 Granite bounds shall be installed on the street sideline at all points of curvature where the sideline changes direction, and at other points where, in the opinion of the City Engineer, permanent bounds are necessary.

4.6.1 Bounds shall be not less than six inches square and three feet, thirty inches long.

4.6.2 The tops shall be set flush with the finished street sideline grade and shall be set in well-tamped binding gravel. The point of each bound shall be marked by 3/8 inch drill hole in the top.

4.6.3 No permanent bound shall be installed until all construction which would destroy or disturb the bound is completed.

4.6.4 The developer's engineer or surveyor shall furnish the City Engineer with a letter certifying that bounds have been placed precisely as indicated on the Definitive Plan

4.7 Street Names and Street Name Signs

4.7.0 Street names shall be approved by the City Council.

4.7.1 Street name signs shall be installed at each street intersection at diagonally opposite corners and shall bear the names of both intersecting streets.

4.7.2 Street name signs shall be of a design conforming with street name signs used by the City.

4.7.3 Temporary stop signs, conforming to City regulations for size and color, shall be required at all intersections with public ways. The applicant shall be responsible for installing permanent stop signs at the completion of the project as requested by the Police Department.

4.8 Water

4.8.0 The subdivider shall provide, at no cost to the City, water supply facilities and appurtenances to serve each lot in the subdivision.

- 4.8.1 The subdivider shall connect to the public water system at his expense, and in accordance with the overall water plan for the area.
- 4.8.2 The contractor installing the pipe and those in his employ shall, in the opinion of the Water Superintendent be experienced in water main construction and possess the required skills and equipment to satisfactorily complete the work.
- 4.8.3 Where the subdivision is not to be connected to the public water system, private on-lot water systems shall be constructed in conformance with the standards of the Board of Health.
- 4.8.4 The location of public water mains shall conform to the Typical Street Sections included herein, and shall not be closer than 10 feet measured horizontally from a sewer line. In no case shall the water line be constructed below nor less than 18 inches above a sewer line.
- 4.8.5 Service connections for each lot shall be extended to the street sideline when the water main is installed. Service connections shall be not less than one inch type K, soft copper or suitable PVC piping in accordance with the Water Department Specifications, using compression fittings.
- 4.8.6 Public water mains shall be not less than 8 inches in diameter and shall be Class 52 ductile iron. All pipes shall be cement-line with paint seal coat inside and tar coated outside or approved as equal by the Water Superintendent.
- 4.8.7 Hydrants shall be located so as to be not more than 500 feet apart and shall conform to the specifications of the Director of the DPW and the Fire Chief.
- 4.8.8 The placement and type of valves shall be approved by the Water Superintendent. In general, however, valves shall be located in such number and locations that water lines by individual blocks may be isolated for maintenance and repair purposes.
- 4.8.9 Water lines shall be constructed so as to have a minimum of five feet of cover.
- 4.8.10 Pressure testing shall be required in accordance with the American Water Works Association specification C600-64.

4.8.11 All water lines shall be sterilized in accordance with the American Water Works Association specification C601-5

4.8.12 As-Built plans shall be provided in accordance with Section 4.19.2.

4.9 Sewerage

4.9.0 The subdivider shall provide, at no cost to the City, adequate sewerage disposal facilities to serve each lot in the subdivision.

4.9.1 Where the public sewerage system is located within 2,500 feet of the subdivision the subdivider shall connect to the public sewerage system at his expense in accordance with the overall sewerage plan for the area.

4.9.2 Where the public sewerage system is planned to be installed within 2,500 feet of the subdivision within three years of the date of submission of the Definitive Plan, as indicated by an accepted City schedule of planned improvements, the subdivider shall at his cost, install in the street and to every lot, sewer laterals which can be connected to the proposed public sewerage system. The design for such connection shall be provided by the Department of Public Works and/or the City Engineer.

4.9.3 Where the subdivision is not to be connected to the public sewerage system, private on-lot sewerage systems shall be installed and designed and constructed in conformity with Article XI of the Massachusetts Sanitary, Code under jurisdiction of the Board of Health.

4.9.4 The location of public sewer lines shall conform to the Typical Street Sections included herein.

4.9.5 Service connections for each lot shall be extended to the street sideline when the sewer line is installed.

4.9.6 Public sewer lines shall have a minimum diameter of eight inches. Service connection for single family houses shall have minimum diameter of four inches.

4.9.7 Manholes shall be placed at every change in grade or horizontal alignment of the sewer line, but in no case shall be greater than 250 feet apart.

4.9.8 Manholes shall be of the type specified by the Department of Public Works.

4.10 Storm Drainage

4.10.0 Adequate facilities for the disposal of surface water shall be installed. Proper connection shall be made to any public drainage system naturally serving the area. Where in the opinion of the Board no public drainage system is within a reasonable distance from the subdivision, provision shall be made for extension of the system to a natural outlet.

4.10.1 The system for the disposal of surface water shall be designed so that the post-development peak rate of run-off does not exceed the pre-development peak rate of run-off. Proper hydrological calculations must be submitted to substantiate this requirement.

4.10.2 The quantity of storm water carried by the storm drain system shall be determined by the TR-55 method, and the design storm shall be 2 years, except for bridge(s), culvert(s) and detention basin(s), in which case it shall be designed for the 100 year storm event.

4.10.3 Pipe drains, consisting of Class III or such higher class as may be required by depth of cover, reinforced concrete pipe, PVC, ductile iron PVC, aluminum or approved equal of comparable strength, shall have a minimum diameter of 12 inches and shall be constructed so as to have a minimum of four feet of cover

4.10.4 Catchbasins shall be located on both sides of the roadway on continuous grades at intervals of not more than 250 feet, at all sags in the roadways, and near corners of the roadway at intersecting streets. Drain manholes shall be constructed at every change in grade and alignment of storm pipes, and at connections to catchbasins and shall be of the type specified by the Fitchburg Department of Public Works. In no case, however, shall the distance exceed 250 feet. Stormwater shall not be permitted to cross any roadway upon its surface.

4.10.5 Structures. Except where drainage swales are used, catchbasins will be required on both sides of the roadway on continuous grade at intervals of not more than 250 feet. Any catchbasins and manholes used shall be at least seven and one-half (7-1/2) feet deep and four (4) feet diameter (inside measurements), with a thirty-six (36) inch or greater sump below pipe invert and shall be constructed of concrete blocks or precast concrete units, plastered on the outside. Manhole covers and grates shall be in conformance with Massachusetts DPW Specification 201, designed and placed so as to cause no hazard to bicycles.

4.10.6 **Swales.** Drainage swales shall have cross-sectional area adequate to carry a 20-year storm, and be treated as follows:

<u>Slopes</u>	<u>Treatment –</u>
0.75% — 4%	6" of loam seeded
4% — 10%	6" mm. dimension angular stones for a water depth of 1 foot, with a 12" gravel sub-base (SSH&B M 1.03.0 type A)

Additionally, rip-rap aprons shall be provided at all discharge and intake points for culverts and head walls.

4.10.7 Where feasible, post-development stormwater flow should mimic the pre-development stormwater flow. Post-development stormwater flow should be directed, through detention basins, to enter the nearest open stream channel. The detention basin shall serve to control the outflow to a flow not to exceed the pre-development flow.

4.10.8 If in the opinion of the Board, it is necessary to construct cellar drains or other subsurface drainage, their construction, location, and size must be approved by the Board and none shall be installed at any time without such approval. Such drainage facilities shall not interfere with on-lot sewerage disposal facilities.

4.10.9 All drainage from roofs and cellars shall outlet into either a dry well or the drain lines of the street drainage system. If the outlet is into a dry well, such facilities shall not, in the opinion of the Board, interfere with on-lot sewage disposal facilities.

4.10.10 **Excavations** No excavation for storm sewers, catchbasins, manholes, or related facilities shall be backfilled until inspected

4.10.11 **Flood Plain District.** All subdivision proposals and other proposed new development shall be reviewed to determine whether such proposals will be reasonably safe from flooding. If any part of a subdivision proposal or other new development is located within the Flood Plain District established under Article IV, Section 4.1, Flood Plain District of the Fitchburg Zoning Ordinance, it shall be reviewed to assure that:

- (a) The proposal is in compliance with Article V of the Zoning Ordinance.

- (b) The proposal is designed consistent with the need to minimize flood damage, and
- (c) All public utilities and facilities, such as gas, electrical and water systems, shall be located and constructed to minimize or eliminate flood damage, and
- (d) Compensatory flood storage on a 1:1 ratio will be required, and
- (e) Adequate drainage systems shall be provided to reduce exposure to flood hazards, and
- (f) Base flood elevation (the level of the 100-year flood) data shall be provided for proposals greater than five acres for that portion within the Flood Plain District.

4.11 Easements

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

4.11.1 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 a minimum width of 20 feet to conform substantially to the lines of such water course, drainage way, channel or stream, and to provide for construction or other necessary purposes.

4.11.2 Conservation Restrictions

- (a) Water courses shall be located within easements conforming substantially with the lines of their course, whose width shall not be less than 20 feet and whose boundaries shall not be closer than five (5) feet horizontally from the annual high water line. No building shall be constructed and no paving shall be permitted within such easement except as permitted under the Zoning Ordinance. Water courses shall remain open except at street crossings.
- (b) In any subdivision, the developer may grant to the City a conservation restriction over any portion of the subdivision providing the area subject to restriction has the approval of the Conservation Commission and the City Council.

4.12 Grading of Slopes

- 4.12.0 All slopes resulting from grading of streets and sidewalks shall not exceed one foot vertical to three feet horizontal in fill; one foot to three feet in cut; and one foot to 3/4 foot in ledge.
- 4.12.1 Slope easement or retaining walls shall be employed where slopes cannot be contained within street sidelines.
- 4.12.2 Grass strips and driveway entrances shall be so graded as to prevent surface water on the street from draining onto private land, except at designated ponding and collection areas.

4.13 Open Space

- 4.13.0 The applicant shall consider the relationship of the proposed subdivision to the City of Fitchburg Open Space and Recreation Plan. This consideration shall include proposals for amenities within the subdivision which conform to the stated objectives of said plan.
- 4.13.1 The Board may require that an area of park or parks. In no event shall the required reserved area exceed five percent of the total area of the subdivision.
- 4.13.2 Such reservation shall be made where particular natural features, abutting public land, or potential neighborhood need for recreation space make later public acquisition desirable.
- 4.13.3 Any open space or playground land shall be provided with appropriate frontage on a street, and pedestrian ways will normally be required to provide access from each of the surrounding streets, if any, on which the open space, park or playground has no frontage. Further, such parks and/or playgrounds may be required to have maintenance provided for by covenants and agreements acceptable to the Board, unless public acquisition is accomplished by the community.

4.14 Protection of Natural Features

Due regard shall be shown for all natural features, such as large trees, water courses, scenic points, historic spots, and similar community assets, which, if preserved, will add attractiveness and value to the subdivision.

4.15 Industrial Subdivision

4.15.0 Industrial subdivisions shall comply with all requirements of these Subdivision Regulations except as noted in this section.

4.15.1 All streets shall be constructed as collector streets and all appropriate design standards shall apply except as noted in this section.

4.15.2 Curb radii shall not be less than fifty (50) feet.

4.15.3 The width of the traveled way shall be forty (40) feet.

4.15.4 Roadway grades shall not exceed 8.0 percent.

4.15.5 Dead-end streets shall not exceed 750 feet in length unless, in the opinion of the Board, a greater length is necessitated by topography or other local conditions.

4.15.6 Street lights shall not be required unless, in the opinion of the Board, such street lighting is necessary for safe travel within the subdivision.

4.15.7 Sidewalks shall not be required, unless, in the opinion of the Board, such sidewalks are necessary for safe pedestrian access within the subdivision.

4.15.8 Street trees shall not be required unless, in the opinion of the Board, such street trees are necessary for public amenity within the subdivision.

4.16 Safety

4.16.0 All precautions should be taken by the developer and his subcontractors to observe common-sense safety requirements. The Board designates the Commissioner of Public Works to report all unsafe activities in preparation of the subdivision to the Board.

4.16.1 Holes greater than five feet in depth and soil piles higher than five feet, or materials stacked in an unsafe manner shall not be allowed unless the area is adequately protected.

4.16.2 Overnight parking and refueling of construction vehicles should not occur within 50 feet of an identified wetland or water body.

4.17 Cleaning tip and Restoration of Damage

4.17.0 Before sale of a lot, the subdivider shall clean up any debris thereon caused by street construction and installation of utilities. All areas within the street lines damaged, destroyed or altered in construction operations shall be restored to satisfaction and the builder is responsible for said improvements for a period of one year from the time of the sale.

4.18 Inspection

The City Engineer's office and/or DPW shall be given at least 48 hours notice of work scheduled in order that it may make inspections at the following stages:

- 4.18.0 After excavation and trenching, before placement of utilities or foundation material;
- 4.18.1 During placement of water lines, storm drain lines, sewer lines and all domestic laterals;
- 4.18.2 After placement of drainage structures, before backfilling;
- 4.18.3 Foundation gravel to be approved before placement;
- 4.18.4 After placing gravel, before placing paving;
- 4.18.5 As required for confirmation of extent of completion for release of security verifying:
 - placement of surface pavement
 - sidewalks
 - curbing
 - street signs
 - grading outside travelled way
 - trees
 - bounds
 - clean-up
- 4.18.6 As required to advise on requested departures from plans as approved.
- 4.18.7 Other inspections as required by the Fire Department shall also be facilitated through reasonable notice.
- 4.18.8 The inspection of the work shall not relieve the developer of any of his obligations to fulfill the requirement of the Subdivision Regulations.

4.18.9 When deemed necessary, the Planning Board may require that an independent engineer be hired at cost to the developer to inspect any or all aspects of a subdivision. The engineer shall be chosen by mutual consent between the Planning Board and the developer. -

4.19 As-Built Drawings

4.19.0 Upon completion of the roadways, the developer shall have the original plans and profiles of the Definitive Plan, as approved by the Board, corrected and certified by his engineer or surveyor to show the actual as-built locations and grades of all utilities, roadway profiles and any changes authorized by the Board or the City Engineer. Suggested form for as-built drawings should be obtained from the City Engineer.

4.19.1 These changes shall be drawn with indelible ink and the plan shall be marked "As-Built Drawings" in the lower right-hand corner.

4.19.2 Ties to all gate valves, tees, service connections, shut-offs, sewer Ys, bounds, etc., shall be shown.

4.19.3 As-built revisions to the Street Plan showing all monuments, street widths, distances, bearings and complete curve data for all street sidelines and easements shall be utilized as Street Acceptance Plan and the plan so marked. The surveyor shall place a certification of the plan stating, "The street or streets or portions thereof shown have been set as shown." The plan shall be signed by the surveyor and his stamp shall be affixed thereto.

4.20 Variation

Strict compliance with the requirements of these rules and regulations may be waived when, in the judgment of the Planning Board, and upon application by the builder that said requirements are unnecessary, such action is in the public interest and not inconsistent with the Subdivision Control Law.

4.21 Reference

For matters not covered by these rules and regulations, reference is made to Sections 81-K to 81-GG, inclusive, of the Subdivision Control Law.

SECTION V

ADMINISTRATION

5.0 Authority

- 5.0.0 The Board shall be the administrative agency of these regulations and shall have all the powers assigned them by Section 81K to GG of Chapter 41 of the General Laws.
- 5.0.1 The Board may assign as their agents appropriate City agencies or officials and may from time to time hire professional assistance to review plans and inspect improvements at the cost of the subdivider (see Sections 4.18 and 5.2)
- 5.0.2 The Board on its own motion or on the petition of any interested person shall have the power to modify, amend, or rescind its approval of E Plan of a subdivision, or to require a change in a Plan as a condition of its retaining the status of an approved plan.

5.1 Waiver of Compliance

Strict compliance with the requirements of these rules and regulations may be waived when, in the judgment of the Board, such action is in the public interest and not inconsistent with the intent of the Subdivision Control Law. In waiving strict compliance the Board may require such alternative conditions as will serve substantially the same objective as the standards or regulations waived.

5.2 Inspection

- 5.2.0 Inspection will be carried out at appropriate times during the development of the subdivision in accordance with Section 4.18.
- 5.2.1 The Board may make arrangements with a professional person or firm to carry out such inspection on behalf of the City.
- 5.2.2 The costs of inspection shall be borne by the subdivider and shall be computed on the basis of \$2.50 per linear foot of street, measured along the center line, approved on a Definitive Plan and shall be paid to the Office of the Planning Coordinator prior to endorsement of the Definitive Plan. The inspection fee shall cover the costs of 'portal—to—portal' travel, off site analysis of plans, water testing, soil testing, and the~ TV inspection of sewers.

5.2.3 The developer has the responsibility to insure that the approved construction plans are implemented. Use of qualified persons to furnish adequate and timely engineering supervision during construction is required. Surveillance and field revisions by City officials cannot be construed as fulfilling this responsibility.

5.3 Separability

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

5.4 Amendments

These 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.

5.5 Invalidation by State Law

Any part of these Regulations subsequently invalidated by a new state law or modification 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 regulations.

APPENDICES

APPENDIX A

DEVELOPMENT IMPACT STATEMENT

In accordance with Section 2.5 of the City of Fitchburg Rules and Regulations Governing the Subdivision of Land, the applicant shall submit a Development Impact Statement (DIS).

It is a developer's responsibility to prepare and document the DIS in sufficient detail to permit an adequate evaluation by the planning Board; however, additional data may be requested in writing by the Board. It is necessary to respond to all sections of the DIS form except when a written exemption is granted by the Planning Board.

The Board may waive any section(s) of the requirements when, in their opinion, and upon submission of evidence from the developer, the requirements are non-applicable to the proposed project.

The entire cost of the Development Impact Statement shall be the responsibility of the applicant.

NAME OF PROJECT:	ACREAGE:
TYPE OF PROJECT:	OWNER(S):
	APPLICANT(S):

LOCATION:	PLANNER:
ASSESSOR'S MAP AND PARCEL NUMBER(S)	ENGINEER:
ZONING DISTRICT(S):	ARCHITECT:

I. PROJECT DESCRIPTION

A. Number of units:

<input type="checkbox"/> Total	<input type="checkbox"/> Single Family	<input type="checkbox"/> Two Family
<input type="checkbox"/> Row House	<input type="checkbox"/> Apartment	<input type="checkbox"/> Other

Condominium Ownership Rental Private

B. Number of bedrooms:

Row Houses Apartments Single Family

C. Approximate Price/Unit: -

Private Condominium Rental

II. EXISTING BASELINE CONDITIONS (refer to Section 2.5)

A. Geology and topography

B. Immediate and surrounding land use

C. Water resources

III. NATURAL ENVIRONMENT

A. Land

(1) Describe the potential and probable impacts of the proposed development on the existing geology, topography, and land use of the project site and surrounding area.

(2) Describe any limitations on proposed project caused by subsurface soil and water conditions, and methods to be used to overcome them.

(3) Describe procedures and findings of percolation tests or subsurface testing conducted on the site.

(4) Describe the types and amounts of land which will be permanently affected by construction of the subdivision.

(5) Describe proposed rough grading plans.

(6) Describe location and extent of existing marshes, wetlands, or seasonal wet areas and any proposed alterations.

B. Air

(1) Describe possible sources and duration of significant amounts of odors, smoke and dust.

- (2) Describe precaution to be taken to eliminate or minimize the adverse environmental effects of the, smoke, dust or odors generated.
- (3) Describe the relationship of the location of the subdivision and prevailing wind patterns to nearby residences, businesses, recreation areas, and other public areas.
- (4) If incineration of refuse is proposed for the subdivision, describe the effects resultant emissions will have on air quality in the area. Include proof that the incinerator complies with the latest local and state regulatory standards.

IV. WATER AND WETLANDS

- A. Evaluate how and to what extent the project will affect the quality of any existing or potential public or private water supply, including watersheds, reservoirs and groundwater.
- B. Describe the methods to be used during construction to control erosion, sedimentation and siltation including use of sediment basins and type of mulching, matting or temporary vegetation; approximate size and location of land to be cleared at any given time and length of time to exposure; covering of soil stockpiles; and other control methods used. Evaluate effectiveness of proposed methods on the site and the surrounding areas.
- C. Describe the permanent methods to be used to control erosion and sedimentation. Include 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 shorelines, marshes or seasonal wet areas;
 - (7) Any existing or proposed flood control or wetland easements;

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

D. Discuss probability that project will increase pollution or turbidity levels within receiving waterway and the precautions to be taken to minimize the effects.

E. Discuss the project's effect on the waterway's aquatic biota and use as habitats.

F. Discuss the project's effects on groundwater quality and supply and efforts to recharge groundwater supplies.

G. Discuss what effect the project will have on increasing the incidence of flooding, including areas outside the subdivision.

H. Discuss the effect of the proposed sewage disposal methods on surface and groundwater supplies and quality.

V. ENERGY

A. Describe the types and increased quantity of energy required to serve the needs of the project residents.

B. Indicate what the sources of this energy will be.

VI. NOISE

A. Describe the time, duration and types of noises generated by the project, both during and after construction.

B. Discuss what effect these noises will have on both humans and wildlife.

C. Describe the controls which will be used to eliminate or minimize the effects of these noises.

VII. LOCAL FLORA AND FAUNA

A. Discuss the project's effects on land-base ecosystems, such as the indigenous wildlife, stream bank cover, and vegetal or wooded growth.

B. Describe proposed types and amounts of vegetal cover.

C. Discuss the existence of rare or endangered plant, wildlife or fish species in the project area.

VIII. **MANMADE ENVIRONMENT**

A. Land Use

- (1) Describe how the proposed project conforms with the growth plans for the area and the City in general.
- (2) Describe land uses adjacent to the project.
- (3) Describe any existing or proposed public or common recreational or open areas within the subdivision.
- (4) Discuss the site's proximity to transportation, shopping educational facilities, recreational facilities, etc.

B. Density

- (1) Provide a tabulation of 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 space.

C. Zoning

- (1) Indicate the zoning designations for the site and adjacent areas.

D. Architecture

- (1) Describe the agricultural and landscaping techniques which will be used to blend the structures with the surrounding area.
- (2) Discuss the heights of the structures in relation to the surrounding area.
- (3) Discuss the project's visual impact and possible interference with natural views.
- (4) Describe type of construction building materials used, location of common areas, location and type of service facilities (laundry, trash, garbage disposal)

E. Historic Buildings, Historic Sites and Archaeological Sites

(1) Indicate location and significance of any historic buildings or sites on or adjacent to the project.

IX. PUBLIC FACILITIES

A. Water supply, flow, pressure and distribution

(1) Describe the groundwater and/or surface water supply to be used.

(2) Discuss the demands of the project for consumption and fire protection.

B. Sanitary sewerage connection, distribution and facilities

(1) Discuss the quantity and type of sewage which will be generated by the project.

(2) Describe the proposed sewage disposal system.

C. Storm drainage facilities

(1) Describe where connection to the City system is proposed.

D. Disposition of stormwater

(1) Indicate the location of all proposed outfalls.

(2) Describe the effect of the outfalls and their discharge on the receiving waters, i.e., increased flows, pollution, etc.

(3) Discuss the quantity of stormwater to be discharged.

E. Refuse disposal

(1) Estimate the quantity and types of refuse that will be generated by the subdivision.

(2) Describe the proposed methods of refuse disposal.

F. Traffic facilities

- (1) Discuss future vehicular circulation patterns including number and types of vehicles inside and outside of development and nearby arteries and intersections.
- (2) Describe the proposed pedestrian circulation pattern.
- (3) Discuss the location and number of parking spaces proposed.
- (4) Describe the condition of adjacent roadways that will be impacted by this project.
- (5) Provide all relevant data including trip generations, vehicle to capacity ratios, level of service analyses of affected intersections, etc.

G. Electric power

- (1) Discuss the power demand of the subdivision.
- (2) Discuss the source of the electric power and the method of supplying the area.

H. Gas

- (1) Discuss the demands of the subdivision.
- (2) Describe what the gas will be used for in the area.
- (3) Describe the source of gas supply and the proposed method of supplying the area.

X. COMMUNITY SERVICES

A. Schools

- (1) Discuss the effect of the subdivision on existing schools, including number and ages of children generated by the subdivision.
- (2) Describe the location of the nearest existing schools.

B. Recreation

- (1) Describe existing and proposed recreational facilities, including active and passive types; age groups participating,

and state whether recreational facilities and open space are available to all residents.

- (2) Indicate location and width of existing and proposed pedestrian ways, bikeways or bridle paths.

C. Police

- (1) Estimate the total population projected for the subdivision.
- (2) Estimate the total number of automobiles for the area.

D. Fire

- (1) Discuss the total number of buildings to be constructed and their types and construction.
- (2) Describe the source and quantity of water available for fire protection for the area.

E. Public Works

- (1) Calculate the total linear feet of roadway to be publicly maintained and plowed.
- (2) Calculate the linear feet of street drains, culverts, sanitary sewers, and waterlines to be publicly maintained.

XI. HUMAN CONSIDERATIONS

A. Aesthetics and visual impact

- (1) Discuss the change in the present character of the area due to the project, i.e., land use, density of development, etc.
- (2) Discuss the measures to be taken to minimize the adverse effects of the project, i.e., architecture, buffers, etc.

B. Parks, forests and recreational areas

- (1) Discuss how the siting and construction of the project will affect existing and potential park and recreation areas, open spaces, natural areas, and scenic values.

C. Public Health

(1) Discuss the project's effects on residents' public health due to changes in water quality, air quality, noise levels, etc.

XII. PHASING

If the development of the site will take place over more than one year, supply a schedule showing how the development will be phased. A flow chart is helpful. This time table shall include the following elements:

- A. Stripping and/or clearing of site.
- B. Rough grading and construction.
- C. Construction of grade stabilization and sedimentation control structures.
- D. Final grading and vegetative establishment.
- E. Landscaping.
- F. The construction of any public improvements shall be specified, explaining how these improvements are to be integrated with the development.
- G. The number of housing units and the square footage of nonresidential uses to be constructed each year and their estimated value shall be specified.

FORM A
APPLICATION FOR ENDORSEMENT
OF PLAN BELIEVED NOT TO REQUIRE APPROVAL

FEE: \$80.00

File one complete form with the Planning Board and one copy with the City Clerk.

To the Planning Board, Fitchburg, MA:

The undersigned, believing that the accompanying plan of this property in the City of Fitchburg does not constitute a subdivision within the meaning of the Subdivision Control Law, herewith submits said plan for a determination and endorsement that the Planning Board approval under Subdivision Control Law is not required.

1. Name of Applicant: _____
- Address: _____ Phone No.: 978-_____
2. Title of Plan, if any: _____
3. Date of Plan: _____ 20 ____
4. Name of Surveyor: _____
Address: _____
5. Deed of Property recorded in North Worcester County Registry of Deeds,
Book: _____ Page: _____
6. Location and Description of Property: _____

7. Grounds for exemption from Subdivision Control Law:
At least one of the following grounds for exemption is met by every lot on the plan, as indicated below:

a)	The following lots have all the frontage required under zoning on:	<u>Lot Numbers</u>
1)	a public way or way certified by the City Clerk to be used and maintained as such or	_____
2)	a way shown on a plan approved and endorsed _____ 20 ____ by the Planning Board under this law, or	_____
3)	a way in existence prior to August 26, 1958 asserted to be adequate for its planned use.	_____

b)	The following lots have been clearly marked on the plan to be either:	
1)	Joined to and made a part of an adjacent lot	_____
2)	Not a building lot	_____

c) The following lots contain two or more buildings, now on the same lot. _____

Signature of owner of Record _____
Address _____

FORM B
APPLICATION FOR APPROVAL OF A PRELIMINARY PLAN
REE: \$100.00

_____, 20____

To the Planning Board of the City of Fitchburg, MA

The undersigned being the applicant as defined under Chapter 41, Section 81-L for approval of a proposed subdivision entitled _____

by (engineer) _____

dated _____ 20 _____. Access will be from the following streets: _____

Total Land Area _____ No. of Lots _____ Feet of Roadway _____

hereby submits said plan as a PRELIMINARY SUBDIVISION PLAN in accordance with the Rules and Regulations Governing the Subdivision of Land, Fitchburg, MA, and makes application to the Planning Board for approval of said plan.

The undersigned interest in said land is as follows: _____

APPENDIX B

- FORM A Application for Endorsement of a Plan Believed Not to Require Approval
- FORM B Application for Approval of a Preliminary Subdivision Plan
- FORM C Application for Approval of a Definitive Subdivision Plan
- FORM D Designer's Certificate
- FORM E Approval with Covenant Contract
- FORM F Mortgage Agreement between Lending Institution and Owner of Property Undergoing Subdivision
- FORM G Certificate of Partial Release of Covenant Contract
- FORM H Certificate of Partial Release of Covenant Contract
- FORM I Request for Release of Funds
- FORM J Authorization for Lender to Release Payment
- FORM K Inspection Form