



TOWN OF MEDFIELD

Office of the

PLANNING BOARD

TOWN HOUSE, 459 MAIN STREET
MEDFIELD, MASSACHUSETTS 02052-2009

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LEGAL NOTICE

As required by MGL ch 41 §81Q, the Medfield Planning Board will hold a public hearing on Monday, July 15, 2019 at 8:00 PM to amend its "Land Subdivision Rules and Regulations of the Planning Board of the Town of Medfield, Massachusetts." Proposed amendments include, but are not limited to, policies, procedures, application submittal requirements, regulations, technical specifications, and regulatory references. The proposed changes are on file in the Planning Department and the Town Clerk's office during regular business hours.

SARAH LEMKE, CHAIR

MEDFIELD PLANNING BOARD

MEDFIELD PRESS/THE PRESS

Please print twice on:

- June 28, 2019
- July 5, 2019

Send proof and invoice to:

Planning Board
Sarah Raposa, Town Planner
459 Main Street
Medfield, MA 02052

PLEASE SEND INVOICE TO THE PLANNING BOARD

The following Code does not display images or complicated formatting. Codes should be viewed online. This tool is only meant for editing.

Chapter 310

Subdivision of Land

[HISTORY: Adopted by the Planning Board of the Town of Medfield 1-12-1978, as amended through 8-29-2012. Subsequent amendments noted where applicable.]

GENERAL REFERENCES

Building construction — See Ch. **110**.

Historic preservation — See Ch. **150**.

Scenic roads — See Ch. **210**.

Streets, sidewalks and public places — See Ch. **240**.

Wells and cesspools — See Ch. **280**.

Wetlands — See Ch. **290**.

Zoning — See Ch. **300**.

Article 1

Scope

§ 310-1.1 **Title.**

These rules and regulations shall be known and may be cited as the "Land Subdivision Rules and Regulations of the Planning Board of the Town of Medfield, Massachusetts."

§ 310-1.2 **Authority.**

These rules and regulations are hereby adopted by virtue of and pursuant to the authority granted the Planning Board of the Town of Medfield by MGL c. 41, §§ 81K to 81GG, herein called the "Subdivision Control Law," as now existing or hereafter amended. All forms, tables and figures appended hereto shall be a part of the Land Subdivision Rules and Regulations of the Planning Board of the Town of Medfield, Massachusetts.

§ 310-1.3 **Purpose.**

These rules and regulations have been adopted to fulfill the purpose of the Subdivision Control Law as stated in the Massachusetts General Laws, MGL c. 41, § 81M, and all other applicable sections.

§ 310-1.4 **Definitions.**

A. For the purpose of these rules and regulations, unless a contrary intention clearly appears, the terms and words defined in the Subdivision Control Law shall have the following meanings:

AASHTO

American Association of State Highway and Transportation Officials.

AGENT

Inspector appointed by the Superintendent of Public Works acting as the agent of the Planning

Board.

APPLICANT

All the owners of record of the land stated in the application for subdivision. An agent, representative or his or her assigns may act for an owner, provided written evidence of such fact, signed and notarized by all owners of record, is submitted to the Board. Evidence in the form of a list of their officers and designated authority to sign legal documents shall be required for a corporate owner.

BOARD

The Planning Board of the Town of Medfield, Massachusetts.

DEFINITIVE PLAN

A plan of a proposed subdivision or resubdivision of land drawn in accordance with § 310-4.2 of these rules and regulations.

ENGINEER

A person registered or legally permitted to practice professional engineering in the Commonwealth of Massachusetts.

GENERAL LAWS

The Massachusetts General Laws.

LANDSCAPE ARCHITECT – a person registered or legally permitted to practice professional landscape architecture in the Commonwealth of Massachusetts.

MDC

~~Metropolitan District Commission.~~

Comment [SR1]: Outdated

MDOT

Massachusetts Department of Transportation.

PRELIMINARY PLAN

A plan of a proposed subdivision or resubdivision of land drawn in accordance with § 310-4.1 of these rules and regulations.

STREETS

The meaning of streets shall include the traveled way, curbing, grass strips, sidewalks, drainage and utilities.

SURVEYOR

A person registered or legally permitted to practice land surveying in the Commonwealth of Massachusetts.

THESE RULES AND REGULATIONS

The Land Subdivision Rules and Regulations of the Planning Board of the Town of Medfield, Massachusetts.

B. Terms and words not defined herein but defined in the Commonwealth of Massachusetts State Building Code shall have the meanings given therein unless a contrary intention clearly appears.

- (2) Review by other Town boards. The Board shall accept comments on the proposed subdivision from the Superintendent of Public Works (particularly with respect to design of streets and of drainage and sewerage systems and provisions for the safety and convenience of inhabitants of the Town), the Water and Sewerage Board (particularly as to the design of the water and sewerage systems) and the Conservation Commission (particularly with respect to open space and wetland impacts) for a period of 30 days. The Medfield Historical Commission and the Committee to Study Memorials shall be notified that the plan is on file with the Planning Board. The failure of any of the above boards to respond will not adversely affect the Board's decision on the definitive plan.
- C. Conditions recommended by the Board of Health. In the Board's approval of a subdivision plan, the Board may incorporate conditions for the protection of the public health that are recommended by the Board of Health.
- D. Easements.
- (1) Easements for storm drains, sanitary sewers or water mains across lots or centered on rear or side lot lines shall be at least 20 feet wide and shall be constructed with a 12-inch gravel base covered with six inches of loam, so that they shall be passable for a utility vehicle. No easement shall be permitted across land of others unless an agreement in proper form is obtained permitting such an easement.
- (2) Where a subdivision is traversed by a watercourse, drainageway, channel or stream, the Board may require that there be conveyed to the Town without cost a stormwater easement of adequate width (20 to 100 feet, centered approximately on the center line of the watercourse, drainageway, channel or stream) depending upon the width of the stream. This easement shall conform substantially to the lines of such watercourse, drainageway, channel or stream, and shall provide for construction or other necessary purposes in relation thereto.
- (3) No building or on-lot sewerage system shall be erected within an easement.
- (4) Temporary slope easements shall be obtained to permit grading of side slopes to meet sloping requirements of these rules and regulations.
- (5) Tree planting easements, four feet in width, shall be obtained by the Town to permit planting of street trees outside the public layout along subdivision streets. The tree planting easement shall be as shown in Form 13.
- (6) Easements for access over subdivision ways for all purposes for which roads are commonly used in the Town of Medfield shall be conveyed to the Town without cost. The access easement shall be in the form included in Form 13.
- (7) Where a proposed subdivision abuts or is located near existing parks, conservation land or public recreational areas, the Board may require that access easements through the subdivision be conveyed to the Town without cost. Such easements shall be 20 feet in width.
- (8) Easements shall be executed prior to the endorsement of the definitive plan and recorded simultaneously with the plan.
- E. Flagging of subdivision streets. Within two weeks after the receipt of the application for approval of a preliminary subdivision plan and again at least two weeks prior to the public hearing required by the Subdivision Control Law, the center line of the proposed street(s) shall be clearly marked on the ground at 50-foot intervals with colored flags or stakes, and the Planning Board shall be informed in advance as to when the flagging will be done.
- F. Recording of plan.
- (1) Within 10 days after the definitive plan and covenant, as approved and endorsed, have been recorded

Comment [3]: Editor's Note: Form 13 is included as an attachment to this chapter.

at the Norfolk 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 the date of such recording, including book and page or document numbers.

- (2) Upon receipt of notification of recording, the Board shall file one print of the definitive plan with the Building Inspector. In accordance with the statute, where approval with covenant is noted thereon, the Building Inspector shall not issue any permit for the construction of a building on any lot within the subdivision without receipt from the Board of a copy of the Certificate of Release of Lots (Form 10).

Comment [4]: Editor's Note: Form 10 is included as an attachment to this chapter.

- G. Acceptance by the Town. At the laying out and acceptance by the Town of the streets or ways, all rights for use as public ways, all municipal services within the ways and other appurtenances pertaining to these municipal services will become the property of the Town of Medfield at no cost to the Town.

§ 310-3.2 Performance guarantee.

- A. Before approval and endorsement of approval of a definitive plan of a subdivision, the applicant shall agree to complete the required improvements specified in these rules and regulations, such construction and installation to be secured by the following method:

- (1) All applicants shall file a covenant (Form 6), executed and duly recorded by the owner of record, running with the land, whereby such ways and services as specified in these rules and regulations shall be provided to serve all lots within four years of the execution of the covenant, or before any lots may be built upon or conveyed, other than by mortgage deed.

Comment [5]: Editor's Note: Form 6 is included as an attachment to this chapter.

- (2) Before any lots are released by the Board (Form 10), the applicant shall either file a surety company performance bond or deposit a sum of money or approved negotiable securities in an amount determined by the Board to be sufficient to cover the cost of all or any part of the improvements specified in these rules and regulations. Such surety, whether bond, deposit of money or securities, shall be on condition that the improvements shall be completed within one year of the date of the acceptance of the surety. The applicant shall file Form 15 with the Planning Board relative to performance guarantees.

Comment [6]: Editor's Note: Form 10 is included as an attachment to this chapter.

- (3) The construction of all ways and the installation of all municipal services within a portion of the subdivision covered by said surety shall be completed in accordance with the applicable rules and regulations of the Board before any additional portion of the subdivision will be released from the covenant. The failure to complete the construction of ways and the installation of municipal services within that portion of the subdivision covered by said surety within a period of one year from the date of acceptance of the surety or within four years of the execution of a covenant shall automatically rescind approval of the subdivision plan except as to those lots which have theretofore been released, unless additional surety is accepted by the Board.

Comment [7]: Editor's Note: Form 15 is included as an attachment to this chapter.

- B. Release of performance guarantee.

- (1) Upon the completion of improvements required in these rules and regulations, security for the performance of which was given by bond, deposit, covenant, or upon the performance of any covenant with respect to any lot, the applicant may request and agree on terms of release with the Board, or he may send by registered mail to the Town Clerk a written statement in duplicate that the construction or installation in connection with such bond, deposit or covenant has been completed in accordance with the requirements contained in these rules and regulations, such statement to contain the address of the applicant. The Town Clerk shall forthwith furnish a copy of said statement to the Board.

- (2) If the Board determines that said improvements have been completed, it shall release the interest of the Town by returning the entire deposit or a portion thereof to the person who furnished the same, and/or release the covenant by appropriate instrument, Certificate of Release of Covenant (Form 12).

Comment [8]: Editor's Note: Form 12 is included as an attachment to this chapter.

duly acknowledged with a copy to the Building Inspector.

- (3) If the Board determines that said improvements have not been completed, it shall, within the time period required under the Subdivision Control Law, specify to the applicant and to the Town Clerk in writing the details wherein said improvements fail to comply with its rules and regulations.
 - (4) Prior to release of any such lots, evidence satisfactory to the Board must be furnished of the necessary arrangements to maintain such streets prior to acceptance by the Town in a condition reasonably safe and convenient for travel, including, but not limited to, snow removal and flooding prevention. Such evidence may take the form of a Private Way Maintenance Agreement (Form 14) executed by the applicant. If those streets are not so maintained, the Town may take such action as it deems proper to assure safety and convenience for travel, and the applicant shall indemnify the Town against all claims for loss or damage that may result from such action and shall reimburse the Town for all costs incurred and maintenance of subdivision roads shall be included in the bond.
- C. Evidence of satisfactory performance. Before the Board will release the interest of the Town in the deposit or, in the case of approval with covenant, issue a release of covenant:
- (1) The applicant shall file with the Board a certified copy of a separate layout plan (with accompanying cross sections and profile) for each street in the subdivision (or, in the case of approval with covenant, of the street or streets serving the lots for which a release is desired). Certification shall be by the engineer and surveyor employed by the applicant at his or her own expense, and shall indicate that all easements, streets, sidewalks, sewers, storm drains, water lines, underground telephone, cable and electricity, and their appurtenances have been constructed in accordance with lines and grades of said plan and are accurately located as shown thereon.
 - (2) The Board shall obtain from the applicant a statement in writing by the ~~Highway Superintendent~~ **Director of Public Works**, Certificate of Construction (Form 9), that all work under his or her jurisdiction required by these rules and regulations has been inspected and completed in each street in the subdivision (or in the street or streets serving the lots covered by the surety), including storm drains, bridges and sidewalks, and that he has approved the construction and materials used in the performance of such work.
 - (3) The Board shall obtain from the applicant a statement in writing by the Water and Sewerage Board (Form 9) that it has inspected and the applicant has completed each water main and sanitary sewer and their appurtenances in accordance with the requirements of these rules and regulations, and that it has approved the construction and materials used in the performance of such work.
 - (4) The applicant shall execute an instrument (Form 13) transferring to the Town, without cost, valid unencumbered title to all sanitary sewers, storm drains and water mains and appurtenances thereto constructed and installed in the subdivision or approved portion thereof, and conveying to the Town, without cost and free of all liens and encumbrances, perpetual rights and easements to construct, inspect, repair, renew, replace, operate and forever maintain such sanitary sewers, storm drains, 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, storm drains 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 center line of all such sewers, storm drains and water mains.
 - (5) The applicant shall provide the Town, at no cost, with final acceptance plans for each street in the subdivision, including all property lines.
- D. Criteria for satisfactory partial completion. When only a portion of the streets and other improvements shown on the definitive plan have been constructed or installed and a release from the covenant is requested, the Board shall consider as satisfactorily completed only such lengths and parts thereof as will (in and of themselves) form convenient and adequate systems without the

Comment [9]: Editor's Note: Form 14 is included as an attachment to this chapter.

Comment [10]: Editor's Note: Form 9 is included as an attachment to this chapter.

Comment [11]: Editor's Note: Form 9 is included as an attachment to this chapter.

Comment [12]: Editor's Note: Form 13 is included as an attachment to this chapter.

necessity of further extension or improvement, and shall consider as eligible for release only such lots as front on, are connected, or are otherwise served by such streets, utilities and other improvements.

- E. Reduction of surety. The sum of any required surety or the amount of any deposit held hereunder may from time to time be reduced by the Board and the obligations of the parties thereto released by the Board in whole or in part.

§ 310-3.3 **Physical requirements.**

- A. General standards. Subdivisions shall be designed in accordance with the following general standards:
 - (1) Unless otherwise specified, all the work and the materials used in the work to be done shall conform to the requirements of "The Commonwealth of Massachusetts Department of Transportation, Standards Specifications for Highways, Bridges and Waterways," latest edition, or any amendment thereof, addition thereto, or substitution therefor.
 - (2) Unless otherwise specified, construction standards shall conform to the most current revisions as published in the Construction Manual, Part 3, Construction Standards of the Massachusetts Department of Transportation.
 - (3) Wherever in the documents referred to in Subsection A(1) and (2) above, the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted by substitution as follows:

COMMONWEALTH
Town of Medfield.

DEPARTMENT
Public Works Department of the Town of Medfield.

ENGINEER
Superintendent of Public Works of the Town of Medfield.

- B. Lots. All lots within the subdivision shall comply with the area, frontage and width and all other requirements of the Zoning Bylaw for the Town of Medfield, Massachusetts in force at the time of application unless it is stipulated by the applicant that the lot is not buildable and so endorsed on the plan.
- C. Protection of natural features. Due regard shall be shown for all natural features, such as topography, large trees, watercourses, scenic points, historic spots, and similar community assets which, if preserved, will add attractiveness and value to the subdivision and/or provide benefits to the Town.
- D. Wetlands. If any wetlands, floodplains or inland waters are included in the proposed subdivision, the attention of the applicant is directed to the provisions of Chapter 784 of the Acts of 1972 (MGL c. 131, § 40), Protection of Wetlands (new acts involving all wetlands and other areas subject to flooding), Coastal Wetlands Protection Act (MGL c. 130, § 105), and Chapter 782 of the Acts of 1972 (MGL c. 131, § 40A), An Act Further Protecting the Inland Wetlands and Floodplains of the Commonwealth.
- E. Land adjoining natural watercourses. If the grades of the land are changed in an area within 25 feet of a natural watercourse, the banks of the watercourse shall be stabilized at the same time in accordance with the instructions of the Planning Board, the ~~Highway Superintendent~~Director of Public Works, or other required agency, if applicable.

Comment [13]: Editor's Note: See Ch. 300, Zoning.

- F. Open spaces. Before approval of a plan, the Board may also, in proper cases, require the plan to show a park or parks suitably located for playground or recreation purposes or for providing light and air in accordance with the Subdivision Control Law. The park or parks shall not be unreasonable in area in relation to the land being subdivided and to the prospective uses of such land. Final disposition of such areas shall be in accordance with the Subdivision Control Law.
- G. Earth removal.
 - (1) The tentative or final approval of a subdivision plan by the Planning Board shall not be construed as authorizing the removal of material from the premises, even though in connection with the construction of streets shown on the plan.
 - (2) All earth removal within subdivisions shall be in accordance with the Rules and Regulations Governing Earth Removal Uses, Zoning Bylaw for the Town of Medfield, Massachusetts.
 - (3) When blasting is required for development of a subdivision roadway, the applicant shall file a notification of intent to commence site preparation and/or construction with the Board of Selectmen, who will publish a public notice at least two weeks prior to actual work. Costs associated with this publication shall be borne by the applicant. This requirement shall be noted on the definitive plan.

Comment [14]: Editor's Note: See Ch. 300, Zoning, Art. 12.

Article 4

Subdivision Approval Procedure for Plans to be Approved Under Subdivision Control Law

§ 310-4.1 Preliminary plan.

- A. Application. An applicant may submit a preliminary plan of a subdivision in accordance with MGL c. 41, § 81S.
 - (1) Application for approval by the Board shall be made on Form 2, accompanied by six contact prints of the preliminary plan, prepared as hereinafter prescribed. The applicant shall also, by delivery or registered mail, give notice to the Town Clerk stating the date of submission of the preliminary plan. The applicant shall further submit a preliminary plan of the subdivision to the Board of Health for approval.
 - (2) The application shall include payment in full of Planning Board submission fees as noted in the Fee Schedule (Appendix A), and proof of payment of Board of Health fees to the Board of Health.
- B. Plan form. The preliminary plan shall be prepared by an engineer and surveyor and be drawn clearly and legibly with pencil on tracing paper at a horizontal scale of one inch equals 40 feet, and in the case of profiles, at a horizontal scale of one inch equals 40 feet and a vertical scale of one inch equals four feet.
- C. Plan content. The preliminary plan shall show clearly the following:
 - (1) Subdivision name, boundaries, North point, date, scale, legend and title "Preliminary Plan."
 - (2) Names of the record owner and the applicant and the name or names of the engineer and surveyor.
 - (3) Names of all abutters as determined from the most recent tax list and such others to whom notices are to be sent as required by law.
 - (4) Locus plan showing proposed streets in relation to adjacent streets and lots as shown on current Assessors' Maps.
 - (5) Existing and proposed lines of streets, easements, and any public areas within the subdivision.

Comment [15]: Editor's Note: Form 2 is included as an attachment to this chapter.

Comment [16]: Editor's Note: Appendix A is included as an attachment to this chapter.

(6) Existing soil types from NRCS Natural Resource Conservation Service

(7) Existing wetlands from MassGIS or Town GIS.

(8) Proposed system of drainage, including adjacent natural waterways.

~~(7)~~ Proposed sewerage system and water distribution system.

~~(8)~~ Profile of all proposed streets and drains.

~~(9)~~ Approximate boundary lines of proposed lots with approximate areas and dimensions.

~~(10)~~ Names, approximate location and widths of adjacent streets.

~~(11)~~ Existing and proposed topography of the land by contours at two-foot intervals unless otherwise specified by the Board.

(14) Existing and proposed tree line

(15) Indicate significant vegetation, 8" caliper and greater

~~(12)~~ Zoning classification of the area, including Aquifer Protection, Watershed Protection and Floodplain Districts.

~~(13)~~ Such other information as the Board may require.

D. Approval or disapproval.

(1) The Board and the Board of Health shall act upon the preliminary plan and its accompanying materials in accordance with MGL c. 41. Approvals, if given, do not constitute approval of a subdivision, but do facilitate the process of securing approval of the definitive plan.

(2) Any plan submitted to the Board in advance of the definitive plan which does not conform to the requirements of a preliminary plan shall not be considered to be a preliminary plan, nor shall such a plan be acted upon by the Board.

(3) Approval of a preliminary plan does not constitute approval of a subdivision and the action of the Board on a preliminary plan shall not prejudice its action on a subsequent definitive plan.

E. Public notice. At the time of filing with the Planning Board, a public notice of the filing of the preliminary plan will be circulated once in a newspaper of general circulation at the applicant's expense.

§ 310-4.2 **Definitive plan.**

A. Submission. Any applicant who submits a definitive plan of a subdivision to the Board for approval in accordance with the Subdivision Control Law shall file the following with the Board:

(1) At the time of filing a definitive subdivision plan, the applicant shall submit an original drawing of the definitive plan, including plans and profiles of all streets, water, utilities and drainage therein, and seven dark line contact prints on white background and seven copies of the Environmental Impact Statement for distribution to the Superintendent of Public Works, the Water and Sewerage Board, the Conservation Commission and the Planning Board's consultant.

(2) A properly executed application on Form 3 and a designer's certificate on Form 4.

(3) Notice filed with the Town Clerk of "Application for Approval of Definitive Plan," in accordance

Comment [SR17]: Renumber subsequent items in this section

Comment [18]: Editor's Note: Forms 3 and 4 included as attachments to this chapter.

with the Subdivision Control Law. (Form 3 may be used for this purpose.)

Comment [19]: Editor's Note: Form 3 is included as an attachment to this chapter.

- (4) Proof of payment in full of the Planning Board submission as fee as required in the Fee Schedule (Appendix A).
- (5) Proof of payment of the Board of Health submission fee to the Board of Health.
- (6) A list of all owners of land abutting the subdivision as shown on the definitive plan, together with the address of each as determined from the most recent local tax list, certified by the Board of Assessors on Form 5.
- (7) A sketch plan, acceptable to the Board, showing a possible or prospective street layout for any adjacent land owned or controlled by the owner or applicant of the subdivision.
- (8) Drainage calculations prepared by the applicant's engineer, including design criteria used, and drainage area and other information sufficient for the Board to evaluate the size of any proposed or existing drain, culvert or bridge, or existing retention area.
- (9) If private on-lot sewerage systems are proposed, the Board may require the applicant to submit soil suitability data certified by a registered sanitarian or a registered engineer concerning observation of test pits.
- (10) Traffic impact statement. The traffic impact statement shall (i) examine the existing traffic volumes (both average daily and peak hour) on public ways significantly affected by the subdivision and existing levels of service at nearby intersections; (ii) quantify the anticipated trip generation of the proposed subdivision; and (iii) analyze the effect of the additional traffic on the levels of service at nearby intersections and any changes in traffic patterns, including description of any required mitigation measures. The review should also include a tabulation of historic occurrence of accidents for the last three years. The traffic impact analysis should also review the impact of entrances with respect to AASHTO standards to subdivision roadways on the safety and convenience of vehicular and pedestrian travel on the adjacent streets (including sight lines for entering and merging traffic at street intersections). See AASHTO 1990 Edition, Figure IX-40, page 762, for requirements.
- (11) Copies of any existing easements, covenants and restrictions applying to the land to be subdivided.
- (12) A proposed management plan for any park, open space or common areas in the proposed subdivision.
- (13) Certificates regarding connection to the public water supply and public sewers as required by § 310-5.2D(1) and E(1).
- (14) Environmental impact statement.
 - (a) In connection with any definitive plan or plan for access ways submitted to the Board, including access ways to multiple-family dwelling, industrial, retail and service facilities, there shall be included with the submission seven copies of an environmental impact statement prepared by a registered professional engineer which shall show clearly the relation of the proposed project to the total environment of the Town and its inhabitants.
 - (b) The environmental impact statement should examine the existing conditions, identify all environmental impacts of the proposed project, and analyze these impacts to determine the significance of each. Where possible, quantitative measures should be used to define the magnitude of the impacts. Alternatives to the proposed project also should be discussed in the environmental impact statement.
 - (c) This statement shall include the following general categories as a minimum of information:

Comment [20]: Editor's Note: Appendix A is included as an attachment to this chapter.

Comment [21]: Editor's Note: Form 5 is included as an attachment to this chapter.

- (i) Natural environment.
 - [a] Air.
 - [b] Noise.
 - [c] Land: types of vegetation and soils characteristics.
 - [d] Wildlife.
 - [e] Surface water.
 - [f] Groundwater, including normal depth to high groundwater on proposed streets.
- (ii) Man-made environment.
 - [a] Surrounding land use.
 - [b] Density.
 - [c] Zoning.
 - [d] Architecture.
 - [e] Historic buildings or sites.
- (iii) Public facilities.
 - [a] Water supply, flow pressure and distribution.
 - [b] Sanitary sewerage, connection, distribution and facilities.
 - [c] Storm drainage facilities.
 - [d] Disposition of stormwater.
 - [e] Solid waste disposal.
 - [f] Electric power.
 - [g] Gas.
- (iv) Community services.
 - [a] Schools.
 - [b] Recreation.
 - [c] Police.
 - [d] Fire.
 - [e] Public works.
- (v) Economic considerations.

[a] Cost-benefit ratio.

[b] Time schedule.

(vi) Design considerations.

[a] Open space planning.

[b] Retention of natural vegetation and contours.

B. Plan form.

(1) The definitive plan shall be prepared, stamped and signed by a registered land surveyor if surveying information is shown, and also by a registered professional engineer if the plan shows the design of road pavements, water pipes, sewerage or other utilities. Proposed planting plan shall be prepared, stamped, and signed by a registered landscape architect.

Comment [MC22]: Include provision for Board to waive this requirement?

(2) The definitive plan shall be clearly and legibly drawn at a scale of one inch equals 40 feet in black India ink, upon sheets of tracing cloth or Mylar (as acceptable to the Registry of Deeds) measuring 24 inches by 36 inches, with a 1 1/2 inch border, except on the left side which shall be 2 1/4 inch.

(3) If multiple sheets are used, they shall be accompanied by an index sheet showing the entire subdivision at a scale agreed to by the Board. The index sheet shall also show street stationing, utilities, and direction of drainage and sewer flow as established by the profile plans.

C. Plan content. The definitive plan shall contain or be accompanied by the following information:

(1) Subdivision name, boundaries, true North arrow, date and scale.

(2) Names and addresses of present record owner(s) and applicant and name of the engineer and surveyor who prepared the plan; certificates and seals of the engineer and surveyor that they prepared the plan, and a certificate by the surveyor that all surveying conforms to the requirements of the Massachusetts Land Court.

(3) Names of all owners of abutting land as determined from the most recent local tax list, including owners of land separated from the subdivision only by a street.

(4) A location plan of the subdivision at a scale of one inch equals 800 feet, showing the exterior lines of all proposed streets in the subdivision and their location in relation to the adjacent street network.

(5) A signature block on each sheet of the plan to record the action of the Board, the date of approval, the date of endorsement, and the signatures of the five Board members. A second signature block shall be placed on the cover sheet of the plan for the Conservation Commission, the Board of Health and the Water and Sewerage Board.

(6) Zoning classification and zoning district boundaries, if any.

(7) Location of the Watershed Protection District, Floodplain District, Aquifer Protection District, wetlands as defined in the Medfield Zoning Bylaw, and all swamps, brooks, marshy sections and existing wells within the subdivision.

Comment [23]: Editor's Note: See Ch. 300, Zoning.

(8) Existing and proposed lines of streets, rights-of-way, utility easements, slope easements, and any public or common areas within the subdivision.

(9) Proposed street names, in accordance with the guidelines set out in § 310-5.2A(14).

- (10) Proposed house numbers, in accordance with the "Street Numbering System of the Town of Medfield," August 1966 (available at the Medfield Building Department).
- (11) Location, name and present width of streets bounding, approaching or within reasonable proximity of the subdivision.
- (12) Boundary lines, area in square feet and dimensions of all proposed lots, with all lots designated numerically and in sequence. Front setback lines and width at setback for all lots.
- (13) Sufficient data, including lengths, bearings, radii and central angles, to determine the exact location, direction and length of every street line, lot line, easement line and boundary line and sufficient survey data referred to existing permanent monuments such that these lines may readily be established on the ground.
- (14) Sufficient permanent benchmarks, referred to the Massachusetts Geodetic Base datum of 1929, properly identified.
- (15) Monuments at all points of curvature and at changes in directions of street sidelines or where designated by the Board.
- (16) Street layout plan.
 - (a) A separate "layout" plan for each proposed street in the subdivision, including connection to existing paved way and bridges, at a horizontal scale of one inch equals 40 feet, showing for each such street:
 - (i) Side lines.
 - (ii) Center line.
 - (iii) Stations.
 - (iv) Points of tangency.
 - (v) Length of tangents.
 - (vi) Length of curves.
 - (vii) Intersection angles.
 - (viii) Radii of curves.
 - (ix) Location of permanent monuments and benchmarks.
 - (x) All lot lines, easement lines, buildings and other major features within 100 feet of the exterior lines of such street.
 - (xi) Size, material, type and location of all existing and proposed drains, water lines, and electric, cable and telephone lines, together with their appurtenances, within and adjacent to the subdivision.
 - (xii) Indication of depth to normal high groundwater within the street layout.
 - (b) On the same sheet there shall be drawn cross sections of the proposed street, properly located and identified by station number at such intervals along the street as will show adequately any variations in the section. These shall be supplemented where necessary by lines on the plan showing the width and location of the proposed roadways, planting strips, gutters, sidewalks and similar physical features.

- (c) Directly above or below the plan of each proposed street, a profile shall be drawn at a horizontal scale of one inch equals 40 feet and vertical scale of one inch equals four feet showing for such street the following information:
 - (i) Existing center line grades, in fine black solid line.
 - (ii) Existing exterior left sideline, in fine black short-dash line.
 - (iii) Existing exterior right sideline, in fine black long-dash line.
 - (iv) Proposed finished center line grades, in heavy solid line.
 - (v) Proposed grade elevations, in figures, at beginning and end of street, at 50-foot station intervals, and at beginning and end of all vertical curves.
 - (vi) Rates of gradient in percentage.
 - (vii) Location of any intersecting public or private ways.
 - (viii) Location, size and gradient of existing and proposed public utilities and their appurtenances.
 - (ix) Rim and invert elevations for all manholes and catch basins.

All elevations shall refer to Massachusetts Geodetic Datum of 1929.

- (17) Topography for the entire subdivision, including existing and proposed grades, with two-foot contour intervals and elevations related to the Massachusetts datum of 1929, unless otherwise specified.
- (18) Major site features, such as existing topography, stone walls, fences, buildings, rock ridges, rock outcroppings, woods lines and significant vegetation (including all trees within the right-of-way (ROW) and proposed planting easements and/or at the edge of the planting strips of the proposed street layout which exceed eight inches in diameter, identified by species).
- (19) Location of natural waterways and water bodies within and adjacent to the subdivision, and the entire watershed area within which the subdivision is located, at a reduced scale if appropriate.
- (20) For subdivisions with on-site septic systems, an overlay of the Norfolk County Conservation Commission District Map entitled "Soil Limitations for Septic Tank Sewage Disposal in the Town of Medfield."
- (21) A plan for the control of erosion and siltation during and after construction phases, including the proposed construction sequencing, temporary and permanent erosion control plantings, special constructions, and swale and stream scour protection.
- (22) Details of all construction, including information from the Plates of these rules and regulations.
- (23) A list of all waivers granted by the Board, preceded by the following statement:

"Except for the following waivers (if any) granted by the Planning Board, this plan conforms to the Subdivision Rules and Regulations of the Town of Medfield."
- (24) Park or open areas as required by § 310-3.3F.
- (25) Soil borings to the proposed depth of construction at 100-foot intervals along the center line of proposed roadways, in order to identify the presence of ledge.

Comment [SR24]: Consider adding Tree Planting and Shrub Planting Details to the Plates.

Comment [25]: Editor's Note: The Plates are included as an attachment to this chapter.

- D. Board of Health report. Refer to § **310-3.1B** and **C** for Board of Health requirements.
- E. Public hearings. Before approval, modification and approval, or disapproval of the definitive plan is given, a public hearing shall be held by the Board in accordance with the Subdivision Control Law. Legal notice of the public hearing shall be given by the Board to the applicant and to all owners of property abutting upon the land, including owners of land separated from the subdivision only by a street, all as appear on the most recent tax list. These notices shall be mailed, with return receipt requested. Publication of the legal notice and the mailing of the notices to abutters shall be at the expense of the applicant.
- F. Plan revisions. For resubmission of a definitive plan showing revisions, prior to Planning Board action on the plan, a fee shall be paid according to Appendix A, Fee Schedule. The applicant shall accompany the revised plan with a written description of all changes or additions, and shall submit two extra copies of the plan with the changes and additions highlighted with a yellow marker. The applicant shall address point-by-point in writing any correspondence they have received relating to the plan from the Planning Board and/or its agents.
- G. Approval, modification or disapproval.
- (1) After the required hearing, but within the period specified in the Subdivision Control Law after submission of the definitive plan, the Board shall take final action in accordance with said law.
 - (2) Compliance with zoning regulations is a condition for approval of a subdivision plan.
 - (3) The plan shall be endorsed in accordance with the format of Form 7.
- H. Certificate of approval.
- (1) The action of the Board in respect to said plan shall be by vote, copies of which shall be certified and filed with the Town Clerk and sent by registered mail to the applicant. If the Board modifies or disapproves said plan, it shall state in its vote the reason for its action. Final approval, if granted, shall be endorsed on the original drawing of the definitive plan by the signature of a majority of the Board, but not until the statutory 20-day appeal period has elapsed following the filing of the certificate of the action of the Board with the Town Clerk, and said Clerk has notified the Board in writing that no appeal has been filed.
 - (2) Within 30 days after the return to the applicant of the definitive plan, as approved and endorsed, he shall obtain and furnish to the Board one cloth transparency or Mylar and four prints of said plan showing final endorsement. Transparency and prints shall be black line on white background. No lots will be released by the Board until the applicant has filed with the Board the above transparency and prints.
 - (3) Approval of the definitive plan shall not be deemed to constitute the laying out or acceptance by the Town of any streets within a subdivision.
- I. Medfield Historical Commission report. A written statement from the Medfield Historical Commission describing any significant historical or archaeological features on the site is required, with guidance to the developer regarding compliance with any statutory regulations.
- J. Recording of plan. Refer to § **310-3.1F** on recording of plan.

Comment [26]: Editor's Note: Appendix A is included as an attachment to this chapter.

Comment [27]: Editor's Note: Form 7 is included as an attachment to this chapter.

Article 5 Streets and Improvements

§ 310-5.1 General requirements.

- A. Location of streets.

- (1) Streets in the subdivision shall be coordinated with each other and with the existing-street system in a manner satisfactory to the Board, with due regard to securing safety and convenience of travel. Due consideration shall also be given by the subdivider to the attractiveness of the street layout in order to obtain the maximum livability and amenity of the subdivision.
- (2) Provision satisfactory to the Board shall be made for the proper extension of streets, or for access to adjoining property which is not yet subdivided.
- (3) 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.

B. Safe and adequate access from public way.

- (1) Public ways must provide safe and adequate access to a subdivision. If in the opinion of the Board this condition has not been met, then the Board may require physical improvements within such public ways, such improvements to be completed at the applicant's expense.
- (2) Where the physical condition or width of public ways from which a subdivision has its access is considered by the Board to be inadequate to carry the traffic expected to be generated by such subdivision, the Board may require the subdivider to dedicate a strip of land for the purpose of widening the abutting public ways to a width at least commensurate with that required within the subdivision, and to make physical improvements to and within such public ways to the same standards required within the subdivision. Any such dedication of land for the purpose of such way and any such work performed within such public way shall be made only with permission of the Board of Selectmen, and all costs of such widening or construction shall be borne by the subdivider.

C. Access streets.

- (1) Not more than one building designed or available for use for any purpose shall be erected or placed or converted to use as such on any lot in a subdivision, or elsewhere in the Town, without the consent of the Board, and such consent will be conditional upon the providing of adequate ways furnishing access to each building site in the same manner as otherwise required for lots in a subdivision.
- (2) Plans for such access shall be furnished in the same manner as for ways in a subdivision.

§ 310-5.2 **Design standards.**

A. Roads.

- (1) Width. Street layouts shall not be less than 50 feet in width. (See Plates 3A, 3B and 4 and Table 1.)
- (2) Grades. Grades of less than 1% or more than 6% shall be approved only under exceptional circumstances by the Board.
- (3) Cross section. Streets shall be constructed in accordance with the standards as shown on the Typical Roadway Cross Sections. (See Plates 3A, 3B and 4 and Table 1.)
- (4) Non-through streets. Any proposed street that intersects solely with a non-through street shall be deemed to be an extension of the non-through street. Where a non-through street is shown as part of an approved subdivision plan, it shall be constructed in its entirety in the normal course of construction of the subdivision. Non-through streets and their extensions, if any, shall not be longer than 500 feet (measured between the sideline of the first through street and the center line of the turnaround) unless, in the opinion of the Board, a greater length is necessitated by topography or other local conditions. The non-through street shall be covered by a bond, deposit of money or negotiable securities as described in § **310-3.2B**.

Comment [28]: Editor's Note: Plates 3A, 3B and 4 and Table 1 are included as attachments to this chapter.

- (a) Maximum length. The maximum length of a non-through street and its extension shall be 500 feet, including turnaround.
 - (b) Rotary circles or culs-de-sac. Rotary circles shall be constructed at the terminus of non-through streets. (See Plates 5A, 5B and 7.)
 - (c) Temporary rotary circles or culs-de-sac. Temporary rotary circles on non-through streets shall be constructed where possible extension into adjacent land is anticipated. (See Plates 6 and 8.)
 - (d) Cross sections. Cross sections shall be in accordance with the standards as shown on the Typical Roadway Cross Sections which are herewith made a part of these rules and regulations. (See Plates 3A, 3B and 4.)
 - (e) Alignment, grade, dead-ends and intersections. Where streets are to be constructed beyond an existing turnaround, it is a condition of subdivision approval that the turnaround surface be removed and the street constructed in accordance with Table 1.
- (5) Curbing.
- (a) Curbing required shall be sloped granite curbing with appropriate transition pieces to the granite inlet stones as shown on Plate 9A.
 - (b) Granite curbing on a radius connecting to an existing street edge which has no berm must have a tapered end piece.
- (6) Driveway openings.
- (a) Curb openings for driveways shall be prohibited within 20 feet of any catch basin or hydrant. Curb roundings shall be provided at driveway openings.
 - (b) Radii for driveway openings shall be the same as the width of the sidewalk. On the side of the street where the sidewalk is not required, the same radii are required.
 - (c) The driveway opening shall be a minimum of 12 feet wide and shall be approved only on streets which are bonded or otherwise released from the subdivision covenant.
 - (d) The pitch of the sidewalk on either side of the driveway for a distance of 20 feet shall be gradually and consistently reduced so that at the driveway it is flat. By smoothly working the mix, the sidewalk shall be gradually lowered two additional inches at the driveway.
- (7) Access for handicapped. The construction of ramps and curb cuts to facilitate the use of the project by the physically ~~handicapped and visually disabled / impaired~~ is required. Ramps shall be located at intersections, crosswalks and other locations as required by the Board. Design and construction shall conform to Medfield's Rules and Regulations Relating to the Massachusetts Architectural Barrier-Access Board, 1975/2006, or as last amended, and/or the U.S. Department of Justice Standards for Accessible Design as last amended.
- (8) Planting strips.
- (a) Grass strips of a width required by the Typical Roadway Cross Sections, and so shown on the definitive plan, shall be provided on each side of the roadway. The finished grade of such grass strips in relation to the finished grade of the roadway shall be as shown on the applicable cross section plan.
 - (b) Where the planting strip is not on the sidewalk side of the street, an alternative ground cover such as ~~clover~~ a native seed mix may be preferred to lawn grass, subject to approval by the ~~Superintendent~~

Comment [SR29]: Consider a planted circle within the cul-de-sac – nicer aesthetics. The circle could also serve as a rain garden or other infiltration BMP. Coordinate with Section 310-5.2.C Drainage

Comment [30]: Editor's Note: Plates 5 and 7 are included as attachments to this chapter.

Comment [31]: Editor's Note: Plates 6 and 8 are included as attachments to this chapter.

Comment [32]: Editor's Note: Plates 3A, 3B and 4 are included as attachments to this chapter.

Comment [33]: Editor's Note: Table 1 is included as an attachment to this chapter.

Comment [34]: Editor's Note: Plate 9A is included as an attachment to this chapter.

Director of Public Works.

(9) Side slopes.

- (a) The areas in back of the sidewalk where slope is required shall be graded to a slope of four feet horizontal to one foot vertical as shown on the Typical Cross Section.
- (b) Any ledge at the edge of the street layout shall be cut back to a slope not exceeding one foot horizontal to four feet vertical.
- (c) Fieldstone retaining walls may be used to reduce the sloping limits, but not the sloping rate. The exposed face of the wall shall not exceed four feet in height.
- (d) Slope limits shall be shown on the plan and easements shall be granted to the Town for construction of all slopes and/or retaining walls. [See § 310-3.1D(4).]

(10) Loaming and Seeding. The top six inches of lawn grass areas and side slopes shall consist of ~~good quality loam~~ loam meeting the requirements of MassDOT M1.05.0, fine sandy loam or sandy loam with a pH of 5.5-7.6 and between 4 and 8 percent organics. ~~The good quality loam~~ shall be screened, with 100% passing the one-inch screen, raked, and rolled with a hand roller to grade. The loam shall be seeded with lawn grass seed applied in sufficient quantity to assure adequate coverage and shall be rolled.

(a) Lawn grass seed shall be a multi-fescue and perennial rye mix.

(b) Native seed mix for non-lawn areas shall be a conservation/wildlife mix for New England.

(11) Tree planting.

(a) Healthy trees shall be properly planted within tree planting easements at an average of 40-foot intervals as shown on the typical roadway cross-sections, except that no tree shall be within 20 feet of an intersection or a driveway, 15 feet of a street light or utility pole, or 10 feet from a fire hydrant. Trees shall have a caliper of ~~1 1/2 inches to two inches~~ 2-2-1/2 inches measured at 6 inches above the ground at the time of planting, and shall have a one-year warranty for survival or replacement from the provider. They shall be of the following types and subject to the Tree Warden's approval:

Small – Medium Trees

- Carpinus (Hornbeam)
- Cercis canadensis (Redbud)
- Crataegus (various Hawthorn Species)
- Malus (various Crabapples)
- Prunus 'Okame' (Okame Cherry)

Large Trees

- Acer rubrum (various cultivars of Red Maple)
- Cladrastis kentukea (American Yellowwood)

Comment [SR35]: From the Downtown tree guide: Trees that can be considered with these attributes in mind:

- Ginkgo Biloba "Magyar"
- Gleditsia Triacanthos Inermis "Shademaster" or "Skyline" Honey Locust
- Gymnocladus Dioicus "Espresso" Kentucky Coff Tree
- Ulmus Parviflora "Allee Emer II" Chinese Lacebark Elm
- Zelkova Serrata "Green Vase" or "Ogon"

For areas with overhead lines, consider an ornamental upright shorter growing tree:

- Crataegus viridis "Winter King"
- Parrotia persica "Vanessa"
- Syringa Reticulata "Ivory Silk" Japanese Tree Lil
- Stewartia Pseudocamellia Japanese or Korean Stewartia

Comment [SR36]: Board should have the Tree Warden review and edit the proposed tree lists.

Board should check with the Town's Tree Warden any concern of specifying trees that are subject to potential damage from the Asian Longhorned Beetle. Board should check with the Town's Tree Warden about limiting the use of a single tree species if more than some overall percentage of tree planting with the development

On Plate 3A proposed trees are shown planted on private property. Consider showing trees planted in the grass strips – they are 8 and 9 feet wide. They would need to be set off proposed utilities (electric cable, telephone, and gas). See also Plate 3B. Plate 4 – Are sidewalks really needed on both sides of the road? 44 feet of pavement seems very wide. Even at 3 lanes of 12 feet wide would be 36 feet.

Plate 5 – Consider having a landscape circle within the cul-de-sac. Would probably want 16-20 feet of pavement for fire trucks (this would need to be engineered) but the rest could be planted. See also note at 310.5.2.A.4.b

Comment [SR37]: gives some flexibility based on tree species, field conditions, etc.)

- Gleditsia (various seedless Locust species)
- Liquidambar styraciflua (Sweetgum)
- Nyssa Sylvatica (Tupelo)
- Quercus (various Oak Species)
- Tilia (various Linden species)
- Ulmus (various American cultivars and Asian Elm Species)
- Zelkova serrata – Japanese Zelkova

~~Acer saccharum (Sugar Maple)~~

~~Acer rubrum (Red Maple)~~

~~Acer platanoides (Norway Maple)~~

~~Quercus coccinea (Scarlet Oak)~~

~~Quercus rubra (Red Oak)~~

~~Platanus acerifolia (London Planetree)~~

~~Gleditsia triacanthos inermis (Shademaster Locust)~~

~~Fraxinus penn. lanceolata (Marshall's Seedless Ash)~~

- ~~(b) The Board may approve other suitable plant species and cultivars.~~
- ~~(b) Planting season shall be April 1 – May 31 for spring planting and September 15 – November 1 for fall planting.~~
- ~~(c) Planting soil for trees and shrubs shall be a mixture of 1 part loam and 1 part existing subsoils.~~
- ~~(d) The Board, with the advice of the Tree Warden, reserves the right to identify existing trees within the layout which shall be left in place.~~

(12) Monuments and markers.

- (a) Monuments shall be installed at all street intersections, at all points of change in direction or curvature of streets and at other points as shown on the definitive plan.
- (b) Granite or concrete monuments not less than four feet in length dressed to six inches by six inches in section at the top, and not less than six inches by six inches in section at the bottom, shall be provided and shall be set to finish grade as shown on the plans. The exact location point shall be indicated by a hole having a diameter of 1/4 inch. After the bound has been permanently set, the hole shall be drilled into the top of the bound to a depth of 1/2 inch.

- (c) No permanent monuments shall be installed until all construction which could destroy or disturb the monument is completed. After the bounds have been set, bituminous concrete shall be placed around the bounds and compacted to the specified thickness.
- (d) A certification shall be made to the Board by the engineer or land surveyor that the bounds have been set as shown on the definitive plan.

(13) Street signs.

- (a) Street signs shall be approved by the ~~Highway Superintendent~~ Director of Public Works and the Board. They shall bear the names of the streets as indicated on the definitive plan and shall be erected by the subdivider at all intersections of streets within the subdivision and the intersection of any street of the subdivision with a public way. These signs normally will be placed at the midpoint of the arc and at the back of the sidewalk. The names of both streets shall appear on the sign post at street intersections.
- (b) Temporary street signs shall be erected as soon as rough grading is completed. These street signs shall also bear the legend "PRIVATE WAY."

(14) Street name guidelines.

- (a) Street names for new streets shall be selected from the official street list comprised by the Committee to Study Memorials unless an unusual situation warrants otherwise. In such unusual situations, names not listed in the official street listing may be approved if deemed suitable by a vote of the Board. Copies of the list as it may be updated from time to time are available at the office of the Planning Board. Street names for new streets are developed from the five categories listed:
 - (i) Local historical names.
 - (ii) Geographical names.
 - (iii) Plant life or wildlife names.
 - (iv) Memorial names.
 - (v) Names significant to a particular property.
- (b) The Committee to Study Memorials is available to research names for specific sites in Town.

(15) Streetlights. Streetlights shall be required at all intersections. They shall be as specified in Plate 22, and located as shown on the Typical Roadway Cross Sections.

B. Bridges. Bridges shall be designed in accordance with Massachusetts Department of Transportation Bridge Design Standards in force at the time of filing of the application. Design of bridges shall be approved by the Hydraulic Engineer of the Massachusetts Department of Transportation where required.

C. Drainage.

- (1) General requirements.
 - (a) Drainage shall be designed to take care of the surface and subsurface water of roadways and adjoining land.
 - (b) Street drainage designs shall be of the type known as a "manhole system." The "manhole system" is one in which the water collected in the catch basins empties into an intermediate manhole in a main

Comment [38]: Editor's Note: Plate 22 and the roadway cross-section diagrams are included as attachments to this chapter.

drain laid in the street. (See Plates 9 through 19.) All water easements shall have a 12-inch gravel base and six inches of loam and seed for cover over the full width of the easement.

Comment [39]: Editor's Note: Plates 9 through 19 are included as attachments to this chapter.

- (c) Where groundwater is encountered at an elevation of less than four feet below the proposed subgrade of the street, drainage piping and/or subdrains shall be installed as shown on Plate 20 and shall meet the approval of the ~~Highway Superintendent~~ Director of Public Works.
 - (d) At the request of the Board, a drainage system to eliminate or remove any other water or waters within the subdivision limits and not designated as roadway or subsurface water, and which is otherwise not taken care of, shall be designed in a manner approved by the Board.
 - (e) Private drains may be installed to connect to the public stormwater drainage system. Design and installation shall be by agreement with the Town. A plan of the private drain shall be furnished to the Board for approval.
 - (f) Private drains shall be so located on the lot and so constructed that no seepage from any on-lot sewerage system shall enter the private drain.
 - (g) All drainage easements shall have a 12-inch gravel base and six inches of loam and seed for cover over the full width of the easement.
 - (h) All drainage basins, including but not limited to detention basins, or retention basins, or enclosed leaching systems shall have a no-disturb buffer zone extending 100 feet from the maximum high water contour.
- (2) Drainage design standards.
- (a) Design criteria. The quantity of stormwater carried by drains shall be determined by the Rational Method, and the design of storm drainage shall be 10 years and for bridges and culverts 50 years.

Comment [40]: Editor's Note: Plate 20 is included as an attachment to this chapter.

FORMULA

$$Q=ciA$$

Where:

- Q = runoff, cubic feet per second
- i = intensity of rainfall, inches per hour for duration equal to time of concentration
- c = runoff coefficient expressing the ratio of rate of runoff to rate of rainfall
- A = area of watershed in acres

The average rainfall intensity in inches per hour shall be obtained from Plate 2.

Comment [41]: Editor's Note: Plate 2 is included as an attachment to this chapter.

The runoff coefficients shall reflect developed conditions. The following composite values may be used:

Residential Areas	Roof and Pavements	
(lot size in square feet)	%	Coefficient of Runoff

12,000	30	0.44
20,000	26	0.42
40,000	22	0.40
80,000	16	0.35
Business areas	70	0.80
Industrial areas	50	0.58
Schools	10	0.32
Multiple-family	60	0.70

The time of concentration (t) shall be the total of overland flow, channel flow and pipe flow. The Kutter and Manning formula shall be standard for channel flow and pipe flow and the overland flow time shall be determined from standard MDOT or Elwyn Seelye's nomograph considering the factors of length of slope, including slope and type of service. Minimum time of concentration will be 10 minutes.

- (b) Drain and channel sizes. Pipe drains, where used, shall be reinforced concrete Class III unless otherwise approved by the Board and shall have a minimum diameter of 12 inches. In general, they should be designed to flow full with the hydraulic gradient at the crown. In determining the capacity of concrete pipe drains, the Manning formula should be used with the coefficient of friction "an" equal to 0.013. The minimum velocity at design flow should be 2.5 fops and the maximum 12 fops, unless otherwise approved by the Board.
- (c) Connection to public system.
 - (i) Stormwater shall be directed to enter and discharge into the nearest natural watercourse. If necessary, proper easements must be secured by the applicant in the name of the Town of Medfield. (See § 310-3.1D.)
 - (ii) Within the subdivision, stormwater runoff shall not be permitted to flow upon the surface for a longer distance than 300 feet before it enters the underground system. Catch basins shall be located on both sides of the roadway on continuous grades at intervals of not more than 300 feet and at all low points in the roadway. The subdivision drainage system shall be extended into existing intersecting streets, with a catch basin installed at the upstream side of the existing street.
 - (iii) Where public drainage systems exist with adequate reserve capacity, connection thereto may be made, subject to the approval of the Board of Selectmen.
- (d) Manholes. All catch basins shall be set at the binder level and finished surface shall be feathered down. All catch basins shall be connected to the drainage system through manholes. Manholes shall be provided at all changes in alignment, grade or drain pipe size. The maximum distance between manholes shall not exceed 300 feet.
- (e) Invert grades. A plan shall be submitted to the Board by the engineer or land surveyor, indicating thereon the invert grades of all storm drainage at all catch basins and manholes within the subdivision. He or she shall certify that the grades shown on this plan represent the grades as constructed.

D. Water supply.

(1) General requirements.

(a) Public water supply.

- (i) No subdivision of land shall be approved by the Planning Board unless all lots therein are provided with water by connection to the Town of Medfield's public water supply system. Water mains and their appurtenances must be installed in accordance with the rules and regulations of the Medfield Water and Sewerage Board and approved by the Planning Board. Size of water mains shall be as recommended by the Medfield Water and Sewerage Board and as required by the Planning Board.
- (ii) Connection to the public water supply shall be made at no cost to the Town.
- (iii) The applicant shall include with his or her application a certificate that arrangements have been made with the Medfield Water and Sewerage Board for supplying water to every lot in the subdivision.
- (b) Connection to public system. Water mains and their appurtenances must be connected to the Town water system and shall be installed in accordance with the definitive plan and with the rules of the Water and Sewerage Board and approved by them.

(2) Design and installation of water system.

(a) Mains. The diameter of public water mains shall be determined by the Water and Sewerage Board.

(b) Mains and laterals. All water mains and laterals within the exterior lines of the street shall be installed not less than five feet below the finished grade of the street.

(c) Hydrants. There shall be a hydrant within 500 feet of any existing or potentially existing building.

(i) In residential and industrial streets, all hydrants shall be installed so that the center line of the hydrant is as shown on Plates 3A, 3B, and 4.

(ii) Each hydrant shall be served directly from the water main through a six-inch lateral connection. It shall be gated with a five-inch bottom valve and shall have two 2 1/2 inch hose outlets and one 4 1/2 inch pump outlet. Valves shall be located in such number and locations that lines by individual block maybe isolated for maintenance purposes. Flanges of hydrants shall be level with the finished sidewalk surface.

(d) Water service box castings. Water service box castings shall be set in a full bed of mortar for a minimum of 12 inches around the casting and to a minimum depth of nine inches.

E. Sewers.

(1) Public sewers.

(a) Connection to public sewers is required if any portion of the subdivision is within 500 feet of the public sewerage system or when required by the Board of Health.

(i) The applicant shall include with his or her application a certificate that arrangements have been made with the Medfield Water and Sewerage Board for supplying sewer to every lot in the subdivision if Subsection E(1)(a) is applicable.

(ii) The sewer system shall be installed in accordance with the definitive plan and shall conform with the rules of the Water and Sewerage Board and shall be installed under their direction. Connection to the

Comment [42]: Editor's Note: Plates 3A, 3B and 4 are included as attachments to this chapter.

public sewer system shall be made at no cost to the Town.

- (b) Public sewers shall be not less than eight inches in diameter.
- (c) Lateral sewer connections shall be provided to all lots fronting on the street.
- (d) Manholes shall be located at every change in grade, change in alignment, and change in pipe size and not more than 300 feet apart. Ejector pumps may be permitted at the discretion of the Water and Sewerage Board.
- (e) All sewer easements shall have a 12-inch gravel base and six inches of loam and seed for cover over the width of the easement. Loam and seed shall be in accordance with §310-5.2(10).
- (2) Private on-lot sewerage systems.
 - (a) Where a public sewerage system is located at a greater distance from any portion of the subdivision than 500 feet and connection to it is not required by the Board of Health, the subdivider may install private on-lot sewerage systems.
 - (b) Where private on-lot sewerage systems are installed, such systems shall be designed in accordance with the Board of Health, Town of Medfield, Massachusetts, Rules and Regulations and the Environmental Code, Title 5, Minimum Requirements for the Subsurface Disposal of Sanitary Sewage or amended code of the Department of Environmental Protection, Commonwealth of Massachusetts, and shall be subject to the approval of the Board of Health.

F. Utilities.

- (1) Electricity.
 - (a) Electrical power lines shall be installed underground in PVC conduit as shown on diagrams entitled Typical Roadway Cross Sections, Plates 3A, 3B and 4, in accordance with the requirements of the electrical company serving Medfield. Service shall be provided in conduit to each lot fronting on the street layout.
 - (b) Electric service shall be supplied to proposed light installations as shown on the approved plan.
 - (c) At least two ties shall be shown to each electric service lot connection and streetlight service.
- (2) Telephone. Telephone lines shall be installed underground as shown on diagrams entitled Typical Roadway Cross Sections, Plates 3A, 3B and 4, in accordance with the requirements of the telephone company serving Medfield. Service shall be provided to each lot fronting on the street.
- (3) Gas. Gas supply lines shall be installed underground and in accordance with the requirements of the gas company serving Medfield and as shown on the Typical Roadway Cross Sections, Plates 3A, 3B and 4.
- (4) Cable. Cable television lines shall be installed underground as shown on diagrams entitled Typical Roadway Cross Sections, Plates 3A, 3B and 4, in accordance with the requirements of the cable company serving Medfield. Service shall be provided to each lot fronting on the street.

Comment [43]: Editor's Note: Plates 3A, 3B and 4 are included as attachments to this chapter.

Comment [44]: Editor's Note: Plates 3A, 3B and 4 are included as attachments to this chapter.

Comment [45]: Editor's Note: Plates 3A, 3B and 4 are included as attachments to this chapter.

Comment [46]: Editor's Note: Plates 3A, 3B and 4 are included as attachments to this chapter.

§ 310-5.3 Construction requirements.

- A. Sidewalk construction requirements. The gravel base shall be laid in two lifts of four inches each and compacted with a mechanical compactor with a minimum centrifugal force of 2,500 pounds.
- B. Inspection and control.

- (1) The applicant shall employ, at his or her own expense, an engineer to set all lines and grades in a manner satisfactory to the ~~Highway Superintendent~~Director of Public Works ~~Director of Public Works~~ and the Board.
- (2) The contractor shall notify the ~~Highway Superintendent~~Director of Public Works ~~Director of Public Works~~ when each stage of construction is completed and ready for inspection.
- (3) No succeeding operation shall be started until the prior operation has been approved by the ~~Highway Superintendent~~Director of Public Works or the Board. The contractor shall give the ~~Highway Superintendent~~Director of Public Works a 24-hour written notice in hand when an inspection is required.
- (4) The applicant shall employ, at his or her own expense, a recognized testing laboratory, acceptable to the ~~Highway Superintendent~~Director of Public Works and the Board, to design, test and certify in writing to the ~~Highway Superintendent~~Director of Public Works and to the Board that the following materials, the aggregate base course, the binder course, the surface course, the sidewalk course, and the curbing mixture, are in conformance and are installed as specified in these rules and regulations.
- (5) The Board may, at the applicant's expense, require core tests to assure itself that the minimum amount of bituminous concrete has been uniformly spread through the roadway.
 - (a) At intervals of 50 feet or less, tests shall be made in the area of both gutters and the crown. It shall be the applicant's contractor's responsibility to provide suitable and acceptable coring equipment.
 - (b) The Board or its representative shall be present when the sampling is made.
 - (c) It is the applicant's responsibility to collect the weight slips and turn them over to the ~~Highway Superintendent~~Director of Public Works for computation.
- (6) Damage to pavement. If upon the completion of the top course the surface is marred, gouged, cut or otherwise damaged, a minimum of 1/2 inch of "surface treatment" mix shall be evenly spread over the damaged area to provide a smooth surface as directed by the Planning Board or its agent.
- C. Temporary barriers. During construction of streets, temporary street barriers of a form acceptable to the Fire and Police Chiefs shall be erected and maintained to prevent public vehicular access to portions of streets where no occupied structure is present.
- D. Cleaning up.
 - (1) The entire area within the street layout and required slopes and easements must be cleaned up so as to leave a neat and orderly appearance free from debris and other objectionable materials.
 - (2) Following the completion of this and all other items of work, a final inspection shall be made by the ~~Highway Superintendent~~Director of Public Works and the Board's representative.
- E. Stump removal. All stumps removed in conjunction with construction of the subdivision shall be disposed of off site in a Department of Environmental Protection approved disposal site.
- F. Sanitary facilities. The applicant shall provide, at his or her own expense, temporary sanitary facilities for all personnel either directly or indirectly under his or her employment and shall be responsible for proper use of such facilities.
- G. Erosion control. The erosion control plan must be implemented as approved. In the event the plan does not adequately control and prevent erosion, the Board reserves the right to require the plan to be amended.

Comment [SR47]: Consider adding - Perform routine soil analysis and soil organic matter testing on existing topsoil and new loam. Tests shall be performed by the UMASS Soil and Plant nutrient testing Laboratory in Amherst, MA.

Attachments:

[Table 1, Street Design Standards](#)

[Table 2, Values of Maximum Superelevation](#)

[Appendix A, Fee Schedule](#)

[Appendix B, Forms](#)

[Appendix C, Plates](#)