



RULES AND REGULATIONS

Of The

PLANNING BOARD

Of The

TOWN OF MARSHFIELD

MASSACHUSETTS

UNDER THE SUBDIVISION CONTROL LAW

SUBDIVISION RULES AND REGULATIONS

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1. INTRODUCTION

1.1 AUTHORITY

Under the authority vested in the Marsh-field Planning Board, or its legally constituted successor, by Section 81-Q of Chapter 41 of the General Laws, as amended, said Board hereby adopts these Rules and Regulations governing the subdivision of land in the Town of Marshfield. Such Rules and Regulations shall supersede and replace any previously adopted Subdivision Control Law Rules and Regulations; and may be amended in accordance with the provisions of Section 81-Q of said General Laws.

1.2 PURPOSE

"The subdivision control law has been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of the Town 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 subdivisions and, in proper cases, parks and open areas. The powers of the Board under the Subdivision Control Law shall be exercised with due regard for the provision of adequate access to all of the lots in a subdivision by ways that will be safe and convenient for travel, for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic and other emergencies; for insuring compliance with the applicable zoning ordinances or by-laws; for securing adequate provision for water, sewerage, drainage, and other requirements where necessary, in a subdivision; and for coordinating the ways in a subdivision with each other and with the public ways in the Town and with the ways in neighboring subdivisions."

1.3 GENERAL

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

After the approval of such plan, the location and width of ways shown thereon shall not be changed without the approval of the Board; but the number, shape and size of the lots shown on the plan so approved may be changed without action by the Board, provided every lot so changed still has frontage on a public way or a way shown on a plan approved by the Board and such frontage and the size of the lots complies with applicable Zoning By-laws of the Town of Marshfield.

2. DEFINITIONS

AASHTO: A policy on geometric design of highways and streets developed by AASHTO for highway materials and methods of sampling testing adopted by the American Association of State Highway and Transportation Officials.

ACI: Manual of Concrete practice published by the American Concrete Institute.

APPLICANT: "Applicant" shall include an owner, or his agent or representative, or his assigns.

AREA OF SINGLE ACCESS: A permanent or temporary, dead-end street, or series of dead-end streets intersecting with each other in such a way as to provide sole access to and from an existing street, for not more than eight dwellings, total. This category, is meant to include, but not be limited to cul-de-sac, loop, hammerhead turnarounds, and other dead-end street types.

ASTM: Standard Specifications published by the American Society for testing and materials.

BOARD: The Planning Board of the Town of Marshfield.

DEAD-END: See Definitions of Area of Single Access above.

DEFINITIVE PLAN: The plan of a subdivision as submitted (with appropriate application) to the Board for approval, to be recorded in the Registry of Deeds or Filed with the Recorder of the Land Court when approved by the Board, and such plan when approved and recorded or filed. The requirements and content of the Definitive Plan shall be as specified hereinafter.

DEPARTMENT SPECIFICATIONS: The Standard Specifications for Highways and Bridges of the Massachusetts Highway Department, dated 1973, including all revisions thereto.

DEPARTMENTS' STANDARDS: The Construction Standards of 1977 of the Massachusetts Highway Department, as most recently amended.

DETENTION FACILITY: A man-made basin, diked area, depression and/or related structures for the purpose of slowing the rate at which storm water is discharged from the site, and which may involve temporary backup of water during and immediately following a storm event.

EMERGENCY ACCESS: A secondary, means of ingress to/egress from a development, residential, commercial or industrial, which provides year round, 24 hour per day access open to all residents, visitors, employees, patrons, and services of the development, and which provides standard construction quality' as to materials, depths and thicknesses prescribed in Section IV of these Regulations.

ENGINEER: A Registered Professional Civil Engineer in the Commonwealth of Massachusetts experienced in the phases of civil engineering related to subdivision planning and design.

FRONTAGE: For the purpose of these Regulations, physical access, or the demonstrated feasibility, of safe physical access, to a property from a street designed for such purposes, i.e. Collector and Minor Residential Streets excluding wetlands, ledge, and areas of slope in excess of 10%.

GENERAL LAWS: The General Laws of the Commonwealth with all additions thereto and amendments thereof. In case of a rearrangement of the General Laws, any citation of particular sections of the General Laws shall be applicable to the corresponding sections in the new codification.

HIGH WATER: In coastal areas subject to tidal action, high water shall be the level of the Spring High Tides; for inland waters, high water shall mean the elevation as shown on the U.S. Department of Housing and Urban Development, Flood Insurance Rate Map (FIRM) as most recently amended, or, the elevation as determined by the Marshfield Conservation Administrator. Whereas the latter determination is the more site specific, it shall supersede the F.I.R.M. in the event of any conflict.

LAND SURVEYOR: A person who is a Registered Land Surveyor in the Commonwealth of Massachusetts.

LAYOUT: The full strip of land designated as a way or street as distinguished from the roadway. A way.

LOT: "Lot" shall mean an area of land in one ownership, with definite boundaries, used, or available for use, as the site of one or more buildings.

MUNICIPAL SERVICES: Sewers, pump stations, surface water drainage systems, water pipes, gas pipes, streets, sidewalks, electric lines, telephone lines, fire alarm facilities, and their respective appurtenances.

OWNER: As applied to real estate, the person (as hereinafter defined) holding the ultimate fee simple title to a parcel, tract or lot of land, as shown by the record in the appropriate Land Registration Office, Registry of Deeds, or Registry of Probate.

PERSON: An individual to two or more individuals, or a group or association of individuals, a trust, a partnership, or a corporation having common or undivided interests in a tract of land.

PLANNING BOARD ENGINEER: A Massachusetts Registered Professional Civil Engineer so designated by the Board to act as their agent in that capacity.

PRELIMINARY PLAN: A plan of a proposed subdivision or a resubdivision of land prepared in accordance with Section II under procedure, to facilitate proper preparation of a Definitive Plan.

PRINT: A contact print, dark line on white background.

RETENTION FACILITY: A man-made basin, depression, dike, and/or related structure for the purpose of detaining or impounding storm water on a site, but which has no free flowing outlet, e.g. a pipe or weir, to allow storm water from small storm events to be discharged to a natural water course or wetland. Leaching pits, or similar ground discharge structures, shall not constitute an outlet in the meaning of this definition.

ROADWAY: That portion of a way, which is designed and prepared for vehicular travel. The "traveled way".

STREET:

Expressway (Freeway): A divided, limited access highway used exclusively for inter-local and interstate travel, and providing grade separated intersections. Example: Route 3.

Arterial (Primary or Major) Street: A street which, in the opinion of the Board, is being used, or will be used as a thoroughfare between different portions of the Town. Arterials interconnect the principal traffic generators within the town as well as important rural routes. Residential development should be served from a side street, and a detailed traffic analysis should be made to determine how best to serve the commercial property - whether from service roads, special entrances, or side streets. Examples: Rte. 139

(Plain Street, Careswell Street and Ocean Street); Rte. 3A (Main and Moraine Streets), Union, Furnace, and Acorn Street.

Secondary (Major Collector) Street: A street intercepting several minor collector streets or which will be the principal access to a business or industrial subdivision and which, in the opinion of the Board, may carry traffic from such collector streets to a major street or community facility. Examples: Pine, Oak, Ferry, Summer, Elm, So. River, Church, Clay Pit, School, Prospect, Forest, Highland, Spring, Old Ocean, Mt. Skirgo, Winslow, Parsonage, Webster, Canal, and Enterprise Drive.

Residential Streets:

TYPE "A" - Serving 5 or less houses; typically a dead-end street, with no chance of being extended into adjoining undeveloped land; R-1 and R-2 Zoning Districts; one sidewalk required.

TYPE "B" - Serving 8 or less houses; typically a dead-end street; R-3 Zoning District; one sidewalk required.

TYPE "C" - Serving less than 25 houses; two sidewalks required; all zoning districts.

TYPE "D" - Serving 25 or more houses; includes the principal access street for circulation Within a large residential subdivision, or one which is planned to be extended to serve adjoining undeveloped land; two sidewalks required; all zoning districts.

SUBDIVISION: The division of a tract of land into two or more lots and as further defined in Section 81-L, Chapter 41, M.G.L.

SUBDIVISION CONTROL LAW: Section 81K through 81GG, inclusive or said Chapter 41, M.G.L. as now in force, and any acts in amendment thereof.

TRAVELLED WAY: That portion of a way, which is designed and prepared for vehicular travel. The "Roadway".

WAY: The full strip of land designated as a way or street as distinguished from the roadway. The "Layout".

3. PROCEDURE FOR THE SUBMISSION AND APPROVAL OF PLANS

3.1 PLAN BELIEVED NOT TO REQUIRE APPROVAL

Any person wishing to cause to be recorded a plan of land who believes that his plan does not require approval under the Subdivision Control Law, may submit his plan together with a one hundred dollars (\$100) plus one hundred fifty dollars (\$150) for each buildable lot filing fee, seven (7) contact prints of said plan for the Board's use, accompanied by the necessary' evidence to show that the plan does not require approval. Said person shall file with the Town Clerk and the Board by delivery or by registered or certified mail, postage prepaid, an application (Form A).

If the Board determines that the plan does not require approval under the Subdivision Control Law, it shall without a public hearing and within twenty-one (21) days of submission cause to be endorsed thereon the words: "Approval Under the Subdivision Control Law- Not Required." Said plan shall be certified by the Board and returned. If the Board determines that the plan does require approval under the Subdivision Control Law, it shall within twenty-one (21) days of submission of said plan give written notice to the Town Clerk and the person submitting the plan.

In determining whether a way in existence when the Subdivision Control Law became effective in the Town is adequate to qualify a plan as not constituting a subdivision, the Board shall take into consideration the following factors, among others:

1. Whether the right-of-way is at least 24 feet wide as required by the Zoning Bylaw;
2. Whether the existing horizontal and vertical alignment of the roadway provides safe visibility; and
3. Whether the roadway is at least 20 feet wide and paved, with adequate provisions for drainage.

Said plan shall include the following:

3.1.1 The following Statement;" Planning Board endorsement of this plan indicates only that the plan is not a subdivision under M.G.L. Ch. 41, Sec. 81L, and does not indicate that the lot is buildable, or that it meets Zoning, Health, Conservation or General bylaw requirements."

3.1.2 Title, date, scale, legend, North arrow, Locus map, existing buildings and structures, existing septic systems, stone walls, easements, and wetlands as delineated under The Zoning by-law, and/or MGL Ch.131, S. 40,and the Town of Marshfield wetland by-law. Base flood elevation data, as shown on the Flood Insurance Rate Map, as most recently revised, published by the U.S. Department of Housing and Urban Development, shall be provided. The scale of said plan shall be one (1) inch equals forty (40) feet or such other scale as shall be deemed appropriate by the Planning Board to show the property, and the above required information conveniently. Plans shall be in accordance with Chapter 36, Section 13A of the General Laws as amended. Applications which are found to be incomplete shall be returned to the applicant without the endorsement of the Board with the finding that insufficient information has been provided to determine whether or not the plan constitutes a subdivision in the meaning of Ch.41, Sec. 81L, M.G.L.

3.1.3 The entire parcel(s) subject to the application.

3 -2 PRELIMINARY PLAN

Applicants are encouraged to meet with the Board for pre-preliminary discussions with conceptual

subdivision plans. The purpose of such discussions is to identify, potential problems or concerns prior to the applicant expending funds for the filing of preliminary, or definitive plans.

3.2.1 General: A preliminary plan of a subdivision may be submitted by the applicant for discussion, approval, conditional approval, or disapproval by the Board. An applicant shall demonstrate ownership of the fee interest on the land in question or else document that (s)he is acting as the duly authorized agent of said owner by means of a notarized letter so stating. Eight (8) copies of the plan shall be submitted to the Board and written notice of such submission made to the Town Clerk by delivery, or by registered or certified mail, postage prepaid.

a. Fees, Administrative/Staff Review:

(i) Every preliminary plan shall be subject to the following filing fee:

	0-20 Acres	21-30 Acres	31+ Acres
Preliminary Plan	\$600	\$750.	\$900.

(ii) Any change deemed to be significant by the Planning Board, such as a new roadway location or connection, shall require a new submission and filing fee as required above. The Board may, at its discretion, waive filing fees where changes to plans are required through circumstances beyond the control or design responsibility of the applicant.

b. Fees, Consultant Review/Special Accounts:

(i) Every preliminary plan shall be required to file the following minimum review fee to establish an individual special account.

Preliminary Plan	0-20 Acres	21-30 Acres	31+ Acres
	\$2,000.	\$2,500.	\$3,000.

(ii) Where specific conditions arising from the land or the nature of the proposal necessitate the assistance of a planning, engineering, traffic, soils, hydrologic or other consultants, the Planning Board may engage such consultant services to assist the Board in analyzing a project to ensure compliance with all relevant laws, ordinances, bylaws and regulations. The Board may require that applicants pay a "review fee" consisting of the reasonable costs recurred by the Board for the employment of outside consultants engaged by the Board to assist in the review of the application.

(iii) Funds received by the Board pursuant to this section shall be deposited with the municipal treasurer who shall establish a special account for this purpose. Expenditures from this special account may be made at the direction of the board without further appropriation. Expenditures from this special account shall be made only in connection with the review of a specific project or projects for which a review fee has been or will be collected from the applicant. Failure of an applicant to pay a review fee shall be grounds for denial of the application or permit.

(iv) Review fees may only be spent for services rendered in connection with the specific project from which they were collected. Accrued interest may also be spent for this purpose. At the completion of the Board's review of a project, any excess amount in the account, including interest, attributable to a specific project shall be repaid to the applicant or the applicant's successor in interest. A final report of said account shall be made available to the applicant or the applicant's successor in interest. For the purpose of this regulation, any person or entity claiming to be an applicant's successor in interest shall provide the board with documentation establishing such succession in interest.

(v) Any applicant may take an administrative appeal from the selection of the outside consultant to the Board of Selectmen, providing that such appeal is taken within 14 days of notification of the Board's appointment of the consultant. The grounds for such an appeal shall be limited to claims that the consultant selected has a conflict of interest or does not possess the minimum required qualifications. The minimum qualifications shall consist either of an educational degree in, or related to, the field at issue or three or more years of practice in the field at issue or a closely related field. The required time limit for action upon an application by the Board shall be extended by the duration of the administrative appeal. In the event that the Board of Selectmen makes no decision within one-month following the filing of the appeal, the selection made by the Board shall stand.

3.2.2 Contents: The Preliminary Plan so titled shall be drawn at a scale of one (1) inch to each forty (40) feet. Said Preliminary Plan should show sufficient information about the subdivision to form a clear basis for discussion of its problems and for the preparation of the Definitive Plan. The necessary information should include all pertinent data on nearby property, which would have an effect on, or be affected by, the subdivision. The plan shall be prepared by an Engineer and Land Surveyor, registered in Massachusetts, shall be clearly and legibly drawn in black India ink upon tracing cloth or mylar, and shall bear a certification signed by the Land surveyor on the title sheet stating that the plan is derived from an actual survey made on the ground according to Planning Board and State standards. All surveying shall conform to the requirements of the Land Court, Class A, as set forth in the manual of said Court, from time to time current. Plans shall conform to Chapter 36, Section 13A of the General Laws, and shall be twenty-four (24) inches wide and thirty, six (36) inches long. If multiple sheets are required, they shall be numbered consecutively in the upper right hand corner and they shall be accompanied by an index sheet showing the entire subdivision. The index sheet shall contain a key plan at one (1) inch equals one hundred (100) feet or as approved by the Board, indicating the location of each street. The Plan shall contain the following:

- a. Name of Subdivision, date, bar scale, name of applicant, engineer, North Point, bench marks, and Map Locus, an identification of the appropriate zoning district including, but not limited to, wetlands as delineated under Ch. 131 MGL and the Town of Marshfield Wetland By-Law, and any possible exceptions or conflicts with the Zoning By-Laws. All plans shall note that design and construction is to conform to the Rules and Regulations of the Board. A title block must appear on each page and suitable space provided to record the action of the Board and the signatures of the Board members on the first page thereof.
- b. Names of all abutters as they appear on the most recent tax list and approximate intersecting boundary lines of abutting lands. All contiguous property, owned by the applicant shall be included in the plan regardless of whether or not a substantial portion of the applicant's remaining land remains undivided. Such remaining area shall be considered as a single lot, requiring approval as a resubdivision before further division of the remaining area occurs.
- c. Lines of existing and proposed streets, ways, lots, easements, and public or common areas with the subdivision.
- d. Sufficient data to determine the minimum lot areas and zoning dimensional compliance of lots within or affected by the subdivision.
- e. Location of all permanent monuments as defined in "Design Standards and Required Improvements" properly identified as to whether existing or proposed.
- f. A sketch plan showing tracts of land, ownership, and topography at no less than 2 foot contour, the location, names and present widths of the Secondary Streets bounding, approaching or within

reasonable proximity of the subdivision.

- g. Size and location of existing and proposed storm drains, water main locations, utilities within and adjacent to the subdivision. (Refer to design standards herein).
- h. Location of and distance from sources of private and the nearest public water supply in accordance with the Rules and Regulations of the Board of Health.
- i. Major site features such as existing easements, stone walls, fences, buildings, other structures, historic structures, vistas, areas of unique vegetation, existing septic systems, wooded areas, rock ridges and rock outcroppings, swamps, marshes, water bodies, wetlands as cited in 3.1.2., and existing topography as required. During discussion of the Preliminary Plan, the complete information required for the Definitive Plan will be developed.
- j. Base flood elevation data, as shown on the Flood Insurance Rate map, as most recently revised, published the U.S. Department of Housing and Urban Development.
 - (i) All proposed ways are to be referred to in all preliminary plans by approximate street numbers in relation to existing public ways (e.g., 1100 Careswell Street instead of "Marsh Hill"). Said numbers are to be obtained from the office of the Town Engineer for Preliminary Plan purposes. Multiple streets within a proposed subdivision shall be referred to in a Preliminary Plan as Road "A,B,C", etc.
 - (ii) Upon submission of a formal Preliminary, Plan (Form B), the Planning Board shall refer the plan forthwith to the Historical Commission who shall make a recommendation to the Board within thirty days of the referral date as to proposed street names. If, in the Commission's view, the subject property has significant historical association, which merits preservation, it shall forward recommendations to the Planning Board. The Planning Board shall consider the significance of such associations as provided by the Commission in its final selection of street names. The applicant may provide suggestions to the Commission and directly to the Planning Board.
 - (iii) After the elapsing of thirty days from the date of referral to the Historical Commission, the Planning Board shall forward all recommendations acceptable to it to the Police and Fire Departments for their comment. Within the allowed 45 day review period for Preliminary Plan action, the Planning Board shall render its decision on street names as a part of its decision on the application.
 - (iv) The Board shall strive to select brief names for convenience and clarity, limiting length of names to one word, unless exceptional historic significance is shown.
 - (v) Hence forward, whether followed by a definitive plan or further preliminary' plans, the Town Engineer shall refer an applicant on the same parcel to the approved street name(s), unless in his judgment, new access or intervening circumstances warrant reconsideration. In that event, reference can again be made to the procedure under this section.

3.2.3 Approval or Disapproval: The Board shall, within forth-five (45) days after submission, give such Preliminary Plan its approval with or without modification, or shall disapprove such plan, stating its reasons. The Town Clerk shall be notified of the Board's decision in writing. Such approval is valid for seven (7) months and does not constitute approval of a subdivision, but does facilitate the procedure in

securing final approval of the Definitive Plan.

3.3 DEFINITIVE PLAN

3.3.1 General: All plans shall be submitted in accordance with Chapter 36, Section 13A, of the General Laws, as amended. A definitive plan of a subdivision may be submitted by the applicant for discussion, approval, conditional approval, or disapproval by the Board. An applicant shall demonstrate ownership of the fee interest on the land in question or else document that (s)he is acting as the duly authorized agent of said owner by means of a notarized letter so stating. Any person who submits a Definitive Plan of a subdivision for approval shall file with the following:

3.3.1 a. Definitive Subdivision Plan Submission Requirements

Definitive Subdivision Plan applicants shall submit to the Planning Board the following information in their application package:

Information Required	Number Required	Format
Definitive Subdivision Plan	14	24" x 36"
Definitive Subdivision Plan	7	11" x 17
Completed Application Form C - Definitive Subdivision Plan	2	Standard Form
Completed Definitive Subdivision Plan Form M – Submission Requirements Checklist.	1	Standard Form
Drainage Calculations	4	8.5" X 11" bound
If the property is located in the Water Resource Protection District, one extra set of 24" x 36" prints shall be submitted.		
If the property is located on a state road, Route 3A or Route 139, one extra set of 24" x 36" prints shall be submitted.		
If the property is located in an area within the sewer district, one extra set of 24" x 36" prints shall be submitted.		
If the property is located in the Water Resource Protection District, one additional copy of the drainage calculations shall be required.		

Waiver Requests

If any waivers from the Subdivision Rules and Regulations are requested, the applicant shall include a waiver request letter which lists all of the requested waivers and the reasons why waivers are requested. The waiver request letter shall state how it would be in the public's best interest to waive strict compliance with specific sections of the Subdivision Rules and Regulations

Town Clerk Copy

Following the submission of the application packages with the Planning Board, one complete application package must also be filed with the Town Clerk who will time and date stamp it and keep it for their records. This includes a copy of the drainage calculations. If the applicant would like a stamped application package for their records, an additional set should be provided to the Town Clerk.

Filing Fees:

The application package shall include the filing fee in the amount specified in the most recent fee schedule.

A separate check shall be provided for the cost of any consultants the Planning Board may retain to provide technical assistance in reviewing the subdivision plan. The amount of the consultant review fee is listed in the fee schedule based on the size of the development. Following action of the Planning Board on the subdivision application, any remaining funds in the consultant review fee account will be returned to the applicant, upon written request.

The definitive plan application fee and consultant review fee shall be submitted to the Planning Department in the form of a check made out to the Town of Marshfield.

Incomplete application packages will not be accepted by the Planning Department.

b. Special Permits

Where a Definitive Subdivision Plan also requires Special Permit approval in accordance with the Marshfield Zoning Bylaws, both applications shall be filed concurrently.

c. Inspection

At the time of construction, an inspector supplied by the Town shall be paid at the specified hourly rate by the Town to be reimbursed on at least a quarterly or monthly basis, as billed, by the Planning Office. Release from covenant or bond shall not be made until all inspection fees have been paid.

d. Administrative Expenses:

In addition, fees for the review and staff time required to process the Definitive Plan by the Planning, Health, Fire, Police, Highway, Sewer, Water, and Building/Zoning Departments, or consultants used in lieu of departmental staff, shall be as follows:

0 - 20 acres:	\$700.00
21 - 30 acres:	\$900.00
31 + acres:	\$1,200.00

The Board may reduce or waive the above Administrative Expenses if the applicant has previously filed a preliminary plan, which has been approved.

e. Testing:

The applicant shall pay expenses for subdivision inspection and/or testing to ensure the work conforms to the Rules and Regulations.

f. Review Fees/Special Accounts

Every definitive plan shall be required to file the following minimum review fee to establish an individual special account:

0 - 20 Acres	\$4,000.
21 - 30 Acres	\$6,000.
31 + Acres	\$8,000.

The Board may credit the review fee/special account by the amount paid for a preliminary

plan that has been approved.

- (i) Any change deemed to be significant by the Planning Board such as a new roadway location or connection, shall require a new submission and filing fees/review fees as required above. The Board may, at its discretion, waive filing fees where changes to plans are required through circumstances beyond the control or design responsibility of the applicant.
- (ii) Where specific conditions arising from the land or the nature of the proposal necessitate the assistance of a planning, engineering, traffic, soils, or other consultant to assist the Board in analyzing a project to ensure compliance with all relevant laws, ordinances, bylaws and regulations. The Board may require that applicants pay a "review fee" consisting of the reasonable costs incurred by the Board for employment of outside consultants engaged by the Board to assist in the review of the application.
- (iii) Funds received by the Board pursuant to this section shall be deposited with the municipal treasurer who shall establish a special account for this purpose. Expenditures from this special account may be made at the direction of the Board without further appropriation. Expenditures from this special account shall be made only in connection with the review of a specific project or projects for which a review fee has been or will be collected from the applicant. Failure of an applicant to pay a review fee shall be grounds for denial of the application or permit.
- (iv) Review fees may only be spent for services rendered in connection with the specific project from which they were collected. Accrued interest may also be spent for this purpose. At the completion of the Board's review of a project, any excess amount in the account, including interest, attributable to a specific project, shall be repaid to the applicant or the applicant's successor in interest. A final report of said account shall be made available to the applicant or the applicant's successor in interest. For the purpose of this regulation, any person or entity claiming to be an applicant's successor in interest shall provide the board with documentation establishing such succession in interest.
- (v) Any applicant may take an administrative appeal from the section of the outside consultant to the Board of Selectmen, providing that such appeal is taken within 14 days of notification of the Board's appointment of the consultant. The grounds for such an appeal shall be limited to claims that the consultants selected has a conflict of interest or does not possess the minimum educational degree in, or related to, the field at issue or three or more years of practice in the field at issue or a closely related field. The required time limit for action upon an application by the Board shall be extended by the duration of the administrative appeal. In the event that the Board of Selectmen makes no decision within one month following the filing of the appeal, the selection made by the Board shall stand.

3.3.2 Contents:

The Definitive Plan shall be prepared by an Engineer and Land Surveyor registered in Massachusetts, and shall be clearly and legibly drawn in black India ink upon tracing cloth, or reproducible mylar. All surveying shall conform to the requirements of the Land Court, Class A, as set forth in the manual of said Court, as updated from time to time. The plan shall be at scale of one (1) inch equals forty (40) feet. Plans shall conform to Chapter 36, Section 13A of the General Laws, and shall be twenty-four (24) inches wide and thirty-six (36) inches long. If multiple sheets are required, they shall be numbered consecutively in the upper right hand corner and they shall be accompanied by an index sheet showing the entire subdivision. The index sheet shall contain a key plan at one (1) inch equals one hundred (100) feet or as approved by the Board, indicating the location of each sheet. The Land Surveyor, in addition to providing me record plan mylars, is to provide at least two copies of his grid plan (working drawings) showing the perimeter survey traverse and all other data normally found on such plans.

The Definitive Plan shall contain the following:

a. Name of Subdivision, date, bar scale, name of applicant, engineer, North Point, bench marks, and Map Locus, an identification of the appropriate zoning district including, but not limited to, wetlands as delineated under Ch. 131 MGL and the Town of Marshfield Wetland By-Law, and any possible exceptions or conflicts with the Zoning By-Laws. All plans shall note that design and construction is to conform to the Rules and Regulations of the Board. A title block must appear on each page and suitable space provided to record the action of the Board and the signatures of the Board members on the first page thereof.

The following notations are to be provided on the first page of all Definitive Subdivision Plans:

Subject to a covenant duly executed, dated the _____ day of 20____, running with the land, to be duly recorded by or for the owner of record.

This plan is subject to all conditions of the Marshfield Planning Board Certificate of Action dated_____, filed with the Marshfield Town Clerk on_____and herewith recorded as a part of this plan.

I hereby certify that there has been no appeal taken to this Planning Board Action during the 20 statutory appeal period.

Date: _____

Town Clerk, Town of Marshfield

I certify that this survey was made on the ground in accordance with the standards of the Land Court Instructions of 1989 on or between_____and_____.

DATE: _____

(Signature of Professional Land Surveyor)

I certify that all design and construction as presented conforms to the Rules and Regulations of the Planning Board with no exceptions or conflicts except as listed below.

Separate plan-profile drawings of all proposed streets shall be submitted with the subdivision plan. They shall show and identify all existing and proposed utilities and construction items, including dimensions, pertinent to the road construction.

- b. Names of all abutters as they appear in the most recent tax list and approximate intersecting boundary lines of abutting lands. All contiguous property owned by the applicant shall be included in the plan regardless of whether or not a substantial portion of the applicant's land remains undivided. Such remaining area shall be considered as a single lot, requiring approval as a resubdivision before further division of the remaining area occurs.
- c. Lines of existing and proposed streets, ways, lots, easements, and public or common areas within the subdivision. Where a Definitive Plan is not preceded by a Preliminary Plan, reference shall be made to Section III.B.2 for street naming procedures. Definitive Plans shall show the proposed sitting of dwellings, grading, and numbering of each dwelling. Numbering shall be obtained from the office of the Town Engineer prior to Definitive Plan submission.
- d. Sufficient data to determine the location, elevation, direction and length of every street and way line, lot line, and boundary line, and to establish these lines on the ground.
- e. Location of all permanent monuments as defined in "Design Standards and Required Improvements" properly identified as to whether existing or proposed.
- f. Location, names and present widths of streets bounding, approaching or within reasonable proximity, of the subdivision.
- g. Size and location of existing and proposed storm drains, water mains, utilities and their appurtenances, including hydrants, within and adjacent to the subdivision. (Refer to Design Standard Herein). The applicant shall submit calculations for the determination of all waterway openings to justify culvert and drain sizes as hereinafter set forth. A Registered Professional Engineer shall prepare such calculations.
- h. Location of sources of private water supply, nearest public water supply source, and existing septic systems in accordance with the Rules and Regulations of the Board of Health.
- i. Location of approved percolation test pits and deep observation pits, if any, in accordance with the Rules and Regulations of the Board of Health. Whether or not septic systems are proposed, general soil logs and groundwater profiles shall be shown based on on-site observation pits and/or wells and/or percolation test. Soil logs shall be sufficient in detail to show the depth of organic matter, subsoil thickness, and depth to bedrock (up to 8'), as well as percent composition of soil and subsoil types. Locations of test pits shall be adequately distributed throughout the land area to the satisfaction of the Planning Board, providing at least one test hole per every two lots, and one per each 500' of proposed roadway. The Board may require additional soil boring, probings and

test pits, additional soils tests, and submission of a foundation design report from a Massachusetts Geotechnical Engineer demonstrating that the existing soils will provide adequate support for pavements and utilities.

- j. Locations of proposed sewage disposal facilities with the elevation of the bottom of the leaching bed or trenches shown.
- k. Profile plans of proposed streets drawn as follows:
 - (i) A horizontal scale of one-inch (1") equals forty feet (40').
 - (ii) A vertical scale of one inch (1 ") equals four feet (4').
 - (iii) Existing centerline in the fine solid line.
 - (iv) Existing right sideline in fine dotted line.
 - (v) Existing left sideline in dashed line.
 - (vi) Proposed centerline grades in heavy lines, all appropriately designated showing grade elevations at every fifty (50) foot station, except on vertical curves where they shall be shown at every twenty-five (25) foot station and at P.V.C. and P.V.T.
 - (vii) Proposed system of drainage, including catch basins, manholes, and proposed inverts, and pipe sizes.
 - (viii) All existing intersecting walks and driveways.
 - (ix) The elevation datum shall be mean sea level as determined from U.S.G.S. benchmarks. One benchmark for each 1000 feet of roadway, with a minimum of 3, must be established and preserved for construction purposes.
 - (x) Rates of gradient shown by figures for roadways, drainage, and driveways.
 - (xi) Road profiles must have been obtained from field survey.
 - (xii) All road centerlines must have been staked out on the ground and clearly marked with station numbers two weeks prior to public hearing.
- l. Typical section of proposed streets shown on a profile plan in accordance with typical cross-section as shown in Appendix, showing construction and all proposed and required utilities.
- m. Profiles and cross-sections of drainage easements where applicable.
- n. Existing and proposed topography as follows:

The contour intervals shall be one foot (1) where slopes are less than 5% and two feet (2') on slopes 5 % or greater; distinguishable line densities shall be used to show the difference between 1 and 2 foot contours. The topographic maps shall meet National Map Accuracy Standards as defined by the U.S. Geological Survey, and shall have been derived wholly from on-ground instrument surveys. Elevations shall be based upon U.S.G.S. National Geodetic Vertical Datum (NGVD) and permanent benchmarks shall be identified that are outside the limits of work. A reasonable number of permanent benchmarks, to be determined by the Planning Board through consultation with the Planning Board Engineer shall be established on the site for convenient elevation reference during and after road construction. Existing contours are to be shown as dashed lines, and proposed final contours as solid lines. Topographic plans shall extend beyond the limits of the site as far as may be necessary to provide information relative to the project, but in no case shall extend for less than one hundred feet, and shall include but not be limited to all natural features such as stone walls, fences, buildings, historic structures, vistas, areas of unique

vegetation, wells, septic systems, utilities, existing water bodies, natural waterways, swamps, wetlands (as defined under Ch. 131, M.G.L., the Local Wetlands By-Law and Zoning ByLaw), marshlands, and flood plains, (as shown on the Federal Insurance Rate Map as most recently amended) within and adjacent to the subdivision. The topographic plan is to be provided with the following certification:

"I certify that the topographic information on this plan was derived wholly from an on ground instrument survey and that the datum was obtained from U. S. G. S. Bench Mark # " _____

DATE: _____

(Signature of Professional Land Surveyor)

- o. Landscaping and planting plan, showing treatment of all planting strips, roadway islands and medians, and disturbed slope areas by species, location, size and quantity.
- p. Base flood elevation data shall be provided for subdivision proposals and other proposed development.
- q. A sketch plan showing a feasible, prospective street layout for any adjacent unsubdivided land whether or not owned by the applicant unless such a plan has already been filed with the Board.
- r. An erosion control and construction management plan showing the construction methods, scheduling (including any necessary or proposed phasing of work), winter stabilization measures, and location of necessary water pollution and erosion control methods.
- s. Designation of temporary stump storage or spoils material area, in accordance with local and state regulations.
- t. The completed Form M checklist of required items under the provisions of these regulations demonstrating the completeness of the submission for review.
- u. The proposed siting of dwellings, grading and numbering of each lot (as obtained from the Department of Public Works).
- v. Location on the plan and draft language for easements for utilities, drainage or any necessary off-site uses, improvements or structures. In the case of any necessary off-site easements, such as for drainage, water mains, or other needs, copies of the fully executed easements must be provided to the Board prior to final plan endorsement.
- w. Location on the plan and draft easement or conservation restriction language for any proposed open space. Final language shall be provided prior to final endorsement.
- x. Sufficient data to determine the minimum lot areas and zoning dimensional compliance of lots within or affected by the subdivision.

In case a tract is subdivided into parcels larger than normal building lots, the Board may decline to approve the plan unless such parcels are arranged so as to allow the opening of proper furore ways and logical and proper subdivision.

3.3.3 Public Hearing: Before approval, modification and approval or disapproval of the Definitive Plan

is given, a Public Hearing shall be held. Notice of the time and place of the hearing and of the subject matter sufficient for identification shall be given by the Board by advertisement in a newspaper of general circulation in the Town of Marshfield once a week for two successive weeks, the first publication being not less than 14 days before the day of the hearing. The applicant is responsible for preparing notices to abutters by certified mail, return receipt requested. The prepared notice shall then be verified by the Planning Board or its agent before being mailed by the applicant. Return receipts are to be addressed to the Planning Board for further verification. The notice shall be mailed to the abutters by certified mail not less than ten (10) days before the date of the hearing. A copy of said notice shall be mailed to all owners of land abutting the subdivision as appearing in the most recent tax list. Failure to do so will result in the continuation of the public hearing.

3.3.4 Review by Board of Health as to Suitability of the Land: The Board of Health shall report to the Board in writing, giving its approval or disapproval of the plan in accordance with the State Environmental Code, Title V, copies of which are available from the Board of Health. In the event of disapproval, they shall make specific findings as to which, if any of the lots shown on the plan, cannot be used for building sites. Such conditions shall be noted on the plans, specifying the lots or land to which said condition applies. The Planning Board shall not approve any plan that is disapproved by the Board of Health. Every lot shall be approved with a connection with a municipal sewer or septic system acceptable to the Board of Health.

3.3.5 Performance Guarantee: Before endorsement of a plan, the Board shall require provision for the construction of ways and installation of municipal services in accordance with the rules and retaliations of the Board. Such construction and installation shall be secured by one, or in part one and in part the other, of the methods described in the following clauses (a & b), which method may be selected and from time to time varied by the applicant.

- a. Approval by Bond of Money or Negotiable Securities-bond or a deposit of 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 as shown on the Definitive Plan and as specified in the Rules and Regulations. Detailed cost estimated for all improvements shall be submitted by the applicant's professional engineer to the Board for review. If said estimates are found by the Board and its engineer to be unsatisfactorily low, a revised estimate satisfactory to the Board will be required. Such bond or security, if filed or deposited, shall be approved as to form and manner of execution by the Board and by Town Counsel and, in addition as to sureties by the Town Accountant, and shall be contingent on the completion of such improvements within one (1) year of the date of the bond. At the discretion of the Board, time extensions may be granted for periods of one (1) year; provided that such an extension may be conditioned upon an increase in the amount of such bond or security as determined by the Board. The penal sum of any such bond, or the amount of any deposit held may - from time to time - be reduced by the Board, and obligations of the parties thereto released in whole or in part.
- b. Approval by Covenant - Instead of filing a bond or depositing money or negotiable securities, the applicant may provide covenant restrictions. Such covenant, executed and duly recorded by owner of record, running with the land, shall provide that construction of ways and installation of municipal services shall be provided for the entire subdivision before any lot may be built upon or conveyed. For corporations registered in Massachusetts, covenant documents shall be executed by any two of the following officers, or by evidence of corporate vote: President, Vice President, or Treasurer. Such a covenant shall comply with the requirements of Chapter 377 of the Acts of 1958. Any covenant given shall be either inscribed on the plan or contained in a separate document referred to on the plan. Before any lot is released from the covenant restrictions, the construction of subdivision improvements for the segment of the street

providing frontage for said lots and for all roadway segments connecting said lots to the roadway system of the Town shall be complete, with respect to all utilities, curbing, drainage, roadway base course, and roadway pavement binder course.

3.3.6 Certificate of Approval, Modification, or Disapproval: The action of the Board in respect to such plan, as to approval, modification or disapproval thereof, shall be by vote, copies of which shall be certified and filed with the Town Clerk, and sent by delivery or Registered Mail, postage prepaid, to the applicant. If the Board modifies or disapproves such plan, it shall state in its vote the reasons for its decision. 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 (20) appeal period has elapsed following the filing of the Certificate of Action of the Board with the Town Clerk, and said Clerk has notified the Board that no appeal has been filed. The Town Clerk shall endorse on the plan or record separately, and refer to on said plan the fact that no notice of appeal was received during the twenty days of the plan. Endorsement and recording of final plans must occur within six (6) months of the filing of the decision with the Town Clerk or the Planning Board may vote to revoke its approval of the plan. Any definitive plan evolved from the submission of a preliminary plan which has received approval, with or without modifications, shall be governed by the rules and regulations relative to subdivision control in effect at the time of submission of the preliminary plan, provided that the definitive plan is duly submitted within seven (7) months from the date on which the preliminary plan was submitted.

Failure of the Board to take final action regarding a definitive plan within 90 days when the plan was preceded by a preliminary plan or within 135 days when not preceded by a preliminary plan, 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. After the Definitive Plan has been approved and endorsed, the applicant shall furnish the Board with four (4) prints thereof.

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

Approval in all cases is granted for a two year period from the date of such approval and if a development is not completed in its entirety in that time, the applicant must again petition the Board for action on the undeveloped portion.

The Board may grant extensions of this two year deadline if petitions for such extensions are received prior to the expiration of the two year period. After expiration of the two year period, the Board shall conduct a public hearing on the petition for action on the undeveloped portion and may make revisions to the approval to reflect current conditions.

3.3.6 (a) Subdivision Reinstatement: In the event that the subdivision approval has expired beyond the two (2) year period for completion, the applicant shall pay an administrative fee of \$300 and all costs associated with re-advertising the public hearing.

3.3.6 (b) Subdivision Modifications: Any proposed modification to conditions of approval or a major modification that triggers the need for a public hearing will require an administrative fee in the amount of four hundred dollars (\$400).

3.3.7 Payment of Taxes Prior to endorsement of subdivision plans, applicants shall provide the Planning Board with a current (within one month) Municipal Lien Certificate demonstrating that all taxes have been paid in full on the property subject to the certificate of action.

3.3.8 Recording of Certificate of Action, Plans and Associated Documents.

The applicant is responsible for recording at their cost all approved definitive subdivision plans, Certificate of Action, all easements, covenants, Declaration of Home Owner's Associations and any other documents which require recording at the Registry of Deeds or Land Court. Following recording, the applicant shall provide proof of recording to the Planning Board.

3.3.9 Minor Changes. Plan Revisions. Incomplete Submissions:

Definitive Plans submitted to the Planning Board for review under the Town Clerk's stamp may not be revised without the consent of the Board, and only as discussed in public session at the public hearing. Any such changes shall be prominently noted on the plan set cover sheet, and on any individual sheets affected so as to make clear the plan of record on which the action of the Board is being requested.

- a. Minor changes may be allowed by the vote of the Board at any time after the public hearing, again with the required notations on coversheet and affected plan sheets. A minor change is defined by the Board as a change which has no discernable impact outside the subdivision, does not increase rates or volumes of storm-water runoff, does not increase the amount of cut or fill required, or does not involve regrading of more than two lots nor more than 200 linear feet of roadway within the subdivision. The Planning Board shall determine, in its opinion, if plan revisions are minor changes, or constitute major changes requiring re-filing and rehearing.
- b. The Board reserves the right to disapprove incomplete submissions at any time if, in its opinion, review of the plan is hampered by the absence of required information. In the event of such disapproval, the plans shall be returned to the applicant as incomplete, and a copy of the certificate of action filed with the Town Clerk noting the reason for the Board's action. The Board also reserves the right to retain any filing and review fees., or to reimburse any portion of such fees to the applicant, based on the extent to which the review has proceeded and to cover administrative costs of filing, notification, distribution, etc.

3.3.10 Prohibited Activities: Site preparation, tree cutting, filling, grading and other work done in anticipation of the subdivision plan approval should not be performed prior to the submission and approval of a definitive plan. The Planning Board reserves the right to disapprove any such work, to order restoration of the site, and to assess fines as provided for in these regulations upon filing of a Form A, Preliminary or Definitive Plan application.

3.3.11 Certificate of Performance: Upon completion of the construction of ways and installation of services in accordance with the Rules and Regulations of the Board, security for the performance of which was given by clause (a) and/or (b), or upon the performance of any covenant with respect to any lot, the applicant shall submit "as-built" drawings of all utilities and drainage systems to the Boards and a written statement in duplicate to the Town Clerk, stating that the necessary requirements have been met. Such statement shall contain the address of the applicant and the Town Clerk shall furnish the Planning Board with one copy of the above statement with a notice provided by the applicant from the Register or Recorder that the plan is recorded in Book No., Page No., and date. If the Board is satisfied that all requirements have been met, it shall release the interest of the Town in such bond and return the bond or the deposit to the person who furnished same, or release the covenant by appropriate instruments, duly acknowledged, which may be recorded.

- a. If it is determined that the necessary work has not been completed, the Board

shall so notify the applicant in writing specifying the details. Failure of the Board to so notify the applicant within forty-five (45) days after the receipt by the Town Clerk will cause all obligations under the bond to cease and terminate by operation of the Law. Any deposits shall be returned and any covenant shall become void.

- b. If the forty five day period expires without such specifications, or without release and return of the bond or return of the deposit or release of the covenant, the Town Clerk shall issue a certificate to such effect, duly acknowledged, which may be recorded.
- c. The Board shall retain a portion of the performance guarantee to ensure acceptance of streets by the Town in accordance with Section 5.5, Street Acceptance.
- d. The Building Inspector shall issue No Building Permit for a lot within a subdivision until such lot has been released by the Board.

4. DESIGN STANDARDS AND REQUIRED IMPROVEMENTS AND FINDINGS

4.1 STREETS

4.1.1 Protection of Natural and Cultural Features:

Due regard shall be shown for all natural features, such as large trees, water courses, scenic points, historic spots, stone walls, and similar community assets, which, if preserved, will add attractiveness and value to the subdivision. If, in the opinion of the Board, excessive vegetation is removed due to proposed grades, a restoration plan shall be submitted for approval, together with the Definitive Plan. In no case shall areas larger than 100' in width be clear-cut to accommodate siting of houses. Areas larger than 150' in width shall not be clear-cut to accommodate siting of roads and drainage structures. The applicant shall strive to maintain clear cutting within the roadway, and where necessary, within the planting strip. Stone walls shall not be removed or buried unless approved by the Board and shall be reconstructed and used in subdivision design.

4.1.2 Grading and topography:

Efforts shall be taken to maintain the continuity of the natural topography. Cut and fill shall be avoided in all instances possible. Except in areas where terracing is used, when excavation is necessary, grading shall be done in such a way that the resulting contours follow smooth natural curves that conform to the curves of the surrounding landscape. Straight or angular slopes or cuts that interrupt natural topography shall not normally be allowed. Existing contours shall be preserved in-so-far as it is possible through optimal location of streets and dwellings to the satisfaction of the Planning Board. In any event, no change shall be made in existing contours, which adversely affects any land abutting the proposed subdivision.

Street layouts shall generally follow (parallel) the existing contours, or existing stream valley and natural swales, and should be designed with the objective of the preservation of natural features identified on the plan, as required in Section 4.1.1 above. All work on the ground hereinafter specified shall be performed by the applicant in accordance with these rules and regulations, in conformity with approved definitive plans and specifications and other construction requirements of the Town Agencies concerned, and to the satisfaction of such Agencies. In particular, all design, material, and construction

specifications of the Marshfield Public Works Department relative to road and utility construction shall be adhered to unless otherwise provided for in these regulations. Where no detail is given under Marshfield D.P.W. or the Department's specifications, reference shall be made to construction details of the Massachusetts Municipal Engineers Association. All streets in the subdivision shall be designed so that, in the opinion of the Board, they shall provide safe vehicular travel.

4.1.3 Location of Streets:

a. In case a tract is subdivided into parcels larger than normal building lots, the Board may decline to approve the plan unless such parcels are arranged so as to allow the opening of proper future ways and logical and proper subdivision.

b. In case access to a subdivision crosses land in another municipality, the Board may require certification from appropriate authorities that such access is in accordance with the Master Plan and subdivision requirements of such municipality, and that a legally adequate performance bond had been duly posted or that such access is adequately improved to handle prospective traffic.

c. The Planning Board may require space reserved for future streets (shown on said plan as paper streets) to provide for inter-connecting ways and to avoid excessive dead-end streets. All portions of the tract being subdivided shall be taken up in lots, streets, public lands, or other proposed uses, so that remnants and land-locked areas shall not be created.

d. Provision satisfactory to the Board shall be made for the proper projection of streets, or for access to adjoining property which is not yet subdivided.

e. 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.

f. Roadways, cul-de-sacs, detention facilities, sidewalks, and other required infra-structure or improvements shall not be placed within easements but within the right-of-way or on parcels not buildable for residential, commercial or industrial structures. Sewer, water, and drainage lines may be exempted from this position by the express waiver of the Board. All such land parcels, common land, or waived easements shall be bounded with concrete bounds at all corners.

g. Where the street system within the proposed subdivision does not intersect with or have adequate access, in the opinion of the Planning Board, from an existing public way or approved subdivision way, the Board may require, as a condition of approval, that such adequate access be provided by the Applicant through physical improvements from the proposed subdivision ways to the nearest public way or approved subdivision way most suitable in terms of width, grade and construction.

4.1.4 Width, Alignment and Grades of Streets:

a. The following standards shall govern the design of streets:

Type of Street	Width of Way*	Width of Roadway*	Minimum Centerline Radii	Maximum Centerline Grade	Design Speed	
Secondary	50-60'		26'	200	6 %	33 MPH
Residential "D"	52'		24'	100	10 %	29 MPH
Residential "C"	46'		20'	100	10%	23 MPH

Residential "B" 40'	20'	100	10%	23 MPH
Residential "A" 40'	18'	100	10%	23 MPH

Type of Street	Minimum Centerline Grade	Minimum Curb Radius at Street Intersections	Minimum Length of Tangents Between Reverse Curves
Secondary	.8 %	30'	100'
Residential**	.5 %	30'	---

NOTES:

*The Board may require that the traveled way be separated by a raised median strip with a width, minimum 20 feet, to be determined by the Board. In this case, the traveled way shall consist of two roadways, each with a minimum width of 20 feet or such greater width as the Board may specify.

**No Area of Single Access, as defined in Sec. II, shall provide access for more than eight dwellings total.

- b. Street intersection with center line offsets of less than one hundred Fifty (150) feet shall not be permitted without a specific waiver from the Board.
- c. Proposed subdivision streets shall intersect existing and other proposed streets at 90 degree right angles whenever feasible for a distance of at least 100 feet from the intersecting street lines. Up to a 10 degree variation from the 90 degree design objective will be allowed by the Board if the applicant demonstrates that a right angle is not feasible or practical.
- d. All changes in grade exceeding five-tenths of one (0.5) percent shall be connected by vertical curves meeting the following criteria for the purpose of ensuring suitable sight distances and to avoid harmful application of road salts, and undue acceleration of vehicles and storm-water runoff velocities:

Type of Street	Minimum Stopping and Sight Distance	Crest Vertical Curve, Minimum K Value	Sag Vertical Curve, K Value
Arterial	275	60	60
Secondary	225	40	50
Collector	200	30	40
Minor Residential	156	20	30

- e. No center line gradient is to exceed six (6) percent on any curve having a center line radius of less than 500 feet or 8 percent on one having a center line radius of more than 500 feet.

island of cul-de-sacs are landscaped, bio-retention areas. The use of cul-de-sac islands for storm water bio-retention areas is encouraged and should be considered in the design process.

4.1.6 Construction of Roadway

- a. Construction of the roadway shall conform to the applicable typical cross section as shown and the here-in-after listed requirements:
- b. The entire roadway area shall be cleared and grubbed of all growth, and unsuitable material shall be removed to the required depth and as required by the Planning Board Engineer. Where sidewalks are provided, the grass strips may remain undisturbed. Applicants are not required to clear the entire right-of-way where wooded areas are provided in lieu of grass strips.
- c. All fill and undisturbed soils within four feet of the finished sub-grade shall be non-frost susceptible and shall not contain more than three (3) percent passing the 0.02 millimeter sieve to a minimum depth of four (4) feet below the finished grade.
- d. The roadway shall consist of a minimum of 10 inches of well-graded gravel within the following gradation range as established by the Department, topped with a minimum of three (3) inches of dense graded crushed stone (See typical cross section):

Sieve Size	% Passing by Weight
3"	100
1/2	50 - 85
No. 4	40 - 75
50	8 - 28
200	0-8

e. The Subgrade shall be prepared to required lines and grades, and all fill shall be constructed in six (6) inch lifts. The subgrade shall be compacted to a minimum of 92% of maximum dry unit weight and at or near optimum moisture content as determined by the ASTM D 1557-66T, Method D. Preparation of the subgrade shall be approved by the Planning Board engineer before any subsequent construction is permitted.

All soil samples for testing purposes must be selected from the subject material by a qualified testing laboratory in a manner and quantity which will permit them to certify that they are representative of the material as a whole. Samples selected by anyone else will not be allowed as valid for the purpose.

f. After approval of the subgrade, the above specified base course shall be prepared to lines and grades. Prior to paving of the base course, the project engineer shall certify in writing to the Planning Board that the location of survey controls is accurate and in accordance with the approved plan so as to minimize corrective work and changes required in the "as-built" plans. The base course shall be constructed in maximum lifts of six (6) inch lifts and shall be compacted to a minimum of 95% of maximum dry unit weight and at, or near, optimum moisture content as determined by the ASTM D 1557-66T, Method D.

g. The approved base course shall be paved, with a minimum of three (3) inches of Massachusetts Highway Department Type I-1 binder course and one and one half (1 1/2) inches of top course to lines and grades as required. The application of the top course shall be delayed for six months after binder course is applied. The pavement shall be placed and constructed in accordance with the specifications of the Marshfield Department of Public Works, shall be compacted to a minimum of 95% of laboratory density, and surface irregularities greater than 1/4 inch as measured with a ten foot straight edge shall be corrected as determined by the Planning Board Engineer. Paving operations shall not start or continue without permission of the Planning Board Engineer, who will determine whether preparation, weather conditions, etc., are suitable. Notwithstanding, all paving operations are to be concluded for the season by November 20th, regardless of weather conditions.

4.1.7 Construction of Lots:

a. Lots shall not be clear-cut, and shall not be cleared prior to the establishment of a base course of pavement on the roadway. All clearing shall be done in accordance with that shown on the definitive plan and with the approved Erosion Control and Construction Management Plan.

4.2 UTILITIES

4.2.1. General Requirements: All utilities including drainage, ponds, water courses, swales, and lines, which service more than one dwelling unit must be located within street layouts or on properties set aside expressly for utility purposes rather than on building lots. Such utility areas shall have the boundaries defined by concrete bounds at all corners and shall be furnished with gated vehicle access way for maintenance purposes to the proposed subdivision roadway or an existing accepted way. Such access way shall be constructed to the satisfaction of the Planning Board and provided with permanent monumentation to inform abutters of location of said access way on the ground. All utility line and access way properties shall be a minimum of twenty feet in width.

4.2.2 Drainage: The applicant shall demonstrate to the satisfaction of the Planning Board that the project is designed to have no measurable or significant impact as to existing vegetation, topography, wetlands, and other natural or man-made features.

a. Criteria:

The applicant shall review best available drainage systems for the appropriate application on the proposed development site. The development suitability, of the site shall be based on natural features, such as soil types, slope, vegetative cover, water table, etc. Drainage plans shall be developed in consultation with the Planning Office and the Board's consultants with the following objectives and criteria in mind:

- (i) Protection of surface and groundwater quality;
- (ii) Public safety;
- (iii) Protection of existing abutting homes and septic systems;

- (iv) Enhancement of and connection to natural drainage systems, including streams, floodplains, and associated wetlands.
- (v) Attractiveness of the plan, minimizing disruption to existing features, and successful imitation of natural systems.
- (vi) Minimizing of long term maintenance and/or reconstruction obligations to ensure the natural operation of the system and conserve manpower, energy, and fiscal resources.

b. Large Developments - Off site mitigation:

For developments in excess of 50 dwelling units, 50 acres, or which create more than three acres of impervious surfaces of all kinds, the Planning board may require a storm drainage design analysis for the 100 year storm at the watershed level, from drainage divide to tidal water, which demonstrates the adequacy of existing and proposed structures. If no measurable impact is shown, no off-site mitigation measures will be required by the Board. Said analysis shall include at least the following information:

Consideration of the entire watershed and the calculations used in designing the drainage system, including area calculations, intensity of rainfall, coefficient of runoff, time of concentration, discharge, pipe coefficients of roughness, and quantity and velocity of flow under design conditions at buildout capacity allowed under current zoning. Additionally, the following information shall be supplied:

- Soil map for the sub area watershed;
- Topographic map for the sub area watershed;
- Land use map for the sub area watershed;
- Pre-development drainage patterns on the site;
- Post development drainage patterns on the site.

c. All Developments - On site mitigation:

In addition to the above watershed area analysis, the Planning Board shall require an on-site storm drainage design analysis for all proposed developments that mitigates the 10, 25, and 100 year storm events in accordance with the standards contained herein. The following information shall be required:

- (i) Calculations of wetland areas on-site;
- (ii) Analysis of soil conditions throughout the site;
- (iii) Analysis of the square footage and % of impervious coverage in relation to the square footage and % of area devoted to drainage proposed;
- (iv) Considerations of density of development appropriate to the above conditions;
- (v) Proposed use and assessment of effectiveness of water pollution and erosion control devices (e.g., absorption pillows, hay bales, swales, etc.);
- (vi) Conformance with DPW standards for maintenance and performance;
- (vii) Consideration of existing or potential "public water" supplies on or near the site;
- (viii) Design calculations shall be based on the 10, 25, and 100 year storm event for all ponding areas, 25 year storm event for pipe sizing;
- (ix) TR-55 or TR-20 model calculations as deemed appropriate by the Town Engineer for the project design:

- (x) Demonstration of no increase in the rate of discharge from pre-development to post-development conditions.
- (xi) Demonstration that post-development runoff volume shall not exceed pre-development volumes.
- d. On site drainage systems, including detention areas, must meet the following performance standards:
 - (i) A 50' buffer zone of existing vegetation shall be retained between all detention or siltation structures and adjacent uses or structures for protection of scenic corridors, surface water and wetlands subject to Ch. 130, and Ch. 131, M.G.L., and/or local wetland bylaws.
 - (ii) A 30' buffer zone of existing vegetation shall be retained between all point source discharges of stormwater and surface waters and wetlands.

However, the provision of this section shall not prohibit the selective clearing of trees and shrubs, the establishment of new vegetation better suited to the proposed conditions, or the discharge of stormwater across such buffer areas as any of these actions may be permitted by the Conservation Commission under an Order of Conditions.

- e. Use of retention basins shall not be permitted except in combination with detention facilities and for the express purpose of containing the design storm for a 24 - 48 hour period, or in Water Resource Protection Districts where the stormwater management system includes measures to abate the contaminants prior to recharge and where in the Board's opinion, retention facilities will promote recharge that will benefit surface water or groundwater resources. Detention facilities shall be permitted in-so-far as such systems are designed to function as natural wetlands, having characteristics of side slopes, gradients, vegetation and topographic location which follow naturally occurring wetland types.

Use of such artificial storm drainage systems shall not substitute for proper erosion control measures including appropriate design for soil and slope conditions. Design of such facilities shall observe the following guidelines:

- (i) Side slopes of wetland/detention areas shall be no steeper than 3:1 horizontal to vertical relationship.
- (ii) A maximum of 2% slope shall be permitted for the bottom of the wetland/basin.
- (iii) Where clearing and/or regrading of the site may be unavoidable for installation of the basin and necessary structures, vegetation shall be re-established in conformance with the proposed landscape plan.
- (iv) The prohibition of undesirable or unnatural accumulation of water shall refer to stagnant, pond waters, but not to wet systems, which are designed to have continuous stream flow through the basin. Ground infiltration by means of

leaching pits, leaching catch basins or similar facilities are not allowed as a means of calculating or mitigating storm water disposal.

- f. Drainage out-falls shall be designed in conformance with subsection f. of this section, and shall further provide rip-rapped aprons in accordance with typical details shown in the Appendix of these regulations, and, in every case shall provide a minimum of 30 feet of vegetation swale before the property line and above the high water line of any stream, swamp, bank or wetlands. As with other drainage structures, detention areas shall have a positive out-fall and connection to an existing water body, including wetlands as defined above, except in Water Resource Protection Districts where the stormwater management system includes measures to abate the contaminants prior to recharge and where in the Board's opinion, retention facilities will promote recharge that will benefit surface water or groundwater resources. Basins and swales shall be incorporated into separate land parcels for this exclusive purpose rather than be shown as easements over areas required for other uses, or required to serve purposes of other by-laws or regulations of the Town of Marshfield.

- g. **Subsurface Drains or Sub-drains:**
In areas where the finished grade of the roadway is less than four (4) feet above the water table or in areas where less than four (4) feet of fill is placed above water in swampy places, or any standing water; or in other areas where, in the opinion of the Board the sub-grade must be drained, a system of sub-drains shall be designed for such areas. In addition, laterals may be required as directed by the Board in areas in which an undue amount of water could accumulate in the sub-grade. The system of sub-drains shall be discharged into the storm drainage system or otherwise disposed of in a manner satisfactory to the Board.

- h. **Storm Drains:**
 - (i) Storm drainage design is to conform with specifications of the Master Drainage Plan when applicable. Design shall be on the basis of a 25-year storm. A complete storm drain system shall be designed for each street in the subdivision and shall be so laid out and of sufficient size to permit unimpeded flow of all natural waterways, to provide adequate drainage of all portions of the street system so that water does not accumulate thereon, to intercept storm water runoff from the adjacent lots of the subdivision, and to eliminate undesirable or unnatural accumulation of water on any portion of the subdivision or surrounding property to the satisfaction of the Board. The storm drain system shall include gutters, catch basins, manholes, culverts, drain lines, head-walls and such other items as may be required to complete the system to the satisfaction of the Board.

 - (ii) Catch basins and manhole structures shall be preferably reinforced, pre-cast concrete. Structures are not to be back-filled until inspected by the subdivision inspector.

- (iii) Catch basins shall be located in pairs, one on each side of the road, at all low points or sag curves in the roadway, at intervals of: 300' for grades up to 4%; 250' for grades from 4 - 6% and 200' for grades more than 6% and at or near corners of the way at intersecting streets. Catch basins will be in conformance with Marshfield DPW standards. Double grate catch basins should be provided where warranted by run-off conditions.
- (iv) Man-holes shall be located at all changes in direction, either horizontally or vertically, of a drain line, or so located that no drain line greater than three hundred (300) feet in length would exist without either a catch basin or manhole. ***(SEE LAST PAGE)** Manholes shall conform to Marshfield DPW standard.
- (v) Culverts shall be designed on the basis of a one hundred (100) year storm and on the assumption that the entire drainage area is built up to the density and in the manner which the applicable section of the Zoning By-laws allow. The calculations (or a copy thereof) necessary to determine the size of any culvert which carries a brook, stream, river or other natural waterway shall be submitted to the Board for review. Such calculations shall be based on a method, (Rational Method or Talbot's Formula) acceptable to the Board, for determining the size of waterway openings. All culverts shall have a head wall at each end and any culvert over thirty-six (36) inches in diameter shall include additional protection as approved by the Board for the roadway side slopes at the upstream end.
- (vi) All the drains shall be a minimum of twelve'(12) inches in diameter and shall be laid on a slope of not less than 1/2 of one (0.5) percent. If the system is designed as a self-cleaning system, the Board may accept a lesser minimum slope for the drain lines. A maximum pipe velocity, of 10 feet/second shall be allowed, with a minimum 2 1/2 feet/second velocity required. All final out-falls within or serving the subdivision shall extend to a natural waterway, or to drainage easements or pipe systems leading to waterways, and such pipe shall have a capacity of 25 % greater than required by the calculations. Provisions shall be made for the disposal of surface water intercepted or collected by the system in such a manner that no flow is conducted over town ways or over the land of others unless a drainage easement is obtained or unless such flow, in essentially the same quantity, previously existed in the same location. Where adjacent property is not subdivided, provision shall be made for extension of the system by continuing appropriate drains to the boundary of the subdivision at such size and grade as will allow their proper projection.
- (vii) A head wall with wing walls shall be provided at the outfall end of all drains. Use of pre-formed flared end sections for this purpose is also acceptable.

- (viii) No drainage out-fall shall discharge at an elevation below the high water line of a swamp, stream, or body of water as defined in Section II.
- (ix) Pipe out-falls shall be located away from dwellings a distance down grade equivalent to the required lot depth in the applicable zone.
- (x) In the event that no specific requirement is given in these regulations, Mass. Highway Department standards shall apply.

Calculations: The calculations (or a certified copy thereof) to determine the sized of all pipes and culverts in the drainage system shall be submitted to the Board for review Such calculations should be based on the Rational Method and prepared by a registered professional engineer. A drainage analysis map shall show the tributary watershed area and downstream area affected by run-off, and drainage computations shall consider the entire watershed area. Where excessive poor soils or disturbed cover exist, calculations shall give consideration to frozen ground conditions, soil types and cover for all affected areas including but not limited to lawns, base ground, graveled ways, etc.

4.2.3 Sewer

Sewer pipes and related equipment, such as manholes and connecting Y's shall be constructed in conformity with Marshfield DPW standards. Sewer pipes shall be installed where sewerage is proposed by the Sewerage Master Plan.

4.2.4 Water:

Preliminary approval for availability of adequate water supply must be obtained from the Board of Public Works. Design of the proposed installations of water distribution lines and appurtenances must also be approved by that Board. Water pipes and related equipment, such as hydrants and main shut-off valves, and service boxes, shall be installed within the subdivision as necessary to provide all lots on each street with adequate water supply for domestic and fire protection use and in conformity with specifications of the Dept. of Public Works (Marshfield). Pipe size shall be as specified by the Board of Public Works, but in no case shall be less than eight (8) inches in diameter. The entire cost of installation, including connection to the town system and wages of the inspector shall be borne by the owner. The Water Superintendent shall approve all materials. Taps on water mains shall be made and located as directed by the Water Department. Titles to mains and hydrant will not be accepted until at least six months after pressure has been put on to them, all measurements have been mined over to the Water Department, and all lines proven tight; after which ten (10) percent of the cost of the entire water installation or a minimum of five hundred dollars (\$500.00) will be held out for an additional year. No services shall be connected at the property line until an application has been filed at the Water Department Office. Final approval of water system specifications shall be given by the Dept. of Public Works. Water lines in excess of 800' shall be required to be looped.

4.2.5 Pipes:

- a. Sewer, water, gas and other underground utilities, if any, together with all connections to the proposed subdivision lots on both sides of the street, shall be

laid after the roadway is sub-graded, but before application of the gravel base occurs. All such pipes shall be given a definite location as per the Typical Cross-sections contained in the Appendix of these Rules and Regulations.

b. Drainage pipes shall be of not less than 12" reinforced concrete, coated corrugated aluminum or plastic construction. All drain pipes shall have a minimum of two and one half feet of cover, except that reduced cover may be permitted at the discretion of the Board if Class V reinforced concrete pipe is specified. Each length shall be laid true to line and grade as shown on the plan. Each length shall have a full firm bearing throughout.

c. The back-filling of all trenches shall be thoroughly tamped in accordance with Section I-E-5 of Design Standards and Required Improvements and shall not be puddled.

4.2.6 Underground Utilities:

a. All electrical, telephone, cable television and other utility wires shall be placed below ground in every, subdivision unless the Board determines that such placement is not feasible or is not in the best interest of the Town. Such utilities shall be constructed according to the information contained in the Appendix.

b. All service connections for utilities shall be clearly marked at the lot line and shall be installed so that electric, telephone, sewer, and water services are located perpendicular to the street at the lot line. Telephone and electric utilities shall be located at alternate side lot lines (at every other lot corner).

4.2.7 Easements:

All easements shall comply with the following requirements.

a. If a waiver is granted allowing utility pipe lines to be placed in easements, said easements shall be 20 (twenty) feet (or more if deemed necessary) in width and shall be adjacent to or centered on property lines unless otherwise permitted. Concrete bounds shall be set at all corners and angle points for the information of the landowners.

b. Where a subdivision is traversed by a watercourse, drainage way, wetland, stream, or channel, the Board may require that there be provided a storm water easement or drainage right-of-way of adequate width to conform substantially to the lines of such water course, drainage way, wetland, stream or channel, and to provide for construction, maintenance, access or other necessary purposes.

c. All easements must be of a form acceptable to the Town Clerk.

4.2.8 Stone Walls

Any removal or alteration of trees/stone walls on town designated scenic roads shall require an application and public hearing pursuant to the Scenic Road Act.

4.3 EROSION CONTROL FACILITIES

4.3.1 Criteria and Objectives:

As required under Section III.C. above, an erosion control plan shall be submitted, which meets the following objectives and criteria:

- a. Keep disturbed areas small - no more than 50' wide, 100' long, and 20 % of a single lot, or five acres of the overall tract are recommended guidelines. Consideration of topographic, soil, and vegetative characteristics shall be demonstrated through identification of erodable soils, steep slopes, stream banks and drainage ways, and measures designed to limit disturbance of these areas.
- b. Stabilize and protect disturbed areas quickly - Exposed areas and stockpiles should be revegetated within 30 - 60 days. Two methods are available for stabilizing disturbed areas; mechanical (or structural) methods and vegetative methods. In some cases, both are combined in order to retard erosion. The selected measure should be identified in a Construction Management Plan submitted with the subdivision application.
- c. Keep storm water runoff velocities low - (See Sec. 0.9 below). Acceptable velocities are in the 2 - 10 feet/second ranges. The removal of existing vegetative cover during development and the resulting increase in impermeable surface area after development will increase both the volume and velocity of runoff. These increases must be taken into account when providing for erosion control.
- d. Protect disturbed areas from storm water runoff – Conservation measures can be utilized to prevent water from entering and running over the disturbed area. Diversions and other control practices to intercept runoff from higher watershed areas, store or divert it away from vulnerable areas, and direct it toward stabilized outlets, should be utilized. Selected measures should be identified in the proposed construction management plan.
- e. Retain sediment within site area - Sediment can be retained by two methods; filtering runoff as it flows and detaining sediment; or detain runoff for a period of time so that the soil particles settle out. The best way to control sediment, however, is to prevent erosion.

4.4 OTHER FACILITIES

4.4.1 Sidewalks:

The Planning Board shall require sidewalks of such width and construction to be constructed in accordance with the typical cross-section. In no case shall sidewalks be less than 5 feet in width. They shall be of broom finished Portland Cement concrete with one (1) inch deep score lines spaced five feet apart on centers. Sections shall be a maximum of 30 (thirty) feet in length, with sections separated from each other and from driveway sections by 1/2 inch thick premolded bitumastic filler. The depth (thickness) of concrete and of filler shall be four (4) inches except at driveways where it shall be six (6)

inches. Portland Cement concrete driveway aprons from the sidewalk to the gutter line shall be constructed to the same specs as the sidewalk where it crosses the driveway.

4.4.2 Driveways:

Proposed driveways shall be shown on the road construction plan and topographic plan and shall be designed to intersect the street at a grade not greater than 3 % for a distance of 25 feet back from the edge of the traveled way, and shall intersect generally at right angles and in locations having proper sight distances. Curb cuts for driveways shall not be placed within 50' of street intersections. Driveways within the lot shall not contain grades greater than 15 %.

4.4.3 Vegetation:

Every effort shall be made to preserve the existing trees on the right of way and on the lots to be sold. Filling and cutting of roadways shall be done in such a manner as to preserve the trees and existing soil cover whenever possible. The Planning Board shall require that the applicant shall provide and plant suitable shade trees spaced not less than forty (40) feet apart along the way; variety to be approved by the Planning Board. Trees to be planted shall have a minimum height of twelve (12) feet with 8 foot head clearance and shall be of at least three (3) inch caliper at the height of forty-two (42) inches from ground level. All trees shall be planted within the way lines except that, with written consent of the owner, trees may be planted up to twenty (20) feet from the exterior lines of the way if deemed desirable by the Planning Board.

On slopes along the way where stabilization is required, or where lawn maintenance and moving may be unfeasible, a combination of ground covers and shrub plantings may be required by the Board. The Landscape Plan shall specify species, quantifies and sizes of proposed plantings.

4.4.4 Street Lighting:

Street lighting shall be provided only for the purpose of vehicular and pedestrian safety as recommended by the Police Safety Officer at locations that may present particular hazards, e.g., street intersections. Illumination for general residential purposes or security is not intended in single family residential areas. The Board of Selectmen shall approve proposed street lighting prior to endorsement of the Definitive Plan.

4.4.5 Fire Alarm Systems:

Before approval of a plan, the Board may require the plan to show location and type fire alarm system in accordance with recommendations of the Marshfield Fire Chief. The Developer shall pay the cost of installation.

4.4.6 Parks and Open Spaces:

Before approval of a plan by the Board, it may require the plan to show a park, or parks, suitably located for playground or recreation purposes or for providing light and air, and not unreasonable in area in relation to the land being subdivided and the prospective uses of such land, and make the appropriate endorsement on the plan, require that no building be erected upon such park or parks without its approval.

4.4.7 Slope Stabilization:

Slope is defined as the ratio of vertical rise over horizontal distance. Upon completion of grading and replacement of topsoil, slopes shall be appropriately stabilized to prevent erosion. Excessive slopes shall not be permitted. The Board shall approve an adequate slope stabilization plan.

The following guide is recommended:

Slopes more than 1 in 2 - rip rap or terracing. Not allowed where alternative layouts permit lesser slopes.

Slopes of 1 in 8 to 1 in 2 - sod or establishing vegetation or seedlings in association with webbing or approved mulch placed over the soil. Not allowed where alternative layouts permit lesser slopes.

Slopes of 2 in 20 to 1 in 8 - plant seed in association with webbing or approved mulch placed over the soil.

Appropriate temporary measures should be taken to prevent erosion of bankings and slopes during construction.

4.4.8 Retaining Walls:

- a. Wherever retaining walls may be required, design and type of wall construction shall be submitted to the Board for approval prior to installation.
- b. All retaining walls shall be constructed on the line of the street layout.
- c. Retaining wall shall have a maximum individual height of four (4) feet and a total combination of no more than 12 feet in height.
- d. Where several retaining walls are used, a minimum five foot separation shall be provided between walls.

4.4.9 Dwellings per Lot:

Not more than one building designed or available for use for dwelling purposes 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 Planning Board, and such consent may be conditional upon the providing of adequate ways furnishing access to each site for such building, in the same manner as otherwise required for lots within a subdivision.

4.4.10 Impediments to Access

In order to provide safe access and egress for all subdivisions, no temporary, or permanent gate, fence or other obstruction may be erected on any portion of the right of way unless permitted by the Board.

5. COMPLETION OF THE WAY

5.1 Monuments:

Stone or approved reinforced concrete bounds shall be placed on both sides of the street at all angle points, at the beginning and end of all curves, and at all intersections of streets and ways. Intermediate bounds must be set where the distance between bounds would otherwise exceed five hundred (500) feet. Bounds shall be not less than three (3) feet in length and not less than six (6) inches in width and breadth. No permanent monuments or bounds shall be installed until all construction, which would destroy or disturb the monuments, is completed and the top of the bounds shall be set to finished grade. The bounds are to be set by a Land Surveyor who shall certify in writing that they conform to the approved subdivision plan. Bounds shall also be set for all front lot corners before utilities are installed to ensure accurate measurement for utility location. All street monuments are to be accurately fled into three or more suitable objects selected for their durability and prominence. This information is to be provided to the Town Engineering Department on a copy of the street layout or the subdivision plan.

5.2 Curbs:

When vertical or slope block granite street curbing is required, it shall be in accordance with the standards set forth below, and all cul-de-sacs and curves with a radius of 60 feet or less shall be of vertical granite only. Cape Cod berm when specified shall be used throughout except that vertical granite curb inlets with appropriate inclined transition sections (of vertical granite) shall be provided at all catch basins. The curb inlet and catch basin installation shall conform to the typical curb inlet detail drawing.

5.2.1 Granite Curbs - General:

Curbstone shall be of hard and durable granite, or a light color satisfactory to the Engineer, free from seams which impair its structural integrity, and of a good smooth splitting appearance. Granite shall come from approved quarries and, when tested, shall have a Los Angeles percentage of wear not more than 32. Test samples shall be hand broken.

5.2.2 Slope Granite Curbing

a. Dimensions:

The stones for the several types of slope curb shall be cut to the dimensions given in the following table:

Depth of Slant Face Type (Inches)	Thickness (Inches)	Length * (Feet)
SB 12	3 to 6	3 to 6

*Minimum lengths do not allow to radial slope curb.

Maximum lengths of stones shall be as directed by the Engineer, when the curb is used on curves of one hundred (100) feet radius or less.

b. Finish:

Finish and surface dimensions for the several types of stone curb shall conform to the following requirements:

- (i) Exposed face shall be smooth quarry split to an approximately true plan having no projections or depressions which will cause over one (1) inch to show between a two (2) foot straight edge and the face when the straight edge is placed as closely as possible on any part of the face. If projections on the face are more than that specified, they shall be dressed off. Drill holes will be permitted on the exposed face, but only along the bottom edge.
- (ii) Arris line, top front, shall be pitched to a line, which shall not show over one half (1/2) inch in any direction between the stone and a straight edge laid the full length of the stone.
- (iii) Arris line, bottom front, shall be pitched so that not over one half (1/2) inch shall show between the stone and a straight edge, the full length of the stone, when viewed at right angles to the plane of the face.
- (iv) Arris lines at ends shall be pitched with no variation from the plane of the face more than one quarter (1/4) of an inch.
- (v) Ends shall be square to the plane of the face and so Finished that when stones are placed end to end, as closely as possible, no space more than three quarters (3/4) of an inch shall show in the joint for the full depth of the face.
- (vi) Tops and bottoms shall not be under the square more than four (4) inches or over the square at the back more than one (1) inch.

c. Mortar:

- (i) Mortar for pointing joints shall be composed of equal parts of air entraining cement and sand with sufficient water to form a workable mixture. Materials shall conform to the requirements of ASTM C-91 and C-144.
- (ii) Setting methods: Slope granite curb shall be set at line and grade required. Top line of curb shall be set straight and true allowing natural variations in depth of curb to occur at the bottom of the face. Spaces under the stones shall be filled with approved material and so tamped that the slope granite curb will bear and be completely supported throughout its entire length and width at the required line, grade and slope. Curbstones shall not fit closer to each other than one-quarter (1/4) of an inch, otherwise, they shall be fitted together as closely as possible.
- (iii) Pointing joints: Joints shall be primed and caulked with a beak of Thiokol or approved equal. Joints shall be filled with mortar when necessary, to provide adequate base for caulking.

- (iv) Protection: The contractor shall protect slope granite curb and keep stones in first class condition until completion of the entire contract. Particular care shall be exercised to prevent any discoloration of exposed surfaces.

5.2.3 Vertical Granite Curbing:

a. Dimensions: The stones for several types of curb shall be cut to the dimensions given in the following table:

Type:	VA
Width at Top:	5 inches
Depth:	17 to 19 inches
Minimum Length:	6 Feet
Minimum Width at Bottom:	5 inches (for 2/3 length)

*Minimum lengths do not apply to radial curb and closures. Types VA-4 curbstones to be set on a radius of one hundred sixty (160) feet or less shall be out to the curve required, unless otherwise directed by the Engineer.

b. Finish: Finish and surface dimensions for the several types of curb shall conform to the following requirements: Type VB curb:

- (i) Top surface of curbstones shall be sawed to an approximately true plane.
- (ii) Exposed arris lines shall be pitched straight and true with no variation from a straight line greater than one-eighth (1/8) of an inch.
- (iii) Back surfaces of curbstones shall have no projection for a distance of three (3) inches down from the top, which would exceed a batter of four (4) inches in twelve (12) inches.
- (iv) Front face shall be at right angles to the plane of the top and shall be smooth quarry split. Drill holes in exposed part of face will not be permitted.
- (v) Front face shall have no projections greater than three quarters (3/4) of an inch or depressions greater than one-half (1/2) inch measured from the vertical plane of the face through the top arris line for a distance down from the top of eight (8) inches. Remaining distance shall have no projections greater than one (1) inch measured in the same manner.
- (vi) Ends of all stones shall be square with the planes of the top and face, and so finished that when stones are placed end to end as closely as possible, no space more than one-half (1/2) inch shall show in the joint for the full width of the top or down on the face for eight (8) inches. Remainder of end may break back not over eight (8) inches from the plan of the joint.

c. Mortar:

Mortar for pointing joints shall be composed of equal parts of air entraining cement and sand with sufficient water to form a workable mixture. The materials shall conform to the requirements of ASTM C-91 and C-144.

d. Setting Curbstones:

(i) Curb shall be set at line and grade required, and it shall project seven (7) inches above the shoulder grade or pavement, unless otherwise directed or called for on the plans.

(ii) Curbstones for Type VA-4 curb shall not fit closer to each other than one eighth (1/8) of an inch, otherwise they shall be fitted together as closely as possible.

e. Granite Curb Inlets:

(i) Granite for curb inlets shall meet the requirements of Section 5.2.1.

(ii) Curb inlets shall not be less than 5 feet, 1 t inches, or more than 6 feet, 1 inch, in length, from 17 to 19 inches in depth; and match other curbing in width.

(iii) Finish of curb inlets shall meet the requirements of Section 5.2.3.

(iv) Mortar shall conform to Section 5.2.2.c.

(v) Pointing shall conform to Paragraph 5.2.2.c.(iii)

5.3 Driveways

A driveway opening is to be left in front of each lot at the best suited location, and is to be shown on the road detail plan. A five-foot minimum inclined transition section of vertical granite curbing is to be set at each side of the driveway opening whenever granite curbing is installed. Minimum curb opening is to be 15 feet. Abandoned curb cuts must have required curbing installed and sealed. Changes in the location of curb cuts from that shown on the Definitive Plan may be considered a modification of the approved plan, and must receive the approval of the Board in writing, whether a major or minor change (See Sec. HI, Procedures).

5.4 Street Signs:

Street signs to specification of the Superintendent of the D.P.W. are to be furnished and installed for every intersection by the Developer. The Developer shall maintain street signs until the Town accepts the ways. Said signs are required to be installed by the developer following the installation of the base course of the roadway, and prior to issuance of building permits. In the event that the covenant is released by the posting of surety, the applicant shall place at least temporary street signage at all intersections until the base course, as required above, is completed. In addition to the sign stating the name of the street, the applicant shall be responsible for installing a sign beneath the street name that reads "Not a Town Way." This sign shall remain in place until the Town accepts the street.

5.5 Street Acceptance:

5.5.1 Approval of the Definitive Plan does not constitute the layout or acceptance by the Town of streets shown on the plan.

5.5.2 The Developer shall provide a street layout plan suitable for recording containing all necessary information for Town acceptance of the streets. This street layout plan shall be provided prior to the release of security for the subdivision.

5.5.3 After completion of construction, the developer shall execute an instrument, in a form acceptable to Town Counsel, transferring to the Town, without cost, valid unencumbered title to the right-of-way and all utilities installed therein, the drainage system including any drainage lots and/or easements, and any other easements associated with the subdivision.

5.5.4 The Board shall retain a minimum of \$10,000- surety, or one lot for a period not to exceed 24 months after completion of the subdivision and the submittal of as built and street acceptance plans acceptable to the Planning Board and Town Engineer or until the streets are accepted by the Town, whichever comes first. After this date, the Board shall return the remainder of the security to the person or persons who furnished same.

5.5.5 Once street acceptance plans have been submitted and approved by the Town, the developer shall be responsible for petitioning the Board of Selectmen and Department of Public Works to accept the streets. The Developer shall be responsible for repairing all damage to constructed ways and municipal services within the roadway layout and shall be responsible for maintaining all landscaping for the time periods set forth in Section 5.5.4.

5.6 As Built Plans:

Prior to final release of his security, the developer shall provide the Town with as-built plans of all roads, drainage systems, etc., on durable material from which contact print copies can be made. These plans shall show the precise location, size, type, etc., of all required construction, as-built, and shall include, but not be limited to, the components of water, sewer, and drainage system, other public utilities, elevations, slopes, street layout monuments, etc., as necessary to show that design requirements have been met and changes documented. These plans shall be certified by the designing engineer that the information shown correctly represents the construction as-built.

5.7 Site Clean-up:

The entire area of the subdivision shall be cleaned of all dirt, debris construction materials, etc., leaving a neat and presentable appearance. The complete storm drainage system including catch basins, manholes and pipes shall be properly cleaned and free of debris.

5.8 No Certificate of Occupancy may be applied for, or issued by the Inspector of Buildings, with respect to any structure erected on any lot located in an approved subdivision until the Board has certified that the ways and municipal services designed to serve such lot have been constructed and installed in accordance with these Rules and Regulations.

5.9 Streets of Record: No new subdivision which will relocate or eliminate existing streets of record will be approved until the applicant has provided proof that said streets are clear in title and free of all encumbering rights of others.

6.0 ADMINISTRATION:

6.1 Variation:

- a. The Board may, when appropriate, waive such portions of these Rules and Regulations, when, in their judgment such action is in the public interest and not consistent with the purpose of the Subdivision Control Law.
- b. For matters not covered by these Rules and Regulations, reference should be made to Section 81K through 81-GG, inclusive, of Chapter 41, of the General Laws, as amended.

6.2 Supervision and Inspection:

All work required by these Rules and Regulations shall be under the supervision of and with the approval of the respective Town Departments involved here-under. It shall be the responsibility of the applicant and/or contractor to give one week's written notice to the pertinent agency in order that inspection may be scheduled. Costs of all inspectors shall be borne by the developer.

6.3 Pre-Construction Meeting:

The applicant shall request a pre-construction meeting through the Planning Board office prior to commencement of any work within an approved subdivision.

6.4 Responsibility:

- a. All work performed under these Rules and Regulations shall be the responsibility of the owner.
- b. The purpose of inspection is to assure that good practices are followed in constructing the project in accordance with the designs and specifications, and not to establish these practices.
- c. Inspection does not relieve the Owner of his responsibility to do the work properly in accordance with the Rules and Retaliations.
- d. The Owner should maintain his own quality control staff. Inspection by the Town of Marshfield is only to ascertain that this quality control is being maintained.
- e. Inspection by the Town of Marshfield will be on a sampling technique basis and does not guarantee freedom from failure. Only conscientious and capable effort by the Owner and/or Contractor produces desired end results.

7.0 AMENDMENTS

Adopted: January 23, 1956

First Amendment: May 15, 1958
 Second Amendment: December 29, 1960
 Third Amendment: December 26, 1962
 Fourth Amendment: November 4, 1964
 Fifth Amendment: February 1, 1967
 Sixth Amendment: February 8, 1968
 Seventh Amendment: March 13, 1972
 Eighth Amendment: September 20, 1973
 Ninth Amendment: July 11, 1977
 Tenth Amendment: October 4, 1977
 Eleventh Amendment: November 25, 1985
 Twelfth Amendment: June 27, 1988
 Thirteenth Amendment: March 5, 1990
 Fourteenth Amendment: December 06, 1993
 Fifteenth Amendment: September 19, 1995
 Sixteenth Amendment: June 3, 1996
 Seventeenth Amendment: April 13, 1998
 Eighteenth Amendment: June 4, 2007
 Nineteenth Amendment: August 10, 2009

Date of Amendment	Section Amended
August 10, 2009	3.2.1 a (i) fees. Administrative/Staff Review
August 10, 2009	3.3.1 (d) Administrative Expenses
August 10, 2009	3.3.2 Recording Fees – deleting section and renumbering the following sections.
August 10, 2009	3.1 Correct typo – Page 4, “Required”
August 10, 2009	3.3.4 Page 15 Correct typo – delete “m”
August 10, 2009	3.3.7 Page 15. Correct typo – Change “fried” to “filed”
August 10, 2009	3.3.10 Correct typo: First sentence, delete “m”. Insert word “in” so to read, ...discussed in public session....

Appendix A

Typical Roadway Cross-sections

Appendix B

Typical Details



Planning Board

Town of Marshfield

870 Moraine Street
Marshfield, Massachusetts 02050-3498

Tel: 781-834-5554

Fax: 781-837-7163

FORM L

PRELIMINARY PLAN SUBMISSION REQUIREMENTS

- _____ 14 sets of prints, 24" x 36"
- _____ 1 extra set of prints, 24" x 36" if in the WRPD
- _____ 1 extra set of prints, 24" x 36" if on Rt. 3A or Rt. 139
- _____ 1 extra set of prints, 24" x 36" if on sewer
- _____ 1 set of 11" x 17" prints
- _____ Form B Application
- _____ Site Features
- _____ Existing easements
- _____ Stone walls
- _____ Fences
- _____ Buildings
- _____ Other Structures
- _____ Existing Septic Systems
- _____ Wooded areas
- _____ Rock ridges and outcrops
- _____ Wetlands
- _____ Water bodies
- _____ Existing topography

- _____ Key Plan 1" = 100'
- _____ 11" x 17" Plans
- _____ Name of Subdivision
- _____ Date and scale
- _____ Name of owner
- _____ Engineer
- _____ North point
- _____ Bench marks
- _____ Locus map
- _____ Zoning District
- _____ Wetlands
- _____ Requested waivers from the subdivision rules and regulations
- _____ Rules and Regulations' exceptions
- _____ Title block
- _____ Planning Board signature block

- _____ Names of all abutters
- _____ Intersection boundary lines of abutting land
- _____ All contiguous land owned by applicant

Existing and proposed:

- _____ streets
- _____ ways
- _____ lots
- _____ easements
- _____ common or public areas
- _____ Proposed street names

Sufficient data to determine the locations, elevation, directions and length of:

- _____ streets
- _____ ways
- _____ lot lines
- _____ boundary lines

- _____ Location of permanent monuments

- _____ Location and names of streets bounding, approaching, or in proximity of the tract.
- _____ Present width of streets bounding, approaching, or in proximity of the tract.

- _____ Size of existing and proposed storm drains.

Location of existing and proposed:

- _____ storm drains
- _____ water mains
- _____ utilities
- _____ appurtenances
- _____ hydrants

- _____ Location of private water supply sources.

Profile drawings:

1. _____ horizontal scale 1" = 40'
2. _____ Vertical scale 1" = 40'
3. _____ Existing centerline
4. _____ Existing right sideline
5. _____ Existing left sideline
6. Proposed center line grades:
 - _____ Grade elevations @ 50' stations
 - _____ Vertical curves @ 25' stations

- _____ Vertical curves P.V.C.
- _____ Vertical curves P.V.T.

- _____ Proposed drainage system, catch basins.
- _____ Proposed inverts

- _____ Pipe sizes
- _____ Existing walks and driveways
- _____ U.S.C.G.S. elevation datum
- _____ U.S.C.G.S. bench mark

Rates of gradients for:

- _____ roads
- _____ drainage
- _____ Centerline staked in field and marked.



Planning Board

Town of Marshfield

870 Moraine Street
Marshfield, Massachusetts 02050-3498

Tel: 781-834-5554

Fax: 781-837-7163

FORM M

DEFINITIVE SUBDIVISION PLAN SUBMISSION REQUIREMENTS

The following information shall be submitted in accordance with the requirements of the Rules and Regulations of the Marshfield Planning Board, Section 3.3 Definitive Plan.

- _____ 14 sets of prints, 24" x 36"
- _____ 1 extra set of prints, 24 x 36" if in the WRPD
- _____ 1 extra set of prints, 24 x 36" if on Rt. 3A or Rt. 139
- _____ 1 extra set of prints, 24 x 36" if on sewer
- _____ 1 set of 11" x 17" prints
- _____ Form C Application
- _____ Waiver requests letter
- _____ Applicable Fees
- _____ Four sets of drainage calculations
- _____ 1 Extra set of drainage calculations if in the WRPD
- _____ Scale 1" = 40'
- _____ 24" x 36" sheets
- _____ 11" x 17" set of plans
- _____ Key plan 1" = 100'
- _____ Name of Subdivision
- _____ Date and scale
- _____ Name of owner
- _____ Engineer
- _____ North point
- _____ Bench marks
- _____ Locus map
- _____ Zoning District
- _____ Wetlands
- _____ Certify that that there are no exceptions except as listed
- _____ Certify survey to land court standards
- _____ Certify topography wholly from field survey
- _____ Title block
- _____ Planning Board signature block

- _____ Certified abutters' list – Names and addresses of all abutters within 300'
- _____ Intersecting boundary lines of abutting land
- _____ All contiguous land owned by applicant

Lines of existing and proposed:

- _____ streets
- _____ ways
- _____ lots
- _____ easements
- _____ common or public areas
- _____ Proposed street names

Sufficient data to determine the locations, elevation, directions and length of:

- _____ streets
- _____ ways
- _____ lot line
- _____ boundary lines

- _____ Location of permanent monuments

- _____ Location of streets bounding, approaching, or in proximity of the tract.
- _____ Names of streets bounding, approaching, or in proximity of the Tract.
- _____ Present width, condition and construction of streets bounding, approaching, or in proximity of the tract.

- _____ Size of existing and proposed storm drains.

Location of existing and proposed:

- _____ Storm drains
- _____ Water mains
- _____ Utilities
- _____ Appurtenances
- _____ Hydrants
- _____ Granite curb inlet installation detail

- _____ Location of private water supply sources.

- _____ Location of percolation test pits
- _____ Location of deep observation pits

- _____ Location of proposed sewage disposal facilities.
- _____ Bottom elevation of storm water management facilities and structures.

Profile drawings:

1. _____ Horizontal scale 1" = 40'
2. _____ Vertical scale 1" = 40'
3. _____ Existing centerline
4. _____ Existing right sideline
5. _____ Existing left sideline
6. Proposed centerline grades:
 - _____ Grade elevations @ 50' stations
 - _____ Vertical curves @ 25' stations

- Vertical curves P.V.C.
- Vertical curves P.V.T.
- 7. Proposed drainage system, catch basins, forebays, retention and detention basins.
- Manholes
- Proposed inverts
- Pipe sizes
- 8. Existing walks and driveways
- 9. U.S.C.G.S. elevation datum
- U.S.C.G.S. bench mark
- 10. Rates of gradients for:
 - Roads
 - Drainage
- 11. Centerline stakes in field and marked

- Typical roadway section

- Proposed Driveways
- Certification of conformance with the Zoning Bylaw
- Certification of conformance with the Subdivision Rules and Regulations

- Profiles of drainage easements
- Cross sections of drainage easements.

- Existing Topography
- Proposed Topography

- Landscaping and planting plan

- Base flood elevation

- Easements, fully executed
- Covenant

Signature and Address of Owner(s) _____

Date _____