

Adopted
on
March 1, 1954

Amended on: August 5, 1969; September 3, 1974; October 28, 1987; January 18, 1994,
December 5, 1994

James K. Hartnett, Town Planner

I, Betty Enos Costa, Town Clerk of the Town of Swansea, hereby certify that the foregoing is a true copy of the Rules and Regulations adopted by the Planning Board on the Town of Swansea, on January 18, 1994.

Betty Enos Costa, Town Clerk

Date

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**RULES AND REGULATION
GOVERNING THE SUBDIVISION OF LAND
IN SWANSEA, MASSACHUSETTS**

SECTION A. Purpose

"The Subdivision Control Law has been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of the cities and town in which it is, or may hereafter be put in effect by regulating the laying out and construction of ways in subdivisions, providing access to the several lots therein, but which have not become public ways, and ensuring sanitary conditions in subdivisions and in proper cases parks and open areas. The powers of a planning board and of a board of appeals under the subdivision control law shall be exercised with due regard for the provision of adequate access to all the lots in a subdivision by ways that will be safe and convenient for travel; for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of 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 lot and with the public ways in the city or town in which it is located and with the ways in neighboring subdivisions. M.G.L. Chapter 4, Section 81-M.

SECTION B. Authority

Under the authority vested in the Planning Board of the Town of Swansea the Massachusetts Subdivision Control Law, M.G.L. Chapter 41, Sections 81-K to 81-GG inclusive and all acts in amendment or supplement thereto, the Swansea Planning Board hereby adopts the following rules and regulations governing the subdivision of land in the Town of Swansea.

SECTION C. Unapproved Subdivisions

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

SECTION D. Definitions

For the purpose of the Rules and Regulations, the following words and forms used herein are hereby defined or the meaning thereof is explained or limited as follows:

Applicant: The person who applies for the approval of a plan of a subdivision or his administrators, executors, heirs, devisee, successors and assigns. The applicant shall certify that he is the owner of all the land included in the proposed subdivision.

Approval: Approval by the Board of a definitive plan of a subdivision.

Board: The Planning Board of the Town of Swansea.

Land Court: Bristol County Fall River District of the Land Court.

Lot: An area of land in one ownership, with definitive boundaries, used or available for use, as the site of one or more buildings, even if the area of land shows on the assessor's maps or other documents as being composed as several lots. A lot within a subdivision shall mean any area of land with boundaries recorded or to be recorded without any interior division.

Massachusetts Highway Department: That state agency designated as MHD or formerly as Massachusetts Department of Public Works (MDPW).

Minor Street: A street which is used solely for access to abutting lots, and serves as legal frontage and access to residential units.

Owner: The owner of record as shown by the records in the Bristol County Fall River District Registry of Deeds or Bristol County Fall River District of the Land Court.

Person: An individual, two or more individuals, a partnership, association, or corporation.

Principal Street: A street which in the opinion of the Board is being used or will be used as a thoroughfare between different municipalities or will carry a heavy volume of traffic.

Registry of Deeds: Bristol County Fall River District Registry of Deeds.

Roadway or Travelled Way: The portion of a street intended for vehicular use.

Selectmen: The Selectmen of the Town of Swansea.

Subdivider: The person undertaking the subdivision of land.

Subdivision: As defined in General Laws, Chapter 41, Section 81-L or any amendment thereof, addition thereto, or substitution therefor.

Subdivision Control Law: Sections 81-K to 81-GG, inclusive, of Chapter 41 of the General Laws, and any acts in amendment thereof, in addition thereto or in substitution therefor.

Supervisor of Highway Services: Director of Engineering and Highway Services for the Town of Swansea or person holding said position having a different title.

Town: Town of Swansea

Utilities: Improvements for the provision of municipal or public services, such as water supply, sewerage, gas or steam piping, electricity, telephone, and others, serving more than one premises.

Section 1.000 **PLAN BELIEVED NOT TO REQUIRE APPROVAL**

Section 1.100 **Criteria**

1.101 Planning Board approval is not required for a division of land provided that every lot within the tract so divided has frontage on one or more of the following:

- a. a public way or a way which the Town Clerk certifies is maintained and used as a public way.
- b. a way shown on a plan theretofore approved and endorsed in accordance with the Subdivision Control Law.
- c. a street or way in existence prior to March 1, 1954 and in the opinion of the Planning Board, of sufficient width, suitable grade, adequate construction to provide access to every lot in accordance with MGL,

Chapter 41, Section 81-L and 81-M.

1.102 Conveyances changing the size and shape of the lots, provided that every lot so changed or affected by such change, has frontage as required by the Zoning By-Law.

1.103 The division of a tract of land, on which two or more buildings were standing prior to March 1, 1954, into separate lots on each of which one such building standing shall not constitute a subdivision.

Section 1.200 **Plan Submission**

Any person who believes that his plan does not require approval under the Subdivision Control Law, shall submit the following:

1.201 An original plan and seven prints.

1.202 One completed Form A (see Appendix A) to the Town Clerk and one copy to the Planning Board.

1.203 A \$50.00 filing fee for each lot shown on the plan that is to be created or changed excluding the first lot shall be filed with the Town Clerk.

1.204 When appropriate, evidence necessary to show that the plan does not require approval.

SECTION 1.300 Plan Contents

The plan submitted shall be suitable for recording at the Bristol County Registry of Deeds, and shall include at least the following:

- 1.301 Name and address of the property owner.
- 1.302 Date, scale, locus map and north arrow.
- 1.303 The name, seal and signature of the Registered Professional Land Surveyor who prepared the plan.
- 1.304 Boundaries and dimensions of the entire original tract, if the lots or parcels to be recorded are divided from a larger tract. If it is not practical to show the boundaries of the original tract on the plan, the area and frontage or all remaining land shall be stated on the plan.
- 1.305 The frontage and area in square feet shall be shown for every lot or parcel.
- 1.306 The names, widths and status (public or private) of all ways abutting the property shall be shown.
- 1.307 Proposed lots shall be designated numerically as parcels (Parcel 1, Parcel 2, etc.)
- 1.308 Names of owners and assessors plan and lot numbers for the property being divided and abutting properties shall appear on the plan.
- 1.309 Planning Board Signature Block:

"SWANSEA PLANNING BOARD
APPROVAL UNDER THE SUBDIVISION CONTROL
LAW NOT REQUIRED"

Date: _____

1.310 If the plan submitted has been exempted from certain zoning requirements by a decision of the Board of Appeals, the following notation shall appear on the plan:

"Subject to a variance granted on (date)_____by the Swansea Board of Appeals and recorded in the Bristol County Registry of Deeds in Book_____, Page_____."

If the Planning Board determines that the plan does not require approval in accordance with Chapter 41, Section 81 P, it shall, without a public hearing and without unnecessary delay endorse the plan accordingly. The plan shall be returned to the applicant and the Board shall

notify the Town Clerk of its action. Where the determination of the Board that a plan does not require approval is based on qualifying conditions, such as certain parcels are not to be used as separate building lots, or that the determination is made with respect to some but not all lots shown, the Board may include an explanatory or qualifying statement of its reasons as a part of its endorsement.

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, notify the Town Clerk and inform the applicant. Such notification shall be in writing.

If the board fails to act on a plan submitted under this section within twenty-one days after its submission, it shall be deemed to have determined that approval under the Subdivision Control Law is not required.

SECTION 2.000 PRELIMINARY PLAN

2.100 General

A preliminary plan, showing the proposed subdivision in a general way, submitted by the applicant for discussion and approval by the Board, enables the applicant, the Board, the Board of Health, and other Town agencies to discuss and clarify the problems of such subdivision before a definitive plan is prepared. Although not required for residential subdivisions, it is strongly recommended that a preliminary plan be filed in every case.

2.200 Application

- 2.201 Six copies of the preliminary plan to be filed with the Planning Board.
- 2.202 Completed Form B (see appendix) to be filed with the Town Clerk by the applicant.
- 2.203 Copy of Form B to be filed with the Planning Board.
- 2.204 A \$100.00 filing fee to cover the cost of initial engineering and planning review shall be filed with the Town Clerk.
- 2.205 A copy of the Preliminary Plan shall be filed with the Board of Health by the applicant.

2.300 Contents

The preliminary plan shall be drawn at a scale acceptable to the Planning Board and shall clearly show at least the following:

- 2.301 Subdivision name, boundaries, north point, date, scale, legend, locus plan and the title "Preliminary Plan".
- 2.302 Names and addresses of record owners, the applicant and the stamp of a registered professional engineer and/or land surveyor as required by the provision of Chapter 112 of the General Laws.
- 2.303 Names of all abutters, as determined from the most recent local tax list, including Plat and Lot numbers as shown on the Swansea Assessors plans.
- 2.304 Existing and proposed names, lines of streets, ways easements, and any public areas within the subdivision.
- 2.305 Proposed system of drainage, including existing natural waterways in a general manner.
- 2.306 Boundary lines of all proposed lots, with approximate area and dimensions.
- 2.307 Location, names, present widths and status of adjacent streets.
- 2.308 Topography of the land in a general manner.
- 2.309 As sewer is not available, percolation and water table tests may be required as directed by the Board. Two copies of the test results shall be submitted to the Board.

- 2.310 Any items required for a definitive plan on which the applicant would like Planning Board input in a preliminary manner.

2.400 Additional Information

The attention of the applicant is directed to the provisions of Chapter 784 of the Acts of 1972 (Section 40 Chapter 131 M.G.L.) Protection of Wetlands (new acts involve all wetlands and other areas subject to flooding), Coastal Wetlands Protection Act (Section 105 of Chapter 130 M.G.L.) and (Chapter 782 of Acts of 1972) (Section 40A of Chapter 131 M.G.L.) - An Act Further Protecting the Inland Wetlands and Flood Plains of the Commonwealth - if any wetlands, flood plains, coastal waters or inland waters are included in the proposed subdivision.

The attention of the applicant is directed to the Federal Emergency Management Agency (FEMA). Any subdivision of 50 lots or 5 acres, whichever is less, shall include base flood elevation data. When flood plan elevations have not been established for a Flood Zone "A", a registered profession engineer must conduct a study of the area to determine the exact flood plan elevation for each affected lot.

The attention of the applicant is directed to the requirement of the Massachusetts Highway Department that a permit be obtained before any work is performed within the State Highway Layout. Their permit will require a specific geometric design for street connections.

The attention of the applicant is directed to Article XIX of the Town of Swansea By-Laws entitled "Soil Conservation" All applicable requirements shall apply to subdivisions.

The attention of the applicant is directed to the United States Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (DEP) Storm Water Program. Subdivisions which disturb five (5) acres or more and having storm water discharge must provide a copy of the National Pollutant Discharge Elimination Systems (NYDES) Storm Water Discharge Permit and relevant information used in applying for said permit.

2.500 Approval

Within forty-five (45) days after submission, the Board shall approve, disapprove, or approve with modifications the preliminary plan, noting in the certificate its action and any changes that should be made.

SECTION 3.000 DEFINITIVE PLAN

3.100 Application

Any person who wishes to record at the Registry of Deeds or file with the Land Court, a plan which requires approval under the Subdivision Control Law shall submit the following:

Note: If all the lots shown on the plan front on a existing public way and the applicant is requesting a reduction from the required frontage, only submissions 3.101 to 3.105 are required. The plan shall show the information that is required for a Form "A" plan along with the Town Clerk's certification and Title Block as shown on Form J.

- 3.101 The original drawing of the definitive plan in ink on tracing cloth or mylar and seven (7) thereof, dark line on white background to be filed with the Town Clerk.
- 3.102 A check for \$1.00/Linear foot of roadway plus \$50.00 if the definitive plan evolved from a preliminary plan reviewed by the board of \$150.00 if the definitive plan did not evolve from a preliminary plan plus \$150.00 did not evolve from a preliminary plan plus \$150.00 against the cost of legal advertising plus \$50.00 per lot.
- 3.103 A properly executed application on Form C, and designer's certification on Form D (See Appendix) to be filed with the Town Clerk with a copy to the Planning Board.
- 3.104 A copy of the definitive plan shall be filed with the Board of Health by the applicant and verification of this submittal shall be filed with the Planning Board.
- 3.105 A list of abutters certified by the assessors office shall be submitted to the planning board.
- 3.106 To ensure that utility design is consistent with company specifications it is suggested that the following utilities are given copies of the subdivision plan:
 - Local Electric Company
 - Local Gas Company
 - Local Cable Television
 - Local Telephone Company
 - Swansea Telephone Company
- 3.107 Estimates of the cost of performing the various items of required work to complete the subdivision shall be furnished on a separate sheet and filed with the Planning Board.
- 3.108 A traverse table showing coordinates, bearings, distances and curve data for all points, lines and curves shall be submitted to the Planning Board.
- 3.109 A proposed schedule of construction activities for the development shall be filed with the Planning Board.
- 3.110 Environmental Impact evaluation shall be submitted in a narrative form, accompanied by such plans, calculation and exhibits as may be appropriate. It shall review the impact of the proposed subdivision on traffic, drainage, erosion, surface and ground water quality, air quality noise and lights, vegetation, wildlife and other natural resources; and shall describe the anticipated intensity of use or occupancy. If several alternative methods of subdividing are possible, the evaluation shall compare their anticipated impact on the environment in order to show that the design selected minimized the adverse and maximizes the beneficial environmental impacts.

3.200 **Form and Contents**

The Definitive Plan shall be prepared by a Massachusetts Registered Professional Engineer and/or a Massachusetts Registered Land Surveyor as required by law, and shall be clearly and legibly drawn in black India ink on tracing close or mylar. The plan shall be at a scale of one inch equals forty feet or such other scale as the Planning Board may accept to show details clearly and adequately. Sheet sizes shall not exceed 24" x 36". If multiple sheets are used, they

shall be accompanied by an index sheet showing the entire subdivision. Each page of the plan shall contain, in the lower right had corner, a title block and provisions for recording Planning Board actions (see Form J). The definitive plan shall be suitable for recording at the Bristol County Registry of Deeds and shall contain at least the following.

- 3.201 Subdivision name, boundaries, north point, date, scale, locus plan and legend and the title "Definitive Plan".
- 3.202 Names and address of record owner, applicant and engineer.
- 3.203 Names of all abutters, as determined from the most recent local tax list including assessor plan and lot numbers.
- 3.204 Existing and proposed lines of street, ways, easements, and public or common areas within the subdivision. (The names of proposed streets shall be shown in pencil until they have been approved by the Selectmen).
- 3.205 Location, names, and present widths of adjacent streets and whether public or private.
- 3.206 Width and location of existing and proposed roadways and sidewalks within and adjacent of the subdivision.
- 3.207 Proposed lots shall be designated numerically as parcels (Parcel 1, Parcel 2, etc.).
- 3.208 Boundary lines, areas, and dimensions of all proposed lots, with all lots designated numerically and in sequence. Lots not conforming to the Zoning By-laws shall bear the following notation: "Parcel _____ shall not be used as a separate building lot".
- 3.209 Sufficient data to determine readily the location, bearing, or length of every street line, lot line, easement, zoning district, and boundary line and to reproduce same on the ground. The perimeter survey shall have a closure of 1: 15,000 or better.
- 3.210 Location of all permanent monuments properly identified as to whether existing of proposed.
- 3.211 Location of proposed permanent monuments at changes in direction of the proposed street right-of-way lines including points of curvature or where designated by the board.
- 3.212 Major features of the property and within 100' of the property such as existing walls, fences, trails, buildings, wooded area, outcropping, wetlands and natural waterways shall be shown.
- 3.213 Existing and proposed topography with two (2) foot contour intervals related to an existing permanent bench mark for any areas to be altered. All elevations shall refer to mean sea level.
- 3.214 The inscriptions as displayed on form "J" shall be shown on the plan.
- 3.215 Zoning District Boundaries including Aquifer Protection Districts and Flood Plain Zones.
- 3.216 Lot dimensions shall comply with the minimum standards of the Zoning Regulations.
- 3.217 Proposed utilities within and adjacent to the subdivision shall be shown.

- 3.218 Proposed system of storm drainage, including adjacent natural waterways. Size and locations of existing and proposed storm drains, piping, waterways and drainage ponds. All hydraulic design criteria is to be approved by the Board. Profiles and typical sections of existing and proposed waterways within and adjacent to the proposed shall be shown. Elevations of high water marks shall be shown.
- 3.219 When, in the opinion of the Board, existing soil conditions are unsuitable for the construction of roadways or building thereon, punchings or other means suitable to the Board to determine the depth of unsuitable to the Board to determine the depth of

unsuitable material shall be taken and the location of hard bottom shall be shown on the profiles.

- 3.220 Prior to a final approval of the Board, the applicant and the design engineer may be required to attend a site inspection with the Board. In order to facilitate inspection and review of the subdivision, temporary staking and/or marking along the approximate center line of all proposed roads in the subdivision may be required for the site inspection.

3.300 **Utility and Street Plan**

The definitive plan will show at least the following utilities and street information.

- 3.301 Proposed street right-of-way lines with sufficient data including lengths of curves, tangents, radii, or bearing product to determine their exact location.
- 3.302 A center line with fifty (50) foot stations.
- 3.303 Existing and proposed topography with two (2) foot contour intervals related to an existing permanent bench mark for any areas to be altered. All elevations shall refer to Mean Sea Level.
- 3.304 Within the proposed street right-of-way lines and 100 feet beyond said lines, major features, water bodies, stonewalls, residences, outcroppings and buildings shall be shown.
- 3.305 The type, size and location of existing and proposed water supply mains and their appurtenances, hydrants, storm drains and their appurtenances, and easements pertinent thereto.
- 3.306 Where utilities are not located within the or adjacent to the proposed streets, additional details showing the type, location, and size of such existing or proposed utilities and easement locations shall be shown.
- 3.307 Gutter profile at intersections, around cul-de-sacs, and at other locations as required by the Board.
- 3.308 Directly above or below the street plan, a profile of the proposed roadway which shall include at least the following:
- a. The title: 'Profile of (proposed street name).'
 - b. A horizontal scale of 1"=40' and a vertical scale of 1"=4'
 - c. The existing roadway centerline grades in fine, dashed lines.
 - d. The proposed roadway centerline grades in heavy, solid line.
 - e. Proposed grade elevation shown at the beginning and end of the roadway and at fifty (50) foot station intervals and twenty-five (25) foot intervals along the vertical curves.
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- f. Proposed grade elevation shown at the beginning and end of all vertical curves.
 - g. Rates of gradient in percent
 - h. The location of any intersecting and private roadway.
 - i. The type, location and size of existing and proposed utilities within the street.
- 3.309 A specific cross section referenced to the plan of proposed streets scaled from a typical section of each roadway. The street and utility plan shall identify where each cross section has been taken. Cross sections are required where there are substantial variations in topography or where the right-of-way width varies. The cross section shall show the

following:

- a. Title: Specific Cross Section Number ___ of (proposed street."
 - b. A suitable scale that clearly shows all parts and dimensions of each specific cross section.
 - c. The location and widths of the street right-of-way, roadway, curbs, sidewalks and shoulders.
 - d. The treatment of the proposed roadway and shoulders, gravel base, pavement, depth of loam and specific information as to the thickness of each layer and the material to be used.
 - e. The crown of roadway, pitch of sidewalks, grade of slopes, etc.
 - f. The design and dimensions of proposed curbing.
 - g. The typical location of street lights, utility poles, fire hydrants, etc. within the right-of-way, even if these particular items do not fall within the actual cross section location on the plan.
- 3.310 Construction details for any bridges, guardrails, headwalls, manholes, or other appurtenances necessary for the completion of the required improvements.
- 3.311 The Roadway shall be designed and constructed in accordance with the standard cross section (see appendix) unless the board waives or modifies this requirement because of the nature of the street and the traffic that it is expected to accommodate.
- 3.312 Boring, percolation and water table tests as required for leaching catch basins or detention ponds. In addition, information shall be provided on the plan stating the date of testing, the water level elevation, percolation rate, and the name of the Board of Health inspector who witnessed the test
- 3.313 If a detention or retention basin, pond or area is proposed for the subdivision on the plan shall include profiles, typical sections, the types of materials to be used in its construction, proposed capacity and proposed depth. In addition, no less than two percolation and water table tests shall be conducted by the applicant in the vicinity of the proposed basin during the established wet season.

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3.400 Review by other Departments and Boards

Once the Definitive Plan has been properly submitted to the Planning Board, the plan will be submitted to and reviewed by the following:

- 3.401 The Planning Staff for compliance with these Subdivision Rules and Regulations, particularly the design standards for a Definitive Subdivision Plan, and compliance with M.G.L., Chapter 41, Section 81-M.
- 3.402 The Board of Health for its recommendation whether the Plan for health reasons should be approved, approved with modifications, or disapproved in accordance with M.G.L.,

Chapter 41, Section 81-U.

- 3.403 The Supervisor of Highway Services for design review of proposed streets, utilities, and drainage system.
- 3.404 The Conservation Commission for review as to the effect of the proposed subdivision on wetlands.
- 3.405 The Swansea Water District for design of review of the public water supply distribution system.
- 3.406 The Fire Chief and Police Chief for review of fire protection, E911 requirements, street names and public safety.
- 3.407 At the option of the Planning Board any specialized professional for review of issues raised in determining compliance with these rules and regulations and the subdivision control law.

Failure of the Board of Health to report, in writing, within forty-five (45) days after the date of submittal shall be deemed approved of the plan by said Board.

3.500 **Lots**

All lots shown on the plan shall comply with the area, frontage and all other requirements of the Zoning By-Law of the Town of Swansea.

3.600 **Open Spaces**

Before approval of a plan the Board may also in proper cases require the plan to show a park or parks suitably located for playground or recreation purposes or for providing light or air. The park or parks shall not be unreasonable in area in relation to the land being subdivided and to the prospective uses of such land. The Board may by appropriate endorsement on the plan require that no building be erected upon such park or parks without its written approval for a period of not more than three (3) years.

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3.700 **Protection of Natural Features**

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

3.800 **Public Hearing**

Before approval, modification and approval, or disapproval of the definitive plan is given, a public hearing shall be held at the petitioners expense by the Board, notice of the time and place of which 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 Swansea once in each of two successive weeks, the first publication being not less than fourteen days before the day of such hearing, and by mailing a copy of such advertisement to the applicant and to all owners of land abutting upon the land included in such plan as appearing on the most recent tax list.

3.900 Decision of the Planning Board

The action of the Planning Board in respect to such plan shall be by vote, copies of which shall be sent by delivery or registered mail to the applicant and filed with the Town Clerk. If the Planning Board modifies or disapproved such plan, it shall state in its vote the reasons for its action. Final approval, if granted, shall be endorsed on the original drawing of the definitive plan by the majority of the Planning Board but not until the statutory twenty day appeal period has elapsed following the filing of the certification of the action of the Planning Board and of the Town Clerk that no appeal has been filed or that a final decree has been issued by the court. After the definitive plan has been approved and endorsed, the applicant shall furnish the Planning Board with one mylar copy and two prints thereof.

The Planning Board must act on the plan within ninety (90) days (if the submitted Definitive Plan evolved from a Preliminary Plan acted upon by the Planning Board) or one hundred and thirty-five (135) days (if the submitted Definitive Plan did not evolve from a Preliminary Plan acted upon by the Planning Board). Except that an extension of the time limit is permitted, if agreed upon by the Planning Board and applicant in writing.

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

SECTION 4.000 SUBSEQUENT ACTION OF THE DEFINITIVE PLAN

4.100 Performance Guarantee

Before endorsement of its approval of a plan, the Planning Board shall require that the construction of ways and the installation of municipal services be secured by one, or in part by one and in part by another, of the methods described in the following clauses a,b,c and d which method or combination of methods may be selected and from time to time varied by the applicant.

- a. By a proper bond, sufficient in the opinion of the Planning Board to secure

performance of the construction of ways and the installation of municipal services required for lots in the subdivision shown on the plan, and the Planning Board may require that the applicant specify the time within which such construction shall be completed.

b. By a deposit of money or negotiable securities, sufficient in the opinion of the Planning Board to secure performance of the construction of ways and the installation of municipal services required for lots in the subdivision shown on the plan, and the Planning Board may require that the applicant specify the time within which such construction shall be completed.

c. By a covenant, executed and duly recorded by the owner of record, running with the land, whereby such ways and services shall be provided to serve any lot before such lot may be built upon or conveyed, other than by mortgage deed; provided, that a mortgagee who equerries title to the mortgage premises by foreclosure or otherwise and succeeding owner of such premises or part thereof may sell and such lot, subject to that portion of the covenant which provides that no such lot shall be built upon until such ways and services have been provided to serve such lot; and provided, further, that nothing herein shall be deemed to prohibit a conveyance by a single deed, subject to such a covenant, of either the entire parcel of land shown on the subdivision plan or of all lots not previously released by the Planning Board. A deed of any part of the subdivision in violation hereof shall be voidable by the grantee prior to the release of the covenant but not later than three years from the date of such deed.

d. By delivery to the Planning Board of an agreement executed after the recording of the first mortgage covering the premises shown on the plan or portion thereof given as security for advances to be made to the applicant by the lender, which agreement shall be executed by the applicant and the lender and shall provide for the retention by the lender of funds sufficient in the opinion of the Planning Board and otherwise due to the applicant, to secure the construction of ways and the installation of municipal services. Said agreement shall also provide for a schedule of disbursements which may be made to the applicant upon completion of various stages of work, and shall further provide that in the event the work is not completed with the time set forth by the applicant, and funds remaining undisclosed shall be available for completion.

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Such bond or security, if filed or deposited, shall be approved as to form and manner of execution by the Town Counsel and as to sureties by the Town Treasurer, prior to acceptance by the Planning Board and prior to the endorsement of the definitive subdivision plan.

The developer may change the method of securing the required construction for all or part of a subdivision from a covenant to a bond or other security. The developer may request, with the written concurrence of the surety company, if any, reduction in the sum of the bond or other security or an extension of the within which the work specified in a covenant or required to be performed under a bond or other security may be completed, and the Board may, at its option, grant such reduction or extension and notify the Town Clerk, the developer and the surety, if any, of such reduction or extension. In no event shall the amount of the Performance Guarantee be reduced below \$5,000 until all improvements have been completed. Board actions with respect to the approval or disapproval of a subdivision plan, acceptance of covenant, release of lots or extension of time shall be by a certificate the Registry of Deeds or filing with the recorder of the

Land Court.

Before the Planning Board will release a surety bond or deposit, or in the case of a covenant, issue a certificate of performance, the applicant shall obtain and submit to the Planning Board written evidence that the required work has been completed to the satisfaction of the Selectmen.

4.200 Street Maintenance

The subdivider or his successors in title shall maintain all streets and municipal services and utilities in satisfactory condition, and to provide traffic services including snow and ice control, until the streets are accepted by the Town.

4.300 Conveyance of Utilities and Easements and Dedication of Streets

Prior to the release of a bond or other security, or to the issuance of a certificate of performance, releasing the developer from the conditions of a covenant or any other instrument intended to secure the performance of required work, the developer shall, without cost to the Town, convey or transfer title or rights as follows:

4.400 Conveyance of Travel Easements

Convey to the Town of Swansea the right to use streets and any travel easements in the subdivision for the purposes of public travel, installation of utilities and all other purposes for which streets are or may be used in Swansea. This shall include the right to enter said streets and to sweep, remove snow, maintain, reconstruct, and repair them; including all acts necessarily or customarily incidental thereto; but shall not be construed to relieve the developers and their successors in title to any portion of a street in a subdivision from the responsibility of maintaining said street in good repair until it is accepted by the Town.

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4.500 Conveyance of Drainage

Convey to the Town of Swansea the right and easement to construct, extend, operate remove, replace, repair and forever maintain all surface and subsurface drains and their appurtenances, such as inlets, catchbasins, manholes, wingwalls, ditches, and paved sluiceways, in and under streets and easements, and where necessary indicate such easements on the subdivision plans at least five feet from the centerline of drain on one side and fifteen feet on the other. This shall not be construed to relieve the developer and his successors in title from the responsibility of maintaining all drains in good repair until the streets and appurtenant drainage easements are accepted by the Town.

4.600 Conveyance of Water System

Convey to the Swansea Water District the right and easement to construct, extend, operate,

remove, replace, repair and forever maintain all water mains, valves, pipes, hydrants and other appurtenances in and under streets and easements, indicating where necessary such easements on the definitive subdivision plan as extending at least five feet from the centerline of the water pipe on one side and fifteen feet on the other. This shall not be construed to relieve the developer and his successors in title from the responsibility of maintaining all water supply piping and appurtenances in good repair until the streets and appurtenant easements are accepted by the Town.

4.700 As Built Plans

The applicant shall provide at no cost to the Town a layout of each street in the subdivision, as built. The Planning Board may hold a portion of the performance guarantee to cover the cost of work which is necessary to satisfy this requirement. The plan shall be drawn in black india ink upon tracing cloth or mylar and shall show the following:

- a. Street lines and grades
- b. Lot frontage dimensions
- c. Bearings o lot lines which intersect with street lines.
- d. Horizontal and vertical location of storm drainage system, water, electrical, telephone, gas cable and all other utilities. This shall include service connections from the main to the street line or to the limit of easements.
- e. Grades of gravity features
- f. Location of edge of traveled ways.
- g. Location of edge of traveled ways.
- h. All data necessary to reproduce any and all lines on the ground
- i. Subdivision Name and Title Block in bottom left corner
- j. Locus plan and house numbers

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There shall be no more than one (1) street on each sheet without the expressed consent of the Board. As-built plans shall be prepared by a land surveyor currently registered in the Commonwealth of Massachusetts, as required by law.

Included with the as-built plans will be a meets and bounds description of the street as it will be presented to the Selectmen for acceptance at a Town Meeting.

SECTION 5.000 ADMINISTRATION

5.100 Variation

Strict compliance with the requirements of these Rules and Regulations may be waived when, in the judgement o the Board, such action is in the public interest and not inconsistent with the Subdivision Control Law.

5.200 Reference

For matters not covered by these Rules and Regulations, reference is made to Sections 81-K to 81-GG, inclusive, of Chapter 41 of the General Laws, and acts in amendment thereof, in addition thereto or in substitution thereof.

5.300 One Dwelling 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 of Swansea, without the consent of the Planning Board.

5.400 Subdivision Completion

Road construction shall be completed within two (2) years of the approval of the definitive plan. The Planning Board may grant extensions to this time limit if in the opinion of the Planning Board it would be in the best interest of the public to do so.

5.500 Acceptance

No road shall be accepted by the town until the procedures outlined in M.G.L. Chapter 82, Sections 21, 22 and 23 have been completed.

5.600 Separability

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

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5.700 Street Names

All roads shall be named and such names shall be subject to the approval of the Board of Selectmen. Names shall be sufficiently different to sound and spelling from other road names in the Town so as not to cause confusion. A road which is a continuation of another road shall bear the same name. In general, street names shall conform to the following classifications:

Street, Avenue, or Road - Major or Collector Street.

Drive or Lane - Local Residential Street (accept as follows).

Court or Place - Dead-end Street (permanent)

Circle - A street, both ends of which intersect another street at different locations.

Section 6.000 Design Standards

6.100 Streets

All subdivisions shall be designed and laid out to meet the requirements of public safety, including precautions against possible natural disasters, of traffic safety and convenience, of adequate storm water drainage and sewage disposal, and with due regard for the rights, health and welfare of the inhabitants of the Town of Swansea, including the future residents of the proposed subdivision. Subdivision design shall adhere to the principles of correct land use, sound planning and good engineering.

- 6.101 The proposed streets shall conform to any Master or Study Plan or any part thereof adopted in whole or in part by the Planning Board.
- 6.102 If adjoining property is not subdivided but is, in the opinion of the planning board, suitable for ultimate development, provision shall be required for proper projection of streets into such property by continuing appropriate streets within the subdivision to the exterior boundary thereof.
- 6.103 Reserve strips prohibiting access to streets or adjoining property shall not be permitted, except where, in the opinion of the Planning Board, such strips will be in the public interests.
- 6.104 Streets shall be laid out so as to intersect as nearly as possible at right angles. NO street shall intersect any other street at less than sixty (60) degrees.
- 6.105 Street lines at all intersections shall be rounded with a curve at each corner having a radius of not less than twenty-five (25) feet. However, when the intersection of two streets varies more than ten (10) degrees from a right angle, the radius of the curve at the acute angle may be greater than twenty-five feet to extent approved or required by the Planning Board.
- 6.106 A leveling area shall be provided having a minus one percent (-1%) grade for a distance of fifty (50) feet measured from the nearest exterior line of the intersecting street, to the point of vertical curvature.

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- 6.107 Streets in a subdivision shall connect and be accessible for a public way or a private way both of which must be deemed adequate in the opinion of the Planning Board to provide access. If the streets in the subdivision connect to a private way, the applicant must have the proper rights to a private way. The Planning Board shall be satisfied that adequate account for emergency vehicles is provided to all of the lots within the subdivision.
- 6.108 Three way intersections, especially within the subdivision, will be encouraged in order to slow traffic and minimize the possibility of collisions. Four-way intersections are to be avoided. Street jogs shall have minimum centerline offsets from the larger classified street as shown in table 1.
- 6.109 Where in the opinion of the Planning Board through streets are not needed for a safe and convenient circulation pattern, dead-end streets may be used, but the total length of a dead-end street shall be such as to provide minimum street frontage for not frontage requirements of the Swansea Zoning By-law. The Board may waive this limitation where in the Board's opinion greater length is justified by topography or other local conditions.

6.200 Classification

a. Minor Street - A street which is used solely for access to abutting lots, and serves as legal frontage and access to residential units.

b. Principal Street - A street which will in the opinion of the Board is being used or will be use as a thoroughfare between different municipalities or will carry a heavy volume of traffic (example Route 6, 118, 103).

**TABLE 1
STREET DESIGN STANDARDS**

	Minor Street	Principal Street
Maximum Cul-de-sac grade	4%	4%
Minimum grade	1%	1%
Minimum grade	9%	7%
Right-of-way width	50'	60'
Right-of-way intersection radii	25'	30'
Street centerline offsets	300'	300'
Centerline radii	150'	300'
Reverse curves intermediate tangent	50'	75'
Curve to intersection intermediate tangent	100'	100'
Pavement width	26'	32'
Pavement width	37'	44'
Minimum Stopping Site Distance		
	Crest	200' k=28
	Sag	200' k=35

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This table is for design speed of 30 miles per hour. For higher design speed requirements refer to the Massachusetts Department of Public Works Highway Design Manual.

6.201 Turnarounds

All dead-end streets shall be provided with a turnaround at the closed end. Dead-end streets shall be at least fifty (50) feet in length before a turnaround. A dead-end street shall have a circular turnaround at its terminus with a minimum right of way radius of fifty (50) feet and its minimum outside pavement radius of forty (40) feet.

6.202 Curbing

Curbing for residential minor streets shall be Cape Cod Berm. For residential principal streets, cluster subdivisions and commercial developments the curbing shall be granite (vertical or sloped) or concrete (precast or cast in place).

Granite (vertical) or concrete (precast) curbing with a curb inlet shall be used as a header for all catch basins in areas where increased flow of street water is anticipated or as required by the board.

A maximum curb cut of thirty (30) feet per lot shall be provided for a residential driveway unless waived by the Planning Board. Curb openings for driveways shall be graded in such a way as to prevent normal runoff water from entering the driveway from the street right-of-way. Curb cuts shall also be provided where sidewalks connect to the street so that wheeled access is provided.

6.203 Shoulders

The area beyond the curb or sidewalk shall be graded in accordance with the typical cross section, loamed and seeded. Hydrants, lights and street signs shall be placed at least five (5) feet beyond the edge of the curbing so that an obstacle-free shoulder of five (5) feet is provided along the entire roadway.

6.204 Guardrails

Guardrails shall be required by the Planning Board where, in the opinion of the Planning Board, there are hazards such as drop-offs, steep grades (greater than 50 percent), or water bodies beyond the shoulder.

6.205 Sidewalks

Concrete sidewalks of not less than four (4) feet in width shall be constructed on both sides of Principal Streets and Minor Streets that will be used for commercial development.

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Sidewalks shall be required on one side of the street for residential subdivisions that contain more than sixteen (16) lots or have a roadway length or potential length of more than 1,200 linear feet. Sidewalks will also be required for smaller subdivisions when in the opinion of the planning board the area is subject to a high concentration of pedestrian travel, such as near schools, highways or business areas.

6.206 Street Signs

Permanent street signs with the approved street name as shown on the Definitive Plan shall be installed at every intersection in accordance with the Manual or Uniform Traffic Control Devices. Streets will be labeled as "Private Way" until it has been accepted by the Town. Any other signs required by the Planning Board, such as "Keep Right", or "One Way" shall also be installed. Temporary street signs, meeting the approval of the Planning Board, for material, size and location, may be utilized until construction permits final installation.

6.207 Monuments

6"x6 Reinforced concrete or granite bounds not less than four feet in length, shall be set on the exterior street lines at all angle points, at the beginning and end of all curves, and at all intersections. Such bounds shall be set with their tops flush with the finish grade, unless the Planning Board directs otherwise.

6.208 Drainage

a. General

Storm drains, culverts, catch basins and related facilities shall be designed to permit the unimpeded flow of all natural water courses, to ensure adequate drainage at all low points along streets, to control erosion, to prevent water from flowing onto abutting property and to intercept storm water run-off along streets at intervals reasonably related to the extent and grade of the area being drained. Lots shall be prepared and graded consistent with drainage within the subdivision and in such a manner that development of a lot shall not cause detrimental drainage on another lot, on adjacent ways, and on areas outside the subdivision.

Adequate disposal of surface water shall be provided. Catch basins shall be built in conformity with the current specifications of the Planning Board on both sides of the roadway on continuous grades such that surface water will not need to run along the edge of pavement for a distance of not more than four hundred (400) feet, at low points and sags in the roadway, and near the corners of the roadways at intersecting streets. Drain pipes shall be located when possible approximately one (1) foot from the nearer edge of the pavement and shall be laid in straight segments with manholes at all changes in direction or grade, at all pipe connections from catchbasins or other drains, but in no case at an interval of more than 300 feet.

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b. Stormwater Facilities

Water collected by the drainage system shall be detained onsite and filtered through man-made Detention and Filtration Systems before discharge into any waterbody, wetland area, or the general environment. Unless waived by the Planning Board, drainage water must flow for a distance of fifty (50) feet from the drainage system outfall pipe through detention and filtration facilities before discharge. Detention and filtration systems include detention basins, check swales, swales, and other such facilities.

Every subdivision and its utilities and drainage shall be located and designed to be consistent with the need to minimize flood damage.

Design of such detention and filtration systems shall be consistent with the requirement that peak runoff and stream flows at the boundaries of the development in a one-hundred (100) year frequency storm shall be no higher following development than prior to development.

All detention and filtration systems shall be designed so that the bottom of any such facility is elevated at least 2' above the ground water. Ground water elevation tests, as conducted by the Board of Health for a septic system, shall be undertaken in the area of the basin to determine such ground water elevation.

All catch basins shall be designed as vertical drains to limit water runoff from a subdivision.

Efforts must be made to limit runoff from the site and to ensure that relatively clean storm water is recharged into the ground water evenly throughout the subdivision.

When vertical drains or other systems designed to introduce storm water into the ground are utilized within 10' of a proposed or existing water main, the leaching system shall be wrapped with a nonwoven filter fabric to prevent fine materials being carried between the washed crushed stone and surrounding materials.

Catch basins and drain pipes shall be designed to handle the runoff for a twenty-five (25) year storm frequency.

Drain pipes shall be laid at a slope of not less than 1% or greater than 10% and so as to have at least 16" cover to finish grade for reinforced concrete pipes, class III and corrugated plastic pipe (HDPE with smooth bore). With the exception of pipes used for subdrains, storm drain pipes shall have a minimum diameter of 12".

All manmade embankment areas shall be completely cleared of organic matter. Manmade embankments shall consist of clean inorganic fill, properly compacted with maximum side slopes of three (3) feet horizontal and one (1) foot vertical then loamed (4" minimum) and seeded with grass. The interior side of the manmade embankments from the bottom of the basin to its top cannot exceed six (6) feet in height. All embankments whether manmade or existing shall be

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composed of a material which does not allow seepage. The engineer is encouraged to design basins and embankments which utilize existing topographic features.

Adequate physical access for maintenance purposes shall be provided in and around drainage facilities.

6.209 Water Facilities

a. Installation

Water mains, with hydrants, valves and other fittings, shall be constructed and installed within the subdivision as necessary to provide to all lots therein adequate water supply for domestic and fire protection use.

b. Connections

Proper connections shall be made with existing water systems. Where property adjacent to the subdivision is not subdivided, provisions shall be made for proper projects of the systems by continuing appropriate water mains to the exterior boundaries of the subdivision, at such size and grade as will allow for the projections, except that the installation of water mains for these projections will be required where their location is outside paved areas.

c. Service Connections

Service connections for water from the main structures in the street to the exterior lines thereof shall be installed for each lot shown on the plan, whether or not there is a building thereon. Any deviation of this requirement necessitated by the unusual topography or technical difficulties must have the specific approval from the Superintendent of the Swansea Water District.

d. Specifications

The water system shall be laid out to the satisfaction of the Planning Board and the Board of Water Commissioners who will require provision of such facilities and arrangement thereof as in their opinion are necessary to carry out the intent of subparagraph a,b and c above. The installation of the water systems, including the methods of construction and the quality of materials used, shall conform to the applicable standard specifications of the Board of Water Commissioners.

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e. Testing and Chlorination

Before water is turned on in the water supply system of a subdivision, the entire system, including pipes and all appurtenances, shall be flushed, chlorinated and pressure tested to the satisfaction of the Swansea Water District.

f. System Development Charge

The attention of the subdividers and their successors in title is drawn to the system development charge imposed by the Swansea Water District and payable when a building service connection is made to the water system.

6.210 Hydrants

Hydrants shall be installed not more than five' hundred (500) feet apart and as close to the dividing lot lines as possible. Proposed location shall be submitted to the Fire Chief for his approval.

6.211 Utilities

a. Installation

All electrical, telephone, gas, cable television and other utility mains including service

connections shall be constructed and installed within the subdivision as necessary to provide all lots therein adequate supply for domestic electric, communications and fire protection use.

b. Specifications

Such utility systems shall be laid out to the satisfaction of the respective utilities and the Planning Board. The installation of these systems, including the methods of construction and the quality of materials used, shall conform to the then current Standard Specifications of the utilities, other applicable codes, and Laws of the Commonwealth.

c. Street Lighting

The applicant shall ascertain the intention of the selectmen with respect to street lighting and arrange for provision in the preliminary planning of the utility. All costs of installation shall be paid by the developer. Normally lights will be required at intersections and turnarounds as a minimum.

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d. Underground Installations

All electrical, telephone, gas, cable television and other utility mains, wires and service connections shall be placed underground in all residential subdivisions, unless the Planning Board determines that such placement is not feasible or is not in the best interest of the Town of Swansea. All underground installations shall be complete as specified prior to street paving.

e. Service Easements

Easements for services across lots or centered on the rear or side lot lines shall be provided where necessary and shall be at least twenty (20) feet wide.

7.000 Construction Standards and Requirements

7.100 Conformance with State Specifications

a. Unless otherwise specified, all the work and materials used in the subdivision shall conform to the requirements of the "Commonwealth of Massachusetts, Department of Public Works, Standard Specifications for Highways and Bridges" 1988 edition, or any amendment thereof, addition thereto, or substitution thereof as may be issued by the Massachusetts Highway Department.

b. Unless otherwise specified, Construction Standards shall conform to the most current

revisions as published by the Massachusetts Highway Department.

c. Wherever in the Documents referred to in paragraph a, and b, above, the following terms, or pronouns in place of them are used, the intent and meaning shall be interpreted by substitution as follows:

"Commonwealth"	Town of Swansea
"Department"	Board of Selectmen of the Town of Swansea
"Engineer"	The Supervisor of Highway Services of the Town of Swansea

7.200 Inspections

The inspector designated by the Planning Board shall be a Massachusetts Registered Professional Engineer.

The subdivider shall notify the Supervisor of Highway Services and the Planning Board in writing at least 48 hours prior to the time at which each one of the following required inspections (see appendix Form K) should take place. The inspector at the time of inspection shall sign

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copies of the Form K, one will be filed with the Planning Board, one with the developer and one with the Planning Board, one with the developer and one with the inspector. No work will be approved that has been covered before the required inspection.

- a. Prior to the initial start of construction
- b. Upon completion of clearing, grubbing and excavation but prior to placement of any suitable fill to reach subgrade.
- c. Upon the completion of the installation of the underground utilities and drainage but prior to any backfilling.
- d. The subgrade prior to the installation of the gravel base.
- e. The gravel base course for streets and sidewalks shall be approved in two stages. The final stage shall be at the completion of the bank run gravel and the second stage shall be at the completion of the graded gravel.
- f. Notification shall be required prior to the start of each application of bituminous concrete, pouring of concrete in sidewalks and prior to the placement of curbing.
- g. Notification is also required when materials and other items of work are ready for inspection such as the installation of bounds, loam and seeding, and general cleanup.

7.300 Safety Requirements

The Subdivider shall provide safe and convenient access to all parts of the subdivision that require inspection.

The subdivider shall fully comply with the rules and regulations promulgated by OSHA, Dig Safe and all other federal and state agencies, whether mentioned or not.

All work related to the subdivision shall be performed so as to avoid hazard, damage or inconvenience to the public, and adjoining property owners. Adequate measures, as approved by the Planning Board, shall be provided for the control of siltation and erosion, surface water, dust, noise and traffic.

7.400 Grade Stakes

The subdivider shall provide and maintain grade stakes place 1' off the edge of pavement at all fifty (50) foot stations, prior to placing any suitable fill on the subgrade or placing the gravel base.

7.500 Clearing and Grubbing

The entire area within the exterior layout lines of all streets in the subdivision shall be cleared of all stumps, brush, roots, boulders, and other objectionable materials and all trees not intended for the preservation; followed by the removal of all loam and other yielding material; then excavated as necessary, and graded in accordance with the Definitive Plan. Attention is directed to Article XIX Soil Conservation of the By-Laws of the Town of Swansea, as a soil removal permit may be required.

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7.600 Subgrade

- a. Where objectionable materials are encountered to a greater depth than anticipated, the subdivider shall cause to have removed said materials
- b. The subgrade shall be thoroughly compacted prior to any filling, grading, or placement of any fill material.
- c. The Planning Board will require a minimum of two test per road or one test every 300 feet (which ever is greater) for gradation and compaction of the subgrade to ensure compliance with the Massachusetts Highway Department Standards. Test locations shall be approved by the Planning Board's designated inspector. Costs for sample gathering and testing shall be the responsibility of the developer.

7.700 Drainage and Utility Installation

When a pipe is to be laid in an unstable material, as determined by the Planning Board, it will be required that the unsuitable material be removed and replace with a bedding of gravel or crushed stone to the specifications of the Planning Board or designated inspector.

In locations where high ground water is encountered or where in the opinion of the Planning Board it may be encountered, or in wet spongy areas, sub-drains shall be required. The Planning Board, during construction or after approval of a subdivision, upon visual inspection of the field conditions, require additional sub-drains to be installed as per their specifications.

7.800 Backfill of Trenches

- a. Back fill in trenches within the right-of-way limits shall be placed in layers not exceeding twelve (12) inches in thickness and shall be thoroughly moistened and tamped with a

mechanical tamper to the satisfaction of the Planning Board. Trench jetting may be used as an alternative if approved by the Planning Board.

- b. All materials used for backfilling of road subbase shall be subject to the inspection and approval of the Planning Board. At no time will frozen material be used for backfilling.
- c. Bedding materials and methods for each particular utility line shall be as determined by the affected utility. A minimum of twelve (12) inches of select material with no stones larger than one and one-half (1 1/2) inches shall be placed over and on the sides of each utility line.
- d. All utility trenches shall be backfilled a minimum of thirty (30) days prior to placement of the gravel base unless waived by the Planning Board.

7.900 Color Coded Marking Tape

- a. A color coded and magnetic detectable marking tape shall be placed a minimum of eighteen (18) inches and a maximum of thirty (30) inches below the final grade above all underground utility installations except storm drains and sanitary sewers running in straight lines between catch basins and manholes which identify the underground installation.

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- b. Tape shall be durable non-degradable plastic with metal strip not less than two (2) inches wide by four thousandths (0.004) inches thick and in the following colors for particular underground utility:

red-	electric
yellow-	Gas and oil
green-	sewer
orange-	communications
blue-	water

8.000 Service Connections

The service connection for each respective utility shall be marked at the property line for each and every lot. Marker posts will be oak or pressure treated wood a minimum of 2" x2", driven a minimum of twelve (12) inches into the ground, and exposed a minimum of twenty-four (24) inches above the surrounding ground. Marker posts shall be painted according to the color coding of the utility and shall be in place for final inspection.

8.100 Gravel

- a. Gravel shall be placed in maximum one (1) foot compacted lifts,
- b. Bank gravel type b shall be a minimum of eight (8) inches compacted under streets and sidewalks.
- c. Processed gravel shall be a minimum of four (4) inches compacted under streets.
- d. The Planning Board will require a minimum of two tests per road or one test every 300 feet (which ever is greater) for gradation and compaction of the gravel to ensure compliance with the Massachusetts Highway Department Standards. Test locations shall be approved by the Planning Board's designated inspector. Costs for sample gathering and testing shall be the

responsibility of the developer.

8.200 Bituminous Concrete

- a. Bituminous concrete shall be placed between April 1, and November 15 as weather conditions permit unless waived by the Planning Board. Air and ground temperature will be 35 F and rising for mix placement. In no case shall, paving be permitted on frozen or water soaked surfaces.
- b. All materials shall be supplied from currently State approved batch or drum mix plants. Only State approved mix designs shall be used.
- c. A delivery ticket from an automatic printer system shall be supplied to the town inspector for each load of bituminous concrete or portion thereof delivered the subdivision and placed.
- d. There shall be a minimum one (1) year waiting period between placement of the two (2) inch binder and the (2) inch of course top bituminous concrete. A tack coat shall be applied to the binder course just prior to tope course placement.

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8.300 Sidewalks

A minimum of eight (8) inches of bank run gravel type b shall be under sidewalks.

Sidewalks shall be constructed of 4000 psi concrete with 3/4 inch aggregate, 610 pounds per cubic yard cement and 7% air entrained content. Depth of concrete shall be four (4) inches minimum except at driveways where it shall be six (6) inches minimum.