

Hudson Subdivision Control Rules and Regulations

July 17, 2018

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1.0. PURPOSE, AUTHORITY AND EFFECT.

1.1. Purpose.

- 1.1.1. These subdivision regulations are adopted under the provisions of Chapter 41 of the General Law for the purpose of protecting the safety, convenience, and welfare of the inhabitants of the Town of Hudson 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 Planning 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 of 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 Zoning By-laws; for securing adequate provision for water, sewerage, drainage, underground utility services, fire, police, and other similar municipal equipment, and street lighting and other requirements where necessary in a subdivision; and for coordinating the ways in a subdivision with each other and with the public ways in the Town and with the ways in neighboring subdivisions".
- 1.1.2. To promote stormwater management practices that maintain pre-development hydrology through site design, site development, building design and landscape design techniques that infiltrate, filter, store, evaporate and detain stormwater close to its source;
- 1.1.3. To protect natural resources, particularly streams, lakes, wetlands, floodplains and other natural aquatic systems on the development site and elsewhere from degradation that could be caused by construction activities and post-construction conditions;
- 1.1.4. To protect other properties from damage that could be caused by stormwater and sediment during construction activities and post-construction conditions on the development site;
- 1.1.5. To reduce the impacts from impervious surfaces such as streets, parking lots, rooftops and other paved surfaces; and
- 1.1.6. To protect public safety from flooding and streambank erosion, reduce public expenditures in removing sediment from stormwater drainage systems and

natural resource areas, and to prevent damage to municipal infrastructure caused by inadequate stormwater controls.

1.2. Authority.

1.2.1. Under the authority vested in the Planning Board of the Town of Hudson by Section 81-Q of Chapter 41 of the General Laws of Massachusetts, said Board hereby adopts these rules and regulations governing the subdivision of land in the Town of Hudson. For matters not specifically covered by these Rules and Regulations, reference is made to the Subdivision Control Laws, Sections 81-K through 81-GG of Chapter 41 of the Massachusetts General Laws, as most recently amended. These regulations shall be effective after approved by the Board and certified by the Register of Deeds and the Recorder of the Land Court.

1.3. Effect.

1.3.1. The following rules and regulations shall from and after the effective date thereof govern the subdivision of land within the Town of Hudson and no person shall subdivide land in the Town of Hudson after such effective date without complying with these regulations and first obtaining from the Planning Board either approval of the Definitive Plan for the proposed subdivision or the endorsement "Approval Under the Subdivision Control Law Not Required" upon such plan.

2.0. GENERAL.

2.1. Definitions.

2.1.1. Where the terms below are defined also in Chapter 41, Section 81-L, the definition in said chapter shall govern.

2.1.2. As used in the regulations, the following words or terms shall have the following meanings:

ABUTTER. The owner, or their successor in interest of land directly adjacent to a proposed development.

ALLEY. (Service Road). A narrow strip of land between buildings, especially through the middle of a block, giving access to the rear of buildings and or lots and which is not owned, constructed, reconstructed or maintained by the Town and which does not qualify for frontage.

APPLICANT. A person (as hereinafter defined) who applies for the approval of a plan of a subdivision or a person who applied under Section 3.0. "Applicant" shall include an owner, or his agent or representative, or his assigns. (See Chapter 41, Section 81-L, GL.)

APPROVAL NOT REQUIRED LOT. A buildable lot with minimum area and frontage requirements per the Hudson Zoning Bylaw zoning that has access to an existing and passable way, which does not require the approval of the Planning Board subsequent to the applicant receiving a building permit to build on said lot.

BENCH MARK. A mark made in a durable object of known position and elevation as a reference point.

BIKEWAY. A way designed for travel on a bicycle or similar unpowered vehicle.

BOARD. The Planning Board of the Town of Hudson.

CERTIFIED BY. Certified by or endorsed by the Planning Board, as applied to a plan or other instrument required or authorized by the Subdivision Control Law to be recorded, shall mean bearing a certification or endorsement signed by a majority of the members of the Planning Board, or by its chairman or clerk or any other person authorized by it to certify or endorse its approval or other action and named in a written statement to the Register of Deeds and

Recorder of the Land Court, signed by a majority of the Board. (Section 81-L of Chapter 41. G.L.)

COMMON DRIVEWAY. Any drive, right-of-way, or private way which provides access to two lots but which does not qualify as a street for determining frontage under Chapter 40A and 41 of the General Laws of Massachusetts.

DESIGNER. Professional civil engineer or land surveyor registered to practice in Massachusetts. All work defined as professional engineering or surveying shall be done by or under the direct supervision of a registered professional engineer or surveyor.

DEVELOP. To construct a street, install utilities, erect a house or other structure, or in any way to improve a lot substantially.

DEVELOPER. A person (as hereinafter defined) who develops under a plan of a subdivision approved under Section 3.0. of these rules and regulations.

EASEMENT. A right acquired by public authority or other person to use or control property for a utility or other designated public purpose.

FRONTAGE. The linear extent of a lot measured along the street right-of-way from the intersection of said right-of-way with one side lot line to the intersection with the other side lot line of the same lot, but not including any portion thereof devoted to a right-of-way. Frontage must provide vehicular access to the lot from the right-of-way counted for frontage unless otherwise approved by the Planning Board on a Definitive Plan submitted in accord with Chapter 41, General Laws or approved by the Planning Board in the same manner as a Definitive Plan.

GENERAL LAWS. (Abbreviated G.L.) The General Laws of Massachusetts. 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 DENSITY AREA. An area of single-family dwellings with a net density of less than thirty-thousand (30,000) square feet each, or an area adjacent to such uses and approached only by streets serving such adjacent uses, and all two-family or multi-family residence use.

LOT. An area of land in one (1) ownership with definite boundaries used, or available for use, as the site of one (1) or more buildings. (Section 81-L of Chapter 41 G.L.)

LOW DENSITY AREA. An area where the lots are used for single-family dwellings and where each lot is at least thirty-thousand (30,000) square feet.

MONUMENT. A permanent marker to indicate a boundary line or easement.

MUNICIPAL SERVICE. Sewers, water drains, water pipes, gas pipes, electrical lines, telephone lines, fire alarm system, similar systems and their respective appurtenances. (Section 81-L of Chapter 41 G.L.)

OPEN SPACE RESIDENTIAL DEVELOPMENT (OSRD). A technique to build residential subdivisions that maximizes the amount of preserved open space and protects local resources while not reducing the number of units built compared to a conventional sub-division.

OWNER. As applied to real estate, the person 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.

PARCEL. An area of land In one ownership with definite boundaries not meeting zoning requirements nor available for use for the site of principal use buildings.

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

PLAN: Approval Not Required. A plan of a proposed subdivision or re-subdivision of land prepared and submitted in accordance with Section 3.0. with the appropriate application to the Planning Board and meeting all of the requirements for Approval Not Required plans.

PLAN: Definitive. The plan of a proposed subdivision of land prepared and submitted in accordance with Section 3.0. to the Board for approval (with appropriate application) to be recorded in the Registry of Deeds or filed with the Land Court when approved by the Board, and such plan when approved and recorded; all as distinguished from a Preliminary Plan.

PLAN: Preliminary. A plan of a proposed subdivision or re-subdivision of land prepared and submitted together with the appropriate application in accordance with Section 3.0. to facilitate the proper preparation of a Definitive Plan.

PLANNING BOARD AGENT. Town employee or consultant authorized by the Planning Board to review subdivisions and administer the regulations.

RECORDED. Recorded shall mean recorded in the Middlesex County South District Registry of Deeds except that, as affecting registered land, it shall mean filed with the Recorder of the Land Court. (Section 81-L of Chapter 41 G.L.)

REGISTRY OF DEEDS. Registry of Deeds shall mean the Registry of Deeds of Middlesex County South District, and when appropriate, shall include the Land Court. (Section 81-L of Chapter 41 G.L.)

ROADWAY. That portion of a way which is designed and constructed for vehicular travel.

SIDEWALK. A way within the street right-of-way designed for use by pedestrians.

STANDARD SPECIFICATIONS. "The Commonwealth of Massachusetts, Highway Department, Standard Specifications for Highways and Bridges", 1988 edition, as amended.

STREET. A way either shown on a Definitive Plan submitted, approved, and recorded in accordance with the Subdivision Control Law or otherwise qualifying a lot for frontage under the Subdivision Control Law.

STREET, COLLECTOR. A street intercepting one (1) or more minor streets and which, in the opinion of the Board, will be used to carry only a moderate volume of traffic (generally less than four-hundred (400) vehicles per day) from such minor streets to either a major or secondary street.

STREET, MAJOR. A street which, in the opinion of the Board, is being used or will be used as a thoroughfare within the Town of Hudson or which will otherwise carry a heavy volume of traffic (generally, over fifteen-hundred (1,500) vehicles per day).

STREET, MINOR. A street which, in the opinion of the Board, is being used or will be used primarily, to provide access to no more than ten (10) abutting lots and which is not designed to be used for through traffic.

STREET, SECONDARY. A street intercepting one (1) or more minor streets and/or collector streets and which, in the opinion of the Board, is used or will be used to carry a substantial volume of traffic (generally, over four-hundred (400) vehicles per day) from such minor street(s) and/or collector street(s) to a major street or community facility, and normally including a principal entrance street to a shopping center, industrial park, planned unit development, or a large subdivision, or group of subdivisions, and any principal circulation street within such subdivision.

SUBDIVISION. "The division of a tract of land into two (2) or more lots and shall include re-subdivision, and, when appropriate to the context, shall relate to the process of subdivision or the land or territory subdivided; provided, however, that the division of a tract of land into two (2) or more lots shall not be deemed to constitute a subdivision within the meaning of the Subdivision Control Law, if at the time when it is made, every lot within the tract so divided has a frontage on (a) a public way, or a way which the Town Clerk of the Town of Hudson certifies is maintained and used as a public way, or (b) a way shown on a plan theretofore approved and endorsed in accordance with the Subdivision Control Law, or (c) a way in existence when the Subdivision Control Law became effective the Town, having in the opinion of the Planning Board, sufficient width, suitable grades, and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby, and for the installation of municipal services to serve such land and the buildings erected or to be erected thereon. Such frontage shall be of at least such distance as is then required by the Zoning By-laws. Conveyances or other instruments adding to, taking away from, or changing the size and shape of lots in such a manner as not to leave any lot so affected without the frontage above set forth, or the division of a tract of land on which two (2) or more buildings were standing when the Subdivision Control Law went into effect in the Town into separate lots on each of which one (1) of such buildings remains standing, shall not constitute a subdivision." (Section 81-L of Chapter 41 G.L.)

SUBDIVISION CONTROL. The power of regulating the subdivision of land granted by the Subdivision Control Law, Chapter 41, Sections 81-A through GG inclusive, as hereinafter amended.

SUPER ELEVATION. Super elevation is the decimal fraction of a foot of rise per foot of horizontal cross-section.

URBAN PRINCIPAL ARTERIALS. A street so indicated in Section 8 of the Master Plan Town of Hudson 2014.

URBAN MINOR ARTERIALS. A street so indicated in Section 8 of the Master Plan Town of Hudson 2014.

TOWN. Town of Hudson, unless otherwise specified.

TRAILS. A path or track made by or reserved for the passage of persons and/or animals, usually through undeveloped land.

TREES, LARGE. Trees ten (10) inches or more in caliper four (4) feet above the ground.

WALKWAY. A way designed for pedestrian use, not necessarily parallel to a travelled way, as contrasted to a sidewalk.

WAY. A way is synonymous with the terms: road, street, highway, and avenue, and shall denote any such line or route for passage, whether public or private.

WAY, ACCEPTED. An accepted way is a way which has been accepted as a public way by vote of the Town.

WIDTH. The width of a way shall be the width of the strip of land laid out, designated, acquired, and/or dedicated for the use of such way. Such width includes the spaces for vehicular travel, sidewalks, curbing, and planting areas where required.

2.2. Approved Plan Required.

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

2.3. Source of Information Required.

2.3.1. In those cases in which the land shown on the plan is abutted by land of an owner not the owner of the land as shown, the Board may require a statement

from the person who prepared the plan as to the source or sources of the information about the location of boundaries. A separate form for such statement will be furnished by the Board. Form D, Designer's Certificate (see Appendix).

2.4. More Than One Building for Dwelling Purposes on a Lot.

2.4.1. 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. Such consent may be conditional upon the providing of adequate ways furnishing access to each such building and adequate improvements in the same manner as otherwise required for lots within a subdivision.

2.5. Fee and Costs.

2.5.1. There shall be a minimum filing fee for each plan application submitted to the Board for consideration, which fee shall be paid upon submission of the plan.

2.5.1.1. The fee for a plan submitted under Section 3.1. shall be one hundred dollars (\$100 per building lot).

2.5.1.2. The minimum fee for filing a Preliminary Plan or a Definitive Plan, if a Preliminary Plan has been filed and approved, shall be one dollar (\$1.00) per linear foot of street shown within the subdivision on the Preliminary or Definitive Plan, as the case may be, or five-hundred dollars (\$500.00), whichever is greater. If a Preliminary Plan has not been filed, the minimum fee for filing a Definitive Plan shall be two dollars (\$2.00) per linear foot of street shown within the subdivision or one-thousand dollars (\$1,000), whichever is greater.

2.5.1.3. All expenses for advertising, mailing, notices, engineering, and professional planning review as deemed necessary by the Planning Board, plans, construction, inspection, recording, and filing of documents and all other expenses in connection with a subdivision shall be borne by the Applicant and shall be in addition to the filing fee.

2.5.1.4. The Applicant shall place a sum in escrow with the Town of Hudson to be used for the payment of these costs. The amount will be determined by the Planning Board with input from the DPW, and based on estimates made from similar subdivisions and shall be added to as needed, within thirty (30) days of a request by a Planning Board.

2.5.2. Failure of the Applicant to comply with the requirements of this section shall be deemed adequate cause for disapproval of the plan.

2.5.3. Upon endorsement of a Definitive Plan, the developer shall place a sum in escrow with the Town of Hudson in an inspection account to be used for the payment of inspection costs. The amount will be determined by the Planning Board, with input from the DPW, and based on estimates made from similar subdivisions and shall be added to as needed, within thirty (30) days of a request by the Planning Board. Any sum remaining in escrow at the time of approval of the Definitive Plan shall be credited to this account

2.6. Compliance With These Rules and Regulations and Waivers.

2.6.1. All plans and all procedures relating to subdivisions and to plans not requiring approval shall conform in all respects to the provisions of these rules and regulations unless otherwise authorized by the Planning Board in writing when, in the judgement of the Board, such action is in the public interest and not inconsistent with the Subdivision Control Law.

2.6.1.1. Any such requests for waivers from these Rules and Regulations must be submitted by the Applicant to the Planning Board in writing. Approval by the Board must be by vote at time of the Definitive Plan and confirmed to the Applicant in writing and shall become a part of the application.

2.6.2. All requirements of these regulations for a Definitive Plan shall be met except as may otherwise be provided for cluster development as defined in the Zoning By-laws.

2.7. Compliance With Zoning By-laws.

2.7.1. The Planning Board shall not approve or modify and approve any plan of a subdivision of land unless all buildings, structures, and lots shown on said plan comply with the Zoning By-laws of the Town of Hudson, or unless a variance from the terms thereof has been granted by the Board of Appeals.

2.8. Criteria for Board Action.

2.8.1. The Board, in considering any proposed subdivision plan, will be concerned with the requirements of the community and the best use of the land being subdivided.

2.8.1.1. Particular attention will be given to width, arrangement, and location of streets, sanitation, drainage, size, and arrangement of lots, open areas, parks,

retention of major site features, and land uses which preserve the character of the Town.

3.0. PROCEDURE FOR THE SUBMISSION AND APPROVAL OF PLANS.

3.1. Plan Believed Not to Require Approval.

3.1.1. Submission of Plan.

3.1.1.1. Any person who wishes to cause to be recorded in the Registry of Deeds or to be filed with the Land Court a plan of land, and who believes that his plan does not require approval under the Subdivision Control Law shall submit his plan and four (4) contact prints and a properly executed Form A (see Appendix) to the Planning Board by delivery, certified mail, or at a regularly scheduled meeting accompanied by the required fee and necessary evidence to show that the plan does not require approval. Said person shall file, by delivery or registered mail, a notice with the Town Clerk stating the date of submission for such determination accompanied by a copy of said application, and describing the land to which the plan relates sufficiently for identification. If the notice is given by delivery, the Town Clerk shall, if requested, give a written receipt therefor. See Form M, Control Form, for the distribution of plans.

3.1.2. Form and Contents of Plan.

3.1.2.1. Said plan shall be of the dimensions twenty-four x thirty-six (24" x 36") or seventeen by twenty-two (17 x 22) inches, shall be prepared in such a manner as to meet the Registry of Deeds and/or Land Court requirements for recording, and shall contain the following information:

- a) Identification of the plan by name of owner of record and location of the land in question including deed, book and page reference, the Assessors' tax map and lot number, area, frontage in feet, the scale, north point and date.
- b) The statement "Approval Under Subdivision Control Law Not Required", and sufficient space for the date and the signatures of all members of the Board.
- c) Zoning classification and location of any zoning district boundaries that may lie within the locus of the plan including any zoning overlay districts, which include, but are not limited to, the Adaptive Re-Use Overlay District, Watershed Protection Overlay District.
- d) In the case of the creation of a new lot, the remaining land area and frontage of the land in the ownership of the Applicant shall be shown.

- e) Notice of any decisions by the Zoning Board of Appeals, including but not limited to variances and exceptions, regarding the land or any buildings thereon.
- f) A list of abutters from latest available Assessor's records unless the Applicant has knowledge of any change subsequent to the latest available Assessors' records. Form E, Certified List of Abutters.
- g) Names and status of private and public streets and ways shown on the plan.
- h) Bearings and distances of all lines of the lot or lots shown on the plan and the distance to the nearest permanent monument.
- i) The location of all existing buildings on the land shown on the plan or within fifty (50) feet of its boundaries including set-back and side- and rear-yard designations.
- j) The location of any topographic features which interfere with the use of the frontage for access.
- k) Location of all bounds, brooks, fences, walls, and bodies of water; including, but not limited to, streams, brooks, water courses, ponds, lakes, and other standing bodies of water within 100' of any proposed work. Said plan shall reflect the average annual high water level with respect to any such bodies of water.
- l) A locus map at a scale of one-thousand (1,000) feet to the inch.
- m) The names and addresses of the record owner of the land and Applicant and the name, seal and address of the surveyor who made the plan. This information shall appear In the lower right-hand corner of the plan.
- n) The following statement: "The endorsement of this plan is not a certification that the lot or lots shown hereon comply with the terms of the Town of Hudson Zoning Bylaw.
- o) The following statement, if the plan shows any parcel or parcels which are not intended as a building lot: "Not a building lot; no further building may occur without further approval by the Planning Board pursuant to the Subdivision Control Law.

- 3.1.3. Endorsement of Plan Not Requiring Approval.
 - 3.1.3.1. If the Planning Board determines that the plan does not require approval it shall, without a public hearing and within twenty-one (21) days of submission, endorse on the plan the words "Approval Under the Subdivision Control Law Not Required." Such endorsement shall not be deemed to constitute any determination of compliance with requirements of the Zoning By-laws.
 - 3.1.3.2. The Planning Board may add to such endorsement a statement of the reason or reasons approval is not required. The original copy of the plan shall be returned to the Applicant, who shall file it with the Registry of Deeds. The Planning Board shall also notify the Town Clerk in writing of its action within twenty-one (21) days of the endorsement.
- 3.1.4. Determination that Plan Requires Approval.
 - 3.1.4.1. If the Planning Board determines that the plan does require approval under the Subdivision Control Law, it shall, within twenty-one (21) days of the submission of the plan, so inform the applicant in writing and return the plan. The Planning Board shall also notify the Town Clerk in writing of its action.
- 3.1.5. Failure of Board to Act.
 - 3.1.5.1. If the Planning Board fails to act upon a plan submitted under this section or fails to notify the Town Clerk and the person submitting the plan of its action within twenty-one (21) days after its submission, it shall be deemed to have determined that approval under the Subdivision Control Law is not required, and it shall forthwith make such endorsement on said plan, and on its failure to do so forthwith, the Town Clerk shall issue a certificate to the same effect.
- 3.2. Preliminary Plan.
 - 3.2.1. Any person who wishes to create a residential subdivision may submit a Preliminary Plan, and any person who wishes to submit a non-residential subdivision must submit a Preliminary Plan which, to be accepted as duly submitted, shall be submitted by delivery, certified mail, or at a regularly scheduled meeting of the Board. The Applicant shall include the following with the submission:
 - 3.2.1.1. The Preliminary Plan on reproducible material and eight (8) prints thereof, together with five (5) half-scale reductions thereof and one (1) set of

transparencies of the reductions. See Form M, Control Form for the distribution of plans.

- 3.2.1.2. A properly executed Application Form B.
- 3.2.1.3. The minimum filing fee (see Section 2.5.).
- 3.2.1.4. The Applicant shall also file by delivery or registered, or certified mail, a notice with the Town Clerk and Board of Health stating the date of submission to the Board for such approval of a Preliminary Plan, accompanied by a copy of the properly executed Application Form B.
- 3.2.1.5. The submission of such a Preliminary Plan will enable the subdivider, the Planning Board, the Board of Health, Department of Public Works, the Department of Licenses, Permits & Inspections, the Fire and Police Departments, the Light and Power Department, and other Town agencies and owners of property abutting the subdivision to discuss and clarify the details of such subdivision before a Definitive Plan is prepared.
- 3.2.2. Plan Preparation and Contents
 - 3.2.2.1. A Preliminary Plan of a subdivision may be submitted by the applicant for discussion and approval by the Board. The submission of such a Preliminary Plan will enable the subdivider, the Board, other municipal agencies and owners of the property abutting the subdivision to discuss and clarify the problems of such subdivision before a Definitive Plan is prepared. Therefore, it is strongly recommended that a Preliminary Plan be filed in every case. A preliminary plan is required for all non-residential subdivisions.
 - 3.2.2.2. Pre-Submission Review (Sketch Plan) Prior to Investing In extensive professional design efforts for subdivision plans, It will often prove useful to review the proposed development of a parcel of land with the Board In an Informal manner, In order that general approaches, possible use of open space development, and potential problems can be freely explored. Pencil sketches and other Illustrations, which need not be professionally prepared, will assist the discussion, and might show some, but not all, of the information shown on a Preliminary Plan. In some cases, pre-submission review may eliminate the advisability of submitting a Preliminary Plan. However, the pre-submission review provision is strictly a voluntary procedure left to the discretion of the applicant. The pre-submission review has no legal status whatsoever, insofar as zoning exemptions are concerned.

3.2.2.3. The Preliminary Plan shall be drawn on mylar, at a suitable scale, preferably forty (40) feet to the inch. The plan shall be designated as a "Preliminary Plan" and to form a clear basis for discussion of the details of the subdivision and for preparation of the Definitive Plan. The plan shall contain the following:

- a) A Title Block, in the lower right hand corner, with Subdivision name, boundaries, north point, locus, date, scale, legend and title "Preliminary Plan". Name and address of the owner of record, subdivider, engineer and surveyor and dates of revisions.
- b) The names of all abutters, as determined from the last assessment, and, if the Applicant has knowledge of changes in the list, to new abutters. Form E, Certified List of Abutters.
- c) The locus of the land, drawn at a scale of one-thousand (1,000) feet to the inch, shown on the plan with sufficient information to accurately locate the plan.
- d) Easements, rights-of-ways, covenants, or restrictions applicable to the area shown on the plan.
- e) Existing and proposed lines of streets including approximate grade, radii of curves, ways, lots, easements and public and common areas within the subdivision in a general manner. A typical street cross section should be included.
- f) Proposed system of drainage, Including the location of all swamp, marsh and lowland, water bodies, streams, open drains and ditches, natural or man-made, and flowage right, public and private, adjacent to or within the proposed subdivision, in a general manner. This should include any certified or potential vernal pools.
- g) Major features of the land such as existing walls, fences, monuments, buildings, wooded areas, and if available trees twenty-four (24) inches or more in caliper measured four (4) feet above the ground, outcroppings, historical features, ditches, wetlands, water bodies, and natural waterways and approximate locations of perennial streams and rare wildlife habitats. Where available, aerial photographs may be required.
- h) The proposed system of sewage disposal, water installation, and of drainage in a general manner, including adjacent existing natural waterways.

- i) The approximate boundary lines of proposed lots, with approximate areas and dimensions.
- j) The names, approximate location, and widths of adjacent streets, or streets approaching or within reasonable proximity of the subdivision.
- k) The topography of the land with a two (2) foot contour interval based on the U.S. Coast and Geodetic Datum. Water bodies and other elevations shall be shown.
- l) The proposed names of the proposed streets and a number on each lot on each proposed street.
- m) The profiles of existing grades and approximate proposed finished grades of the roadway, and drain and sewer utilities.
- n) Area of adjoining land of the Applicant not presently being subdivided, with a sketch plan showing a feasible future street layout for such contiguous land.
- o) The existing roadway contours and all utilities within 100 feet of the proposed street intersections, with existing streets.
- p) The zoning classification of land shown on the plan, together with any zoning boundary lines within or near the subdivision, if any.
- q) Notice of any decisions by the Zoning Board of Appeals, including but not limited to variances and exceptions, regarding the land or any buildings thereon.
- r) If the Preliminary Plan application contains more than one (1) sheet or drawing, each sheet or drawing must be titled and numbered, and an index showing the contents of each sheet or drawing inserted on the upper left-hand corner of the "Preliminary Plan" layout, or as a separate sheet.
- s) A written document indicating waivers to these regulations which may be requested or desired.
- t) A completed Project Information Summary (see Schedule D).

3.2.2.4. Wetlands Boundary Determination

The Board strongly recommends the Applicant secure an Abbreviated Notice of Wetlands Area Delineation (ANRAD) from the Hudson Conservation Commission before preparing and submitting a Preliminary Subdivision Plan.

3.2.3. Procedure for Submission of a Preliminary Plan to the Board

3.2.3.1 The submittal shall be filed with the Town Planner during regularly scheduled office hours.

3.2.3.2. The Applicant shall file by delivery, in hand, or registered or certified mail, a notice with the Town Clerk stating the date the application was submitted to the Board accompanied by a copy of a properly executed application Form B and one (1) print of the Preliminary Subdivision Plan.

3.2.3.3 The Applicant shall also submit one (1) copy of the application Form B and one (1) print of the Preliminary Subdivision Plan to the Hudson Board of Health for its review.

3.2.3.4 Any plan determined by the Board or its Agent to not completely satisfy Subsection 3.2.3.2 within fourteen (14) days of the Applicant's written notice to the Town Clerk that such plan has been submitted to the Planning Board, will be deemed not to have been submitted. Such plan will be returned to the Applicant and a notice of the Board's determination sent to the Town Clerk. The Preliminary Subdivision Plan Filing Fee shall either be returned in part or retained to be applied to a resubmission at the Applicant's option. When brought into conformity with the requirements of Subsection 3.2.2.3 such plan may be re-submitted to the Board and will be considered without prejudice.

3.2.3.5. During the course of review, the Applicant shall submit revised plans to the Board and the Town's Consulting Engineer at least two weeks prior to the next scheduled public hearing. Failure to do so shall result in public hearing continuation. Any plan revision shall be accompanied by a written summary describing the proposed changes.

3.2.4. Plan Standards

A Preliminary Subdivision Plan shall be prepared by a Professional Engineer and Professional Land Surveyor duly registered in the Commonwealth of Massachusetts and shall be legibly drawn in accordance with the Rules and Regulations of the Registry of Deeds pertaining to plan size, material, lettering and related requirements.

3.2.5. Review by Other Town Officials

3.2.5.1. Upon receipt of an application, the Board shall transmit the Preliminary Subdivision Plan to the Board of Health, Department of Public Works, the Department of Licenses, Permits & Inspections, the Light and Power Department, the Fire and Police Departments, and other Town agencies and owners of abutting property.

3.2.5.1. The Board may convene a meeting of various Town boards, departments, committees to assist in project review and to help applicants better understand the permitting procedures of other Town agencies.

3.2.6. Site Walk

At its discretion, the Planning Board may conduct a site walk to become more familiar with the land, its topography and site characteristics. The applicant and/or their representative is not required to attend but may be present for some or all of the Planning Board's site walk.

3.2.7. Board Action

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

3.2.7.2. The Board may also disapprove the plan. A detailed statement of reasons for the action will accompany disapproval.

3.2.7.3. Within forty-five (45) days after the submission of a Preliminary Plan the Board shall notify the Applicant by certified mail that the plan has been approved, or that the plan has been approved with modifications suggested by the Board or agreed upon by the Applicant, or that the plan has been disapproved. In the event of disapproval, the Planning Board shall state the reasons for its disapproval in accord with Section 81-U of Chapter 41. The Planning Board shall notify the Town Clerk of its approval or disapproval as the case may be. After endorsement, the original of the Preliminary Plan will be returned to the Applicant.

3.2.8. Relation of a Preliminary Plan to Definitive Plan

Approval of a Preliminary Plan does not constitute approval of a subdivision and a Preliminary Plan cannot be recorded in the Registry of Deeds. If a

Definitive Plan is duly submitted within seven months from the date of approval of the Preliminary Plan, the subdivision rules and regulations in effect at the time of the submission of the approved Preliminary Plan shall govern the approval process of the Definitive Plan.

3.3. Definitive Plan.

3.3.1. Submission of a Definitive Plan

3.3.1.1. For a Definitive Plan to be accepted as duly submitted in accord with these rules and regulations and the General Laws of Massachusetts, any person who submits a Definitive Plan of a subdivision to the Planning Board for approval shall file with the Planning Board all items required in subsections 3.3.1.1.a), 3.3.1.1.b), and in 3.3.3. of this section and, unless previously filed with a Preliminary Plan, the minimum filing fee (see Section 2.5.). Such submission shall be made by delivery, certified mail, or at a regularly scheduled meeting of the Planning Board. Such submission shall include, as a minimum, the following:

- a) An original drawing of the Definitive Plan, seven (12) prints thereof, dark line on white background, together with five (5) half-scale reductions thereof and one (1) PDF file of the Definitive Plan for distribution to the appropriate Departments. The reproducible drawings will be returned to the Applicant after approval or disapproval, which in the case of approval and following endorsement are to be recorded in the Worcester District Registry of Deeds.
- b) A properly executed application Form C, Application for Approval of a Definitive Plan (see Appendix) including the time within which the Applicant agrees to complete the ways and install the public utilities in the subdivision; Form D, Designer's Certificate (see Appendix); and a Certified List of Abutters, Form E (see Appendix). Approval of the plans shall be upon the conditions that all ways shown thereon and public utilities required by the Board shall be completed and installed within the time so specified.
- c) The Board may decline to approve any plan unless the Applicant agrees to complete the ways shown thereon and install the public utilities aforesaid within two (2) years of the date of his application or such other time as the Applicant shall specify in writing. If the ways in any subdivision are not completed, and the utilities aforesaid are not installed within the time so agreed to by the Applicant, no such way shall thereafter be laid out, constructed, completed, or opened for public

use unless and until a new application is filed with and approved by the Board. Ways or portions thereof not completed within the agreed upon time shall thereafter be completed in accordance with the then-in-force requirements and construction standards of the Planning Board, and with applicable General Laws.

d) All fees as required in Section 2.5

3.3.1.2 Upon submission of a Definitive Subdivision Plan the Town Planner will review the application for completeness. All plans and documents shall be reviewed for compliance with Sections 3.3.1 & 3.3.2. If the application is found to be complete, a public hearing shall be scheduled. The Board shall not accept any application that is found to be incomplete. The applicant will be notified that the application was not accepted and provided with a list of the information the application is lacking. Any unaccepted application may be refiled with no financial penalty within ninety (90) days. After this time, the Board shall consider the application a new filing.

3.3.1.3 When a Definitive Plan of a subdivision is filed with the Planning Board, a copy thereof accompanied by the completed Application for Approval of Definitive Plan, (Form C). shall be filed with the Board of Health or its officer having like power and duties. Such Health Board or Officer shall, within forty-five (45) days after the plan has been filed, report to the Planning Board in writing, approval or disapproval of said plan, and in the event of approval or disapproval, shall make specific findings as to which, if any, areas shown on such plan cannot be used for building sites, without injury to the public health, and include such specific findings and reasons therefore in such report, and where possible, shall make recommendations for the adjustment thereof. The Planning Board shall review this report and incorporate any recommendations, made by the Board of Health, Into its final decision. Failure of such Board or Officers to report shall be deemed approval by such Board or Officers. Such Health Board or Officer shall send a copy of such report, if any, to the person who submitted said plan.

3.3.1.4 After the Board's acceptance of the plan, the Applicant shall forthwith file by delivery or registered mail a notice with the Town Clerk. This filing shall state the date of acceptance of the Definitive Plan by the Board and be accompanied by a copy of the application and description of the land to which the plan relates sufficient for identification. This filing shall serve to begin the countdown of the statutory time limits

outlined in MGL 41 Section 81U. If the notice is given by delivery, the Town Clerk shall, if requested, give a written receipt therefore.

3.3.1.5 After an application for a Definitive Subdivision Plan is submitted, no tree removal, no utility installation, no ditching, grading or construction of roads, no grading of land or lots, no excavation except for purposes of soil testing, no dredging or filling and no construction of buildings or structures shall be done on any part of the development site until the Definitive Subdivision Plan has been approved, endorsed and recorded at the Registry of Deeds.

3.3.2. Definitive Plan Contents.

3.3.2.1. The Definitive Plan shall be prepared by a Registered Professional Civil Engineer and Registered Professional Land Surveyor registered in Massachusetts, and shall be clearly and legibly drawn in black ink on Mylar. The plan shall be at a scale of 1" = 40' or such other scale as the Board may accept to show details clearly and adequately. Sheet sizes shall be 24" x 36". If multiple sheets are used, they shall be accompanied by an index sheet showing the entire subdivision at a scale of 1" = 200'. The Definitive Plan shall contain the following information:

- a) The classification and precision of surveys shall conform to Class A or better of the most recent Land Court Manual of Instructions, Commonwealth of Massachusetts. It is required that all other survey and Definitive Plan preparation, where not herein specified, be guided by the Manual of Instructions.
- b) All plans shall be accompanied by an index sheet at a scale of one (1) inch equals one-hundred (100) feet or one (1) inch equals two-hundred (200) feet depending on which plat of the Hudson Assessors' Atlas the proposed subdivision is located, showing the entire subdivision and adjacent streets, and dimensions of the lots and streets and lot numbers.
- c) Profiles on the centerlines and sidelines of proposed streets at a horizontal scale of one-inch equals forty feet (1."=40') and vertical scale of one Inch equals four feet (1."=4'), or such other scale acceptable to the Board. Profiles shall show existing centerline grade, elevations of existing sills and of all existing structures, the location of existing and proposed storm drains, water mains, sewers and their appurtenances and the location of any Intersecting public or private ways. Present and proposed elevations must be shown at least every 50'.

- d) All elevations shall refer to the NAVD 1988 datum and shall be referenced to the Town Vertical Control System. Sheet sizes shall be twenty-four (24) by thirty-six (36) inches including a three-quarter (3/4) inch border.
- e) Existing and proposed lines of streets, lots, rights-of-ways, easements and any public or common areas within the subdivision. The proposed names of streets shall be shown as proposed until the Town Clerk has approved them. The Plan shall show the overall layout to include lots, streets, water systems, storm drainage and sanitary sewer systems, fire protection systems and all other underground utilities. Utility Drawings will also show the plan view directly above the profile view.
- f) A sketch plan showing a possible or prospective street layout for any adjacent un-subdivided land owned or controlled by the owner or applicant of the subdivision, unless such a plan has already been submitted to the Board.
- g) A complete set of Drainage Calculations adhering to the requirements of the Mass DEP Stormwater Management Standards, certified by the Registered Professional Engineer who prepared them. The applicant or their engineer shall submit a PDF file of the required Drainage Report.
- h) Applicant shall submit proof of ownership, right to purchase or purchase and sale agreement, including any deed restrictions and covenants.

3.3.3. Definitive Plan Contents.

3.3.3.1 the Definitive Plan shall contain, as a minimum, the following information:

- a) A title block, in the lower right hand corner, with Subdivision name, boundaries, north point, date, scale, names and addresses of owner of record and applicant, names, signatures and seals of the Engineer and Surveyor that prepared the plan and space for revision dates.
- b) North point, whether true, magnetic, or grid benchmark and so indicated, and boundaries of the subdivision.
- c) The locus of the land drawn at one-thousand (1,000) feet to the inch shown on the plan with sufficient information to accurately locate the plan.
- d) Location and ownership of abutting property owners within 300', as it appears on Form E, Certified List of Abutters (see Appendix), and if the Applicant has knowledge of changes in the list, to the new abutters, including all abutting land owned by the Applicant not presently being subdivided.

- e) Sufficient data to determine the location, direction, and length of every street and way line, lot line, and boundary line, and to establish these lines on the ground. This shall include the lengths and bearings of plan and boundary lines of all subdivision lot lines including lot frontage on the streets, of the boundary lines of all streets and easements, and the length, radii, tangents, and central angles of all curves in lot lines and street lines. All angle points, or intersections of tangents along the street lines shall be shown. Areas of lots with lot numbers and the area and frontage on public ways as set forth in Section 81-L of Chapter 41 G.L. of adjoining lands of the Applicant not included in the subdivision will be shown.
- f) Boundary lines, areas in square feet and acres and dimensions of all proposed lots, parcels and roads, with all lots and parcels designated numerically and in sequence.
- g) Major features of the land such as existing walls, fences, monuments, buildings, wooded areas, and if available trees twenty-four (24) inches or more in caliper measured four (4) feet above the ground, outcroppings, historical features, ditches, wetlands, water bodies, and natural waterways and approximate locations of perennial streams and rare wildlife habitats. Where available, aerial photographs may be required.
- h) Tree Plan Location and species of all proposed street trees and location of all existing trees with trunks over twelve inches (12") in diameter measured four feet (4') above the finished ground within the minimum front setback distance.
- i) An erosion control plan, indicating the erosion control measures to be employed, including a description of locations of temporary stockpiles, spoil areas, temporary drainage systems, slope stabilization techniques and sediment basins and a narrative description of how erosion from individual lots onto streets and into drainage systems is proposed to be controlled.
- j) Base flood elevation data as shown on the Hudson Flood Insurance Rate Map (FIRM), and the Flood Boundary and Floodway Maps, dated July 7, 2014, on file with the Town Clerk, Planning Board, and the Inspector of Buildings.
- k) Location of all permanent monuments properly identified as to whether existing or proposed.
- l) The zoning district classification of land shown on the plan, and the location of any zoning district boundaries that lie within the locus of the plan and the

- applicable minimum front-, side- and rear-yard depths for each lot as is required by the Zoning By-Laws.
- m) Location, names, and present widths of streets or private ways bounding, approaching or within reasonable proximity of the subdivision, showing both roadway widths and rights-of-ways widths.
 - n) Indication of all easements, covenants, or restrictions applying to the land and their purposes, whether or not within the subdivision, including any decision on appeal or any variances or exceptions made by the Zoning Board of Appeals applicable to the subdivision of the land or any buildings thereon.
 - o) All easements in draft form. If the Definitive Plan is approved the Board must receive copies of the final recorded easement documents, prior to endorsing the plan.
 - p) If the property that comprises the subdivision or any part or boundary thereof has been examined, approved, and confirmed by the Massachusetts Land Court, such information shall be noted on the plat with case numbers and other pertinent references to Land Court procedure, then the same requirement shall apply to any adjoining parcels of land of the Applicant.
 - q) The location of all common drives accompanied by the proposed declaration of covenants, easements, and restrictions.
 - r) The existing roadway contours and all utilities within 400 feet of the proposed street intersections with existing streets.
 - s) Staking at the time of filing of the Definitive Plan the Applicant shall stake the centerline of all proposed streets at a minimum of every one hundred feet (100') with the centerline stations and the cut or fill dimensions to finish grade marked on the stakes, and also the lot corners, with lot numbers. The Applicant, throughout the Definitive Plan review process, shall maintain such staking.
 - t) The Board may request, at the expense of the applicant more detailed information in the form of specialized studies (i.e., geological, hydrological, soils, engineering, environmental etc.) and/or professional services, (i.e., professional engineer, landscape architect, lawyer, geologist, etc.) to assist the Board in its review process in an effort to aid the Board render a more accurate and definitive decision regarding a prospective subdivision development.

v. For all subdivisions of 20 or more lots and any the Board determines, may have major impacts, the Applicant shall submit an Impact Report that addresses the probable Impact on Town facilities and services directly attributable to the uses proposed on the subdivision plan. The following Items, at a minimum, shall be Included:

- a) Traffic- average daily traffic generation (trips per day);
- b) Public school enrollment - total students at full development;
- c) Sewer usage - average daily and peak flow;
- d) Police and fire protection, including man hours and equipment;
- e) And street maintenance, including drainage and other improvements.

This impact analysis shall consider all current and proposed subdivisions within the Town or those determined by the Board.

- u) Sheet number(s) from the Assessors' Maps.
- v) Suitable space to record the action of the Planning Board and the signatures of all members of the Planning Board including, where appropriate, the words "Deeds of easements to be recorded herewith" or the words "Approved subject to covenant conditions set forth in a covenant executed by _____, dated, _____, and to be recorded herewith".

3.3.3.2. Profiles shall be shown on a separate sheet, as follows:

- a) Profiles on the centerlines and sidelines of proposed streets at a horizontal scale of one-inch equals forty feet (1"=40') and vertical scale of one inch equals four feet (1"=4'), or such other scale acceptable to the Board. Present and proposed elevations must be shown at least every 50'.
- b) All existing and proposed intersections and sidewalks, bikeways, and walkways and utilities (storm drains, water mains, and sewer mains, if any) shall be shown with all proposed grade elevations calculated. Elevations are to be referred to the Town Datum (United States Coast and Geodetic Survey). Gradients shall be shown by figures expressed in percent.

3.3.3.3. A Contour Plan shall be shown as follows:

- a) Existing and proposed topography at two (2) feet contour intervals and by symbols the highest known high water mark of the last five (5) years.

There will also be indicated by differentiating symbols, the contour line four (4) feet above said high water mark.

- b) Grading details shall indicate proposed street grades and elevations, building site grades and elevations, and drainage patterns throughout the subdivision sufficient to determine the approximate balance between cut and fill. There shall be a general note indicating the disposition of topsoil on the site, which note shall include how topsoil will be handled in areas of cut and fill; how soil will be stockpiled, if applicable; the minimum amount of topsoil to be redistributed to the site; and that no topsoil will leave the site except in accord with the Hudson Earth Removal regulations.

3.3.3.4. A Utility Plan shall be shown as follows:

- a) Size and location of existing and proposed water supply mains and their appurtenances, hydrants, sewer pipes, and their appurtenances and/or sewage disposal systems, storm drains, and their appurtenances, and easements pertinent thereto, and dimensions of gutters, including data on borings and percolation tests made, and method of carrying water to the nearest watercourse or easements for drainage as needed, whether or not within the subdivision.
- b) If surface water drains will discharge onto adjacent existing streets or onto adjacent properties not owned by the applicant, he shall clearly indicate what course the discharge will take, and shall present to the Board evidence from the Director of Public Works or the owner of adjacent property, whichever applies, that such discharge is satisfactory and permitted by public or private ownership of adjacent street or property.
- c) Location of proposed street lights and sidewalks and pedestrian lighting (if required), transformer pads, and fire alarm system.

3.3.3.5. Drainage Calculations shall be shown as follows:

Drainage calculations prepared by a Massachusetts Registered Professional Engineer shall be submitted in a suitable form to substantiate proposed drain pipe sizes along with amplifying plans outlining drainage areas within and affecting the subdivision. Computations shall be based on the 2, 10, and 100-year storm basis. A plan shall also be submitted showing the route followed by all drainage discharging from the subdivision to the primary receiving watercourse or other large body of water. The computations shall conform to

the method described in the specifications of the Massachusetts Stormwater Handbook.

- 3.3.3.6. A Tree Plan shall be prepared by a Massachusetts Registered Landscape Architect as follows:

Location and species of proposed street trees and location of trees to be retained with trunks over six (6) inches in diameter, measured four (4) feet above the finished ground level, located outside of the street right-of-way line of existing or proposed streets not closer than five (5) feet, or more than ten (10) feet from said right-of-way line.

- 3.3.3.7. Cross-sections shall be shown as follows:

On the same sheet as the plan and profile there shall be drawn cross-sections of the proposed streets, properly located and identified by station number, at such intervals along the streets as will adequately indicate any variations in its section, supplemented where necessary, by lines on the layout plan showing the width and location of proposed roadways, grass plots, gutters, sidewalks, utilities (storm drains, water mains, and sewer mains, if any) and similar physical features. Provided, however, that where all cross-sections of the street will coincide with the appropriate cross-section shown on the Board's Standard Cross-section plans (Schedules A and B), such agreement may be indicated by proper notation on the layout plan, and the cross-section drawing may be omitted therefrom.

- 3.3.3.8. A Tabular Summary shall be prepared:

a) In tabular form for the total area of the subdivision plan as submitted.

- (1) The total area which is being subdivided.
- (2) The total area of lots.
- (3) The total of areas dedicated for street purposes, drainage, sewer or utility easements.
- (4) The total of areas reserved for park, schools, and other public use.

- 3.3.3.9. An Environmental Impact Statement shall be submitted in accord with Schedule E.

- a) Items to be included shall be determined by the Planning Board based on information contained in the Schedule D filed with the Preliminary Plan if such a plan was filed. If not, all items of Schedule E must be filed.
- b) The environmental statement concerning each character of subdivision shall contain the elements required except as modified by the Planning Board.

3.3.3.10. An Erosion/Sedimentation Control Plan shall be prepared including the following:

- a) A clear outline of the areas and type of control proposed.
- b) A general note indicating the developer's responsibility to maintain erosion/sedimentation controls during construction and until sale of the lots involved, including the frequency of maintenance.
- c) Appropriate details of erosion/sedimentation control devices.
- d) The outline of any areas, including drainage ways, steep slopes, and proposed stockpile of topsoil that shall be restored and/or seeded immediately.
- e) A general note stating that temporary ground cover or erosion/siltation control shall be established on any unbuilt lots, where required by the Planning Board.

3.3.4. Staking.

3.3.4.1. To facilitate review of the Definitive Plan by the appropriate authorities, at the time of filing of the Definitive Plan, the Applicant shall stake the center line of all proposed streets at a minimum of every one-hundred (100) feet with the center line stations and the cut or fill dimensions to finish grade marked on the stakes.

3.3.5. Soil Surveys and Percolation Tests.

3.3.5.1. Where appropriate the Planning Board may require, at the expense of the Applicant, soil surveys and percolation tests to establish the suitability of the land for the proposed storm drainage installations and proposed street construction. Such soil surveys and tests must be filed with all plans for non-residential subdivisions or multi-family residences.

- a) Test pits or borings shall be taken along the center line of each street shown on the plan at intervals of at least every two-hundred (200) feet and at locations such as cut sections and areas of questionable foundation material where the subsurface conditions may be, in the opinion of the Planning Board or its Agent, factors affecting the quality and service life of the street. Test pits shall not be back-filled until the Applicant has been notified by the Planning Board or its Agent that all necessary inspection and sampling has been completed. Where borings are used, samples shall be taken at five (5) foot intervals and at each

change in strata. Test pits and borings, where required, shall extend to a minimum depth of five (5) feet below the street profile grade or to bedrock, whichever is less. The Applicant shall indicate, on the plan, a proposed layout of the subsurface exploration program complete with location, spacing, and type of exploration proposed.

- b) Soil surveys for lots not connecting to the municipal sewer system when required by the Planning Board or its Agent, shall include a test excavation not less than seven (7) feet below finished grade at a frequency of one (1) per lot, location of which must be shown on the contour plan, and a report thereon; a percolation test at a frequency one (1) per lot; location of which must be shown on the contour plan, and a report thereon. Percolation tests shall be in accordance with Massachusetts Department of Environmental Protection 310 CMR 15.104.

3.3.6. Review by Board of Health as to Suitability of the Land (see Schedule C).

- 3.3.6.1. At the time of filing of the Definitive Plan, the Applicant shall also file with the Board of Health two (2) contact prints of the Definitive Plan, dark line on white background, together with such information in the nature of percolation tests and deep test holes as the Board of Health may require plus the information requested on Schedule C, Board of Health Review. The Board of Health shall, within forty-five (45) days after filing of the plan, report to the Planning Board in writing approval or disapproval of said plan. If the Board of Health disapproves said plan, it shall make specific findings as to which, if any, of the lots shown on such plan cannot be used for building sites without injury to the public health, and include such specific findings and the reasons therefore in such report, and, where possible, shall make recommendations for the adjustment thereof. Every lot shall be provided with a sewerage system or sewer connection satisfactory to the Board of Health and the engineer to the Board.

3.3.7. Review by Other Town Officials

- 3.3.7.1. The Clerk of the Planning Board will transmit copies of the Definitive Plan to Town Officials other than the Board of Health as follows:

One (1) copy each to the Town Counsel for review of easements and agreements, the Department of Public Works, the Department of Licenses, Permits & Inspections, the Fire and Police Departments, and the Light and Power Department.

3.3.7.2. Before the Definitive Plan is approved, the Planning Board will request written statements from the above officials with regard to the proposed improvements in the following respects:

- a) Town Counsel as to the form of easements, covenants, and performance guarantees.
- b) The Department of Public Works as to the design of the street system, location of easements, monuments, street lights, drainage system, water system, and, if applicable, the sewage system.
- c) The Fire and Police Departments as to location of hydrants and the alarm system and street safety.
- d) The Department of Licenses, Permits & Inspections as to compliance with the Zoning By-laws.
- e) The Light & Power Department as to location and type of street lights and power lines.

3.3.8. Conditions and Application of Other Regulations, Laws and By-laws (see also Section 3.3.10.2.).

3.3.8.1. When a common driveway is shown on the plan, before final approval of the plan the Planning Board must approve:

- a) An agreement between the owner or developer and the Town of Hudson prohibiting the sale of lots and erection of buildings until such time as the common driveways have been constructed in accord with the approved plan.
- b) A declaration of covenants, easements, and restrictions for the use and maintenance of said common drives.

3.3.9. Site Walk

At its discretion, the Planning Board may conduct a site walk to become more familiar with the land, its topography and site characteristics. The applicant and/or their representative is not required to attend but may be present for some or all of the Planning Board's site walk.

3.3.10. Public Hearing.

- 3.3.10.1. Before taking any action to approve, modify, and approve or disapprove a Definitive Plan the Planning Board shall hold a hearing at which parties in interest shall have an opportunity to be heard, in person, or by agent, or attorney. Notice of the time and place of such hearing and of the subject matter, sufficient for identification, shall be published once in each of two (2) successive weeks, the first publication to be not less than fourteen (14) days before the date of the hearing in a newspaper of general circulation in the Town of Hudson and by mailing a copy of such advertisement to the Applicant and to all owners of land abutting the land shown on the plans and on the most recent tax list and to all owners of land within three-hundred (300) feet of a property line of the subdivision.
- 3.3.11. Planning Board Procedure.
 - 3.3.11.1. The procedure that the Planning Board will follow with regards to approval, disapproval, or modification of the final plan submitted by the Applicant will be that as set forth in Chapter 41, Section 81-U of the General Laws, as amended. In summary, the Board, after receiving the Definitive Plan and profiles, will review the same to determine whether they are in compliance with its adopted rules and regulations and the Zoning By-laws.
 - 3.3.11.2. The plan shall comply with all reasonable regulations and rules of the Selectmen, Department of Public Works, and the Board of Health not otherwise covered by these rules and regulations. Specific reference is made to the specifications for septic systems which shall conform with the rules and regulations of the Board of Health.
 - 3.3.11.3. Before final approval of the plan, the Applicant shall establish that the lots in the Definitive Plan are in conformity with the Hudson Zoning By-laws, and failure of the lots to so comply will be adequate grounds for disapproval of the Definitive Plan. See Chapter 41, Section 81-Q of the General Laws, and amendments thereto. The Board may, as a condition of granting a permit under Section 81-Y, impose reasonable requirements designed to promote the health, convenience, safety, and general welfare of the community and to benefit the Town. In such event the Board shall endorse such conditions on the plan to which they relate, or set forth a separate instrument attached thereto, to which reference is made on such plan and which shall for the purpose of the Subdivision Control Law be deemed to be a part of the plan. Before final approval all necessary permits under Chapter 131 of the General Law and from the Massachusetts Department of Public Works shall be obtained, and the Applicant shall notify the Planning Board of any changes in the plan required by said permit or permits.

- 3.3.11.4. The Planning Board may extend the ninety (90) day period or the one-hundred and thirty-five (135) day period, as applicable, permitted by statute between submission of a Definitive Plan and action thereon upon written request of the Applicant.
- 3.3.11.5. If the Board fails to act upon a non-residential plan submitted under this section, or fails to act upon a residential plan for which a Preliminary Plan has been submitted and acted upon, or forty-five (45) days have elapsed since the submission of the plan without Planning Board action, or fails to notify the Town Clerk and the persons submitting the plan of its action within ninety (90) days after its submission, it shall be deemed to have approval under the Subdivision Control Law, and the Planning Board shall forthwith make such endorsement on said plan, and on its failure to do so forthwith, the Town Clerk shall issue a certificate to the same effect. For all other residential plans the statutory time between submission of the Definitive Plan and action by the Planning Board, notification of the Town Clerk and of the Applicant of its action, shall be one-hundred and thirty-five (135) days.
- 3.3.12. Certificate of Approval.
- 3.3.12.1. The action of the Planning Board in respect to such plan shall be by vote, copies of which shall be certified and filed with the Town Clerk and sent by delivery or registered, return receipt requested, mail to the Applicant. If the Planning Board modifies or disapproves such plan, it shall state in its vote the reasons for its action and shall rescind such disapproval if the plan is amended to conform to the rules, regulations, and recommendations of the Planning Board and submitted for approval within seven (7) months of said disapproval. After seven (7) months, a new application will be required conforming to the rules and regulations in effect at the time of the new submission. Final approval, if granted, shall be endorsed on the original drawing of the Definitive Plan by the signatures of a majority of the Planning Board but not until the statutory twenty (20) day appeal period has elapsed following the filing of the Board's certificate of approval or disapproval, as the case may be, with the Town Clerk and said Clerk has notified the Board that no appeal has been filed. After the Definitive Plan has been approved and endorsed, the Planning Board shall return the original to the Applicant.
- 3.3.12.2. Approval of the Definitive Plan does not constitute the laying out or acceptance by the Town of streets within a subdivision.
- 3.3.12.3. The endorsement of plan approval by the Planning Board shall be valid for a period of two (2) years from the date of said approval, or such other period of time as is specified in Section 3.3.12. Prior to the expiration of the said

approval period, the developer and/or owner shall request in writing to the Planning Board an extension of time, if necessary. Failure to request extension of time prior to the expiration of the said approval period shall result in the Planning Board notifying the Building Inspector that no additional building permits should be issued in said development. The request for extension shall state the reasons for said extension and also the length of time requested. Extension of time shall not in any case exceed one (1) year. Additional extensions after the first may be applied for but not until at least ten (10) months have expired on the extension in effect.

3.3.12.4. Once recorded the Applicant shall file one (1) copy of the approved and recorded Definitive Plan each with the Board of Health, Assessor's Office, the Fire and Police Departments, the Department of Licenses, Permits and Inspections and the Light and Power Department, and one (1) copy and a mylar thereof with the Department of Public Works.

3.3.13. Performance Guarantee.

3.3.13.1. Before endorsement of the Board's approval of a subdivision, the Board shall require that:

- a) The subdivider shall specify in writing the time within which the construction of ways and installation of municipal services required in Section 5.0. shall be completed, which time shall be two (2) years, unless the subdivider stipulates otherwise.
- b) The subdivider shall secure the construction of ways and installation of municipal services by one, or in part by one and in part by another, of the following methods:
 - (1) By a proper bond, sufficient in the opinion of the Planning Board to secure performance of the construction of ways and the installation of principal services required in Section 5.0. for lots in the subdivision shown on the plan. See Form F.
 - (2) 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 in Section 5.0. for lots in the subdivision shown on the plan. See Form G or H.
 - (3) By a covenant, executed and duly recorded by the owner of record, running with the land, whereby the ways and services required in

Section 5.0. 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 acquires title to the mortgaged premises by foreclosure or otherwise and any succeeding owner of such premises or part thereof may sell any such lot, subject to that portion of the covenant which provides that no lot shall be built upon until such ways and services have been provided to serve such lot; and provided, further, that nothing herein shall be deemed to prohibit a conveyance by a single deed, subject to such covenant, of either the entire parcel of land shown on the subdivision plan or of all lots not previously released by the Planning Board. See Form I.

- (4) By delivery to the Planning Board of an agreement executed after the recording of a first mortgage covering the premises shown on the plan or a portion thereof given as security for advances to be made to the Applicant by the lender, which agreement shall be executed by the Applicant and the lender and shall provide for the retention by the lender of funds (otherwise due the Applicant) sufficient in the opinion of the Planning Board to secure the construction of ways and the installation of municipal services. Said agreement shall also provide a schedule of disbursements which may be made to the Applicant upon completion of various stages of the work, and shall further provide that in the event the work is not completed within the time set forth by the Applicant, any funds remaining undisbursed shall be available to the Town for completion. See Form I-a.
- c) The subdivider shall submit an agreement, suitable for recording, executed by the Planning Board and the Applicant setting forth the form of the guarantee and the stipulated time for completion of improvements as required in 3.3.12.1.a) and b) which shall be recorded in the Registry of Deeds by the subdivider and a receipt therefore be delivered to the Planning Board.

3.3.14. Reduction of Performance Guarantee.

- 3.3.14.1. The penal sum of any such bond held under 3.3.12.1. subparagraph b(1) or any deposit held under subparagraph b(2) or any amount of funds retained pursuant to an agreement under subparagraph b(4) shall bear a direct and reasonable relationship to the expected cost, including the effects of inflation, necessary to complete the subject work. Such amount or amounts shall from time to time be reduced so that the amount bonded, deposited, or retained

continues to reflect the actual expected cost of work remaining to be completed (see Form J).

3.3.15. Release of Performance Guarantee.

3.3.15.1. Upon completion of improvements required under Section 5.0., security for the performance of which was given by bond, deposit, covenant, or agreement or upon the performance of any covenant with respect to any lot, the developer or owner, at his expense, shall cause to be published in a newspaper of general circulation in the Town of Hudson at least fourteen (14) days prior to the final release of the performance bond or surety, an announcement that such release is contemplated and shall deliver to the Planning Board a copy of the page containing a copy of the announcement. He shall also send by registered mail to the Town Clerk and the Planning Board a written statement that the said construction or installation in connection with which such bond, deposit, covenant, or agreement has been secured, has been completed in accordance with the requirements contained under Section 5.0., such statement to contain:

- a) Name and address of Applicant.
- b) A compliance certificate signed by the Planning Board that the development has been completed according to the Rules and Regulations of the Planning Board and the Town of Hudson Zoning By-laws, shall be recorded in the Registry of Deeds by the Applicant, and a receipt therefore be delivered to the Planning Board.
- c) Copies of, or reference to, the requisite number of inspection forms and reports.
- d) An As-Built Plan. See Section 5.1.8.
- e) Written evidence as to construction of all ways and sidewalks, installation of monuments, street signs, traffic signs, pavement, lighting, gutters and curbs, required grading and drainage, water mains, hydrants and appurtenances, adequate lot drainage, planting and seeding, all in accordance with the Definitive Plan.
- f) Written evidence from the Board of Health as to the installation of sewage disposal facilities, if applicable, all in accordance with the Definitive Plan.

- g) Written evidence from the Fire Department as to the installation of the fire alarm system, all in accordance with the Definitive Plan.
 - h) Written evidence from the Department of Licenses, Permits & Inspections as to conformance to the Town of Hudson Zoning By-laws.
- 3.3.15.2. If the Planning Board determines that said construction has been completed, the Planning Board shall notify the Town Treasurer within forty-five (45) days that the Planning Board releases the interest of the Town in the bond or deposit, if any, and that it shall be returned to the person or persons who furnished same, or in the case of covenant or tri-partite agreement the Planning Board shall issue a written release of the covenant or agreement.
- 3.3.15.3. If the Planning Board determines that said construction or installation has not been completed, it shall specify to the developer in writing by registered mail the details wherein said construction and installation shall have failed to comply with requirements contained under Section 5.0 and shall send a copy of said notification to the Town Treasurer, the bonding company, if any, and the third party to the tri-partite agreement if there is such an agreement. Upon failure of the Planning Board to act on such application within forty-five (45) days after the receipt of the application by the Town Clerk and the Planning Board, all obligations under the bond shall cease and terminate by operation of law, any deposit shall be returned and any such covenant shall become void.
- 3.3.15.4. In the event that said forty-five (45) day period expires without such specification, or without the release and return of the deposit or release of the covenant or agreement as aforesaid, the Town Clerk shall issue a certificate to such effect, duly acknowledged, which may be recorded.
- 3.3.16. Acceptance by the Town.
 - 3.3.16.1. The subdivider shall file with the Planning Board an Acceptance Plan and a final As-built Plan on mylar, or similar substance of completed street or streets, utilities, and easements together with proper legal descriptions for initiating an article in the Town Warrant pursuant to the acceptance of the ways by the Town Meeting (See Section 5.0.) and shall grant a deed to the Town for the streets, utilities and easements, as needed in the plan, said deed to be recorded by the Town upon acceptance of the streets by the Town Meeting.
- 3.3.17. Phasing.

3.3.17.1. If a subdivision is to be constructed in phases, each phase shall be completed before the next in sequence is begun, unless written permission of the Planning Board is obtained.

4.0. DESIGN STANDARDS.

All proposed building lots shown on a Subdivision Plan submitted to the Board for approval shall contain at least the minimum area and frontage required by the Zoning District in which the land is located. The Planning Board encourages the use of low-impact development (LID) techniques and practices to minimize the effects on the environment. The Board shall consider the benefits of LID practices when reviewing subdivision waivers and design features that maintain the character of the Town of Hudson and protect its natural resources.

Green Development Practices: All developments should, to the greatest extent practicable, include strategies for environmentally responsible design as formalized in Leadership in Energy and Environmental Design (LEED) standards, NAHB Model Home Building Guidelines or the ICC National Green Building Standard, all of which minimize the depletion of natural resources; control erosion and minimize impact on natural areas; use native and water efficient plants in landscaping; increase energy efficiency in construction and operations; conserve water through use of efficient fixtures and appliances and irrigation systems using rainwater and greywater; and use environmentally “friendly” materials. To this end, the development should incorporate Low Impact Design (LID) techniques to the greatest extent practicable. The greater the density of the development, the more important the use of these techniques becomes to protecting the environment and on site and off site individual water wells, which are the exclusive source of drinking water for all residents, businesses and municipal users in Hudson.

4.1. Streets.

4.1.1. Location.

4.1.1.1. All streets in the subdivision shall be designed so that, in the opinion of the Planning Board, they will provide safe vehicular travel and an attractive street layout in order to obtain the maximum safety and amenity for future residents of the subdivision, they shall be so designed as to minimize cut and fill, and they shall be in accord with the rules and regulations of the Board of Selectmen and the Department of Public Works.

4.1.1.2. The proposed streets shall conform in location, so far as practical, to any existing plans of the Planning Board, to the Master Plan or parts thereof adopted by the Planning Board, and where required by the Planning Board, to the existing street system.

4.1.1.3. Provision satisfactory to the Planning Board shall be made for the proper projection of streets, or for access to adjoining property, whether or not subdivided.

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

4.1.1.5. Adequate Access from Public Way.

a) Where the street system within a subdivision does not connect with or have, in the opinion of the Board, adequate access from a Town, County, or State (public) way, the Board may require as a condition of approval of a plan, that such adequate access be provided by the subdivider, and/or that the subdivider make physical improvements to and within such a way of access, in accord with the provisions of Section 5.0. of these regulations, from the boundary of the subdivision to a Town, County, or State way.

b) Where the physical condition or width of a public way from which a subdivision has its access is considered by the Board to be inadequate to carry the traffic expected to be generated by such subdivision, the Board may require the subdivider to dedicate a strip of land for the purpose of widening the abutting public way to a width at least commensurate with that required within the subdivision, and to make physical improvements to and within the abutting public way. Any such dedication of land for the purpose of such way and any such work performed within such public way shall be made only with permission of the governmental agency having jurisdiction over such way, and all costs of any such widening or construction shall be borne by the subdivider.

4.1.2. Alignment.

4.1.2.1. Street jogs with centerline offsets of less than one-hundred and fifty (150) feet shall be prohibited.

4.1.2.2. The minimum centerline radii of curved streets shall be as follows:

| | | |
|-------------------|--------------------|--------|
| Minor Streets | one-hundred feet | (100') |
| Collector Streets | two-hundred feet | (200') |
| Secondary Streets | three-hundred feet | (300') |
| Major Streets | five-hundred feet | (500') |

- 4.1.2.3. A tangent at least one-hundred and fifty (150) feet in length shall separate all reverse curves on major and secondary streets except where at least one (1) radius is five-hundred (500) feet or more or where the radius of curvature of both the curves is in excess of two (2) times the minimum specified in Section 4.1.2.2.
- 4.1.2.4. Streets shall be laid out so as to intersect at right angles. No street shall intersect any other street at less than sixty (60) degrees. Intersection angles less than 75 degrees shall be approved on a case-by-case basis.
- 4.1.2.5. Property lines at street intersections shall be rounded or cut back to provide for a curb radius of not less than thirty (30) feet. However, when the intersection of two (2) streets varies more than ten (10) degrees from a right angle, the radius of the curve at the obtuse angle may be less, and at the acute angle may be greater, than thirty (30) feet to the extent approved or required by the Planning Board.
- 4.1.2.6. Streets shall be laid out so as to intersect at intervals in a range of six-hundred (600) feet to twelve-hundred (1,200) feet in length, unless otherwise specified by the Planning Board. In special instances, the Planning Board may approve an easement for a future street, in lieu of actual construction of a cross street.
- 4.1.2.7. Roadway centerlines shall be parallel with the sidelines of the roadway right-of-way. The distance between edge of pavement and edge of right-of-way shall remain constant.
- 4.1.3. Width.
- 4.1.3.1. The minimum width of right-of-way shall be as follows:
- a) Minor, collector and secondary streets: fifty (50) feet, except sixty (60) feet for a secondary street, in an area which, in the opinion of the Planning Board, will become a high density area.
 - b) Major streets and such secondary streets which, in the judgment of the Planning Board, may in the future be changed in character to become a major street: sixty (60) feet in a low density area or greater as provided in Section 4.1.3.2.
 - c) The minimum pavement width shall be twenty-four feet (24')
- 4.1.3.2. When a minor street will provide the only access for lots fronting on a length in excess of five-hundred (500) feet or where, on a major street, potential

volume or safety warrants, in the opinion of the Planning Board, the Board may require a greater right-of-way than that specified above and may require construction of a divided roadway.

4.1.4. Grade.

4.1.4.1. The minimum centerline grade for any street shall be not less than one percent (1.0%).

4.1.4.2. The maximum centerline grade for streets shall be as follows:

| | | |
|-------------------|---------------|-------|
| Minor Streets | seven percent | (7%)* |
| Collector Streets | seven percent | (7%)* |
| Secondary Streets | six percent | (6%)* |
| Major Streets | five percent | (5%) |

4.1.4.3. Where changes in grade exceed one-half of one percent (0.5%), vertical curves will be provided. The minimum length of vertical curves shall be designed in accordance with the following:

$$L=K * (G_1 \% - G_2 \%)$$

G=Grade

L=Length

The values for K are as listed below:

| | Minor & Collector Streets | Secondary & Major Streets as determined by the Planning Board |
|--------|------------------------------|---|
| Crests | 28 | 55 |
| Sags | 35 | 55 |

Roadways should have a cross slope at two (2) percent or one quarter (1/4) inch per foot.

4.1.4.4. The grade of any street, unless approved by the Planning Board, shall be so designed that the surface run-off of water shall be from the building line to the street. Where one side of a street drops off so that surface water run-off cannot drain into the street, provision must be shown for drainage pipes and catch basins, with any easement needed, to prevent overflow onto neighboring lots or erosion of banks.

- 4.1.4.5. Where a grade is four (4) percent or greater within one-hundred and fifty (150) feet of the intersection of street right-of-way lines, there shall be provided in a residential subdivision a leveling area of at least seventy-five (75) feet, with a maximum grade of three (3) percent.
- 4.1.4.6. Where curves and grades combine to create potentially dangerous driving conditions, the Planning Board may require a suitable amount of super elevation of the curves or other protection.
- 4.1.5. Dead-end Streets.
- 4.1.5.1. For the purposes of this section, any proposed street which intersects solely with a dead-end street shall be deemed to be an extension of the dead-end street. Dead-end streets and their extensions, if any, shall not be longer than five-hundred (500) feet unless the water system is looped or, in the opinion of the Board, a greater length is necessitated by topography or other local conditions. Dead-end streets shall be measured from the right-of-way line of the intersecting street. If a dead-end street is longer than one-thousand (1,000) feet in a non-residential subdivision, the Board may require a divided roadway. No dead-end street or extension thereof shall be less in length than one and one-half (1-1/2) times the frontage requirement for the zoning district in which it is located, said length to be measured from the right-of-way line of the intersecting street to the outside diameter of the cul-de-sac (turn-around).
- 4.1.5.2. Dead-end streets shall be provided at the closed end with a turnaround having an outside roadway diameter of a least one-hundred and ten (110) feet, and a property line diameter of at least one-hundred and twenty (120) feet unless otherwise specified by the Planning Board. The Planning Board may, at its option, require a minimum outside roadway diameter of one-hundred and forty (140) feet, a property line diameter of one-hundred and sixty (160) feet, if the dead-end street is not intended to connect with another street at some future point in time. Where a future street is projected beyond the circle, the circle shall be designed in relation to such extension. The turnaround or stub shall be located at the property line of the subdivision, unless the Planning Board approves otherwise.
- 4.1.5.3. The Board may require a roadway easement from the end of the dead-end street to adjacent property. If a dead-end street is subsequently extended beyond the required turnaround, any easement appurtenant to a lot not abutting the turnaround, except that portion of the turn-around included in said extension shall terminate upon the approval and recording of a certificate by the Planning Board of the construction of said extension, at

which time additional land used for the circle may be relinquished to the adjacent property.

4.1.6. Street Names.

4.1.6.1. Street names shall be subject to the approval of the Planning Board to provide names in keeping with the character of the Town. Proposed street names shall not duplicate nor bear phonetic resemblance to the name of existing public ways, paper streets, or any other way qualified to afford frontage under Section 81-L of Chapter G.L. A proposed street which is in alignment with an existing street shall bear the same name as the existing street.

4.1.6.2. Street names must be approved prior to final approval of the Definitive Plan by the Planning Board.

4.1.7. Streets in More Than One Town.

4.1.7.1. Each lot in a subdivision must be served by an approved way lying within the Town bounds.

4.1.7.2. If a subdivision is divided by a Town boundary, the Planning Board shall condition approval of the Definitive Plan on approval of the remaining portion of the plan by the Planning Board of the City or Town in which it is located.

4.2. Driveways and Curb Cuts.

4.2.1. Driveways in subdivisions containing one (1) and/or two (2) family dwellings only shall be at least twelve (12) feet wide and have a curb return at the roadway of three (3) feet in radius, and shall have an opening of at least sixteen (16) feet at the gutter line.

4.2.2. Driveways for non-residential uses shall be at least eighteen (18) feet wide and have a curb return at the roadway of two (3) feet in radius, and shall have an opening of at least twenty (20) feet at the gutter line.

4.2.3. Where rolled curbs or no curbs exist, the driveway flare should have a three (3) foot radius. Driveway cuts shall not be within sixty-five (65) feet of the intersection of the center line of intersecting streets.

4.2.4. If driveways slope from the edge of the street right-of-way to the edge of the pavement, there shall be a grade of not less than one (1) percent but not more

than eight (8) percent, but the grade between the sidewalk and the right-of-way shall be only as shown on the Cross-sections, Schedules A and B.

- 4.2.5. At every intersection, ramps three (3) feet wide shall be provided, adjacent to the granite curb sections required in Section 5.6.1.
- 4.2.6. Driveway openings shall not be located at catch basins, granite curb Inlets, or granite transition pieces.
- 4.2.7. Driveways and other curb cut openings shall be designed so that surface runoff can neither enter nor leave the road right-of-way, except where roadside swales are present to enable infiltration in vegetated areas. Open drainage with roadside swales is preferred wherever possible.
- 4.3. Easements.
 - 4.3.1. Where utilities cross lots, or are centered on rear- or side-lot lines, easements shall be provided of a width of at least thirty (30) feet.
 - 4.3.2. Where a subdivision is traversed by a water course, drainage way, channel, or stream, the Planning Board may require a storm water easement or drainage right-of-way of adequate width and proper side slope to conform substantially to the lines of such water course, drainage way, channel, or stream and to provide for construction or other necessary purposes. In no case shall the width be less than thirty (30) feet or the side slope be steeper than two (2) horizontal to one (1) vertical.
 - 4.3.3. Access easements to park and conservation land shall be provided, if required by the Planning Board, and shall be at least thirty (30) feet wide.
 - 4.3.4. Wherever possible easements along rear lot lines shall be continuous to the street at the end of the block to connect with the adjoining blocks in the shortest direct line.
 - 4.3.5. Where trails traverse the land shown on the plan, an easement at least fifteen (15) feet wide shall be shown, which may be limited to passage on foot or horseback. Where the present location of the trails interferes with logical development of the land, adjustments shall be made to relocate the trail or to connect the trail to a street right-of-way, another trail or suitable open space.

4.4. Open Space.

4.4.1. Before approval of a plan the Planning Board may also, in proper cases, require the plan to show a park or parks, suitably located for playground or recreation purposes, or for providing light and air. 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 Planning Board may, by appropriate endorsement on the plan, require that no building be erected upon such park or parks without its approval for a period of three (3) years. Each area reserved for such purpose shall be of suitable area, dimensions, topography, and natural character for the purposes of a park and/or playground. The area or areas shall be so located as to serve adequately all parts of the subdivision, as approved by the Planning Board. The Planning Board may require that the area or areas reserved shall be located and laid out so as to be used in conjunction with similar areas of adjoining subdivisions or of probable subdivisions. Unless otherwise specifically approved by the Planning Board, the total amount of area to be reserved for park and/or playground purposes shall be no less than ten (10) percent of the gross area of the subdivision. Any land so reserved shall be graded to dispose properly of surface water and shall be left in condition for the purpose intended, as required by the Planning Board.

4.4.2. Pedestrian ways, bikeways, or bridle paths of not less than fifteen (15) feet in width may be requested where deemed desirable to provide circulation or access to schools, playgrounds, parks, shops, transportation, open spaces, and/or community facilities, as provided in Section 4.10.

4.4.3. The Town shall have the right to acquire ownership of same by gift or as provided in Section 81-Q of Chapter 41 of the General Laws.

4.5. Protection of Natural Features.

4.5.1. Due regard shall be shown for all natural features, such as large trees, wooded areas, water courses, scenic points, historic spots, and similar community assets, which, if preserved, will add attractiveness and value to the subdivision. Outside of street right-of-ways, no trees over a fifteen (15) inch caliper measured at four (4) feet above the existing grade shall be removed or have the grade level surrounding the trunk altered by more than six (6) inches without approval of the Planning Board after its consultation with the Conservation Commission.

4.6. Lot Drainage.

4.6.1. Lots shall be prepared and graded in such a manner that development of one shall not cause detrimental drainage on another; if provision is necessary to carry drainage to or across a lot, an easement or drainage right-of-way of adequate width and proper side slope shall be provided. Storm drainage shall be designed in accord with the specifications of the Planning Board. Where required by the Planning Board or the Board of Health, the Applicant shall furnish evidence as to any lot or lots to either Board that adequate provision has been made for the proper drainage of surface and underground waters from such lot or lots.

4.7. Fire Hydrants.

4.7.1. Hydrants shall be provided every five-hundred (500) running feet on one side of each street unless a greater distance is approved by the Chief of the Hudson Fire Department in writing. They shall be of a style approved both by the Fire Chief and the American Insurance Association.

a) A hydrant shall in all cases be Installed at the terminal end of each water main.

b) A hydrant shall be located on each new main within five hundred feet {500'} of the nearest supply main or, if no hydrants exist, within two hundred feet {200'} of the connecting point and, where practical, at all road Intersections.

4.7.2. Each hydrant shall be served directly from the water main by a lateral connection with not less than an eight inch {8"} inside diameter.

4.7.3. Hydrant type, size and make, direction and pitch of threads shall be approved by the Fire Department and the Water District.

4.7.4. When hydrants are connected to a dry system, they shall be painted black and suitably identified as not in use.

4.8. Sidewalks, Grass Plots, Trees, Curbs and Berms.

4.8.1. Sidewalks shall be provided on one side of each street for the full length of major streets. Sidewalks shall be provided in the vicinity of pedestrian generators on minor and secondary streets as required by the Planning Board and in any area determined by the Planning Board to be a high density area. Minimum widths of sidewalks shall be four (4) feet.

4.8.2. See Cross Sections in Schedules A and B.

- 4.8.2.1. Sidewalks, grass plots, trees, curbs, and berms shall be shown in accord with these cross-sections and the requirements of Section 5.0.
- 4.9. Utilities.
- 4.9.1. Required utilities include water, sewer, storm drainage, telephone, electricity, gas, street lights, fire alarm systems, and cable TV, unless otherwise specified by the Planning Board. The Applicant shall submit evidence of complete financial arrangements with private utility companies prior to approval.
- 4.9.1.1. All utilities shall be placed underground at the time of initial construction. The Planning Board may permit transformers, switches, and other such equipment to be placed on the ground in approved locations, screened from view with evergreen shrubbery.
- 4.9.1.2. Where adjacent property is not subdivided, or where all the property of the Applicant is not being subdivided at the same time, provision shall be made for the extension of the utility system by continuing the mains the full length of streets and to the exterior limits of the subdivision, at such grade and size as will, in the opinion of the Planning Board, permit their proper extension at the later date in conformance with all regulations governing the design and installation of such utility.
- 4.9.1.3. Adequate disposal of surface and sub-surface water shall be provided on both sides of the roadway at intervals not to exceed three-hundred (300) feet, unless otherwise approved by the Planning Board, and at such other places as deemed necessary by the Planning Board, to assure adequate drainage of all low points and to provide proper run-off of storm water. In no instances shall catch basins be located along a driveway cut.
- 4.9.1.4. All drain, water and sewer pipes, telephone, electricity, fire alarm systems, cable TV and other underground utilities and other structures shall be installed to the property line of each lot in such a manner that future connection will not disturb the sidewalk, grass plot, or street trees. The locations and depths of the proposed utility lines shall be based on the respective requirements of utility companies or Town departments and shall be installed as shown on the plans and profiles approved by the Board.
- 4.9.1.5. Connections for water, sewer, electric, cable TV, telephone and other underground utility service from the primary utility structure in the way to the exterior line of the way shall be constructed for each lot whether or not there is a building thereon, except that the Board may waive such

requirement, in whole, or in part, in the case of a lot to be permanently used for a park, playground or for any other purpose for which, In the opinion of the Board, such connections will not be required.

4.9.2. Sewerage.

4.9.2.1. If a public sewerage system is located within two-thousand (2,000) feet down gradient from a non-residential subdivision or a multiple-family subdivision or within one-thousand (1,000) feet of a one (1) or two (2) family subdivision, all lots shall be connected to the public sewerage system by the developer.

4.9.2.2. If a public sewerage system is planned to be installed within one-thousand (1,000) feet down gradient of any subdivision within three (3) years of the date of submission of the Definitive Plan as indicated by prior Town Meeting action, the sewer system shall be installed by the developer in the street and to every lot which can be connected later to the public sewerage system.

4.9.2.3. If public sewerage connections are not required according to the above, or if the planned public sewerage system has not yet been installed to within the required distance of the proposed subdivision, private on-lot or communal sewerage systems, as approved by the Hudson Board of Health, shall be installed. The on-lot facility shall be located in the front yard wherever practicable to facilitate connections to an eventual public sewerage system.

4.9.2.4. Manholes shall be located at every change in grade or horizontal alignment but not more than three-hundred (300) feet apart.

4.9.3. Water.

4.9.3.1. Every subdivision shall be connected to the municipal water system unless otherwise approved by the Planning Board and Board of Health.

4.9.3.2. Water, where water systems are required, pipes, and related equipment such as hydrants and main shutoff valves, 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.

4.9.3.3. All house connections shall be installed in accord with the requirements of the municipal water system.

4.9.3.4. If the Planning Board and Board of Health approves a private well or private water system, the requirements of the Board of Health shall govern the design of the well or system.

- 4.9.3.5. The water system shall be designated so as to minimize infiltration.
- 4.9.3.6. Design and installation of water systems shall be in conformance with the rules and regulations of the Water District and paid for by the Developer.
- 4.9.4. Storm Water Management.
 - 4.9.4.1. Stormwater drainage systems shall be designed using best management practices {BMPs) as found in the most recent version of Massachusetts DEP's Stormwater Handbook. Stormwater BMPs shall be designed in a manner to contain soil erosion on site, to prevent non-point source pollutants from entering streams, lakes and ponds, and to minimize the need for maintenance. The development shall conform to the Stormwater Management Standards of the Department of Environmental Protection {DEP).
 - 4.9.4.2. Storm drains, culverts, ditches and related installations, including catch basins, gutters and manholes shall be installed as needed, in the opinion of the Board, to provide adequate routing of surface and subsurface water, including control of erosion, subsurface water, flooding, and standing water from or in the subdivision and adjacent land. The drainage system shall be designed by methods based on the report of the United States Natural Resources Conservation Service, Urban Hydrology for Small Watersheds, Technical Release Number 55. The designer shall review the Northeast Regional Climate Center Atlas of Precipitation Extremes for the Northeastern United States and Southeastern Canada, Publication RR 93-5 and use its data where TR 55 is exceeded. The Board may require a more intense design storm frequency to be used in any situation which, in its judgment, requires that a greater degree of protection should be afforded to public or private property.
 - 4.9.4.3. Systems for infiltration, detention or attenuation of storms shall be analyzed for the two {2), ten {10) and one hundred {100) year frequency storm. Drainage outfalls shall not cause water to be discharged within ten feet {10') of the perimeter of the subdivision. Catch basins, manholes, piping and all other stormwater collection and conveyance facilities shall be designed for a twenty-five (25) year frequency storm at a minimum. Roadway culverts shall be designed for a fifty (50) year frequency storm at a minimum. The use of retention basins shall be discouraged.

- 4.9.4.4. A system of catch basins, curb inlets and manholes shall be designed to maintain the drainage area free of temporarily ponded runoff and to avoid excessive accumulations of surface flow on or adjacent to public ways or off existing ways onto the proposed way. Catch basins shall flow into manholes not into other catch basins. In no instance, shall catch basins be located within a driveway cut. Catch basins and manholes shall be spaced not over three hundred feet (300') apart. Manholes shall be provided at all changes in alignment or grade.
- 4.9.4.5. Proper connections shall be made with any existing drains in adjacent streets or easements. Where property adjacent to the subdivision has not been subdivided, drains installed within the subdivision shall be of such design as to make feasible their connection with drains installed in such adjacent property when subdivided.
- 4.9.4.6. Drainage Layer: Any road constructed in an area known to be wet, or where groundwater is or has been within two feet (2') of finish grade, or in an area with four feet (4') or greater cut depth, or any area where the Planning Board determines it to be appropriate, shall have a drainage layer below the gravel subbase.
- 4.9.4.7. Subdrains: Where drainage layer is required, or at any location where a groundwater condition may exist, subdrains shall be installed.
- 4.9.4.8. Groundwater shall be located by the determination of a soil profile in accordance with the criteria set forth in 310 CMR 15.103 at locations not to exceed two hundred feet (200') apart along the proposed roadway and at each drainage basin.
- 4.9.5. Gas.
 - 4.9.5.1. If gas connection is available, mains shall be installed and T connections for each lot extended to the right-of-way line.
- 4.9.6. Fire Alarm System.
 - 4.9.6.1. One (1) fire alarm box shall be provided for each one-thousand (1,000) linear feet, or fraction thereof, of street within the subdivision. Exact location of boxes shall be specified by the Hudson Fire Department and indicated on the plan. The circuit shall be installed so that it may be connected with a circuit on a Town way adjoining the subdivision. See Section 5.12.
- 4.9.7. Monuments (Bounds).

4.9.7.1. Granite bounds shall be set to locate both sidelines of rights-of-way, at all street intersections; at all changes in direction and points of curvature of sidelines; at the roadway lot corners of designated open space areas and municipal easements (such as access, drainage, future street or utility, etc.); the boundary of reserved rights-of-way; and any other points as determined by the Planning Board. Intermittent bounds shall be set on all tangents and curves of a length exceeding eight hundred feet (800').

4.9.7.2. Sight lines between bounds shall not be obscured; utility poles shall not be set on a right-of-way sideline. A clearance of at least three feet (3') from a bound point shall be provided to permit free use of the bound both laterally and along sidelines.

4.10. Bikeways, Walkways and Trails.

4.10.1. Public bikeways, pedestrian walkways, or trails may be required by the Planning Board to provide circulation or access to schools, playgrounds, parks, shopping, transportation, open space, and/or community facilities, or for such other reason as the Board may determine. These may or may not be part of normal sidewalk provisions, but they shall not be a part of any lot in the subdivision. Bikeways and walkways shall conform to the following standards:

4.10.1.1. Minimum right-of-way width:

Fifteen (15) feet

4.10.1.2. Minimum pavement width for bikeways and walkways:

Ten (10) feet

4.10.1.3. Maximum gradient:

Five (5) percent for segments less than one-hundred (100) feet in length, three (3) percent elsewhere.

4.10.1.4. Minimum center line radius:

Twenty-five (25) feet

4.11. Common Driveways.

- 4.11.1. Common driveways and all drives serving more than two dwelling units are prohibited and shall meet the following standards:
 - 4.11.1.1. Minimum Width: Eighteen (18) feet for residential use.
 - 4.11.1.2. Maximum Grade: Two (2) percent for the first forty (40) feet, and eight (8) percent thereafter.
 - 4.11.1.3. Maximum Length: Two-hundred and fifty (250) feet.
 - 4.11.1.4. Curb Cut: Not nearer than sixty-five (65) feet from the centerline intersections of any right-of-ways.
 - 4.11.1.5. In addition, the design shall, in the opinion of the Planning Board, assure adequate safety for emergency vehicles and shall provide for adequate drainage of surface waters.
 - 4.11.1.6. All requirements of 3.3.8.1. and 5.13. also must be met.

5.0. REQUIRED IMPROVEMENTS FOR AN APPROVED SUBDIVISION.

5.1. General.

5.1.1. No street or way through private property shall be accepted by the Town unless the same be previously constructed and completed in accordance with the Standard Cross-Section (see Schedules A and B), Street Layout Plan, Profile, and the following specifications.

5.1.2. To insure high quality and uniformity of construction and unless otherwise specified, all the work and the materials used in the work to be done shall conform to the requirements of the latest edition of the Massachusetts Department of Transportation Standard Specifications for Highways and Bridges in addition to the Massachusetts Department of Transportation Construction Standard Details.

5.1.3. Supplementing the aforesaid Standard Specifications, certain specifications or special provisions shall apply particularly to the work to be done hereunder. References in the following specifications, unless otherwise stated, are to the aforesaid Standard Specifications, amendments or addenda. These specifications and special provisions shall take precedence and shall govern when they are stricter.

5.1.4. To facilitate reference, each paragraph in these specifications is noted with the paragraph number of the particular section as contained in the Standard Specifications.

5.1.5. Wherever in the Standard Specifications or other contractual documents, 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 Hudson

"Department" Department of Public Works and Board of Selectmen of Hudson

"Engineer" The Planning Board of the Town of Hudson acting directly or through an authorized representative; such representative acting within the scope of the particular duties entrusted to him.

- 5.1.6. The extent of work required shall be as shown upon approved plans, and in compliance with the Standard Cross-section plans. Stakes shall be set which will indicate the exact amount of cut or fill.
- 5.1.6.1. Offset stakes shall be set under the direction of a Registered Land Surveyor at fifty (50) foot intervals, and at each sewerage and drainage structure, and at each hydrant to indicate the location and the exact amount of cut, fill, or grade.
- 5.1.6.2. Improvements to minimize adverse environmental impact, if required, shall be installed in accordance with all details as shown on the approved Definitive Plan, and all possible measures shall be taken during construction to minimize dust and erosion.
- 5.1.6.3. No earth shall be removed from the area shown on a Definitive Plan except in accordance with the approved plan.
- 5.1.7. As each construction operation is completed, it shall be inspected and approved by the proper Town authority prior to starting working on the succeeding operation.
- 5.1.8. As-Built Plans and Acceptance Plans.
- 5.1.8.1. At the time the street or way or portion thereof is ready for acceptance and to facilitate acceptance by the Town of Hudson, the developer shall have prepared and certified by a Registered Land Surveyor a "Plan of Acceptance" drawn with India ink on mylar, or similar substance (size 24' x 36') showing widths, lengths, bearings of all boundary lines of streets and easements and radii, tangents, and central angles of all curves in street lines. It shall show that all stone bounds have been set. Bearing directions shall follow the legal description exactly.
- 5.1.8.2. A blank space (4" x 8") shall be provided on the lower right- hand corner of the plan for a title block to be filled in by the developer. The surveyor shall place a certification on the plan stating, "The street (or way or portion thereof) is laid out and the bounds have been set as shown on this plan" and shall be dated, signed, and the surveyor's stamp affixed thereon. One (1) copy of the plan shall be submitted to the Board of Selectmen and one (1) copy to the Planning Board.
- 5.1.8.3. The developer shall have the original plans and profiles that were submitted to the Planning Board, and that are on file in the Planning Board office, corrected and certified by his engineer to show the actual as-built locations

and grades of all utilities and roadway profiles and any changes authorized by the Planning Board.

5.1.8.4 The developer shall submit one (1) mylar and six (6) prints of the Acceptance Plan and six (6) prints of the As-Built Plan to the Department of Public Works.

5.2. Street and Roadway.

5.2.1. The roadway shall be graded and prepared for pavement as follows:

5.2.1.1. 101 Clearing and grubbing of the entire area of such street or way shall be performed to remove all trees not intended for preservation, stumps, brush, roots, rocks, or boulders and like material which may exist upon the surface.

5.2.1.2. 120 Roadway earth excavation shall remove all materials encountered down to the true surface of the subgrade, or to suitable material in areas where unsuitable material exists, in preparation for foundation of roadway, sidewalks, driveways, and berms. Approved material obtained from the excavation may be used in fills as required if, in the opinion of the Planning Board, they are suitable.

5.2.1.3. 150 When, in the opinion of the Planning Board, suitable material is not available within the limits of the highway location to form the subgrade or sub-base, the contractor shall obtain such additional material from other sources in accordance with this section and as may be approved by the Planning Board.

5.2.1.4. Grading

a. The subgrade surface twenty-four inches (24 ") below the finished surface grade in major streets shall be prepared true to the lines, grades and cross sections given and properly rolled with not less than a ten (10) ton roller. All soft or spongy material below the subgrade surface shall be removed to depth determined by the Planning Board, and the space thus made shall be filled with special Gravel Borrow (Section M 1.03.0 Type a), containing no stones over six inches (6") in their largest diameter.

b. The subgrade surface shall be transversely sloped to produce a crown of 1/4 inch per foot.

5.2.1.5. Drainage Layer

Any drainage layer shall be a six-inch (6") layer of crushed stone, 3/4 inch gradation, placed under the gravel sub-base, which extends from edge to edge of pavement on both sides of the road. At each side, the drainage layer shall terminate at a subdrain. The drainage layer shall include, above it and below it, a synthetic, nonwoven geotextile fabric with geotextile opening size of 0.21 mm, or as appropriate for that soil.

5.2.1.6. Gravel Sub-Base

- a) Gravel sub-base or foundation shall be spread in two (2) layers on the surface of the sub-grade in conformity with the requirements of Section M. 1.03.0 of the MHD Standard Specifications for furnishing gravel borrow. The lower layer consisting of MHD M1.03.0 Type A containing no stones greater than six inches (6") in greatest dimension shall be to a depth of twelve inches (12"). The upper layer consisting of MHD M1.03.0 Type B gravel containing no stones greater than three inches (3") in greatest dimension shall be to a depth of six Inches (6").
- b) A single layer consisting of MHO M1.03.3 Type B gravel containing no stones greater than three inches (3") in greatest dimension shall be to a minimum depth of twelve inches (12") on minor streets in a residential subdivision.
- c) Each layer shall be rolled with not less than a ten (10) ton roller, and compacted true to line and grade, to ninety-five percent (95%) of maximum dry density. Any depressions that appear during and after rolling shall be filled with additional gravel and re-rolled until the surface is true.
- d) At the time of paving, gravel shall be at optimum moisture content and shall be at least ninety-five percent (95%) of maximum dry density.
- e) Final grading, rolling and finishing Including the shaping, trimming, rolling and finishing of the surface of the sub-base prior to application of gravel for surfacing of the roadway and base courses for walks and berms shall be in accordance with this section and as directed by the Planning Board or their designee.
- f) Gravel sub-base surface shall be transversely sloped to produce a crown of 1/4 inch per foot.

- g) At the conclusion of this step, the roadway shall be staked in all locations where permanent monuments are to be installed.

5.2.2. Roadways shall be constructed for the full length of all streets within the subdivision and shall have the same curb radius required in Section 4.1.2.5. The center line of all roadways shall coincide with the center line of the street right-of-way unless a deviation is approved by the Planning Board. The minimum and maximum widths of roadways shall be as follows:

| | Right-of-Way Width as Required <u>In Section 4.1.3.</u> | Pavement <u>Width</u> |
|------------------|---|--------------------------|
| Major Street | 60 feet | 30 feet |
| Secondary Street | 50 feet | 28 feet |
| Collector Street | 50 feet | 28 feet |
| Minor Street | 50 feet | 24 feet |

All pavement widths shall be as defined above but are subject to alteration by the Planning Board at its option.

5.2.3. Pavement

5.2.3.1 Pavement Materials.

Pavement materials for all primary roadways in a subdivision shall be MassDOT Specification Section M3.11.0 Hot Mix Asphalt. The material and construction methods for laying pavement shall conform to the Standard Specifications.

5.2.3.2 Placing Pavement

a) Pavement shall be plant mixed and laid hot to a finished depth of four inches (4") laid in two (2) courses consisting of two and one-half inches (2'-1/2") of binder mix, then one-and-one-half inches (1'-1/2") of finish mix. Each course shall be compacted per the MassDOT Standard Specifications.

b) Sediment basins shall be constructed where necessary to detain runoff and to trap sediment during construction.

c) Safe off-site disposal of runoff shall be provided, including the increased runoff resulting from construction.

- d) Permanent vegetation and erosion control structures, where necessary, shall be installed as soon as possible.
- e) The construction of the wearing or top surface of any street shall not proceed until the structural foundations for buildings on each lot to be served by that street have been completed.
- f) Paving shall occur between May 1 and October 30 of any year. The Board may extend the October deadline, weather permitting. Finish pavement shall be placed on a binder that has weathered one winter season. Any pavement placed between October 30 and May 1 shall be inspected during the month of May and certified by the applicant's Construction Engineer.
- g) Asphalt shall not be placed on material which the Town determines to be frozen, frosted, saturated, or otherwise unsuitable.
- h) Paving shall occur only under suitable conditions. Air temperature shall be at least 40°F. Paving shall not take place while rain, snow, sleet or any other precipitation is falling, or immediately following any such precipitation.
- i) Any pavement surface exposed for more than nine (9) months, except for finish course deemed acceptable by the Town, shall require a tack coat of asphalt emulsion prior to placing any additional asphalt layer(s). Tack coat shall be bituminous asphalt emulsion formulated in accordance with M3.03.0, at a rate of 0.2 gallons per square yard.
- j) Any exposed asphalt surface subject to placement of a further course of asphalt, except for finish course deemed acceptable by the Town, shall receive a coating of liquid bituminous sand seal coat, no less than annually, until finish course pavement acceptable to the Town has been placed. Such coating shall consist of liquid bituminous asphalt applied at a rate of 0.25 to 0.3 gallons per square yard, with a sand cover of fine granular material composed of hard, durable particles, clean of organic matter, applied at a rate of 20 to 25 pounds per square yard. Such coating shall be applied only when air temperature is at least 40°F.
- k) If the binder or finish pavement is removed, excavated or damaged, the trench shall be covered with a poured reinforced concrete slab to the lines, grades and dimensions approved by the DPW Director or their designee. Pavement repair shall be by sealing all patch areas with an asphaltic sealer; application of a non-woven adhesive polymer asphalt membrane over joints

in the "binder", placed with wearing side up; the pavement shall then be treated with asphalt emulsion prior to placing asphalt on it.

5.2.4. 685 Embankments outside, within or adjoining the right-of-way shall be evenly graded and pitched at a slope of not greater than two (2) horizontal to one (1) vertical in fill. Where cuts are made in ledge, other slopes may be determined with the approval of the Planning Board. Where terrain necessitates greater slopes, retaining walls, terracing, fencing, or rip-rap may be used either alone or in combination to provide safety and freedom from maintenance, but must be done in accordance with plans filed with and approved by the Planning Board. Whenever embankments are built in such a way as to require approval by the Planning Board, the developer must furnish to the Town duly recorded access easements free of encumbrances for maintenance of the slopes, terraces, or retaining walls. All such slopes shall be grassed in accordance with the specifications for the area between the roadway and sidewalk or roadway and boundary of the right-of-way.

5.2.5. Loam shall be placed on all shoulders, embankments, and other areas disturbed by the construction to a depth of four (4) inches. Grass conforming to Section M 6.03.0 of the Standard Specifications shall be placed at the rate of four (4) pounds per one-thousand (1,000) square feet, or such other ground cover as the Planning Board may approve.

5.3. Utilities.

5.3.1. All materials and installation methods used shall conform to the standards of the appropriate utility company or to the standards of the Town of Hudson whichever is stricter. All underground services shall be installed, and individual lot services carried to the front lot lines/edge of right-of-way prior to completing pavement foundation/ gravel sub-base work.

5.3.1.1. 140 Excavation for structures, including foundations for drains, sewers and water pipes, wells, and other structures shall be made to the depth as indicated on the Definitive Plan or established by the Planning Board as appropriate. Rock excavation designated as Class B, encountered in trench excavation, shall be removed as directed by the Planning Board.

5.3.1.2. 200 All drain, sewer, gas and water pipes, underground utilities, and other structures shall be installed upon the completion of roadway subgrade and before the placing of the sub-base, gravel base course, sidewalks, or pavement. If the pavement is removed, excavated or damaged, the trench shall be covered with a poured reinforced concrete slab to the lines, grades, and dimensions approved by the Planning Board.

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

5.3.1.4 Backfilling for Structures and Pipes

- a. All backfilling shall consist of granular mineral soil material (excluding organic matter, building rubble, solid waste, boulders larger than eighteen inches (18") in any dimension, or any other deleterious material) uniformly distributed and thoroughly compacted. When suitable backfilling materials cannot be obtained from excavation, the material shall consist of satisfactory borrow.
- b. Mechanical tampers shall be used in compacting backfill for trenches and in hard to reach areas around masonry.
- c. No backfill whatever shall be placed on or against structures, pipes, or other masonry, until permitted by the Planning Board. Fill shall be formed of successive layers not more than six inches (6") in depth, uniformly distributed and thoroughly compacted.
- d. No load greater than eight (8) tons shall be moved over any pipe until a fully compacted backfill of at least two feet (2') has been placed over the top of the pipe. Compliance with this requirement is not to be construed as relieving the Contractor of any responsibility concerning damage to the pipe.
- e. Material used for backfilling to a point two feet (2') over the pipe and within two (2) feet of any structure shall contain no stones larger than three inches (3") in greatest dimension.
- f. Backfill below the haunches shall be placed in six inch (6") layers and compacted simultaneously on both sides of the pipe with railroad tampers or approved mechanical rammers which shall not come in contact with the pipe. Backfill above the haunches shall be placed in six inch (6") layers and compacted as directed. Backfill material shall be moist prior to and during compaction.

g. Backfill material for the pipe bedding shall consist of gravel borrow, screened gravel, or crushed stone no greater than one- and-one-half-inch (1 1/2") gradation to twelve inches (12") over the crown of the pipe. The material excavated from the trench may be used for the pipe bedding if it is of acceptable grade gravel and approved by the Planning Board. If directed by the Planning Board, backfill material above the pipe bedding shall consist of gravel borrow.

h. In all cases the filling material shall be thoroughly compacted.

5.3.2. Water.

5.3.2.1. Public water mains and related facilities shall be installed to the standards of the Hudson Department of Public Works. Hydrants shall be located as specified in Section 4.7.

5.3.2.2. Each hydrant shall be served directly from the water main through a six (6) inch lateral connection. It shall be gated with a five (5) inch bottom valve and shall have two (2) two and one-half (2-1/2) inch hose outlets and one, four and one-half (4-1/2) inch steamer outlet. Water main valves shall be located in such number and locations that lines by individual block may be isolated for maintenance purposes.

5.3.2.3. Where a public water system is located within four-hundred (400) feet of the subdivision, the subdivider shall connect to the public water system. Where a public water system is not located within four-hundred (400) feet of the subdivision, the subdivider may install a private on-lot water system.

5.3.2.4. Private on-lot water systems shall be located a minimum of fifty (50) feet from a septic tank, one-hundred (100) feet from a leaching field, seepage pit and cesspool, ten (10) feet from durably constructed building sewer, and one-hundred (100) feet from a privy. Such systems shall be constructed in accordance with U.S. Environmental Protection Agency, Office of Drinking Water, Manual of Individual Water Supply Systems, EPA-570/9-82-004, Washington, D.C., July 2001. It shall also conform to Massachusetts Department of Public Health regulations.

5.3.2.5. Community-type systems, or the joint use of wells shall be subject to the standards of the Massachusetts Department of Public Health and acceptance by the Hudson Board of Health.

5.3.3 Sewerage

5.3.3.1. Where public sewers are required, they shall be designed and constructed in accordance with the requirements and specifications of the Hudson Department of Public Works.

5.3.3.2. On-site sewage disposal facilities shall be installed and constructed in conformity with the rules, regulations, and requirements of the Board of Health. On-site septic tanks and leaching fields may be located in either the front or rear yard of the building(s) served, with the front yard preferred. Due consideration should be given to surface and subsurface soil conditions, drainage and topography in the location of such on-site facilities, and in no instance, can any portion of the sewage disposal facilities be located closer than ten (10) feet to a property line.

5.3.4. Low Impact Development (LID)/Stormwater Management

For all development requiring a municipal land use permit, the following information shall be presented on a plan or plans drawn to scale with supporting documents and technical details as necessary:

(A) An existing condition site assessment providing baseline information on features including slope profiles showing existing gradients, soil types, tree canopy and other vegetation, natural waterbodies, wetlands and sensitive natural communities, and site features that aid in stormwater management including natural drainage ways and forested and vegetated lands located on stream and wetland buffers;

(B) An erosion and sediment control plan that incorporates accepted management practices as recommended by the state in the most recent editions of the *Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas*;

(C) A stormwater management plan identifying the construction disturbance area and demonstrating that stormwater runoff is minimized through the use of natural drainage systems and on-site infiltration and treatment techniques. The plan shall demonstrate that soils best suited for infiltration are retained and that natural areas consisting of tree canopy and other vegetation are preserved, preferably in contiguous blocks or linear corridors where feasible, for protection of the best stormwater management features identified in the site assessment. The Board may consider and impose appropriate safeguards, modifications and conditions relative to the general standards and guidelines listed in 5.3.4.1. of this bylaw.

(D) An operations and maintenance plan detailing required regular care for stormwater management systems. The O&M Plan shall be designed to ensure compliance with these Regulations and to ensure that the Massachusetts Surface Water Quality Standards, 314, CMR 4.00 are met in all seasons and throughout the life of the system. The O&M Plan shall be an ongoing requirement and shall include:

1. The name of the owner(s) for all components of the system;
2. A map showing the location of the systems and facilities including catch basins, manholes, access lids, main, and stormwater devices;
3. Maintenance agreements that specify:
 - a. The names and addresses of the persons responsible for operation and maintenance;
 - b. The person responsible for financing maintenance and emergency repairs;
 - c. An Inspection and Maintenance Schedule for all LID Management facilities including routine and non-routine maintenance tasks to be performed;
 - d. A list of easements with the purpose and location of each;
 - e. The signature of the owner(s).

5.3.4.1. General Pre-Development and Construction Site Standards.

All development in the Town of Hudson is subject to the following pre-development and construction site standards to ensure that all sources of soil erosion and sediment on the construction site are adequately controlled, and that existing site features that naturally aid in stormwater management are protected to the maximum extent practical.

(A) Minimize Land Disturbance. Development of a lot or site shall require the least amount of vegetation clearing, soil disturbance, duration of exposure, soil compaction and topography changes as possible.

(1) To the extent feasible, soils best suited for infiltration shall be retained and natural areas consisting of tree canopy and other vegetation shall be preserved, preferably in contiguous blocks or linear corridors.

(2) The time the soil is left disturbed shall be minimized. The Board may require project phasing to minimize the extent of soil disturbance and erosion during each phase of site development.

(3) There shall be no soil compaction except in the construction disturbance area, which shall be identified and delineated in the field with appropriate safety or landscape fencing. In areas outside the disturbance area there shall also be no storage of construction vehicles, construction materials, or fill, nor shall these areas be used for circulation.

(4) Development on steep slopes equal to or in excess of 15%, or which results in such slopes, shall be subject to conditional use review.

(B) Preserve Natural Areas. Development shall not result in an undue adverse impact on fragile environments, including wetlands, wildlife habitats, streams, lakes, steep slopes, floodplains and vegetated riparian buffers.

(1) Open space or natural resource protection areas shall be retained preferably in contiguous blocks or linear corridors where feasible, for the protection of the best stormwater management features identified in the site assessment as required in Section 5.3.4.A of this bylaw.

(2) Forested lands located on stream and wetland buffers and steep slopes are priority areas and clearing them shall be avoided in order to protect wildlife habitats and prevent erosion and sedimentation resulting from stormwater runoff.

(3) A minimum 50-foot vegetated buffer shall be established along any lakes and/or streams located within the property lines.

(4) Lot coverage and building footprints shall be minimized and where feasible, and development clustered, to minimize site disturbance and preserve large areas of undisturbed space. Environmentally sensitive areas, such as areas along streams, wetlands, and steep slopes shall be a priority for preservation and open space.

(C) Manage Water, Prevent Erosion and Control Sediment During Construction. Applicants shall maintain compliance with the accepted erosion prevention and sediment control plan as required by Section 5.3.4.B of this bylaw.

(1) Runoff from above the construction site must be intercepted and directed around the disturbed area.

(2) On the site itself, water must be controlled, and kept at low velocities, to reduce erosion in drainage channels.

(3) The amount of sediment produced from areas of disturbed soils shall be minimized by utilizing control measures such as vegetated strips, diversion dikes and swales, sediment traps and basins, check dams, stabilized construction entrances, dust control, and silt fences.

(4) Immediate seeding and mulching or the application of sod shall be completed at the conclusion of each phase of construction, or at the conclusion of construction if not phased.

5.3.4.2. Low Impact Development Design

The use of LID design approaches is preferred and shall be implemented to the maximum extent practical given the site's soil characteristics, slope, and other relevant factors. To the extent that LID design approaches are not proposed in the stormwater management plan, as required in Section 5.3.4.C of this bylaw, the applicant shall provide a full justification and demonstrate why the use of LID approaches is not possible before proposing to use conventional structural stormwater management measures which channel stormwater away from the development site.

5.3.4.3. LID/Stormwater Post Construction Review Standards and Guidelines

All applications for development are subject to the following post construction stormwater management standards and guidelines to ensure that stormwater management approaches that maintain natural drainage patterns and infiltrate precipitation are utilized to the maximum extent practical. Standards are statements that express the development and design intentions of this bylaw. The guidelines suggest a variety of means by which the applicant might comply with the standards. The guidelines are intended to aid the applicant in the design process and the Board when reviewing applications. Options for compliance with the standards are not limited to the guidelines listed.

Standard 1: Vegetation and Landscaping

Vegetative and landscaping controls that intercept the path of surface runoff shall be considered as a component of the comprehensive stormwater management plan.

Guideline 1.1. Utilize two-track surfaces with grass in-between to provide water infiltration for roads, driveways, parking lots and other types of drivable or walkable surfaces.

Guideline 1.2. Design parking lot landscaping to function as part of the development's stormwater management system utilizing vegetated islands with bioretention functions.

Guideline 1.3. Incorporate existing natural drainage ways and vegetated channels, rather than the standard concrete curb and gutter configuration to decrease flow velocity and allow for stormwater infiltration.

Guideline 1.4. Divert water from downspouts away from driveway surfaces and into bioretention areas or rain gardens to capture, store, and infiltrate stormwater on-site.

Guideline 1.5. Encourage construction of vegetative LID stormwater controls (bioretention, swales, filter strips, buffers) on land held in common.

Standard 2: Development on Steep Slopes

Development on steep slopes equal to or in excess of 15% shall be sited and constructed, and slopes stabilized to minimize risks to surface and ground waters and to protect neighboring properties from damage.

Guideline 2.1. Prohibit development, re-grading and clearing of vegetation on land where the slope is greater than 25%.

Guideline 2.2. Locate house sites, subsurface sewage systems and parking areas on the flattest portion of the site.

Guideline 2.3. Minimize crossing steep slopes with roads and driveways and lay them out to follow topographic contours in order to minimize soil and vegetation disturbance and to preserve important natural features. Avoid long driveways

Standard 3: Reduce Impervious Surfaces

Stormwater shall be managed through land development strategies that emphasize the reduction of impervious surface areas such as streets, sidewalks, driveway and parking areas and roofs. Stormwater management is subject to the Site Plan Approval process as mandated in the Town of Hudson Protective Zoning By-Laws, Section 7.1.7

Guideline 3.1. Evaluate the minimum widths of all streets and driveways to demonstrate that the proposed width is the narrowest possible necessary to conform with safety and traffic concerns and requirements.

Guideline 3.2. Reduce the total length of residential streets by examining alternative street layouts to determine the best option for increasing the number of homes per unit length.

Guideline 3.3. Minimize the number of residential street cul-de-sacs and incorporate vegetated islands with bioretention to reduce their impervious cover and provide for infiltration. The radius of cul-de-sacs should be the minimum required to accommodate emergency and maintenance vehicles. Consider alternative turn-around areas.

Guideline 3.4. Reduce driveway lengths by minimizing setback distances. Encourage common driveways.

Guideline 3.5. Use permeable pavement for parking stalls and spillover parking, sidewalks, driveways and bike trails.

Guideline 3.6. Establish parking maximums and utilize shared parking for uses with different peak demand periods.

Guideline 3.7. Reduce building footprints by using more than one floor level.

Standard 4: Low Impact Integrated Management Practices (IMPs)

Stormwater shall be managed through the use of small-scale controls to capture, store and infiltrate stormwater close to its source.

Guideline 4.1. Create vegetated depressions, commonly known as bioretention areas or rain gardens that collect runoff and allow for short-term ponding and slow infiltration. Raingardens consist of a relatively small depressed or bowl shaped planning bed that treats runoff from storms of one inch or less.

Guideline 4.2. Locate dry wells consisting of gravel or stone-filled pits to catch water from roof downspouts or paved areas.

Guideline 4.3. Use filter strips or bands of dense vegetation planted immediately downstream of a runoff source to filter runoff before it enters a receiving structure or water body. Natural or man-made vegetated riparian buffers adjacent to waterbodies provide erosion control, sediment filtering and habitat.

Guideline 4.4. Utilize shallow grass-lined channels to convey and store runoff.

Guideline 4.5. Incorporate rooftop gardens which partially or completely cover a roof with vegetation and soil or a growing medium, planted over a waterproofing membrane.

Guideline 4.6. Use permeable paving and sidewalk construction materials that allow stormwater to seep through into the ground.

Guideline 4.7. Use rain barrels and cisterns of various sizes that store runoff conveyed through building downspouts. Rain barrels are generally smaller structures, located above ground. Cisterns are larger, often buried underground, and may be connected to the building's plumbing or irrigation system.

Guideline 4.8. Add minerals and organic materials to soils to increase its capacity for absorbing moisture and sustaining vegetation.

Guideline 4.9. Utilize tree box filters placed below grade, covered with a grate, filled with filter media and planted with a tree, to act both as a water retention tank and a natural filter.

- 5.3.4.4. Detention/retention basins should be designed and constructed so as to:
- a. Obtain maximum storage benefit from the terrain with a minimum of earthwork;
 - b. Provide ease of access by the Town;
 - c. Provide ease of maintenance by the Town; and
 - d. Minimize visual Impact to existing and future abutters.
 - e. Construction of a detention/retention basin in a subdivision shall precede all other construction activities except for the clearing activities, which are necessary for access to the basin site.
 - f. Where the detention/retention basin has been used to control sedimentation and erosion from the site during construction of the subdivision, the subdivider shall completely remove any temporary erosion control fabrics or hay, clean the outlet pipe and spillway, and remove all sediment and debris within the basin. The subdivider shall re-vegetate the basin upon the completion of the subdivision.
 - g. Maximum side slopes shall be 2:1 outside of the basin and 3:1 inside the basin.
 - h. Detention facilities shall be designed and constructed to comply with the Massachusetts Stormwater Handbook.
 - i. For maintenance purposes, there shall be reasonable access to the basin from a public way and an access area not less than ten feet (10') wide, within the fence, circumscribing the basin.
 - j. Definitive plans shall provide for easements in the Town's behalf to allow access for maintenance of the facilities.
 - k. The detention/retention pond shall be in perpetual, unobstructed drainage easements deeded to the Town and such easements shall be of adequate width.

5.3.4.5. INDEPENDENT CONSULTANTS.

The Board may retain independent consultants to facilitate the review of applications for development subject this bylaw and whose services shall be paid for by the applicant. The consultant(s) shall work at the Board's direction and shall provide the Board such reports and assistance, as the Board deems necessary to determine compliance with this bylaw.

5.3.4.6. Basins, Manholes and Inlets

- a. When a closed drainage system is proposed and, as applicable, to open drainage systems and to promote Low Impact Design (LID) systems, catch basins will be required at all low points and on both sides of the Roadway on continuous grade at intervals of not more than three hundred (300) feet. Drainage patterns at intersections shall be evaluated and catch basins designed and constructed so as to prevent any flooding at the intersection. Any catch basins used shall be at least six (6) feet deep and four (4) feet in diameter (inside measurements), with a forty-eight (48) inch or greater sump below pipe invert and shall be constructed of precast concrete units. Oil and grease traps shall be installed on all structures. Manhole covers and catch basin grates shall be in conformance with Massachusetts Department of Public Works Section 201, with catch basin grates designed and placed so as to cause no hazard to bicycles. Subdrains, constructed as shown in the Mass. Highway Department Construction Standards, shall be installed at the edge of the area to be paved when deemed necessary by the Board.
- b. Catch basins and manhole structures shall be constructed of precast reinforced concrete. The top section of manhole shall be eccentric, with eccentricity perpendicular to the direction of flow.
- c. Manhole covers shall have the word "Drain" In three-Inch (3") letters cast across the center and, at no time shall any such cover be raised above the pavement level.
- d. A leveling course of sewer brick shall be installed under the frame on precast manholes and catch basins. The leveling course shall consist of a minimum of two (2) layers of brick and a maximum of twelve inches (12"). The frame shall be sloped to match the slope of the finished road surface.
- e. Steps shall be installed in manholes and be spaced twelve Inches (12") on center or sixteen inches (16") on center if radial concrete blocks are used. Steps shall be steel reinforced copolymer polypropylene plastic.

Copolymer polypropylene shall be Type II, grade 16906 meeting ASTM designation 02146-78. Steel reinforcing shall be three eighths of an inch (3/8") diameter, grade 60 conforming to ASTM Specification A-615-79 and shall be continuous throughout the rung. The portion of the legs to be imbedded in the precast section shall have fins and be tapered to insure a secure bond.

- f. A concrete or brick masonry invert shelf with channel shall be installed to a height of eight-tenths (0.8) the diameter of the largest pipe.
- g. Modifications to precast structures shall be made by coring.
- h. Corbels of manholes shall be eccentric, not concentric.
- i. Size of manhole and catch basin opening shall be a minimum of twenty-four inches (24").

5.3.4.7. Culverts and Storm Drains

- a. All drain and culvert pipes shall be reinforced concrete pipe (minimum class III) or equivalent if approved by the Board, at least twelve inches (12") inside diameter.
- b. At least four feet (4') of cover will be required over drainpipes. Where special conditions of topography and/or hydrology are deemed to justify the Board's approval of pipe with less than four feet (4') of cover, the Board may require other materials or methods of construction to meet such conditions.

5.3.4.8. Sub- Drains

- a. Subdrains shall be six-inch (6") perforated SDR 35 PVC or SCH 40 PVC pipe, laid on a six-inch (6") bed of crushed stone, of 3/4 inch gradation, in a two (2) foot wide drain trench filled with such crushed stone. Crushed stone shall extend horizontally and vertically to meet either the drainage layer or the gravel sub-base of the road. Crushed stone shall be wrapped in a synthetic, non-woven geotextile fabric, with geotextile opening size of 0.21 mm or as appropriate for the soil type. Subdrains shall be forty-eight inches (48") below finish grade as measured at the invert of the pipe, and shall be located outside the edge of pavement (but within the road right-of-way) on both sides of the road.

- b. Cleanouts shall be located not more than one hundred fifty feet (150') from each receiving structure, and shall have cast iron covers set to finish grade.

5.3.5 Gas

5.3.5.1. Gas mains shall be installed if gas connection is available unless said installation is specifically waived by the Planning Board. See Section 4.9.5.

5.3.5.2. The Gas Company shall be notified by the developer upon approval of the Definitive Plan so that installation of gas mains may be completed without undue delay.

5.3.5.3. If excavation is made after the subgrade is completed and inspected, the mains shall be put in a trench covered with a poured reinforced concrete slab to the lines, grades, and dimensions approved by the Planning Board.

5.3.6. Telephone and Electricity.

5.3.6.1. Telephone lines shall be installed in underground conduits in conformity with Section 390 of the Standard Specifications. Electric lines shall be installed underground in accord with the regulations of the Hudson Light and Power Department. The Planning Board may permit transformers, switches and other such equipment to be placed on the ground in approved locations.

5.3.7. Other Utilities.

5.3.7.1. Any and all wiring shall be installed underground and may be in the same trench with vertical and/or horizontal separation as approved by the Planning Board. Service shall be provided to each lot and each street light before the subgrade is prepared.

5.3.7.2. Other utilities shall be installed in underground conduits in accord with Section 800 of the Standard Specifications or as required by the utility company or department.

5.4. Sidewalks.

5.4.1. Sidewalks shall be constructed of Class I Bituminous Concrete conforming to MHD specification M3.11.00, and in accordance with the requirements of Sidewalks, Wheelchair Ramps and Driveways (MHD Section 701) and the Rules and Regulations of the Architectural Access Board. The cross slope

shall be three sixteenths of an inch (3/16") per foot of width to provide for proper drainage.

5.4.2. Sidewalks shall have a sub-base consisting of eight inches (8") of Type B gravel containing stones with a diameter no larger than three Inches (3").

5.4.3. Sidewalks shall be Installed In two courses: the first course being two Inches (2") of binder mix and the second being one and one half inch (1 'h") of finish mix. Each course shall be compacted per the MassDOT Standard Specifications.

5.4.4. 701 If the Applicant prefers to install cement concrete sidewalks, they shall be constructed in conformity with this section of the Standard Specifications.

5.5 Bikeways and Walkways.

5.5.1. 701 Except as specified herein, where bikeways and walkways are required, they shall be constructed in conformance with Section 701 of the Standard Specifications. Where bikeways and walkways intersect with sidewalks, leveling areas shall be shown in detail on the Definitive Plan for the subdivision.

5.5.2. Specifications for sidewalks contained in Section 5.4. shall apply to bikeways and walkways.

5.5.3. For the length of each bikeway and walkway there shall be a cross slope equivalent to three-eighths of one inch (3/8") per foot of width to provide for proper drainage. Levelling areas at intersections with sidewalks shall be shown in the details.

5.6. Curbs, Berms and Guard Rails.

5.6.1. Type 3 Hot Mix Asphalt curbing shall be installed in accordance with the requirement of Curbing and Edging (MHD Section 500) of the Construction Standards, except that granite curbs of the same height and Type VA4 (Sub-section M 9.04.) shall be provided:

5.6.1.1. At intersections along the roadway the distance of the arcs of the curves plus a straight section at each end of eight (8) feet.

5.6.1.2. Along each edge of a roadway where the grade exceeds five (5) percent.

- 5.6.1.3. On the inner side of all curves with a radius less than two- hundred and fifty (250) feet.
- 5.6.2. In the event that the Planning Board waives curbs and berms, paved gutters shall be provided along each edge of the roadway where the grade exceeds three (3) percent.
- 5.6.3. The profile of the berm is subject to Planning Board approval.
- 5.6.4. Guard fences, rails and walls shall be installed wherever determined necessary by the Planning Board, and or the DPW Director or their designee to provide needed protection to the public. When provided, they shall be constructed in accordance with the relevant portions of Highway Guard Fences and Walls (MHD Section 600) of the Standard Specifications. Construction details of all fences, rails and walls will be shown on the Definitive Plan for the subdivision.
- 5.7. Grass Plots.
 - 5.7.1. 751, 765 A three and one-half (3-1/2) foot grass plot shall be provided on each side of each roadway between the pavement and sidewalk areas, where sidewalks are required, and shall occupy all the remaining area not paved up to the right-of-way lines. The top four (4) inches of all required grass plots shall consist of good quality loam, rolled and planted.
 - 5.7.2. Grass shall be used unless other ground cover is approved by the Planning Board. Grass seed conforming to Seed (MHO Section M6.03.0) shall be placed In accordance with Seeding (MHD Section 765) at the rate of four (4) pounds per one thousand (1000) square feet over the area to be grassed.
 - 5.7.3. The slope of the grass plot shall be a maximum of two (2) feet horizontal to one (1) foot vertical.
 - 5.7.4. Street light stanchions and street lights shall be located at least ten (10) feet from the edge of the roadway in the grass plot or in the median, if there is one, but shall not be nearer than twenty-five (25) feet from the intersection of two (2) streets, measured from the intersection of the tangents of the intersecting street curb lines. If street lights are located in the median, the Board may require pedestrian lighting placed in the grass plot. See also Section 5.11.
- 5.8 Trees and Other Vegetation.

5.8.1. Street trees of a species approved by the Planning Board shall be planted on each side of each street in a subdivision, except where the Definitive Plan showed trees to be retained which are healthy and adequate. Such trees shall

- be located outside of the right-of-way as shown in the Profile and Standard Cross Sections Schedules A and B, approximately at forty (40) foot intervals, and shall be at least twelve (12) feet in height, two (2) inches in caliper measured four (4) feet above the approved grade, and shall not be closer than five (5) feet nor more than ten (10) feet from said right-of-way line. Trees shall be planted in accordance with Section M 6.06.0 and M 6.09.0 of the Standard Specifications.
- 5.8.2. The developer shall plant other trees as needed to provide at least one (1) area of shade to each lot.
 - 5.8.3. All deciduous street trees shall be clear of any branches from the approved grade level to a point seven (7) feet above ground level.
 - 5.8.4. The developer will be liable for all trees so planted as to their erectness and good health for one (1) year after planting.
 - 5.8.5. No evergreen trees such as pine, fir, spruce, or hemlock are to be planted on an easterly or southerly side of a road, street or way.
 - 5.8.6. Except as otherwise provided, all cut bankings shall be planted with a low growing shrub or vine and wood chipped to a minimum depth of six (6) inches or seeded with a deep-rooted, perennial grass to prevent erosion. See also Section 5.2.4.
 - 5.8.7. All reasonable care shall be exercised to preserve the existing trees in the subdivision.
 - 5.8.8. No invasive species of trees or other vegetation are to be planted in any location. Native species shall be chosen where practicable. At least 75% of all vegetation planted shall be native species as determined by the Planning Board.
 - 5.9. Monuments.
 - 5.9.1. Monuments shall be installed on street lines at all points of intersections of streets with each other and at all points of curvature, at all points of change in direction, at each point where the lot line intersects the street right-of-way, and at all other points where, in the opinion of the Planning Board, permanent monuments are necessary.
 - 5.9.2. Monuments shall be standard permanent granite of not less than four feet (4') in length and not less than six inches (6") in width and breadth and a one-half

inch (1/2") diameter hole one-half inch (1/2") deep shall be drilled in the center of the top surface. . Monuments for easements shall be reinforced concrete bounds 4' long x 4" x 4" with a one-half inch (1/2") diameter drill hole one-half inch (1/2") deep.

5.9.3. The placement and accurate location of these markers shall be certified by a Registered Professional Land Surveyor and properly located on the street acceptance plans.

5.10. Street Signs and Names.

5.10.1. Street signs shall be installed at each intersection to conform to the standards established by the Town of Hudson.

5.10.2. Street names shall be approved by the Planning Board to prevent duplication and to provide names in keeping with the character of the Town.

5.10.3. From the time of rough grading until such time as each street is accepted by the Town as a public way, the sign posts at the intersection of such street with any other street shall have affixed thereto a sign designating such street as a private way.

5.11. Street Lights.

5.11.1. Street and pedestrian pole and light types shall be approved by the Planning Board.

5.11.2. Street and pedestrian light stanchions shall be located at such intervals as required by the Planning Board in the grass plot or median, as provided in Section 5.7.4. and shall be installed in accord with the procedure required by the Hudson Light and Power Company.

5.11.3. Light poles must be minimum 12 feet high with 3 inch top O.D. (G.E. Cat.# ARTA123s4.OASNX, or equal).

5.11.4. Minimum 2-inch Diam. PVC Schedule 40 electric conduit must be used.

5.11.5. All electrical conduit must have 30-inch minimum cover, and must be inspected by HLPD before trenches are covered.

5.11.6. All conduits crossing roadways and driveways shall be encased in concrete.

5.11.7. Electric marking tape must be installed 1 foot above conduit.

- 5.11.8. Wire size shall limit voltage drop to 3.5 percent.
- 5.11.9. Minimum 3-foot slack of wire shall be left by contractor on top of the pole for connections.
- 5.12. Fire Alarm System.
- 5.12.1. The fire alarm system shall be installed in accordance with the specifications of the Hudson Fire Department. See Section 4.9.6.
- 5.13. Common Driveways.
- 5.13.1. The driveway shall be graded in accord with Section 5.1. and a wearing surface applied in accord with Section 5.2.3.1., unless a lesser thickness is approved by the Planning Board, to a width of at least fifteen (15) feet.
- 5.14. Maintenance of Improvements
- 5.14.1. For the purpose of protecting the safety, convenience, and welfare of the Town's inhabitants; 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 reducing the danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic, and other emergencies; under the authority of Chapter 41, Section 81M as amended, the Applicant or his successor shall provide for the proper maintenance and repair of improvements under this section of the rules and regulations during the construction and for the period of eighteen (18) months after the completion of the construction of said improvements and the release of security or until the Town votes to accept such improvements, whichever comes first. Such maintenance shall include snow removal beginning at the time of occupancy of an individual owner or tenant other than the developer.
- 5.15. Provision for Competent Supervision.
- 5.15.1. The Applicant shall provide competent supervision during the development of his subdivision. If at any time, it becomes apparent to the Planning Board that the supervision is not satisfactory, they may order the discontinuance of the development until competent supervision is provided.
- 5.15.2. This shall include the necessary supervision to make sure that all temporary drainage controls, erosion, and sedimentation controls, stock pile controls,

and other such measures as contained in the approved Definitive Plan are adequately and properly provided and maintained.

5.16. Cleanup.

Any area disturbed by the construction and all rights-of-way shall be cleaned up so as to leave the area shown on the plan in a neat and orderly appearance free from debris, tree stumps, loose rocks, mounds of dirt, or other objectionable material. Seeding of these areas may be required by the Planning Board. On-site burial of rocks, stumps, or other debris take place only with the approval of the Planning Board.

No later than October 31 of each calendar year, the Developer shall stabilize all exposed soils and other vulnerable or sensitive areas in a manner acceptable to the Conservation Commission and the Planning Board. No additional disruption may occur except in accordance with the approved construction plan.

No lot shall be considered complete until all stumps, brush, roots and like material and all trees, rocks and boulders not intended for preservation by the subdivider shall have been removed and disposed of in a manner and place satisfactory to the Planning Board. Any fire hazard shall be removed promptly to the satisfaction of the Fire Chief. This paragraph does not authorize the removal, including severing and stripping, of soil loam, sand, or gravel on such lot.

6.0. ADMINISTRATION.

6.1. Variation.

6.1.1. Strict compliance with the requirements of these rules and regulations may be waived when, in the judgment of the Planning Board, such action is in the public interest and not inconsistent with the Subdivision Control Law. Any such waivers granted must be requested by the Applicant in writing and approved, by vote and in writing, by the Planning Board.

6.2. Reference.

6.2.1. For matters not covered by these rules and regulations, reference is made to Section 81-K to 81-GG, inclusive, of Chapter 41 of the General Laws.

6.3. Building Permit.

6.3.1. No building shall be erected within a subdivision without written permission from the Planning Board.

6.3.2. The Board of Selectmen and/or Building Inspector shall not issue any permit for the erection of a building until he is first satisfied that the lot on which the building is to be erected is not within a subdivision or that a way furnishing the access to such lot as required by the Subdivision Control Law is shown on a plan recorded or entitled to be recorded under Chapter 41 Section 81-X, as amended and that any condition endorsed thereon limiting the right to erect or maintain buildings on such lot have been satisfied or waived by the Board, and in the event that more than one building for dwelling purposes be erected or placed or converted to use as such on any lot, that the Board of Selectmen and/or Building Inspector is satisfied that consent has been obtained from the Planning Board in accord with Section 2.4. of these rules and regulations, Chapter 41 Section 81-Y, and amendments thereto.

6.3.3. In the case of a bond, surety, or tri-partite agreement no structure shall be occupied until at least the base course of bituminous concrete as specified in Section 5.0. has been applied to the streets which serve the structure. In the case of a covenant in lieu of a bond or surety no occupancy permit shall be issued until all improvements are completed.

6.4. Inspections.

6.4.1. Inspections shall be arranged by the developer with the Planning Board Agent for that purpose prior to the construction of streets and the installation

of utilities and during construction as specified herein at each significant construction stage. See Form P.

6.4.2. Inspection shall be requested in writing at least forty-eight (48) hours in advance of each inspection to the Planning Board.

6.4.3. Inspection shall be by the Director of Public Works, or other designated Planning Board Agent, except where otherwise noted, for the following:

- Satisfactory excavating.
- Satisfactory laying of water and sewer mains, hydrants, and related equipment.
- Satisfactory laying of gas mains and related equipment.
- Satisfactory installation of surface and sub-surface drainage system and related equipment.
- Satisfactory filling.
- Satisfactory compacting.
- Satisfactory installation of electric lines and related equipment.
- Satisfactory installation of telephone lines and related equipment.
- Satisfactory completion of the pavement.
- Satisfactory placing of curbs and gutters.
- Satisfactory construction of sidewalks.
- Satisfactory finish grading of grass plots.
- Satisfactory installation of monuments.
- Satisfactory grading of lots.
- Satisfactory installation of fire alarm system by the Hudson Fire Department.
- Satisfactory planting of street trees.

- Satisfactory final clean-up.

6.4.4 The Planning Board may establish the order of the required inspections and may require satisfactory completion of one step before the subdivider proceeds to the next. It may require tests to be done by the subdivider as a condition for approval of the Planning Board is advisable.

6.4.5. The proper Town official or agent shall indicate on Form P, Inspection Form, provided by the Planning Board, the date of inspection and the approval and shall file such form with the Planning Board whereupon the cost of the inspection shall be paid to the inspector from the inspection escrow account.

6.4.6. Failure to comply with the inspection procedure may necessitate removal of improvements at the expense of the Applicants or rescission of the approval of the plan in accord with Chapter 41, Section 81-W of the General Laws of Massachusetts.

6.5. Meetings.

6.5.1. The Planning Board will hold regular and/or special meetings on such dates as will be designated and on file with the Town Clerk.

6.6. Validity.

6.6.1. If, in any respect, any provision of these rules and regulations in whole or in part, shall prove to be invalid for any reason, such invalidity shall only affect the part of such provision which shall be invalid and in all other respects these rules and regulations shall stand as if such invalid provision had not been made, and they shall fail to the extent, and only to the extent, of such invalid provision, and no other provision of these rules and regulations shall be invalidated, impaired, or affected thereby.

6.7. Effective Date.

6.7.1. These regulations become effective after approval by the Board, certification by the Town Clerk and filing with the Register of Deeds and the Recorder of the Land Court, October 1, 2018.