

# **Rules and Regulations Governing the Subdivision of Land in the City of Newburyport, Massachusetts**

These regulations are adopted by the Newburyport Planning Board under the Subdivision Control Law: Chapter 41 of the Massachusetts General Laws (MGL) §§81-K to 81-GG inclusive, and including all amendments thereto.

These regulations supersede all previous versions adopted by the Planning Board.



Adopted and Effective on  
October 17, 2018



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## **SECTION 1: AUTHORITY, PURPOSE AND DEFINITIONS**

### **1.1 AUTHORITY**

Under the authority vested in the Newburyport Planning Board (the Board) of the City of Newburyport by Chapter 41 §§81-Q of the Massachusetts General Laws said Board hereby adopts these rules and regulations governing the subdivision of land in the City of Newburyport.

### **1.2 PURPOSE**

The Newburyport Planning Board is authorized under the General Laws of Massachusetts to regulate the laying out and construction of ways in subdivisions to insure the safety, convenience, and welfare of the present and future inhabitants of Newburyport. The Board shall exercise its authority with due regard for provision of adequate access to all of the lots in the subdivision by ways that will be safe and convenient for travel; for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic and other emergencies; for insuring compliance with applicable provisions of the Newburyport Zoning Ordinance; for securing adequate provisions for water, sewerage, drainage, underground utility service, police and fire protection and other requirements where necessary in a subdivision; for coordinating the ways in a subdivision with each other and with the public ways in neighboring subdivisions.

In considering a proposed subdivision, the Board shall solicit the opinions of other City Boards, Committees, Commissions, and Officials as they pertain to the activity of the subdivision. The Board may also solicit the opinion of technical experts employed by the Board for the purposes of providing specialized technical review to the Board.

### **1.3 DEFINITIONS**

In constructing these Regulations, the definitions Chapter 41 §§81-L, of the Massachusetts General Laws shall apply. In addition, the following other terms and words are defined.

**Adequate Access:** Satisfactory means of actual physical ingress and egress within and without the development to any traffic. Adequacy of access will be determined by the Planning Board after review of such factors as topography, soil conditions, presence of wetlands, existence of easements, construction methods, and legal status of way providing access.

**Applicant:** A person applying for the approval of a plan under these regulations, including owner, agent, representative, or assigns of the owner. The applicant's agent and/or representative shall obtain and submit to the Board written authorization from the owner of record.

**Approval Not Required Plans (ANR's):** The division of a tract of land into two (2) or more lots which, at the time when it is made, every lot within the tract so divided has sufficient frontage on a public way as herein defined. Such frontage shall be of at least such distance as is required by the Zoning or other Ordinance.

**Base Flood Elevation:** The level of flooding having a one percent chance of being equaled or exceeded in any given year, as designated on the Flood Insurance Rate Map (FIRM) or, in the absence of such designation, as may be determined based upon the best available information regarding flood hazards, including any available U.S. Geologic Survey, Soil Conservation Service, and/or the Corp of Engineers studies.

**Bench Mark:** A permanent physical mark of known elevation. All elevations shall be based on the National Geodetic Vertical Datum of 1988 (NGVD).

**Dead End:** A public or private street, or any combination of streets, which affords the principal means of access to abutting property and which joins another public way at only one end.

**Definitive Subdivision Plan:** The plan of a subdivision as submitted (with appropriate application) to the Board for approval to be recorded in the Registry of Deeds or filed with the Land Court when approved by the Board and such plan when approved and recorded; all as distinguished from a preliminary plan.

**Developer:** A person or persons who develop a subdivision under a plan of a subdivision approved under these rules and regulations.

**Drainage:** The control of surface or subsurface water within the tract of land to be subdivided.

**Easement:** A right in land acquired by public authority or other person to use or control property for a utility or other limited purpose.

**Engineer or Surveyor:** A person registered in Massachusetts to perform professional civil engineering or land surveying services in accordance with all applicable laws and requirements of such registration.

**Frontage:** The distance between either the points of intersection of the side lot lines and the street right-of-way or the points of intersection of the side lot lines and the rear line of the required front yard extended to the street right-of-way, whichever is smaller. When a lot is bounded by more than one street, the total length of the frontage on all of the streets bounding the property may be used to satisfy the lot frontage requirement.

**Lot:** An area of land in single ownership with definite boundaries used or available for use, as the site of one or more buildings. Areas endorsed by the Board upon a plan as "Not a Building Lot" or "not available for building purposes" shall not be considered lots.

**Newburyport Planning Board:** A Planning Board established under M.G.L. c. 41, § 81A, also referred to as 'the Board'. A quorum of said Board shall be five members.

**Newburyport Planning Board Agent:** A City official, staff member, or consultant authorized by the Newburyport Planning Board to review subdivisions and administer regulations.

**Owner or Owner of Record:** As applied to real estate, the person holding the fee simple title to a parcel, tract, or lot of land as shown by the records of the Essex County South District Registry of Deeds or of the Land Court of Massachusetts.

**Preliminary Subdivision Plan:** A plan of a proposed subdivision or re-subdivision of land prepared in accord with Section 4 to facilitate proper preparation of a definitive plan.

**Recorded:** A document that is officially on record in the Southern Essex District Registry of Deeds; if registered land is affected, a document is filed with the recorder of the Land Court of Massachusetts.

**Registered Mail:** A postal service in which the sending and receipt of a letter, document, or package are recorded

**Register of Deeds:** The official charged with receiving and recording deeds and other instruments concerning titles to land and creating an index to locate land records. All documents related to land in the City of Newburyport shall be recorded with the Register of Deeds at the Southern Essex District Registry of Deeds.

**Rules and Regulations:** The City of Newburyport's Rules and Regulations Governing the Subdivision of Land; also referred to as 'regulations'.

**Scenic Road:** a street, designated in accordance with MGL Ch. 40 §§15-C, as having stonewalls, and trees of significant value within the street right-of-way. Said street designation shall be by the Board and the City Council and shall not include numbered state roads.

**Street:** The portion of a way that is designed and constructed for vehicular travel. Streets shall be categorized as follows:

- **Court:** a street which, by its location and design, serves as the sole means of access to no more than two residential lots, and which has no potential to serve additional lots. Said court shall be retained in perpetuity as a private way and recorded as such in the Southern Essex District Registry of Deeds.
- **Lane:** A street which, by its location and design, serves as the sole means of access to no more than four residential lots, and which has no potential to serve additional lots. Said Lane shall be retained in perpetuity as a private way and recorded as such in the Southern Essex District Registry of Deeds.
- **Local:** A street that provides direct access to abutting properties only and carries low volumes of traffic; this category may include cul-de-sacs and loop streets.
- **Collector:** A street used primarily to connect local streets to arterial streets. It carries moderate volumes of traffic. Less than 25% of the average daily traffic of a collector street is normally attributed to through traffic.
- **Minor arterial:** A street used to provide movement between major arterials, collectors, and other minor arterials. It carries relatively high volumes of traffic. At least 25% of the average daily traffic volume is normally attributed to through traffic.
- **Major arterial:** A street of regional significance, with high volumes of traffic used primarily to carry traffic through the City. It is not intended as a residential street.

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**Structure:** A combination of materials requiring a permit to erect, place or construct to form a configuration and includes, but is not limited to, stadiums, platforms, radio towers, sheds, storage bins, signs, swimming pools, and fences.

**Subdivision:** The division of a tract of land into two (2) or more lots and shall include a re-subdivision, and, when appropriate to the context, shall relate to the process of subdivision or the land or territory subdivided. See the definition of Approval Not Required plans for definition of what does not constitute a subdivision.

**Subdivision Control:** The power of regulating the subdivision of land granted by the Subdivision Control Law Ch. 41 of the MGL §§81-K to 81-GG inclusive, as hereinafter amended.

**Way, Public:** A way which in the judgment of the Board has sufficient width, suitable grades and adequate construction to provide for the needs of the vehicular traffic in relation to the existing and proposed use of land the abutting thereon or served thereby and for the installation of municipal services to such land(s) and/or buildings erected or to be erected thereon which complies with one of the following criteria:

- a. A way which the City Clerk certifies is used as and maintained regularly and consistently as a public way by the City to the same extent to which other public ways are maintained by the City; or
- b. A way shown on a plan previously approved and endorsed by the Board and recorded at the Registry of Deeds or in the Land Court; or
- c. A way existing prior to the date on which subdivision control was adopted by the City; or
- d. A way shown on a plan of a subdivision recorded at the Registry of Deeds or at the Land Court prior to the date on which the subdivision control law was adopted by the City.

**Utilities:** Private or municipal services to be furnished within the subdivision including, without limitation, telephone, community access television, electric light and power, gas lines, sanitary sewers, storm drains, water mains and appurtenances.

**Zoning Ordinance:** The Protective Zoning Ordinance of the City of Newburyport, adopted by the City Council November 30, 1987, and any and all duly adopted and approved amendments thereto.

## **SECTION 2: GENERAL ADMINISTRATION**

### **2.1 UNAPPROVED SUBDIVISION PROHIBITED**

No subdivision of any land, improvement, or sale of lots in a subdivision, or construction of streets or installation of municipal utilities therein shall be permitted unless and until a Definitive Subdivision Plan of such subdivision has been submitted to and approved by the Board under the provisions of these regulations.

### **2.2 LIMITATION OF ONE DWELLING ON ANY LOT**

Unless otherwise provided for in the City of Newburyport Zoning Ordinance or in the Massachusetts General Laws, Chapters 40A and 41 §81, no 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 City, without the consent of the Board. Such consent may be conditioned upon the providing of adequate ways, furnishing access to each site for each such building, in the same manner as otherwise required for lots within a subdivision.

### **2.3 ADEQUATE ACCESS FROM PUBLIC WAY**

1. **Required Improvements:** Where the street system within a subdivision does not connect with or have, in the opinion of the Board, adequate access from a City, 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 developer, and/or that the developer make physical improvements to and within such a way of access, from the boundary of the subdivision to a City, County, or State way.
2. **Dedication of Land to Widen Right-of-Way:** 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 applicant 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 such public way to the same standards required within the subdivision. Any such dedication of land for the purpose of a public 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 developer.

### **2.4 EFFECT OF PRIOR RECORDING**

The recording of a plan of subdivision within the City of Newburyport at the Southern Essex District Registry of Deeds or the Land Court prior to the effective date of the Subdivision Control Law in the City (Feb. 18, 1954) shall not exempt the land within such subdivision from the application and operation of these Rules and Regulations except as specifically exempted in MGL. c. 41 §81.

## 2.5 FAILURE TO COMPLY; WAIVERS

1. **Failure to Comply:** Failure to substantially comply with the provisions of these Rules and Regulations shall be, in the opinion of the Board, reason for denial of a subdivision filed thereunder.
2. **Waivers:** The Board may waive strict compliance with any of these rules and regulations if it deems such waiver to be in the public interest and if written record is kept of each such waiver and the reasons for it. In approving waivers, the Board may require such conditions as will, in its judgment, secure substantially the objectives of the standard(s) or requirement(s) waived.

## 2.6 INTERPRETATION, CONFLICT, AND SEPARABILITY

1. **Minimum Requirements:** The provisions of these regulations shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare. The Board shall not approve a subdivision of land that would involve danger or injury to health, safety, or property by reason of lack of fire protection, water supply, sewage disposal facilities, drainage, transportation or other public services or which would necessitate an excessive expenditure of public funds for the supply or maintenance of such services. The Board shall attempt to provide for the harmonious development of the community, allowing open spaces of adequate proportion for the accommodation of existing and prospective traffic, playgrounds, or other recreational purposes.
2. **More Restrictive Standard to Apply:** These regulations are not intended to interfere with, abrogate, or annul any other ordinance, regulation, statute, or other provision of law. If any provision of these regulations imposes restrictions different from those imposed by any other provision of these regulations or any other regulation, ordinance or other provision of law, whichever provision is more restrictive or imposes a higher standard shall apply.
3. **Severability:** If any part or provision of these regulations, or if application of any part or provision of these regulations to any particular circumstances, is adjudged to be invalid by any court of competent jurisdiction, such judgment shall not affect or impair the validity of the remainder of these regulations or the application of the remainder of these regulations as a whole to other circumstances.

## 2.7 RESERVATIONS AND APPEALS

Upon adoption of these regulations, the Rules and Regulations Governing the Subdivision of Land in Newburyport, Massachusetts adopted on June 20, 1977, as amended, are hereby repealed (except to such section(s) expressly described in MGL Ch. 41 §81).

## 2.8 AMENDMENTS

The Board may from time to time amend these regulations. Public hearings on all proposed amendments shall be held by the Board in the manner described in MGL Ch. 41 §81-Q.

## **SECTION 3: APPROVAL UNDER SUBDIVISION CONTROL LAW NOT REQUIRED**

### **3.1 SUBMISSION**

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 the plan does not require approval under the Subdivision Control Law shall submit the plan in accordance with the submittal guidelines on the Form A application to the Newburyport Planning Board, via the Office of Planning and Development, accompanied by the necessary evidence to show that the plan does not require subdivision approval.

The applicant shall also file a copy of the plan with the City Clerk with the accompanying information:

- a. Date on which such plan was submitted to the Planning Board;
- b. Description of the land to which the plan is related sufficient for identification;
- c. The name and address of the owner of such land.

### **3.2 FILING FEE**

Fees for approval not required plans are contained in the Planning Board Regulations Governing Fees and Fee Schedule, as may be amended from time to time, which are incorporated herein by reference. All expenses for advertising, recording, and filing of documents shall be borne by the applicant.

### **3.3. CONTENTS OF PLAN**

The plan shall be legibly drawn in accordance with the rules and regulations of the Register of Deeds or Land Court Manual of instructions, as amended, and shall bear the original seal and signature of the professional engineer and professional land surveyor preparing the plan. The plan shall be prepared in accordance with the provisions of 250 CMR 6.00: Procedural and Technical Standards for the Practice of Land Surveying and shall contain the following information:

1. **Title Block.** A title block in the lower right corner identifying the location of the land shown, the name of the owner of record, and address, date and scale of the plan, and the name and address of the firm or individual preparing the plan.
2. **ANR Statement and Signature Block.** The statement “Approval under the Subdivision Control Law Not Required,” and sufficient space for the date and the signatures of the majority of the Board.
3. **Locus Map.** A locus map drawn at a scale of 1,000 feet to the inch shall be included on the plan.
4. **North Point.** The north arrow shall be clearly marked and identified as to whether it is magnetic or true north or referenced to a recorded plan and so stated.
5. **Abutters’ Names and Locations.** Location and names of all abutters as they appear on the most recent tax list(s) including those in adjoining communities.

6. **Zoning Districts.** Zoning classification and location of any zoning district boundaries that may lie within the locus of the plan.
7. **Entire Land Area in Division.** The entire land area in which the division takes place shall be shown including all parcels affected by an increase or decrease in frontage, lot width, and area, which also includes the remaining land, if any, owned by the applicant.
8. **References to Other Permits, Variances.** Notice of any decision of the Zoning Board of Appeals, City Council, and /or Planning Board, including, but not limited to, variances and exceptions regarding the land or any buildings thereon.
9. **Deed References.** References to all deeds and plans of record used to establish the property lines of the lot(s) or parcel(s) and of the streets, ways, and easements shown on the plan, including deed references to abutting lots.
10. **Location of Streets and Ways.** Location, names, status (private or public), and widths of pavement and right-of-way of all streets and ways shown on the plan and notation if any streets are designated as “Scenic Roads” under M.G.L. Ch. 40 §§15-C.
11. **Lot Numbers and Areas.** The lot number and area of each lot and easement in square feet and in acres, if over one acre. The units of acres shall be rounded to a minimum of two (2) decimal places.
12. **Lot Frontage and Lot Width.** The total frontage of each lot and the total lot width shall be clearly labeled. Lots shall be laid out in such a manner so that a square, with sides equal to eighty (80) percent of the minimum frontage requirement for the zoning district in which it is located, can be placed within the lot with at least one point of the square lying on the front lot line with no portion of the square extending beyond the boundaries of the lot.
13. **Lot Designation as “Not Buildable”.** Any lot(s) or parcels not meeting the minimum frontage, lot width, or lot area in accordance with the requirements for the zoning district in which the lot(s) or parcel(s) is situated shall be designated as “Not a Buildable Lot”.
14. **Location of Structures.** Location of all known existing structures, including but not limited to, buildings, wells, fire hydrants, septic systems, cisterns, and cesspools, on the lots or parcels.
15. **Location of Natural Features.** Location of all existing streams, brooks, water bodies, and trees greater than 6” in caliper on the lots or parcels and also within or along the right-of-way roads adjacent to the lots shown shall be identified
16. **Bearings and Distances.** Bearings and distances or curve data of all street lines, ways, easements, and lot lines shall be shown on the plan and location of all permanent bounds identified as existing or proposed. Bearings and distances to a minimum of two (2) existing permanent bounds shall also be shown.

**17. Notations:**

- a) Notation explaining purposes of ANR (details of transactions, making an existing nonconforming lot conforming, consolidation of parcels, etc.).
- b) Notation stating the following: "Endorsement of this plan as one not requiring approval under the Subdivision Control Law is not a determination as to conformance with zoning."

**3.4 DETERMINATION OF FRONTAGE**

In determining whether each and every lot shown on the plan has adequate frontage, the Board will determine first, whether the lot directly abuts a public or private way and second, whether the lot has direct, practical access from the abutting way.

In determining whether an existing way is adequate to qualify a plan as not constituting subdivision, the Board may consider the following conditions, among others:

- a. That the way is paved;
- b. That the way is comparable to other public ways in the area;
- c. That the way by virtue of its horizontal and vertical alignment provides safe travel.

The Board may also find that a proposed lot has frontage on a way that has sufficient width, suitable grades and adequate construction to provide for the needs of the vehicular traffic in relation to the existing and proposed use of land the abutting thereon or served thereby and for the installation of municipal services to such land(s) and/or buildings erected or to be erected thereon.

In exceptional cases, a plan may show lots, which comply with the frontage requirements under zoning, but due to the lot configuration, access to such lots would not be safe and convenient for emergency vehicles. In such rare cases, approval under the subdivision control law would be required.

If the lot is not being subdivided and does not contain frontage on a way, as specified above, the lot shall be clearly marked on the plan that it is "Not a Building Lot."

**3.5 BOARD ACTION**

If the board determines that the plan does not require approval, it shall forthwith, but in any case, within twenty-one (21) days after the plan is submitted to the Board and without a public hearing, endorse the plan "Approval under the Subdivision Control Law not required." Such endorsement may include a statement of the reason why approval is not required but shall not be withheld unless the plan shows a subdivision.

- a) Endorsement of a plan by the Planning Board that "Approval is not required" does not give lots shown on such plan standing under the zoning ordinance. A determination as to compliance with zoning shall be made by the Zoning Administrator; usually at the time a permit to build is sought. Without a local zoning exemption, a nonconforming lot, which is made more nonconforming through endorsement of ANR, would be in violation of zoning. The Zoning Administrator is responsible for enforcing zoning.

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- b) If the board determines that the plan requires subdivision approval, it shall within twenty-one (21) days after the plan is submitted to the board vote that such approval is required.
  - c) After making its determination, within the twenty-one (21) day time limit, the Planning Board shall give written notice of its determination to the City Clerk and to the person submitting the plan.
  - d) If the Planning Board fails to either act upon the plan or notify the City Clerk and the person submitting the plan of its action within the twenty-one (21) day time limit, it shall be deemed that the plan does not require approval under the Subdivision Control Law. In case of such default, the following process shall be used to enable recording of the plan:
    - 1. The Planning Board shall forthwith endorse the plan "approval under the Subdivision Control Law not required"; or,
    - 2. If the Planning Board fails to make such endorsement the City Clerk shall issue a certificate stating the following:
      - i. Date the plan was submitted to the Planning Board;
      - ii. Date on which the Planning Board was required to take final action,
      - iii. Fact that Planning Board failed to take final action or notify the clerk of such action within the prescribed time and that it is deemed that "approval is not required" as a result of such failure under M.G.L. Ch. 41 §81-P
- a. If the Planning Board determines that subdivision approval is required, the applicant may:
    - 1. Submit a Definitive Subdivision Plan to the Planning Board for approval: or,
    - 2. Appeal from the determination of the Planning Board in the manner provided in M.G.L. Ch. 41 §81- BB.
  - b. The endorsed plan (or the plan with City Clerk certificate) is recorded in the Registry of Deeds or registered in the land court.

When a plan not requiring approval has been submitted to the Planning Board and if written notice of such submission has been given to the City Clerk, the use of land shown on such plan shall be governed by the zoning in effect at the time of such submission for a period of three (3) years from the date of endorsement by the Planning Board that "approval is not required."

If an appeal is filed with the Court pursuant to M.G.L. Ch. 41 §81- BB, such three-year exemption shall not begin until the date of final disposition of the appeal by the Court, provided the final adjudication is in favor of the owner of the lots which were the subject of the appeal (M.G.L. Ch. 40A, §6).

## **SECTION 4: PROCEDURE FOR SUBMISSION AND APPROVAL OF A PRELIMINARY SUBDIVISION**

### **4.1 PURPOSE**

A Preliminary Subdivision Plan ('PSP') may be submitted by an applicant to the Board for discussion and approval, modification, or disapproval by the Board. The submission of such a PSP enables the applicant, the Board, other municipal agencies and officials and the public to discuss and clarify any problems the proposed subdivision may present before a Definitive Subdivision Plan is prepared.

It is strongly recommended that a PSP be filed prior to the filing of a Definitive Subdivision Plan. In accordance with M.G.L. Ch. 41, §81-S, in the case of a non-residential subdivision, the submission of a PSP is required. However, the submission of a PSP for subdivision showing lots in a residential zone is left to the discretion of the applicant.

### **4.2 APPLICATION PROCEDURE**

Any person who desires approval of a PSP for the subdivision of land shall submit the plan in accordance with the submittal guidelines on the Form B application to the Newburyport Planning Board, via the Office of Planning and Development.

The applicant shall also file a copy of the plan with the City Clerk with the accompanying information:

- a. Date on which such plan was submitted to the Planning Board;
  - b. Description of the land to which the plan is related sufficient for identification;
  - c. The name and address of the owner of such land.
1. **Required sets of plans with submission:** The applicant shall submit the required number of plan sets and documents to the Planning Board and the City Clerk as indicated on the application.
  2. **Filing Fee:** Fees for PSP's are contained in the Planning Board regulations governing fees and fee schedules, as may be amended from time to time, which are incorporated herein by reference. All expenses for advertising, recording, and filing of documents shall be borne by the applicant.
  3. **Plan Review:** The Planning Board and the Board of Health review the plan. The plan should be reviewed in consideration of both Board's rules and regulations and the provisions of the Subdivision Control Law. A public hearing on the PSP is not required by statute.

### **4.3 CONTENTS OF PLAN**

The PSP shall be drawn at a suitable scale, preferably 40 feet to the inch. The plan shall be designated as a "Preliminary Plan" and shall provide sufficient information 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:

## Rules and Regulations Governing the Subdivision of Land in Newburyport, Massachusetts

1. **Subdivision Name and Plan Legends:** Subdivision name, boundaries, locus plan, north arrow, date, zoning district(s), legend, scale, and title “Preliminary Plan”.
2. **Names of Involved Parties:** Name(s) and address(es) of record owner(s), applicant(s), engineer and land surveyor who made the plan, which shall include both the RPE & RLS stamp, shall appear in the lower right-hand corner.
3. **Abutters’ Names and Locations:** Location and names of all abutters to the lot, which is the subject of the application, as they appear on the most recent tax, list, including those in adjoining communities.
4. **Location of Streets, Scenic Roads, and Utilities:** Location, names and present exterior pavement and right-of way widths of existing and proposed streets and ways within the plan and in the immediate vicinity. Indication of whether the existing street is subject to the Scenic Road Act and the location and identification of all existing utilities within the plan and immediate vicinity.
5. **Lot Lines Lot Numbers and Areas:** Lot lines with approximate dimensions and areas indicated. Each new lot created shall be numbered.
6. **Public Areas:** Location of public areas that abut or are within the subdivision.
7. **Topography:** The existing and proposed topography of the land with five-foot contour intervals, or in flat areas, of two-foot contour intervals. Water bodies and their elevations shall be shown with the date of measurement.
8. **Location of Natural Features:** Location of all existing streams, brooks, water bodies, and trees greater than 6” in caliper on the lots of parcels and also within or along the right-of-way roads adjacent to the lots shown shall be identified.
9. **Location of Structures:** Location of all known existing structures and those that are proposed, including but not limited to, buildings, wells, septic systems, cisterns, cesspools, drainage systems, sewer and water mains, fire hydrants, gas lines, and all utilities.
10. **Excavation and Fill:** A statement with respect to cut and fill operations, including a general assessment of the net import or export of fill from the subdivision.
11. **Floodplains:** Areas of the plan designated as floodplain, in accordance with the Federal Insurance Rate Maps (FIRM).
12. **Centerline Profiles:** Existing and proposed centerline profile of all proposed streets and ways.
13. **Easements and Rights-of-Way:** Identification of all existing and proposed easements and rights-of-way applicable to the areas shown on the Plan.

#### **4.4 DRAFT ENVIRONMENTAL AND COMMUNITY IMPACT ANALYSIS**

The Applicant, as part of a PSP submitted in accordance with the requirements of Section 4, shall provide a draft Environmental and Community Impact Analysis. The draft shall address all pertinent aspects of Section 5.6.

The Board, upon review of the draft Environmental and Community Impact Analysis, shall specify which topics included in Section 5.6.4 shall be evaluated in detail, within the Definitive Plan submittal.

#### **4.5 REVIEW OF PRELIMINARY PLAN**

The Office of Planning and Development shall forward a copy of the PSP application to the Health Department, Department of Public Services, Police Department, Fire Department, Conservation Commission, ADA Coordinator, and any other applicable City board and/or commission for their information and review. Within twenty (20) days of forwarding the PSP, each city department may report its findings and recommendations to the Board.

#### **4.6 APPROVAL OF PRELIMINARY PLAN:**

Within forty-five (45) days after the submission of the Preliminary Plan to the Planning Board and the Board of Health each Board shall vote to.

- a. Approve the plan;
- b. Approve the plan with modifications suggested by either Board or agreed upon by the person submitting the plan; or,
- c. Disapprove the plan, stating in detail, the reasons for such disapproval.

Regardless of how the Planning Board and the Board of Health vote on the PSP:

- a. No Register of Deeds shall record a PSP.
  - b. A developer has no right to appeal from action taken on a PSP.
  - c. The Planning Board's disapproval of a PSP does not authorize the Board to refuse to receive a Definitive Subdivision Plan properly submitted under §§81-U.
  - d. Failure of either board to take action does not mean approval of the PSP.
1. **Notification of Action:** After making a decision, but within the forty-five (45) day time limit, both the Planning Board and the Board of Health shall each notify the applicant by certified mail and the City Clerk of its approval, approval with modifications, or disapproval, as the case may be.
  2. **Notification to Definitive Subdivision Plan stage:** Upon notification of action on the PSP, the applicant may proceed to the Definitive Subdivision Plan stage. The Definitive Subdivision Plan must be submitted within seven (7) months after submission of the PSP and must be evolved from it to retain exemptions from zoning changes and amendments to the subdivision rules and regulations.

**4.7 SUBDIVISIONS OF THREE OR FEWER LOTS:**

For PSPs creating no more than three residential lots, section 4.4 shall not apply. Additionally, the filing fee for such a project shall be 50% of the fee as described in the Planning Board regulations governing fees and fee schedules, as may be amended from time to time, which are incorporated herein by reference.

**4.8 RELATIONSHIP OF PRELIMINARY SUBDIVISION PLAN TO DEFINITIVE PLAN**

Approval of a PSP does not constitute approval of the subdivision and the PSP cannot be recorded in the Registry of Deeds or the Land Court.

## SECTION 5: DEFINITIVE SUBDIVISION PLAN

### 5.1 APPLICATION REQUIREMENTS:

Any person who wishes to submit a Definitive Subdivision Plan ('DSP') of land to the Planning Board for its approval shall submit the plan in accordance with the submittal guidelines on the Form C application to the Newburyport Planning Board, via the Office of Planning and Development.

The applicant shall also file a copy of the plan with the City Clerk with the accompanying information:

- a. Date on which such plan was submitted to the Planning Board;
  - b. Description of the land to which the plan is related sufficient for identification;
  - c. The name and address of the owner of such land.
1. **Filing Fee:** The filing fee for a DPS shall be as described in the Planning Board regulations governing fees and fee schedules, as may be amended from time to time, which are incorporated herein by reference.  
  
Separate fees shall be submitted to cover the costs of legal notices and technical review by outside consultants, as deemed necessary by the Board. Estimates and procedures for additional fees shall be in accordance with M.G.L. Chapter 44 §53 A-G.
  2. **Site Evaluation Statement:** An Environmental and Community Impact Analysis, unless the DSP is a subdivision of land of three or fewer residential lots.
  3. **Certified copy of deed/proof of ownership:** A certified copy of the recorded deed for the parcel for verification of ownership.
  4. **List of waivers:** If applicable, a list of any waivers of the regulations being requested, and the reasons for requesting such waivers.
  5. **Construction Schedule:** The approximate scheduled time within which the ways in the subdivision will be completed and the public utilities and other improvements required by the Board will be installed therein. If the approved time is exceeded, the bond or conditional approval may be exercised or the approval may be rescinded.
  6. **Quitclaim Deed to streets subject to acceptance; and to open space areas subject to City purchase:** Upon approval of a subdivision, a sample quitclaim deed, including the descriptions for all streets and ways to be dedicated, shall be placed with the Board.
  7. **Street Names:** Any applicant/developer, prior to submitting a DSP to the Planning Board, shall request from the Office of Veteran's Services, a list of potential names to be used as street names within the subdivision as directed by the Director of the of Veteran Services. The Director shall select the names from a list of individuals from the City who made the supreme sacrifice to our country.

## 5.2 REVIEW PROCEDURES

1. **Initial Application Review:** Within twenty-one (21) days after the filing of the Definitive Plan Application (Form C) with the Board, the Board's designee shall notify the Board of any missing or incomplete information in the application. Upon such notification, the Board, or its designee, shall notify the applicant in writing of said missing or incomplete information in the application. At that time, the applicant may withdraw an incomplete application by notifying the Board and the City Clerk, in writing, of the decision to withdraw the application from consideration. If the applicant withdraws the application, the filing fee shall be forfeited.

If the applicant does not withdraw an incomplete application within seven (7) days of notification of incompleteness, the Board shall proceed to advertise and hold a Public Hearing on the application as submitted. No additional information or materials shall be accepted for review after the receipt of application is acknowledged by the Board, or its designee, without their express written consent. If the Board, or its designee, approves the acceptance of additional submission materials, the applicant is required to formally amend the application with amendment materials being provided to the City Clerk, the Board of Health, and the Board.

2. **Public Hearing:** Upon determination by the Board, or its designee, that the application for approval of the Definitive Plan is complete, or that it is incomplete and the applicant has failed to withdraw or seek to formally amend the application, the Board shall set a date for the public hearing and so notify the applicant.
  1. The Board or its designee shall send notice of the public hearing. Action may not be taken on a DSP until the Planning Board holds a public hearing on such plan. Notice shall be given by the Planning Board at the expense of the applicant by:
    - a. Advertising in a newspaper of general circulation in the city once in each of two successive weeks. The first publication shall not be less than fourteen (14) days before the date of the hearing. The day of the hearing shall not be counted in the fourteen (14) days; and
    - b. By mailing a copy of such advertisement to the applicant and to all owners of land abutting upon the land included in such plan as appearing on the most recent tax list.
  2. Notice shall include:
    - a. Date, time and place of the hearing: and,
    - b. Subject matter of the hearing sufficient for identification.
3. **Report of the Board of Health:** Within forty-five (45) days after the plan is filed with the Board of Health, the Board of Health shall report in writing to the Planning Board either:
  - a. Approval; or

- b. Disapproval, including specific findings as to which, if any, areas shown on such plan cannot be used for building sites without injury to the public health. The report shall also include reasons for such decision and, where possible, shall include recommendations for adjustment thereof.

Failure of the Board of Health to make a timely report shall be deemed approval by the Board of Health. The Board of Health shall also send a copy of such written report to the person submitting the plan.

It is advisable that the public hearing not be held if time allows, until the Board receives the report of the Board of Health or the report of other Boards or officers. The Board should also coordinate with other boards and officers and ask for their attendance at the public hearing if such Board or officer can supply valuable input to the proceedings.

If the proposed subdivision is to be serviced by the sewage system, failure to report within forty-five (45) days after filing shall also be deemed approved by the Board of Health.

Extreme care shall be practiced in the layout of a subdivision in areas that are not able to access municipal sewer services. The extent of soil evaluation shall be determined by the Health Director based on the City of Newburyport Soils Maps and whatever other soil information is available. The Health Director shall determine the number and types of tests that are required. These tests may include, but are not limited to, deep-hole test holes, percolation tests and test borings.

Before any building construction may commence on a lot, a permit to construct an individual subsurface absorption area must be obtained from the Board of Health for each such individual lot not served by the municipal sewage system, if required; moreover, a condition shall be inscribed on the plan as follows: "No building or structure shall be built or placed on any lot without a permit from the Health Department."

4. **Plan Review by Other City Officials:** Prior to approval of any DSP, the Board shall give due regard to the reports of the Office of Planning and Development, the Department of Public Services, the Police Department, the Fire Department, the Health Department, , the Conservation Commission, ADA Coordinator, Tree Commission, and any technical expert hired by the Board.

Where any deviations from the design requirements specified by these Rules and Regulations or the City of Newburyport roadway design and construction standards are indicated on the plan, the Board designee shall so notify the Board and shall provide a written statement approving or disapproving said deviation.

The Board's designee shall also provide a recommendation of the proper amount of security as required in Section 5.8. This recommendation shall be based on information provided by the Applicant on the cost of performing the various items of work described in the plans. Due to the fact that the Board is using the security as assurance of project completion, the Board may, at their reasonable discretion,

factor in administrative costs, applicable prevailing wage schedules, engineering and inspection services, and a contingency for the project.

5. **Fees for Inspectional Services:** Upon request of the Board the applicant shall submit a cash deposit of a sum sufficient to guarantee payment for the services for technical review by outside consultants as provided in for Section 5.1.2. The amount of this deposit shall be determined, and may be revised from time to time, by the Board exercising its reasonable judgment.
6. **Time Extensions:** Further time, as may be agreed upon by the Board and the applicant, may be allowed for the Board's decision. Such time extensions shall be at the written request of the applicant and such notice(s) of time extension shall be filed forthwith by the Board with the Office of Planning and Development.

### 5.3 FORM OF PLANS

The DSP shall be prepared by a registered professional engineer and land surveyor and shall be clearly and legibly drawn. The plan shall be at a scale of one inch equals 40 feet or such other scale as the Board may accept to show details clearly and adequately. A plan set shall contain the following sheets, unless otherwise approved by the Board:

1. Cover Sheet
2. Drawing Index Sheet\*
3. Lot Layout Plan
4. Grading, Drainage and Utilities Plan
5. Street Plan and Profile
6. Typical Sections, Details and Notes

\*For large subdivisions, a Drawing Index Sheet is required if there is the use of multiple sheets to illustrate the lot layout plan. The Drawing Index Sheet, showing the entire subdivision at a legible scale, shall be included after the cover sheet.

1. **Plans to be prepared per Registry of Deeds Rules/Regulations; Land Court Manual of Instructions:** All plan sheets shall be prepared in accordance with the Rules and Regulations of the Register of Deeds or the Land Court Manual of Instructions.
2. **Signature Blocks:** Each sheet shall be provided with a signature block for the endorsement by the Board and certification by the City Clerk with spaces for annotating dates of approval and conditions of endorsement. Each sheet shall also be provided with a space for listing and dating revisions to the plan(s).
3. **Title Block:** A title block in the lower right corner of each sheet, other than the Cover Sheet, shall contain the identifying the name of the subdivision, the title of the sheet, the name and address of the record owner and applicant, date and scale of the plan, the name and address of the firm or individual preparing the plan, as well as their seal and signature.

## 5.4 CONTENTS OF PLAN

The plans shall include the following information:

1. **Cover Sheet:** Subdivision name, name and address of record owner, name and address of the applicant, a locus plan at a scale not smaller than 1"=1000', identification of the zoning district(s), and index to all the plan sheets, a legend, project bench mark data, reference and identification of the starting bench mark, date of submission, and the names and addresses of the professional(s) engaged in the preparation of the plans.
2. **Lot Layout Plan:** The Lot Layout Plan shall be prepared as follows:
  - a. **Scale:** The scale shall be 1"=40', unless otherwise required by the Board;
  - b. **Line Data:** The plan shall show bearings, distances and curve data to readily determine the location, direction, and length of every existing and proposed lot line, street line, way, easement and boundary line in and abutting the subdivision;
  - c. **Abutters' Names and Locations:** The plan must show the location and names of all abutters as they appear on the most recent tax list, including owners of the property on the opposite side of all streets abutting the subdivision;
  - d. **Monuments:** The location of all permanent monuments, identified as to whether existing or proposed must be identified. Ties, with bearings and distances, shall be shown to a minimum of two (2) existing permanent monuments in or adjacent to the subdivision;
  - e. All bench marks and elevations shown on the subdivision plans shall be based on the National Geodetic Vertical Datum of 1988 (NAVD88) and the starting NAVD bench mark shall be referenced on the plans;
  - f. **Lot and Easement Areas:** The area of each lot and any easements, in square feet and in acres shall be indicated. The units of acres shall be rounded to a minimum of two (2) decimal places;
  - g. **Lot Frontage and Lot Width:** The total frontage of each lot and the total lot width shall be clearly labeled. Lots shall be laid out in such a manner so that a square, with sides equal to eighty (80) percent of the minimum lot frontage requirement for the zoning district in which it is located, can be placed within the lot with at least one point of the square lying on the front lot line with no portion of the square extending beyond the boundaries of the lot ;
  - h. **Lot Designation as "Not Buildable":** Any lot(s) not meeting the minimum frontage, lot width, or lot area in accordance with the requirements for the zoning district in which it is situated shall be designated as "not a buildable lot";

- i. **Lot Numbers and Addresses:** Lot numbers for each lot shall be enclosed in a circle and house numbers, as assigned by the Assessor or designee shall be clearly indicated;
  - j. **Location of Streets and Ways:** Location, names, status, and widths of pavement and right-of-way of all existing streets bounding, approaching or within reasonable distance of the subdivision and a notation if any of the streets is designated as a "scenic road" shall be included;
  - k. **Location of Existing Structures:** All existing structures in the subdivision and within 50' of the perimeter of the subdivision must be shown;
  - l. **Location of Features:** The location of all stone walls, fences, cart paths, water bodies or water courses bounding or crossing the subdivision shall be identified;
  - m. **Zoning District(s):** The zoning district(s) classification(s) of the land in the subdivision and the precise location of the boundaries of these district(s) shall be clearly indicated;
  - n. **References to Other Permits, Variances:** Reference shall be made to any existing or proposed covenants and/or restrictions, including any variances, and/or special permits, either granted or required by the Board, or the Zoning Board of Appeals. Recorded copies of said covenants, restrictions and/or zoning relief shall be provided to the Board;
  - o. **Deed References:** References to all deeds and plans of record used to establish the property lines of the subdivided parcel and of all the streets, ways and easements including deed references to the abutting lots;
  - p. **North Point:** The north arrow shall be clearly marked and identified as to whether it is magnetic or true north or shall be referenced to a record plan and so stated; and
  - q. **Calculations Package:** A professional land surveyor shall prepare a calculations package that indicates the perimeter, lot, and right-of-way closure calculations.
3. **Grading, Drainage, and Utilities Plan:** The grading, drainage, and utilities plan shall be prepared as follows:
- a. **Scale:** The scale shall be 1"=40' with a two (2) foot contour interval, unless otherwise required by the Board;
  - b. **Boundaries:** All existing and proposed boundaries of all lots, streets, ways and easements within and adjacent to the subdivision shall be shown;
  - c. **Existing Contours and Elevations:** All existing contours in the subdivision and extending 50' beyond the perimeter of the subdivision shall be shown. Spot elevations no greater than one hundred (100) feet apart shall also be shown in areas where the existing grades are 1% or less;

- d. **Proposed Contours:** All proposed contours indicating the finished grades of proposed construction in the subdivision shall be shown. Spot elevations shall also be shown in areas where the finished grades are less than 1%;
- e. **Streets and Ways:** The plan shall show the extent of all existing and proposed streets, drives, walks, handicap ramps, parking areas and the like. In addition, the centerline, with stations, of all proposed streets must be indicated;
- f. **Location of Features:** The location of all stone walls, fences, and cart paths within, bounding or crossing the subdivision shall be identified;
- g. **Location of Existing Structures:** All existing structures in the subdivision and within 50' of the perimeter of the subdivision must be shown;
- h. **Wells and/or Septic Systems:** The plan shall show all existing wells and septic systems that can be observed and/or are on file with the Health Department, in the subdivision and within 100' of the perimeter of the subdivision. The plan shall also show the location of all proposed structures, wells, and septic systems in the subdivision, including all required setback dimensions to lot lines, wells, septic systems, and presumed wetlands boundaries;
- i. **Groundwater Test Pits:** The plan shall show the location of and identify all groundwater observation and percolation test pits and/or borings in or adjacent to the subdivision. Logs of observed data of these tests shall be shown on the DSP submission (use an additional sheet, if necessary);
- j. **Water and Stormwater Features:** The plan shall show existing and proposed water courses, drainage ditches, streams, brooks, water bodies, retention and/or detention basins including annual and 100 year high water elevations;
- k. **Wetlands:** The plan shall, where feasible, indicate the location and identification of all wetlands boundaries in and within 100' of any proposed construction, land regrading, and/or wetlands alteration within the subdivision. Wetlands boundaries shall be delineated in the field with numbered flags by a qualified wetlands specialist, surveyed, and shown on the plan(s) with the reference to flag numbers. The resource areas shall be identified in accordance with the Wetlands Protection Act (310 CMR 10.00), and the Newburyport Wetlands Ordinance;
- l. **Floodplains:** The plan shall show the location of the 100 year flood boundary, as shown on the Flood Insurance Rate Map (FIRM), in and within 100' of the subdivision;
- m. **Utilities:** The location and type of all existing and proposed above and below ground utilities shall be shown;

- n. **Benchmarks:** The plan shall show the location and identification of all permanent project benchmarks in the subdivision. A minimum of two (2) benchmarks are required for each street;
- o. **Street Trees:** The plan shall show the location, size, and type of all proposed street trees. Street tree species shall be in accordance with the accepted species and installation practices of the Newburyport Tree Commission;
- p. **Erosion Control:** The location and methods of all proposed erosion/sedimentation control within the subdivision shall be identified;
- q. **Stocking and Disposal Areas:** The plan shall show the location of proposed stocking area(s) for "earth" materials. Additionally, the plan shall show the location of proposed area(s) for disposal of surplus "earth" materials. The finished grades of these areas shall be indicated by contours and/or spot elevations with the volume of "fill" indicated;
- r. **Stump Burials:** The location of proposed legally allowed stump burial area(s) must be identified;
- s. **Borrow Materials:** The Plan shall show the location of area(s) to be utilized for borrow materials. The finished grades of these areas shall be indicated by contours and/or spot elevations with the volume of material indicated;
- t. **Earth Removal:** If excess "earth" materials are proposed to be disposed of off-site, then a notation stating the volume of earth to be removed, as defined in the Code of Ordinances Article VII Earth Removal Section 5-226 Soil Removal Board regarding Sand, Gravel, or Loam, shall be provided on the plan(s). This volume shall include all amounts of "earth" as proposed to be removed for the construction of streets, sidewalks, driveways, structures, and all other improvements related to the subdivision. If no "earth" is to be removed, a statement to such effect shall be included on the plan(s);
- u. **Fill Notation:** Shall include a notation stating the volume of "fill" material proposed to be obtained off site including borrow, gravel, and other materials necessary for the construction of the streets, sidewalks, driveways, structures, and all other improvements related to the subdivision; and
- v. **Health Department Notation:** Shall contain a note, which says, "No building or structure shall be built or placed on any lot without a permit from the Health Department, if such a permit is required."

#### 4. Street Plan and Profile

- a. **Scale:** This sheet shall show the plan of the proposed street drawn to a scale of 1"=40' with the existing and proposed profiles, drawn directly below the plan at a horizontal scale of 1"=40' and a vertical scale of 1"=4', unless otherwise required by the Board; and

b. **Contents of Street Plan:** The street plan shall show the following information:

1. Bearings and distances of all tangents along the center line and the right-of-way;
2. Radii, arc length and central angle of all curves along the center line and right-of-way;
3. Points of intersection of all tangents (pi's), with tangent lengths, of all center line curves;
4. Stations shall be clearly marked at 50' intervals along the street centerline and at points of curvature and tangency (pc's and pt's) of all curves. Where the centerline intersects itself or other proposed streets, the point of intersection shall be clearly marked with a station equation;
5. Existing and proposed lot lines intersecting the right-of-way with the frontage and lot numbers shown;
6. Bearings and distances of all lines of existing and proposed easements;
7. Existing and proposed pavements, including dimensions of all streets, sidewalks, handicapped ramps, driveways and parking areas;
8. Existing and proposed curbs and berms and identification of the materials;
9. Existing and proposed drainage facilities with pipe sizes and materials including catch basins, manholes, culverts, headwalls, detention and/or retention basins, and outlet pipes/structures with rim and invert elevations, as applicable;
10. Existing and proposed water mains with sizes and materials including hydrants, gates and appurtenances;
11. Existing and proposed sewer mains with sizes and materials including manholes with rim and invert elevations;
12. Existing and proposed gas mains;
13. All other existing and proposed, above and below ground, utilities including electric, telephone, cable TV, poles, conduits, transformers and appurtenances;
14. Existing and proposed street trees; and
15. Two (2) permanent benchmarks shall be shown on the plan for each street. Benchmarks shall be identified with sufficient data to readily determine their location and elevation in the field.

c. **Contents of Street Profile:** The street profile shall show the following information:

1. Existing centerline profile drawn with a fine dashed line and the existing elevations labeled at 50' intervals;
2. Existing left and right, right-of-way profiles drawn in fine lines - dot dash for left and dot dot dash for right;
3. Proposed centerline profile drawn in solid line with proposed stations and elevations labeled at 50' intervals and at points of vertical curvature, gradient intersection, and tangency (pvc, pvi, and pvt). Where the center line intersects itself or other proposed streets, the point of inter-section shall be clearly marked with the existing and proposed elevation and station equation;
4. Gradient lines shall be labeled with the rate of grade expressed as a percent;
5. Lengths of all vertical curves shall be labeled including applicable sight distances as prescribed in the Design Standards for Streets, Section 6.8;
6. Existing and proposed drainage facilities including drainage lines, catch basins, manholes, culverts, headwalls, outlet pipes/ structures shall be drawn in solid lines showing pipe sizes, pipe slopes, rim and invert elevations. Stations and offsets shall be indicated for all catch basins, manholes, and culverts, headwalls and outlet pipes/structures;
7. Existing and proposed water mains shall be drawn in solid lines showing pipe sizes, depths of cover, laterals to hydrants and station and offset(s) to hydrants;
8. Existing and proposed sewer mains and manholes shall be drawn in solid lines showing pipe sizes, pipe slopes, rim and invert elevations, and station and offsets to manholes; and
9. Vertical clearances shall be labeled between all crossing utilities.

**5. Typical sections, details, and notes:**

- a. **Scale:** All plans and profiles shall be drawn at a horizontal scale of not less than 1"=40' and a vertical exaggeration not greater than 1"=4'; details and sections shall be drawn at a scale of not less than 1"=4' or approximately 1/4 scale if drawn "not to scale", unless otherwise approved by the Board;
- b. **Features of Streets:** Typical cross-section of each street (if more than one type) showing width of the right-of-way, width of pavement, curbs, cross slope, sidewalk(s), grass strips utility locations and depths of cover, thicknesses and types of pavements for the street and sidewalk, thicknesses of street and sidewalk base courses, thicknesses of loam, location of guardrail, existing and proposed grades, and the maximum grade of return to existing grade. One side of the section shall indicate a typical "fill" and the other a typical "cut";

- c. **Retention and Detention Basins:** Typical cross-section(s) and details of all proposed retention and/or detention basins showing existing and proposed grades, details of inlet pipes with inverts and full flow capacity, outlet control structures and pipes with inverts and full flow capacity, ten (10) and one hundred (100) year storm water elevations, details and elevations of emergency spillway structure(s), embankment construction and slope treatment, top of dam elevation, and volume of storage capacity;
- d. **Drain Lines, Swales, and Ditches:** Profiles of all cross-country drain lines, swales, or ditches with typical cross sections of each;
- e. **Drainage Structures:** Details of drainage structures including catch basins, manholes, headwalls, flared-end sections, outlet and velocity control structures, rip-rap slopes and channels;
- f. **Manholes:** Details of sewer manholes and drop inlet structures;
- g. **Hydrants:** Details of hydrants, blow-off valves and thrust blocks;
- h. **Curbing:** Details of curb installation(s);
- i. **Accessibility:** Details of handicap ramp(s);
- j. **Guardrails:** Details of guardrail(s);
- k. **Erosion/Sedimentation:** Detail of erosion/sedimentation control devices;
- l. **Other Utilities:** Plans, details, sections, and profiles of any other utility, structure or facility proposed in the subdivision; and
- m. **Notes:** Specific and general notes identifying the standards for materials and construction methods of all the elements in the subdivision. Accepted standards and specifications include the following:
  - American Society for Testing and Materials (ASTM)
  - American Water Works Association (AWWA)
  - Commonwealth of Massachusetts Department of Public Works Standard Specifications for Highways and Bridges
  - State Environmental Code - Title V
  - Specifications by the City of Newburyport as set forth Appendices I - IX, inclusive, of these Rules and Regulations.

## 5.5 STORMWATER MANAGEMENT REPORT

A separate storm water management report shall be submitted together with the Definitive Subdivision Plans. The report shall be prepared in accordance with the applicable provisions of Section 6.14 and Appendix H of these Regulations.

## 5.6 ENVIRONMENTAL AND COMMUNITY IMPACT ANALYSIS

1. **Applicability:** Any subdivision of any residential subdivision, which creates frontage for four (4), or more lots, and all non-residential subdivisions, shall be accompanied by an Environmental and Community Impact Analysis. The Board

may require portions of this Analysis be carried out for shorter roads if, in their opinion, the sensitivity of the land, neighborhood or infrastructure warrants the investigation.

The Environmental and Community Impact Analysis shall clearly and methodically assess the relationship of the proposed development to the natural and man-made environment of Newburyport. This report shall be prepared by professionals qualified, experienced, and, as applicable, licensed, in their fields. Such professionals may include Registered Professional (Civil) Engineers, Traffic Engineers, Architects, Landscape Architects, Land-Use Planners, Hydrogeologists, Hydrologists, Biologists, and other environmental professionals. The applicant shall bear the cost of this analysis.

2. **Purpose:** This analysis shall be a guide to the Board in its deliberations and will build into the Board's decision-making process consideration of the environmental and community impacts of the proposed development.
3. **Concerns to be Addressed:** For each of the components of the Environmental and Community Impact Analysis listed under number 4 below, each of the following concerns must be separately addressed:
  - a. **Environmental and Community Impacts of Proposed Development:** The primary and secondary environmental and community impacts, both beneficial and adverse, anticipated as a result of the proposed development; this section shall include all impacts resulting from the construction phase as well as those resulting from the project's completion;
  - b. **Adverse Impacts:** Adverse impacts which cannot be avoided should the proposed development be implemented. The report shall describe the kinds and magnitudes of adverse impacts which cannot be reduced in severity or which can be reduced in severity but not eliminated;
  - c. **Development Alternatives:** Alternatives to the proposed development. The report shall develop, describe, and objectively weigh alternatives to the proposed development which are allowed by the Zoning Ordinance; and
  - d. **Measures to Minimize Adverse Impacts:** Measures to be used to minimize adverse environmental and community impacts. Corrective and protective measures, which will be taken, as part of the project, to minimize adverse impacts shall be described in detail.
4. **Topics to be Evaluated and Level of Detail Required:** The report shall address all pertinent aspects of Section 5.6 as specified in the Board's review of the draft Environmental and Community Impact Analysis included in the PSP submission. If no PSP was submitted, the Environmental and Community Impact Analysis shall evaluate all of the following topics:
  - a. **Natural Environment**
    1. **Air and Noise Pollution:** The impact of local air quality and noise from the proposed development (including traffic generated from the development), both during and after construction, shall be evaluated;

for larger developments (over 30 dwelling units) the Board may require detailed technical reports of such impacts;

2. **Water Pollution:** The impact of stormwater run-off on adjacent and downstream surface water bodies and sub-surface ground water shall be evaluated; dangers of flooding as a result of increased downstream runoff, especially peak runoff; and the impact of the proposed project on water table levels shall also be analyzed;
3. **Land:** Compatibility of the proposed development with existing soils; the impact of any soils or other such materials to be removed from or added, to the site; and the potential dangers and impacts of erosion and sedimentation caused by the proposed development;
4. **Plants & Wildlife:** The impact that the proposed project may have on wildlife habitat and on any rare or endangered plant or animal species known to exist in the area;
5. **Water Supply:** The average and peak daily demand and the impact of such demands on the ground water; and
6. **Sewage Disposal:** The average and peak daily disposal and the impact of each disposal on the ground water.

**b. Man-Made Environment**

1. **Existing Neighborhood Land Use:** Compatibility with adjacent or nearby existing land uses, or approved private development plans for adjacent or nearby land use changes to occur during the life of the proposed development; if not compatible, reasons therefore shall be detailed; and
2. **Zoning:** Compatibility of proposed development with the purposes of the Zoning Ordinance and the zoning district(s) within which the site is located.

**c. Public Services**

1. **Schools:** The expected impact on the school system, both elementary and secondary levels, and the number of students; projected school bus routing changes and projections of future school building needs resulting from the proposed project;
2. **Police:** The expected impact on police services, time and manpower needed to protect the proposed development and service improvements necessitated by the proposed development;
3. **Fire:** Expected fire protection needs; on-site firefighting capabilities; on-site alarm or other warning devices; fire-flow water needs, source and delivery system and other needs shall be presented; fire department service improvements necessitated as a result of the proposed project shall also be discussed;

4. **Recreation:** On-site recreation provisions shall be detailed and off-site recreation demands shall be estimated; provision for public open space, either dedicated to the City or available to its residents or employees shall also be described;
5. **Municipal Water:** The average and peak daily demand and impact of such demands on the water distribution and supply systems.
6. **Municipal Sewage:** The average and peak daily disposal and the impact of each disposal to the sewage collection and treatment systems.
7. **Solid Waste Disposal:** Analysis of the projected volume and type of solid waste to be generated by the proposed development and methods of removal;
8. **Traffic:** The expected impact of traffic generated by the proposed development on area roadways; discussion shall include existing average and peak traffic volumes and composition, projected average and peak traffic generation and composition, intersection impacts and analysis of area roadway and intersection capacities; methodologies used to make projection shall be included; and
9. **Highway:** Projected need's responsibility and costs to the City of roadway maintenance shall be analyzed; impacts of construction equipment on area roadways shall also be discussed.

d. **Aesthetics**

1. **Lighting:** The type, design, location, function and intensity of all exterior lighting facilities shall be described; attention given to safety, privacy, security, and daytime and nighttime appearance shall be detailed;
  2. **Landscaping:** Provisions for landscaping shall be described including type, location and function of all plantings and materials; and
  3. **Visual:** Attention given to views into the site and from the site shall be described; included shall be long-distance views as well as views to and from adjacent properties.
- e. **Planning:** Analyze the compatibility of the proposed development and its alternatives with the goals and objectives of the Master Plan, the Open Space Plan, and any other pertinent land use planning documents.
- f. **Traffic Impacts:** The applicant shall provide an analysis of development impact, including the impact during the construction phase, which at a minimum includes the following:
1. **Existing Level of Service (LOS):** The existing LOS of relevant road systems including quantitative and qualitative measurements of operational factors including speed, travel delay, freedom to maneuver and safety;

2. **Changes in Condition:** The expected change in the condition of relevant road systems as a result of the proposed development;
3. **Traffic Generation Comparison:** The comparison on a per-acre basis of the total vehicular traffic generation from the proposed development with:
  - i. The existing and potential vehicular traffic generation from all other developments accessing relevant road systems; and
  - ii. The vehicular traffic generation which would be expected to produce a LOS below LOS "C"; and
4. **Standards and Definitions:** In determining the impact of vehicular traffic generation from a development, the following standards and definitions shall be used (unless the applicant demonstrates to the Board that given the nature of the proposed project or applicable road systems, other standards are appropriate):
  - i. Trip generation rates for land uses as listed in the most recent update of Trip Generation, Institute of Transportation Engineers, Washington, DC; and
  - ii. Levels of Service ('LOS'): LOS is a term that traffic engineers use to define the various operating conditions that occur on a roadway or intersection when accommodating various traffic volumes; although LOS is a qualitative measure of traffic flow, it is an acceptable measurement for determining overall impact of development on roadway networks; LOS "A" is associated with relatively free-flow and average overall traffic speed in excess of 30 miles per hour; LOS "B" represents stable flow with minor delays and speeds of 25 miles per hour or greater; LOS "C" corresponds to the design capacity of a road system and indicates stable flow with delays, and speeds of 20 miles per hour or more; LOS "D", "E", and "F" corresponds to decreasing abilities to travel greater than 15 miles per hour and correspond to the over-capacity of the road system.
- g. **Construction Plan:** For developments over thirty (30) units, the applicant shall provide a detailed construction plan including, but not limited to, length of construction, type of construction activity, access points to the development, noise and air quality impacts, and parking requirements for construction personnel.
- h. **Cost/Benefit Analysis:** The applicant shall provide a municipal cost/benefit analysis of the development at full build-out; this analysis should follow standard and usual procedures for measuring both the benefits to be derived and costs to be incurred by the City as a result of the proposed development; this should also estimate net benefits or costs of non-quantifiable environmental impacts.

## 5.7 DECISION

After the public hearing, following receipt of the Board of Health report or the lapse of forty-five (45) days without such report, and within ninety (90) days with a PSP or one hundred thirty-five (135) days with no PSP after the submission of the DSP to the Board.

The Board shall vote to either:

- a. Approve the plan if it complies with the Subdivision Control Law, the rules and regulations of the Board, and the recommendations of the Board of Health; or
- b. Modify and approve the plan if it does not so comply; or,
- c. Disapprove the plan, stating in detail wherein the plan does not conform to the rules and regulations of the Board or the recommendations of the Board of Health. Such disapproval shall be revoked if the plan is amended so that it conforms to the rules and regulations or recommendations. After a public hearing, the Board shall approve the amended plan.

Findings for action by the Board shall be the following:

1. Completeness and technical adequacy of the plans and supporting material;
2. 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;
3. For lessening congestion in such ways and in the adjacent public ways;
4. For reducing danger to life and limb in the operation of motor vehicles;
5. For securing safety in the case of fire, flood, panic and other emergencies;
6. For ensuing compliance with the applicable zoning ordinances;
7. For securing adequate provisions for water, sewerage, drainage, underground utility services, fire, police, and other similar municipal equipment, and street lighting and other requirements where necessary in a subdivision;
8. For coordinating the ways in neighboring subdivisions;
9. For conformity with the design and construction standards described in these Rules and Regulations and in attached Appendices; and
10. For conformity with all applicable zoning requirements.

Following such action, and within ninety (90) days of receipt of the DSP, the Board shall file a certificate of its action with the City Clerk and send notices of its action by certified mail to the applicant. In the event a PSP has not been filed, or in the event that a PSP previously had been filed and disapproved by the Board, the Board shall file a certificate of vote within one hundred thirty-five (135) days of receipt of the DSP.

The time period for final action and the Board's decision may be extended as agreed upon by the Board and the applicant. Such time extension(s) shall be at the written request of the applicant, and such notice(s) of time extension(s) shall be filed forthwith by the Board with the City Clerk.

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If the report of the Board of Health shall so require, any approval by the Board shall be on condition that no building or structure shall be built or place upon the areas designated without consent by such Board of Health. In the event, approval by the Board of Health is by failure to make a report, the Board shall note on the plan that Board of Health approval is by failure to make a report.

The Board shall not approve a plan, which does not comply with the recommendations of the Board of Health. The Board's options in such a case are limited to disapproving the plan or modifying and approving the plan to bring it into conformity with the recommendations of the Board of Health.

1. After making its decision, but within the required time limit, the Board shall:
  - a. File a certificate of its action with the City Clerk, who shall record a copy in a book kept for the purpose, and
  - b. Send notice of its action by registered mail, postage prepaid, to the applicant.
2. If the Board fails to take final action upon the plan or to notify the City Clerk and the person submitting the plan of its action within the required time limit, or such further time as is mutually agreed upon by the Board and applicant, the plan shall be deemed approved.
3. Any person aggrieved by a decision of the Board concerning a DSP or aggrieved by the failure of the Board to take final action on a DSP within the required time, may appeal to the Superior Court or Land Court.

Such appeal must be entered in the Superior Court or Land Court and a notice of such appeal must be given to the City Clerk within twenty (20) days after either (1) the Board's decision has been filed with the City Clerk or (2) the expiration of the required time for final action by the Board, if no action was taken.

If an appeal is filed with the Court in a timely manner, the exempted provisions under zoning (eight (8) year exemption from zoning changes) shall not begin until the date of final disposition by the Superior Court, provided the final adjudication is in favor of the owner of the land which is the subject matter of the appeal.  
(MGL Ch. 40A §6)

If a plan is not approved, but a timely appeal is filed with the Court, the plan shall still be governed by the zoning and subdivision rules and regulations in effect when the plan was first submitted. A disapproved plan, if successfully appealed, shall not terminate these rights.

The submission of an amended DSP shall not extend the zoning exemption (eight (8) years from the date of endorsement) that runs with the originally submitted Definitive Plan.

4. After the expiration of the twenty (20) day appeal period or if an appeal is taken, the City Clerk shall endorse on the approved plan or set forth in a separate certificate, which shall be recorded and shall be referred to on the approved plan, the following statement: *The above plan was submitted for approval on (date).*

The Clerk shall also include one of the following statements:

- a. "No notice of appeal was received during the twenty days next after receipt and recording of notice from the Planning Board of the approval of the plan and the approval has become final." (No appeal taken - approval by final action of Planning Board);
- b. "No notice of appeal was received during the twenty days next after the expiration of the required time for final action by the Planning Board and the approval has become final." (No appeal taken - approval by failure of Planning Board to take final action within required time); or
- c. "A final decree has been entered by the Superior or Land Court of Essex County, Case No. \_\_\_\_\_ sustaining the approval of the plan." (Appeal taken - disposition of court upholds approval of plan).

## **5.8 PERFORMANCE GUARANTEE**

1. After expiration of the appeal period and before endorsing its approval for the DSP, the Board shall require a performance guarantee to insure construction of ways and the installation of municipal services. The Board may also require security to assure a compliance with the requirements of the Board of Health.
2. The Board shall determine that the monetary amount of the chosen method is sufficient to guarantee construction of ways and the installation of municipal services required for the lots shown on the plan. The Board shall include in the total monetary amount a sufficient sum to cover costs that may occur due to inflation.
3. The Board shall also require the applicant to specify the time within which the construction and installation will be completed.
4. The applicant may select the method of securing performance and may vary the method from time to time, as well as secure performance in part by one method and in part by another.
5. The Board shall determine that the method of securing performance as selected by the applicant is sufficient and creditworthy.
6. The method of securing performance shall be one of the following:
  - a. Proper Bond
  - b. Negotiable Securities
  - c. Deposit of Money: A signed withdrawal slip payable to the Newburyport Planning Board should be obtained with the bankbook, plus an agreement from the bank stating that no withdrawal from the account will be made without approval of the Board.
  - d. Covenant
    - i. Executed and duly recorded by the owner of record;
    - ii. Runs with the land;

- iii. Required construction of ways and installation of municipal services to serve lots before they may be built upon or conveyed;
  - iv. All lots not previously released from covenant may be conveyed by a single deed but are still subject to the covenant;
  - v. A deed of any part of the subdivision, which violates the covenant, shall be voidable by the grantee prior to the release of the covenant but not later than three (3) years from the date of such deed; and
  - vi. May specify a time period within which such construction and installation shall be completed.
- e. Lender's Agreement: At the option of the applicant, lots may be released from operation of the covenant with a lender's agreement and without bond or deposit of money.
- i. A first mortgage must be recorded which covers the premises shown on the plan or a portion thereof;
  - ii. An agreement must be delivered to the Board. The agreement must be executed by the applicant and the lender and shall provide for the retention by the lender of funds sufficient in the opinion of the Board and otherwise due the applicant. In determining the total monetary amount to secure the construction of ways and the installation of municipal services. The Board should include a specified sum to cover any costs that may occur due to inflation; and
  - iii. The agreement shall provide for a schedule of disbursements to the applicant upon completion of various stages of work. The applicant shall set forth the time for completion of various stages. If work is not completed by the applicant in the time set forth any undisbursed funds may be used by the city to complete such work.

## 5.9 ENDORSEMENT

The twenty (20) day appeal period must have expired or a final decree must have been entered on an appeal before endorsement of approval is made on the plan. Additionally, a performance guarantee shall also have been provided by the applicant before endorsement.

1. **Endorsement of Approval:** An approved plan is endorsed in one of the following ways:
  - a. If approval was by action of the Board, the Board endorses its approval on the plan; or
  - b. If approval was by failure of the Board to act within the required time the City Clerk shall issue a certificate stating the following:
    - i. Date the plan was submitted to the Board for approval;
    - ii. Date on which the Board was required to take final action; and

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- iii. Fact that the Board failed to take final action within the prescribed time and that the approval resulting from such failure has become final.
2. **Required Information:** What must, or what may, be endorsed or referred to on the approved DSP.
- a. To be set forth on the plan:
    - i. Endorsement of approval signed by a majority (5) of the members of the Board; or, endorsement of the board's approval signed by any person authorized in accordance with Subdivision Control Law to endorse the Board's approval on a plan; or referral to the book and page number where the certificate of the City Clerk is recorded in cases where the Board failed to take final action within the required time;
    - ii. Date the plan was approved (must be at least twenty (20) days before the date of endorsement);
    - iii. Date of the endorsement of approval on the plan (must be at least twenty (20) days after the date of approval.); and
    - iv. Appropriate endorsement by the Board if park or parks are required to be shown on the plan. Such endorsement may require that no building may be erected on a park or parks for a period of not more than three (3) years without the Board's consent.
  - b. To be set forth on the plan or set forth in a separate document referred to on the plan:
    - i. Certification by the City Clerk regarding expiration of appeal period or favorable disposition of appeal by Superior Court;
    - ii. Covenant, if this is the type of performance security selected to guarantee construction and installation; and
    - iii. Conditions required by the Board of Health as well as waiver of rules and regulations, frontage or access requirements, and conditions of approval as required by the Planning Board.
3. **Delivery of Plan:** The Board shall deliver the endorsed plan, or in the case of a certificate, the City Clerk shall deliver the plan and certificate to the person who submitted the plan.
4. **Recording of Plan:** The applicant records the plan at the South Essex District Registry of Deeds or files it with the Land Court, in the case of registered land.
5. **Timely Recording of Plan:** If the endorsement on the plan or the certificate, which accompanies the plan, is not dated within six (6) months of the date of recording, the applicant shall apply to the Board or City Clerk for a certificate which shall be endorsed on the plan or referred to on the plan and recorded with the plan. The certificate must be dated within thirty (30) days of the recording. The certificate shall state "that the approval has not been modified, amended, or rescinded, nor the plan changed."

Such certificate shall be made unless the records of the Board or City Clerk receiving the application show that there has been such modification, amendment, rescission, or change.

The preceding portion of MGL Ch. 41 §81-X relating to endorsement of approval dated within six months of recording or a certificate dated within thirty days of the recording does not apply to plans which have been constructively approved due to failure of the Planning Board to take final action within the required time period.

6. **Provision of Copies of Recorded Plans and Documents:** Following recording of the endorsed plan and Board's written decision at the Essex South District Registry of Deeds or the Land Court by the applicant, the applicant shall provide the Board with two (2) complete sets of prints of the recorded plan, two copies of the recorded written decision and one copy of the recorded covenants and restrictions or other required documents. The Board shall transmit one set of plans and one written decision to the City Clerk.
7. **Filing of Notice of Modification, Amendment, or Rescission:** Amendment, modification or rescission of approval of a plan or a change in plan shall be governed by the following requirements of MGL Ch. 41 §§81-W:
  - a. Amendment, modification, rescission, or change of a plan may be initiated on the motion of the Board or on the petition of any interested person.
  - b. All of the provisions of the subdivision control law relating to the submission and approval of a plan of the subdivision shall be applicable to the approval of the modification, amendment, rescission, or change of a plan. A new hearing shall be required and in many instances, the amended, modified, or changed plan must be resubmitted to the Board of Health for review.
  - c. No modification, amendment, rescission or change of a plan shall affect the lots in such subdivision which have been sold or mortgaged in good faith, and for a valuable consideration subsequent to the approval of the plan, any rights appurtenant thereto, without the consent of the owner of such lots, and of the holder of the mortgage or mortgages, if any,  
  
However, the sale of the entire parcel of land shown on the plan of all lots not previously released by the Planning Board to a single grantee shall not prohibit modification, amendment, rescission or change to a plan.
  - d. No modification, amendment, rescission or change shall be in effect until the Registry of Deeds or Recorder of Land Court, or both, whichever is applicable, is notified as follows:
    - i. If original plan is recorded or to be recorded with the Registry of Deeds:
      1. A certified copy of the vote making such amendment, modification, rescission, or change shall be recorded.
      2. The plan as originally approved or a copy of such plan shall be endorsed and shall refer to the book and page where the vote as specified under (a) above is recorded. Such plan shall be recorded.

3. Any additional plan referred to in the vote as specified under (a) above shall be recorded.
  4. The vote as specified under (a) above shall be indexed in the grantor index under the names of the owners of record of the land affected.
  5. The register of deeds cannot record the vote as specified under (a) above unless it includes a statement by the Board that such modification, amendment, rescission or change does not affect any lot or rights appurtenant thereto in such subdivision which lot was conveyed or mortgaged in good faith and for valuable consideration subsequent to the approval of the subdivision plan.
- ii. If original plan is registered with the Land Court:
1. The notice by the Board of such amendment, modification, rescission, or change shall contain a statement that such modification, amendment, rescission, or change does not affect any lot or rights appurtenant thereto in such subdivision which lot was conveyed or mortgaged in good faith and for valuable consideration subsequent to the approval of the subdivision plan.
  2. The modification, amendment, rescission, or change is not effective until verified by the Land Court pursuant to Ch. 185 of the General Laws of Massachusetts.
  3. If the Land Court does not verify such amendment, modification rescission or change then it shall not take effect until ordered by the court pursuant to MGL Ch. 185 §114.

## **5.10 CONSTRUCTION OF WAYS**

### **1. General**

- a. The construction of ways and installation of municipal services is begun by the applicant in accordance with the approved subdivision plan.
- b. Upon the completion of such construction and installation to serve any lot or lots, the applicant shall send by registered mail to the City Clerk and to the Board, via the Office of Planning and Development, a written statement that said construction or installation has been completed in accordance with the rules and regulations. The statement shall include the address of the applicant.
- c. Within forty-five (45) days after receipt of the applicant's statement by the City Clerk, the Board shall take one of the following actions:
  - i. If the Board determines that the construction and installation has been completed, it shall release the interest of the City in any security held as a performance guarantee and shall return such security to the person who furnished same, or it shall release the covenant by appropriate instrument, duly acknowledged, which may be recorded: or,
  - ii. If the Board determines that the construction and installation has not been completed, it shall specify in a notice sent by registered mail to the

- applicant and to the City Clerk wherein said construction or installation fails to comply with its rules or regulations; or,
- iii. If the Board fails to make a determination within the required forty-five (45) days after receipt by the clerk of the applicant's statement or if the Board fails to return the security or release the covenant, the City Clerk shall issue a certificate, duly acknowledged, which may be recorded, to the effect that all obligations under the security are terminated by operation of law and any covenant is void. Any security shall be returned to the applicant by the City Clerk.
2. **Failure to Construct Ways:** If the applicant fails to perform the construction of ways or installation of municipal services in accordance with the Board rules and regulations or conditions of approval, the Board may:
- a. Enforce any bond or apply any deposit of money or securities for the benefit of the city and the extent of the reasonable cost to such city of completing such construction and installation; or
  - b. The Board shall delegate any money received from enforcement by making the necessary administrative arrangements with the Department of Public Services who will complete the work for which the security was held; or
  - c. Amend, modify, or rescind its approval of a plan or require a change in a plan as a condition of its retaining the status of an approved plan.

## 5.11 RELEASE OF PERFORMANCE GUARANTEE

1. **Written Request:** Upon completion of improvements required by these rules and regulations, the applicant may request either partial or full release of the bond, deposit, or covenant by filing a statement of completion and a request for release to the City Clerk and the Board, via the Office of Planning and Development.

The statement shall include:

- a. Written evidence from the Board's outside consultant that the streets and drainage conform to the Board's requirements in accordance with the approved DSP;
- b. Written evidence from the Board's outside consultant that the underground wiring, water mains, sanitary sewers, storm sewers, hydrants and/or other site improvements conform to the specifications and the Board's requirements in accordance with the approved DSP;
- c. Written evidence from both the Board's outside consultant and the DPS Director, or designee, that as-built and road layout plans have been submitted and reviewed;
- d. Written evidence from the Board's outside consultant that the improvements have been exposed to one complete winter environment (December 1 to April 30) without damage, or that damage, if incurred, has been repaired to the

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satisfaction of the Board's outside consultant and the DPS Director, or designee; and

- e. Written evidence from the DPS Director, or designee, that installation of street trees and other plants as prescribed by these rules and regulations have been completed satisfactorily, the plant materials are in healthy condition and that the warranty has been assigned to the City.
2. **Partial Release:** Prior to final release of security, the Board may, at its discretion; grant up to three (3) partial releases from the required security for partial completion of improvements provided that:
- a. No reduction shall reduce the bond, deposit, or covenant to a value below the estimated cost of completing the unfinished portions of the improvements as verified by the Board's outside consultant;
  - b. No lot shall be released from the covenant unless and until construction of ways and installation of municipal services up to and including the base course of asphalt to serve said lot both have been completed to the Board's satisfaction (Forms D & E);
  - c. No partial release of security shall be granted until the Board has received written verification from the Board's outside consultant that substantially more than fifty percent (50%) of the required improvements have been completed satisfactorily;
  - d. No partial release shall reduce the security by more than fifty percent (50%) of the amount being held at the time the release is requested; and
  - e. No partial release of security shall be granted until the Board has received stamped record plans documenting construction completed to date.
3. **Final Release of Security:** If the Board determines that the required improvements have been completed in accordance with these rules and regulations and as-built plans have been submitted, it may release the interest of the City in any bond or deposit and return the bond or deposit to the applicant, or release the covenant by appropriate instrument (Forms D, E, and F).

However, the Board shall retain security in an amount equal to at least 10% of the total cost of landscaping and street improvements to ensure construction adequacy against latent defects. Such security shall not be released until the fee in the road and any related instruments have been conveyed to the town and said road has been accepted at City Council or until three years have elapsed since completion of improvements in accordance with the approved plans and associated conditions, whichever occurs first.

4. **Refusal of Release:** If the Board determines that required construction or installation has not been completed, it shall specify, in a detailed written determination, the items of construction or installation that fail to comply with these rules and regulations by notice sent by registered mail to the applicant, a copy of which shall be delivered to the City Clerk.

If the Board fails to so notify the City Clerk and the applicant within forty-five (45) days of receipt of a request for release of security, as described in Section 5.1, the deposit or bond shall be returned and any covenant shall become void. In the event that the forty-five (45) day period expires without such specifications or without release of the security, the City Clerk shall issue a certificate to such effect.

## **5.12 RESCISSION**

Grounds for rescission of approval in accordance with the requirements and procedures set forth in M.G.L. Ch. 41 §§81-W shall include:

1. Failure of an applicant to record the DSP within six (6) months of its endorsement by the Board at the Essex South District Registry of Deeds or at the Land Court; or
2. Failure to comply with the construction schedule incorporated into the performance agreement; or
3. Failure to initiate construction of improvements in a subdivision within seven (7) years of the approval of the DSP; or
4. Failure to comply with all applicable City of Newburyport Zoning Ordinance requirements; or
5. Failure to comply with the approved plans and any conditions of approval.

## **5.13 MUNICIPAL COMPLETION OF SUBDIVISION**

Any such bond may be enforced and any such deposit may be applied by the Board for the benefit of the City of Newburyport, as provided in MGL Ch. 41 §§81-Y, upon failure of the performance for which any such bond or deposit was given to the extent the reasonable cost to the City of completing the construction and installation of the improvements.

The proceeds of any such bond or deposit shall be made available to the City for expenditure to meet the cost and expenses of the City in completing the work as specified in the approved plan. If such proceeds do not exceed One Hundred Thousand Dollars (\$100,000.00), the expenditure may be made without specific appropriation under MGL Ch. 41 §§53; provided, however, that such expenditure is approved in advance by the Board.

## **5.14 OWNERSHIP AND MAINTENANCE OF SUBDIVISION IMPROVEMENTS**

1. **Acceptance:** Approval by the Board of a DSP shall not constitute acceptance by the City of Newburyport of any street, sidewalk, or other municipal service within the subdivision.
2. **Ownership:** The Applicant shall retain title to the fee of each street, path, or easement in or appurtenant to, the subdivision until conveyed to the City and shall maintain and repair the streets and improvements in a manner satisfactory to the City, acting by and through its Board, during this period. A notation shall be made

on the plans, which indicates the applicant's ownership of said street(s) pending acceptance by the City.

If the City must maintain a portion of, or enter the subdivision for the purpose of public safety, emergency purposes, or otherwise, the City reserves the right to charge the applicant for services rendered.

Prior to final release of security, the applicant shall submit to the Board and the City Council all the necessary documentation for street acceptance including, but not limited to, plans in a form acceptable to the Registry of Deeds or the Land Court, a street layout plan, legal descriptions, easements, a list of owners and mortgagees of lots having rights in the street(s), and all other necessary grants, of deeds or instruments affecting a locus.

3. **Maintenance by Applicant:** The applicant shall be responsible for maintaining in good repair all streets in the subdivision after release of the security or until the streets are accepted by the City Council.

To assure such responsibility, the applicant shall guarantee the maintenance of the streets in the subdivision in the condition, which meets all the requirements of these rules and regulations to the satisfaction of the Board, by posting with the City a maintenance security, in an amount sufficient in the determination of the Board, to secure the aforesaid maintenance.

The applicant shall be responsible for maintenance of all improvements within the street, from edge to edge of the right-of-way, as shown in Figure 1.

### **5.15 COMPLETION WITHIN THREE YEARS**

The Board may impose, as a condition of approval on a DSP, that construction of all ways and all installation of municipal services shown on the plan are completed within three (3) years of the date of approval. If the construction and installation is not completed within this time period, the approval shall automatically lapse and no way shall be laid out, constructed or opened for public use unless and until a new DSP application has been filed in accordance with the rules and regulations then in effect and the new plan has been approved by the Board.

### **5.16 RIGHT OF ENTRY**

The Board, its officers and agents, may, as far as they deem necessary in carrying out the subdivision control law, enter upon any lands and there make examinations and surveys or to place and maintain monuments and marks.

### **5.17 MODIFICATION OF DEFINITIVE SUBDIVISION**

No modification, amendment, or rescission of the approval of a plan of a subdivision or changes in such plan shall affect the lots in such subdivision which have been sold or mortgaged in good faith and for a valuable consideration subsequent to the approval of the plan, or any rights appurtenant thereto, without the consent of the owner of such lots, and of the holder of the mortgage or mortgages, if any thereon; provided, however, that nothing herein shall be deemed to prohibit such modification, amendment or rescission

when there has been a sale to a single grantee of either the entire parcel of land shown on the subdivision plan or of all the lots not previously released by the Board.

### **5.18 AS-BUILT PLAN**

1. The Board's outside consultant shall review the "as-built" plans, prepared and submitted by the applicant's registered professional engineer and registered professional land surveyor and reports of completion and deficiencies as inspections are completed to the Board for review and prior to any partial release.
2. Said "as-built" plans shall indicate the record location of all municipal services as actually installed. Sufficient ties, including depths shown as profiles, for the proper and accurate identification and location, shall be provided. Additional information to be provided includes, but is not limited to, the location and size of sewer pump/lift stations, location, and total storage provided of detention ponds, and other similar facilities.
3. A statement shall be provided on the "as-built" plans that the information provided conforms to these regulations, to the design intent of the design engineer and that any exceptions, exclusive of granted waivers, shall be noted on said plan. The "as-built" plan shall be recorded in the South Essex District Registry of Deeds upon the release of all lots and completion of all ways and utilities.

### **5.19 SUBDIVISIONS OF THREE OR FEWER RESIDENTIAL LOTS**

For DSPs creating no more than three (3) residential lots, the plan shall comply with Section 5 of these regulations, with the following exceptions:

1. The filing fee shall be 50% of the fee described in Section 5.1.
2. Section 5.2.4 shall apply as amended to the following:

Written notice to Department Heads: The Office of Planning and Development shall forward a copy of the DSP application to the Health Department, Department of Public Services, Police Department, Fire Department, Conservation Commission, and any other applicable City board and/or commission for their information and review.

3. Subsections 5.5 and 5.6 shall not apply.

## **SECTION 6: REQUIREMENTS FOR IMPROVEMENTS AND DESIGN**

### **6.1 GENERAL REQUIREMENTS**

The Board has established the design of subdivisions set forth in this Section:

1. To provide for streets of suitable location, width, and construction to accommodate prospective traffic and afford satisfactory access for police, emergency and medical response, firefighting, snow removal, sanitation, and other road maintenance equipment;
2. To coordinate streets so as to compose a convenient system;
3. To avoid undue financial burdens for present and future taxpayers; and
4. To avoid potential natural or technological hazards or nuisances, including the problems associated with uncontrolled storm water run-off,

In addition to the requirements established in these regulations, all subdivisions shall conform to the provisions of the Zoning Ordinance, the regulations of the Department of Public Services, the regulations of the Board of Health, the Conservation Commission, and all other rules and regulations applicable in the development of land in Newburyport.

### **6.2 CHARACTER OF THE LAND**

1. **Protection of Natural Features:** In laying out of a subdivision, the applicant shall comply with these rules and regulations with due regard to all natural features such as trees with at least a six (6) inch caliper, watercourses, scenic or historic elements, aquifers, flood plains, and habitats of rare or endangered species. These features shall be left undisturbed wherever practical and the Board may waive design requirements in order to protect important natural features.
2. **Unsuitable Land:** Land that the Board finds to be unsuitable for development due to flooding, improper drainage or adverse drainage, adverse topography, poor soils, bedrock, location of utility easements, or other features which the Board has reason to believe would be detrimental to the health, safety, and general welfare of the present or future inhabitants of the subdivision and/or its surrounding area, shall not be subdivided or developed unless adequate measures are formulated by the applicant and are approved by the Board to eliminate or minimize any short-term or long-term impacts created by development of the unsuitable land.
3. **Subdivisions Straddling Municipal Boundaries:** Whenever access to the subdivision is required across land in another city or town, the Board may require documentation that access has been legally established in that community as a public street or as part of an approved subdivision. In general, lot lines should be laid out so as not to cross municipal boundaries.
4. **Self-imposed Restrictions:** If, as part of a subdivision application, the applicant or owner places voluntary restrictions on any of the land contained in the subdivision which are greater than the requirements of these rules and regulations or of the City of Newburyport Zoning Ordinance, such restrictions or references thereto shall be

indicated and located on the DSP and shall be recorded in the Essex South District Registry of Deeds or the Land Court.

### 6.3 LOTS

1. **Lot Arrangement:** Lots shall be arranged so there will be no foreseeable difficulties due to topography, soils, wetlands, bedrock, improper drainage, or other conditions, in securing permits to build upon all lots in compliance with the City of Newburyport Zoning Ordinance, nor in providing practical, feasible driveway access to a building on each such lot.
2. **Lot Dimensions:** Lot dimensions shall comply with the minimum standards of the City of Newburyport Zoning Ordinance. Dimensions of corner lots should be large enough to allow for erection of buildings and fulfilling the minimum front yard setback and lot width from both streets. Depth and width of properties laid out for business or industrial use shall be adequate to provide for the off-street parking and loading facilities required by the Zoning Ordinance.
3. **Soil Preservation, Sedimentation, and Erosion Control:** The applicant shall comply with the rules and regulations governing Soil Erosion and Sedimentation Control as provided for in Appendix I of these rules and regulations.
4. **Lot Drainage:** Lots shall be laid out so as to provide positive drainage away from all proposed buildings. Individual lot drainage shall be designed so as to avoid concentrating stormwater drainage from each lot to adjacent lots and/or to the street.
5. **Debris and Waste:** No debris, junk, rubbish, or other non-biodegradable waste materials shall be buried on any land in the subdivision or left on any lot or on the street right-of-way and removal of the same shall be required prior to final release of any covenant or security.
6. **Stump dumps are not allowed:** Legal burial of biodegradable materials on the site shall be subject to the approval of both the Board and the Board of Health. It should be noted that no burial areas will be allowed if located within the buffer zones under the jurisdiction of the Conservation Commission. The burial location(s) and description of buried materials shall be noted on the "as-built" plans. The Board may require that the description and the location of buried materials be recorded in the South Essex District Registry of Deeds or the Land Court prior to the release of affected lots for sale or building.

### 6.4 CONSTRUCTION SPECIFICATIONS

The specifications for construction, as referenced in Appendices I - IX of these Rules and Regulations, shall be used as a guide for required construction specifications unless otherwise directed. The Board, upon recommendation from the Board's outside consultant, shall determine if the standards have been met.

### 6.5 GENERAL CONSTRUCTION PROCEDURES

1. **Notification:** No step in the construction of the required improvements shall commence until the Board's outside consultant has been notified at least twenty-four (24) hours in advance of the beginning of construction phases.

2. **Inspections:** Each phase or step in the construction of the required improvements shall be inspected and approved in writing by the Board's outside consultant. The Board's outside consultant may require submittals and testing as necessary to assure proper construction. At a minimum, the applicant shall request an inspection at the following stages of construction:
  - a. Following preparation of the street subgrade and shoulders and prior to the placement on any fill;
  - b. Following installation of all underground drainage and utilities, prior to backfilling;
  - c. Following the spreading and compaction of the gravel base, prior to application of the binder course on the street;
  - d. Immediately prior to and during the application and compaction of the surface course on the street and, if required, on the sidewalk; and
  - e. Following completion of all improvements and installation of bounds.

The applicant shall not proceed with construction of any of the above stages of development until the Board's outside consultant has signed off on the previous stage. The Board's outside consultant may require inspection at such other intervals as (s)he may deem necessary to assure proper construction of improvements, including but not limited to as-built drawing submittals required under Section 5.18. In addition, the Board's outside consultant may require periodic inspection reports from the applicant's engineer.

## 6.6 CONSTRUCTION METHODS AND MATERIALS

1. **Clearing and Grubbing:** The area between property lines within the right-of-way shall be cleared and grubbed except for those trees that are intended to be preserved as street trees.
2. **Earth Excavation:** All excavation shall conform to the lines and grades shown on the approved DSP. Where mucky soils, ledge, or clay is encountered within the right-of-way, it shall be removed entirely and, where necessary, replaced with sand and gravel. Where water is encountered, or is expected to be encountered, within four (4) feet of the finished grade of the street, subsurface drainage, of a design acceptable to the Board, upon recommendation from the Board's outside consultant, shall be installed.
3. **Ledge Excavation:** Boulders or ledge shall be removed to a depth of at least twenty-four (24) inches below finished grade wherever it exists within the road or sidewalk pavement area.
4. **Retaining Walls:** If street and/or shoulder grades require more than two (2) feet of cut or fill, the Board may require retaining walls along abutting property lines unless a suitable alternative is approved by the Board.
5. **Materials:** Specifications and standards may be obtained through the Director of Public Services. Reference is made to Figure 1, the "typical street cross section", appended hereto.

## 6.7 STREETS - BASIC REQUIREMENTS

1. **Frontage:** No subdivision shall be approved unless the land to be subdivided shall have frontage on an existing or proposed public street or, if the area to be subdivided is to use a private way to access the public street, the private way shall be improved or constructed by the applicant to meet the minimum design and construction requirements of these rules and regulations.
2. **Improving Existing Streets:** If a subdivision borders an existing, but inadequately constructed public or private street, the applicant may be required to improve the street bordering the subdivision tract or provide the land necessary for future improvements for that portion bordering the subdivision. Land used for or reserved for future street improvements may not be counted in satisfying the setback and area requirements of the Zoning Ordinance.
3. **Topography and Location:** Streets shall be designed and located to conform as closely as possible to the original topography of the site. There shall be a minimum amount of cut and fill in the design and construction of the streets. The overriding concern is public safety; therefore, the overall topography of the site shall be taken into consideration, resulting in an avoidance of steep grades and curves.
4. **Street Names:** Proposed street names shall be included on the plans and shall be sufficiently different in sound and in spelling from other street names in the City so as not to cause confusion. A street that is planned as a continuation of an existing street shall bear the same name. The proposed street name shall be in compliance with section 5.1.7 and included in the application submitted to the Board. City Council shall provide final approval of all street names.
5. **Street Numbers:** Street numbers shall be assigned by the Assessor and/or his/her designee and shall be included in the DSP application submitted to the Board.

## 6.8 STREETS – DESIGN STANDARDS

### 1. Tables

**Table A: Minimum Design Standards for Courts**

(Design Speed: 20 miles per hour)

	Zoning District	
	Residential	Non-Residential
Minimum Right-of-Way Width	30'	NA
Minimum Pavement Width	20'	NA
Maximum Grade	10%	NA
Minimum Grade	1%	NA
Minimum Sight Distance	120'	NA
Minimum Radius of Centerline Curve	NA	NA
Minimum Length of Vertical Curve	NA	NA
Minimum Curb Radius at Intersection	25'	NA
Cul-de-sacs <sup>1</sup>		
Right-of-Way Diameter	120'	NA
Outside Paving Diameter	100'	NA
Maximum Length of Cul-de-sac	300'	NA

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<sup>1</sup> As an alternative to a cul-de-sac, the Board may allow a T or Y shaped turn-around of a design that would permit a vehicle with a 47 foot outside turning radius and a width of eight feet to reverse its direction without backing more than once.

**Table B: Minimum Design Standards for Lanes**

(Design Speed: 25 miles per hour)

	Zoning District	
	Residential	Non-Residential
Minimum Right-of-Way Width	40'	NA
Minimum Pavement Width	20'	NA
Maximum Grade	10%	NA
Minimum Grade	1%	NA
Minimum Sight Distance	120'	NA
Minimum Radius of Centerline Curve	NA	NA
Minimum Length of Vertical Curve	100'	NA
Minimum Curb Radius at Intersection	25'	NA
Cul-de-sacs <sup>2</sup>		
Right-of-Way Diameter	120'	NA
Outside Paving Diameter	100'	NA
Maximum Length of Cul-de-sac	450'	NA

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<sup>2</sup> As an alternative to a cul-de-sac, the Board may allow a T or Y shaped turn-around of a design that would permit a vehicle with a 47 foot outside turning radius and a width of eight feet to reverse its direction without backing more than once.

**Table C: Minimum Design Standards for Local Streets**

(Design Speed: 30 miles per hour)

	Zoning District	
	Residential	Non-Residential
Minimum Right-of-Way Width	50'	50'
Minimum Pavement Width	24'	28'
Maximum Grade	8%	7%
Minimum Grade	1%	1%
Minimum Sight Distance	200'	250'
Minimum Radius of Centerline Curve	225'	250'
Minimum Length of Vertical Curve	100'	100'
Minimum Curb Radius at Intersection	25'	30'
Cul-de-sacs		
Right-of-Way Diameter	120'	170'
Outside Paving Diameter	100'	150'
Maximum Length of Cul-de-sac	600'	600'

**Table D: Minimum Design Standards for Collector Streets**

(Design Speed: 40 miles per hour)

	Zoning District	
	Residential	Non-Residential
Minimum Right-of-Way Width	50'	50'
Minimum Pavement Width	28'	30'
Maximum Grade	6%	6%
Minimum Grade	1%	1%
Minimum Sight Distance	325'	325'
Minimum Radius of Curve	450'	450'
Minimum Length of Vertical Curve	350'	350'
Minimum Curb Radius at Intersection	30'	30'
Cul-de-sacs	NA	NA

**Table E: Minimum Design Standards for Arterial Streets**  
(Design Speed: 45 miles per hour)

	Zoning District
	Residential and Non-Residential
Minimum Right-of-Way Width	60'
Minimum Pavement Width	36'
Maximum Grade	5%
Minimum Grade	1%
Minimum Sight Distance	450'
Minimum Radius of Curve	800'
Minimum Length of Vertical Curve	450'
Minimum Curb Radius at Intersection	30'
Cul-de-sacs	NA

2. **Street Geometry:** Street geometry (i.e., horizontal and vertical alignment) should be selected to achieve both safe vehicular movement and adequate sight distances for associated design speeds. The design engineer shall demonstrate conformance to this objective by providing tables of calculations, which indicate the resultant sight distances.
3. **Excess Right-of-Way:** Right-of-way widths in excess of the standards designated in the tables may be required whenever, due to anticipated future traffic/loading conditions, additional width is necessary to provide improved alignment.
4. **Temporary Cul-de-sac:** The subdivision design shall provide for continuation of streets between adjacent properties when such continuation promotes the convenient movement of traffic, effective fire protection and emergency vehicle access, efficient snow removal service and efficient provision of utilities.  
  
If the adjacent property is undeveloped and a street must be dead-ended temporarily, the right-of-way shall extend to the property line.
5. **Permanent Cul-de-sac:** If a street will not extend beyond the subdivision boundaries and its continuation is not required for access to an adjoining property, the terminus shall not be nearer the subdivision boundary than fifty (50) feet. A permanent dead-end street shall be provided with a cul-de-sac turnaround in accordance with 6.8.1, Table C.
6. **Reserve Strips:** Reserve strips prohibiting access to streets or adjoining property shall not be permitted except where, in the opinion of the Board, such strips shall be in the public interest.

7. **Intersections:** Streets shall be laid out so as to intersect as nearly as possible at right angles, and in no case at less than a 75-degree angle. New intersections at one side of an existing street shall align directly with any existing intersection at the opposite side of the street whenever feasible. Street intersection jogs with centerline offsets of less than one hundred and fifty (150) feet shall not be permitted.

Street intersections shall be designed with a flat grade (not greater than 3%) for a distance of at least one hundred (100) feet as the street approaches each side, as applicable, of any intersecting street, except that for courts intersecting with lanes or local streets, the grade shall not be greater than 4% for a distance of at least seventy-five (75) feet from the intersection.

The minimum sight distances (in both directions) at all intersections of streets shall be that which is described in the tables in section 6.8.1. Greater sight distances may be required for higher design speeds.

## 6.9 CURBING

Granite curbing shall be provided for the entire length of all new streets. On cul-de-sac turnarounds and at intersections with lanes, collector, or local streets, sloped granite curbing shall be required. Sloped granite curbing shall be required where road grades are over 2% but less than 6%.

Vertical granite curb shall be required at the back of catch basins, on grades over 6%, and at the intersections with arterial streets except that the Board may allow sloped granite curb in lieu of vertical granite curb at the back of catch basins or on grades over 6% if the entire proposed street is being provided with slope granite curb. Reference is made to details of Typical Cross Sections, Curbing Construction Figure II.

## 6.10 DRIVEWAY APRONS

Driveway aprons and road pavement shall be installed at the same time. Aprons shall be placed with concrete when sidewalks are installed, aprons shall extend from the street to the lot. In the event that the driveway aprons cannot be installed at the same time as the street construction, it shall be the responsibility of the applicant to ensure that the driveway aprons are installed, in accordance with the Department of Public Services' standards, prior to the acceptance of the street by City Council.

If a lot is undeveloped, the applicant shall curb the frontage of the lot until such time as the lot owner obtains a street opening permit. The Department of Public Services shall not be responsible for the installation of driveway aprons after the construction of the subdivision streets.

## 6.11 SIDEWALKS

1. **Requirement:** Sidewalks shall be required on both side of the street along all arterials. Sidewalks shall be required on one side of the street along all lanes, courts, local, and collector streets.
2. **Materials:** Where new sidewalks are to be constructed in short sections to connect existing sidewalks, the new sections shall be constructed in accordance with the Department of Public Services' standards.

3. **Americans with Disabilities Act:** All sidewalks and ramps shall conform to the Americans with Disabilities Act (ADA).
4. **Design Standards:** The design and construction of sidewalks shall be based upon the nature and density of development as shown in the following table:

**Minimum Design Standards for Sidewalks**

Street Class	Zoning District	
	Residential	Non-Residential
Courts/Lanes	Meandering <sup>1</sup> , Standard <sup>2</sup> , 4' wide	NA
Local	Meandering, Standard 5' wide	Standard 6' wide in business district or Standard 5' wide in other areas
Collector	Meandering, Standard 5' wide	Standard 6' wide in business district or Standard 5' wide in other areas
Arterial	Standard	Standard 6' wide in business district or Standard 5' wide in other areas
Footnotes:		
<sup>1</sup> Meandering – Following existing terrain and major features such as stone walls, large trees, or rock outcroppings, within the street right-of-way.		
<sup>2</sup> Standard – Uniform width parallel to the street		

**6.12 MONUMENTS**

1. **Requirements:** Monuments shall be installed at all street intersections, at all points of change in direction or at curvature of streets, at two (2) property corners of all new lots, and at any other points where, in the opinion of the Board, permanent monuments are necessary.
2. **Monument Spacing:** Monuments located in the street right-of-way shall be spaced so as to be within sight of each other, the sight lines being contained wholly within the street right-of-way limits. The maximum interval shall be one thousand (1,000) feet.
3. **Monument Materials:** Monuments shall be standard granite markers of not less than four (4) feet in length and not less than five (5) inches square, and shall have a drill hole in the center. If subsoil conditions prohibit installation of four (4) foot monuments, with advance approval by the Board, monuments meeting alternative specifications can be installed. Monuments shall be set flush with the finished grade.
4. **Monument Certification:** No permanent monuments shall be installed until all construction that would destroy or disturb the monuments is completed. Placement and location of bounds shall be certified by a registered professional land surveyor after installation of the street, and shall be shown on the "as-built" or record plans.

### 6.13 UTILITIES - BASIC REQUIREMENTS

1. **Installation:** All utility lines, and/or other subsurface facilities within the street rights-of-way shall be installed prior to the preparation of the street base material.
2. **Identification:** The developer/contractor shall provide and install utility identification tape for all underground utility installations. The tape shall be placed in the trench a minimum of twelve (12) inches above the pipe, conduit, or cable and not less than twelve (12) inches below the finished grade.

Identification tape for utilities shall be traceable, durable, and either non-biodegradable plastic or metallic, and shall be approximately six (6) inches wide by four-thousandths (.004) inches, or four millimeters, in thickness.

The following colors shall be used:

Orange – Gas

Yellow – Electric

Green – Communications, i.e. telephone, cable, and fire alarm

Blue – Water

Red – Sanitary Sewer

3. **Easements:** Wherever necessary, the Board shall require perpetual, unobstructed easements for sewers, storm drains, power lines, and water mains. Such easements shall be a minimum width of thirty feet (30'), centered on the utility, and shall be indicated on the Definitive Plan by metes and bounds.

### 6.14 STORM DRAINAGE

Storm drainage shall comply with DEP Stormwater Management Practices and Best Management Practices (See Appendix H). Drainage systems shall be designed according to the following principles and criteria:

1. **Peak Flows:** Property shall be developed in such a manner as to maximize on-site storm water recharge and to minimize direct overland run-off into adjoining streets and watercourses. Peak flows and run-off at the boundaries of the subdivision shall be no higher following development than before development, for the 10- and 100-year storm events.
2. **Capacity:** Drainage systems shall have adequate capacity to handle all storm water run-off presently flowing through the subdivision, as well as to dispose of any additional run-off generated by the proposed development up to and including the run-off from a 100-year storm using the following methods:
  - a. The flow from storms of up to a twenty-five (25) year frequency and twenty-four (24) hour duration shall be conveyed through the storm drain system on the subdivision site. Storm drain piping and grade inlets shall be designed for a 25-year storm event; and
  - b. Detention facilities and culverts shall be provided to handle all run off, up to and including the run-off generated by the 100-year, twenty-four (24) hour

storms. As a minimum, detention basin routing calculations shall be prepared for the 10- and 100-year storm events.

3. **Release Rate:** The combination of storage and design release rate shall not result in the duration of storage of greater than seventy-two (72) hours. Maximum depth of storm water detention/retention areas shall be four (4) feet.
4. **Outlet Structures:** Outlet control structures shall be designed as simply as possible and shall require as little maintenance as possible for proper operation.
5. **Emergency Overflow:** Each stormwater detention area shall be provided with a method of emergency overflow in the event of a storm in excess of the 100-year frequency type.
6. **Natural Patterns:** Natural drainage patterns shall be used wherever possible. All existing watercourses shall be left as existing unless approval to alter them is obtained through the Conservation Commission. All new open watercourses shall be appropriately seeded, sodded, and rip rapped.
7. **Alteration:** Any alteration of land on the site shall be such that changes in existing patterns of drainage shall not affect properties outside the subdivision by increasing the amount or rate of peak flow.
8. **Structured Systems:** If soil conditions or topography make natural drainage systems impractical and existing drains in adjacent streets or easements have adequate capacity to accommodate the drainage flow from the subdivision, a structured system shall be used and appropriate connection to the existing City drainage system shall be made.
9. **Calculations:** Hydraulic calculations, prepared by a registered professional engineer, shall be submitted to substantiate all design features of any proposed drainage system. Computations for run-off shall be made in accordance with standard engineering practice; acceptable to the DPS Director and/or the Board's designee, and the method of calculation shall be noted.
10. **Basin Side Slopes:** Basin area side slopes shall be kept as close as possible to natural land contours, i.e. ten (10) percent or less wherever possible. A maximum 3:1 side slope may be constructed for the interior of the basin areas. For security purposes, fencing may be required by the Board. Drainage basins shall be designed for easy access for maintenance vehicles and personnel.
11. **Drainage Easements:** If it is necessary to carry drainage across lots within the subdivision, storm drainage easements shall be provided, of such width and construction as will be adequate to accommodate the volume and velocity of the run-off. However, no such easement shall be less than thirty (30) feet in width.

If a proposed drainage system would carry water across land outside the subdivision boundaries to an approved outfall, appropriate drainage rights shall be secured by the developer/contractor at his/her/their expense, and shall be referenced on the DSP.

## 6.15 WATER FACILITIES

1. **Installation:** The developer/contractor shall be responsible for installing water facilities, including but not limited to, water supply, pipes, hydrants, hydrant markers, gates, valves, and all other related appurtenances, in accordance with the DPS Water Division's regulations. Any extension of an existing line and/or creation of a new line require approval from the DPS Water Division. Connections from the main to the exterior line of the street right-of-way shall be constructed for each lot unless the Board of Health has approved individual wells. Said water facilities shall be shown on the DSP.
2. **Fire Hydrants:** All locations and distances shall be at the discretion of both the Fire Department and the DPS Water Division. Fire hydrants with hydrant markers shall be required for all subdivisions. The distances between hydrants may vary between five hundred (500) feet maximum and three hundred (300) feet minimum. Locations will be based on roadway layouts, and available water supply. Approval of locations shall be submitted in writing by both departments and shall be shown on the DSP.
3. **Extensions:** Reasonable provisions shall be made for extension of the water main to adjoining property, including installation of water gates. Appropriate easements may be required.
4. **Additional Alternative System of Water Supply/Fire Protection:** If the municipal water supply is available but the minimum required flow is not available, in addition to extending the municipal water system, the applicant shall propose an alternative system for providing water supply for fire protection.
5. **Municipal Water Supply Not Available:** If the municipal water supply is not available to the subdivision, the applicant shall propose an alternative method of providing water supply for fire protection. Water for firefighting may be supplied by natural or man-made bodies of water.

The surface of each pumping access point shall be adequate to support at least forty-two thousand (42,000) pound vehicles (gross weight) at all times of the year. Provisions shall be made so that such water suction points shall be visible and useable in all weather conditions.

Each dry hydrant, which may be exposed to damage by vehicular traffic, shall be protected by suitable barriers.

## 6.16 SEWER

1. **Installation:** In the event that the municipal sanitary sewer system is located within an existing public way within four hundred (400) feet, as measured along the existing public way or proposed roadway of the subdivision, the developer/contractor shall be responsible for connecting all lots to the sewerage system. Connection to the system shall require an approval from the DPS Sewer Division, and any other required approvals, including, but not limited to, a permit for extension of the sewer system issued by the Massachusetts Division of Water Pollution Control.

2. **Sewer Options:** If the developer/contractor is not required to connect to the municipal sanitary sewer system, the developer/contractor must provide an alternative system for wastewater disposal.

The following options are available:

- a. Install a communal sewage disposal system, the design and construction of which shall be subject to the approval of Massachusetts DEP, the Board of Health and all other necessary review agencies; or
- b. Provide engineering data in accordance with Title V "Minimum Requirements for the Subsurface Disposal of Sanitary Sewage" of the Massachusetts Environmental Code and with the Rules and Regulations for Sewage Disposal Installations as promulgated and amended from time to time by the Board of Health (See Appendix E.), to prove to the satisfaction of the Board and the Board of Health the feasibility of providing private on-lot sewage disposal systems for each lot. Each on-lot system shall be located in the front yard, wherever practical, to facilitate future connections to the municipal sanitary sewer system.

Proponents are advised to check with the DPS Sewer Division to verify that their project complies with all the pertinent rules and regulations.

## 6.17 ELECTRIC AND COMMUNICATIONS LINES

1. **Installation:** All electrical and communications lines shall be installed underground. Communications lines shall include, but not be limited to, telephone and community antenna television cable.
2. **Electric Lines:** The electrical power distribution shall be installed in accordance with DPS specifications in effect at the time of application.

## 6.18 MAILBOXES

Mailboxes servicing the new residential units shall be clustered together at the main entry point to the new subdivision. There shall no individual mail boxes on the new residential units within the subdivision.

## 6.19 TREES AND OTHER PLANTINGS

1. **Location:** Street trees shall be required to be planted, at the expense of the developer/contractor, on all streets within the tract being subdivided. Trees shall be planted within the street right-of-way, and shall be spaced at intervals of approximately fifty (50) feet on center, but no closer than thirty-five (35) feet on center. The planting of street trees within the street right-of-way by abutting property owners is permissible provided that the Tree Warden grants written approval and that the selection and location of said trees are in accordance with the provisions of the tree regulations as found in City Ordinances, Article VI, Chapter 12, and the list of acceptable trees.
2. **Species:** The species of street trees selected shall be of Zone 6 hardiness and shall be of licensed nursery stock with good root development and branching characteristics,

and with one-year warranty. Existing trees may be preserved as street trees if inspected and approved by the Tree Commission.

3. **Size:** The minimum size of street trees shall be two and one-half (2 ½) inches in caliper, measured four and one half (4.5) feet from the ground level and eight to ten (8-10) feet in height, in place.
4. **Planting:** Street trees shall be planted in holes at least six (6) inches deeper than and one and one-half (1 ½) times as wide as the root ball. Trees shall be planted at their previous depth in good quality topsoil and shall be securely staked (See Figure 6).
5. **Slopes:** All cut-and-fill slopes within or contiguous to the street right of way shall be planted with suitable, well rooted, low growing plant materials or grass as determined by the Board. A wood chip or comparable mulch shall be used with ground cover plants to minimize erosion. Planting of sod may be required.
6. **Cleared Areas:** All cleared areas of the street right-of-way not to be planted with ground cover, and all disturbed area within public easements, shall be loamed with not less than six (6) inches compacted depth of good quality loam and shall be seeded with turf grass seed or such mixture as may be approved by the Board or its designee. Seeding shall be completed at appropriate times of the year and in such a manner as to insure an appropriate growth of grass. (Appendix I - Rules and Regulations Governing Soil Erosion and Sediment Control)
7. **Compliance with Tree Ordinance:** Unless otherwise waived by the Tree Warden, all planting, replacement, maintenance, and other work on public trees shall comply with the city's tree regulations as found in the City Ordinances, Article VI, Chapter 12, regardless of whether such work shall be done by private individuals, corporations, public utility companies, contractors, or city officials and employees.

## **6.20 GUARD RAILS**

Guardrails shall be installed in all areas where fill slopes are in excess of 3:1. Appropriate slope treatment and erosion control measures shall be provided for all slopes in excess of 3:1 and riprap may be installed on all slopes in excess of 2:1, unless otherwise specified by the Board.

## **6.21 STREET SIGNS**

Street signs shall be installed at all intersections in conformity with the specifications of the DPS. Until such time as each street is accepted by the City as a public way, the signposts at the intersection of each street with any other street, shall have affixed thereto a sign designating such street as a private way. Upon application for acceptance of the streets, the costs for advertising for hearing, for data collection in support of the street acceptance, for permanent signs and for any other costs related to the acceptance of the street shall be borne by the applicant.

## **6.22 STREET LIGHTING**

Provisions shall be made for street lighting connections at locations determined by the Board upon consultation with the DPS and the local utility company. All installations shall be in accordance with the regulations of said departments.

### **6.23 RESERVATION OF LAND FOR PUBLIC PURPOSE**

No rule or regulation shall require, and no Planning Board shall impose, as a condition for the approval of a plan of a subdivision, that any of the land within said subdivision be dedicated to the public use, or conveyed or released to the Commonwealth or to the county, city or town in which the subdivision is located, for use as a public way, public park or playground, or for any other public purpose, without just compensation to the owner thereof.

Before approval of a plan by the Board, said board shall 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 and not unreasonable in area in relation to the area of the land being subdivided and the prospective uses of such land, and if so determined said board shall be appropriate endorsement on the plan require that no building may be erected on such park or parks for a period of not more than three years without its approval.

## **APPENDICES**

## APPENDIX A: STREET CONSTRUCTION SPECIFICATIONS

### A. ROADWAYS

1. **Clearing and Grubbing:** The entire area of each right-of-way shall be cleared of all stumps, brush, roots, and boulders and like material, and all trees not intended for preservation. Existing trees within the area of the right-of-way may be selected for preservation for aesthetic or other values by the Board or its designee, provided that they shall be over four (4) inches in caliper and shall be located at least five (5) feet from the edge of the finished roadway pavement. No trees shall be removed until said selection is made. Such trees to be preserved shall be protected from bruises and other abuses continuously throughout the construction of the subdivision in a manner satisfactory to the Board or its designee.
2. **Excavation and Subgrade Preparation:** All top and other unsuitable soils shall be removed for the full length and width of the paved roadway and from under the sidewalk location when sidewalks are required regardless of whether or not the finished grade is above existing grade.

All other material shall be removed for the full length and width of the roadway to a depth of at least fifteen inches (15") below the existing grade as shown on the profile plan; provided, however, that if the soil is soft and spongy or contains undesirable material such as clay, peat, sand pockets, tree stumps, or any other material detrimental to the subgrade, a deeper excavation below the subgrade shall be made as required by the Board's outside consultant or the DPS Director.

3. **Utilities:** With the roadway at the subgrade level, all pipes and underground services shall be laid. Connections for sewer, drain, water, gas, telephone and electric services, where municipal services are available, shall be constructed for each lot (whether or not there is a building there) from the main service line in the way to five (5) feet beyond the exterior line of the way, except that the Board may waive such requirement in whole or in part in the case of a lot to be used for a park, playground, or for any other purpose for which, in the opinion of the Board, such connections shall not be required.
4. **Grading:** All roadways shall be brought to a finished grade as shown on the profiles of the DSP or other design with gravel as specified below to a width of eight (8) feet wider than the required paved roadway except where curbs are used. The roadway crown shall have a minimum of one-quarter (1/4) inch per foot of pitch.
5. **Gravel Base:** After the roadway has been carefully graded to an elevation fifteen (15) inches below the finished grade, twelve (12) inches of base gravel shall be spread and rolled with a roller of sufficient weight to achieve ninety five (95) percent compaction. Gravel shall be in conformity with the most recent "Standard Specifications for Highways and Bridges" of the MassDOT and shall consist of hard, durable stone, and coarse sand practically free from loam and clay, uniformly graded and containing no stone having a dimension greater than three (3) inches or as specified by the Board's outside consultant or the DPS Director. The gravel shall be spread in two six (6) inch layers; each thoroughly compacted to ninety-five (95) percent Proctor density and true to line and grade.

The gravel shall conform to the following requirements:

Sieve	Percent Passing
3 inches	100%
½ inch	50% - 85%
3/8 inch	45% - 80%
No. 4	40% - 75%
No. 10	30% - 60%
No. 40	8% - 35%
No. 200	0% - 8%

If in-situ material meets the specifications of the MassDOT, it may be used as a base material. Upon request, the Board may allow recycled asphalt for the base in lieu of gravel. If allowed, the recycled asphalt will be subject to the review and approval of the DPS Director. All banks and curves must be established before the standard base course can be applied.

6. **Pavement or Wearing Surface:** The wearing surface shall consist of two courses of Class I, Type I-1 plant-mixed bituminous concrete, composed of materials and prepared in conformity with the specifications of the MassDOT. It shall be spread, rolled, and compacted in two (2) courses, in quantities as specified in Figure 1.
7. **Guard Rails and Posts:** Guardrails and posts shall be of the steel beam highway guard type SS as specified by the MassDOT Standard Specifications for Highways and Bridges (1973), as amended (See Figure 3 for typical detail). Where appropriate, the Board, upon recommendation from the DPS Director, may allow the above specified steel guardrail to be faced with wood and/or all the use of wooden guardrails and posts. Public safety and visual attributes shall be considered in granting the use of wooden guardrails.

**B. CURBING**

Permitted curbing shall be straight granite, sloped granite as shown in Figure 2 "Typical Cross Section Curbing Construction."

**C. SIDEWALKS**

1. **Preparation:** All materials shall be removed for the full width of the sidewalk to a subgrade fifteen (15) inches below the finished grade. All soft spots and other undesirable material below such subgrade shall be removed. This excavated area then shall be filled with base gravel material in accordance with the specifications outlined above for the roadway base.
2. **Surface:** Concrete sidewalks: the wearing surface shall be three-thousand (3,000) pound strength concrete, four (4) inches in thickness, reinforced with No. 10, six (6) inch by six (6) inch mesh and broom finished. An expansion joint (3/4" open) shall be provided at least every twenty (20) feet; dividing joints shall be scored into the sidewalk every four (4) feet.

**D. SIDEWALKS, PATHWAYS, AND BICYCLE PATHS**

Wherever pedestrian pathways or bicycle paths are provided for in the DSP, construction shall be as required by the Board. All edges of concrete pathways shall be formed with wood, which shall be securely anchored and left in place.

## **APPENDIX B: SURFACE WATER DRAINAGE INSTALLATION SPECIFICATIONS**

The surface water drainage system, which is to provide adequate disposal of surface runoff from the street and adjacent areas, shall be installed in accordance with the following specifications:

### **A. PIPES, CULVERTS, AND DRAINS**

Pipe for the construction of culverts and drains shall be reinforced concrete. All pipes shall not be less than twelve (12) inches in diameter. Pipe joints shall be carefully made so that the spigot is tightly butted to the seat of the bell and the spacing between the spigots is uniformly proportioned and caulked with loose or braided jute. In all cases, the joints shall be filled with cement.

Pipes shall be laid in a bed of six (6) inches of gravel or crushed stone. All utility trenches shall be backfilled with bank gravel carefully compacted and shall be leveled with adjacent grades. When pipes, culverts, or drains are not located in the street or street shoulder, six (6) inches of loam shall be placed over the trench fill, and the grades shall be leveled with adjacent terrain. All drains shall be laid to uniform grades and shall be carefully backfilled so that the pipe is supported throughout its entire length with compacted earth. Earth cover shall be a minimum of three (3) feet, except where a greater pipe strength is requested and approved by the board.

### **B. CATCH BASINS**

All catch basins shall have a three (3) foot sump and shall discharge into manholes. The distance between two (2) catch basins shall not exceed three hundred (300) feet; however, the Planning Board may approve a greater distance if deemed advisable due to unusual field conditions and justifiable by calculations.

The materials and construction of catch basins and drain manholes shall conform to the "Standard Specifications for Highways and Bridges", published by the MassDOT. Any change in alignment or grade, if not normally the location of a catch basin shall be made by using a standard manhole conforming to the above specifications. Catch basins and drain manholes shall be constructed of pre-cast concrete. Drain manholes shall contain ladder rungs and brick and/or concrete inverts. Catch Basins and sewer manhole structures shall have a minimum of a forty-eight (48) inch interior diameter.

## **APPENDIX C: SPECIFICATIONS FOR INSTALLATION OF ELECTRICAL SERVICES**

### **A. Underground Distribution System in Residential Subdivisions**

Upon application to the local electric utility company and subject to the provisions hereinafter specified, an applicant proposing to construct a residential subdivision, which has been approved by the Board with regard to design feasibility, shall extend underground wiring for light, power, and street lights throughout the subdivision where no other electric distribution system is in existence.

All provisions hereinafter set forth apply to subdivisions consisting of front lot distances measuring an average of not more than two hundred (200) feet. For lots over two hundred (200) feet frontage, additional terms, conditions, and/or costs may apply.

### **B. Applicant's Responsibilities**

The applicant's cost and responsibilities shall be to:

1. Present to the Office of Planning and Community Development at least two (2) sets of the PSP and/or DSP showing the subdivision as proposed, including the location and depth of electric service lines and all other underground installations such as water, sewer, and drainage as are required in said plans. The approximate schedule for subdivision completion shall be noted.
2. If a DSP is approved, provide the Office with lines, grades, permanent easement(s), and partial release of mortgage from any mortgage for the location and installation of hand holds, manholes, transformer vaults, cable, ducts, street lighting fixtures, and other necessary equipment.
3. Install all underground wires and structures in accordance with the National Electric Code. All work shall be installed by an electrician licensed by the Commonwealth of Massachusetts. All work shall be reviewed and approved by the local electric utility company.
4. Obtain adequate ties to underground conduit prior to backfilling, to plot the location of all underground conduits on the as-built drawings for the street.
5. Provide for each residential lot owner service installation(s) as required by the local electric utility company.
6. Provide, as necessary, temporary sixty (60) ampere structures in conformity with the design and requirements shown in Figure 5.

No extension shall be made under the above provisions until the applicant furnishes the local electric utility company and the Board with a set of plans for the subdivision and the necessary permanent easement(s) or right(s)-of-access, which bear no cost to said office.

**APPENDIX D: WATER RULES AND REGULATIONS**

This appendix is on file with the City Clerk

**APPENDIX E: SEWER REGULATIONS**

This appendix is on file with the City Clerk.

**APPENDIX F: HEALTH REGULATIONS**

This appendix is on file with the City Clerk.

## **APPENDIX G: TREE PLANTING SPECIFICATIONS**

1. All street trees shall be planted within the right-of-way lines of a street except, when upon the written consent of the owner, trees may be planted upon private property up to twenty (20) feet from the right-of-way lines. The planting of street trees within the street right-of-way by abutting property owners is permissible provided that the Tree Warden grants written approval and that the selection and location of said trees are in accordance with the provisions of the tree regulations as found in City Ordinances, Article VI, Chapter 12, and the list of acceptable trees.
2. If the planting of trees is required, the distance apart shall be a minimum of thirty-five (35) feet on center and a maximum of fifty (50) feet on center.
3. All trees to be planted shall have a minimum height of eight to ten (8-10) feet and shall be of at least two and one half (2 ½) inches in caliper measured at a height of four and one half (4.5) feet from the ground level.
4. The specie and variety of the trees to be planted shall be selected and approved by the Planning Board upon consultation with the Tree Warden.
5. No evergreen trees such as pine, fir, spruce, or hemlock shall be planted as public shade trees along a way.
6. No trees or shrubs shall be planted at any corner or intersection where it could become a traffic hazard by obstructing vision or preventing safe vehicular movement.
7. All cut bankings that tend to wash or erode shall be planted with a low-growing evergreen shrub such as laurel, mugho pine, or juniper and shall be seeded with a deep-rooted perennial grass to prevent erosion.
8. All trees shall be planted in one-half (½) of a cubic yard of loam, mulched with four (4) inches of chips and shall be properly wrapped and guyed in a manner to ensure their survival (see Figure 6).
9. In a subdivision, the applicant shall be liable for all plant materials as to their stature and good health for one (1) year after its installation as determined by the Board and/or its designee.
10. Unless otherwise waived by the Tree Warden, all planting, replacement, maintenance, and other work on public trees shall comply with the tree regulations regardless of whether such work shall be done by private individuals, corporations, public utility companies, contractors, or city officials and employees.

## **APPENDIX H: RULES AND REGULATIONS GOVERNING STORM WATER MANAGEMENT**

### **A. Purpose and Intent**

The purpose and intent of stormwater management shall include:

1. Quantitative control of stormwater runoff, consisting of a system of native species vegetation and structural measures that control the increased volume and rate of surface runoff caused by man-made changes to the land; and
2. Qualitative control of stormwater runoff, consisting of a system of native species vegetation, structural or other measures that reduce or eliminate pollutants that might otherwise be carried off by surface runoff.

### **B. Application**

The applicant shall follow all regulations and policies for proper stormwater management for the following all new subdivisions.

### **C. Submission Requirements**

The applicant shall be responsible for providing applicable information in compliance with of the Rules and Regulations Governing the Subdivision of Land in Newburyport, Massachusetts.

Information to be provided shall include:

1. All storm drainage information in accordance with §6.14 of these Rules and Regulations;
2. Detailed description of the existing environmental and hydrological conditions of the site and of the receiving waters and wetlands. This information shall include, but not be limited to, the following:
  - i. The direction, flow rate, and volume of surface runoff under existing conditions and, to the extent practicable, pre-development conditions;
  - ii. The location of areas of the site where stormwater collects or percolates into the ground;
  - iii. A description of all surface watercourses, water bodies, and wetlands on or entering the site, or adjacent to the site, or into which stormwater flows. Information regarding their water quality and current water quality classification shall be included;
  - iv. Depth of seasonal groundwater levels, approximate direction and rate of flow, seasonal fluctuations;
  - v. Location of 100-year flood zones/plains;
  - vi. Principal vegetation types;
  - vii. Topography described in full contour detail, at two (2) foot intervals, with area of steep slope (i.e. over 10%) highlighted; and
  - viii. Soils, with an accompanying analysis of the best use potential of the soils and the hydrological group classification. The soil map and use

potentials analysis prepared by the U.S. Soil Conservation Service shall be used as the basis for this analysis.

3. Proposed alterations of the site shall be described in detail including, but not limited to, the following:
  - i. Changes in topography, described in full contour, with details at two (2) foot intervals;
  - ii. Areas where vegetation will be cleared or otherwise altered; and
  - iii. Areas that will be covered with an impervious surface and a description of the surfacing material(s).
4. The proposed development layout shall be described in detail including, but not limited to, the following:
  - i. The site arrangement including the location of structures, roadways, parking areas, sewage disposal facilities, and undisturbed lands; and
  - ii. All drainage systems to be provided, including the location and design of the roadway and individual lot subdrains and full drainage calculations and supporting documentation.
5. Predicted impacts of the proposed development on existing conditions shall be described in detail and shall include:
  - i. Changes in water quality including, but not limited to, ground and surface water;
  - ii. Changes in groundwater levels;
  - iii. Changes in the incidence and duration of flooding on the site and upstream and downstream from it;
  - iv. Adverse impacts on wetlands; and
  - v. Impacts on vegetation.
6. All components of the drainage system and any measures for the detention, retention, or infiltration of water and/or for the protection of water quality shall be described in detail, including the following:
  - i. The channel, direction, volume, and rate of flow and the quality of stormwater that will be conveyed from the site, with a comparison to existing conditions and to the extent practicable, pre-development conditions;
  - ii. Detention and retention areas and devices, including:
    - a. Plans for discharge of contained waters, including the time to draw down from full condition, and description of outlet structures;
    - b. Maintenance plans: including maintenance schedule, an outline of responsible parties and owners, and all pertinent information and/or agreements to be executed to insure proper maintenance; and

- c. An evaluation of the pollutant removal efficiency of such devices under the existing conditions;
  - iii. Areas of the site to be used or reserved for percolation including the depth to seasonal groundwater table, and prediction of the impact on groundwater quality;
  - iv. Areas to be utilized in overland flow, the hydrological soil type of such areas, vegetation present, and the soil susceptibility to erosion; and
  - v. Any other information, which the applicant or the Board believes, is necessary for an evaluation of the development.
7. Nitrogen and/or Phosphorus Loading Report: For review of water quality impact, an applicant shall submit calculations of anticipated nitrogen and/or phosphorus contribution from roads, lawns, and septic systems. The applicant must determine the "carrying load" or ability to absorb nitrogen and phosphorus loading of all receiving water systems on site.

#### **D. Performance Standards**

The Stormwater Management Report submitted must demonstrate that the proposed development or activity has been planned and designed and shall be constructed and maintained, to the extent that is reasonably possible, to meet each of the following standards:

1. Ensure that after development that no detrimental effects shall be created or caused by the proposed development;
2. Maintain the natural hydrodynamic characteristics of the watershed;
3. Protect or improve the quality of surface and ground waters;
4. Protect, maintain, or improve water quality or existing water quality standards for all receiving waters, water courses and water bodies;
5. Protect and maintain groundwater levels;
6. Protect the beneficial functioning of wetlands as areas for natural storage of flood waters, the chemical reduction and assimilation of pollutants and wildlife and fisheries habitat;
7. Prevent increased flooding and damage that results from improper location, construction, and design of structures;
8. Prevent reverse salt water intrusion;
9. Protect the natural fluctuating levels of salinity in estuarine areas;
10. Minimize alteration to flora and fauna and adverse impacts to fish and wildlife habitat; and
11. Otherwise further the objectives of the Stormwater Management Policies and Regulations.

#### **E. Design Standards**

The design, construction, and maintenance of stormwater systems shall be consistent with the following:

1. Discharging runoff directly into rivers, streams, watercourses, or enlarging the volume, rate, or further degrading the quality of existing discharges/runoff is prohibited. Runoff shall be routed through vegetated swales, using native species and other structural and nonstructural systems designed to increase time of concentration, decrease velocity, increase infiltration, and allow suspended solids to settle and remove pollutants. Such systems will utilize overland flow and re-infiltration as priority techniques for the treatment of run-off;
2. Retention and detention ponds, and methods of overland flow may be used to retain, detain, and treat the increased and accelerated runoff that the development generates;
3. There shall be a minimum of two (2) feet of naturally occurring soils between the detention basin bottom and the maximum annual ground water table;
4. Water shall be released from detention ponds at a rate and in a manner approximating the natural conditions that would have occurred before development;
5. Intermittent water courses such as swales shall be vegetated;
6. The first one (1) inch of runoff from impervious surfaces, such as rooftops and paved surfaces, shall be treated in the site of the development;
7. Runoff from parking lots and streets shall be treated to remove oil and sediments. Catch basins shall be provided with hoods; in the alternative, drainage outfalls shall discharge to low velocity "vegetated treatment" swales;
8. The use of drainage facilities and vegetated buffer zones as open space and conservation areas shall be encouraged; and
9. Neighboring properties shall not be affected by flooding from excessive runoff.

**F. Detention/Retention Basins**

1. Performance Standards: The performance standards shall include the following:
  - i. Development shall be oriented to the site so that cutting and stripping of vegetation and grading are minimized;
  - ii. Temporary seeding, mulching or other suitable stabilization methods shall be used to protect exposed areas during construction; as feasible, natural vegetation shall be retained and protected; during the months of October through March, when seeding and sodding may be impractical, an anchored mulch shall be applied as approved by the Board or by the Board's outside consultant; diversions and/or prepared outlets may be required in critical areas during construction.
  - iii. Soil and other materials shall not be stockpiled or redistributed, either temporarily or permanently, in locations or in such a manner as would cause suffocation of tree root systems;

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- iv. Erosion and sediment controls shall be coordinated with the sequence of grading, development and construction operations; control measures shall be in effect prior to commencement of each increment/phase of the process;
- v. No area shall be cleared larger than that portion on which construction can be completed rapidly; large areas shall not be left bare and exposed for long periods of time;
- vi. Grading shall be kept to a minimum; tree removal shall be minimized;
- vii. Runoff shall be controlled and conveyed into storm drains and other outlets so it will not erode the land or cause off-site damage; sediment in runoff shall be trapped by using staked hay bales, silt fencing, or sedimentation traps;
- viii. Sediment basins shall be constructed where necessary to detain runoff and to trap sediment during construction;
- ix. Permanent vegetation and erosion control structures, as necessary, shall be installed preferably immediately after construction is completed but otherwise no later than the first full spring season immediately thereafter; they shall comply with the erosion and sedimentation vegetative practices recommended by the U.S. Soil Conservation Service;
- x. Temporary ground cover or erosion/sedimentation controls shall be established on any unbolt lots as required by the Board;
- xi. Native species shall be used for re-vegetation;
- xii. All graded areas beyond the Street Right-of-Way shall be covered with four (4) inches of topsoil and planted with a native species of vegetative cover, sufficient to prevent erosion; and
- xiii. Topsoil shall be stripped from disturbed areas, stockpiled in approved areas, and stabilized with temporary vegetative cover if it is to be left for more than thirty (30) calendar days; perimeter sediment controls shall be installed around each area of stockpiled topsoil.

### 2. Design Standards

- i. Soil erosion control structures shall not be located in a front yard or side yard bordering a street;
- ii. Structures should be designed to preclude the necessity for perimeter security fencing;
- iii. The slope of any bank should not be greater than three (3) to one (1);
- iv. The greatest depth of water in a detention pond during a 100-year design storm shall not exceed four (4) feet; release rates shall comply with the provisions of Section 6.14; and
- v. Groundwater recharge systems shall be utilized whenever feasible.

3. Maintenance Standards – Prior to Acceptance

- i. As required by the Board, all control structures and associated systems shall be inspected for functionality and damage at least twice each year by the Board's outside consultant(s) and the costs for such inspection shall be borne by the applicant;
- ii. The applicant shall be responsible for cleaning sediment and debris from catch basins at least annually; additional cleaning may be required by the Board;
- iii. The applicant shall be responsible for removal of trees, bushes, and /or other growth in the sedimentation basins, and for keeping live native species vegetative cover on the banks of such basins. Replacement for dead vegetative cover and re-seeding shall be completed promptly;
- iv. The applicant shall repair or replace any damaged system to the satisfaction of the Board; the applicant shall be responsible for any damage due to flaws in design or construction; and
- v. The applicant shall be responsible for cosmetic maintenance such as periodic mowing of grassed areas in sedimentation basins.

4. Acceptance of the System

Prior to any acceptance by the City, the control structures shall be subject to a final inspection by the Board's outside consultants; the cost of inspection shall be borne by the applicant; the inspection shall assure compliance with the following elements:

- i. The system has been constructed in accordance with the plans approved by the Board;
- ii. All construction debris has been removed;
- iii. Sediment has been flushed from pipes by a pressure wash;
- iv. Catch basins and detention/retention structures are free of sediment; and
- v. Ground cover is fully established on banks.

No release of security for erosion and sedimentation control measures shall be granted until the Board is satisfied that the systems comply with the plans. If, as a result of the final inspection, the applicant is found to be in non-compliance with the plans, the Board may use the security to assure that the control system(s) is/are brought in to conformance and is/are cleaned and maintained properly in accordance with the plans.

5. General Requirements

The applicant shall secure future maintenance of the stormwater system by a proper bond or by a deposit or money of an amount as determined by the Board. Such security must be established to the satisfaction of the Board prior to release of any lots within the development and prior to the Board's sign-off of building permit.

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In the event that the applicant does not follow maintenance procedures and programs as approved by the Board, the Board shall have the authority to expend any portion of said security to provide such maintenance.

In the event that the stormwater system is accepted by the City or any private association and/or trust, and, therefore the City or a private association and/or trust, assumes the ownership of said system, any remaining portion of this security may be refunded to the applicant or the homeowner's association as deemed appropriate by the Board.

## **APPENDIX I: RULES AND REGULATIONS GOVERNING SOIL EROSION AND SEDIMENTATION CONTROL**

### **A. Purpose and Intent**

These regulations are to prevent adverse environmental impacts due to erosion, soil loss, and sedimentation, including secondary and cumulative, caused by alterations to vegetation and soil surfaces during land development.

Sedimentation and erosion control structures are required to prevent sediment from clogging stormwater/drainage systems and road ditches. These structures also prevent sediment from entering ponds, streams, reservoirs, watercourse, wetlands, and other critical resource within which it is a pollutant. In many cases, these structures detain stormwater runoff, thus preventing flooding of downstream areas.

Responsibility for periodic inspection, maintenance, and repair of these control structures and systems to insure they continue to operate consistent with approved design lies solely with the Applicant, until such time as the street(s) and all other improvements in the subdivision are accepted by the city.

### **B. General Requirements**

If the applicant's proposed development creates six (6) or more house lots or otherwise requires submission of an Environmental and Community Impact Analysis pursuant to §5.6 of these Rules and Regulations, the applicant shall submit a separate plan therewith, which shall contain the elements as listed in said section and which complies with all other provisions of this appendix. All subdivision applications must comply with the Performance, Design, and Maintenance Standards and be subject to final inspection before acceptance, as specified herein.

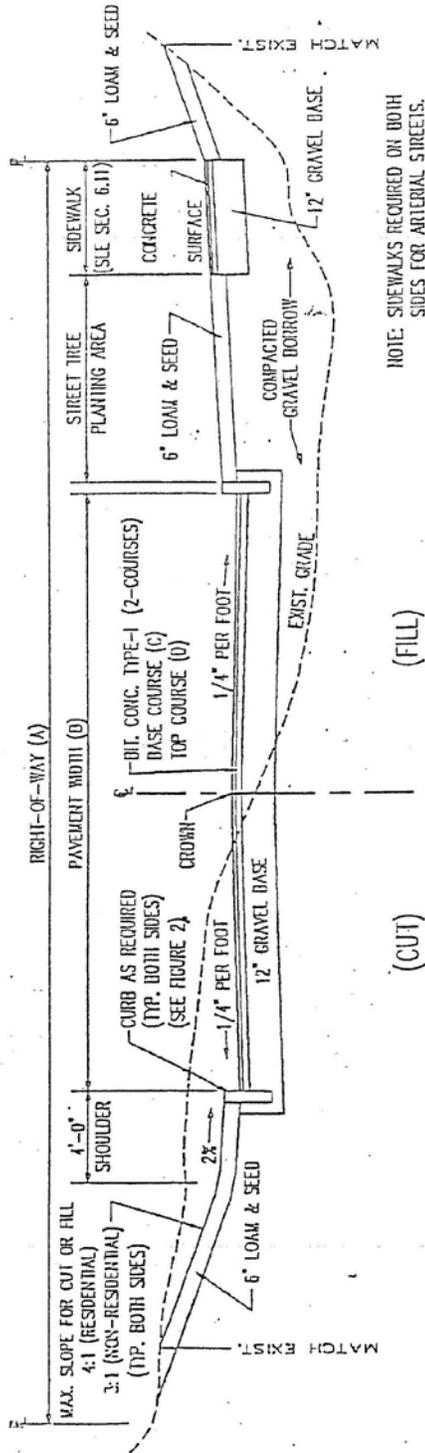
1. The applicant shall submit an erosion/sedimentation control plan, which shall include the following:
  - a. Existing and proposed grades, elevations, and contours;
  - b. Location and description of existing natural and manmade features on the property and within one hundred (100) feet of the property;
  - c. Perimeters of the areas affected and the types of controls proposed within each affected area;
  - d. A soils survey or soils engineering report;
  - e. A schedule of the sequence of installation or application of planned erosion controls, both temporary and permanent, relative to the proposed improvements as the project progresses;
  - f. A slope stabilization and re-vegetation plan which shall include: a description of the existing vegetation; the vegetation to be removed and the method of disposal; the native species vegetation to be planted; and the slope stabilization measures which are to be installed; the plan also shall assess the environmental effects of such operations on slope stability, soil erosion and water quality;

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- g. A maintenance schedule for erosion/sedimentation controls until street construction is completed and until the street(s) is accepted by the City or other entity;
- h. Details and, if applicable, cross sections of erosion/sedimentation control devices;
- i. Perimeter delineation of any drainage ways, steep slopes and proposed stockpiles of topsoil, to be restored and/or seeded;
- j. A note on the plan stating that temporary ground cover and/or erosion/siltation control shall be established on any unbuilt lots as required by the Board; and
- k. A note on the plan that the erosion/sedimentation control plan and associated information is referenced on the DSP.

## **FIGURES**

**FIGURE 1: TYPICAL CROSS SECTION FOR STREET CONSTRUCTION**

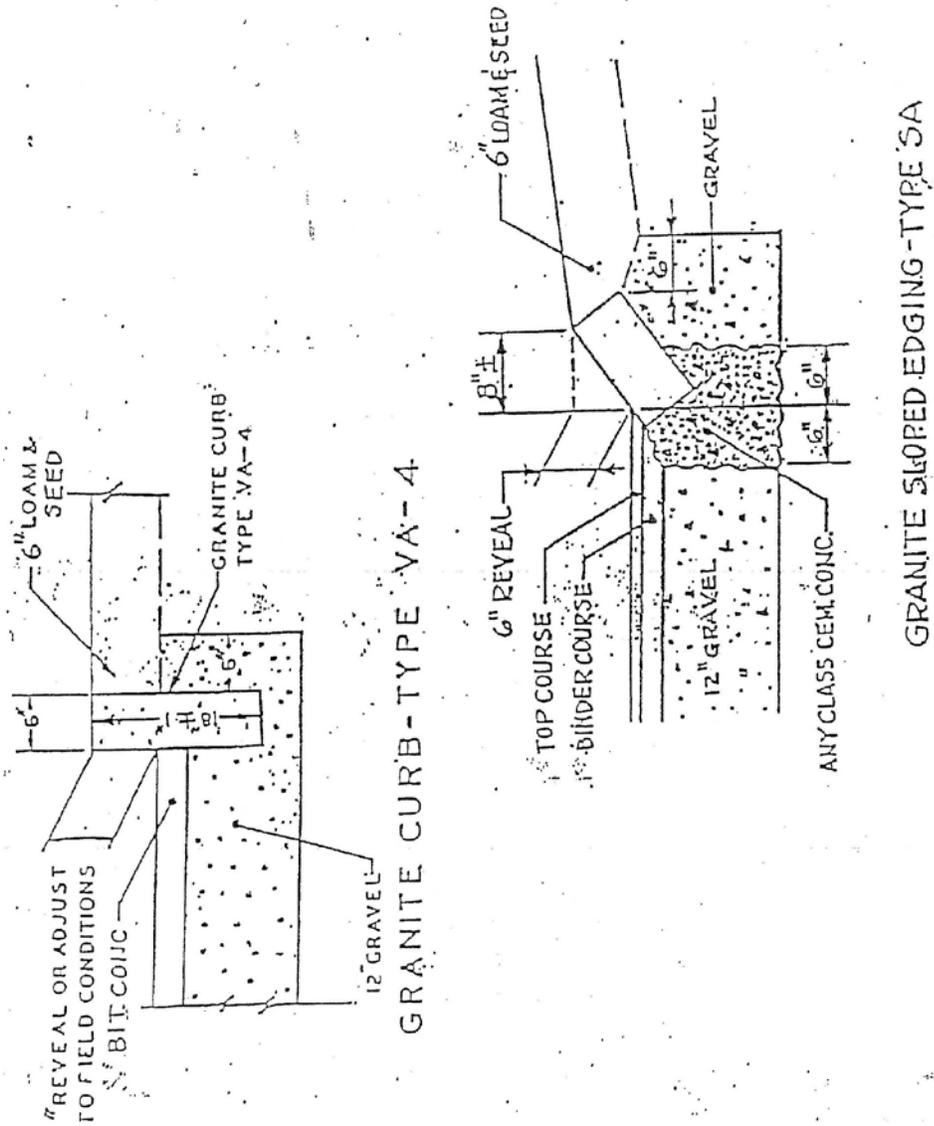


TYPICAL ROADWAY SECTION - SEE TABLE BELOW  
NOT TO SCALE

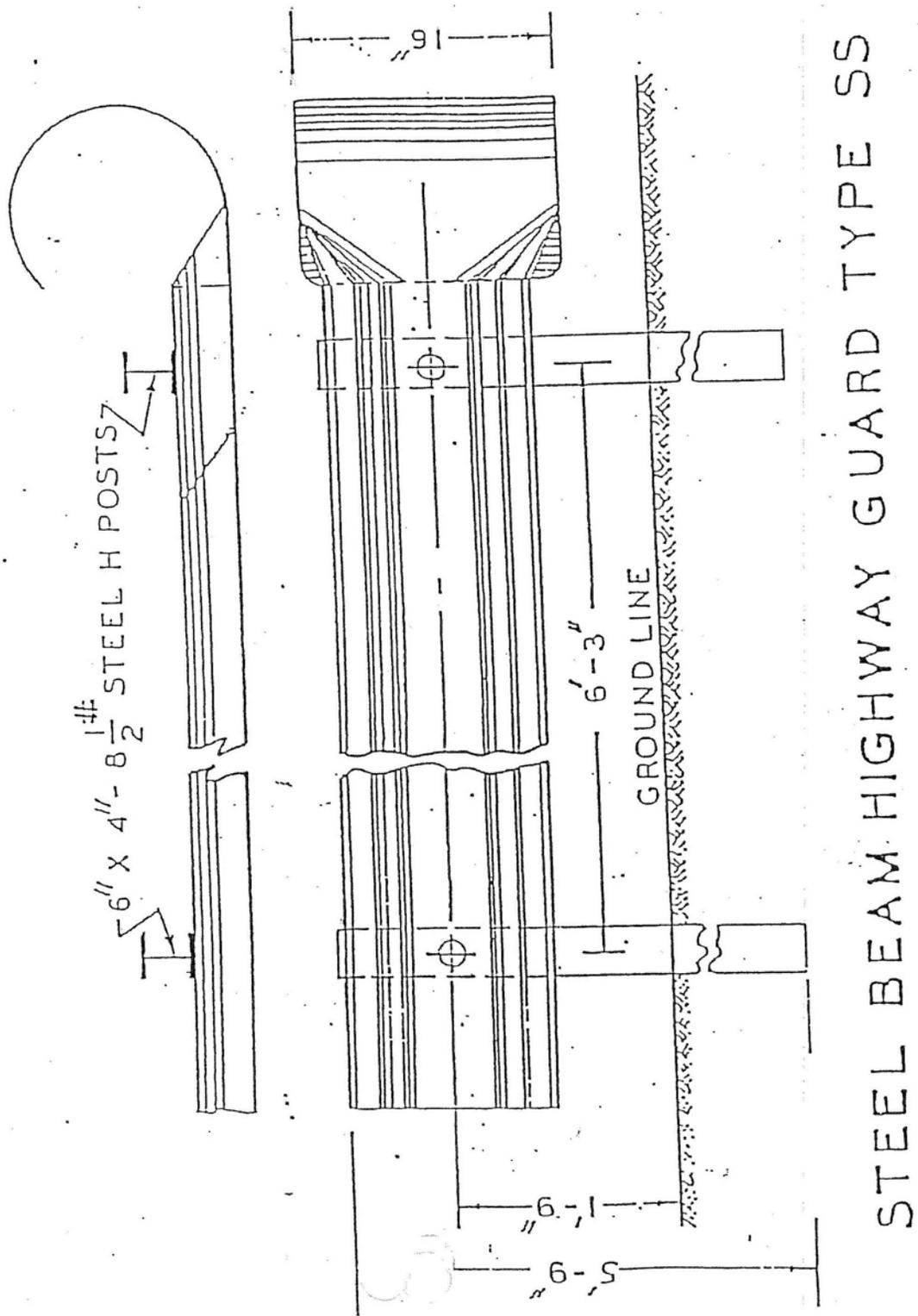
TYPE OF STREET	R.O.W. WIDTH (A)	PAVEMENT WIDTH (B)	PVMN'T BASE COURSE (C)	PVMN'T TOP COURSE (D)
Local - Residential	50'	24'	2"	1"
Local - Non-Residential	50'	28'	2"	1 1/2"
Collector - Residential	50'	28'	2 1/2"	1 1/2"
Collector - Non-Residential	50'	30'	3"	2"
Arterial	60'	36'	3"	2"

REVISED 01/25/1999

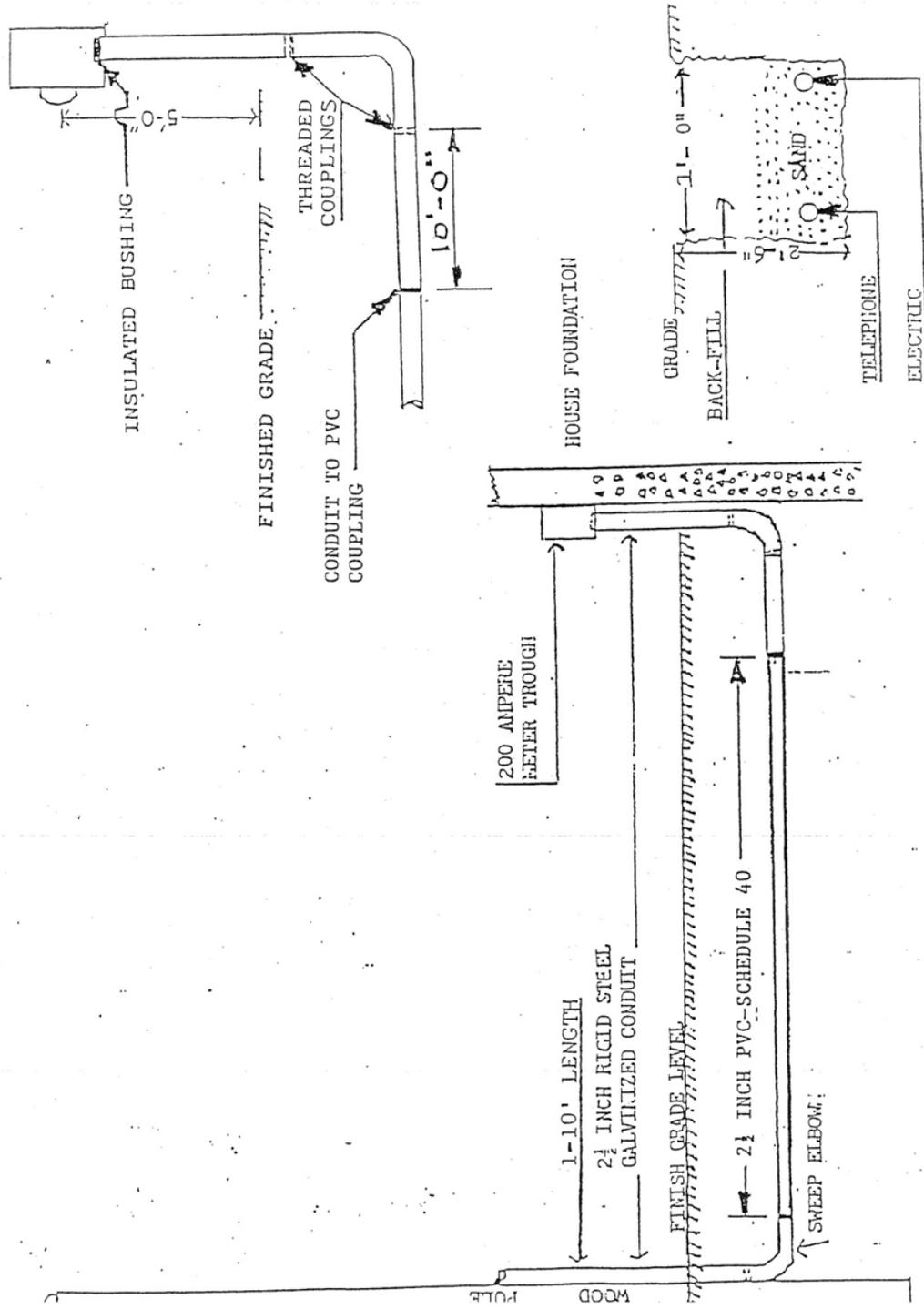
**FIGURE 2: TYPICAL CROSS SECTIONS, CURBING CONSTRUCTION**



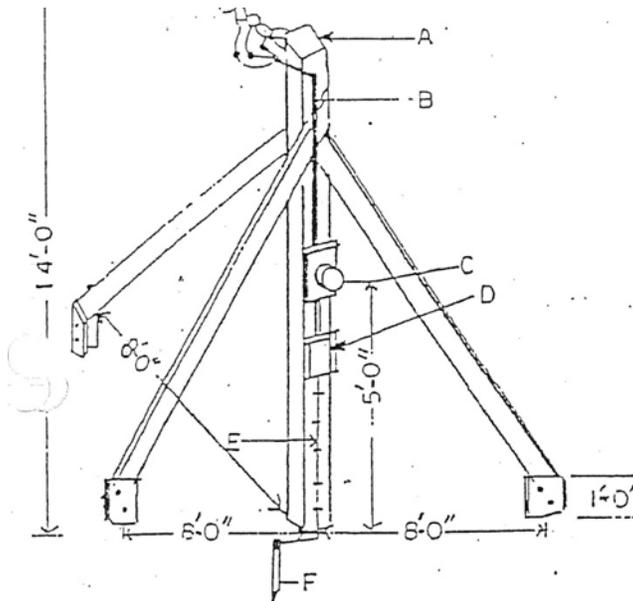
**FIGURE 3: TYPICAL DETAIL, GUARD RAIL CONSTRUCTION**



**FIGURE 4: SINGLE FAMILY HOME UNDERGROUND ELECTRICAL SERVICE DETAIL**



**FIGURE 5: TEMPORARY 60 AMP. SERVICE STRUCTURE**



- A. 4" x 6" x 15' minimum wood service structure with braces and stakes.
- B. Service entrance cable; #6-3 wire copper SEU or #4-3W aluminum SEU.
- C. Meter trough; meter shall be provided by the Electric Dept.
- D. Service equipment - min. 60 AMP. with ground fault interrupter.
- E. #8 minimum copper grounding conductor.
- F. 5/8" diam. x 8' copperweld ground rod driven 6'-0" min. into ground.

Service drop conductors shall have the following minimum clearance from ground:

- 10' above finished grade, sidewalk or from any platform or projection from which they might be reached.
- 12' over residential driveways and commercial areas and parking lots not subject to truck traffic.
- 15' over commercial areas, parking lots, agricultural or other areas subject to truck traffic.
- 18' over public streets, alleys, roads and driveways on other than those on residential property.

The homeowner or electrician must fill out a wiring permit application and pay the required fee. The Electric Department shall inspect the installation and install the service drop and electric meter.

**FIGURE 6: STREET TREE PLANTING DETAIL**

Prune 1/5 at site during planting but retain natural form at tree; never cut a leader. Paint all cuts over 1" with asphaltic tree paint.

After spraying trunk with 10% solution of insecticide, wrap with waterproof tree material beginning at the base of the tree and extending to the first branch after pruning.

Tree ground line to be same after planting as it was at the nursery.

4" mulch

Construct earth saucer with 5" high berm, flood with water twice in first 24 hours after planting.

Set stakes 6" min. off ball

Backfill with approved material in 9" layers. Water each layer until settled, do not tamp. Approved material shall be 1/4 organic material and 3/4 loam. Mix superphosphate with backfill material.

Fertilizer used shall be approved by the Owner prior to planting

Spray with wilt-proof according to mfg.'s instructions if foliage is present.

Double strand 12 gauge galv. wire in 1/2"  $\phi$ , 8" long, black rubber hose around the tree trunk and secured to the anchor stake. Drive stake at an angle and draw straight by twisting wire. Staple wire to stake (2 staples each stake). \*

2" x 3" spruce post above ground to lowest branches and painted light brown as specified.

Height to lowest branch.

Untie, loosen and spread burlap away from top third of ball.

Existing or new finished grade

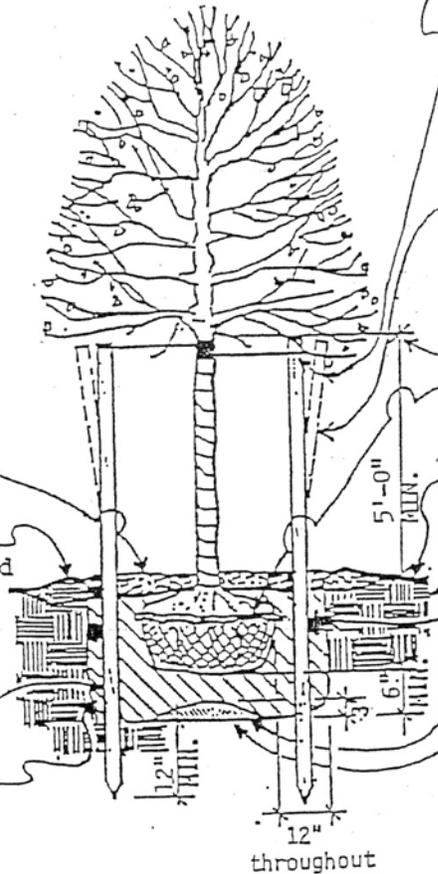
Existing earth

Fertilizer packets (4/tree)

Tamped backfill material drainage mound.

Break sub-soil with a pick.

\* Use deadman (3) with guy wire, turnbuckle and white flag if specified.



**TREE PLANTING SPECIFICATIONS**  
(NOT TO SCALE)