

## SECTION 6

### INSPECTION

#### A. General

- (1) All work performed as a consequence of these Rules and Regulations shall be subject to the review of the Board which shall approve and accept or disapprove and reject each phase or portion of such work and at completion shall recommend the acceptance of all work or disapproval of the work with reasons therefore. The Board will employ a Registered Professional Engineer in the inspection of the work to insure compliance with these Rules and Regulations and to report to the Board his recommendations as to approval or disapproval of the work. Such engineer will make certain inspections as prescribed herein in order to check the adequacy of the work at various stages prior to such work being covered by subsequent work. However, the Board, its engineer, and such other persons as the Board may designate shall have the right to inspect the work any time. Therefore, the applicant shall at any time provide safe and convenient access to all parts of the work for inspection by the Board or its engineer.

Inspection by the Board's engineer does not in any way limit the right of the Board to require or direct the applicant to rectify, correct or alter any portion of the work, deemed in the opinion of the Board, upon receipt of evidence or facts leading the Board to conclude as such, that further work is necessary to satisfactorily complete and satisfy the plan as approved by the Board.

- (2) All work which has been disapproved or is not acceptable to the Board shall be removed and replaced or otherwise corrected to the point of complying with the requirements of the Board for acceptance. Any work which has been covered by subsequent work prior to acceptance, or is otherwise not available or obscured to the point of rendering inspection of the work difficult, shall be considered to be not acceptable to the Board. Such subsequent work shall be removed as directed by the Planning Board to insure availability of the work to be inspected as required herein. The release of the performance guarantee shall depend upon the acceptance of all work prescribed herein and on the Definitive Plan and as directed by the Board.
- (3) At points indicated in Section 5 and as further described hereinafter, the construction of the required improvements shall be inspected by the Board's engineer, and unless approval of the work completed, including approval of materials used, to each such point has been given in writing, no further work shall be commenced. Such inspections may include the taking of certain samples for laboratory analysis or testing, in such cases, the applicant shall insure that the engineer is in no way hindered or obstructed in the course of obtaining such samples. Where such samples are removed from the completed work, the applicant

shall replace and restore such work, to the satisfaction of the engineer, to its condition prior to the taking of the sample.

The Planning Board or its engineer may require certified copies of delivery receipts or bills of lading or other certification as to the description of materials used or incorporated in the work. The Planning Board or its engineer may also require a sample of any materials or supplies, which may be incorporated in the work; such samples shall be furnished at the expense of the applicant, and the applicant shall be liable for all costs and fees incurred by the Board as a result of testing such materials.

#### B. Preconstruction Requirements

At least one month prior to the anticipated start of work, a Construction Plan and if applicable a Storm Water Pollution Prevention Plan (SWPPP) shall be submitted to the town for review and approval. The Construction Plan should include at a minimum the following data:

1. The location of any and all construction areas shall be delineated.
2. The location of vehicle parking and location of equipment storage during construction, together with the location for wash down of vehicles and equipment.
3. Construction equipment shall not be parked or stored adjacent to any drainage channel, drainage inlet, or wetland buffer area. Maintenance of construction equipment involving transfer of fluids and fuels shall be conducted in areas away from drainage channels and inlets and wetland buffer areas.
4. Limits of clearing and grading in relation to the existing trees and the property lines shall be shown on the plan.
5. The calculations for stormwater run-off from the property for all storm events, up to and including a 100-year storm events, shall be provided and the runoff for same shall be shown to be fully contained on site during construction so as to eliminate flooding runoff.
6. The total amount of land disturbance shall be quantified for the entire project, including, but not limited to, any disturbance that will be caused by roadway work, lot clearing, foundations for any structure, septic work, pools, tennis courts, landscaping. The amount of bare earth that will be exposed at any one time during development of the project (roads, lots and any other clearing) and the length of time it will be exposed shall also be quantified.

8. The methods that will be employed to protect areas with exposed earth during development and to prevent erosion and control sedimentation during and after the construction. This shall include a detailed description of the procedures that will be employed to maintain the site in good condition during and after construction, including all operations and maintenance procedures and plans, vegetation controls and erosion and sediment control measures (e.g., siltation fences and hay baling and filter bags for catch basins and a specific program for cleaning and repairing catch basins).
9. Methods for construction within a flood plain to flood-proof all structures and replace all flood storage capacity to control runoff and runoff in the event of 2-year through 100-year storm events so as to result in no net increase in runoff during such events, if applicable.
10. Methods for the preservation and protection of waterways, flood plains, open space/conservation areas.
11. Location of all other conservation measures, permanent and temporary, including, but not limited to, dikes, water diversions, terraces, dams, reservoirs, water conduits, grassed waterways and plantings of drought resistant grass, shrubs and trees, temporary seeding, mulching, dust control, diversion dams, sediment traps, snow fence, silt fence, hay bales, filter fabric or filter bags in catch basins and stabilized construction entrance.
12. Location of specific major structures controls (i.e., where the stabilization practices will be placed, surface water locations, soil disturbance areas, drainage patterns and during and following grading).
13. The location for the stockpiling of topsoil, loam, gravel and any other materials, together with a plan to contain same so as to prevent erosion and runoff in the event of 2-year through 100-year storm events. Earth material stockpiles shall not be allowed immediately adjacent to perimeter siltation barriers or drain inlets. Long term stockpiles (i.e., over 30 days) shall be shaped stabilized and circled by siltation fence or hay bales and shall be stabilized by temporary seeding or netting. Such stockpiling shall not exceed a duration of more than three (3) years from the date of endorsement.
14. Any soil or earth material brought to the property during construction shall be approved by the Planning Board's Engineer, prior to its arrival.
15. All earth removal shall comply with these Regulations and the Town of Hingham's Earth Removal Bylaw requirements.

16. All areas to be protected from encroachment from construction shall be marked on the ground as shown on the approved Definitive Subdivision Plan and these barriers shall be maintained by the developer throughout the construction phase of the project.
17. Satisfactory inlet protection shall be provided for the drainage system until all work has been completed and vegetation established.
18. The Construction Plan must account for the timing and sequence of installing all conservation measures in order to provide for maximum control of erosion and sedimentation in the event of a 2-year through a 100-year storm event during construction.
19. A copy of the NPDES plan and permit, if applicable, for construction sites with one (1) acre or more of total disturbed area, inclusive of lot development, shall be provided by the Applicant to the Planning Board prior to the start of construction.
20. All stormwater management basins shall be constructed and stabilized to contain the runoff from a 2-year storm even through and including a 100-year storm event prior to paving and connection of the storm drain system. This requirement shall be a mandatory condition of subdivision approval and a note setting forth this requirement shall be placed upon the Definitive Subdivision Plan.
21. In the event that a temporary stormwater management basin is proposed, it shall be shown in detail on the plan and shall be constructed and stabilized to contain the runoff before paving of any roadway that will contribute to the runoff occurs. This requirement shall be a mandatory condition of subdivision approval and a note setting forth this requirement shall be placed upon the Definitive Subdivision Plan.
22. Tree stumps, limbs, brush and all construction debris shall be legally disposed of, off-site.
23. Hours of construction shall occur only during the following times:

Monday – Friday:	7 a.m. to 6 p.m., or dusk whichever is earlier
Saturday:	8 a.m. to 5 p.m., or dusk whichever is earlier
Sunday	None.
24. Any blasting operations shall require proper permits and shall not be undertaken on any weekend or holiday.

25. Prior to the start of any road construction, a standard Town of Hingham street sign indicating the approved street name may be required to be installed.
26. Excavation dewatering shall be in a workman like manner and such water shall be free of suspended solids before being discharged into either a wetland or any stormwater drainage system. This condition applies to all forms of dewatering including pumping and trenching.
27. The Definitive Subdivision Plan shall be constructed in compliance with all applicable provisions of the Hingham Conservation Commission Order of Conditions. If there is any inconsistency between the Definitive Subdivision Plan, as approved by the Planning Board, and the plans approved by the Conservation Commission, the Applicant shall apply for subdivision modification under M.G.L. c.41, §81W. The amended plan shall be accompanied by a report detailing changes from the prior approved Definitive Subdivision Plan and include revised drainage calculations, if applicable.
28. Catch basin grates shall be set flush with the binder course and then reset so as to be flush with the topcoat when installed.
29. Once paved, the subdivision street shall be kept clear and passable at all times. No equipment shall be parked in such a manner as to render the street impassable, and no refuse containers, trailers, or construction materials of any kind shall be placed or stored upon the street.
30. A program for sweeping of the streets, cleaning and repairing of catch basins and other drainage structures and mowing of all drainage structures that are to be stabilized with seeding.
31. All construction activities associated with the endorsed plan shall be conducted in a workman-like manner. During construction, all local, state and federal laws shall be followed regarding noise, vibration, dust, and blocking of Town roads.
32. Construction, once commenced, shall progress through to completion of the development as approved as continuously and expeditiously as possible and in accordance with the construction sequence and timetable approved at the pre-construction meeting.
33. No building permit shall be granted by the Inspector of Buildings until all drainage facilities and associated structures including pipes, underground utilities, such as electric, telephone and cable television, have been completed to the satisfaction of the Planning Board. No building permit for

any new dwelling unit shall be granted by the Inspector of Buildings until the base course of the roadway pavement to serve each unit has been completed to the satisfaction of the Planning Board.

At least fourteen (14) days prior to the proposed construction start date and before the pre-construction meeting takes place, an Applicant shall provide the Planning Board, the Planning Board's Engineer with the following information:

- (1) An affidavit certifying that the Applicant is the owner of record of all of the property shown on the endorsed definitive plan or documentation signed by the owner(s) of record that the Applicant has authorization to act on all matters pertaining to the construction of the development.
- (2) An affidavit certifying that the Applicant has reviewed all of the conditions of subdivision approval and has taken all of the required steps to satisfy the conditions.
- (3) An affidavit certifying that all required federal, state and local permits have been obtained and providing a list, with the dates of issuance of each permit and the permit identification number. Copies of all permits shall be provided to the Board.
- (4) A letter identifying the persons or entities responsible for completion of any portion of the project including the name, address, telephone number and e-mail address of each such person or entity.
- (5) A letter that identifies (name, business address, telephone and facsimile numbers and e-mail) for the following:
  - \*The official representative of the Applicant and owners.
  - \*The engineering and surveying firm to be used during construction.
  - \*The general contractor.
  - \*The soils testing firm to be used during construction.
- (6) Shop drawings and/or catalog cuts of all structures/materials to be used to construct the approved definitive subdivision. All catalog cuts shall be highlighted as to product submitted for approval.
- (7) Certification by a Land Surveyor that the site control data including benchmarks, limits of work and horizontal control has been properly staked.
- (8) The location of the disposal site for all solid waste and surplus material must be supplied and approved.
- (9) Any changes to previously submitted information contained above must receive approval of the Planning Board.

- (10) **Preconstruction Meeting.** At least 48 hours prior to the beginning of construction, the Applicant shall arrange and participate in a pre-construction meeting with the Planning Board's Engineer to review all construction requirements. At the time of the preconstruction meeting all staking of the roadway centerline, limit of work and sediment controls shall be marked in the field. (See Appendix -Preconstruction checklist)

#### C. Notification to the Engineer

- (1) After approval of the Definitive Plan and subsequent to the receipt by the Board of the fee required under these Regulations, the Board will notify the applicant of the name and address of the engineer designated to perform the inspections as required herein. The applicant shall keep the Planning Board and a representative of the Hingham Department of Public Works fully informed as to the status and progress of the work and shall notify the engineer, through the Planning Administrator, (by mail or in-person telephone) at least two (2) business days in advance, that the work has progressed to a stage that an inspection is required, unless other arrangements acceptable to the parties concerned have been made.
- (2) In the event that the engineer is unavailable to provide inspection services within two business days of the applicant's request, the Planning Board may designate a substitute engineer.
- (3) In the event the engineer makes an inspection of the work at the time designated and finds that such work is not at the proper stage of completion or that the work has been covered or otherwise obscured, the engineer shall notify the applicant and the Board as to the additional steps the applicant shall take to complete the work to the point required or to the extent the work shall be uncovered or exposed to full view. The applicant shall notify the Board again when the work is ready as prescribed in Section 6,B.,(1).
- (4) The applicant shall be responsible for maintaining sufficient escrow balance to pay for all costs and fees incurred by the Board as a result of requests by the applicant for any inspection of the work.

#### D. Lines and Grades

- (1) Prior to the inspection of any phase of the work, it shall be the applicant's responsibility to provide sufficient line stakes and grade stakes to insure that a proper inspection may be made. These horizontal and vertical control stakes must be laid out to conform to the lines and grades shown on the approved Definitive Plan or any approved amendment thereto. A licensed land surveyor, retained by the Applicant, shall establish control for all stakeout on the property including the limit of work, project boundaries and both vertical and horizontal benchmarks. If

requested by the Board a copy of the control plan in both paper and digital formats shall be provided for reference.

- (2) The engineer will advise the Board at any time during the construction if, in his opinion, he believes that the work has not been laid out to the lines and grades as shown on the Definitive Plan. In such cases, the Board will proceed as described as described elsewhere in these Regulations.
- (3) Any costs which, in the opinion of the Board, is the responsibility of the applicant as noted in these Regulations shall be in addition to the fees required elsewhere herein.

#### E. Inspection of Required Improvements

It is typical practice for construction to be a fluid process with one phase leading to another in a continuous manner. The Board and their representative will work to maintain the proposed construction schedule subject to proper notification and quality of work. The following inspections of the required improvements will be made by the Board's engineer. These inspections are the minimum required. In addition, random site visits to observe site conditions and inspections after rain or other weather events will be performed. The Board may also request, or require other inspections at their discretion. Although the order of the inspections follows general construction practice, certain inspections may be required at

- (1) The first inspection will be made to observe site control staking, clearing limits and erosion controls. The surveyor shall provide the Board with a certification statement that all control has been installed and complies with the requirements of the Board. For multi-phase projects, there may be limits to initial staking, erosion controls etc. The control staking and certification is required for each phase as applicable.

No clearing or cutting shall commence for any phase of the project until the inspection above has been performed to the satisfaction of the Board or their representative. An inspection will be made of the work upon completion of all clearing, grubbing and excavation of unsuitable soils including top and subsoil within the roadway and other areas to be cleared for the project, with exception to individual house lots as applicable as may be required or implied by these Regulations. No fill shall have been placed at the time of this inspection.

- (2) An inspection will be made of the compacted fill consistent with the requirements for various fill materials in these Regulations and as may be required to bring the roadways to their proposed grades. The applicant shall notify the engineer as to his source of gravel for fill as soon as such information is known, so that samples may be taken and analyzed by the engineer. The applicant shall not proceed with the filling operation until such time as the engineer notifies the applicant that the gravel proposed for the fill is acceptable. The applicant shall not use a gravel source other than the one designated without prior notice to the engineer. The



Planning Board's representative will require in-situ testing of the gravel material to assure consistency from the source. Test locations and frequency are at the discretion of the Town's representative.

- (3) An inspection will be made of the drainage outfall(s), which shall be laid as the first part of the drainage system, and which shall be placed at the elevations required under the Definitive Subdivision Plans as approved by the Board. The engineer shall be satisfied that the placement of the outfall is consistent with the requirements of these Regulations, the Definitive Plan and the existing conditions of the site. Upon approval, the engineer shall require that the outfall be permanently set to the line and grade approved and shall require that the applicant submit certification of the final invert elevation at the outfall.
- (4) The drainage system shall not be covered until such time as the Planning Board's representative has inspected the installed drainage system. It is anticipated that drainage system installation would occur on a continuous basis with inspection of the portion completed prior to backfill. No components are to be covered without inspection.

At the same time, or such other time as the work may be available, inspections will be made of the completed municipal services (without back fill) as required on the Definitive Plan. The inspection of the required municipal services will be made by the agency responsible for the particular service. Each agency so involved will notify the Board's engineer of the approval of such work. The Board's representative may also inspect portions of the installation of other municipal services and or private utilities to ensure that materials and installation is consistent with the plans.

- (5) An inspection will be made of each six (6) inch layer of compacted roadway foundation as specified the Construction Specifications. In-situ gravel sample or samples will be taken at random locations at the direction of the Planning Board's representative,
- (6) An inspection will be made of the final six (6) inch layer of compacted roadway foundation. Where precast concrete or granite curb is to be used, it shall be installed prior to this inspection.

After this inspection the Applicant shall set roadway and easement bounds and prepare an interim as-built plan, indicating the location of all improvements, utilities, easements, right-of-way lines, drainage inverts, etc. The interim as-built shall be prepared at the same scale as the Definitive Plan and be provided in both paper and digital form for review and approval prior to any lot release.

- (7) An inspection shall be made of the bituminous concrete base course as it is installed. The Applicant shall provide at least 48 hours notice for the Town to procure the services of a certified testing company to inspect the pavement. This

includes the services of a Certified testing lab for certification of the mix at the plant prior to delivery to the site, and for testing of temperature, compaction, etc. on site. The Applicant is responsible for the costs of the testing lab and inspector. The coordination of the testing will be performed by the Town's representative.

- (8) Permanent monuments for the roadway, easements, etc. shall be set and protected from damage prior to paving.
- (9) An inspection will be made of the completed Class I Bituminous Concrete Pavement Type I-1 for the roadway surface as it is installed. The Applicant shall provide at least 48 hours notice for the Town to procure the services of a certified testing company to inspect the pavement. This includes the services of a Certified testing lab for certification of the mix at the plant prior to delivery to the site, and for testing of temperature, compaction, etc. on site. The Applicant is responsible for the costs of the testing lab and inspector. The coordination of the testing will be performed by the Town's representative.
- (10) An inspection will be made of all work as required on sidewalks, grass plots, side slopes, street signs, plantings, etc. The timing of these inspections is dependent on the installation of said improvements.
- (11) A Final inspection will be made of all subsequent work as required herein or on the Definitive Plan to include the final clean-up.
- (12) Annual Inspection November/December An annual inspection, if required, prior to project closeout for winter shall be performed. The Board's representative will inspect the site with the project superintendent to determine work to be done to stabilize and protect the site during the winter.
- (13) Annual Inspection April An annual inspection, if required, prior to project restart in the spring shall be performed. The Board's representative will inspect the site with the project superintendent to determine work to be done to repair winter damage and to stabilize and protect the site relative to proposed work scheduled to be performed.

#### F. Engineer's Report

- (1) The engineer will submit weekly reports as necessary during the progress of the work. If no work or inspections occur during specific weeks a report will not be prepared. A sample weekly report is attached in the Appendix.
- (2) At the completion of the work and in association with any surety reduction request(s), the engineer will report to the Board that in his or her opinion the work has been performed in accordance with these Rules and Regulations and the Definitive Plan, or the engineer will advise the Board that the work is not acceptable with the reasons therefore. Notwithstanding such an opinion by the

engineer, the Planning Board is the final authority as to the sufficiency of the work done.

- (3) At any time during the progress of the work, the engineer will advise the Board, immediately, of any factors which may adversely affect the progress of the work.
- (4) The engineer's inspection report will be submitted to the Board as shown on Form R1 (See Appendix).