

**RULES AND REGULATIONS GOVERNING THE
SUBDIVISION CONTROL REGULATIONS
FOR THE
TOWN OF HOLDEN**



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Public Hearing
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RULES AND REGULATIONS GOVERNING THE SUBDIVISION OF LAND IN HOLDEN, MASSACHUSETTS

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RULES AND REGULATIONS GOVERNING THE SUBDIVISION OF LAND IN HOLDEN, MASSACHUSETTS

SECTION I – GENERAL

1.1 Purpose

The subdivision control law has been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of the cities and towns in which it is, or may hereafter be, put in effect by regulating the laying out and construction of ways in subdivision providing access to the several lots therein, but which have not become public ways, and ensuring sanitary conditions in subdivisions and in proper cases parks and open areas. The powers of a planning board and of a board of appeal under the subdivision control law shall be exercised with due regard for the provision of adequate access to all of the lots in a subdivision by ways that will be safe and convenient for travel; for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic and other emergencies; for insuring compliance with the applicable zoning ordinances or bylaws; for securing adequate provision for water, sewerage, drainage and other requirements where necessary in a subdivision; and for coordinating the ways in a subdivision with each other and with the public ways in the city or town in which each it is located and with the ways in neighboring subdivisions. It is the intent of the subdivision control law that any subdivision plan filed with the planning board shall receive the approval of such board if said plan conforms to the recommendation of the board of health and to the reasonable rules and regulations of the planning board pertaining to subdivisions of land, provided, however, that such board may, when appropriate, waive as provided for in section eight-one R, "such portions of rules and regulations as is deemed advisable". (Massachusetts General Laws Section 81-M, Chapter 41).

1.2 Compliance and Waiver

No person shall make a subdivision of any lot, tract or parcel of land within the town, or proceed with the planning, improvement, or sale of lots in a subdivision without first submitting to the Planning Board for approval a Definitive Plan of such subdivision.

Strict compliance with the requirements of these subdivision control regulations may be waived when, in the judgment of the Board, such action is in the public interest and not consistent with the Rules and Regulations governing the subdivision of land. All plans and all procedures shall comply with the provisions of regulations, unless a waiver is authorized by the Board. In approving waivers, the Board may require conditions that secure the objectives of the standards or requirements waived. When the applicant is seeking waivers to these rules and regulations, the applicant shall present a separate letter requesting such waivers to the Board at the time of application. The list of waivers shall also be printed on the plan next to the Board's signature block.

1.3 Authority

Pursuant to Chapter 41, General Laws of the Commonwealth of Massachusetts, Sections 81K-81GG inclusive as most recently amended, the Planning Board of the Town of Holden, Massachusetts, issues the following regulations governing all subdivisions of land in the Town of Holden, all plans thereof and all procedures relating thereto.

These regulations supersede all previous subdivision regulations of the Board, which are hereby repealed.

1.4 Definitions

For the purpose of these rules and regulations, the following terms used herein are defined as follows:

- **ABUTTERS:** An owner of land within 500' of the exterior perimeter of all parcels involved in the subdivision.
- **ADA STANDARDS:** Americans with Disabilities Act Standards for Accessible Design, as referenced in the latest edition of the Massachusetts Highway Department Standard Specifications for Highways and Bridges, and Supplemental Specifications, latest edition.
- **APPLICANT:** Applicant shall include an owner, or his agent or representative, or his assigns.
- **AASHTO:** American Association of State Highway and Transportation Officials and the publication *A Policy on Geometric Design of Highways and Streets*, (Green Book) latest edition.
- **BIKE LANE:** Separated or shared lane located within the traveled way designed for bicycles, indicated with clear pavement markings.
- **BIKE PATH:** Also known as "Shared use Paths". Located on exclusive right of way with minimal cross-flow by motor vehicles.
- **BEST MANAGEMENT PRACTICES:** Land development, or redevelopment, design that encourages groundwater recharge, treating stormwater and reducing stormwater discharge in compliance with the latest edition of the Stormwater Management Standards and the Massachusetts Stormwater Handbook.
- **BOARD:** The Planning Board of the Town of Holden
- **BRIDGE:** A bridge structure with a span length greater than 20-feet as defined by the Federal Highway Administration.
- **CUL-DE-SAC** – A street providing only one vehicular access route to the general street network of the Town. A system of two or more intersecting street whose overall layout provides only one vehicular access points less than 125 feet apart shall be considered a single access point.
- **CULVERT:** Structure that meets the Massachusetts General Law with a span length less than 10' with in a public way.
- **DATUM:** Plan survey datum shall be the Massachusetts State Plane Coordinate System (horizontal) and North American Vertical Datum of 1988 (NAVD 88) (vertical) in feet. All datum used shall be referenced on the plans by notation.
- **DPW:** The Holden Department of Public Works.
- **DIRECTOR:** Director of Public Works
- **ENGINEER:** A Professional Engineer registered to practice in Massachusetts.

- **FIRE FLOW:** The flow of water supply, measured at 20 pounds per square inch (PSI) (138kPa) residual pressure that is available for firefighting. Fire Flow shall be calculated for duration of 2 hours.
- **FIRE-FLOW CALCULATION AREA:** The floor area, in square feet (sq. ft.), used to determine the required fire flow
- **GEOGRAPHIC INFORMATION SYSTEM (GIS):** Database of points registered to the Massachusetts State Plane Coordinate System (NAD 83) measured in feet.

GREEN BOOK: A Policy on Geometric Design of Highways and Streets, (Green Book) latest edition.

- **GREEN INFRASTRUCTURE:** Land development, or redevelopment, design strategy incorporating vegetation, soils and natural processes to reduce runoff and manage stormwater.
- **HANDBOOK:** The latest edition of the Department of Environmental Protection Massachusetts Stormwater Handbook
- **HOLDEN STORMWATER STANDARDS:** the latest edition of the Town of Holden Stormwater and Erosion Control Bylaw.
- **LAND SURVEYOR:** A Land Surveyor registered to practice in Massachusetts.
- **LOW IMPACT DEVELOPMENT:** Land development, or redevelopment, approach incorporating more sustainable designs that work with nature to manage stormwater, such as natural flow paths, minimizing land clearance, building clusters and impervious surface reduction.
- **LRFD, AASHTO Load and Resistance Factor Design for Highway Bridge Superstructures.**
- **MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4) PERMIT:** Latest edition of the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges from small municipal separate storm sewer systems in Massachusetts.
- **MASSDOT:** The Massachusetts Department of Transportation
- **PROJECT DEVELOPMENT AND DESIGN GUIDE:** Latest edition of the Massachusetts Highway Department Project Development and Design Guide
- **ROW:** Right of way
- **SIGHT DISTANCE:** A length of road surface that a particular driver can see with an acceptable level of clarity, computed according to the most recent edition of the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*.

- **SMALL BRIDGE:** Bridge structure that meets the Massachusetts General Law with a span greater than 10' but less than 20' with in a public way.
- **SPAN LENGTH:** Distance of an opening measured along a line parallel to the center line of the roadway.
- **STANDARD SPECIFICATIONS:** Massachusetts Highway Department Standard Specifications for Highways and Bridges, and Supplemental Specifications, latest edition.
- **STREETS:**
 - **MINOR STREET:** A dead end street or a subdivision creating enough frontage to service less than ten lots.
 - **LOCAL STREET:** A street serving ten or more house lots and generally serves only those residents living on that street and which can be considered to permanently serve the exclusive function of being a residential street.
 - **COLLECTOR STREET:** A street which serves or may eventually serve any of the following purposes: Provide for internal traffic movement within an area of the town, such as a subdivision provides for through-traffic movements within a local area; connect one or more Minor or Local streets to Arterial streets, or other subdivision, or industrial/commercial centers. A Collector street is intended to supply abutting property with the same degree of land service as a local street while at the same time serving local traffic movement.
 - **ARTERIAL STREET:** A street which handles or is expected to handle a considerable volume of traffic and provides inter-town access between Holden and adjoining communities.

The term “street” may also be referred to as “roadway” or “traveled way” and shall be considered synonymous.

- **SUBDIVISION:** The division of a lot, tract or parcel of land into two or more lot sites or other divisions of land for the purpose, whether immediate or future, of sale or of building development in such manner as to necessitate a street or way to furnish access to said lots, sites or other divisions of land, re-subdivisions, and when appropriate to the context, the process of subdividing, or the land or territory subdivided.
- **SUBDIVISION CONTROL LAW:** Sections 81K to 81GG, inclusive, of Chapter 41 of the Massachusetts General Laws (MGL) and any amendment, addition, or substitution thereof.
- **TRAFFIC STUDY:** a report prepared by a qualified traffic engineering firm.
- **TOWN:** Town of Holden
- **UTILITIES:** Services, including sanitary sewer, stormwater drainage systems, water supply piping, fire alarm conduits, electrical and telephone wiring, cable television, natural gas and their appurtenances

SECTION II –APPROVAL NOT REQUIRED (ANR)

2.1 Submittal requirements

Any person who wishes to cause to be recorded in the Registry of Deeds or to be filed with the Land Court, a plan of land, and who believes that his plan does not require approval under the Subdivision Control Laws, may submit the following to the Planning Board accompanied by the necessary evidence to show that the plan does not require approval:

- a. Original Mylar of plan
- b. Three (three) copies of plan
- c. Two (2) copies of completed application Form A
- d. A PDF of all documents including the ANR plan and Form an application as well as a format of the ANR plan compatible with ArcGIS and registered to the Massachusetts State Plane Coordinate System. All electronic files shall be submitted on disc or via another commonly used electronic media storage or transmission device.

All submission requirements shall be delivered to the Town Clerk's Office a minimum of five (5) business days prior to a meeting of the Planning Board, Submission to the Town Clerk shall be delivered by hand or by registered mail, postage prepaid. If notice is given by delivery, the Town Clerk shall, if requested, give a written receipt to the person who delivered such notice.

2.2 Fees

Application fees shall include \$100.00 per A-N-R plan plus \$50 per building lot created

2.3 Contents of the ANR Plan

In general, a plan of a subdivision of land into two or more lots and not needing approval, shall meet one or more of the following requirements:

- a. Each lot therein has adequate frontage on (a) a public way or a way which the Town Clerk certifies is maintained and used as a public way, or (b) a way shown on a plan therefore approved and endorsed in accordance with the Subdivision Control Law, or (c) a way in existence when the Control Law became effective, having, in the opinion of the Board, sufficient width, suitable grades and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby, and for the installation of municipal services to serve such land and the buildings erected or to be erected thereon. Such frontage shall be at least such distance as is required by the zoning or other bylaw of the Town of Holden for erection of a building on such lot.
- b. Each lot has standing on it a building, such building having been standing at the time of the adoption of Subdivision Control Laws by the Town.
- c. The plan is of an already existing lot, parcel or tract and shows no division, but each lot or parcel not conforming to the Zoning Bylaw or regulations of the Board governing the subdivision of land may be marked, not a building lot.

- d. The ANR shall contain a locus plan, at a scale of one inch equals eight hundred feet, indicating property bounds of parcels and street adjoining the ANR property. The Plan shall include a note detailing the purpose of the plan.
- e. The plan shall not exceed a maximum size of 24" x 36" and shall be drawn at a scale of one inch equals forty feet (1"=40).
- f. Submission shall include the name of the owner of record and location of the land in question including the Deed, Book and page reference, the Assessors' tax map number and lot number, area, frontage in feet, the scale, north point, and date. Zoning classification of the property including the Aquifer Protection Overlay District.
- g. Site information showing flood plains waterways and wetlands pursuant to the Wetland Protection Act. Location of wells and septic systems.
- h. Names of abutters from the most recent local tax list.
- i. Location and description of all bounds, fences, walls, guard rails, easements and/or encumbrances. Purpose of bounds shall be labeled on plans.
- j. The following statement shall be included "Approval under Subdivision Control Law Not Required," and sufficient space for the date and the signatures of all members of the Board.
- k. Notation of any special permit/variance issued as to the land or any building thereon.
- l. The Zoning District of the effected property(ies) and sufficient dimensional information to prove that each lot conforms to the most recent Zoning bylaw

2.4 Stormwater Management Standards

Construction of land that disturbs an area of 20,000 sq. ft. or greater and/or the creation of 5 or more lots shall be subject to the Handbook, MS4 Permit, and the Town of Holden Stormwater Standards.

Driveways shall not be permitted to discharge untreated surface runoff water directly onto the public right of way or disturb the existing natural drainage pattern of the land.

Treatment and recharge of stormwater runoff from new impervious surfaces shall be performed on the respective lot to the maximum extent possible.

2.5 Pavement Moratorium

The Applicant shall inquire with the Town of Holden DPW if a moratorium is in effect. Any road under the 5-yr moratorium shall not be disturbed until the moratorium is over. In the event that the Town will allow a road under moratorium to be disturbed, the applicant shall be required to pave the entire length of road, curb to curb, along the road where any disturbance has occurred with the Town's most current pavement section requirements.

2.6 ANR Determination

If the Board determines that the plan does not require approval, it shall, forthwith, without a public hearing endorse on the plan the words: "Planning Board Approval under the Subdivision Control Law Not

Required". One member of the Board may be authorized to endorse said plans on the name of the Board. Said plans shall be returned to the applicant and the Board shall notify the Town Clerk of its action. The applicant shall provide the Board with the Book and Page of the recording from the Worcester County Registry of Deeds.

If the Board determines that the Plan does require approval under the Subdivision Control Law, it shall within twenty-one days of submission of said plan also notify the Town Clerk and the applicant of its determination in writing.

SECTION III - PRELIMINARY PLAN

3.1 Procedure

A Preliminary Plan of a subdivision so identified may be submitted by the subdivider to the Planning Board for consideration and approval, modification or disapproval, by each Board prior to the submission and hearing of the Definitive Plan. If the notice is given by delivery the Town Clerk shall, if requested, give a written receipt therefore. Within forty-five days after submission of a Preliminary Plan each board shall notify by certified mail, or hand delivery, the applicant and the Town Clerk of the town either that the plan has been approved, or that the plan has been approved with modifications suggested by the Board or agreed upon by the person submitting the plan or that the plan has been disapproved and in the case of disapproval, the Board shall state in detail its reasons therefore. The Planning Board shall notify the Town Clerk of its approval or disapproval, as the case may be. Except as is otherwise expressly provided, the provisions of the subdivision control law relating to a plan shall not be applicable to a Preliminary Plan, and no Registry of Deeds shall record a preliminary plan. The submission of such a Preliminary Plan may enable the subdivider, the Planning Board, other municipal agencies and owners of property abutting the subdivision to discuss and clarify the problems of such a subdivision before a Definitive Plan is prepared.

The Preliminary Plan shall show the relation between the area to be included within the proposed subdivision plan and the surrounding area which has already been developed or which remains to be developed. Thus the Preliminary Plan shall properly show the proposed future layout for a large area under one ownership, only a portion of which is now to be made the subject of petition and plan.

After submission of the Preliminary Plan to the Board and a conference to acquaint the Board with the general character of the subdivision proposed and the intentions of the developer, the Planning Board may require that the proposed streets and lot lines be staked out to permit inspection by the Board and other Town Officers.

This preliminary consideration by the Board does not in any way constitute such approval as to authorize the owner to proceed with grading of streets or other work in the subdivision. No such authorization exists until the Board has given its approval on a Definitive Plan after a public hearing. The formal approval of the Definitive Plan by the Board, and the endorsement of its approval upon the Plan, shall be prerequisites to the issuance of building permits and to the construction of municipal services and improvements.

An informal public hearing will be provided at the Preliminary Plan stage in order to allow for better communication and understanding by the public and give the developer an opportunity to hear the abutters' concerns prior to the Definitive Plan.

3.2 Submittal Requirements

The following shall be included in the submittal of a preliminary subdivision application:

- a. Three (3) copies of a 24" x 36" subdivision plan.
- b. Nine (9) copies of an 11" x 17" subdivision plan.
- c. Two (2) completed "Form B" Applications. Each form shall have the original signature of the property owner.
- d. One (1) copy of a certified list for all abutters and abutters to abutters within 500' of the perimeter of the property lines.
- e. One (1) complete set of stamped and addressed envelopes with no date and no return address for each abutter, the property owner, applicant and any representative.
- f. Formal Letter stating what waivers shall be requested and the reason for the waivers
- g. Copy of Deed(s) for all parcels involved in the subdivision
- h. PDF of all documents including the preliminary plan, Form B application, and list of waivers submitted on disc or via another commonly used electronic media storage or transmission device.

3.3 Fees

Fees shall include

- Application fee of \$500 plus \$50/Lot
- Engineering Review Fee of \$125 plus \$25/lot.

3.4 Contents of the Preliminary Plan

The Preliminary Plan package shall include:

- a. Subdivision names, boundaries, north arrow, zoning classification, date, scale, and title "Preliminary Plan". Preliminary subdivision plan drawings shall be on a scale of one inch (1") to forty feet (40'). Sheet size shall be 24" x 36".
- b. Name of the owner of record, the applicant, and of the designer, engineer or surveyor.
- c. Names of all abutters as determined from the most recent local tax list.
- d. Approximate boundary lines of proposed lots with approximate areas and dimensions.
- e. The existing and proposed lines of streets, ways, easements and any public area within and adjacent to the subdivision in a general manner.
- f. The names, approximate location and widths of adjacent streets.

- g. Proposed system of drainage including adjacent existing natural waterways in a general manner.
- h. The topography of the land in a general manner in two foot contour intervals or smaller.
- i. The location on the tract of any lands formerly used as a railroad right-of-way or any property appurtenant thereto formerly used by a railroad company.
- j. The zoning classification of all land shown on the plan including overlay districts.
- k. Site information showing flood plain waterways and wetlands.
- l. Location of wells and/or septic systems.
- m. Notation of any special permit/variance issued as to the land or any building thereon.
- n. Major site features of the land including existing stone walls, buildings, structures, bounds, large trees (over 18 inches diameter) or wooded areas, rock outcrops, water bodies, wetlands, streams and stream obstructions within 500 feet upstream and downstream from the subdivision property lines, existing trails, cart paths and historic artifacts
- o. A preliminary profile of all proposed streets, ways and roads showing utilities and underground structures, together with a cross-section of the way and of any open channels.
- p. Conceptual plan of the required utilities and their respective connection to the Town of Holden's infrastructure.
- q. Locus map at a scale of 1 inch equals 1,000 feet showing the subject site relative to surrounding area and indicating major roads. A drawn-to-scale image of a standard USGS quadrangle plan is generally acceptable.

SECTION IV - DEFINITIVE PLAN

4.1 Procedure

An applicant, proposing to subdivide a tract of land, shall submit to the Board a formal petition to approve the subdivision. This petition shall be submitted on a Form C provided by the Board and shall be accompanied by plans including a street profiles, prepared in accordance with the regulations hereinafter provided in Section IV, Paragraph B. Every person submitting a Definitive Plan of land to the Planning Board for its approval or for a determination that approval is not required shall give written notice to the Town Clerk by delivery or by registered mail, postage prepaid, that he has submitted such a plan. If the notice is given by delivery the Clerk shall, if requested, give a written receipt therefore to the person who delivered such notice. Such notice shall describe the land to which the plan relates sufficiently for identification, and shall state the date when such plan was submitted and the name and address of the owner of such land; and the facts stated in such notice shall be taken by the Town Clerk as true, unless the contrary is made to appear.

Definitive Plan submissions requiring an Environmental Analysis review under Section VI-G of this Bylaw shall be accompanied by nine (9) copies of the Environmental Analysis report, inclusive of all requirements of Section VI-G of the Subdivision Control Regulations. Any Definitive Plan petition which fails to include said report copies required under Section VI-G will not be considered as a formal petition for approval under M.G.L., Chapter 41 and the Holden Subdivision Control Regulations, and will not be accepted by Holden Town Clerk for the purpose of scheduling a public hearing and Board review.

The Planning Board shall forward a copy of the Definitive Plan to the Town of Holden Board of Health if the system is serviced by a private sewage system and/or private drinking water supply. The Board of Health shall report in writing an approval or disapproval of said plan within forty-five (45) days after the plan is filed to the Planning Board in the event of disapproval, shall make specific findings as to which, if any, of the lots shown on said plan cannot be used as building sites without injury to the public health and include such specific findings and the reasons therefore in its reports.

Every person submitting a Definitive Plan of land to the Planning Board for its approval or for a determination that approval is not required shall give written notice to the Town Clerk by delivery or by registered mail, postage prepaid, that he has submitted such a plan. If the notice is given by delivery the Clerk shall, if requested, give a written receipt therefore to the person who delivered such notice. Such notice shall describe the land to which the plan relates sufficiently for identification, and shall state the date when such plan was submitted and the name and address of the owner of such land; and the facts stated in such notice shall be taken by the Town Clerk as true, unless the contrary is made to appear.

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

The Massachusetts Registered Professional Engineer who stamps the plans and /drainage calculations shall be present at meetings to discuss the proposed stormwater management system design with municipal officials and/or representatives. If not able to be present, the Engineer shall provide a signed affidavit authorizing another party to represent their work.

4.2 Submittal Requirements

The Definitive Plan shall be stamped and signed by (1) a Registered Land Surveyor if surveying information is shown, and also by (2) a Registered Professional Engineer if the plan shows the design of road pavements, water pipes, sewerage or other utilities. Said plan shall be clearly and legibly drawn. The drawing shall be on a scale of one inch to forty (40) feet. Sheet size shall be 24" by 36".

- a. Three (3) Copies of 24" x 36" plans
- b. Nine (9) 11" x 17" copies of subdivision plan
- c. Two (2) completed "Form C" Applications each form with the original signature(s) of property owner(s).
- d. Nine (9) copies of the Environmental Review Report if applicable.
- e. Nine (9) copies of the Traffic Study if applicable or determined as necessary by the Town.
- f. Three (3) copies of the Stormwater Report
- g. One (1) certified abutters list – abutters and abutters to abutters within 500 feet.
- h. One (1) complete set of stamped and addressed envelope with no return address for each abutter, owner applicant and representative.
- i. PDF of all documents including the preliminary plan, Form B application, and list of waivers submitted on disc or via another commonly used electronic media storage or transmission device.
- j. Formal Letter stating what waivers shall be requested and the reason for the waivers
- k. Copy of Deed(s) for all parcels involved in the subdivision

The Definitive Subdivision Application Fees shall be reduced in half by the cost of a preliminary application if a preliminary subdivision is submitted and acted upon by the Planning Board.

If the subdivision is approved the applicant will be required to submit a Mylar for recording at the Registry of Deeds.

4.3 Fees

Fees shall include

- a. Application Fee of \$1,000 plus \$100/Lot
- b. Engineering Review Fee \$1,000 plus \$150/Lot
- c. After the first Revision - \$300 plus \$50 per affected lot

4.4 Contents of the Definitive Plan

- a. Scale

All plans shall be drawn at scale of 1 inch equals 40 feet on sheets not larger than 24 inches by 36 inches registered to Massachusetts State Plane Coordinate System. All elevations shall refer to NAVD88. Each sheet shall have a north arrow, graphic bar scale, proposed and existing street names, sheet number (i.e., Sheet 3 of 7), and a title block entitled "Definitive Subdivision of Land in Holden." The title block shall include the name of the subdivision, name and address of land owner (and applicant, if different), name and address of surveyor, name and address of engineer, and date of preparation. Each sheet shall have a signature block for Board members and the Town Clerk. Match lines, if required, shall be shown on all sheets. Each Sheet shall be certified by a Registered Land Surveyor and Registered Engineer with registration numbers. Plans shall be drawn in accordance with the requirements of the Worcester Registry of Deeds.

b. Title Sheet: The Title Sheet shall include the following:

1. Index of drawings, legend, and general notes, list of waivers
2. In the event that the lot layout plan requires more than one sheet, a key plan of the subdivision shall be prepared to a scale that will fit on one sheet indicating the area covered by each sheet of the lot layout plan. The key plan shall show all boundary lines and the names of all abutters, as determined from the most recent tax list, in their proper relative locations. The key plan shall show the existing and proposed lines of streets, ways, easements, public or common areas and building lots, zoning classification (with zoning boundaries if two districts exist), zoning overlay districts (if applicable), deed references, and proposed names of new streets
3. Locus map at a scale of 1 inch equals 1,000 feet showing the site relative to surrounding area and indicating major roads. A blowup of a standard quadrangle of a USGS plan is acceptable
4. Title sheet shall be stamped by a Massachusetts registered civil engineer and/or land surveyor.

c. Locus Sheet

1. Plan shall be shown at a scale of one inch equal to 400 feet indicating property bounds of parcels and streets adjoining the subdivision. A more suitable scale may be used if site conditions warrant the need.
2. Property bounds of the existing parcel and proposed property lines shall be shown.
3. Property lines of abutters as shown on the latest certified assessors list shall be indicated on the plans and labeled with the land owner.
4. Major features of the land, such as existing waterways, wetlands and water bodies, natural drainage courses, walls, fences, buildings, trails, wooded areas, outcroppings and ditches which exist on or near the site at the time of survey
5. Lines of existing and proposed streets, ways, lots, lot numbers or other designation of each lot, easements, trails and public or common areas within the subdivision and the centerline radius of all proposed streets.

6. Information indicating flood zones, zoning district boundaries, wetland resources areas, Zone A, Zone I and II areas and any Natural Heritage and Endangered Species Program (NHESP) recorded areas and other environmental resource areas.
7. Location on the tract of any lands formerly used as a railroad right-of-way or any property appurtenant to thereto formally used by a railroad.
8. Surrounding private wells within 150' of the Subdivision.
9. All abutting septic systems shall be noted on the plan

d. Existing Conditions Plan

1. Plan shall show all required information as described for the locus plan but be shown at a scale of one inch equal to 40 feet indicating property bounds of parcels and streets adjoining the subdivision. A more suitable scale may be used if site conditions warrant the need.
2. Property bounds of the existing parcel showing distance and bearings of boundary lines and easements (along with easement purpose).
3. Existing contours at 2-foot or smaller shall be shown based on NAVD 88 datum.
4. Names and widths of streets abutting the proposed subdivision
5. Location of bounds and type of bounds of the existing parcel(s) of land and relevant buildings thereon
6. Address, map/parcel number, area of the existing parcel(s)

e. Lot Layout Plan

1. Distance and Bearings of all existing and proposed boundary lines and easements (along with easement purpose).
2. The plan shall show sidelines, centerlines, and points of tangency, length of tangents, and length of curves and radii of the curves for each street in the subdivision.
3. Location of bounds and type of bounds.
4. Bounds shall be set at the point of curvature and point of tangency of all side line curves and shall be described by bearing and offset from centerline stations.
5. Permanent bounds shall be described from centerline stations and shall occur at not greater than three hundred (300) foot intervals. In special cases this may be varied to meet existing conditions on request of the development engineer and by permission of the Board.

6. Lots shall be designated numerically and in sequence.
7. Area of proposed Lots.
8. Locations and names of adjacent subdivisions, names of all abutters as determined from the latest local tax list, said abutters list certified as to its accuracy by the Town of Holden Board of Assessors.
9. Covenants or restrictions of the land inside or abutting the subdivision.
10. Existing and proposed monuments by appropriate symbol.
11. Location of ways, name and present width of existing streets bounding, approaching or within 500 feet of the subdivision. The names of proposed streets shall be shown in pencil until they have been approved by the Board.
12. Statement that each lot complies with the Town's Zoning Bylaw.
13. Any filings associated with the parcels of the subdivision (e.g. Notice of Intent, Watershed Act Application etc.) shall be noted and referenced.

f. Street Plan and Profile

1. Existing and proposed lines of streets, ways, lots, sidewalks, bike paths, easements and public areas within the subdivision and their connection by distance and direction from the nearest monumented highway and/or established existing property corner monuments.
2. Sufficient data to determine readily the location, direction and length of every street line, and boundary line to reproduce same on the ground, in accordance with the Massachusetts Standard Specifications.
3. Locations, material and size of existing and proposed utilities (overhead and underground) shall be shown on the plan with legend. Drainage and sewer lines will be shown on both plan and profile.
4. Type of curbing shall be identifying.
5. Street light locations and sidewalks shall be shown.
6. The plan view shall show intersection angles and stopping sight distance triangle with sufficient distance information as compliant with the AASHTO standards. This includes, but not limited, to sight lines (sight distances) for entering and merging traffic at street intersections and other necessary data pertaining to traffic safety.
7. Plan view shall show centerline bearing and distance, point of curvature and tangency (including centerline stations), radius and length of curves.

8. Directly above or below Plan view, Existing and Proposed profile shall be shown along the proposed centerline and both sidelines of the right-of-way.
9. Profile shall show center line gradients and vertical curves. Information shall include curve length, K value and design safe sight stopping distance.
10. Profile shall show elevations of existing and proposed centerline at 50 foot stations (25 foot stations on vertical curves) elevation of low points for sag curves and high points for crest curves.
11. Elevations along centerline shall be measured to one one-hundredth of a foot in accordance with the standard practice of the Massachusetts Standard Specifications.
12. Profile shall be shown on a scale of forty (40) feet to the inch horizontally and four (4) feet to the inch vertically.
13. Drainage and sewer system shall be shown on the profile with information regarding structure inverts, rim elevations, station numbers, sizes and slopes of pipes measured to one one-hundredth of a foot. Should we add water to this??
14. The plan shall show where the system begins and terminates to the existing systems where applicable.
15. All elevations shall be referred to the required Datum (see DEFINITIONS Section II.A.12)
16. Stations shall be shown on both plan and profile.
17. Lot corners and sideline extensions shall be shown in plan view.
18. Buildings, sidewalks, driveways, pavement, curbs or berms and other site features.
19. Cross section of proposed road typical of the construction. The Planning Board may require additional cross sections along the proposed road where appropriate.
20. House Numbers on plan and a legend designating the manner in which such numbers shall be indicated. The standard for numbering is one odd and even consecutive digit for every thirty (30) feet of road surface measured on the center line. Apply odd numbers on the right side of the streets as they leave the center of Town or main thoroughfare and even numbers on the other.

g. Grading and Drainage Plan

1. Plan(s) shall show the existing and proposed topography at 2 foot or smaller contour interval within the road right-of-way. Proposed contours shall be extended outside the right of way as far as required to connect with existing topography.
2. Existing topography will be based on recent actual field surveys.

3. The same vertical datum as specified above shall be used.
4. This plan shall show major site features as required in the Preliminary Subdivision Plans within 150 feet of the proposed road centerline.
5. Plan(s) shall show all proposed or existing roads, ways, or paths traversing the site.
6. Existing and Proposed system of drainage, including existing natural waterways with cross sections and existing and proposed natural waterways of drainage systems on adjacent properties which drain into the subdivision and the route for all existing and proposed drainage discharging from the subdivision to the primary receiving course or other body of water. Direction of flow shall be indicated.
7. Existing and proposed stormwater BMPs shall be indicated on the plans.
8. Proposed street tree plantings with legend indicating size and type of planting, unless a separate landscaping plan is submitted.
9. The proposed amount of fill to be removed or brought into the site, clearly noting that fill brought on to the site will be free of deleterious and hazardous materials.
10. Water elevations of adjoining lakes, streams and wetlands and approximate high and low water elevations of such features as defined in the Wetlands Protection Act MGL Chapter 131 Section 40 and the Holden Wetlands Bylaw Chapter II Section.
 - a. Location of 100-year flood areas if encountered within the property boundary lines of the subdivision.
 - b. Plans shall contain information as required of the Board of Health Minimum Requirements for the Disposal of Sanitary Sewerage in Unsewered Areas and/or private water supply sources in the Town of Holden.
 - c. Plan shall contain information to show compliance with minimum fire flow requirements as detailed in Section VI.E.2.b of the Subdivision Control Regulations.

h. Site Development Plan

1. Plan shall depict all impervious areas (e.g. roads, driveways, paved paths) and locations of typical foundations.
2. Property offsets as described by the latest Zoning Bylaw of the Town of Holden shall be shown.
3. The plan shall describe the phasing of the project with clear lines delineating each phase of the project and how the infrastructure will be completed.

4. If fire cisterns are required, the plan shall show the locations of the cistern and compliance with maximum distance from lot centers.
5. A plan shall be provided showing the proposed street layouts, lot lines topography and approximate location of buildings, wetlands and the existing vegetated areas that are to be preserve on the site. This plan shall clearly depict the limit of disturbance and provides for vegetation to be preserved to the greatest extent possible as may be necessary or appropriate for the purposes of water conservation, decreasing erosion, preserving water quality, buffering and aesthetics.
6. The plan must show the general location of proposed driveway and building and grading to ensure the lots are building, the build out plan must also depict a proposed limit of clearing.

i. Erosion and Sediment Control Plan

1. A clear outline of the areas and type of control proposed, this must be incorporated into the proposed Phase Plan if appropriate.
2. A general note indicating the developer's responsibility to maintain erosion/sedimentation controls during construction and until sale of the lots involved, including the frequency of maintenance.
3. A general note stating that temporary ground cover or erosion/siltation control shall be established on any unbuilt lots where required by the Planning Board.
4. Appropriate details of erosion/sedimentation control devices including location of temporary detention ponds.
5. The outline of any areas, including drainage ways, steep slopes and proposed stockpile of topsoil that shall be restored and/or seeded immediately.

4.5 Approval of the Definitive Plan

A Record of the proceedings of the Board relative to the approval or disapproval of the Definitive Plan setting forth the reasons for the decision in the event of disapproval or modification shall be filed in the office of the Board. A certificate of such action taken by the Board shall be filed with the Town Clerk and notice thereof shall be sent to the applicant by registered or certified mail.

If required any approval by the Planning Board may be on condition that no building or structure shall be built or placed upon the area designated without consent of said Board of Health.

Final approval of the Definitive Plan shall be endorsed thereon by a majority of the Board not until the statutory twenty (20) days appeal period has elapsed following the filing of the certificate of action of the Board with the Town Clerk and the Town Clerk has notified the Board that no appeal has been filed. After the Definitive Plan has been approved and endorsed, the applicant shall furnish the Board with

- a. Mylar copy of the approved plan
- b. Four (4) 24" by 36" copies
- c. Four (4) 11" by 17" copies

- d. PDF version of the plan
- e. Electronic file compatible with the version of Autodesk AutoCAD of the subdivision on a Compact Disc registered to the Massachusetts State Plane Coordinate System (NAD 83)

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

The Board reserves the right on its own motion or on the petition of any person interested, to modify, amend or rescind its approval of a subdivision or to require a change therein as a condition of the subdivision retaining approved status. No modification, amendment or rescision of the approval of a plan of a subdivision or changes in such plan shall effect 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 right 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 rescision 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 Planning Board.

4.6 Compliance with Zoning Bylaw

No Definitive Plan shall be approved which is not in compliance with the applicable provisions of the Zoning Bylaw of the Town of Holden.

4.7 Security of Performance

4.7.1 Completion of Security Methods

Before endorsement of its approval of a Definitive Plan of a subdivision by the Board, the applicant shall agree to complete the construction of ways, installations of municipal services and all other required improvements as specified in Section V for all lots in the subdivision, such construction and installation to be secured by one of the following methods, or a combination thereof:

- a. The applicant may file a performance bond with a surety company as surety, or, at the election of the applicant, a deposit of money or negotiable securities, or a bank account property assigned to the Town of Holden, in an amount determined by the Board to be sufficient to cover the cost of all or any part of the construction of such ways, services and improvements specified in Section V not covered by the covenant hereinafter provided in subsection b. Such bond, deposit or assignment shall be approved as to form and manner of execution by the Town Counsel and any surety company shall be approved by the Town Manager. The bond or security shall be conditioned upon the due performance of the agreement specified above. Any remaining incomplete portion of the subdivision shall be renegotiated at the end of the three (3) year period.
- b. The applicant may file a covenant with the Board, executed by the owner of record and duly recorded in the Worcester District Registry of Deeds, running with the land, whereby such ways, services and improvements specified in Section B shall be provided to serve any lot before such lot may be built upon or conveyed other than by mortgage deed. The covenant shall include the following language: The construction of all ways and improvements and in the installation of all municipal services shall be completed in accordance with the applicable rules and regulations of the Planning Board of the Town of Holden within thirty-six (36) months from the date of this covenant. Failure to so

complete such construction and installation within such period shall automatically rescind approval of the subdivision plan as to which this Covenant is recorded.

- c. The penal sum of any bond, or the amount of any deposit held under subsection a. above, may, from time to time, be reduced by the Board and the obligations of the parties thereto released by said Board or in whole or in part.

4.8 Completion of Performance

Upon completion of improvements for the performance of which was given by bond, deposit or covenant, or upon the performance of any covenant with respect to any lot, the applicant may request and agree on terms of release with the Board, or he may send by registered mail to the Town Clerk a written statement in duplicate that the said construction or installation in connection with which such bond, deposit or covenant has been given has been completed in accordance with the requirements, such statement to contain the address of the applicant, and the Town Clerk shall forthwith furnish a copy of said statement to the Board. If the Board determines that said construction or installation has not been completed, it shall specify to the applicant in writing the details wherein said construction and installation fails to comply with the requirements contained under Section IV. Upon failure of the Board to act on such application within forty-five days after the receipt of the application by the Town Clerk, all obligations under the bond shall be returned and any such covenant shall become void. In the event that said forty-five day period expires without such specification, or without the release of the covenant as aforesaid, the Town Clerk shall issue a certificate to such effect, duly acknowledged, which may be recorded.

The Planning Board shall not release any lots from covenant until the entire length of the frontage for said lot is completely paved to basecoat and secured.

The applicant shall give the Town Engineer notice, stating the completion of the steps in the construction of ways and installation of utilities so as to make practicable all essential inspection by the Town Engineer required for the purpose of enabling him/her to inform the Board upon completion of the work that the work has been properly done to the standard prescribed.

SECTION V - BUILDING SITES - ADEQUATE WAYS

Not more than one building designed or available for use for dwelling purposes shall be erected or placed or converted to use as such on (a) any lot in a subdivision, or (b) elsewhere in the Town of Holden without the consent of the Planning Board, and such consent will be conditional upon the providing of adequate ways furnishing access to each building site in the same manner as otherwise required for lots in a subdivision.

SECTION VI - GENERAL DESIGN STANDARDS

6.1 Low Impact Development (LID)

6.1.1. Compliance

- a. Low Impact Development (LID) and Green Infrastructure (GI) principles and practices shall be encouraged into the overall design of the subdivision.
- b. The opportunity to incorporate LID and GI into the site planning and design strategies shall be evaluated and used to the maximum extent feasible.

6.1.2. Principles and Techniques

- a. Design of the site shall encourage the following, but not limited to;
- b. Identification and protection of environmentally sensitive areas and important local features.
- c. Minimized runoff through the use of narrow roadways, smaller parking areas, and permeable pavers.
- d. Managing runoff close to where it is created.
- e. Multifunctional landscape to provide infiltration.
- f. Non-structural practices such as cross country drainage, swales and bio retention areas.

6.2 Streets

6.2.1. Location and Alignment

- a. All streets in the subdivision shall be designated so that, in the opinion of the Board, they will provide safe vehicular travel. Due consideration shall be also given by the applicant to the attractiveness of the street layout in order to obtain the maximum livability and amenity of the subdivision.
- b. Streets shall be continuous and in alignment with existing streets as far as practical.
- c. Centerlines of the street shall follow the centerline of the right of way (co-linear).
- d. Provisions satisfactory to the Board shall be made for the proper projection of streets to adjoining properties and their street connections, if they are already subdivided, or to the plan boundary when adjoining properties are not already subdivided. When plans include such connection or projections, the Board may require full construction of the same as part of the street system for the purpose of providing adequate facilities for water, sewerage and drainage in the subdivision and for coordinating the ways in the subdivision with the public ways in the town and adjacent subdivisions.
- e. Access to adjoining property which is not yet subdivided shall be provided in such a manner that cross-connections will be spaced at not more than one thousand foot intervals. Ownership of this parcel shall be granted to the Town of Holden. This requirement is subject to Planning Board jurisdiction
- f. 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.
- g. All streets shall be designed to meet the requirements of the Project Development and Design Guide, Green Book and the ADA Standards unless stated otherwise within these Regulations.
- h. All curved streets shall be designed to permit safe vehicular travel.
- i. The minimum centerline radius of curved streets shall be as follows:

Minor and Local Streets: One hundred fifty (150) feet;
Collector streets: Three hundred (300) feet;

Arterial streets: Five hundred (500) feet.

- j. All reverse curves on arterial and collector streets shall be separated by a tangent at least one hundred (100) feet long.
- k. Property lines at street intersections shall be rounded with a radius of not less than twenty (20) feet for Minor, Local and Collector streets and thirty (30) feet in Arterial streets.
- l. Streets entering opposite sides of another street shall be laid out directly opposite one another or shall have a minimum offset of one hundred twenty five (125) feet as measured between the points of intersection of the centerlines of the intersecting streets.
- m. Streets entering on the same side of the street must have a minimum separation of feet as measured between the centerlines of the intersecting street.
- n. Streets shall be laid out so as to intersect as nearly as possible at right angles and in no case at less than seventy-five (75) degrees or more than one-hundred five (105) degrees, unless the Board determines otherwise.

6.2.2. Width

The minimum width of streets shall be as follows or as otherwise determined by the Board. Bike lanes shall be installed on collector and arterial streets and at the discretion of the Planning Board for other streets. See Appendices for typical roadway sections. The Board reserve the right to require a wider road width for minor and local streets based on unit density, adequate off street parking and other characteristics.

	<u>Roadway</u>	<u>Right-of-Way</u>
Minor Streets	24 ft.	50 ft.
Local Streets	24 ft.	50 ft.
Collector Streets	32 ft.	60 ft.
Arterial Streets	36 ft.	70 ft.

6.2.3 Curbing

- a. Hot mix asphalt bituminous berm (Type 2) shall be required on both sides of the road in accordance with the Standard Specification.
- b. The Board shall require that type vertical VA 4 granite curbing having a depth of eighteen (18) inches and a thickness of six (6) inches be installed for the entire length of the radius at the edge of the pavement at street intersections. Such curb shall be cut to the radius prescribed on the Definitive Plan. The type of granite curb and its placing shall conform to the Standard Specifications and ADA Standards.
- c. A granite curb inlet shall be placed at each catch basin. Each such granite curb shall be six (6) feet in length, eighteen (18) inches in depth and six (6) inches in thickness. The type granite curb inlet and its placing shall conform to the Standard Specifications.

6.2.4 Sidewalks

The sidewalk shall be separated from the street by a grass strip of a width as required by the Typical Roadway Cross Section for the particular Street being designed (refer to the appendices). The sidewalk shall be a five (5) foot wide bituminous concrete (hot-mix asphalt) sidewalk with the following requirements:

- a. Sidewalks shall be pitched towards the roadway with a cross slope of 1.5% (percent).
- b. Area behind the sidewalk within the right of way shall be at a slope of no greater than $\frac{1}{2}$ " per ft.
- c. Sidewalks shall include binder and top layers and meet ADA Standards, including but not limited to at joints with driveway aprons.

6.2.5 Curb Cuts

- a. Curb cuts shall be limited to one along the frontage of the property.
- b. Wheelchair ramps shall be constructed wherever a sidewalk meets the traveled way including at each corner of an intersection and all other locations as required by the Standard Specifications. A driveway shall not serve as a wheelchair ramp. Wheelchair ramps (and flared sides if required) shall be constructed of a 4,000 psi minimum concrete designed for exterior placement and shall have a wet-set detectable warning panel, color yellow, set in accordance with the Standard Specifications and the manufacturer's specifications.
- c. Driveway aprons shall include binder and top layers to match the grade of the sidewalk and comply with ADA Standards.

6.2.6 Bike Lane and Path

- a. Bike Lanes shall be included in all Collector and Arterial Street designs and shall be a minimum of 5' in width
- b. Bike Paths shall be in accordance with the Massachusetts Highway Project Development and Design Guide.

6.2.7 Street Grades

- a. Centerline grades of all streets shall not be less than 2.0% nor more than 10.0% on Minor, Local, or Collector streets except within 300 feet of an intersection where grades cannot exceed 5.0%. Centerline grades on Arterial streets may not exceed 5.0% at any location.
- b. Centerline grades of all cul-de-sacs shall not be less than 2.0% nor more than 10.0% and may not exceed 5.0% within 300 feet of an intersection.
- c. All changes in grade exceeding three-quarters (3/4) percent shall be connected by vertical curves of sufficient length to provide a minimum design rate of curvature (k) of 19 for crest curves, and 37 for sag curves (as required by AASHTO for a 30 mph design speed to provide a sight distance of 200 feet).
- d. Streets and lots shall be aligned and graded to facilitate connection with the existing and proposed sewerage system where applicable.
- e. Cuts or fills in excess of eight (8) feet or roadway locations resulting in lots being more than eight (8) feet above or below the grade of the roadway shall be substantiated by the submission of cross sections showing the proposed grading within two hundred (200) feet of the roadway on both sides.

6.2.8 Retaining Walls

Retaining walls shall not be located within any portion of the street Right of Way. Right of Ways cannot be structurally supported by a retaining wall, even if the location of the wall is not within the right of way. A 2:1 slope shall be the maximum slope allowed to support a Right of Way and shall be designed to meet Standards Specifications and LRFD.

6.2.9 Bridges and Culverts

The Town will not accept a public roadway that is supported by a bridge with a span length of twenty feet and zero inches (20 feet and 0 inches) or more.

Small bridges between 10-20' in span length shall meet the requirements of the Standards Specifications and LRFD.

Culverts within the right-of-way shall not exceed a span length of ten feet and zero inches (10 feet and 0 inches) and shall meet the requirements of the Standards Specifications and LRFD.

6.2.10 Dead-end Streets

Dead-end streets shall be no longer than five hundred (500) feet as measured from the intersection of the new roadway and edge of pavement of the existing roadway to the center of the cul-de-sac unless, in the

opinion of the Board, a greater length is necessitated by topography or other local conditions. For the purposes of this section, any proposed street which intersects solely with a dead-end street shall be deemed to be an extension of the dead-end street.

Dead-end streets shall be provided at the closed end with a turnaround or (cul-de-sac) having an outside roadway (paved) diameter of at least one hundred (100) feet, and a right-of-way diameter of at least one hundred twenty (120) feet.

Through streets indicated on the plan that are not constructed to provide through traffic shall provide for temporary turn-arounds to be approved by the Board, or its agent, before any houses on such streets shall be occupied.

Any easement in a turn-around other than an easement appurtenant to a lot abutting the turn-around shall terminate upon the approval and recording of a plan showing extension of said way, except in such portion of said turn-around as is included in said extension, and upon the recording of a certificate by the Board of the construction of said extension.

A permanent cul-de-sac shall have a center island with a fifteen (15) foot radius and be enclosed by a Regulation bituminous berm. The interior of the island shall be loamed and seeded according to the Regulations for other grassed areas within the right-of-way. The Board may consider a waiver for the provision of the cul-de-sac based on the density of the applicable subdivision.

6.3 Driveways

Refer to the Town of Holden Application for Street Entry Permit for details regulating the placement and construction of driveways.

Entrances shall be made from an accepted or approved right of way within the frontage required of the lots it serves.

There shall be no hazardous or blind driveways.

Driveway aprons within the right of way shall be constructed with same materials and depths of the proposed road and comply with Standard Specifications and ADA standards.

Driveways shall serve a single lot and be connected to the building it serves.

Driveways shall not be permitted to discharge untreated surface runoff water directly onto the public right of way or disturb the existing natural drainage pattern of the land.

6.4 Complete Streets

Subdivision street plans and designs shall provide accommodations for all transportation system user including pedestrians, cyclists, transit users and motorists. Complete streets shall be designed and operated to enable safe access for users of all ages and abilities. The Town of Holden Complete Streets Policy shall be incorporated into publicly and privately funded roadway projects to the extent required, feasible and practical.

6.5 Street Names

Street names shall be sufficiently different in sound and in spelling from other street names in the Town so as not to cause confusion. A street which is planned as a continuation of an existing street shall bear the same name. The Planning Board, after consultation with the Director, Fire and Police Chief shall have final authority over the names of streets in a subdivision

6.6 Utilities

6.6.1 Water

- a. Any new development fitting the sub-division regulation, that is within five hundred (500) feet of the current geographical area serviced by the municipal water system, shall provide municipal water supply for fire protection.
- b. In the event that the developer deems the extension of the municipal water system is technically unfeasible, the reason shall be documented and presented to the Director for his approval. At that time, the developer shall be required to provide alternative method of fire protection. Such plans shall be submitted in writing to the Fire Chief for his or her approval. (ex. Fire Cistern, Residential Sprinklers)
- c. Gate valves shall be installed on each outlet of all tees and crosses, every one thousand (1,000) feet of main, on hydrant branches, and at dead ends.
- d. Hydrants shall be located every five-hundred (500) feet on one side of each street unless a greater distance is approved. Hydrants spaced less than 500 feet may be required for cluster development at the discretion of the Planning Board or its designee.
- e. Entire length of water service line shall have a minimum of a 5-foot cover over the top of the pipe.
- f. Fire Flow
 1. Fire Flow shall be hydraulically modeled to show the required flow at 20 psi residual pressure located at the highest hydrant and/or furthest hydrant (whichever is greater) for a minimum of 2 hours. The design is subject to the approval of the DPW.
 2. Post development test of the actual fire flow shall be required to confirm the required flow is available at the highest and/or furthest hydrant. Further analysis may be required at the discretion of the DPW.
 3. The Fire Chief is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or subdivisions where the development of full fire-flow requirements is impractical.
 4. The Fire Chief is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall be not more than twice that required for the building under consideration.
 5. The Fire Flow calculation shall be the total floor area of all floor levels within the exterior walls, under the horizontal projections of the floor of the building.
 6. Portions of buildings that are separated by fire walls without openings, constructed in accordance with the International Building Code, are allowed to be considered as separate fire-flow calculation areas

7. Fire Flow Requirements for Buildings:

The minimum fire-flow and flow duration requirements for one and two family dwellings, Group R-3 and R-4 shall comply with the most current NFPA requirements. Buildings and townhouses shall comply with NFPA???

FIRE-FLOW CALCULATION AREA (SQUARE FEET)	Automatic Sprinkler System (Per NFPA 13D)	Minimum Fire Flow (GPM)
0-3,600	No Automatic Sprinkler System	1,000
3,601 and greater	No Automatic Sprinkler System	1,500
0-3,600	Installed Sprinkler System	500
3,601 and greater	Installed Sprinkler System	1,000

6.6.2 Fire Cisterns

- a. Subdivisions of five (5) or more lots, business enterprise parks, and industry general developments where the municipal water system is absent or insufficient to meet the minimum fire flow requirements outlined in NFPA 1141, 1142 and associated reference standards, fire cistern(s) with a minimum capacity of 20,000 gallons of water shall be required. The cistern(s) shall meet all applicable NFPA requirements.
- b. Placement of the fire cistern shall be located within 1200 feet from lot center.
- c. Cistern design/ plans shall be submitted in writing to the Fire Chief for approval prior to construction. All designs/ plans shall be signed and stamped by a registered professional engineer.
- d. The capacity of the cistern shall be in conformance with the requirements of NFPA 1141, 1142, and reference standards of those publications, but not less than a useable capacity of twenty thousand (20,000) Gallons.
- e. Cisterns shall be fiberglass, concrete with liner, or other non-permeable materials. Unlined concrete tanks are permitted if the applicant can show through a registered professional engineers calculations that a natural or continuous source, a well, or other automatic fill device will provide a supply of make-up water that will be available for the tank, at a rate that is equivalent to the leakage and weeping rate of the tank.
- f. Cisterns shall not be installed using vertical seams. Cisterns shall be installed with bedding and backfill as required by the Fire Chief or the Towns' Engineer.
- g. Buoyancy calculations of the fire cistern shall be prepared by a Massachusetts Registered Professional Engineer. Cisterns subject to uplift and displacement due to buoyancy effects shall be anchored with corrosion resistant hold down straps and dead man anchors. A groundwater elevation to the surface grade shall be used for calculation purposes.
- h. Cisterns and their appurtenance shall be buried and/ or protected to prevent the water within them from freezing.

- i. A manway with a minimum of twenty-four (24) inch clear diameter shall provide access in to the top of the tank. Containment collars with a minimum of forty-two (42) inches shall be used to extend the manway opening to grade and be covered with a minimum of a thirty-six (36) inch cast iron manhole and cover.
- j. Cisterns shall be designed in a manner where the maximum suction lift is not over fifteen (15) feet.
- k. The cistern shall be rated for H-20 loading unless specifically exempted by the Fire Chief
- l. Cistern vents shall have the capability of discharging the air that is displaced by the inflow of one thousand (1000) gallons per minute of fill flow water. All vents shall be installed with protection screens.
- m. Cisterns shall be provided with a Fire Department refill/ recirculating connection located at a minimum of four (4) feet but not more than nine (9) feet off the paved surface, adjacent to the cistern suction connection at a height of thirty-six (36) inches above finished grade. This connection shall terminate with a four (4) inch Storz fitting, equipped with a screen and cap. The refill/ recirculating connection shall be constructed in a way that it is capable of withstanding the forces applied by hoses and adaptors flowing one thousand (1000) gallons per minute without damage. Piping shall be rated for a minimum of 100 psi and shall use either 90-degree long sweeps or 45-degree elbows. The refill/ recirculating connection shall be baffled or diverted as necessary to prevent simultaneous suction and refill operations causing cavitation.
- n. Suction Connection- Cisterns shall have a suction connection. The suction connection shall be located at a minimum of four (4) feet but not more than nine (9) feet off the paved surface, adjacent to the cistern refill/ recirculating connection at a height of thirty-six (36) inches above finished grade. This connection shall be a six (6) inch diameter ductile iron pipe or equal and terminate with a six (6) inch NH/ NST thread male connection and cap. The suction connection shall be constructed in a way that it is capable of withstanding the forces applies by hoses and adaptors flowing one thousand (1000) gallons per minute without damage with the piping or tank. The inlet of the suction connection shall be provided with an anti- vortex plate assembly. Piping shall be constructed of ductile piping or equal.

6.6.3 Sewerage

- a. Sanitary sewer lines of adequate size shall be installed in any development where the proposed development is within 300 feet of a trunk or main sewer. The Definitive Plan shall contain the locations of such sewers with profile of same.
- b. The measured distance of such an existing sewer line shall be measured along the proposed lines as shown in the most current version of the Town of Holden Sewer Watershed Areas Map prepared by Weston & Sampson as determined by the Town of Holden Public Works Director.
- c. Sewer connections feasibility shall be subject to the Director.
- d. Collector sewers shall be Poly Vinyl Chloride (PVC), Type PSM, SDR 35; at least eight (8) inches in diameter laid to a minimum slope of one-half (1/2) foot per 100 feet and

shall be deep enough to drain basement fixtures and prevent freezing. Precast concrete manholes shall be constructed at the ends of each line, and at all changes in grade, size and alignment. They shall not exceed a spacing of 300 feet.

- e. Subdivisions proposing public sewage system service shall provide stub connections and easements to allow eventual expansion of sewer service to adjacent existing neighborhoods currently utilizing septic systems.
- f. The preferred sewer connection method is by gravity
- g. A minimum of 4-feet of cover over the top of the pipe shall be required.
- h. Manholes shall be constructed at the end of each line, at changes in grade, size, and alignment, **not to exceed a distance of 500-ft**, and have inverts. Buoyancy calculations and extended collars to resist buoyancy forces shall be provided if required at the discretion of the Director.

6.6.4 Sewer Pump Stations

- a. An applicant wishing to install a sewer system within the Town of Holden which requires the use of a pumping station, or stations, shall only use equipment approved by the DPW Water & Sewer Division.
- b. The station shall be sized and located so that it shall be able to handle the entire theoretical flow of the complete watershed above the elevation at which it lies, as determined by the Public Works Director.

6.6.5 Drainage

- a. Compliance
 - 1. Drainage Design shall conform to the EPA MS4 Permit requirements, DEP Stormwater Standards and Handbook. A Stormwater Report in compliance with the Handbook and MS4 permit shall be submitted as required. The Checklist for Stormwater Report shall be submitted to the Board. The stormwater management design shall encourage the use of environmentally sensitive site design and Low Impact Development (LID) techniques Best Management Practices (BMPs) for stormwater quality treatment.
 - 2. A completed system of drainage shall be constructed in a manner satisfactory to the Board and in conformance with the Standard Specifications to provide adequate control of surface and subsurface water, in or from the subdivision and adjacent land. Pipe size, locations and number of catch basins, manholes, headwalls, and other appurtenances shall be in accordance with the requirements of the Board.
 - 3. Drainage systems shall have adequate capacity to handle all storm water runoff presently flowing through the subdivision, as well as to dispose of any additional runoff generated by the proposed development up to the 100-year storm event. Rainfall data used for stormwater design shall utilize the 24-hour data from the "Extreme Precipitation In New York and New England" developed by the Northeast Climate Center (NRCC) at Cornell University.

b. Stormwater Report

- Stormwater Design shall comply with the Stormwater Management Standards, as applicable.
4. A Stormwater Report shall be prepared, sealed and stamped by a Massachusetts Registered Professional Civil Engineer for pre- and post-development conditions to show peak rates of runoff for the 2-, 10-, 25- and 100-year storm events using software program-based SCS TR-55 and/or TR-20 stormwater modeling methods.
 5. All drainage calculations shall be stamped by a Massachusetts Registered Professional Civil Engineer. Calculations and assumptions shall be clearly shown. Calculations shall be supported by soil logs and USDA NRCS soil maps. Water shed maps shall be submitted showing Pre and Post development drainage sub catchments areas, NRCS hydrologic soil group boundaries (A, B, C, and D soil groups), flow paths for time of concentration, points of analysis and location of soil tests.
 6. Stormwater management systems shall be designed to remove 90 do we need to change this to 90% to comply with MS4 for ORW's? percent of the average annual post construction load of Total Suspended Solids (TSS). Pretreatment shall be provided and structural BMPs shall be sized to capture the required water quality volume as determined using the methods in the Stormwater Handbook and requirements of the Town of Holden MS4 Permit Requirements.
 7. Post-development recharge rates shall be greater than pre-development conditions based on soil type.
 8. The stormwater volume to be recharged to groundwater shall be determined using the methods in the Stormwater Handbook and MS4 Permit.

c. Grading

Lots shall be laid out and graded so as to provide positive drainage away from all proposed buildings. Individual lot drainage shall be designed so as to avoid concentration of stormwater drainage from each lot to adjacent lots or to the street.

d. Drainage Structures

1. All existing waterways, whether they are permanent or intermittent, shall be maintained and/or properly modified with the proposed project. Culverts conducting waterways underneath roadways shall be extended beyond the right-of-way line to a point at least twenty (20) feet beyond the rear house line of the proposed dwellings and shall terminate with concrete headwalls as specified in the Standard Specifications. All open waterways shall have side slopes not exceeding 3 to 1 (horizontal to vertical). The deed for the property shall include a description of the easement including distance and bearings.
2. Drain pipes shall not be laid to a slope below 0.5% or more than 10%.
3. Manholes shall be constructed at the end of each line, from catch basin connections, at changes in grade, size, and alignment, and to have inverts of poured-in-place concrete.

Such catch basins shall be provided with granite curb inlets and granite transition stones on both sides.

4. Catch basins shall be installed on both sides of a roadway at a spacing not to exceed 300 feet, on continuous grades, at low points, and near corners of the roadway at intersecting streets and all other such locations as required by the Board. Catch basins shall have four (4) foot deep sumps as measured below the outlet pipe elevation and a gas/oil hood (trap) over the outlet pipe. Catch basins shall not drain to another catch basin but rather to a manhole. Catch basins shall be provided with granite curb inlets and granite transition stones on both sides.
5. At least three (3) feet of cover will be required over all drains unless otherwise specified and approved by the Board; in no case shall the cover be less than the pipe manufacturer's recommendations. HDPE drain pipe shall be bedded on base of six (6) inches of crushed stone, backfilled to the spring line of the pipe with the same stone, and well-chinked along the pipe to fully support the entirety of the pipe. The crushed stone shall be placed with a cover of six (6) inches above the pipe.

6.7 Street Signs

Street signs shall be furnished and erected at all street intersections. The specifications for such signs shall be obtained from the DPW. All streets not accepted by the Town of Holden shall be so indicated by a sign stating "Private Way", such sign shall be approved by the Holden DDPW. All street signs shall comply and be installed in conformance with the Manual on Uniform Traffic Control Devices (MUTCD) standards.

6.8 Street Lights

Street lighting shall be purchased by the developer and installed by a licensed electrician. Lighting fixtures shall be placed a maximum of two hundred (200) feet apart, less on curves and other areas where safety requires, as determined by the Holden Municipal Light Department. The lighting poles shall be 14 feet in height and consist of a minimum fiber glass town and Country style lighting fixtures, a style upgrade is permissible with approval from the Light Department. The final lighting plan and fixtures shall be subject to the approval of the Holden Municipal Light Department. Street lights shall be operational once installed and the electrical costs shall be paid by the Applicant until the streets are accepted by the Town of Holden and paid for by the Applicant.

6.9 Shade Trees

Shade trees of nursery stock conforming to the Standards of the American association of Nurserymen, of a species approved by the Tree Warden, shall be planted on each side of each street in a subdivision, except where the Definitive Plan shows trees along the ways which are healthy and adequate, which shall be retained.

Shade trees shall be located at the discretion of the Tree Warden and the D.P.W. on subdivision lots approximately at forty-foot (40') intervals parallel to the subdivision roadway; two inches (2") in caliper measured four feet (4') above the approved grade. Each tree planted shall be in at least one-half (1/2) cubic yard of topsoil, and be planted within the right of way within the grass strip between the roadway and sidewalk unless otherwise approved by the Planning Board. New tree plantings shall be guaranteed by the developer for a period of three years after planting. All trees will be required to be in healthy condition at time of street acceptance. Due regard shall be shown for the preservation of trees on the lots within the subdivision so as to add to the attractiveness and value of the property and the Town.

If a sub divider finds it necessary to remove any Town's trees, or if the Board finds it necessary to have the sub divider remove any of the Town's trees, they must first request a Public Tree Hearing with the Tree Warden as required by Chapter 87, section 3 of the M.G.L. The sub divider will replace all trees removed on a caliper inch for caliper inch basis, all at his own expense. The size, species and locations of the new tree plantings will be determined by the Tree Warden. These new plantings will be guaranteed by the sub divider for a period of one year from planting.

6.10 Easements

Easement rights which are appropriate, sufficient and necessary, in the opinion of the Board, shall be secured for the Town of Holden. Reinforced concrete bounds of the same dimensions as for granite bounds shall be installed at angle points on all easements to the Town of Holden.

6.10.1 Utility Easements

Easements for utilities across lots or centered on rear or side lot lines shall be provided where necessary and shall be at least twenty (20) feet wide. All easements shall be graded and designed such that they are passable and will structurally support all Holden Department of Public Works vehicles.

a. Drainage Easement

Where a subdivision is traversed by a water course, drainage way, channel or stream, the Board shall require that there be provided a storm water easement or drainage right-of-way of adequate width to conform substantially to the lines of such water courses, drainage way, channel or stream, to provide for construction or other necessary purposes and to provide for extension of such water courses on adjoining property properly bounded and described. Alternatively, a strip including the water course may be deeded to the town Conservation Commission or some other public or private cooperative non-profit organization for the purposes of conservation and recreation. An easement shall be provided for the BMP associated with stormwater management.

b. Sewer Easement

Subdivisions proposing public sewage system service shall provide a sewer easement to allow the eventual expansion of sewer service to adjacent existing neighborhoods currently utilizing septic systems.

c. Slope Easement

Slope easements shall be provided where necessary to ensure lateral support and protection of streets and other construction features.

6.11 Bounds/Monuments

a. Permanent reference bounds (also referred to as monuments) shall be set along each line of any easement at corners, angle points, points of change in direction or curvature. Permanent bounds shall be installed in accordance with the approved Definitive Plan and at any location where, in the opinion of the Board, permanent bounds shall be necessary. Such bounds shall conform to the Standard Specifications. No permanent bound shall be installed until all construction which would destroy or disturb the bound is complete.

b. Permanent bounds shall be constructed of granite or reinforced concrete six (6) inches square and four (4) feet long with a one-inch deep and one-half-inch diameter drill hole in the top. Permanent bounds shall be set in bank run gravel and shall be set flush with the surface of the ground per the Standard

Specifications. Where the soil make the setting of permanent bounds impractical, alternate types of permanent bounds may be used with the prior approval of the Town Engineer.

6.12 Open Space and Parks

Before approval of the Definitive Plan, the Board may also in proper cases require the plan to show a park or parks suitably located for playground or recreation purposes or for providing light and air. The park or parks shall not be unreasonable in area in relation to land being subdivided and to the prospective uses of such land. The Board may, by appropriate endorsement on the Plan, require that no building be erected upon such park or parks without its approval for a period of three (3) years. The Board shall not require dedication of such recreation areas without just compensation to the owner. This shall in no way prohibit the gift of such land to any public or private cooperative non-profit organization for recreational and open space use. Indeed, the Board urges the gift of such land for the improvement of community life and social welfare.

6.13 Wetlands

Any person submitting a subdivision for approval by the Board to be built upon any bank, flat, marsh, meadow or swamp bordering on any inland waterways, shall file for a permit to perform such activity under the M.G.L. Chapter 131, Section 40, the Wetlands Protection Act and (310 CMR 10.00 the Massachusetts Wetlands Protection Act Regulations). This permit shall be obtained before any development work commences.

6.14 Flood Plain District

If any part of a subdivision proposal or other new development is located within the Flood Plain District established under the Zoning Bylaw it shall be reviewed to assure that:

- a. The proposal is designed consistent with the need to minimize flood damage,
- b. All public utilities and facilities, including but not limited to sewer, gas, electrical, drainage and water systems, shall be located and constructed to minimize or eliminate flood damage, and
- c. Adequate drainage systems shall be provided to reduce exposure to flood hazards, and
- d. Base flood elevation (the level of the 100-year flood) data shall be provided for proposals greater than 50 lots or 5 acres, whichever is the lesser, for that portion within the Flood Plain District.

6.15 Environmental Analysis

All subdivisions plans shall be accompanied by an Environmental Analysis. For Definitive plans proposing a layout of only a portion of a larger area under single-entity ownership, determination of the level of environmental Analysis under this section shall be based upon the number of lots that could potentially be proposed for the entire property. The level of Environmental Analysis, Minor or Major, shall include the following:

6.15.1 Minor Environmental Analysis

A Minor Environmental Analysis shall be prepared for subdivisions under twenty (20) lots and shall be prepared by an interdisciplinary team to include a Land Surveyor, Civil Engineer and Architect or Landscape Architect, unless otherwise agreed to by the Planning Board. The following documentation is required from each such analysis:

- a. A plan at uniform scale shall be submitted, encompassing the entire subdivision on a single sheet no larger than 24" x 36" showing the following:
 1. The same data as on the Definitive Plan.
 2. Topography at two-foot contour intervals, with graphic drainage analysis (direction of surface runoff); indication of annual high water mark, location of existing structures, including fences and walls, and watershed boundaries.
 3. Vegetative cover analysis, including identification of general cover type (wooded, cropland, brush, wetland, etc.); location of all major tree groupings, plus other outstanding trees or other botanical features; important wildlife habitats; and identification of areas not to be disturbed by construction.
 4. Soil types, based on U.S.D.A. soils study; approximate groundwater level, location and results of soil percolation or other subsurface tests.
 5. Visual analysis, including analysis of scenic vistas, and location of visual prominence.
 6. Location of surface water bodies, wetlands, aquifer or recharge areas for existing or potential drinking water supplies.
 7. Sight Distance plan for the traveled roadway speed.
- b. A narrative statement shall also be submitted, documenting the following, with reference to the above maps as germane:
 1. Impact upon surface water quality and level.
 2. Impact upon groundwater quality and level.
 3. Effects on important wildlife habitats, outstanding botanical features, scenic or historic sites or buildings.
 4. Capability of soils and vegetative cover to support proposed development without erosion, silting or other instability.
 5. Off-Site Improvements. Proposals for mitigating measures or the design or construction of off-site improvements (or financial contributions for them) to deal with the impacts of the proposed development
 6. Existing streets that will be used to access the proposed subdivision shall be of a pavement width and condition adequate for the projected traffic. The Board may

require the Applicant to fund or conduct off-site improvements if the existing streets are not adequate

6.15.2 Major Environmental Analysis

A Major Environmental Analysis shall be prepared for subdivisions of twenty (20) lots or more and shall be prepared by an interdisciplinary team to include a Massachusetts Registered Land Surveyor, Civil Engineer and Architect or Landscape Architect, unless otherwise agreed to by the Planning Board. The Analysis shall include all the information from the Minor Environmental Analysis in addition to a Traffic Report

6.15.3 Traffic Management Report

- a. A traffic study shall be prepared including, but not limited to, proposed traffic generation from the development, analysis of trip distribution in relation to the existing roadways giving access to the subdivision, existing versus required and proposed sight distances for all proposed roadway intersections, and level of services impacts upon surrounding intersections. The Board may require additional analyses as they deem necessary on a case-by-case basis.
- b. The report shall estimate the effect of the project on public services, such as water, sewer, schools, police, fire and waste disposal.
- c. Based on the results of the traffic report and existing traffic conditions of the surrounding area, offsite mitigations may be required and shall be the responsibility of the developer to offset any negative traffic impacts identified by the study.

6.16 Industrial Subdivision

Industrial subdivision shall conform to all requirements applicable to residential subdivisions except as follows:

- a. Sidewalks will be required on one (1) side only.
- b. Pavement thickness shall be six (6) inches and shall be placed in two (2) courses. The intermediate course shall be four (4) inches thick installed with two equal lifts, and the surface course shall be two (2) inches thick. The top course shall not be placed until all utility connections have been made to each lot. The subgrade of the roadway shall be constructed of dense graded crushed stone compacted to six (6) inches underlain by gravel borrow compacted to eight (8) inches. If the expected average daily traffic is over 500 vehicles, a site specific design may be required, with a minimum design as stated above.
- c. Pavement width shall be thirty-eight (38) feet between berms.
- d. Berm radii at street intersections shall be fifty (50) feet minimum.
- e. Roadway grades shall not be less than 1.5% and shall not exceed 6%.
- f. Looping streets and second exits shall be provided to avoid cul-de-sac type turnarounds.

- g. Travel lanes shall be marked in accordance with the latest MUTCD and Standard Specifications.

SECTION VII - CONSTRUCTION STANDARDS

7.1 Intent

The intent of the following specifications is to require and secure complete and well-constructed streets and ways in the Town of Holden. All required improvements shall be in accordance with the Standard Specifications and Holden Department of Public Works (DPW) Standards. Specific references hereunder shall be made to the Standard Specifications

7.2 Pre-construction Meeting

A Pre-construction meeting shall be scheduled with the Director of Public Works and various members of the DPW prior to any work on site. The applicant shall provide the DPW with two-week' notice of the planned pre-construction meeting. The applicant and all subcontractors shall be present at the meeting.

7.3 Submittals

Specifications and cut sheets for all materials and products that are to be installed within the public ROW or that are intended to be owned by the Town shall be submitted for review and approval to the Engineering Department or its designee prior to installing the material or product.

7.4 Inspection

7.4.1 Fees

- a. A subdivision roadway and infrastructure inspection fee, to cover the cost of engineering inspections, shall be required for all approved Definitive Subdivision Plans. Said fee shall be established at 2.5% of the total subdivision roadway and infrastructure performance bond amount. The "performance bond amount", for purposes of this section, shall be the total estimated cost of all required improvements within the subdivision as determined by the DPW Engineering Division. Said amount shall not be reduced by the cost of any improvements completed while the subdivision is secured by Covenant.
- b. An initial 1.5% of the inspection fee shall be paid upon Planning Board approval of the Definitive Subdivision Plan or at the beginning of construction as determined by the Director, .50% of the fee shall be paid the second , and the remaining .50% of the fee shall be paid the third year. In the event of delayed construction of the Developer, engineering fees shall be updated based on the standard ENR construction index. In no case shall the annual amount of fee paid be less than (\$500.00) five hundred dollars, said minimum fee required for periodic site inspections and engineering division administration of the subdivision schedule of disbursements. Additional third party fees shall also be paid by the applicant if required by the Director.

- c. The Town may assign as its agents third party consultant, at the cost of the developer, to perform periodic site inspections at a frequency determined necessary by the Department of Public Works Engineering Office.
- d. In the event that subdivision ways are proposed for Town Meeting acceptance prior to issuance of all Building Permits, the remaining balance of the inspection fee shall be paid in full, and failure by the developer to pay in full shall require a negative recommendation on acceptance by the Planning Board.

7.4.2 Requirements

- a. All elements of work shall be at all times subject to inspection and approval by the Planning Board or its authorized representative, the Town Engineer, and to such authorized representatives of town agencies or boards having jurisdiction over utilities, erosion control installation, safety or traffic flow upon the streets and ways within the Town of Holden.
- b. No construction shall begin until a preconstruction meeting has been held with the Director or his designee. The preconstruction meeting shall occur no less than two weeks prior to scheduled construction. A two week notification to the Town shall be required requesting the preconstruction meeting.
- c. Erosion controls and limits of work must be inspected and approved prior to the common Street Signs. Street signs shall be furnished and erected at all street intersections. The specifications for such signs shall be obtained from the DPW. All streets not accepted by the Town of Holden shall be so indicated by a sign stating "Private Way", such sign shall be approved by the Holden DDPW. All street signs shall comply and be installed in conformance with the Manual on Uniform Traffic Control Devices (MUTCD) standards.

7.5 Street Lights

Street lighting shall be purchased by the developer and installed by a licensed electrician. Lighting fixtures shall be placed a maximum of two hundred (200) feet apart, less on curves and other areas where safety requires, as determined by the Holden Municipal Light Department. The lighting poles shall be 14 feet in height and consist of a minimum fiber glass town and Country style lighting fixtures, a style upgrade is permissible with approval from the Light Department. The final lighting plan and fixtures shall be subject to the approval of the Holden Municipal Light Department. Street lights shall be operational once installed and the electrical costs shall be paid by the Applicant until the streets are accepted by the Town of Holden and paid for by the Applicant.

7.6 Shade Trees

Shade trees of nursery stock conforming to the Standards of the American association of Nurserymen, of a species approved by the Tree Warden, shall be planted on each side of each street in a subdivision, except where the Definitive Plan shows trees along the ways which are healthy and adequate, which shall be retained.

Shade trees shall be located at the discretion of the Tree Warden and the D.P.W. on subdivision lots approximately at forty-foot (40') intervals parallel to the subdivision roadway; two inches (2") in caliper measured four feet (4') above the approved grade. Each tree planted shall be in at least one-half (1/2) cubic yard of topsoil, and be planted within the right of way within the grass strip between the roadway and sidewalk unless otherwise approved by the Planning Board. New tree plantings shall be guaranteed by the

developer for a period of one year after planting. Due regard shall be shown for the preservation of trees on the lots within the subdivision so as to add to the attractiveness and value of the property and the Town.

If a sub divider finds it necessary to remove any Town's trees, or if the Board finds it necessary to have the sub divider remove any of the Town's trees, they must first request a Public Tree Hearing with the Tree Warden as required by Chapter 87, section 3 of the M.G.L. The sub divider will replace all trees removed on a caliper inch for caliper inch basis, all at his own expense. The size, species and locations of the new tree plantings will be determined by the Tree Warden. These new plantings will be guaranteed by the sub divider for a period of one year from planting.

- a. Cement of work
- b. No construction work or commencement of subsequent phases of work of required improvements shall commence until the Town Engineer and the Police Department have been notified at least two (2) business days in advance of the work. Notification shall be made by phone to the DPW and Police Department.
- c. Required inspections shall be facilitated by timely notice to the Town. Each phase or step in the construction of required improvements shall be inspected and approved by the Town Engineer or his representative. At a minimum, inspections shall be requested with a one-week notice at the following stages of development:
 - Following installation of all underground drainage and utilities, prior to backfilling;
 - Following preparations of the street subgrade and shoulders;
 - Following spreading and compaction of the gravel base, prior to application of the binder course on the street.
 - Immediately prior to and during the application and compaction of the surface course on the street and, if required, on the sidewalk, and;
 - Following completion of all improvements and installation of bounds.
- d. No work shall proceed with construction of any of the above stages of development until the Director, or his designee, has approved the previous stage.
- e. The Director or his designee, may require inspection at such other intervals as he/she may deem necessary to assure proper construction of improvements. In addition, the Town Engineer may require periodic inspection reports from the project's Engineer-of-record.

7.7 Street and Roadway

Construction shall be in accordance with the Typical Cross Section for Approved Streets and Roadways in the Town of Holden (hereinafter referred to as the Typical Road Section), a copy of which is appended hereto and made a part hereof.

7.7.1. Clearing and Grubbing

- a. The entire area of each street and proposed street extension shall be cleared of all stumps, brush, roots and all trees not designated for preservation. The clearing and grubbing shall be performed in accordance with the Standard Specifications.
- b. Upon completion of the above work, a first inspection of the roadway shall be required by the Town Engineer before proceeding with further construction.

7.7.2. Subgrade

- a. The entire area of the proposed roadway, including proposed street extensions, shall be excavated or filled to a subgrade elevation sixteen and one-half (16-1/2) inches below the proposed finished surface and in conformance with the Typical Road Section. All organic, soft and/or spongy material occurring in the subgrade shall be removed to such depth as exposes unyielding, stable material, and shall be replaced with M1.03.0.a Gravel Borrow. Any fill required to achieve subgrade elevation shall consist of Mass DOT M1.03.0.a Gravel Borrow. Stone in excess of six (6) inches in its greatest dimension shall be removed from the surface of the subgrade. The subgrading shall be performed in accordance with the Standard Specifications.
- b. Subgrade for sidewalk and bike path areas shall be nine (9) inches below the proposed finished grade. This shall include six (6) inches of subbase material, one and one half (1-1/2) inches of intermediate pavement and one and one half (1-1/2) inches of surface course pavement
- c. The subgrade for grass plots and loamed areas shall be six (6) inches below the proposed finished grade.
- d. Fill brought onto the site shall be free of deleterious and hazardous materials. The Town shall have the right to inspect fill material and/or delay further fill operations until the subgrade material is satisfactory. Any subgrade material that is not acceptable to the Town Engineer or the representative shall be removed from the site.
- e. The Town Engineer may require compaction or analytical testing (i.e. gradation, RCRA 8-metals of the subgrade as necessary).
- f. Upon completion of the above work, an inspection of the roadway shall be required by the Town Engineer before proceeding with further construction.

7.7.3. Gravel Base Course

- a. All roadway pavement shall be provided with a foundation consisting of a minimum of twelve (12) inches of compacted gravel M2.01.7 Dense-graded Crushed Stone, applied in two six (6) inches lifts, and each lift mechanically compacted before the application of the subsequent lift. The gravel base course shall be fine graded with a fine grader and rolled, true to grade, to the appropriate depth below the proposed finished grade as shown on the typical road section. The gravel base course shall be constructed in conformance with the Standard Specifications.
- b. All sidewalk and bike path pavement shall be provided with a foundation consistent with that required for roadways, except that the minimum compacted thickness shall

be six (6) inches. Subdivision sidewalks and bike paths shall be designed to be handicap accessible in accordance with the Standard Specifications and the ADA Standards.

- c. Upon completion of the above work, an inspection of the roadway shall be required by the Town Engineer before proceeding with further construction.

7.7.4. Pavement

- a. For all roads, sidewalks and bike paths, a subbase, intermediate and surface course shall be applied and completed to the specifications shown in the most current version of the **Town of Holden Pavement Specifications**.
- b. That portion of all driveways within the street right-of-ways of the subdivision shall be constructed to conform to Typical Driveway Section as shown in **Appendix D**.
- c. Prior and during the above work, an inspection of the roadway shall be required by the Town Engineer before proceeding with further construction.
- d. Pavement material shall not be placed on any wet, saturated or frozen surface or when the ambient air temperature is below forty degrees Fahrenheit (40°F).

7.7.5. Lot Identification

Once the roadways is graded all lots must be clearly labeled with both the relevant lot and house number.

7.7.6. Curbing and Curb Cuts

- a. Except as hereinafter provided, a Hot-Mix asphalt curb shall be placed at each edge of the traveled way. The machine-formed asphalt curb shall conform to the specifications and dimension of the Mass DOT Type-2 Asphalt Curb (E 106.2.0). The curb shall be laid on the binder asphalt course and a tack coat of emulsion shall be applied to the road surface before the installation of the berm to aid in adhesion. The construction of the bituminous concrete berm shall be in conformance with the Standard Specifications.

Upon completion of the above work, an inspection of the roadway shall be required by the Town Engineer before proceeding with further construction.

7.7.7. Loaming and Seeding

- a. All unpaved areas, within the roadway right-of-way, and all slopes immediately adjacent to the roadway shall be loamed with a minimum thickness of six (6) inches of 3/4-inch minus screened loam. The type of loam and its application shall be conformance with the Standard Specifications.
- b. All loamed areas shall be fertilized and seeded in conformance with the Standard Specifications.

7.7.8. Safety Features

- a. Highway guardrails shall be constructed where required by the DPW Engineering Division and where required based upon the criteria established by Standard Specifications and/or AASHTO.

7.8. Utilities

7.8.1. Installation

- a. In all cases, the responsibility for connection to existing town utilities shall rest with the applicant. The applicant is responsible for coordinating the shut-down and/or connection to existing utilities with the DPW Water & Sewer Division.
- b. In all cases, the required utilities shall be installed and sufficient stubs shall be provided within the full width of the right-of-way to serve each of the lots abutting the right-of-way, prior to any surfacing of the roadway.
- c. The installation of water, sewer and drainage pipes and related equipment shall not be backfilled until inspected by the Engineering Division.

7.8.2. General

- a. All utility services to each lot shall be installed before the gravel base course is constructed.
- b. No backfilling or covering of any pipe shall be permitted until approved by the Town Engineer. Selected materials shall be tamped under and around pipe in six (6) inch layers to a point twelve (12) inches above the top of the pipe.
- c. The developer shall be responsible for the repair to any of his work until accepted by the Town.

7.8.3. Water

- a. Water pipes and related equipment, such as hydrants and main shut-off valves shall be constructed to serve all lots on each street in the subdivision in conformity with the requirements of the DPW Water & Sewer Division.
- b. Connection to existing Town water facilities to assure adequate supply to the subdivision shall be the responsibility of the applicant.
- c. Water mains shall be ductile iron pipe to be a minimum of 8 inches in diameter.
- d. Water mains shall be laid to provide a minimum cover of five (5) feet from the finished grade, and shall not be deeper than eight (8) feet. All piping shall be designed in accordance with AWWA C150 and shall be manufactured in accordance with AWWA C151 that is Class 52 ductile-iron cement lined pipe. All fittings and hydrants shall be mechanical joints and shall have properly designed concrete thrust blocks installed behind them and mechanical restraints based on the size and field conditions.

- e. Gate valves, road boxes and hydrants shall be equal in quality to those presently being used by the DPW Water & Sewer Division.
- f. Upon completion of the water main construction and prior to putting into service, a pressure and leakage test shall be conducted in accordance with the requirements of the DPW Engineering Division. Any defects found shall be corrected immediately. Once a successful pressure test has been run, the lines shall be chlorinated and tested for bacteria (disinfection) by a Mass DEP approved testing lab. The disinfection testing shall be performed in accordance with the specifications of the DPW Water & Sewer Division. The developer shall be responsible for providing all necessary equipment and labor to conduct the tests and chlorination which shall be witnessed by a representative of the DPW Engineering Division. The Applicant shall born the cost of the pressure and leakage testing.
- g. Prior to the construction of buildings in a subdivision, or in any phase of a subdivision approved by the Planning Board, the water supply and hydrants for fire protection shall be installed and maintained by the Applicant in a manner acceptable to the Fire Chief and the DPW until acceptance of the water lines by the Town of Holden

7.8.4. Fire Cisterns

- a. The cistern shall be permitted and registered through the Fire Department.
- b. Cistern and associated requirements shall be installed, tested, and operational prior to the issuance of an occupancy permit for any structure in the subdivision. If multiple cisterns are required, a minimum of one (1) additional cistern shall be installed and operational for each additional phase of the project as determined by the Planning Board.
- c. The Holden Fire Department reserves the right to utilize the fire cistern for training, testing, and as an emergency water source for incidents that may be outside the proposed subdivision or property. If used, the Holden Fire Department will refill the tank (s) at no cost to the owner.
- d. All connections shall be clean and the appropriate sealing material used accordance with manufacturer's specifications so as to ensure all joints are airtight and prevent infiltration of soils, silts, and other contaminates.
- e. A flashing warning light with level float shall be installed at each tank that indicates when the water level in the tank has dropped to a level of 90% of the useable volume. An attached sign shall indicate who shall be contacted when flashing.
- f. Bollards or other approved protection devices shall be installed in locations to prevent mechanical damage to the cistern and associated assemblies. There shall be sufficient working room to connect to the refill/recirculating and suction connections.
- g. Signage requirements set forth by the Fire Chief shall be installed prior to the final acceptance of the cistern. An example of required signage includes tank capacity, no parking signs, tank connections, and emergency contact information.

- h. The Fire Chief may require the installation of anti-tamper devices be installed on tank connections and access hatches.
- i. The Fire Chief or his/ her representative and the Towns' Engineer shall be present during the following stages of cistern installation and testing: excavation and bedding installation, concrete pads or anchoring provisions if required, tank installation prior to backfill, pipes and fittings, final backfill, and final completion/ acceptance inspection.
- j. The design engineer for the cistern will inspect all stages of the installation and provide a report of acceptance to the design specifications to the Fire Chief.
- k. The developer is responsible for completely filling the cistern prior to the acceptance by the authority having jurisdiction. Water level is not to drop more than 1-inch in 24 hours initially and not more than 1-inch additionally in 30 days. DROP DOWN TEST?
- l. The developer/ installer is responsible for any leaks, design, and installation issues for one year after acceptance by the Authority Having Jurisdiction.
- m. The developer/ installer shall provide maintenance and testing plans to the Fire Chief
- n. The Applicant is responsible for the maintenance and operation of the cistern until the subdivision is accepted by the Town of Holden, at which time the cistern shall be deeded over to a Homeowner's Association for long term operation and maintenance costs. Snow removal for access to the cistern shall be considered routine maintenance and part of the applicant and Homeowner's Association responsibility. The applicant shall provide a cost estimate for the operation and maintenance of the fire cistern system systems to be maintained by the Homeowner's Association. Funding for five (5) years of operation and maintenance shall be established in an account at the time of street acceptance. After street acceptance, an annual cost shall be charged to each lot owner. The cost will be established by maintenance fees, long term replacement costs and insurance costs divided by the number of house lots serviced by the drainage system. All homeowners shall be presented with a deed and shall contain reference to the easement and homeownership association documents which shall include an Operation and Maintenance Plan. Annual maintenance reporting will be required in accordance with requirements of the Holden Fire Department.

7.8.5. Drainage

- a. All drain pipes shall comply with AASHTO M252 (4-inch through 10-inch) and M294 (12-inch through 60-inch diameter), Type S (smooth wall interior) and shall be high density polyethylene (HDPE) meeting ASTM D3350 minimum cell classification 424420C (4"-10") or 435400C (12"-60"). Reinforced concrete pipe (RCP) may be installed if HDPE is not a suitable alternative as approved by Town Engineer.
- b. Drain pipe and structures shall not be backfilled until inspected by the Town Engineer.
- c. The Applicant shall be responsible to remove and dispose of sediment from the drainage system caused during the construction period.

- d. Upon completion of the above work, the Applicant shall be required to have an inspection of the roadway made by the Town Engineer before proceeding with further construction.
- e. The Applicant is responsible for the maintenance and operation of the drainage and stormwater management systems until the subdivision is accepted by the Town of Holden. The Town of Holden will not accept the ownership or maintenance responsibility of the stormwater system BMP's located outside of the street right-of-way. These systems shall be deeded over to a Homeowner's Association for long term operation and maintenance.
- f. As part of the subdivision submission, the Applicant shall provide a cost estimate for the operation and maintenance of the drainage and stormwater systems, this cost estimate shall be sufficient to cover funding for a five (5) year period and include maintenance fees, long term replacement costs and insurance costs, these costs shall be divided by the number of house lots serviced by the drainage system and funds shall be placed into an escrow account with the sale of each lot.
- g. At the time of street acceptance maintenance responsibilities of the stormwater system shall be transferred to the Homeownership Association. After street acceptance, an annual cost shall be charged to each lot owner. The cost will be established by m. All homeowners shall be presented with a deed and shall contain reference to the homeownership association documents which shall include an Operation and Maintenance Plan which must satisfy all requirements of the Handbook and be included as a part of the Homeownership Association documents. A copy of a contract between the HOA and a qualifying agency shall be provided to the Planning Department prior to the first anniversary of the drainage system(s) being accepted. A copy of an annual certification documenting the work has been done in accordance with the O&M Plan shall be provided to the Planning Department thereafter. A Model Homeownership Association Document is included in "Exhibit".

7.8.6. Sewerage

- a. Sewer pipes and related equipment, such as manholes and connecting wyes shall be constructed in conformity with the specifications of the DPW Water & Sewer Division.
- b. Line and grade shall be controlled by the use of laser instruments.
- c. House services shall be at least six (6) inches in diameter, laid at a minimum pitch of one-quarter (1/4) inch per foot. All sewers, including house services, shall be laid in an envelope of three-quarter (3/4) inch washed gravel. Deflections in line or grade in excess of one-half (1/2) inch will be cause for rejection.

7.8.7. Sewer Pumping Stations

- a. The applicant shall give the DPW Engineering Division a minimum of seven (7) days written notice prior to the scheduled testing of a pumping station and of all servicing visits by either the applicant or the manufacturer. In the event of an emergency service visit, the applicant shall give prior notice as soon as reasonably practical. The applicant

shall provide two (2) copies of operation and maintenance manuals including copies of manufacturer's warranty

- b. The applicant shall be responsible for the operation and maintenance of all pumping stations servicing the applicant's sewerage system until such pumping stations have been accepted by the town. The town will not accept any pumping stations until such time that the roadways of the lots to be serviced by the pumping station has been accepted.
- c. The applicant shall provide proof of maintenance contract with a qualified sewer system contractor for the pump station, this contract shall be reviewed and approved by the DPW. The applicant shall also maintain all records of services to the Pump Station on-site and make available upon request.
- d. At the time the applicant petitions the town to accept the development, the applicant shall be required to post a bond in the amount of five thousand dollars (\$5,000) for each unoccupied lot. Said bond shall be released on a per lot basis as each lot is satisfactory connected to the sewerage system. The town shall be compensated for any damage to the pumping station which arises from the development and sewer connection of the unoccupied lots.
- e. Prior to acceptance, the entire pump station and generator shall be tested and certified per the Town's standards and be inspected by the Director of Public Works or his designee.
- f. The Town may place a lien on each parcel of property if fees are not collected prior to Town acceptance of the streets.
- g. Access to Municipal Sewer is not guaranteed if the development is outside of the Town of Holden sewer area.
- h. Town will not take ownership of the Pump Stations until the road has been accepted by the Town, unless otherwise determined by the Director.
- i. The pump station's automated monitoring system shall meet the Town's current standards and subject to inspection. Weekly inspections by the Director or his designee shall be performed.

7.8.8. Sewer Testing

- a. Time for Making Tests: After the pipe has been laid and backfilled, a low pressure air test, tv inspection and deflection test using a mandrel shall be made on each section of pipeline between manholes. The Town Engineer shall designate the manner in which it shall be conducted.
- b. Minimum Time Requirements Air Testing: The Town Engineer shall give explicit instructions to be followed in carrying out the test. Air should be slowly supplied to the plugged pipe installation until pressure reaches 4 psig. At least two (2) minutes shall be allowed for temperature stabilization.
- c. Should any test on any section of pipe line disclose an air loss rate greater than that permitted, the Applicant shall, at his own expense, locate and repair the defective joints or pipes and retest until the air loss rate is within the specified allowance.

- d. Mandrel: When the pipe lines pass the air test, it shall be subject to the deflection test using a mandrel under the supervision of the Engineering Division.
- e. TV Inspection: When the pipe lines pass the air and deflection tests, it shall be subject to a pipeline video inspection performed under the supervision of the Engineering Division. A recording of the pipeline video inspection shall be provided to the Engineering Division on CD or approved device. Any sections found to be damaged or blocked shall be repaired to the satisfaction of the Engineering Division and reinspected.

7.8.9. Electrical and Telephone

- a. All electrical and other utility wires shall be placed below ground in all subdivisions unless the Planning Board decides upon recommendation of the Utility Supplier that such placement is not feasible or is not in the best interest of the Town of Holden.
- b. All installations shall be subject to the current specifications of the Holden Municipal Light Department (HMLD) entitled "Underground Electrical Distribution System Agreement".
- c. The Applicant is responsible for submitting an electrical plan as part of the subdivision approval to the HMLD.
- d. Once Street lights are installed it is the Applicants responsibility to pay for the operational costs of the lighting until the subdivision is accepted by the Town of Holden

7.8.10. Gas Transmission

If gas is to be installed in the work, then the Local Gas Company shall obtain a location in the right-of-way from the Town Engineer.

7.9. Clean Up

Upon completion of work in the subdivision, all equipment shall be removed and the entire area cleaned of debris and other objectionable material so as to leave a neat and orderly appearance. Regarding individual subdivision lots for which building permits have not been issued, no such vacant lot shall be used as a stockpile area or dumping ground for loam, sand, gravel, fill, stumps, or other earth material or vegetative matter.

7.10. Maintenance of Roadways

The developer shall be responsible for maintaining in good repair all roads in a subdivision until they are accepted by the Town Meeting. The maintenance shall include snow clearing, sanding, sweeping, cleaning of catch basins, repair of any settlements or cracking and adjustment of casting with the pavement.

SECTION VIII - Record Drawings and Acceptance Plans

8.1 As Built Plans

- a. Upon completion of the roadways, the developer shall have the original plans and profiles, which were approved by the Board, corrected and certified by his engineer to show the actual as-built locations and grades of all utilities and roadway profiles and any changes authorized by the Board or the Town Engineer.
- b. These plans shall be drawn ink on Mylar, and shall be known as the record drawings. Ties to all gate valves, tees, service connection shut offs, sewers Y's, etc., shall be superimposed thereon.
- c. A Geographic Information System (GIS) database, compatible with ArcGIS and registered to the Massachusetts State Plane Coordinate System, of the as built plan shall also be submitted.

8.2 Acceptance Plan

- a. In addition to the record drawings, an acceptance plan shall be prepared and certified by a registered land surveyor. This plan shall be drawn with india ink on Mylar, at a scale of one (1) inch equals forty (40) feet, showing the street widths, distances, bearings and complete curve data for all street lines and easements. All stone bounds set during construction and any existing prior thereto shall be shown.
- b. A blank space four (4) inches by eight (8) inches shall be provided on the lower right hand corner of the plan for a title block to be filled in by the Town Engineer. The surveyor shall place a certification on the plan stating that the street shown has been laid out and the monuments have been set. The plan shall be signed by the surveyor and his stamp affixed thereto.
- c. The Planning Board requires fencing around stormwater basins and in such event, specify the type of fencing. The ownership of the basin and the fencing is required to be maintained by the Homeownership Association. This condition may be waived if the Board finds the detention or retention ponds are not holding a significant amount of water or have a shallow depth.

8.3 Street Acceptance

At the time of street acceptance the Applicant and Developer shall provide proof funds are in an account to be turned over at the time of street acceptance to cover maintenance costs of the stormwater system for a period of five years. As part of the Street acceptance procedures the applicant will be responsible for notifying all property owners within the subdivision that a petition has been submitted to the Town for Street acceptance at a Town meeting. This letter must include notice that the Homeownership Association will be assuming responsibility of the stormwater system upon street acceptance of the subdivision. The Developer will be responsible for organizing a meeting to elect the appropriate officers and oversee transfer of funds in the maintenance account.

Upon petition of a street acceptance the following information must be submitted to the Town Clerk's Office

- a. Letter to the Board of Selectmen requesting that they include your street on the warrant for the Town Meeting
- b. Letter to the Board of Selectmen, from your engineer, stating that ALL bounds have been set and are in place, as of the date of your request for street acceptance. The Engineering Division shall view this letter to ensure its accuracy.
- c. Legal descriptions granting a permanent highway easement to the Town of Holden for all public way purposes including, but not limited to, the right to pass on foot and with vehicles; to install, repair, replace, and maintain utilities and modes for the transmission of intelligence over the street to be accepted. Town Counsels shall review this description to ensure its completeness.
- d. A certified list of abutters to the street shall be submitted, together with signed releases granting to the public whatever rights they may have in said highway easement. In addition to a certified list of abutters, one (1) set of pre-addressed stamped envelopes shall be submitted.
- e. A full size (24 in. x 36 in.) certified copy of the approved and recorded subdivision plan, showing the layout of the street, shall also be submitted.
- f. Easements, such as sewer, water, and drainage, may be described by reference to the recorded plan. Easements not shown on the recorded plan shall be described by metes and bounds.
- g. All curb stops and water gates shall be at proper grade, free from stones and gravel, and in operating conditions when inspected by the Water Division.
- h. All Catch basins shall be cleaned. All catch basin headers shall be set with the grade. The street shall be swept prior to the Annual Town Meeting.
- i. All lines, pipes, manholes, connections, and appurtenant structures and equipment, related to sewer, water, and drainage, shall be completed to adequately serve all lots on each street to be accepted in the subdivision; and be in operating condition when inspected by the Department of Public Works.
- j. All required improvements shall be completed no later than one week prior to the date of the Annual Town Meeting.
 1. All Street must be swept
 2. All catch basins and manholes must be raised to grade and clean
 3. All pipes must be free of debris.

4. All water gate boxes, water gates, and curb stops must be raised to grade, clean and operable.
5. All bounds must be installed and their locations certified by a Registered Land Surveyor.
6. All requirements of the Subdivision Control Regulations and conditions of approval must be completed.

k. Certificate of Clear Title

1. An Operations and Maintenance Contract between the homeowners and a third party documenting all Best Management Practices that are necessary for the maintenance of the stormwater system. The contents of the Operation and Maintenance Contract shall be reviewed by the Director of Public Works, or his designee, and approved prior to acceptance. An annual report documenting maintenance shall be submitted to the Planning Board and the Department of Public Works, Engineering. Office.

SECTION IX- ADMINISTRATION

9.1 Waiver

Departure from these regulations may be permitted in the discretion of the Board, when topographic or other conditions justify such departure, or when, in the opinion of the Board, such departure would result in improvement in the development of the subdivision from the standpoint of public benefit.

By the way of illustration and not of limitation, the Board may permit in its discretion the road design in any R-40 Zoning District in accordance with ALTERNATE ROADWAY SECTION IN R-40 DISTRICTS in the Town of Holden, a copy of which is attached hereto and made part hereof, when each lot abutting such road has a minimum frontage of 150 feet and a minimum lot width of 175 feet and when a departure from the typical road section would in the opinion of the Board result in improvement in the development of the subdivision from the standpoint of public benefit.

9.2 Revocation of Approval

The Board reserves the right to revoke granted approval when subsequent inspection or other evidence establishes proof of willful disregard or violation of these regulations by the applicant. Notice of such action shall be given to the applicant and the Town Manager.

9.3 Reference

For matters that may arise during subdivision procedures that are not covered by these regulations, the following shall be accepted as standards in their applicable portions, "Standard Specifications for Highways and Bridges, Massachusetts Department of Public Works" (1988 Edition of the M.D.P.W. Std. Specs., as amended or updated) and "sections 81K to 81GG of Chapter 41 of the General Laws" each as amended or updated from time to time.

9.4 Review Fee

9.4.1. Fees

- a. Accounts for fees collected under this provision will be established and administered in accordance with Mass. G.L. Chapter 44, Section 53G.
 - b. An accounting of an applicant's funds held in the 53G account may be requested by the applicant at any time.
 - c. The Planning Board shall respond to the request in a timely fashion.
 - d. This accounting shall include the following information:
 - e. The latest statement from the banking institution handling the account, which should include an accurate accumulated interest portion to the closing date of the statement, if such statements are subdivided into individual applicants' accounts. Otherwise, a statement of principal and interest, prepared by the Planning Board, based on the latest statement from the banking institution.
 - f. This accounting shall not include an estimate of accumulated interest since the last banking statement.
 - g. An applicant may request an estimate of bills pending from the consultants for work completed, or in progress, but not yet invoiced. It should be understood that this information will take a longer time period to gather. Because of the extra work involved, applicants shall request further accounting only if they are contemplating withdrawal or suspension of their application or project.
 - h. If available, a brief account summary of the type described under section 3.b above shall be furnished to both the Planning board and the applicant at each hearing. This will allow the board to determine if further funds will need to be collected and deposited into the 53G account should it approach depletion.
- 9.4.2. Excess fees in the 53G account, including accumulated interest, shall be refunded to the applicant at the conclusion of the administrative review process unless fees are also required for the inspection of the subdivision. If fees are required for administrative Alternative Fees
- a. As an alternative to the Administrative Fee and/or the Inspection Fee, which the Planning Board has traditionally imposed, the Board may now elect to impose an alternative fee as enabled by Mass. G.L. Chapter 44, section 53G. This fee is to be deposited into a special account as enabled by G.L. Chapter 44, Section 53G, referred to herein as the 53G account. This fee shall be imposed on those subdivisions which, as designated by the Planning Board, require the services of outside consultants for the review process due to the project's potential effects, and/or because the Town lacks the necessary expertise or staff to perform the review work related to the approval or inspection of a project. In hiring outside consultants, the Board may engage engineers, planners, lawyers, designers or other appropriate professionals who can assist the board in analyzing a project to ensure compliance with all relevant laws, ordinances, bylaws and regulations. Such assistance may include, but will not be limited to, analyzing an application, monitoring or inspecting a project or site for compliance with the Board's decisions or regulations, or inspecting a project during construction or implementation.
 - b. Outside consultants retained by the Planning Board to assist in the review of an application shall be paid from the 53G account.

- c. The Planning Board shall determine the amount to be deposited in the 53G account on a case by case basis in consultation with the Holden Department of Planning and Community Development and Holden Department of Public Works/Engineering Department. The criteria to be used to determine the amount to be deposited will be: the estimated expenses for professional services required to review and/or inspect the project for compliance. The initial deposit amount will be based on a reasonable estimate to engage engineers, planners, lawyers, designers or other appropriate professionals. The initial deposit will also be based on the type and number of professional review services including but not limited to the following: analyzing an application, monitoring or inspecting a project or site for compliance with the Board's decisions or regulations during the review process, and inspecting a project during construction or implementation. The project review fee will also be based on the size and scope of the project particularly technical and engineering aspects of the project. In no case shall the amount be less than \$500. Additional funds will be required during the review and inspection process, should the applicant's 53G account approach depletion.

9.4.3. Administration Appeal

- a. The choice of a consultant selected by the Planning Board for the review and inspection of a project may be appealed in writing to the Board of Selectmen by the applicant, provided such appeal is initiated within two weeks of the initial selection.
- b. The Selectmen shall convene a formal hearing within twenty days of receiving a written appeal by the applicant.
- c. There shall be two conditions which will disqualify the selected consultant:
 - 1. Conflict of interest; a consultant may not have a financial interest in a project under review, or be in a position to financially benefit in some way from the outcome of the pending review process. Consultants shall be in compliance with the Massachusetts Conflict of Interest Law (Chapter 168A).
 - 2. Lack of appropriate qualifications; a consultant shall have the minimum required qualifications. The minimum qualifications shall consist of either an educational degree in, or related to, the field at issue or three or more years of practice in the field at issue or a related field.
- d. The two conditions of section 2.c above shall be the only grounds of appeal.
- e. The required time limits for action on an application by the Planning Board shall be extended by duration of the administration appeal.
- f. If no decision is rendered by the Board of Selectmen within one month following the filing of the appeal, the selection made by the Planning Board shall stand.
- g. This administrative appeal shall not preclude further judicial review, if otherwise permitted by law, on the grounds provided for in this section.
- i. Review and project inspections, excess fees shall be refunded when the subdivision is completed. A subdivision is considered complete when the performance security for

construction of the subdivision has been completely released. Any excess amount attributable to a particular project, including accrued interest, will be refunded to the applicant, or the applicant's successor in interest. For the purpose of this regulation, any person or entity claiming to be an applicant's successor in interest shall provide the Board with documentation establishing such succession in interest.

j. The following rules apply to delinquent accounts:

1. All fees past-due by one month from the date of invoice shall be subject to a monthly interest charge.
2. All costs of collections associated with past-due accounts shall be borne by the applicant.
3. If the Planning Board determines that the applicant is not responding to the above notices; the Board will exercise its authority under M.G.L. Chapter 41, Section 81-W.