

SUBDIVISION REGULATIONS TOWN OF BRANFORD, CONNECTICUT

Original Subdivision Regulation Effective June 16, 1954

Additional Amendments adopted on January 6, 1969

January 18, 1974 December 16, 1977

May 16, 1980 July 14, 1989 June 10, 1992 June 20, 1996 April 9, 2004 December 1, 2004 April 1, 2005 October 14, 2005

These Regulations are the amended Subdivision Regulations of the Town of Branford, Connecticut adopted by the Planning and Zoning Commission, pursuant to the General Statutes of the State of Connecticut.

BRANFORD PLANNING AND ZONING COMMISSION

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TABLE OF CONTENTS

SECTION 1	POLICY AND GENERAL REQUIREMENTS				
	1-1	Declaration of Policy		1	
	1-2	Approval Required		1	
	1-3	= = -		1	
	1-4	Procedure		1	
	1-5	Authorization of Construction		1	
	1-6	Penalties		1	
	1-7	Definitions		1	
SECTION 2	APPLICATION REQUIREMENTS AND PROCEDURE				
	2-1	Informal Preliminary Consideration		3	
	2-2	Application Requirements		3	
	2-3	Formal Consideration		5	
SECTION 3	MAPS AND PLANS				
	3-1	General		8	
	3-2	Site Development Plan		8	
	3-3	Record Subdivision Map		9	
	3-4	Construction Plans		10	
	3-5	Grading Plan		11	
SECTION 4	DESIGN STANDARDS				
	4-1	General		12	
	4-2	Building Lots		12	
	4-3	Street Design		12	
	4-4	Monuments		15	
	4-5	Storm Drainage		15	
	4-6	Special Structures		16	
	4-7	Sanitary Sewers		16	
	4-8	Water Supply		16	
	4-9	Curbs		17	
	4-10	Sidewalks		17	
	4-11	Channel Lines		17	
	4-12	Pedestrian Easements		17	
	4-13	Easements		17	
	4-14	Reserved Strips		17	
	4-15	Open Spaces for Parks & Playgrounds		17	
	4-16	Fees in Lieu of Open Space	10	18	
	4-17	Street Lighting	19	10	
	4-18	Street Trees		19	

SECTION 5	CONSTRUCTION STANDARDS			
	5-1 5-2 5-3 5-4 5-5 5-6 5-7 5-8	General Supervision and Inspection Streets Storm Drainage Monuments Guard Posts Sidewalks Street Signs	20 20 20 21 22 22 22 22	
SECTION 6	SPECIAL PROVISIONS FOR SHORT BEACH AND PINE ORCHARD			
	6-1 6-2 6-3	Waiver Non Town Road Map Notice Bonding	23 23 23	
SECTION 7	SPECIAL PROVISIONS FOR PLANNED DEVELOPMENT DISTRICTS			
	7-1 7-2 7-3 7-4 7-5	Purpose Modification Application for Waiver of Modification Procedure Approval	24 24 24 25 25	
SECTION 8	PENALTIES		27	
SECTION 9	VALIDITY		27	
SECTION 10	EFFECTIVE DATE 2		27	
SUPPLEMENTARY	MATE	RIAL		
Sample Application for	or Appr	oval of Subdivision or Resubdivision		
Road Specifications				
Specifications for Con	ncrete S	Sidewalks		
Specifications for Bit	uminou	s Concrete Sidewalks		

SECTION 1 - POLICY AND GENERAL REQUIREMENTS

- Declaration of Policy: It is declared to be the Policy of the Branford Planning and Zoning Commission to consider land subdivision as part of a plan for the orderly and coordinated development and growth of the Town rather than as a mere aggregation of lots. These Regulations are adopted in order that land subdivision may be made in the best interests of the Town and in accordance with this policy and in order that land subdivided is of such character that it can be used for building purposes without danger to health or safety, that proper provision will be made for water supply, surface drainage and sanitary sewerage, and open spaces for parks and playgrounds and, in areas contiguous to brooks, rivers or other bodies of water subject to flooding, including tidal flooding, that proper provision will be made for protective flood control measures and that the proposed roads are in harmony with existing roads and existing or proposed principal thoroughfares shown on any plan of development for the Town especially with regard to safe intersections and so arranged and of such width, as to provide an adequate and convenient system for present and prospective traffic needs.
- 1-2 <u>Approval Required</u>: These Regulations shall apply to the subdivision and resubdivision of land within the Town of Branford. Any subdivision or Resubdivision of land within the Town of Branford shall conform to the requirements of these Regulations. No subdivision or resubdivision of land shall be made by any person, firm or corporation until a map for such subdivision or resubdivision has been submitted to and approved by the Planning and Zoning Commission and has been endorsed by the Commission and recorded in the Office of the Branford Town Clerk.
- 1-3 <u>Endorsement</u>: No subdivision or resubdivision shall be considered approved until the Planning and Zoning Commission has endorsed its approval on the map.
- 1-4 <u>Procedure</u>: The Planning and Zoning Commission, in reviewing any proposed subdivision or resubdivision, and the person, firm or corporation proposing a subdivision or resubdivision, shall follow the procedures hereinafter specified. The Commission shall not approve any subdivision or resubdivision unless it conforms to the standards hereinafter specified.
- 1-5 <u>Authorization of Construction</u>: Construction and installation of roads, drainage and other improvements to comply with the requirements of these Regulations shall not be deemed authorized until the proposed subdivision or resubdivision has been approved by the Planning and Zoning Commission.
- 1-6 <u>Penalties</u>: Any person, firm or corporation making any subdivision or resubdivision of land without the approval of the Planning and Zoning Commission shall be subject to penalties in accordance with the <u>General Statutes</u> of the State of Connecticut.
- 1-7 <u>Definitions</u>: Certain words used in these Regulations are defined and explained as follows:
 - 1-7-1 <u>Applicant</u>: The term "applicant" refers to the person, firm, partnership or corporation proposing a subdivision or resubdivision.
 - 1-7-2 <u>Commission</u>: The term "Commission" refers to the Planning and Zoning Commission of the Town.
 - 1-7-3 <u>Subdivision and Resubdivision</u>: Requirements applicable to subdivisions shall also apply to resubdivisions. The terms "subdivision" and "resubdivision" as used in these Regulations are defined in the <u>General Statutes</u> of the State of Connecticut. Chapter 126 of the 1958 Supplement to the <u>General Statutes</u> of the State of Connecticut, as amended, defines "subdivision" and "resubdivision" as follows:

- a. <u>Subdivision</u> means the division of a tract or parcel of land into three or more parts or lots for the purpose, whether immediate or future, of sale or building development expressly excluding development for municipal, conservation or agricultural purposes, and includes resubdivision.
- b. Resubdivision means a change in a map of an approved or recorded subdivision or resubdivision if such change (a) affects any street layout shown on such map, (b) affects any area reserved thereon for public use or (c) diminishes the size of any lot shown thereon and creates an additional building lot, if any of the lots shown thereon have been conveyed after the approval or recording of such map.
- 1-7-4 Area of Special Flood Hazard means the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year.
- 1-7-5 <u>Base Flood</u> means the flood having a one percent chance of being equaled or exceeded in any given year.

SECTION 2 - APPLICATION REOUIREMENTS AND PROCEDURE

- 2-1 <u>Informal Preliminary Consideration</u>: The Planning and Zoning Commission recommends that, prior to submission of a formal application for approval of a subdivision or resubdivision, the applicant prepare and present a preliminary plan of the subdivision or resubdivision for informal consideration by the Commission. Presentation of a preliminary plan is recommended to facilitate general consideration of factors and problems affecting development of the land to be subdivided or resubdivided before the applicant proceeds with formal application and the preparation of final maps, plans and documents required for formal consideration by the Commission. If the plan is presented in preliminary rather than in final form, any alterations or changes recommended by the Commission may be made more readily and economically by the applicant. Neither the preliminary plan nor the informal consideration by the Commission, however, shall be deemed to constitute any portion of the official and formal procedure of applying for and approving subdivisions or resubdivisions of land under the provisions of the <u>General</u> Statutes of the State of Connecticut.
 - 2-1-1 Preliminary Plan: The preliminary subdivision or resubdivision plan should be drawn to a scale of not less than 100 feet to the inch and should show existing and proposed property and street lines, proposed lots, existing and proposed drainage, water courses, ponds, swamps and existing contours from available U.S.G.S. maps or other sources. The Commission recommends that the preliminary plan conform in all respects to the requirements for a Site Development Plan as specified in Paragraph 3-2 of these Regulations, in order to facilitate the informal consideration by the Commission and in order that the applicant may avoid submission of Site Development Plan as part of the formal application. Six (6) blue line or black line prints of the preliminary plan should be submitted.
 - 2-1-2 <u>Informal Action</u>: The Commission may hold an informal discussion meeting with the applicant. The Commission shall notify the applicant of the date, time and place of the meeting at which the preliminary plan will be given informal consideration. Whether or not the Commission meets with the applicant to discuss the preliminary plan, the Commission shall, within sixty (60) days after receipt of the preliminary plan advise the applicant of its informal approval of the plan or of any changes it recommends be made in the plan, in order to guide the applicant in preparing maps and plans for formal subdivision or resubdivision application.
- 2-2 <u>Application Requirements</u>: In order to apply for approval of a subdivision or resubdivision, and before the Commission shall formally consider any proposed subdivision, the applicant proposing the subdivision or resubdivision shall submit an application, and maps, plans and documents as follows:
 - 2-2-1 Presentation: All applications, maps, plans, documents and data required by these Regulations shall be submitted to the Planning and Zoning Commission or their authorized agent. Any such material may also be transmitted by mail or may be presented to the Chairman or Secretary of the Commission or at a Commission meeting. Any such material not transmitted at a Commission meeting shall be considered submitted at the next regularly scheduled Commission meeting. A schedule of Commission meetings is on file with the Town Clerk.
 - 2-2-2 <u>Application</u>: Application for approval of a subdivision or resubdivision shall be made to the Commission in writing on forms prescribed by the Commission and signed by the applicant or his lawful agent; if the subdivision or resubdivision is proposed by a person, firm, or corporation other than the owner of the land to

- be subdivided, the application shall also be signed by the owner or his lawful agent.
- 2-2-3 <u>Application Fee</u>: An application fee of \$200.00 plus \$60.00 for each lot shown on the subdivision map (\$500.00 engineering review when new road(s) are proposed and an \$80.00 advertising fee for re-subdivision) shall accompany the application. All application fee payments shall be made payable to the Town of Branford.
- 2-2-4 Site Development Plan: A Site Development Plan shall be submitted with the application and shall conform to all of the requirements of Paragraph 3-2 of these Regulations. In the event that a preliminary plan, as provided in Paragraph 2-1-1 and meeting the requirements for a Site Development Plan, was submitted to the Commission and was given informal approval or approval with modifications within the previous 120 days, a Site Development Plan need not be submitted with the application.
- 2-2-5 <u>Record Subdivision Map</u>: A Record Subdivision Map shall be submitted with the application and shall conform to all of the requirements of Paragraph 3-3 of these Regulations.
- 2-2-6 <u>Construction Plans</u>: Plan and profile drawings of all proposed streets, storm drains, sanitary sewers, catch basins, manholes, ditches, water courses, headwalls, sidewalks, gutters, curbs, bridges, culverts and other structures and improvements required by these Regulations shall be submitted with the application and shall conform to all of the requirements of Paragraph 3-4 of these Regulations.
- 2-2-7 Grading Plan: In the event that any major regrading, cuts, fills or soil or rock removal is proposed in the area of the subdivision, a grading plan shall be submitted with the application and shall conform to all of the requirements of Paragraph 3-5 of these Regulations. At minimum, the grading plan shall cover those areas of the subdivision where proposed changes in elevation exceed five (5) feet.
- Technical Reports: When the subdivision is not to be served by municipal sanitary sewers and/or public water supply, the applicant shall have seepage tests taken in locations approved by the Town Engineer and in accordance with Connecticut State Health Department specifications. The applicant shall present a written report, prepared by a sanitary or civil engineer licensed to practice in the State of Connecticut, describing the tests taken and the results, and certifying that the land to be subdivided and the subdivision plan are satisfactory for private sewage disposal and/or water supply systems. When a subdivision of six or more lots is proposed to be served by sanitary sewers, the application shall include certification from the Branford Sewer Authority stating that the impacts of the flows generated from the site have been reviewed and conditional approval of the acceptance of the flows from the proposed development has been granted. The foregoing requirement shall not be effective as to properties affected by the sewer moratorium adopted by the Branford Sewer Authority on March 16, 2005 until the earlier of the repeal of the sewer moratorium or 26 months from the date of adoption. The purpose of this exception is to permit applicants to proceed with the planning and zoning application process during the period of the sewer moratorium.

2-2-9 <u>Connecticut State Highway Department Permit:</u>
Where a proposed subdivision street or storm drain joins with a State Highway, the applicant shall obtain evidence of application for a permit for such connection from the Connecticut State Highway Department and shall present a copy of such evidence of application to the Commission.

- 2-2-10 Public Water Supply: When public water supply is to be provided in any subdivision, the applicant shall obtain a letter from the water company stating that application has been made for water main extension and service to serve the proposed subdivision, that water company regulations have been complied with and that satisfactory water supply, pressure and service are available to serve the proposed subdivision.
- 2-2-11 <u>Flood Plain Area</u>: Applications for subdivisions to be located in areas of special Flood Hazard and involving more than 50 lots or 5 acres, whichever is less, shall include base flood elevation data.
- 2-3 <u>Formal Consideration</u>: After the above application requirements have been met, the Commission shall follow the hereafter specified:
 - 2-3-1 Review: The Commission or its authorized agent shall give consideration to the proposed subdivision or resubdivision and shall determine whether the maps and plans and accompanying certificates and documents conform to the requirements of these Regulations. The Commission or its authorized agent may request the submission of such additional information from the applicant that it deems necessary to make a reasonable review of the proposed subdivision in accordance with the policy and requirements of these Regulations.
 - 2-3-2 <u>Referral to Regional Agency</u>: When a subdivision is proposed, the area of which will abut or include land in an adjoining municipality, the Commission shall submit a copy of the maps and plans to the Regional Planning Agency of South Central Connecticut at least 30 days before approving the subdivision.
 - 2-3-3 Hearing: A public hearing regarding a subdivision application may be held by the Commission if, in its judgment, the circumstances require such action. The Commission shall hold a public hearing on any application for a resubdivision. Notice of any public hearing shall be given not less than seven (7) days before the date of the hearing by publication of a legal advertisement in a newspaper of general circulation in the Town and by sending a copy thereof by certified mail to the applicant. Whether or not a public hearing is held, every applicant shall be afforded the opportunity to appear before the Commission to discuss the application before final action by the Commission. The Commission shall notify the applicant of the date, time and place of the meeting of the Commission at which the Final Subdivision Plan is to be considered at least three (3) days prior to said meeting. The applicant or his authorized representative should attend said meeting.
 - 2-3-4 <u>Decision</u>: After the public hearing, if any, or after the meeting afforded the applicant, the Commission shall give approval to the subdivision application if it shall find that the subdivision map and plans and accompanying certificates, documents and data conform to the requirements of these Regulations. Approval shall be conditioned upon the following actions if applicable to the particular subdivision:
 - a. endorsement of any construction plans and grading plans as approved by the Town Engineer, if such endorsement has not already been obtained.
 - b. endorsement of the Record Subdivision Map by the director of Health, if such endorsement has not already been obtained.
 - c. presentation of any easements and deeds as specified in paragraph 2-3-5.
 - d. completion of any required subdivision improvements or the execution of an agreement and posting of a bond to guarantee such completion.

In granting approval the Commission may attach such conditions that it deems necessary to modify the subdivision map, plans or documents and to preserve the purpose and intent of these Regulations. The Commission shall approve, modify and approve or disapprove any subdivision application or any accompanying map, plan, certificate, document or data submitted therewith within 60 days after the submission thereof, unless the applicant consents in writing to an extension of this period. In approving, modifying and approving, or disapproving an application or accompanying item, the Commission shall state in its records any conditions of approval, any modifications required, or the grounds for disapproval. Notice of the Commission's decision shall be published in a newspaper having a substantial circulation in the Town and addressed by certified mail to the applicant within 10 days after the decision has been rendered. Such notice shall be a simple statement that the application was approved, modified and approved or disapproved, together with the date of such action.

- Easements and Deeds: Any open spaces for parks and playgrounds to be dedicated to the Town, any easements for sanitary sewers and public rights of way and any easements for storm drainage and water courses draining existing or proposed public streets that may be constructed in the future shall be confirmed by written easements and deeds describing the land involved and the privileges of the Town in a form satisfactory to the Town Counsel. In addition, a title certificate shall be furnished, signed by a Connecticut Attorney, showing that the title to the property covered above is free of encumbrances which would render the title unmarketable or would otherwise prevent the use of the Property for the purpose for which it is granted to the Town. The applicant shall also submit a written agreement, in form satisfactory to Town Counsel, permitting entrance by the Town onto the land covered by the grants mentioned above, as well as the area of the streets shown on the subdivision plan, for the purposes of inspection and of installing the required improvements in the event of the failure of the applicant to make such improvements or to properly maintain them until the Town has assumed responsibility for them, and such written agreements shall provide that the developer, on demand, shall execute and deliver to the Town a deed to the area of the street or streets shown on the subdivision plan as approved. Such easements, deeds and agreements shall be presented prior to endorsement of the Record Subdivision Map.
- 2-3-6 Map Endorsement and Bond: The Commission may approve the subdivision and authorize the Chairman and Secretary to endorse the Record Subdivision Map to permit filing, but such endorsement shall not be executed until all conditions of approval, if any, have been met. The applicant shall comply with all such conditions of approval within 90 days of the date of action of the Commission; failure to do so shall render the approval null and void. The Commission shall not endorse the Record Subdivision Map to permit filing with the Town Clerk until all conditions of approval have been met, all required easements and deeds have been presented and all required subdivision improvements have been completed in accordance with the plans as approved. In lieu of completion of all or part of the required improvements prior to endorsement of the Record Subdivision Map, the applicant shall execute an agreement and file a bond with the Commission to guarantee such completion within two (2) years. The bond shall be in the form and amount and with surety acceptable to the Commission and to the Town Counsel and shall be a surety bond, executed by a surety company authorized to enter into such bonds in the State of Connecticut. In lieu of a surety bond the Commission may, upon approval of Town Counsel, accept an assigned savings account passbook or a letter of credit from a recognized financial institution. As provided in the Town Road Ordinance, no certificate of

Occupancy shall be issued for any residence until the subbase and base course phases of road construction are completed to such extent as to provide access to such residence.

- 2-3-7 Filing and Recording: The endorsed subdivision map, showing any modifications upon which final approval of the subdivision was contingent, shall constitute the approved Record Subdivision Map. The date of endorsement of the Record Subdivision Map shall be noted on the map by the Chairman of the Commission. Within ninety (90) days after the endorsement of the Record Subdivision Map, the applicant shall file and record said record map together with any related easements and deeds in the Office of the Branford Town Clerk. Filing and recording fees shall be paid by the applicant. Applicant must also submit to the Planning and Zoning Department a copy of the final subdivision plan showing all property lines in a data exchange format acceptable to the Commission. An Auto-Cad drawing file is preferred; however other formats will be considered upon request. This information will be used to update the Town maps and Geographic Information System.
- 2-3-8 <u>Certificate of Compliance</u>: Before release of any subdivision bond, or before the Commission endorses any subdivision map to permit filing with the Town Clerk when no subdivision bond has been posted, the following shall be completed by the applicant and submitted to the Commission:
 - a. the applicant's land surveyor, licensed to practice in the State of Connecticut, shall certify the installation and precise location of monuments by noting such monuments and their location on the linen construction plans and by signing and sealing the plans.
 - b. the applicant's land surveyor or engineer, licensed to practice in the State of Connecticut, shall update the linen construction plans to show "as built conditions", and shall sign and sea said plans, certifying that all of the required improvements have been completed in the location and at the elevation shown thereon.
 - c. the applicant shall submit a formal request for Town of Branford acceptance of all streets shown on the Record Subdivision Map; such request shall be in a form and with accompanying documents as approved by the Town Counsel.
- 2-3-9 Release of Bond: No bond shall be released until the improvements covered by such bond have been inspected by the Town Engineer and the certificates of compliance submitted as provided in Paragraph 2-3-8. For purposes of maintenance and to cover unforeseen deficiencies, a portion of any subdivision bond shall not be released until one (1) year after completion of required subdivision improvements, and the amount of such portion shall be determined by the Commission with the recommendation of the Town Engineer. The applicant, however, may post a new bond to cover the required portion of the original bond. If no bond has been posted to guarantee completion of improvements, the applicant shall post a one (1) year bond, meeting requirements of Paragraph 2-3-6, for purposes of maintenance and to cover unforeseen deficiencies.

SECTION 3 - MAPS AND PLANS

- 3-1 General: The maps and plans required by these Regulations shall show the information and be prepared in accordance with the standards hereinafter specified. In accordance with the provisions of the General Statutes of the State of Connecticut which define "Professional Engineer" and "Land Surveyor" and which limit practice to the field of registration, all required maps and plans that involve the design of roads (both horizontal and vertical alignment), drainage systems (including the design and location of structures and pipe), sanitary sewer systems, sewage disposal systems and water supply and distribution systems constitute professional engineering and as such must bear the name and seal of a Connecticut-licensed Professional Engineer; a Land Surveyor's seal or an Architect's seal is not acceptable for this phase of land subdivision design work. Conversely, the phase of land subdivision including all required maps and plans which relate to topography and the delineation of the boundary lines of the perimeter of the subdivision as well as the interior lots and streets constitutes land surveying within the meaning of the General Statutes and as such must bear the name and seal of a Connecticut-licensed Land Surveyor; a Professional Engineer's seal or an Architect's seal is not acceptable for this phase of land subdivision. Pertinent survey data and computations shall be presented to the Town Engineer for review if requested by him.
- 3-2 <u>Site Development Plan</u>: The Site Development Plan shall be drawn on sheets 25" x 36" to a scale of l'=40' but in no case less than l'=100'. The plan shall show existing conditions, the proposed layout of lots, streets and improvements for the proposed subdivision and a tentative layout of lots, streets and improvements for the proposed subdivision and a tentative layout of all contiguous land of the applicant that may be subdivided in the future. The purpose of the plan is to allow the Commission to complete a general planning review of the proposed subdivision including its relationship to the future subdivision of contiguous land of the applicant. Four (4) blue line or black line prints shall be submitted. The plan shows at least the following information.
 - 3-2-1 title of the subdivision, which shall not duplicate or too closely approximate the title of any previous subdivision in the Town of Branford.
 - 3-2-2 name and address of the owner of the land to be subdivided; name and address of applicant if different from the owner.
 - 3-2-3 date, scale, north point, Town and State.
 - 3-2-4 existing and proposed property and street lines adjoining property lines and street lines for a distance of 200 feet; and the names of all adjacent subdivisions or property owners from current Assessor's records.
 - 3-2-5 existing and proposed water courses, ponds, swamps, shorelines, easements and rights-of-way; the line of mean high tide in case the subdivision is adjacent to tidewater.
 - 3-2-6 existing contours at an interval not exceeding four (4) feet on steep land and not greater than two (2) feet on rolling land, based on field or aerial survey on townwide topographic maps and using the same bench mark as provided in Paragraph 3-4.
 - 3-2-7 proposed lots and lot numbers; existing and proposed areas for parks, playgrounds, and open spaces.
 - 3-2-8 existing permanent buildings and structures.
 - 3-2-9 principal wooded areas and the approximate location of any large isolated trees.

- 3-2-10 any ledge outcrops and existing stone walls and fences within the subdivision.
- 3-2-11 approximate dimensions on all proposed property and street lines; approximate lot area and the total acreage of land included in the subdivision and total acreage of contiguous land of the applicant.
- 3-2-12 proposed width of all streets, rights of way and easements; the proposed width of all pavement; and proposed street names.
- 3-2-13 existing and proposed monuments; any municipal boundary line; and any zoning district boundary line.
- 3-2-14 existing and proposed storm drains, sanitary sewers, catch basins, manholes, ditches, water courses, headwalls, sidewalks, gutters, curbs, and other structures, including tentative invert elevations at key points.
- 3-2-15 key elevations of existing adjoining roads and spot elevations showing tentative grading or proposed roads within the subdivision.
- 3-2-16 location of any test holes.
- 3-2-17 any areas subject to periodic or potential flooding.
- 3-2-18 a location map (scale l'= 800') showing the location of the subdivision in relation to existing roads in Town.
- 3-3 Record Subdivision Map: The Record Subdivision Map shall be prepared with an accuracy meeting or exceeding standards for a "Class A-2 Survey" as defined by the current "Code of Recommended Practice" as adopted by the Connecticut Association of Land Surveyors. The map for filing with the Town Clerk shall be clearly and legibly drawn and shall be submitted on media as approved by the Connecticut Public Records Administrator on sheets not exceeding 25" x 36". The map should be drawn to a scale of l"= 40' but in no case at a scale of less than l"= 100'. An identical mylar map shall be submitted for the records of the Planning and Zoning Commission. Four (4) blue line or black line prints of the map shall also be submitted. The map shall show the following:
 - 3-3-1 title of the subdivision, which shall not duplicate the title of any previous subdivision in the Town of Branford.
 - name and address of the owner of the land to be subdivided; name and address of the applicant if different from the owner.
 - 3-3-3 date, scale, north point, Town and State.
 - 3-3-4 existing and proposed property and street lines; adjoining property lines and street lines for a distance of 200 feet; and the names of all adjacent subdivisions or property owners from current Assessor's records.
 - existing and proposed water courses, ponds and any other inland or tidal wetlands, shorelines, easements and rights-of-way; the high tide line (NGVD) in case the subdivision is adjacent to coastal, tidal or navigable water.
 - 3-3-6 proposed lots and lot numbers; building setback lines, existing and proposed open spaces for parks and playgrounds; the square footage or acreage of all lots and open spaces and the total acreage of land included in the subdivision.
 - 3-3-7 existing permanent buildings and structures.

- dimensions on all lines in feet and decimals of a foot to the hundredth of a foot and all bearings or deflection angles on all straight lines and the central angle, tangent distance and radius of all arcs.
- 3-3-9 the width of all streets, rights-of-way and easements; street names, and centerline stationing.
- 3-3-10 existing and proposed monuments; any Municipal boundary line.
- 3-3-11 a location map (scale l"= 800") showing the location of the subdivision in relation to existing roads in the Town.
- 3-3-12 an index map, if the proposed subdivision is divided into sections or is of such size that more than one sheet is required, showing the entire subdivision with lots, lot numbers, streets, street names and delineation of areas covered by the section or sheet.
- 3-3-13 the survey relationship of proposed streets to nearby monumented Town streets or State Highways where practical.
- 3-3-14 the error of closure, which shall not exceed 1 in 5000.
- 3-3-15 the words "Approved by the Planning and Zoning Commission, Town of Branford," with a designated place for the signatures of the Chairman and Secretary and date of signing.
- 3-3-16 **if the proposed lots are not sewered,** the words "Approved by the Director of Health" with a designated place for signing and date of signing.
- 3-3-17 the words "Expiration Date".
- 3-4 <u>Construction Plans</u>: Plan and profile drawings of all proposed streets, storm drains, sanitary sewers, catch basins, manholes, ditches, water courses, headwalls, sidewalks, gutters, curbs and other structures shall be drawn on good quality heavy linen planprofile tracing cloth, approximately 22" in width, and shall be drawn to a horizontal scale of 1"= 40" and a vertical scale of 1"= 40". Four blue line or black line prints shall be submitted. The original reproducibles shall be retained by the applicant for purposes of preparing "as-built" drawings upon completion of improvements. Profile drawings and elevations shall be based on official Town, State or U.S.G.S. bench marks or other permanent bench marks approved by the Town Engineer; the bench marks used shall be noted on the plan. All construction plans shall bear the words "Approved by the Town Engineer" with a designated place for signing and date of signing. Construction drawings shall show at least the following information in accordance with good engineering practice and as appropriate for the particular subdivision:
 - 3-4-1 title of the subdivision, date, scale, Town and State.
 - for streets, the existing grades at the center line and both street lines and the proposed grade at the center line; spot elevation on proposed sample street cross sections; stations on centerline at 100 foot intervals and at beginning and end of all horizontal curves at centerline intersections.
 - depth, invert, slope and size of all pipes, ditches, culverts, manholes, catch basins, headwalls, and water courses; sample ditch and water course cross sections; sufficient computations to permit the Commission or Town Engineer to check drainage design.
 - 3-4-4 location of existing and proposed monuments.

- 3-4-5 approximate location of lot lines intersecting the street line; lot numbers and street names.
- 3-4-6 sidewalks, curbs, gutters and special structures.
- 3-4-7 detail drawings of any bridges, box culverts, deep manholes, and other special structures.

In addition to the above plan-profile drawings, other necessary construction drawings and details shall be submitted on good quality heavy linen tracing cloth along with four (4) blue line or black line prints.

- Grading Plan: The area shown on the grading plan may be limited to the portion of the subdivision affected by the proposed major regrading, cuts, fills or soil or rock removal. At minimum, the grading plan shall cover those areas of the subdivision where proposed changes in elevation exceed five (5) feet. The grading plan shall be drawn on good quality heavy linen tracing cloth to the same scale as the Record Subdivision Map. Contours and elevations shall be based on the same bench marks as provided in Paragraph 3-4. In addition to the linen tracing, four (4) blue line or black line prints shall be submitted. The grading plan shall bear the words "Approved by the Town Engineer" with a designated place for signing and date of signing. The grading plan shall show at least the following information.
 - 3-5-1 title of the subdivision.
 - name and address of the owner of the land to be subdivided; name and address of the applicant if different from the owners.
 - 3-5-3 date, scale, north point, Town and State.
 - 3-5-4 layout of existing and proposed lot lines and street lines affected by the proposed grading.
 - 3-5-5 existing and proposed contours at an interval not exceeding two (2) feet based on field or aerial survey or Town topographic maps.
 - 3-5-6 existing and proposed drainage and water courses.
 - 3-5-7 existing permanent buildings and structures.
 - 3-5-8 location of all test holes, test pits or borings.

In addition to the above grading plan, the Commission or the Town Engineer may request the submission of cross section drawings covering the proposed excavation area.

SECTION 4 - DESIGN STANDARDS

- 4-1 <u>General</u>: Subdivisions shall be designed to *conform* to the current comprehensive plan of development, adopted by the Commission for the Town or the neighborhood encompassing the subdivision, particularly in regard to streets, drainage, and reservation of land for parks, recreation and open space. Subdivision, proposed in Area of Special Flood Hazard, including their utilities and drainage facilities, shall be located and designed to be consistent with the need to minimize flood damage. Proposed subdivisions and resubdivisions and all street, drainage and other improvements required by those Regulations shall be designed and constructed in accordance with the standards hereinafter specified and in accordance with applicable ordinance, of the Town of Branford.
- 4-2 <u>Building Lots</u>: Proposed building lots shall be of such shape, size, location, topography and character that buildings can be reasonably constructed thereon and that they can be occupied and used for building purposes without danger to the health and safety of the occupants and the public. Any lot which is found to be unsuitable for occupancy and buildings by reason of water or flooding conditions, unsuitable soil, topography, ledge rock or other conditions shall be combined with another contiguous lot that is suitable or shall be marked "This is not an approved lot" on the subdivision map, until necessary improvements to the lot have been made and approved by the Commission and a revised subdivision map has been submitted to and approved by the Commission. Proposed building lots shall be designed and arranged to make best use of the natural terrain, avoiding unnecessary regrading, and to preserve substantial trees and woods.
 - 4-2-1 <u>Lot Size</u>: Each lot shall conform to the Zoning Ordinance applicable to the area of the subdivision. In addition, where the lot is not to be served by public water supply and/or sanitary sewers, each lot shall have sufficient area and suitable dimensions to provide ample space to accommodate a private water supply system (where adequate public water supply is not available) and/or to accommodate the proper layout, installation and future extension of a private sewage disposal system (where sanitary sewers are not available), both as needed by the intended use of the lot and both in accordance with good engineering practice and the applicable requirements of the Connecticut State Department of Health and the Director of East Shore District Health Department of the Town of Branford.
 - 4-2-2 Lot Numbers: All lots shall be numbered beginning with the numeral "1" and shall continue consecutively throughout the entire subdivision with no omissions or duplications. No fractions or letters shall be used unless necessary for clarity in a resubdivision. Adjoining subdivisions and sections of a subdivision having the same title shall not duplicate numbers but shall continue the sequence of numbers used previously for the adjoining land. All lot numbers shall be conspicuous and noted on the map in the approximate center of the lots.
 - 4-2-3 <u>Lot Lines</u>: Insofar as practicable, the side lot lines of all lots shall be at right angles to the street on which the lot faces or shall be radial to the street line. It shall be the discretion of the Commission to refuse to permit municipal boundary lines to cross any lot, and in the event of such refusal, such boundary line shall be made to constitute one of the lot lines.
- 4-3 <u>Street Design</u>: Streets shall be planned and designed for acceptance by the Town of Branford, and to conform to the following standards:
 - 4-3-1 <u>Classification</u>: All proposed streets in the subdivision shall be classified by the Commission as one of the following:

- a. <u>Major Street</u>: a street of considerable existing or potential continuity on which traffic past abutting lots will be dominant and serving as an artery for intercommunication among large areas of the Town.
- b. <u>Secondary Street</u>: a street serving as a feeder to a neighborhood or a collector of several local streets including commercial streets primarily providing access to abutting lots used for commercial, business and industrial purposes or providing circulation within commercial, business and industrial areas.
- c. <u>Local Street</u>: a street primarily providing access to abutting lots used for residential purposes.
- 4-3-2 Street Planning: Proposed streets and rights-of-way shall be planned in such a manner as to provide safe and convenient access to proposed lots and safe and convenient circulation for present and prospective traffic within the neighborhood in which the subdivision is located. In planning streets, due consideration shall be given to accomplishing an attractive layout and development of the land. Streets should in general follow the contour of the land and should have a location and grade which preserves natural terrain, substantial trees, woods and other natural features and which enhances property values in the subdivision. Permanent deadend streets shall be avoided unless, connecting streets are impractical. Proposed streets which may be projected into adjoining properties shall be carried to the boundary line; no reserve strips will be permitted. Streets shall be planned in accordance with the following additional standards.
 - a. <u>Major Street</u>: Major Streets shall be provided as indicated on any comprehensive plan of development adopted by the Commission and where necessary to connect major areas of town or to serve a major commercial or industrial area.
 - b. <u>Secondary Street</u>: Secondary streets shall be planned as a logical system of feeders and collectors connected to the major street system and shall be planned to accommodate the volume, type and concentration of traffic anticipated in the commercial, business or industrial areas.
 - c. <u>Local Street</u>: Local streets shall provide for continuation of existing streets in adjoining areas and for projection into adjoining properties when subdivided.
- 4-3-3 <u>Right of Way Width</u>: Streets shall have the following minimum width of right-of-way according to their classification:

a. Major Street 80 feet.

b. <u>Secondary Street</u> 60 feet.

c. Local Street 50 feet.

4-3-4 <u>Width of Pavement</u>: Streets shall be designed with the following width of pavement centered between the street lines:

a. Major Street 40 feet

b. Secondary Street 36 feet

c. Local Street 30 feet

d. Turnaround

50 foot radius

4-3-5 <u>Alignment</u>: Connecting curves between tangents shall be provided for all deflection angles in excess of five (5) degrees. Suitable tangents shall be provided between curves. A minimum tangent length of 300 feet shall be provided between reverse curves. The minimum radius of curvature at the centerline of streets shall e as follows.

a.	Major Street	600 feet
b.	Secondary Street	300 feet
c.	Local Street	150 feet

4-3-6 Grade: The minimum grade for any street shall be 1.0%, except that a minimum grade of from 0.5% to 1.0% may be established for 100 feet or less and as tangents of vertical curves. The maximum grade for any street shall not exceed the following according to its classification.

a. <u>Major Street</u>	6%
b. Secondary Street	8%
c. <u>Local Street</u>	10%
d. <u>Turnaround</u>	3%

4-3-7 <u>Vertical Curves</u>: Appropriate vertical curves shall be established on all streets and at street intersections to insure adequate sight distance in accordance with the classification of the street and good engineering practice. Where any street approaches an intersection at a grade of 4% or more, a transition area, having a maximum grade of 2%, shall be provided for a minimum of 50 feet measured from the right-of-way line of the street intersected. The following minimum stopping sight distances shall be provided.

a. Major Street	350 feet
b. <u>Secondary Street</u>	250 feet
c. Local Street	250 feet

- 4-3-8 <u>Intersections</u>: The following standards shall apply to street intersections.
 - a. No more than two streets shall intersect at one point. In general, intersections shall be spaced not less than 200 feet apart.
 - b. Streets shall intersect one another at as near to a right angle as is practical. No intersection shall be at an angle of less than 60 degrees.
 - c. At street intersections, property line corners shall be rounded by an arc having a minimum radius of 25 feet.
 - d. The distance between intersections and connecting streets shall not be less than 200 feet nor more than 1200 feet to avoid excessively long blocks and unnecessary circuitous travel on streets.

- 4-3-9 Street Lines: Street lines on each side of a proposed street shall be
 parallel or shall be concentric arcs, except at intersections and
 turnarounds designed in accordance with these
 Regulations. No street right-of-way shall be widened
 beyond the minimum width specified in these Regulations for
 the purpose of securing additional street frontage for proposed
 lots. The boundary line between a private street and public street shall be
 clearly delineated.
- 4-3-10 <u>Deadend Streets</u>: No permanent deadend street shall be planned except when topography or physical conditions make it impractical to extend it or connect it with another proposed or existing street. No permanent deadend street shall exceed in length the frontage of 6 lots per side; temporary deadend streets may exceed such length but shall not exceed a reasonable interim length for safe and convenient vehicular access, including emergency vehicles, as determined by the Commission.
- 4-3-11 Turnarounds: A Turnaround with a minimum diameter of 120 feet for the right-of-way shall be provided at the closed end of a cul-de-sac or deadend street which may be projected into adjoining property at some future date and which provides sole access to one or more building lots. Land for a turnaround on a temporary deadend street, which may at some future date be projected into adjoining property, shall be provided in the form of a temporary easement bearing a note on the map, "Easement for temporary turnaround which automatically terminates upon extension of street".
- 4-3-12 Existing Streets: Proposed subdivisions abutting an existing Town street or State Highway shall provide for proper widening of the right-of-way of such street or highway to the width appropriate for the classification indicted for such street or highway in the Zoning Regulations of the Town of Branford.
- 4-3-13 <u>Street Names</u>: All proposed streets serving one or more lots shall be named and shall bear names which are appropriate to the character of the Town and which do not duplicate or too closely approximate in spelling or sound existing street names in Branford or any adjoining municipality. All street names shall be subject to the approval of the Commission.
- 4-3-14 <u>Cross Section</u>: The street cross section shall be designed with a cross section in accordance with the classification of the street and the standard construction details of the Town of Branford.
- 4-4 <u>Monuments</u>: Monuments shall be located at all intersections and at all angles and points of curve or other critical points on street lines to enable a land surveyor to correctly stake out any lot or street in the subdivision.
- 4-5 <u>Storm Drainage</u>: Storm drainage shall be provided and designed in accordance with the following standards:
 - 4-5-1 Pipe and Ditches: Sufficient pipe shall be installed within the subdivision to carry existing water courses, other than rivers and large streams, and to drain the proposed streets and streets which may reasonably be expected to be constructed at some future date on adjoining land which normally drains across the area of the proposed subdivision. If in its judgment there will be no substantial danger from soil erosion or danger to health and safety, the Commission may permit on lots of one (1) acre or larger the continuance of existing water courses in their established courses and may permit the discharge of storm water in open ditches. Ditches and open water courses shall not be planned in the portion of the lot customarily used for front and side yards or the portion which might be used for private sewage disposal and/or water supply systems. In general, the storm drainage system shall be piped to 50 feet beyond

the rear of proposed houses before being allowed to discharge into open channels. All ditches shall be of such size and all pipe shall be of such diameter (not less than 15 inches) as will in the judgment of the Town Engineer be sufficient to carry properly the storm water expected to enter the ditch or pipe from the proposed subdivision and from other properties when developed which normally drain across the area of the proposed subdivision. The design of all storm drainage facilities shall be subject to the approval of the Town Engineer. A minimum rate of rainfall of 2 inches per hour shall be used in the design of roadway storm drainage facilities and 4 inches per hour shall be used in the design of culverts under roads at brooks and water courses. Design of all pipe sizes shall give due consideration to the entire drainage area, whether on-site or off-site. The minimum slope for 15 inch pipe shall be 1.0%. The minimum cover over pipe shall be four (4) feet from the invert but in no case shall be less than two (2) feet over the top of the pipe.

- 4-5-2 <u>Manholes</u>: Manholes shall be provided at each change in direction or grade of the pipe and shall not be spaced more than 400 feet apart.
- 4-5-3 <u>Catch Basins</u>: Catch basins shall be provided in order that surface water will travel without interception not more than 300 feet.
- 4-5-4 <u>Discharge</u>: The discharge of all storm water from the subdivision shall be into suitable streams or rivers or into Town drains, ditches or other Town drainage facilities with adequate capacity to carry the additional water. Where the discharge shall be into private property adjoining the proposed subdivision, proper easements and discharge rights shall be secured by the applicant for the Town before approval of the Record Subdivision Map and acceptance of the drainage plan. No storm water shall be diverted from one watershed to another.
- 4-5-5 <u>Headwalls and Culverts</u>: Suitable headwalls shall be provided at the open end of any pipe. Culverts under streets shall be extended to the edge or the right-ofway of the street and shall have a minimum diameter of 18 inches.
- 4-6 <u>Special Structures</u>: Bridges, box culverts, deep manholes and other special structures shall be designed in accordance with good engineering practice. Bridges and box culverts shall be designed to carry the full width of required street pavement and at least a four (4) foot sidewall on each side.
- 4-7 <u>Sanitary Sewers</u>: Sanitary sewers shall be installed in or near areas served by Town sanitary sewers. Plans shall be submitted to and approved by the Sewer Authority and the design and installation of sanitary sewers shall be in accordance with good engineering and construction practice and in accordance with the design standards of the Branford Sanitary Sewer System and the Town Engineer. In areas of special flood hazard, sanitary sewers shall be located and designed to avoid impairment and to minimize or eliminate infiltration of flood waters into the system and discharge from the system into flood waters.
- Water Supply: Public water supply shall be provided to lots in any subdivision located within any area served by public water supply. In addition, for areas in proximity to public water supply service, when it is deemed by the Commission to be practicable, convenient and economically feasible to do so, public water supply shall be extended to serve the subdivision. The applicant shall obtain from the water company the location and size of the nearest water main and shall indicate or note this information on the Site Development Plan. The decision by the Commission to require extension of the public water supply system to serve the subdivision will be based upon the location of the nearest main, the adequacy of pressure and service, the proposed layout of the subdivision, the nature of the terrain of the subdivision and such other additional information as the Commission may deem pertinent. In areas of special flood hazard,

- water supply systems shall be located and designed to minimize or eliminate infiltration of flood waters into the systems.
- 4-9 <u>Curbs</u>: Precast concrete or bituminous curbing shall be installed along the edge of all permanent street pavement. (Amended 7/14/89)
- 4-10 <u>Sidewalks</u>: At the request of the Commission, sidewalks shall be installed on major and secondary streets, in pedestrian easements, on local streets in the vicinity of schools and playgrounds and in other places deemed necessary by the Commission for the public necessity and safety.
- 4-11 <u>Channel Lines</u>: Channel and building lines shall be provided along any major stream or river for the purpose of preventing encroachment upon and constriction of the natural water channel by buildings, filling operations or other facilities and construction. The width of the channel shall be based on sound engineering calculations anticipating long range storms and flow potentials and recognizing proper alignment and gradients of the channel. A note shall be placed on the Record Subdivision Map explaining the channel and building lines and stating the restrictions against encroachment upon the channel in a manner approved by the Town Counsel.
- 4-12 <u>Pedestrian Easements</u>: In areas where the proposed street system does not conform to a convenient pattern of pedestrian circulation, particularly in the vicinity of parks, schools, playgrounds or other public or semipublic places, the Commission may require the provision of twenty (20) foot easements for the establishment of pedestrian way.
- 4-13 <u>Easements</u>: Easements, having a minimum width of twenty (20) feet or such greater width as may be required by the Town Engineer, shall be provided for all storm water and sanitary sewer pipes which will not be installed in streets to be dedicated to the Town. The easement shall be located so that the pipe is positioned five (5) feet from the boundary of such easement. Easements at least twenty (20) feet in width shall also be provided for the full width of the channel of any stream or drainage ditch which will carry drainage runoff from any proposed street, existing street, or streets which may be constructed in the future on unsubdivided land within the watershed. Easements shall also be provided, in locations deemed proper by the Commission or the Town Engineer, for storm water and sanitary sewer pipes, water mains, or other utility lines that may need to be installed in the future.
- 4-14 <u>Reserved Strips</u>: No reserved strips shall be provided in any subdivision.
- Open Spaces for Parks and Playgrounds: In subdivisions proposed for residential 4-15 development, open spaces for parks, playgrounds, and/or environmental protection shall be provided in places deemed proper by the Commission. Such land shall be transferred to the Town of Branford, Branford Land Trust, or other entity approved by the Commission. (If the Commission determines that the donation of suitable land is not feasible, the applicant shall pay a fee in lieu of open space, as provided for in Section 4-16, below.) In requiring the provision of such open spaces, the Commission shall be guided by a minimum standard of 10% of the area of the subdivision. Land shown on the subdivision plan as open space for parks and playgrounds shall be of such size, location, shape, topography and general character as to be suitable to satisfy the needs determined by the Commission. In making this determination, the Commission shall consult with the Conservation/Environment Commission, Board of Recreation, Parks and Open Space Authority and Select Committee on Open Space Acquisition. The open spaces provided shall conform to any Town master plan pertaining to parks, playgrounds, recreation areas and open space or shall, in the judgment of the Commission, meet one of the following criteria:
 - Preserves the integrity of rare, fragile, or threatened ecosystems, especially those impacting Long Island Sound, the Branford River, inland and tidal wetlands and trap rock ridges.

- •Enhances and preserves the continuity of greenway systems including, but not limited to, such areas as the Supply Ponds Pisgah Brook Preserves, Hoadley Creek Preserve, Beacon Hill, Water Authority Lake Saltonstall area, Stony Creek Quarry Preserve, and "The Branford Trail".
- Enhances and protects wildlife travel corridors.
- •Enhances flood and erosion control and water supply protection, except that this criteria is not intended to include areas whose primary function is the management of storm water quantity and quality.
- Preserves and protects historically significant and outstanding scenic sites, particularly ridgelines, view lines of Long Island Sound and the Branford River.
- Preserves existing farmland and open fields.
- Preserves land that is critical to the Town's character.
- Enhances recreation opportunities.
- Enhances, expands or connects existing open space to minimize habitat fragmentation.
- Protects parcels which include or are adjacent to watercourses or wetland areas. <u>Such open space should include an appropriate protective vegetative buffer.</u>

The Commission, in requiring the provision of open space, shall give due consideration to the proper development of the Town, the density of population, the existing public open spaces in the vicinity of the subdivision, and the preservation and potential enhancement of existing natural features, large trees and other scenic points. Proper pedestrian and vehicular access shall be made, approved by the Commission, to insure continued responsibility for long term reservation and maintenance of the open space by covenant in the deed, by neighborhood association or other suitable means. If the open space is offered to the Town, a Warranty Deed and Title Certificate as provided in paragraph 2-3-5 shall be submitted and if said land is not accepted by the Town within 180 days of the date of filing of the Record Subdivision Map with the Town Clerk, said deed shall be returned to the applicant. The applicant shall then make other arrangements, approved by the Commission, for the preservation of the open spaces.

When a subdivision plan is submitted in sections, a proportionate part of the total open space area proposed and approved on the overall Site Development Plan shall be established in the first section submitted including suitable access to such land.

4-16 Fees in Lieu of Open Space: In lieu of the requirement of Section 4.15 to provide open space and with the approval of the Commission, the applicant may pay a fee to the Town of Branford or may pay a fee to the Town of Branford and transfer land to provide open space. Authorization shall be granted by the Commission if and when it determines in its sole discretion that the conditions of a subdivision, i.e.: size, population density, existing open space in the neighborhood, topography, soils and characteristics are such that onsite open space is not desirable and a fee in lieu of open space is desirable.

Payment in lieu of open space or combination of payment and the fair market value of land transferred shall be equal to ten percent (10%) of the fair market value of the land to be subdivided prior to the approval of the subdivision. The fair market value shall be determined by an appraiser jointly selected by the Commission and the applicant, at the expense of the applicant. A fraction of such payment, the numerator of which is one and the denominator of which is number of approved parcels in the subdivision shall be made at the time of the sale of each approved parcel of land in the subdivision and placed in a fund in accordance with the provisions of the Connecticut General Statutes, as amended.

Fee payments in lieu of open space shall be deposited in a fund which shall be used for the purpose of preserving undeveloped land or acquiring additional land for open space, recreational or agricultural purposes in accordance with the Connecticut General Statutes.

The applicant shall prepare and submit to the Commission a lien document suitable for recording at the Town Land Records for each approved lot in the subdivision plan. Each lien document shall state the exact dollar amount to be paid to the Town at the time of sale of the lot as required by the provisions of this regulation. A release of lien for each lot shall be provided by the Town upon the Town's receipt of the fee for each lot.

- 4-17 <u>Street Lighting</u>: Illumination shall be provided at all road intersections and at additional locations as determined by the Commission to be necessary to ensure public safety. The developer shall provide for maintenance and electricity for such street lights until the subdivision roads are accepted by the Town.
- 4-18 Street Trees: Street trees shall be planted on both sides of any proposed street and may be required on any subdivision side of an existing street. Trees shall be spaced not more than fifty (50) feet apart but subject to variations made necessary by driveways, street corners, walks and utility lines, and shall be located on the lot no further than ten (10) feet from the front property line. Trees to be planted shall be at least two and one-half (2 1/2) inches caliper as measured at six (6) inches above root crown. Species shall be selected on the basis of disease resistance, general hardiness, maintenance requirements, potential impact of root systems on underground utilities and impact of branching patterns on

pedestrian and vehicular traffic. The lowest branches should be a minimum of six (6) feet above the ground. All species selections shall be subject to final approval by the Commission. The Commission may vary the required location for trees where they may interfere with utility poles and wires or underground utilities or where soil and planting conditions are not satisfactory. Where existing trees meet the above requirements, they may be substituted for new plantings, provided they are protected with appropriate measures throughout construction. New trees shall be planted, protected, staked, and maintained using good horticultural practice. Any tree not surviving one (1) year after the completion of all required subdivision improvements shall be replaced at the developer's expense. Sufficient bonding shall be provided to insure such replacement.

SECTION 5 - CONSTRUCTION STANDARDS

- 5-1 <u>General</u>: All required subdivision improvements shall be constructed in accordance with the standards hereinafter specified and in accordance with applicable ordinances and standard specifications of the Town of Branford.
- 5-2 Supervision and Inspection: Construction of all required improvements shall be carried out under the supervision of the Town Engineer and shall be subject to inspection and approval by the Commission and the Town Engineer or their authorized agent. The Town Engineer or his agent shall be notified when any preliminary grading of streets has been completed and upon completion of subgrade preparation and shall be notified at least 48 hours prior to installation of the gravel subbase course and any base and surface course. No pipe, catch basin, manhole or other structure shall be backfilled until inspected and approved by the Town Engineer or his agent. The Commission and Town Engineer or their authorized agent shall have free access to the construction work at all times and shall be authorized to take material samples, cores and other tests as deemed necessary to determine compliance with these Regulations. The Commission or the Town Engineer may require the applicant, at his own expense, to have such tests made and certified by a professional engineer licensed to practice in the State of Connecticut.
- 5-3 <u>Streets</u>: Streets shall be constructed in accordance with the following standards:
 - 5-3-1 Cross Section: Pavements shall be constructed with a crown with a cross slope of ¼ inch per foot. A ten foot sidewalk area shall be provided and graded on each side of the pavement. The sidewalk area shall be graded level with the top of the curb and shall be loamed and seeded as provided in Paragraph 5-3-7. The Commission or the Town Engineer may require modification of this grading requirement in order to preserve substantial existing trees.
 - 5-3-2 Preparation of Subgrade: All trees and roots shall be stripped to below the base course of the pavement and for the full width of the pavement. All soft spots, peat, loam, organic material, soft clay, spongy soil, boulders, ledge and other unsuitable material shall be removed and replaced by material approved by the Town Engineer. All fill that is placed to an elevation of less than three (3) feet above water table at the time of filling shall consist of rock or free-draining soil meeting State Highway Department Specifications. Where ledge rock is encountered, it shall be removed to a depth of one (1) foot below subgrade, and the area backfilled with gravel. Embankments shall be constructed of suitable fill material deposited in successive layers not exceeding 12 inches in depth. The subgrade shall be compacted by distributing the hauling over the area, by the use of tread type of equipment, by power rollers of at least 10 tons or by other mechanical means approved by the Town Engineer.
 - 5-3-3 <u>Subbase</u>: The subbase shall be constructed in accordance with the Town Road Specifications.
 - 5-3-4 <u>Base Course</u>: The base course shall be constructed in accordance with Town Road Specifications.
 - 5-3-5 <u>Top Course</u>: The top course shall be constructed in accordance with Town Road Specifications.
 - 5-3-6 <u>Underdrains</u>: The Town Engineer may require the installation of underdrains beneath the street pavement where necessary to protect the stability of the pavement.

- 5-3-7 Slopes: Cut or fill sections beyond the sidewalk area shall not exceed a slope of 1 on 2 except in rock. The Town Engineer may require a decrease in the amount of slope to whatever extent is necessary to maintain the stability of the bank under the particular soil conditions. All earth surfaces of slopes, and areas that have been disturbed in any way due to grading and construction of the streets shall be covered with a minimum of four (4) inches of top soil and suitably seeded or planted to prevent soil erosion. The Town Engineer may require the removal or lowering of embankments adjacent to street intersections in order to assure adequate sight distance at the intersection. No cut or fill sections beyond the sidewalk area shall extend into property outside the subdivision or property not owned by the applicant unless appropriate slope rights are obtained for the Town; in the absence of such slope rights, appropriate retaining walls shall be constructed within the subdivision to prevent encroachment upon adjoining property.
- 5-3-8 Construction Procedures: Line and grade stakes shall not be spaced more than 50 feet apart and shall be set by a land surveyor or engineer and maintained in good order during construction and until the street is approved by the Town Engineer. No street shall be opened or used for travel until it shall have been approved by the Town Engineer. All water mains, sewers, pipe and other underground utility services shall be installed prior to placing the base course. Whenever possible, underground utility lines shall be installed outside the pavement portion of the street.
- 5-3-9 <u>Debris and Equipment</u>: All large rocks, boulders, felled trees, stumps and brush shall be removed from the street right-of-way upon completion of the work.
- 5-4 <u>Storm Drainage</u>: Storm drainage shall be constructed in accordance with the following standards:
 - 5-4-1 Pipe: All pipe shall meet State Highway Department Specifications. Reinforced concrete pipe shall be used for surface drainage storm water systems and cross culverts. Where vertical clearance is limited, and on grades in excess of 10% or where uneven support may be expected, A.C.C.M. pipe or pipe arches shall be used. All pipe shall be bedded carefully on soil approved by the Town Engineer. There shall be a four (4) inch sand cushion bedded under the pipe on any rock or ledge formation. In subdivisions in Pine Orchard and Short Beach as outlined in section 6 of these regulations, the Town Engineer may approve the use of pipe materials other than those noted above, if he deems them satisfactory for the purpose intended.
 - 5-4-2 <u>Ditches</u>: All open drainage ditches, except stream relocations or improvements, shall have a minimum depth of 12 inches, a maximum depth of three (3) feet and a maximum side slope of 1 on 1 1/2. If required by the Commission or the Town Engineer, ditches shall be paved either with two (2) inches of hot bituminous concrete, thoroughly compacted on an eight (8) inch gravel base or with one-third sections of reinforced concrete pipe. All ditches shall be constructed as approved by the Town Engineer.
 - 5-4-3 <u>Joints</u>: The joints of all pipe shall be shoved tight. Pipe laid in sandy, silty or other soil in which, in the judgment of the Town Engineer there is danger of washing or cave-ins, shall have joints thoroughly sealed with 1:3 concrete mortar.
 - 5-4-4 <u>Catch Basins and Manholes</u>: Catch basin and manhole types shall be approved by the Town Engineer and constructed in conformity with Connecticut State Highway Standard Specifications. Catch basins may be depressed slightly to facilitate the collection of water.

- 5-4-5 <u>Backfill</u>: Where the drainage pipe is necessary to serve as an underdrain for the street or to control the water table, the pipe shall be bedded on at least six (6) inches of one (1) inch washed stone; 3/4 inch washed stone shall be placed around and over the pipe to a height of six (6) inches and then covered by heavy tar paper and backfilled with bank run gravel. Backfill for all other pipe shall be tamped pnuematically every twelve (12) inches in even layers.
- 5-4-6 Construction Procedure: All pipe shall be laid to line and grade as shown on approved drainage plans and profiles. Line and grade stakes shall be set by a land surveyor or engineer and shall be maintained in good order until the work has been inspected and approved by the Town Engineer. Four (4) batter boards (three sections) shall be maintained in place at all times when laying pipe and shall not be spaced more than 30 feet apart. The exact grade for each pipe shall be maintained. No pipe shall be laid on water, and water shall not be permitted to rise over freshly mortared joints until they are properly hardened. Ground or surface water accumulating in the trench must be pumped out.
- 5-5 Monuments: Reinforced concrete monuments shall be built of 1:2:4 mix, four (4) inches square on the bottom and three (3) feet long. Each monument shall be suitably marked on the top and shall be set so that the marked center of the top shall be the point of reference. The tops of such monuments shall be set in place after all other street development is completed. The accuracy of location of such monuments shall be certified in writing by the land surveyor making the Record Subdivision Map.
- 5-6 Guard Posts: Guard posts or guide railing shall be installed at all drainage headwalls in the right-of-way and along all streets where there will be an embankment with a depth of four (4) feet or more within twenty feet of the proposed pavement. Crossoted or cedar guard posts shall be spaced six feet on center and shall have a minimum tip diameter of five inches and a minimum length of seven feet with 3 1/2 feet set in the ground. Subject to the approval of the Town Engineer, three cable guide railing, metal beam type guide railing or steel guard posts of suitable design may be substituted for the crossoted or cedar guard posts. All materials and construction methods and details shall be subject to the approval of the Town Engineer.
- 5-7 <u>Sidewalks</u>: Sidewalks shall have a minimum width of four (4) feet and be located within the street lines with one edge abutting the property line or in such other location approved by the Commission or the Town Engineer. Sidewalks shall be constructed in accordance with Town specifications.
- 5-8 <u>Street Signs</u>: Street name signs shall be installed at all street intersections in locations approved by the Town Engineer. Such signs shall be of a design and material used by the Town of Branford.

SECTION 6 - SPECIAL PROVISIONS FOR SHORT BEACH AND PINE ORCHARD ZONING JURISDICTIONS

As the zoning jurisdictions of Pine Orchard and Short Beach existed prior to the adoption of zoning and subdivision regulations in the Town of Branford and have retained such jurisdiction, the following provisions are made in order to avoid confusion and apparent areas of conflict between the subdivision requirements of the Town of Branford and the zoning jurisdictions of Pine Orchard and Short Beach.

- 6-1 <u>Waiver</u>: The Commission may, by a three quarters vote, waive the following subdivision requirements in instances where a subdivision is located within the Pine Orchard or Short beach zoning jurisdiction and where the roadways are not proposed to become Town Roads.
 - 4-3-4c Width of Pavement, Local Street
 - 4-3-4d Width of Pavement, Turnarounds
 - 4-3-10 Dead End Streets

If a waiver is granted, the following minimum standards must still be observed:

width of pavement for a local street 20 feet radius of paved surface for a turnaround 40 feet

6-2 <u>Non Town Road Main Notice</u>: Should the Commission choose to make any of the waivers set forth in Section 6-1, the applicant must place on his approved subdivision map the following language.

"The roadways shown on this subdivision map are not town roadways nor shall they become town roadways until the roads are brought to the current town specifications at no expense to the Town of Branford, and accepted by the proper regulatory body of the Town of Branford."

6-3 <u>Bonding</u>: Any Bonds required by these regulations shall be satisfied by the issuance of a single bond issued to both the Town of Branford and the local zoning commission in accordance with the bonding requirements. (Effective 7/14/89)

SECTION 7 - SPECIAL PROVISIONS FOR PLANNED DEVELOPMENT DISTRICTS

- 7-1 <u>Purpose</u>: The Zoning Regulations for the Town of Branford provide for the establishment of Planned Development Districts; the purposes of which include preservation of open space, preservation of land for parks and recreation, protection of natural resources, protection of areas of terrain having qualities of natural beauty, to protect streams, rivers and ponds and to permit modification of the strict application of the standards and provisions of the Regulations. Such developments require approval by the Commission of the proposed plan in accordance with those standards and requirements provided in the Zoning Regulations. Since in some cases applications for Planned Development Districts require compliance with the Subdivision Regulations of the Town of Branford, and in some cases the strict enforcement of provisions contained in the Subdivision Regulations conflict with and/or discourage Planned Developments and their purposes, the following provisions are made.
- 7-2 <u>Modification</u>: Upon the written request of an owner, petitioner, or applicant of an established or proposed Planned Development District, the Commission may, after approval of the Basic Development Plan, by a vote of three quarters of its membership waive or modify any of the requirements specified in Sections 4 and 5 of the Subdivision Regulations except for and subject to the following requirements and conditions:
 - 7-2-1 No waiver or modification of Section 4-5-1 through 4-5-5 and section 5-3-2 through 5-4-6 shall be considered by the Commission.
 - 7-2-2 The subject parcel is proposed as, or is located in, a Planned Development District and contains a minimum area of fifty (5w) acres, and private roadways are proposed which are not intended to become Town roads.
 - 7-2-3 Conditions exist on the subject parcels which are not generally applicable to other land in the area; including but not limited to, difficult topographical conditions, natural environmental features, or natural beauty.
 - 7-2-4 Cluster development is utilized to preserve open space and provide for passive and/or active recreation.
 - 7-2-5 Not less than fifty percent (50%) of the available acreage is reserved for undisturbed and/or maintained open space and/or active or passive recreation.
 - 7-2-6 Applicant makes provision(s) in association documents or by other means acceptable to the Commission which clearly establish the duties and responsibilities of the association and/or the residents for maintenance of the project, including common areas, roadways, pedestrian ways, emergency access, utilities and refuse collection. The documents shall also state the purposes for which road connections to adjacent properties may be used.
- 7-3 <u>Application for Waiver of Modification</u>: Each request for waiver or modification of a subdivision requirement shall be in writing and in tabular form and include the following:
 - 7-3-1 A statement confirming and/or explaining how the proposed plan meets the conditions and requirements set forth in Sections 7-2-1 through 7-2-6 herein.
 - 7-3-2 A statement of each requirement which is the subject of the request for waiver or modification including a reference to the applicable section(s) of the Subdivision Regulations; and the specific wording with the section to be waived.
 - 7-3-3 A statement as to the extent or manner of modification requested.

- 7-3-4 A statement as to the reason or reasons for the request.
- 7-3-5 A traffic circulation plan for the neighboring area.
- 7-4 <u>Procedure</u>: Any request for waiver or modification pursuant to this Section shall be in accordance with the following procedures:
 - 7-4-1 A request for waiver or modification pursuant to this section shall be filed with the Commission at the same time as the filing of the Basic Development Plan.
 - 7-4-2 In lieu of the Site Development Plan required by Sections 2-2-4 and 3-2, a Basic Development Plan submitted in conjunction with a Planned Development proposal may be substituted.
 - 7-4-3 The Basic Development Plan will be considered first by the Commission, and if approved, the Commission will consider the request for waiver or modification of the Subdivision Regulations.
 - 7-4-4 The Record Subdivision Map shall be submitted to the Commission at the same time as the submission of the Detailed Development Plan.
 - 7-4-5 The Detailed Development plan shall be considered by the Commission first, and if approved, the Commission will consider the approval of the Record Subdivision Map.
 - 7-4-6 If the subdivision is approved by the Commission, endorsement of the Record Subdivision Map, filing and recording shall be done in accordance with Sections 2-3-6 and 2-3-7 of the Subdivision Regulations.
- 7-5 <u>Approval</u>: The Commission may after approval of the Basic Development Plan, approved by a vote of at least three-quarters of its membership or deny any request for waiver or modification pursuant to this section. Any approval shall include a statement upon its records as to the reason(s) for granting a waiver in each case and also make the following findings:
 - 7-5-1 That the subject parcel is proposed as, or located in a Planned Development District.
 - 7-5-2 That conditions exist on the subject parcel which are not generally applicable to other land in that area.
 - 7-5-3 That the proposed plan conforms to the policies and standards contained in Section 1-1; 4-1; and 4-3-2 of Branford Subdivision Regulations.
 - 7-5-4 That the proposed development contains a minimum area of fifty (50) acres.
 - 7-5-5 That the proposed development utilizes private roadways and cluster development.
 - 7-5-6 That not less than fifty percent (50%) of the available acreage is reserved for undisturbed or maintained open space and/or active or passive recreation.
 - 7-5-7 That satisfactory provisions have or will be made by the applicant to clearly establish the duties and responsibilities of an association or residents for maintenance of the project including common areas, roadways, pedestrian ways, emergency access, utilities, and refuse collection, and that association documents state the purposes for which road connections to adjacent properties may be used.

- 7-5-8 That the waiver or modification has no significant adverse effect on adjacent property or on public health and safety.
- 7-5-9 The requirement to complete the subdivision within two (2) years may be waived or modified by the Commission, and any conditional approval of a subdivision pursuant to this Section shall lapse five (5) years from the date it is granted, provided the applicant may apply for and the Commission may in its discretion grant a renewal of such conditional approval for an additional period of five (5) years or less.
- 7-5-10 Any approved subdivision may based upon modifications as set forth herein an approved by the Commission shall contain the following language:

"The roadways shown on this subdivision map are not Town roadways nor are they intended to become Town roads in the future. These could become Town roadways only if the roads are brought to the current Town specifications at no expense to the Town of Branford, and accepted by the proper regulatory body of the Town of Branford."

SECTION 8 - PENALTIES

8-1 <u>Penalties</u>: any person, firm or corporation making any subdivision of land without the approval of the Planning and Zoning Commission is subject to penalties provided in the General Statutes of the State of Connecticut.

SECTION 9 - VALIDITY

9-1 If any section, paragraph, sentence, clause or phrase of these Regulations shall for any reason be held to be invalid or unconstitutional by a decree or decision of any court of competent jurisdiction, such decree or decision shall not affect or impair the validity of any other section or remaining portion of these Regulations.

SECTION 10 - EFFECTIVE DATE

10-1 These Regulations and any amendments hereto shall be in full force and effect from the date of adoption by the Planning and Zoning Commission or from a date subsequent to adoption that the Commission may establish.

BRANFORD PLANNING AND ZONING COMMISSION

SAMPLE BOND FORM AND INSTRUCTIONS

Approved Form of Bond for Completion of Subdivision Improvements (to be supplied in duplicate)

INSTRUCTIONS

- 1. Bond is to be furnished on the surety company letterhead.
- 2. The sample form below is the <u>only</u> one acceptable to the Branford Planning and Zoning Commission.
- 3. Power of Attorney of person signing on behalf of the surety company must be attached to the bond if not already on file with the Commission.
- 4. If the person acting as attorney for the surety company is not a licensed resident agent of the State of Connecticut, then this bond shall be countersigned by a licensed Connecticut resident agent for the company.
- 5. The penalty of this bond is the Commission's estimate of the amount necessary to complete the required work.
- 6. A copy of the Subdivision Regulations can be purchased from the Branford Planning and Zoning Commission, Town Hall, Branford, Connecticut for the established fee.
- 7. The file of a subject subdivision may be inspected by any representative of the surety company or prospective surety company upon reasonable notice to the Secretary 'of the Commission.
- 8. This bond should be completed and filed with the Commission after notification of approval of the subdivision by the Commission and prior to ninety days after said approval.
- 9. Upon request of developer or surety company the Commission shall at reasonable intervals report on the partial completion of improvements.
- 10. The Commission will consider application for extension of time to complete improvements when good cause for delay is shown.
- 11. Application for release or reduction of this bond upon completion of the required work must be accompanied by the required certificate of compliance and "as—built" drawings as provided in Paragraph 2-3-8 of the Subdivision Regulations. This bond shall not be released until after the applicant has posted a one (l) year bond for purpose of maintenance and to cover unforeseen deficiencies.

SAMPLE APPROVED FORM

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Surety (L.S.)

OFFICE OF THE TOWN ENGINEER BRANFORD, CONNECTICUT

AUGUST 11, 1976

ROAD SPECIFICATIONS

All highways hereafter to be accepted by the Town of Branford must be constructed according to the following standards and requirements, viz;

- 1. Such highway shall be at least fifty feet wide.
- 2. It shall be surveyed and a map thereof, certified by a licensed surveyor, shall be filed in the office of the Town Clerk.
- 3. It shall be marked with permanent bounds which are to be shown on said map.
- 4. It shall be properly graded to shed water, and water conditions shall be corrected by suitable sub-drainage and such catch basins or other forms of construction as may be required.
- 5. It shall have a paved surface at least thirty feet wide <u>curb to curb</u>.
- 6. Such highway shall be in accordance with the section drawing on file in the Town Engineer's Office and conform to the following specifications:

a. Cross Section

Pavements shall be constructed with a crown with a cross slope of 1/4 inch per foot. A ten foot sidewalk area shall be provided and graded on each side of the pavement. The sidewalk area shall be graded level with the top of the curb and shall be loamed and seeded. The Town Engineer may require modification of this grading requirement in order to preserve substantial existing trees.

b. <u>Preparation of Subgrade</u>

All trees and roots shall be stripped to below the base course of the pavement and for the full width of the pavement. All soft spots, peat, loam, organic material, soft clay, spongy soil, boulders, ledge and other unsuitable material shall be removed and replaced by material approved by the Town Engineer. All fill that is placed to an elevation of less than three (3) feet above water table at the time of filling shall consist of rock or free-draining soil meeting State Highway Department Specifications. Where ledge rock is encountered, it shall be removed to a depth of one (1) foot below subgrade, and the area backfilled with gravel. Embankments shall be constructed of suitable fill material deposited in successive layers not exceeding 12 inches in depth.

The subgrade shall be compacted by distributing the hauling over the area, by the use of tread type of equipment, by power rollers of at least 10 tons or by other mechanical means approved by the Town Engineer.

c. Gas and Water Services

If available, shall be installed for each lot to the curb line or beyond as required by

the Utility Company before the construction required by the next hereinafter paragraph is started.

d. Sub Base

- 1. After sub-grade has been rolled and brought to a uniform surface and approved by the engineer, spread 8" of bank-run gravel compacted by a three wheeled 10 ton roller to a uniform surface. Rolling until there is no further movement of compacted gravel.
- 2. All bankrun gravel shall be from an accepted pit and shall meet the graduations of the Connecticut State Highway Department specifications.
- 3. <u>In lieu of bank run gravel, select material may be used provided its quality uniformity meets the required standards in terms of bearing ratio and frost susceptibility as approved by the Town Engineer.</u>

e. Base Course

- 1. Upon the completed sub-base, a course of Bituminous concrete Binder Class IV Connecticut State Highway specifications form 809 shall be spread to a depth of 3" when compacted. This shall be placed and compacted in accordance with Connecticut Highway Specifications form 809.
- 2. <u>In lieu of the binder, a course of Penetrarion Macadam may be placed according to the following specifications</u>
 - 2.1. Upon completed bottom course of bank run of gravel or crusher run stone, place a course of 2 1/4" broken stone to a depth that when compacted with a three wheeled 10 ton roller shall be a uniform 4" depth. Spread upon this compacted surface, 2 gals. per square yard of paving asphalt, 85-120 penetration, using a pressure distributor. Protect face of concrete curbing at all times from being disfigured by oil application.
 - 2.2. Spread over this oiled surface, 1/2" stone in an amount to completely fill all voids, rolling same with 10 ton roller. Rate of application shall be between 48 lbs. to 54 lbs. per square yard.

f. Certificate of Occupancy

There shall be no certificate of occupancy issued for any residence until the phases of construction provided for in the previous paragraphs are completed to such extent as to provide access to such residence.

g. Surface Course

When the base course has been, completed with the provisions of the herein before, a surface course of bituminous concrete shall be spread and compacted to a thickness of 11/2" and shall be placed over the entire traveled portion of the road. Bituminous and concrete shall be in conformity with State of Connecticut Highway Specifications Form 809 Section 4.04.

NOTE: The base and surface course shall not be laid between October 1st and May

1st or when temperature is below 50°F unless WRITTEN permission is obtained from the Town Engineer.

h. Curbs

On each side of such highway and fifteen feet from the center line there shall be installed a concrete curbing in accordance with the section drawing on file in the Town Engineer's Office. Said curbing shall conform to the following specifications:

- 1. Concrete shall be 1:2:4 Mix. Place 1/2" expansion joint material every 50 linear feet. Install 1/8" contraction joints every 10 feet. Use steel plates or pour alternate sections. Expansion joints to be held plumb and in a true plane for full depth and width of section. Forms shall be wood or steel of sufficient strength and with proper bracing to maintain perfect shape and alignment. Forms shall be oiled with non-staining oil. Concrete to be well spaded to prevent honeycomb.
 - 1.1. Bituminous concrete curbs are to be used on the curved portion of any temporary turn around and at the curved portion of any intersection with an existing highway which has not been built to present highway standards. This curbing shall be built to conform to the specifications of Section 2.
- 2. Bituminous concrete may be used for such curbing under the following conditions:
 - 2.1. That the developer post with the Town Engineer, in an amount acceptable to the Town Engineer, a maintenance bond for such curbing, issued by a surety company licensed to do business in Connecticut, guaranteeing the maintenance of such curbing for a period of two (2) years after acceptance of such road by the Town of Branford.
 - 2.2. That such bituminous concrete shall conform to the following standards, and specifications (references are to the Standard Specifications of the Connecticut Department of Transportation for Roads and Bridges and Incidental Construction):
 - 2.2.1. Materials for this work shall conform to the requirements of Article 4.03.02 for Hot Asphalt Concrete, or Article 4.06.02 for Dense Graded Bituminous Concrete.
 - 2.2.2. The construction methods for the bituminous concrete lip curbing shall conform to the requirements described in Article 4.03.03 or 4.06.03, as supplemented by the following requirements:
 - 1. Prior to the arrival of the mixture on the work, the surface of the pavement where the bituminous concrete lip curbing is to be constructed shall have been cleaned of all loose and foreign material. The surface shall be perfectly dry and clean at the time the mix is placed and shall be coated with an R.C.-2 or other approved bitumen just before the arrival of the mixture. Upon arrival at the site, the mixture shall be deposited directly in place or on platforms outside the area on which it is to be spread and shall then be immediately distributed into place by suitable means. The mixture shall be kept clean and free from dirt or foreign materials at all times. It shall be

compacted to the required cross-section by the use of suitable iron tampers weighing not less than 12 pounds and having a bearing area not exceeding 50 square inches, or by means of a roller weighing not less than 150 pounds per foot of tread. The surface of the lip curbing shall be tested with a 10 foot straight edge laid parallel with the center line of the road and any variations from the true profile exceeding 1/4 inch shall be satisfactorily corrected.

2. After the completion of the lip curbing, traffic shall be kept at a safe distance for a period of not less than 24 hours and until the curbing has set sufficiently to prevent injury to the work.

i. Turn Arounds

Any such road ending at a dead end shall have, at such dead end, a "Turn Around" consisting of a circular area not less than one hundred and twenty feet in diameter, the surface of which shall meet the foregoing requirements. Where acceptable to the Town Engineer, an island suitably landscaped and enclosed with a curbing may be installed within the turn around.

i. Under drains

The Town Engineer may require the installation of under drains beneath the street pavement where necessary to protect the stability of the pavement.

k. Slopes

Cut or fill sections beyond the sidewalk area shall not exceed a slope of 1 on 2 except in rock. The Town Engineer may require a decrease in the amount of slope to whatever extent is necessary to maintain the stability of the bank under the particular soil conditions. All earth surfaces of slopes, and areas that have been disturbed in any way due to grading and construction of the streets shall be covered with a minimum of four (4) inches of top soil and suitably seeded or planted to prevent soil erosion. The Town Engineer may require the removal or lowering of embankments adjacent to the street intersections in order to assure adequate site distance at the intersection. No cut or fill sections beyond the sidewalk area shall extend into property outside the subdivision or property not owned by the applicant unless appropriate slope rights are obtained for the Town; in the absence of such slope rights, appropriate retaining walls shall be constructed within the subdivision to prevent encroachment upon the adjoining property.

1. Construction Procedures

Line and grade stakes shall not to be spaced more than 50 feet apart and shall be set by a land surveyor or engineer and maintained in good order during construction and until the street is approved by the Town Engineer. No street shall be opened or used for travel until it shall have been approved by the Town Engineer. All water mains, sewers, pipe and other underground utility lines shall be installed prior to placing the base course. Whenever possible, underground utility lines shall be installed outside the pavement portion of the street.

m. Debris and Equipment

All large rocks, boulders, felled trees, stumps and brush shall be removed from the street right-of-way. All temporary structures, tools, equipment and waste materials shall be removed from the street right-of way upon completion of the work.

n. Storm Drainage

Storm drainage shall be constructed in accordance with the following standards:

- 1. All pipes shall meet State Highway Department Specifications. Reinforced concrete pipe shall be used for surface drainage storm water systems and cross Culverts. Where vertical clearance is limited, and on grades in excess of 10% or where uneven support may be expected, A.C.C.M. pipe or pipe arches shall be used. All pipes shall be bedded carefully on soil approved by the Town Engineer. There shall be a four (4) inch sand cushion bedded under the pipe on any rock or ledge formation.
- 2. All open drainage ditches, except stream relocations or improvements, shall have a minimum depth of 12 inches, a maximum depth of three (3) feet and a maximum slope of 1 on 1 1/2. If required by the Commission or the Town Engineer, ditches shall be paved either with two (2) inches of hot bituminous concrete thoroughly compacted on an eight (8) inch gravel base or with one-third sections of reinforced concrete pipe. All ditches shall be constructed as approved by the Town Engineer.
- 3. The joints of all pipes shall be shoved tight. Pipe laid in sandy, silty or other soil in which, in the judgment of the Town Engineer, there is danger of washing or cave- ins, shall have joints thoroughly sealed with 1:3 concrete mortar.
- 4. <u>Catch Basins and manholes</u>: Catch basin and manhole types shall be approved by the Town Engineer and constructed in conformity with Connecticut State Highway Standard Specifications. Catch basins may be depressed slightly to facilitate the collection of water.
- 5. <u>Backfill</u>: Where the drainage pipe is necessary to serve as underdrain for the street or to control the water table, the pipe shall be bedded on at least six (6) inches of one inch washed stone: 3/4 inch washed stone shall be placed around and over the pipe to a height of six (6) inches and then covered by heavy tar paper and backfilled with bank run gravel. Backfill for all other pipe shall be tamped pneumatically every twelve (12) inches in even layers.
- 6. Construction Procedure: All pipe shall be laid to line and grade as shown on approved drainage plans and profiles. Line and grade stakes shall be set by a land surveyor or engineer and shall be maintained in good order until the work has been inspected and approved by the Town Engineer. Four (4) batter boards (three sections) shall be maintained in place at all times when laying pipe and shall not be spaced more that 30 feet apart. The exact grade for each pipe shall be maintained. No pipe shall be laid on water, and water shall not be permitted to rise over freshly mortared joints until they are properly hardened. Ground or surface water accumulating in the trench must be pumped out.

o. Guard Posts

Guard posts or guide railing shall be installed at all drainage headwalls in the right-of-way and along all streets where there will be an embankment with a depth of four (4) feet or more within twenty feet of the proposed pavement. Creosoted or cedar guard posts shall be spaced six feet on center and shall have a minimum tip diameter of five inches and a minimum length of seven feet with 3 1/2 feet set in the ground.

Subject to the approval of the Town Engineer, three cable guide railing, metal beam type guide railing or steel guard posts of suitable design may be substituted for the creosoted or cedar guard posts.

p. Supervision and Inspection

Construction of all required improvements shall be carried out under the supervision of the Town Engineer and the Board of Selectmen and shall be subject to inspection and approval by the Town Engineer and the Board of Selectmen or their authorized agent. The Town Engineer or his agent shall be notified when any preliminary grading of streets has been completed and upon completion of subgrade preparation and shall be notified at least 48 hours prior to installation of the gravel sub-base course and any. base and surface course. No pipe, catch-basin, manhole or other structure shall be backfilled until inspected and approved by the Town Engineer or his agent. The Town Engineer or his authorized agent shall have free access to the construction work at all times and shall be authorized to take material samples, cores and other tests as deemed necessary to determine compliance with these Regulations. Town Engineer may require the applicant, at his own expense, to have such tests made and certified by a professional engineer licensed to practice in the State of Connecticut.

q. Bond **

The developer shall upon approval of his plans file with the Town Engineer a bond to guarantee completion of the road within two (2) years. The bond shall be in form and amount and with surety acceptable to the Town Engineer and Town Counsel and shall be a surety bond, executed by a surety company authorized to enter into such bond in the State of Connecticut.

r. Release of Bond

No bond shall be released until the improvements covered by such bond have been inspected by the Town Engineer. For purposes of maintenance and to cover unforeseen deficiencies, a portion of any subdivision bond shall not be released until one (1) year after completion of required subdivision improvements, and the amount of such portion shall be determined by the Commission with the recommendation of the Town Engineer. The applicant, however, may post a new bond to cover the required portion of the original bond.

s. Materials and Workmanship

Materials and workmanship shall be of good quality and in all respects satisfactory to the Board of Selectmen or Town Engineer.

t. This resolution shall not apply to any road maintained by the town prior to this date, any road detailed on a subdivision plan approved prior to this date by the Planning and Zoning Commission for which grading, drainage and sub-base have been constructed or for which a bond has been accepted, nor to any road started prior to this date upon which a house or houses shall have been built, provided their exclusion shall not apply to the portion of said road lying beyond said house or houses. These roads may be completed in accordance with the specifications existing at the time the work commenced or they can complete their roads in accordance with these specifications.

** Addendum: See Section 2-3-6 on Page eight (8) entitled "Map Endorsement and Bond".

OFFICE OF THE TOWN ENGINEER BRANFORD, CONNECTICUT

SPECIFICATIONS FOR CONCRETE SIDEWALKS

Excavation, including removal of any existing sidewalks shall be made to the required depths below the finished grade as shown on the plans or as directed. All soft and yielding material shall be removed and replaced with suitable material.

Gravel for the base course shall be uniformly spread upon the subgrade to the required depth and thoroughly compacted with a roller weighing not less than 500 pounds. Compacted depth shall be at least 8 inches of State approved bankrun gravel.

Forms shall be of metal or wood, straight, free from warp and of sufficient strength to resist springing from the pressure of the concrete. Forms shall be of a depth equal to the depth of the sidewalk. Forms shall be securely staked, braced and held firmly to the required line and grade and shall be sufficiently tight to prevent leakage of mortar. All forms shall be cleaned, and oiled or wetted before concrete is placed against them. There shall be a 1/2" expansion joint every 20 feet.

Concrete is to be 4" thick made with 3/4" aggregate, contain not less than 3% or more than 6% of an air entraining admixture and have a 28 day compressive strength of 3000 pounds. All aprons and where sidewalks cross driveways the thickness is to be increased to 6 inches.

The surface of the concrete shall be finished with a wood float or by other approved means. The outside edges of the slab and all joints shall be edged with a 1/4" radius edging tool. Each slab shall be divided into two or more section by forming dummy joints with a jointing tool as directed.

The sides of the sidewalk shall be backfilled with suitable material thoroughly compacted and finished with the top of the sidewalk. All surplus material shall be removed and the site left in a neat and presentable condition to the satisfaction of the Engineer.

This work will be measured by the actual number of square feet of completed and accepted concrete sidewalk.

Excavation below the finished grade of the sidewalk, backfilling, and disposal of surplus material will not be measured for payment but the cost shall be included in the price bid for the sidewalk. Excavation above the finished grade of the sidewalk will be measured and paid for as General Excavation.

Gravel Base will not be measured for payment, but the cost shall be considered as included in the price bid for the sidewalk.

This work will be paid for at the contract unit price per square foot for "Concrete Sidewalk", complete in place, which price shall include all excavation as specified above, backfill, disposal of surplus material, gravel base, equipment, tools, materials and labor incidental thereto.

OFFICE OF THE TOWN ENGINEER BRANFORD, CONNECTICUT

SPECIFICATIONS FOR BITUMINOUS CONCRETE SIDEWALKS

Excavation, including removal of any existing sidewalk, shall be made to the required depth below the finished grade as shown on the plans or as directed. All soft and yielding material shall be removed and replaced with suitable material.

Forms shall be of metal or wood, straight, free from warp and of sufficient strength to resist springing from the impact of the roller. All forms shall be of a depth equal to the depth of the sidewalk and shall be securely staked, braced, and held firmly to the required line and grade. All forms shall be cleaned and oiled each time they are used.

Gravel for the base course shall be uniformly spread upon the subgrade to the required depth and thoroughly compacted with a roller weighing not less than 500 pounds. Compacted depth shall be at least 8 inches of State approved bankrun gravel.

Bituminous concrete shall meet State specifications and be 2 1/2 inches thick when compacted. The material shall be spread by hand and thoroughly compacted by a roller weighing not less than 500 pounds.

The sides of the sidewalk shall be backfilled with suitable material thoroughly compacted and finished flush with the top of the sidewalk. All surplus material shall be removed and the site left in a neat and presentable condition to the satisfaction of the Engineer. In sections inaccessible to the roller, the base course, surface course and backfill shall be hand tamped with tampers weighing not less and 12 pounds, the face of which shall not exceed 50 square inches in area.

This work will be measured by the actual number of square yards of completed and accepted sidewalk.

Excavation below the finished grade of the sidewalk, backfilling, and disposal of surplus material will not be measured for payment but the cost shall be included in the price bid for the sidewalk. Excavation above the finished grade of the sidewalk will be classified and paid for as General Excavation.

Gravel base will not be measured for payment but the cost thereof shall be included in the price bid for the sidewalk.

This work will be paid for at the contract unit price per square yard for "Bituminous Concrete Sidewalk," complete in place, which price shall include all excavation as specified above, backfill, disposal of surplus material, gravel base, and all equipment, tools, labor and materials incidental thereto.