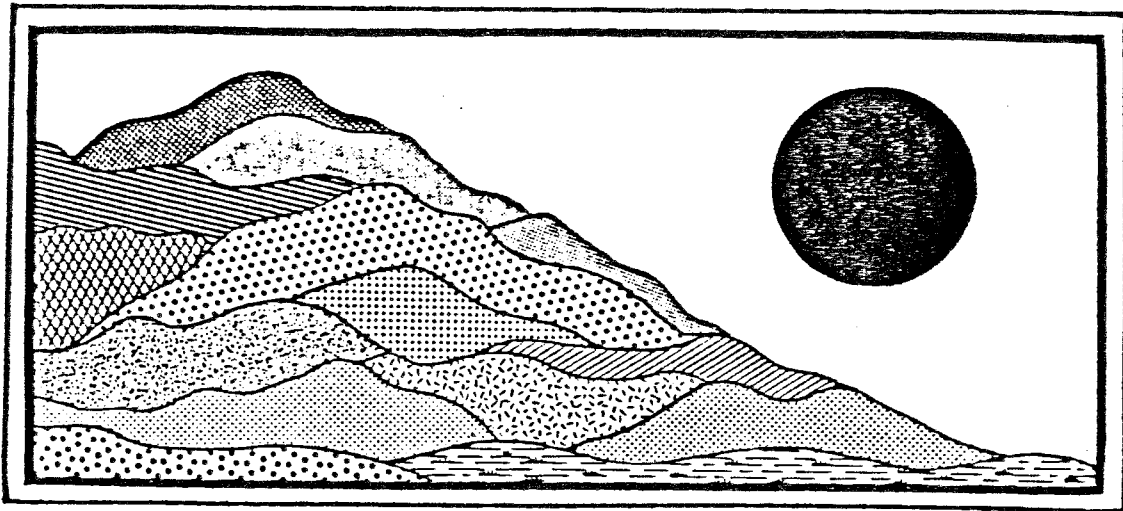


Mountain Estates, Blueberry Hill & Hidden Valley

Canton, Connecticut



January 1988

ENVIRONMENTAL

REVIEW TEAM

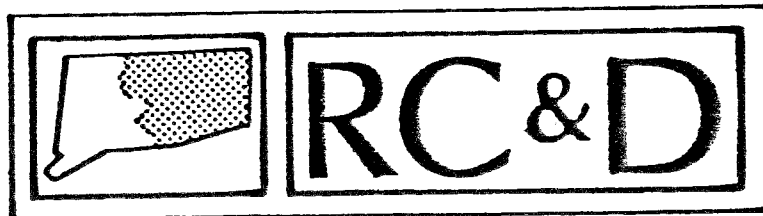
REPORT

Mountain Estates, Blueberry Hill & Hidden Valley

Canton, Connecticut

Review Date: DECEMBER 1, 1987

Report Date: JANUARY 1988



ENVIRONMENTAL REVIEW TEAM

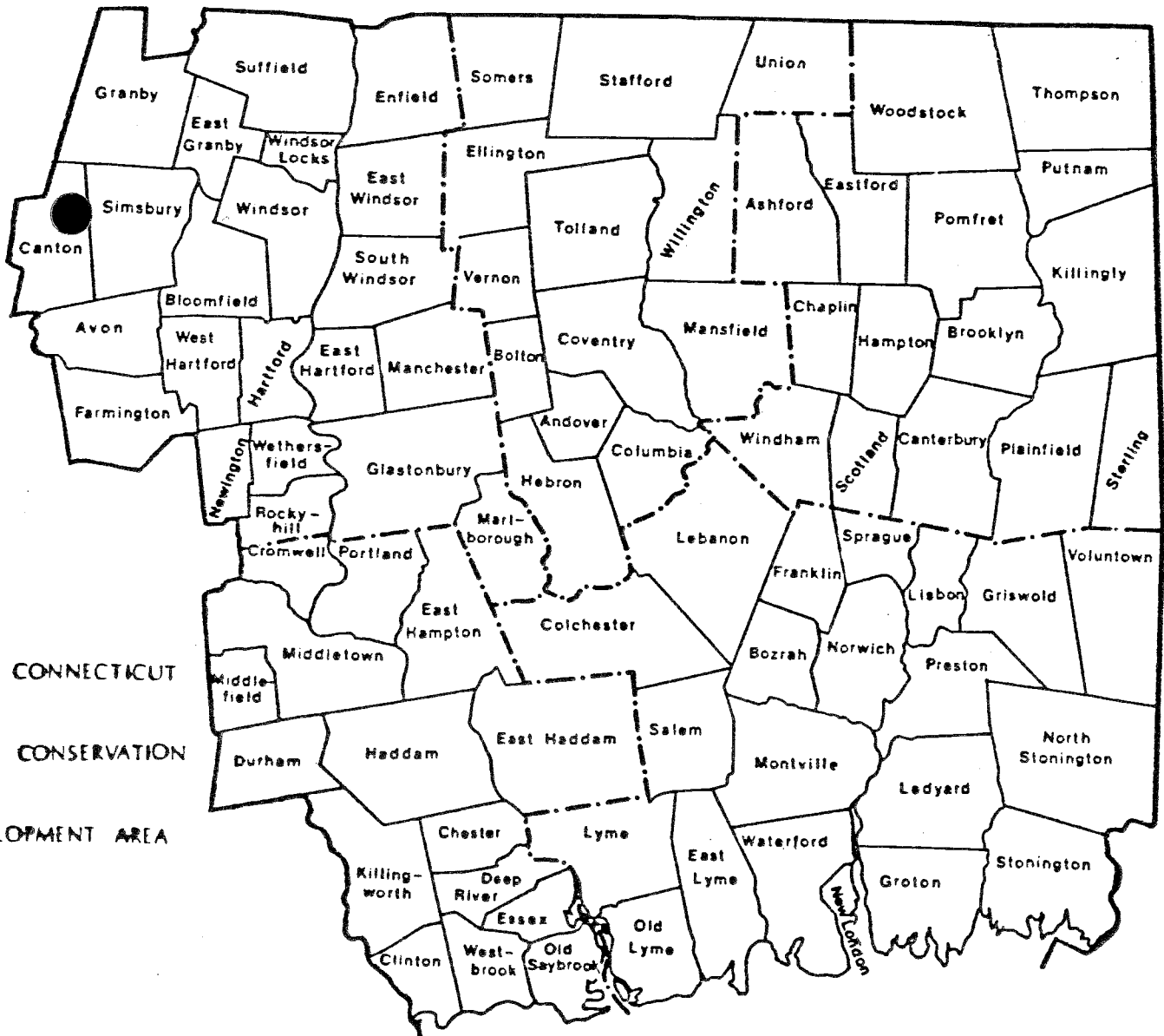
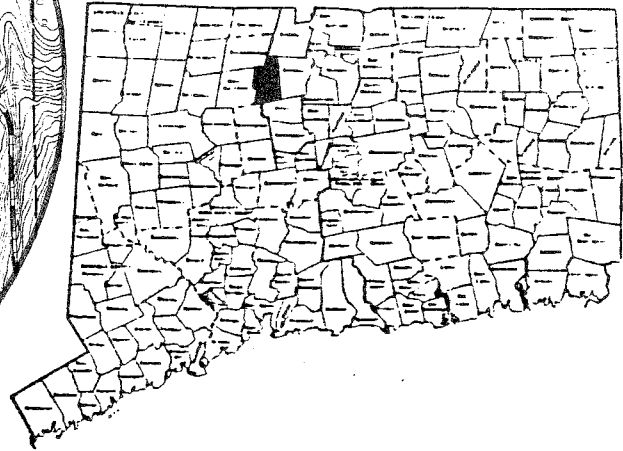
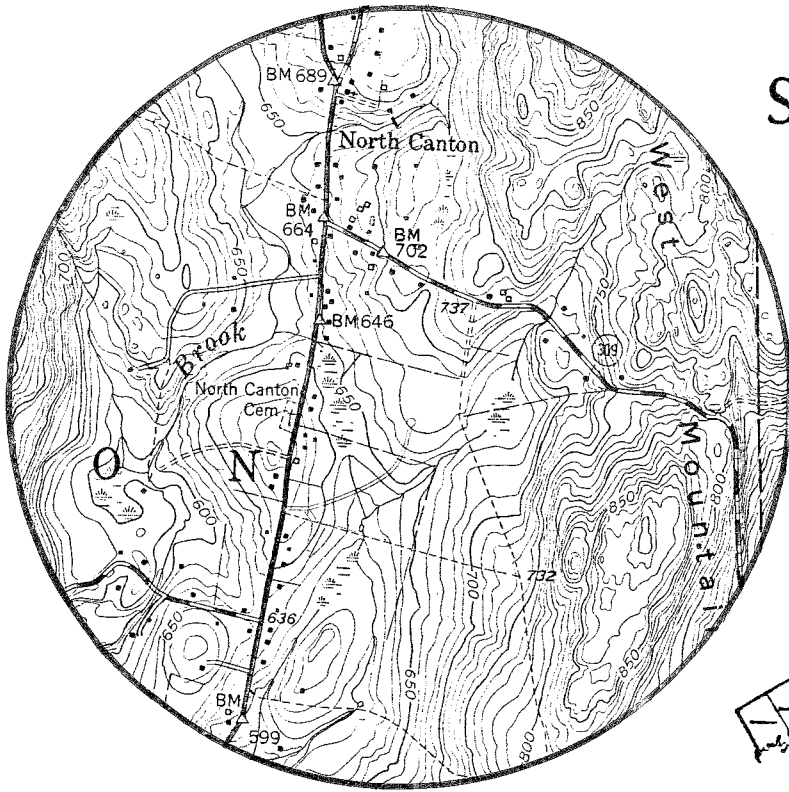
PO BOX 198

BROOKLYN, CONNECTICUT 06234

Site Location

MOUNTAIN ESTATES, BLUEBERRY HILL AND HIDDEN VALLEY SUBDIVISIONS

CANTON, CONNECTICUT



EASTERN CONNECTICUT

RESOURCE CONSERVATION

& DEVELOPMENT AREA

ENVIRONMENTAL REVIEW TEAM REPORT

ON

MOUNTAIN ESTATES, HIDDEN VALLEY

AND

BLUEBERRY HILL SUBDIVISIONS

CANTON, CONNECTICUT

This report is an outgrowth of a request from the Canton Inland Wetland and Watercourses Agency to the Hartford County Soil and Water Conservation District (S&WCD). The S&WCD referred this request to the Eastern Connecticut Resource Conservation and Development (RC&D) Area Executive Committee for their consideration and approval. The request was approved and the measure reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The ERT met and field checked the site on Tuesday, December 1, 1987. Team members participating on this review included:

Arthur Castellazzo	--Sr. Sanitary Engineer - CT Department of Health Services
Denise Conklin	--District Manager - Hartford County Soil and Water Conservation District
Kip Kolesinkas	---Soil Resource Specialist - U.S.D.A. Soil Conservation Service
Nancy Murray	--Biologist - DEP, Natural Resource Center
Donald Mysling	--Fisheries Biologist - DEP, Western District Headquarters
Stuart Popper	--Senior Planner - Capitol Region Council of Governments
Larry Rousseau	--Forester - DEP, Bureau of Forestry
J. Eric Scherer	--District Conservationist - U.S.D.A. Soil Conservation Service
Elaine Sych	--ERT Coordinator - Eastern CT RC&D Area
Bill Warzecha	---Geologist - DEP, Natural Resources Center
Judy Wilson	--Wildlife Biologist - DEP, Western District Headquarters

Prior to the review day, each team member received a summary of the proposed project, a list of the Town's concerns, a location map, a topographic map and a soils map. During the field review the team members were given key plans, subdivisión plans and soils information. The Team met with, and were accompanied by members of the Inland Wetland and Watercourses Agency and the Conservation Commission and an engineer for the projects. Following the review, reports from each team member were submitted to the ERT Coordinator for compilation and editing into this final report.

This report represents the Team's findings. It is not meant to complete with private consultants by providing site designs or detailed solutions to development problems. The Team does not recommend what final action should be taken on a proposed project -- all final decisions and conclusions rest with the Town and landowner. This report identifies the existing resource base and evaluates its significance to the proposed development, and also suggests considerations that should be of concern to the developer and the Town. The results of this Team action are oriented toward the development of better environmental quality and the long-term economics of land use.

The Eastern Connecticut RC&D Executive Committee hopes you will find this report of value and assistance in making your decisions on these proposed subdivisions.

If you require any additional information, please contact:

Elaine A. Sych
ERT Coordinator
Eastern Connecticut RC&D Area
P. O. Box 198
Brooklyn, CT 06234
(203) 774-1253

TABLE OF CONTENTS

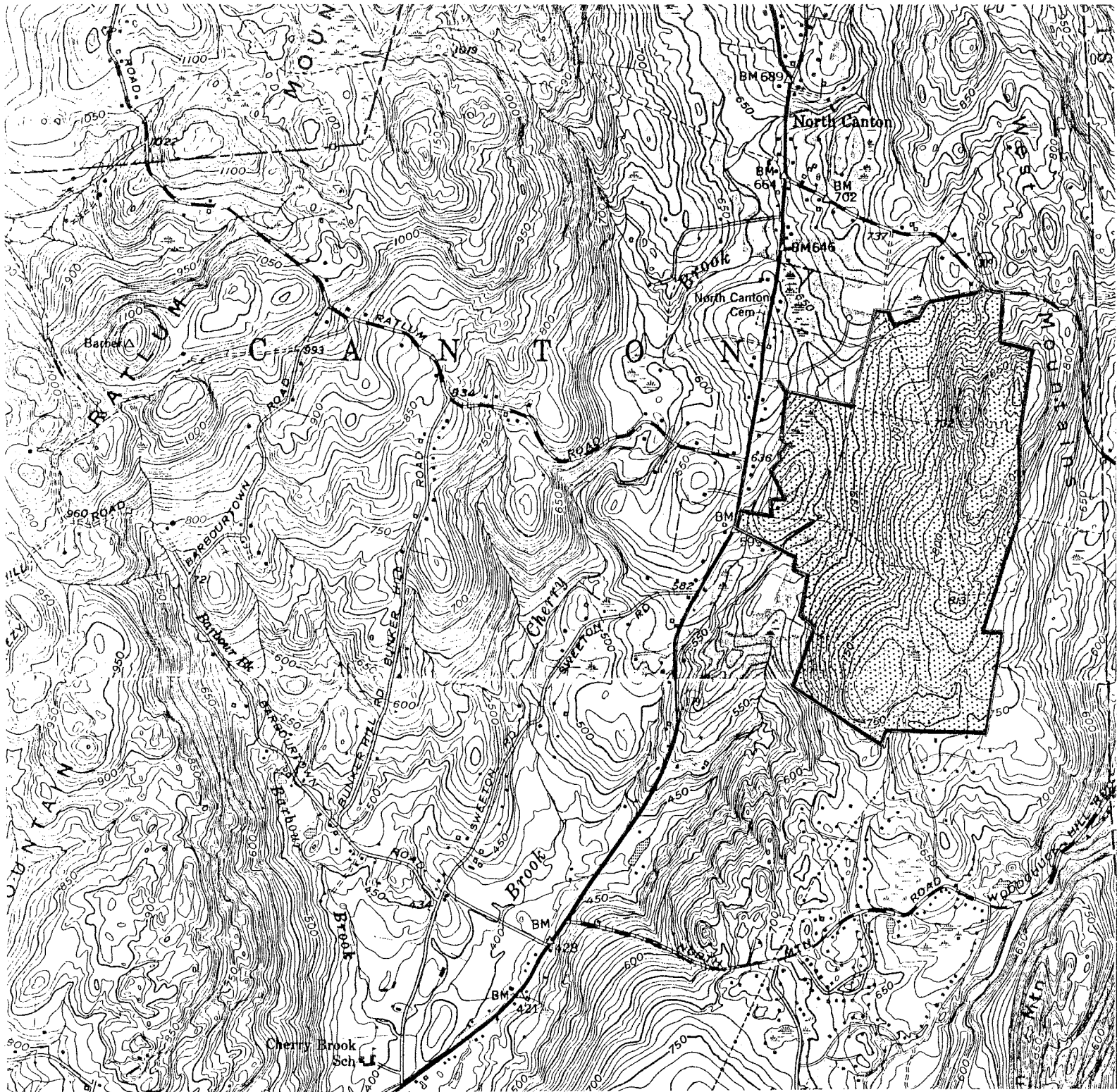
	<u>Page</u>
1. INTRODUCTION	7
2. TOPOGRAPHY AND GEOLOGY	8
3. SOILS	13
4. GEOLOGIC DEVELOPMENT CONCERNS	18
5. HYDROLOGY	20
6. SOIL RESOURCE CONCERNS	22
7. ON-SITE SUBSURFACE SEWAGE DISPOSAL	25
8. WATER SUPPLY	28
9. VEGETATION	29
10. CT NATURAL DIVERSITY DATA BASE	32
11. WILDLIFE HABITAT	33
12. FISHERIES RESOURCES.	37
13. PLANNING REVIEW.	38

TABLE OF MAPS AND CHARTS

LOCATION MAP.	5
KEY MAP.	6
TOPOGRAPHY	9

TABLE OF MAPS AND CHARTS continued

	<u>Page</u>
BEDROCK GEOLOGY	10
SURFICIAL GEOLOGY	11
GENERAL SOILS	15
SOILS FOR STUDY AREA	16
MAJOR LIMITATIONS CHART	17
HYDROLOGY	21
VEGETATION	30

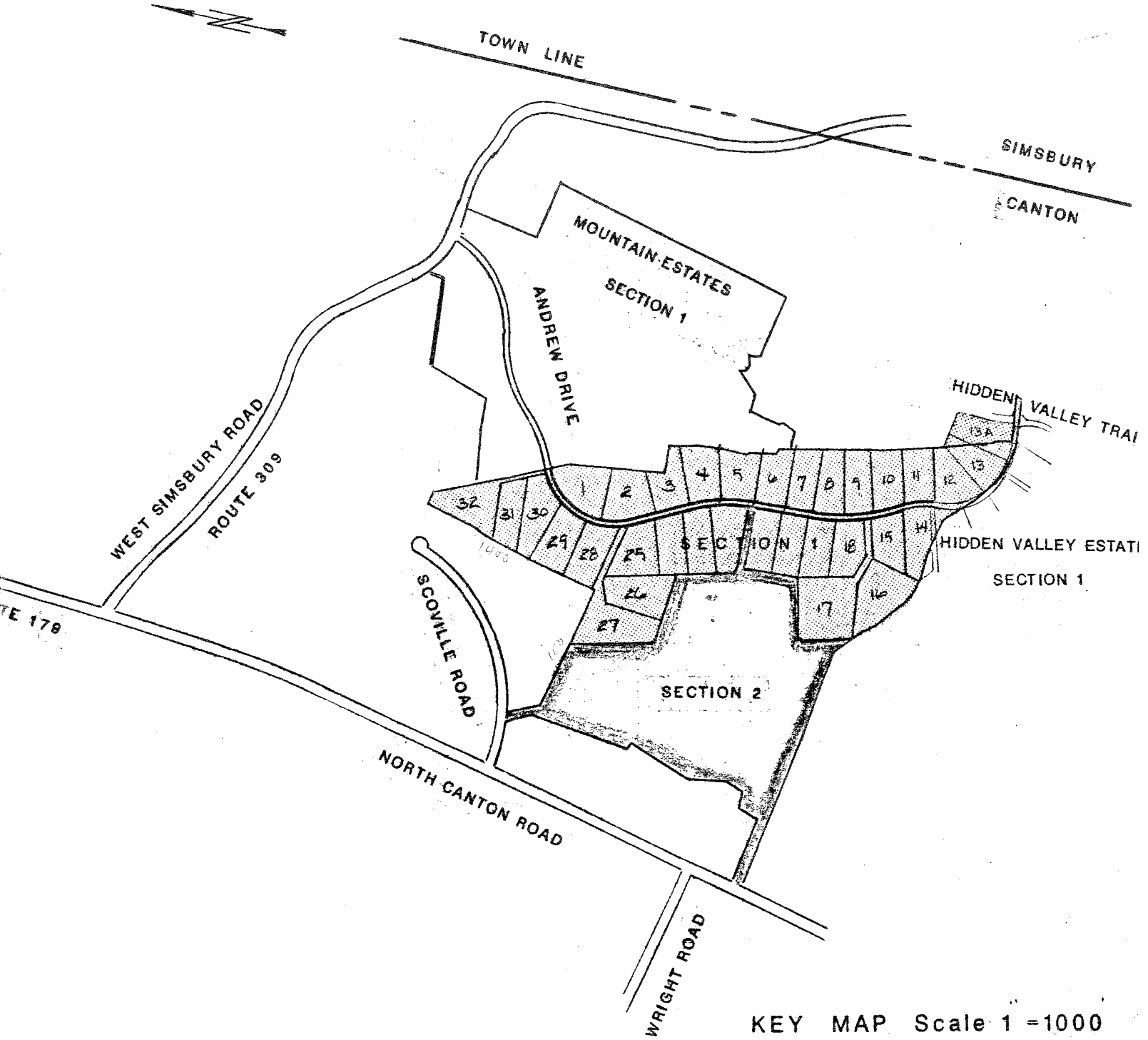


LOCATION

BOUNDARIES ARE APPROXIMATE

SCALE 1" = 2000'





KEY MAP Scale 1 = 1000

1. INTRODUCTION

The Eastern Connecticut Environmental Review Team has been asked by the Canton Inland Wetland and Watercourses Agency to review three large adjacent proposed subdivisions. In addition to this study area, they also requested general information about the entire area surrounding these subdivisions because of their potential for future development.

This report mainly pertains to the three subdivisions that the Team had plans to review. General information may also apply to those areas outside of the subdivisions. At the time that future developments are submitted to the Town, the ERT can be requested to do a more in-depth study of each proposal.

2. TOPOGRAPHY AND GEOLOGY

Topographic relief of the study area is diverse and varies from gentle to steep slopes. The steepest slopes are located in the eastern part of the site and are associated with rock outcrops. Gentle to moderate slopes characterize the western part. These slopes are also controlled largely by the underlying bedrock. The highest elevation (900 feet above sea level) on the site is located on top of West Mountain in the eastern part. The lowest elevation (610 feet above sea level) is located along the small streamcourse in the western part.

At least three (3) perennial streams, all of which are unnamed, traverse the study area in the eastern and central parts. They all flow in a southerly direction enroute to Cherry Brook.

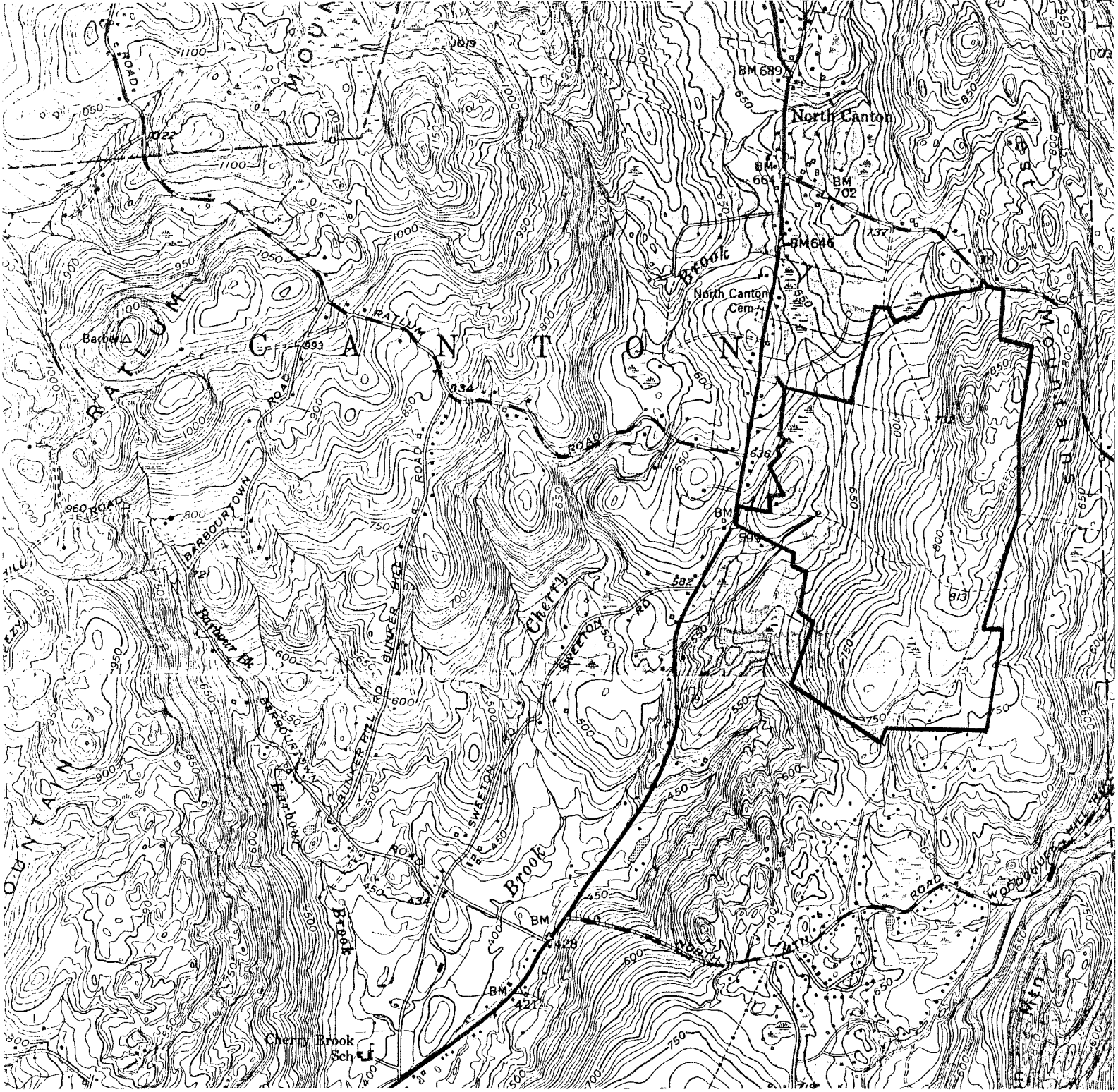
The study area lies within the New Hartford topographic quadrangle. A combined bedrock and surficial geologic map (Map GQ-1257 by R. W. Schnabel) for the quadrangle has been published by the U. S. Geological Survey.

Numerous bedrock outcroppings are visible in the eastern part of the site. They are also visible in the western part, but are more widely scattered.

According to Schnabel's map, two members of the Hartland Formation underlie the study area. Most of the site is underlain by a course grained to very coarse grained, medium to dark gray schist which is locally rust-stained. Major minerals in the rock include quartz, plagioclase, biotite, muscovite, garnet, staurolite, apatite, tourmaline, magnetite, and kyanite. Relatively large sized crystals of garnet and kyanite characterize this rock member.

The other rock type which underlies the western parts along Route 179 is a medium grained, light brown to light gray, thinly layered friable schist. It is composed of the minerals quartz, plagioclase, muscovite and garnet. The term "schist" refers to structurally layered crystalline rocks in which flakes or elongated minerals have become aligned to form surfaces of relatively easy parting.

Although minor in terms of exposure, another rock type is found in the northwest corner of the study area. They are called pegmatites. Pegmatites are igneous rock (rocks formed from molten material), which intrudes the surrounding rock (Hartland Formation). Pegmatites consist of light-yellowish gray, very light gray, and light-pinkish gray, medium to very coarse grained rocks composed of the minerals quartz, plagioclase, muscovite, and garnet. Because the pegmatities are more resistant to



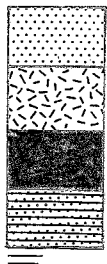
TOPOGRAPHY

SCALE 1" = 2000'





BEDROCK GEOLOGY



Hartland Formation

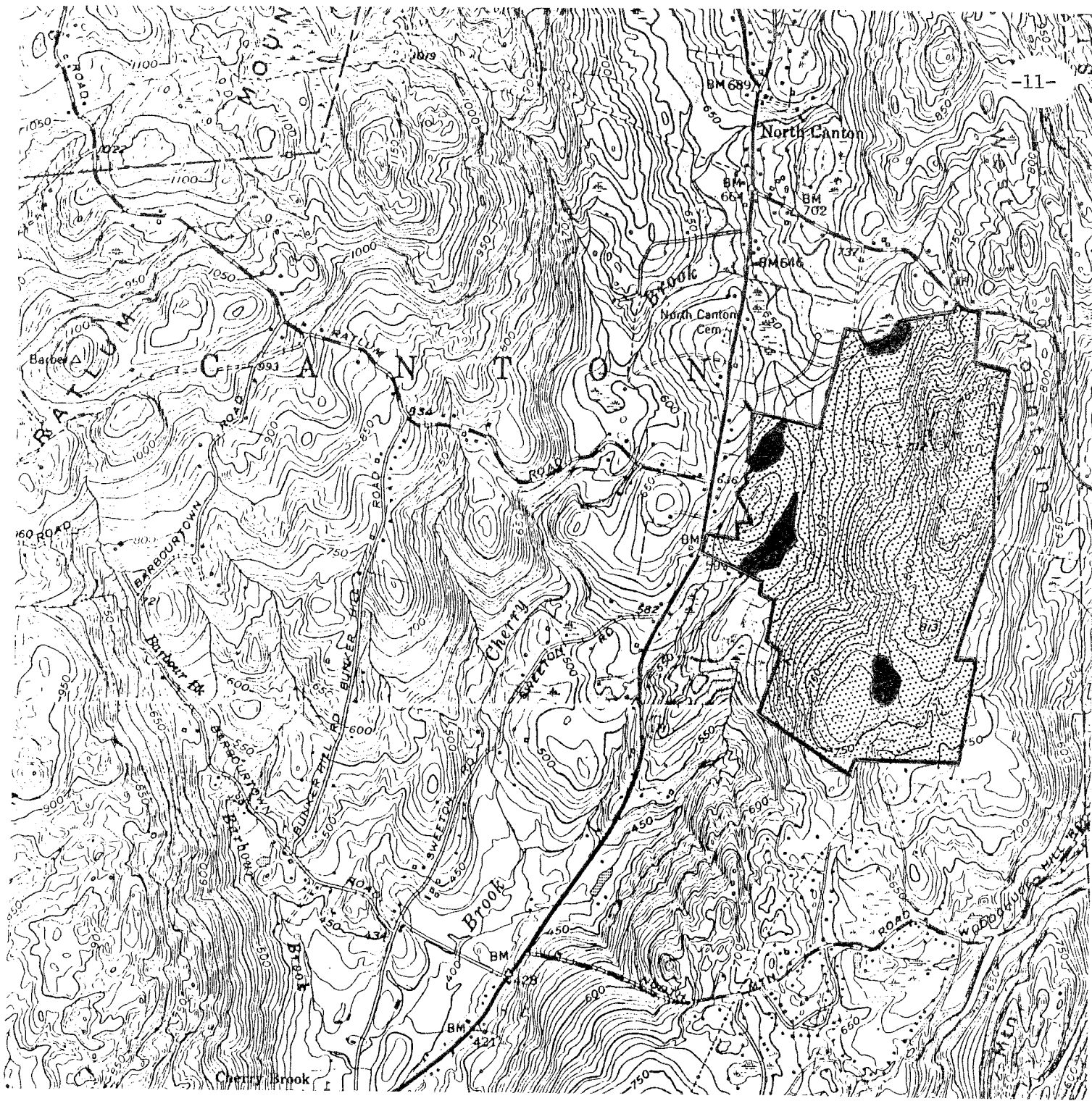
Pegmatites

Outcroppings

Areas where bedrock is at or near ground surface

Scale 1" = 2000'





SURFICIAL GEOLOGY



Till



Swamp Sediments

Scale 1" = 2000'



weathering than the surrounding rocks of the Hartland Formation, they make prominent ledges.

The underlying bedrock is the source of domestic water to many homes in the area and will be the likely sources of water to homes in the proposed residential subdivisions.

The surficial geological materials overlying bedrock throughout the study area consist primarily of till and swamp deposits.

Till, which covers the entire site, consists of rock particles of varied shapes and sizes. These particles were deposited directly from glacier ice without being reworked by meltwater streams emanating from the ice. There are two varieties of till on the site; (1) a loose, sandy variety, which is relatively thin (10 feet or less) and which predominates in the eastern, western and southeastern parts; and (2) a deeper, silty more compact variety, which predominates in the central and southern parts. (see accompanying Soil Map and Description) The latter variety of till commonly has a compact zone about 1.5 to 2.0 feet below ground surface. Since groundwater tends to travel slowly through the compact zone, an elevated (perched) groundwater table often results during the wet time of year.

The thickness of the till is generally shallow throughout the study area ranging between zero, where rock outcrops, to probably not much more than 10 feet at various points in between them.

Overlying till, primarily along watercourses and intermittent drainage channels, in western and southern parts of the site are wetland (swampy) soils. They are designated by the symbol LdA (Leicester, Whitman and Ridgebury soils) on the accompanying soils map. Swamp sediments consist of poorly to very poorly drained mineral soils which are nearly level and very stony. These areas are typically seasonally wet (November to May).

3. SOILS

The Mountain Estates Section II and Hidden Valley Estates Section II properties are dominated by soils formed in nearly level to very steep bedrock controlled landscapes that are a complex of bedrock outcrop, shallow soils (<20 inches), moderately deep soils (20 to 40 inches), and deep soils (>40 inches).

The Hidden Valley Estates Section I and Blueberry Hill Section I properties are dominated by soils formed in deep, gently sloping to steep glacial till soils with a firm, dense substratum (hardpan) at about a two foot depth. The soil landscapes range from convex "hilltops" of well drained soils to concave sideslopes of moderately well drained soils. Both parcels are dissected by watercourses and associated with poorly and very poorly drained soils. A larger watercourse with a small floodplain of alluvial soils and associated glacial till wetlands on sideslopes dominates the western side and abuts Blueberry Hill Section II.

Blueberry Hill Section II (Shirley Lane area) is dominated by a bedrock controlled landscape, but contains a large component of deep well drained soils to the south, east, and west. Watercourses and associated wetland soils are on the eastern and western sides.

The soil map included in this report has been created from on-site investigation and information provided during the review (test pit logs, wetland maps). This map can be used for a general discussion of soil limitations on the parcels; more specific soils information may have been provided by a private soil scientist retained by the developer.

All discussions about inland wetland locations and boundaries should use the wetland maps displayed at 1 inch = 100 feet and mapped by Soil Science Services. Although only portions of the wetland boundaries on all parcels were evaluated, airphoto interpretation indicates that the boundaries seem generally accurate. However, it appeared that these are watercourses on the Blueberry Hill Section I and Hidden Valley Estates Section I that are not located on the map, and may be important to the location of driveways, homes, and septic systems.

Because of the large number of map units involved, a chart of important soil features and interpretations has been prepared. Below are listed some additional soils information and concerns:

- 1) Included with mapping in the LdA map unit are small areas of alluvial (floodplain) soils along the major north-south drainageway. Also included in mapping are those areas of Ridgebury soils on 8 to 15 percent slopes.

2) Included with mapping in the WzbC map unit are small areas moderately deep to bedrock, areas of well drained Paxton (PdE, PdC) soils, areas that lack a firm dense substratum, and areas of Woodbridge soils on 15 to 25 percent slopes.

3) Lots 3-15, 23-27, and 37-41 on Hidden Valley Estates Section I are dominated by moderately well drained soils with firm, dense substratums and 8 to 20 percent slopes. To overcome these soil limitations fill and upslope diversions and/or curtain drains will be necessary (large amounts of surface water and subsurface soil water move downslope on Hidden Valley Estates I and Blueberry Hill I).

4) The location of curtain drains and outlets are not shown on the plans. Outlets that will not adversely affect downslope homes and septic systems will be difficult to locate on some lots because of steep slopes and back lot layout.

5) Mountain Estates Section II and Hidden Valley Estates Section II are dominated by a complex of shallow to deep soils over undulating bedrock. Blasting may be necessary for the development of roads, driveways, and foundations. Extensive exploration by deep test pits will be necessary to locate areas of deep soils for septic systems. It is recommended that more than one hole in each field area be dug, since depth to bedrock can change quickly within short distances.

6) The first wetland crossing of Hidden Valley Trail will require a large amount of fill. To minimize the effect and loss of undisturbed wetlands on Lot 1, the road should be moved slightly north.

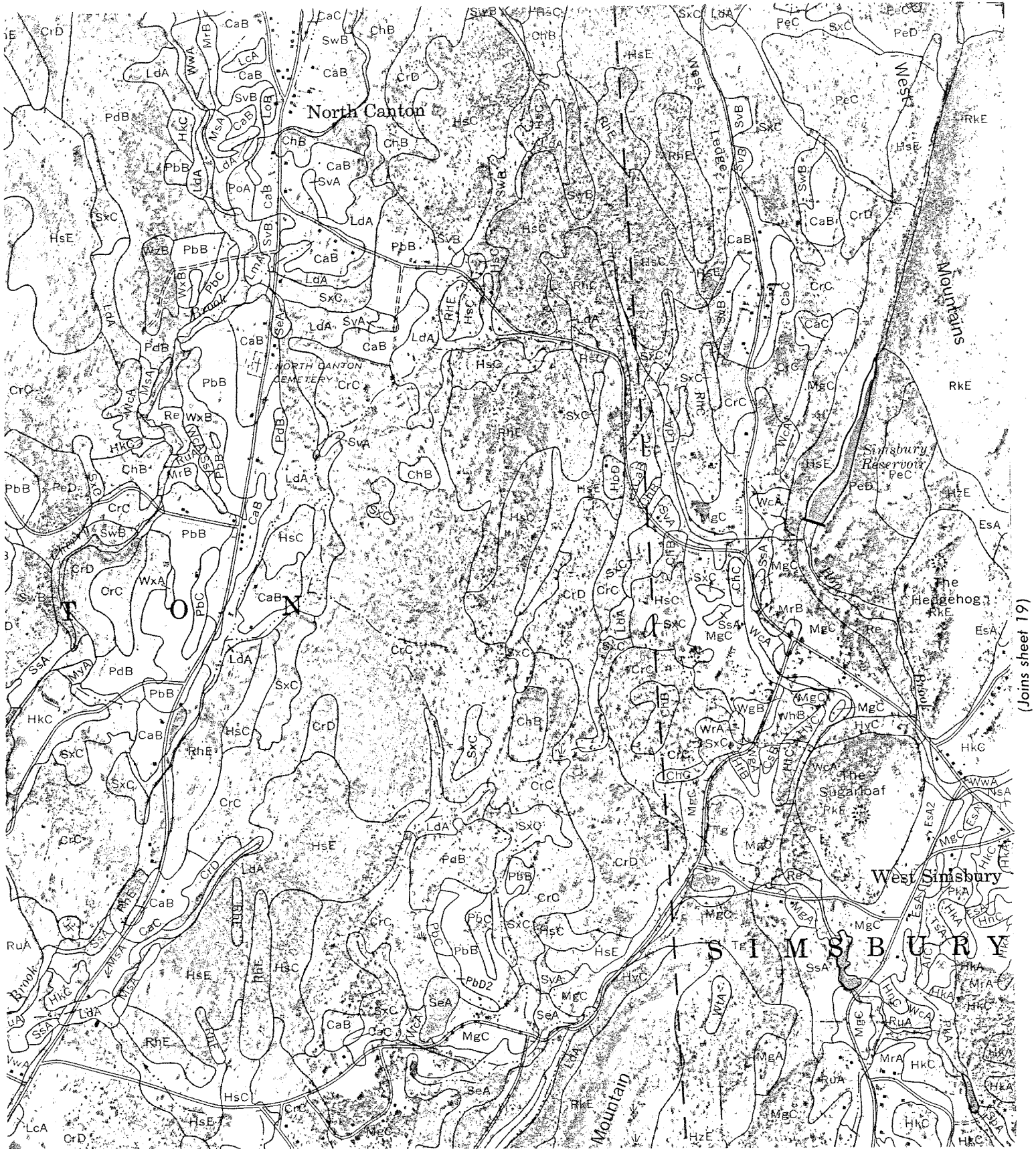


United States
Department of
Agriculture

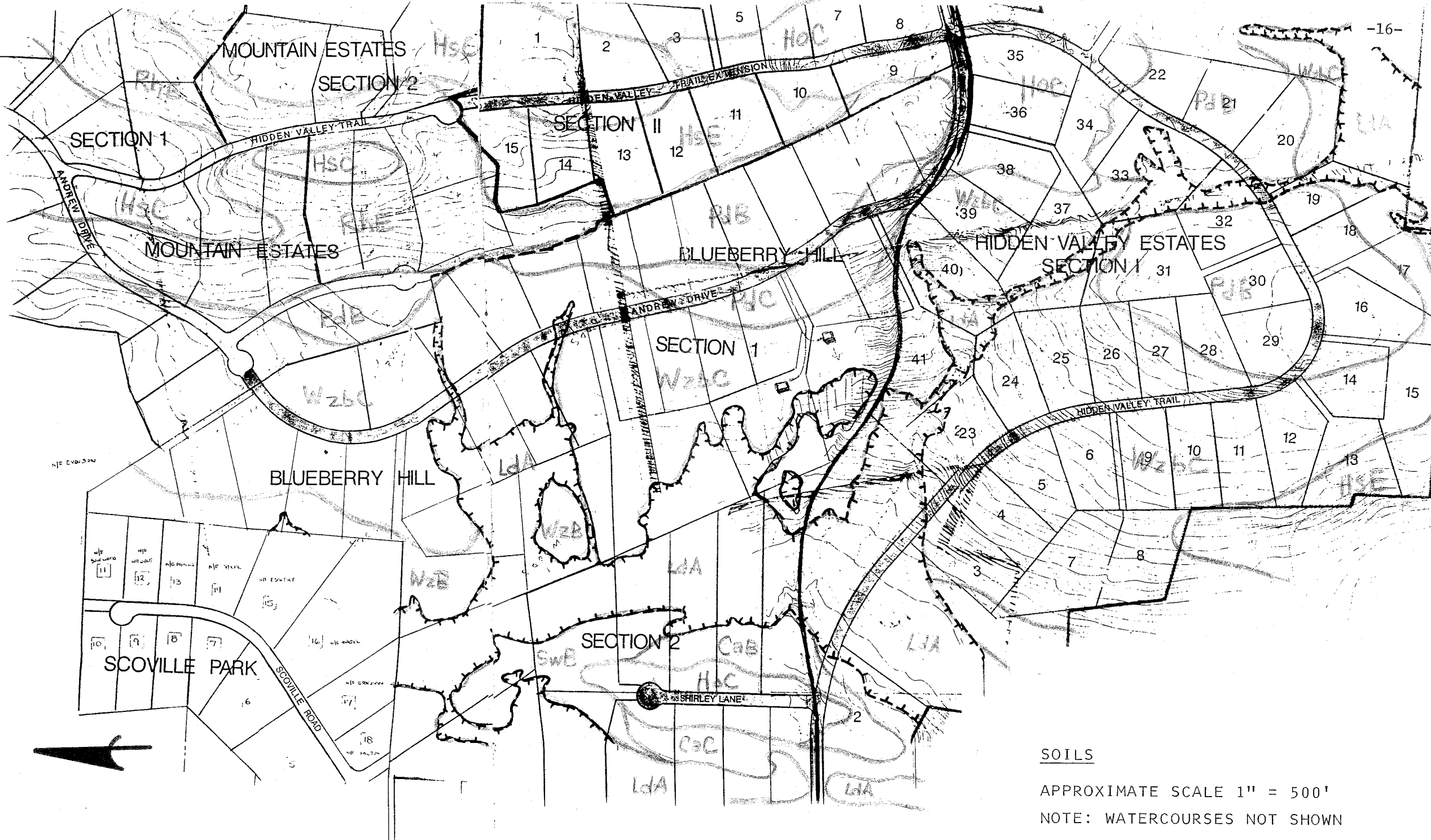
**Soil
Conservation
Service**

HARTFORD COUNTY
MIDWAY OFFICE PARK
1101 KENNEDY ROAD, ROOM 105B
WINDSOR, CT 06095

SCALE 1" = 1320'



(Joins sheet 19)



SOILS

APPROXIMATE SCALE 1" = 500'

NOTE: WATERCOURSES NOT SHOWN

MAJOR LIMITATIONS TO THE DEVELOPMENT OF:

MAP UNIT NAME	GENERAL SOIL PROPERTIES	DRAINAGE CLASS AND DEPTH TO SEASONAL HIGH WATER TABLE	HOMES WITH BASEMENTS	SEPTIC SYSTEMS	ROADS AND STREETS
CaB - Charlton Fine sandy loam, 0-3% slopes	Glacial till soils formed in loamy materials	Well drained >3 ft.	None	None	None
CaC - Charlton fine sandy loam, 8-15% slopes	Glacial till soils formed in loamy materials	Well drained >3 ft.	None	None	None
HoC - Hollis rocky loam, 3 to 15% slopes	Complex of glacial till soils from deep to shallow over bedrock. Formed in loamy materials.	Excessively drained to well drained >6 ft.	Variable depth to bedrock	Variable depth to bedrock	Variable depth to bedrock
HsC - Hollis very rocky loam, 3 to 15% slopes	Complex of glacial till soils from shallow to deep over bedrock. Formed in loamy materials.	Excessively drained to well drained >6 ft.	Depth to bedrock	Depth to bedrock	Depth to bedrock
HsE - Hollis very rocky loam, 15 to 35% slopes	Complex of glacial till soils from shallow to deep over bedrock. Formed in loamy materials.	Excessively drained to well drained >6 ft.	Depth to bedrock slope	Depth to bedrock slope	Depth to bedrock slope
LdA - Leicester, Whitman and Ridgebury very stony soils, 0 to 5% slopes	Glacial till soils formed in dense to loose loamy materials.	Poorly drained to very poorly drained 0-1.5 ft.	Extreme wetness	Extreme wetness	Wetness Subject to frost action
PdB - Paxton stony loam, 3 to 8% slopes	Glacial till soils formed in dense loamy materials	Well drained 1.5-2.5 ft. Perched water table	Seasonal wetness	Seasonal Wetness	Subject to frost action
PdC - Paxton, stony loam, 8 to 15% slopes	Glacial till soils formed in dense loamy materials	Well drained 1.5-2.5 ft. Perched water table	Seasonal wetness	Seasonal Wetness	Subject to frost action slope
RhE - Rocky land, Hollis materials, 15 to 35% slopes	Complex of glacial till soils from shallow to moderately deep over bedrock and bedrock outcroppings formed in loamy materials	Excessively drained to to well drained >6 ft.	Depth to bedrock slope	Depth to bedrock slope	Depth to bedrock. Extreme slope
SwB - Sutton stony loam, 3 to 8% slopes	Glacial till soils formed in loamy materials	Moderately well drained 1.5-2.5 ft.	Wetness	Wetness	Subject to frost action
WzB - Woodbridge stony loam 3 to 8% slopes	Glacial till soils formed in dense loamy materials	Moderately well drained 1.5-2.5 ft. Perched water table	Wetness	Wetness Substratum percs slowly	Subject to frost action
WzBC - Woodbridge very stony soils, 3 to 15%	Glacial till soils formed in dense loamy materials	Moderately well drained 1.5-2.5 ft. Perched water table	Wetness	Wetness Substratum percs slowly	Subject to frost action

4. GEOLOGIC DEVELOPMENT CONCERNS

In terms of the proposed residential subdivisions, the major geological limitations found on the parcels include: (1) areas where bedrock is at or near the surface of the ground; (2) areas of moderate to steep slopes; (3) the compact nature of some till soils, which commonly results in elevated ground water tables and which have slow percolation rates; and (4) areas of seasonal wetness (delineated as LdA soils on the soils map).

These geologic limitations will weigh heaviest on the ability to provide adequate subsurface sewage disposal systems serving homes constructed in the subdivisions since public sewers are not available. In some cases, proper planning and engineering can overcome some of these limitations. Because lot sizes will probably be 2 acres or more, it seems likely that the applicant would have some flexibility for finding a suitable area for a sewage disposal system than, for instance, would be possible with a one acre lot. However, if some of the geologic limitations mentioned earlier predominate on a particular lot, finding a suitable area for the installation of a sewage disposal system may still be problematic. Therefore, it is imperative that detailed soil testing be done on each and every lot particularly in areas of shallow bedrock. Several deep test holes will be necessary in these areas in order to establish a good profile of the bedrock surface. It should be noted that several lots in the southern part have not been tested to date. (See Sewage Disposal section for further information)

The areas characterized by "hardpan" soils (Paxton and Woodbridge soils) usually allow for the installation of curtain drains. A properly designed and constructed curtain drain installed in accordance with all applicable codes can effectively lower the groundwater so it does not interfere with the proper functioning of the septic system.

A curtain drain may be used in conjunction with building footing drains. Footing drains should be required for all homes constructed in the study area, especially in view of the seasonally high water table that characterized the "hardpan" soils. This will hopefully keep basements from getting wet during the spring months.

In order to aid land-use decision makers, it would probably be very helpful if continuous rock outcrops are delineated on the subdivision plan. There should be no rock outcroppings within 50 feet downslope of the leaching system.

Once septic systems are engineered and approved by the proper authorities (i.e., state, local or district health department), it is important that the systems be installed properly, according to design specifications and also be properly maintained (e.g. pumped every 3-5 years by the homeowner).

Interior roads, utility lines, and house foundations constructed in shallow bedrock areas (see soil map) may require blasting. Any blasting which takes place in the study area should be done under the supervision of personnel familiar with the latest technology in blasting. This will hopefully reduce the chance for damage from undue seismic shock. A pre-blast survey of the area would also be wise so as to minimize the chance for damage claims.

Based on the key plan submitted to team members, the present interior road system will cross wetland areas in the study area. The two major wetland crossings will be on Hidden Valley Trail just south and north of its intersection with Shirley Lane. Wetland crossings are generally feasible provided they are properly designed (e.g. culverts are properly sized and installed and permeable road base fill material is used). The roads should be constructed at least 1.5 feet and preferably 2 feet above the surface elevation of the wetlands. This will allow for better drainage of the roads and decrease the frost heaving potential of the road. It is recommended that any road construction through wetland areas be done during the dry time of the year with adequate provisions for effective erosion and sediment control. Detailed plans for the road crossings through wetlands were not available on the review day. Based on visual observations made during the field review, it seems likely that a large volume of fill would need to be placed on regulated soils in order to construct the road bed over the two wetland areas mentioned above. It is strongly suggested that the applicant be required to submit detailed plans for all wetland crossings. The plans would indicate specific site development details, erosion and sediment control measures, fill lines, amount of fill to be placed, the impacts of filling, watercourse channel location and flow direction, disturbed areas, etc.

A possible alternative, which should be studied is the use of prefabricated concrete bridges for the two major wetland crossings mentioned above. Although it may be more costly, it seems likely that there would be less disturbance of wetlands from filling activity in these areas.

Because the soils in the preceding paragraphs are classified as inland-wetland soils in Connecticut, they are regulated under Public Act 155. Any activity which involves modification, filling removal of soils, etc., will require a permit and ultimate approval by the Town's Inland Wetland Commission. In reviewing a proposal, the Commission needs to determine the impact that the proposed activity will have on the wetlands. If the Commission determines that the wetland is serving an important hydrological or ecological function and that the impact of the proposed activity will be significant, they may deny the activity altogether or, at least, require measures that would minimize the impact.

5. HYDROLOGY

Surface runoff from most of the site flows downslope to the unnamed, southflowing streamcourse in the western part. Several westerly flowing tributaries feed the stream from the upland sections of the site. The unnamed streamcourse is tributary to Cherry Brook.

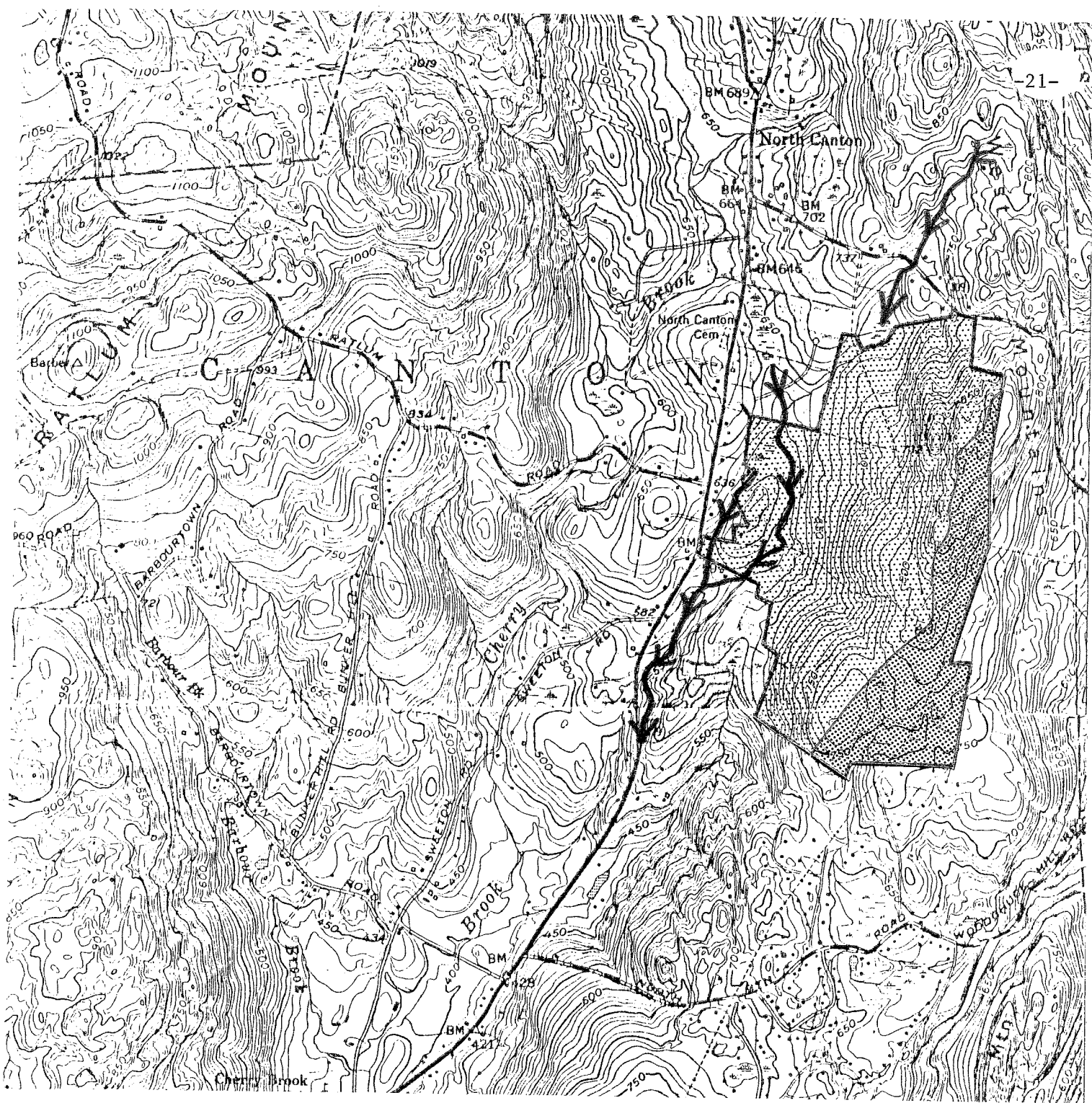
Surface runoff in the eastern limits flows downslope via drainage-ways to an unnamed tributary to Stratton Brook.

Because of the high density of residential homes presently proposed in the study area, it is expected that increases in post development runoff would significantly increase during periods of rainfall. These increases would result from soil compaction, removal of vegetation and placement of impervious surfaces (roof tops, roads and driveways, etc.) over otherwise pervious soils. The applicant's engineer is presently proposing a series of detention basins to handle post development flows. Present plans indicate they would be located in the unnamed streamcourse corridor in the western part.

In order to properly assess post development runoff in the study area, each developer should be required to prepare a stormwater management plan. The plan would include all pre and post-development runoff calculations. It is recommended that Connecticut's Guidelines for Erosion and Sediment Control be closely followed with regard to stormwater management on the site. The management plan and calculations should be carefully reviewed by the Town's engineer and other appropriate town officials. The impacts of post development runoff in the study area should be clearly understood in terms of flooding and streambank erosion.

As mentioned earlier, detention basins will probably be located in regulated wetland areas. Wetlands already have some intrinsic capacity for stormwater retention. One of the alterantives may be to construct the detention basins on upland soils. This will minimize wetland impacts while providing the desired detention basin system. Finally, it is suggested that the applicant contact Robert Gilmore (566-7220) of the DEP's Water Resource Unit to discuss the proposed stormwater maangement plan and to determine whether or not a diversion permit will be required.

According to DEP, groundwater beneath the site is classified as GA, which means that it is suitable for private drinking water supplies without treatment.



WATERSHED BOUNDARY



Surface drainage in study area which flows downslope to the unnamed tributary to Cherry Brook in the western parts.



Surface drainage which flows to an unnamed tributary to Stratton Brook.



Major watercourses showing direction of flow.

Scale 1" = 2000'



6. SOIL RESOURCE CONCERNS

For this section of the report an on-site review was made December 14, 1987 and the site plans reviewed included:

"Key Plan, " no date; "Hidden Valley Estates," Sheets 1 through 6 of 6 (dated October 6, 1987); "Blueberry Hill," Sheets 1 through 19 of 19 (dated December 12, 1986). Broad interpretations on these two plans can be extended to other areas where plans are not yet developed.

Hidden Valley Estates

Recommend relocation of proposed road entrance upslope so as not to impact wetlands downslope to present driveway. The upslope wetlands appear to have been impacted before by the present driveway and could be considered of lesser value than those wetlands downslope.

Some concern by the Town was made in trying to preserve as much of the existing wetland esthetics as possible, leaving oxbows and other features intact. Therefore it is recommended moving the proposed second wetland crossing of Hidden Valley Trail upslope to a section of the channel where it is fairly straight and uniform. Several large White Oak trees were found to exist in the immediate area of the crossing. Preservation of these trees should be considered.

At the second crossing the use of a box culvert or arch culvert would greatly aid in retaining the configuration of the stream channel bottom, allowing for low flows and movement of small aquatic based wildlife. (Also refer to Sections 12 and 13 of this report for further information)

Placement of hay bale check dams in stream channels is both ineffective and inappropriate. They should be removed.

In order to preserve the wetlands in both open space and individual lots, it is recommended that they be protected with conservation easements, which would be recorded on individual lot deeds and which prohibit certain activities usually associated with individual lot ownership (i.e. clearing of trees, placement of debris, structures or fill).

Excessively steep slopes predominate the site. With respect to Town regulations on permissible driveway slopes, consideration should be given to location of steep driveways relative to aspect. Driveways become inaccessible when covered with snow or ice due to lack of exposure to sunlight by dense vegetation and lack of aspect. It is anticipated that most lots will remain treed, and therefore this should be considered when approving a lot with a steep driveway.

The catch basin detail on Sheet 6 of 6 showing an "envelope" of filter fabric is the most effective control measure. It should be used on all plans for catch basin protection.

The overall soil erosion and sediment control plan is lacking numerous requirements, as stated in Town regulations. Due to the steep and long slopes, erosion potential on this site is high if control measures are not properly sited, designed and installed. Key elements needed for this site include: a detailed sequence on construction, showing application of erosion and sediment control measures relative to construction activities; properly designed control measures such as outlet protection, sediment barriers and channel linings; maintenance schedules to ensure proper functioning of control measures.

Blueberry Hill

The Soil Erosion and Sediment Control plan for this section needs to be reworked in order to comply with Town regulations. Many of the concerns mentioned in the Hidden Valley Estates are also a concern for this section.

Items that need to be addressed include (but are not limited to):

- Construction entrance pad
- Sequence of construction
- Permanent and temporary seeding
- Use of sediment barriers in channels
- Outlet protection (design and location) at all locations

Particular items that need attention include:

--Lining drainage ways with rock riprap after new grades are reached (example -- Lot 2 upslope of proposed culvert inlet).

-- Use hay bales downslope of house and septic field areas where upslopes are steep and long.

-- Line roadside channels with non-erosive materials (sod, jute netting, etc).

-- Change catch basin protection detail in Sheet 19 of 19 to "envelope" as shown in Hidden Valley Estates plans.

The Flared End inlet No. 11 and associated pipe should receive more design attention. It appears that a "swale" will be created over the installed pipe. This is not generally an acceptable practice due to potential washing and erosion and the swale, which could then undermine the pipe itself. The inlet for this pipe is not protected and it is possible that a level lip spreader may be needed here.

Since some concern on downstream flooding was mentioned during the review, it is recommended that a complete hydrology study on this watershed be considered to evaluate the impact of the development on downstream flooding.

7. ON-SITE SUBSURFACE SEWAGE DISPOSAL

Since only two sections of the proposed 450 acre tract of land have been submitted for review relative to subsurface sewage disposal feasibility, this section of the report will confine comments to those known tested areas. Hopefully, in documenting our concerns and design guidelines relative to the hydraulic conditions of these two sections it will assist Town agencies, the project design engineer and the Farmington Valley Health District in developing acceptable lot configurations for the entire subject parcel.

Blueberry Hill - Section I

A review of the soil and hydraulic conditions indicate that major portions of this section of the site consist of soils which would be deemed severe and of "special concern" by the Public Health Code relative to the installation of subsurface sewage disposal systems. Typically, the soil profile consists of 0 to 8 inches of topsoil, 8 to 24 inches yellow-brown loam, 24 to approximately 84 inches of a compact gray-brown gravelly loam, mottling at 24", water noted in many holes as being close to mottling elevations.

Because of the relatively shallow depth to the compact layer and the existence of the "perched" groundwater condition, our main concern relative to this type of soil condition is the ability of the naturally occurring soils to adequately absorb or disperse the expected volume of sewage effluent without overflow, breakout or detrimental effect on ground or surface water.

General guidelines which have been developed by the State Health Department relative to constructing systems under these conditions are as follows:

- 1) Determine that the upper subsoil layer (between 8 and 24 inches) has a percolation rate of 1" in 20 minutes or faster.
- 2) The perched groundwater must be effectively controlled by the use of upgrade interceptor curtain drains. This drainage should be discharged to storm drains in the road or adjacent watercourses and wetlands.
- 3) Leaching areas shall be located a minimum 50 feet from the high water mark of any wetland area or "open watercourse".
- 4) When the impervious "hardpan" layer is found between 24 inches and 36 inches below existing grade then the minimum lateral dispersal length (length of the leaching system spread along existing ground contours) shall be 150 feet.

Reviewing the proposed subdivision plans for Blueberry Hill - Section I, prepared by Alford Associates, Inc., dated October 15, 1987, we make the following comments:

- All lots -- Proposed systems require upgrade curtain drains. System widths shall be increased to a minimum 150 feet.
- Lots 3, 4, 6, 7, 8, 9, 10 -- Proposed leaching areas shall be located a minimum 50 feet from proposed storm drainage ditch downgrade of system (intermittent watercourse if groundwater is intercepted by cut swale).
- Lots 12 and 13 -- Sewage disposal system feasibility must be established through additional testing prior to approval as subdivision lots.
- Lots 17, 22, 23, 24, 25 -- These lots appear to be too narrow to meet the minimum 150 foot width standard. Hydraulic analysis may be required to determine feasibility of these lots for sewage disposal purposes.
- All lots -- Must meet Sections 19-13-B103e(a)(3) and (4) of the Public Health Code.

Hidden Valley Estates - Section I

A review of this subdivision section has many of the same concerns as indicated for the Blueberry Hill - Section I subdivision. However, it is our opinion that this proposal, as prepared by Alford Associates, Inc., dated October 6, 1987, has not demonstrated that each lot meets the minimum standards set forth in the Public Health Code. Some lots have not been tested (Lots 3, 7, 9, 10, 11, 12, 13, 14, 15, and 41), others were found to be unsuitable in their present condition (Lots 4, 5, 8, 39), while others may not have enough hydraulic capacity to disperse and absorb the expected volume of sewage discharged on the lot (Lots 14, 15, 16, 29, 30, 38, 39, 40, 41).

Since most of the lots will require curtain drains, the separation distances between the sewage disposal systems on adjacent properties becomes critical. Upgrade lots may have to be widened so that their sewage disposal systems are at least 50 feet away from any downgrade curtain drains. Also, the engineer should address where each of these curtain drains will be located and where they will be discharged prior to subdivision approval.

Conclusion

As noted above, prior to subdivision approvals, the applicant (through the engineering firm representing the applicant) must demonstrate that each proposed lot meets the minimum soil standards set forth in Section 19-13-B103e(a)(3) of the Public Health Code and be able to hydraulically disperse the expected discharge from the home's sewage disposal system into the site's natural soil layers per Section 19-13-B103e(a)(4) of the Code.

The process shall be a coordinated effort between the design engineer and the Farmington Valley Health District. Because most of the lots will be deemed of "special concern" by the State Public Health Code, plans for the design of the subsurface sewage disposal facilities (along with the placement of each on-site well water supply) must be prepared by a professional engineer and submitted to the Health District for review and approval by their certified staff.

The final configuration of lots should not be approved until the Health District is assured of the feasibility of each lot meeting all of the State Health Code Requirements and above listed concerns.

8. WATER SUPPLY

Since there are no public water supply lines accessible to the parcel, it seems likely that the proposed residential subdivisions would be served by individual on-site water supply wells. Wells drilled in bedrock generally supply small but reliable yields of groundwater. However, since the yield of a given well depends upon the number and size of water bearing fractures that it intersects, and since the distribution of fractures in bedrock is irregular, there is no practical way, outside of expensive geophysical testing, of predicting the yield of a well drilled in a specific location. Because fractures in the rock generally occur within the first 100 to 150 feet of the surface, it has been shown that the probability of increasing the yield of a well decreases with depth below this level.

Each well should ideally be located on a relatively high portion of a lot, properly separated from the sewage disposal system or any other potential pollutant (e.g., fuel oil storage tank, etc.) and in a direction opposite the expected direction of groundwater movement. Of particular concern in some portions of the site are areas having shallow depths to bedrock and moderate to steep slopes. These adverse conditions can allow for the rapid movement and wide dispersal of sewage effluent through fractures in the bedrock without providing adequate filtration and renovation of the sewage effluent. As a result, there is a potential for wells, which may also derive their source of water from the same rock formation, to be subjected to septic effluent contamination. Also, the hostile terrain that characterizes the eastern part will make it difficult for drilling rigs.

In areas where a number of wells are drilled relatively close together, there is a chance of well interference (that is, the yield of one well detracting from the yield of another). As a result, it is advisable to space wells at least 250 to 300 feet apart, if possible, to minimize the risks of mutual interference. Due to the large lot sizes proposed, it seems likely that suggested separating distances could be maintained without too much difficulty.

In the Farmington River basin, 331 wells tapping crystalline metamorphic bedrock (i.e., schists, etc.) were surveyed for Connecticut Water Resources Bulletin No. 29. Of these, approximately 65 percent yielded 3 gallons per minute or more, while 50 percent yielded 5 gallons per minute or more. A well yield of 3 gallons is generally satisfactory for most domestic uses.

9. VEGETATION

The proposed development is located on a 450 acre parcel of which 445 acres is forested. The remaining five acres is in open field.

There are five broad vegetation cover types which includes mixed hardwoods, softwoods/hardwoods, hardwood swamp, oak ridge, and old field. Each cover type is described in detail below.

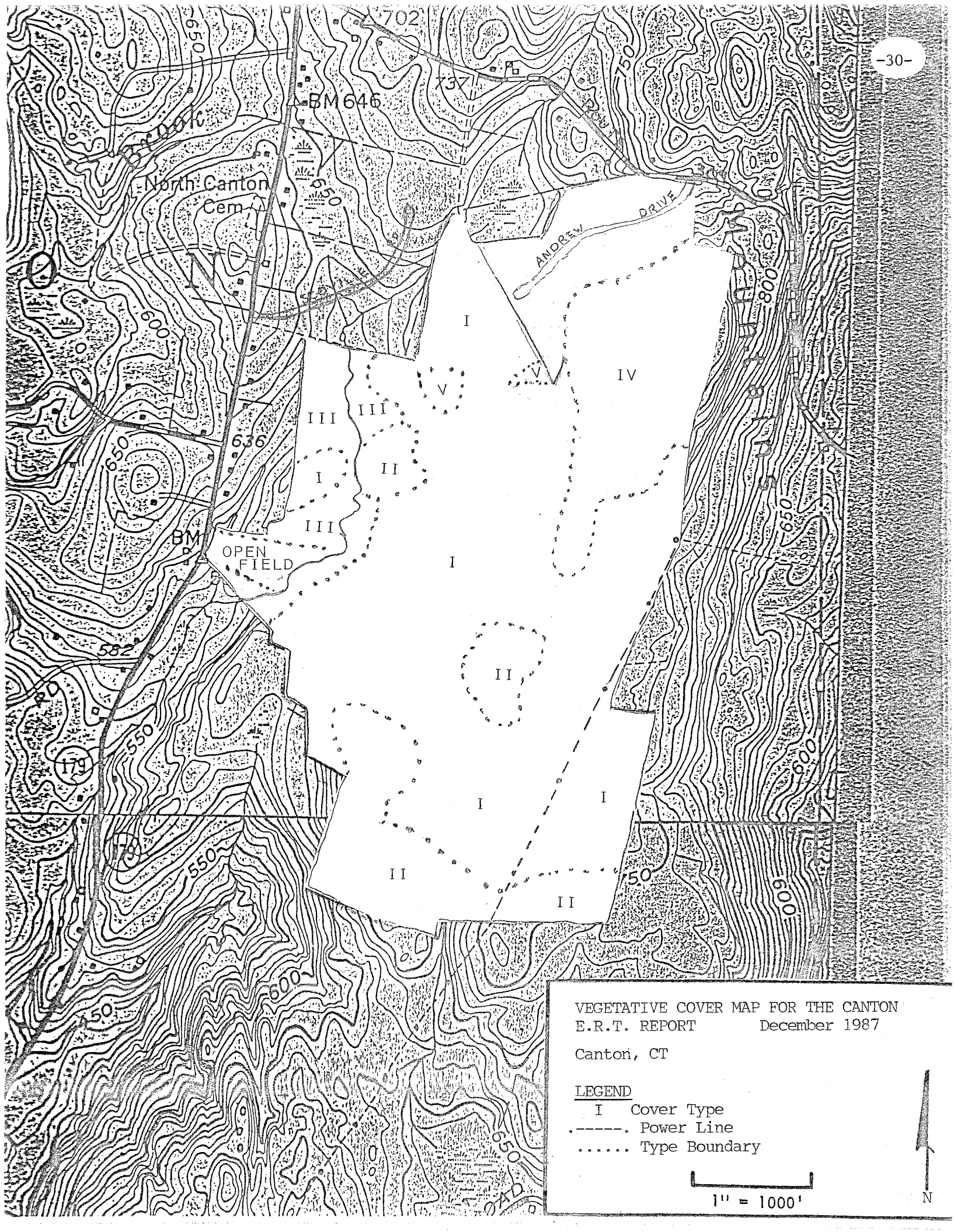
The commercial value of the forested area varies with the type and with the size and quality of tree growth within the type. In this property, the mixed hardwood type is the most valuable as it contains numerous good quality, sawtimber-sized trees. Of equal or greater value is the area's aesthetic quality, watershed potential, diversified wildlife habitat and passive recreation opportunities.

Vegetation Type Descriptions

The following is a description of the vegetation cover types. These types are directly influenced by soil conditions, historical use of the property, and past management practices. (See map for locations)

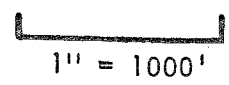
Mixed Hardwoods - Type I - The Hardwood species present are white ash, aspen, beech, black birch, white birch, yellow birch, black cherry, hickory, red maple, sugar maple, yellow poplar, black oak, chestnut oak, red oak, white oak. The softwood species present are hemlock, pitch pine, and white pine. The trees range in size from poles to large sawtimber. On drier sites the tendency is to find beech, black birch, white birch, hickory, black oak, chestnut oak, white oak, and white pine. While on moister sites, stands tend to contain ash, aspen, black cherry, yellow birch, red maple, sugar maple, yellow poplar, red oak, and hemlock. The quality of the stems for sawlog production corresponds to the soil conditions in so much as the deeper well-drained soils tend to produce better timber.

Softwood/Hardwoods - Type II - These are stands where hemlock or white pine make up a majority of the trees present. The hardwoods found in Type I may occur with these softwoods. As in Type I, the moisture availability and the depth of the soils influences the occurrence and growth of the softwood species. Hemlocks tend to favor moister shallow soils, while on drier deeper soils, white pine and pitch pine may be more abundant.



VEGETATIVE COVER MAP FOR THE CANTON
E.R.T. REPORT December 1987
Canton, CT

- LEGEND
- I Cover Type
 - - - - - Power Line
 - Type Boundary



Hardwood Swamp - Type III - These are areas with high water tables due to soil conditions or topography. The species present are ash, aspen, elm, black gum, red maple, and swamp white oak. The shrub species present are spicebush, and highbush blueberry.

Oak Ridge - Type IV - These are areas which the soils are very shallow and droughty, and are normally located on ridge tops. The principal species present is chestnut oak with an understory of hemlock or mountain laurel.

Old Field - Type V - These areas are abandoned pasture that are reverting to woodland. The tree species present are red cedar, juniper, aspen, white birch and pin cherry.

Limiting Conditions And Potential Hazards

The natural factors that may limit operations on the area are the soils that have the following conditions; high seasonal water tables, poor drainage, soil depth shallow to bedrock, and are located on steep slopes. These characteristics may restrict equipment operations, predispose the remaining trees to windthrow, and increase the potential for sedimentation to occur in the watershed of Cherry Brook. These hazards could be avoided by following the Best Management Practices concerning timber harvesting activities in sensitive areas.

Management Considerations

The proposed development in its present form would eliminate the potential to place over 400 acres of forest land under active management. Forest management is now limited to the marketing of the forest products that would be removed in the construction of roadways and building lots.

A public service forester or a private consulting forester may be of assistance in marketing the material.

10. CT NATURAL DIVERSITY DATA BASE

Reviewed Data Base maps and files have been regarding the study area, Canton - Mountain Estates Section II, Blueberry Hill Section I and II, and Hidden Valley I--III (residential subdivisions). According to the Data Base information there are no Federally listed Endangered Species or "Species of Special Concern" that occur within the area in question.

However, the information indicates records for the Northern Red-Bellied Snake, (*Storeria occipitomaculata*) occurring at the site in question. In the 1976 publication Rare and Endangered Species of Connecticut and their Habitats, the Red-Bellied Snake was listed as rare. Information collected and compiled since that time indicates that this snake is currently more abundant than originally thought. Populations of this species continue to be monitored statewide.

Portions of West Mountains are part of a Natural Area Inventory site. In 1972 the Connecticut Forest and Park Association, Inc. prepared a Natural Area Inventory which included 459 sites. These were nominated as significant sites for one or more of the following attributes: geologic, hydrologic, biologic, archeologic, cultural, aesthetic and research/educational. A site receives no legal protection by being included on the Natural Areas Inventory List.

Natural Diversity Data Base information includes all information regarding critical biologic resources available to us at the time of a request. This information is a compilation of Data collected over the years by the Natural Resources Center's Geologic and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultation with the Data Base should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern as well as enhance existing data. Such new information is incorporated into the data base as it becomes available.

If you have any further questions, feel free to contact the Natural Resources Center at 566-3540.

11. WILDLIFE HABITAT

The area is composed mainly of mature oak type forest. There is a fairly large stand of hemlock with some hardwoods mixed in, in the "Mountain Estates Section". About 2 acres of reverting old field type of cover is located off of the present cul-de-sac on Andrew Drive. There is approximately 5 acres of open agricultural field located off Route 179. Two woodland brooks and areas of woodland type wetlands also occupy the site. The area currently offers fair to good wildlife habitat for a variety of wildlife because of the diversity of these different habitats.

Generally the greater the habitat diversity and degree of interspersion the greater the variety or diversity of wildlife using the area. Although the area offers some habitat diversity it does not offer a great degree of interspersion because the amount of old field, the open field, is in limited quantity, which makes it impossible for these types to be well distributed or interspersed throughout the area.

Wildlife frequenting the area could include, deer, turkey, squirrels, racoons, small mammals such as mice, moles and voles, various birds such as morning doves, mocking birds, flycatchers and an array of reptiles and amphibians.

While the CT Natural Diversity Data Base reports that in the late 1970's the Northern Red-bellied snake (*Storeris occipitomaculata*) was collected on the site and considers it a species of concern, current records based on the increased on-going field work indicate that the snake is not rare and is more abundant than was previously thought.

Forest

A large portion of the area is covered by mature oak type forest. Oak trees along with a variety of other nut bearing trees provide mast. Mast is an important food source for many types of wildlife, especially during the fall and winter when other food sources are not available and or in short supply. In some places where the understory is thick, good cover for mammals and birds is provided.

Den trees present in the area can serve as homes to species such as racoons and owls. The snag trees (dead and dying trees) provide a source of insects for food to many birds. A fairly large hemlock-hardwood stand is found in the area off Andrew Drive, along with several other patches scattered over the area. These evergreens provide roosting sites, and cover for a variety of wildlife. They are an important cover component because they provide cover year round.

Wetlands

There are some fairly extensive wetlands associated with the two woodland brooks that run through the area.

The woodland brooks can act as travel lanes or corridors for wildlife to other areas. In addition to acting as a travel lane the brook and its associated wetlands provide food and cover because of the shrub, tree and plant species found there. These wet areas are useful for some amphibians and reptiles. Some species of mammals make use of these wet areas by preying on amphibians and reptiles and using the area as a source of water during various times of the year.

Wetlands are especially valuable areas for wildlife because they offer a variety of food and cover and increase the habitat diversity of an area.

Open/Old Field Areas

Open and old field cover type is limited in the area. Open and old field areas contain a variety of plants, shrubs and trees. Such habitat provides various food items in the form of seeds and berries. This type of habitat offers structural diversity (varying heights and types of vegetation) which creates cover for a great array of wildlife.

Open Space Areas/Recommendations

Because wetlands increase the habitat diversity of an area and offer a variety of food and cover to wildlife they are important areas to consider as open space areas.

Wetland areas are limited in quantity in the State and continue to dwindle on an almost daily basis, another important factor in considering areas for open space.

Other factors to consider in determining open space set aside are possible future uses of the land (recreation, preservation, active management), need to conserve a particular type of habitat within the town/region, and uses/needs of the surrounding area, etc.

Whatever type or combination of types of areas are set aside, setting aside an "island of open space" surrounded by development should be avoided if at all possible. The area should have natural travel pathways for wildlife (such as streams, valleys, and ridgetops) to enter and exit to other open space areas outside the development.

The services of a consulting biologist can be secured to advise areas to be left for open space and to layout open space boundaries on-site, etc., if needed.

Wildlife Resources/Recommendations

As with any development the impact on wildlife habitat in general will be negative. A very sizeable area will be broken up and lost with the construction of roads, driveways, walkways, parking areas and homes. Another impact is the loss of habitat where cover is cleared for lawns and landscaping. A third impact is the increased human presence, vehicular traffic, and a number of free roaming dogs and cats. This could drive the less tolerant species from the site, even in areas where there has been no physical change.

In a small but heavily developed and populated state like Connecticut, where available habitat continues to decline on a daily basis, it is critical to maintain and enhance where possible existing wildlife habitat.

In planning and constructing a development there are steps that should be considered in order to help minimize adverse impacts on wildlife.

- 1) Maintain a 100 foot (minimum) wide buffer zone of natural vegetation around all wetland/riparian areas to filter and trap silt and sediments and to provide some habitat for wildlife.
- 2) Utilize natural landscaping techniques (avoiding lawns and chemical runoff) to lessen acreage of habitat lost and possible wetland contamination.
- 3) Stone walls, shrubs and trees should be maintained along field borders.
- 4) Early successional stage vegetation (i.e. field) is a habitat type and should be maintained if possible.
- 5) During land clearing, care should be taken to maintain certain forest wildlife requirements:

- a) Encourage mast producing trees (i.e. oak, hickory, beech).
A minimum of five oaks, 14 inches dbh or greater should remain.
- b) Leave 5 to 7 snag/den trees per acre as they are used by birds and mammals for nesting, roosting and feeding.
- c) Exceptionally tall trees, used by raptors as perching and nesting sites, should be encouraged.
- d) Trees with vines (i.e. fruit producers) should be encouraged.
- e) Brush debris from tree clearing should be piled to provide cover for small mammals, birds and amphibians and reptiles.
- f) Shrubs and trees which produce fruit should be encouraged (or can be planted as part of the landscaping in conjunction with the development) especially those that produce fruit which persists through the winter (winterberry, autumn olive). See below for a list of suggested shrub and tree species that can be encouraged and/or planted to benefit wildlife.

Nesting sites can be provided for a great variety of birds with placement of artificial nest boxes.

Large houselots and implementation of the suggested guidelines will help to minimize the adverse impacts of local wildlife population. Implementation of backyard wildlife habitat management practices should be encouraged. Such activities include providing food, water, cover and nesting areas.

Suitable Planting Materials For Wildlife Food And Cover

<u>Herbaceous/Vines</u>	<u>Shrubs</u>	<u>Small Trees</u>
Panicgrass	Sumac	
Timothy	Dogwood	
Trumpet creeper	Elderberry	Hawthorn
Grape	Winterberry	Cherry
Birdsfoot trefoil	Autumn olive	Serviceberry
Virginia creeper	Blackberry	Cedar
Switchgrass	Raspberry	Crabapple
Lespedeza	Honeysuckle	
Bittersweet	Cranberrybush	
Boston Ivy		

12. FISHERIES RESOURCES

The small brooks and associated wetland areas form the headwaters of Stratton Brook. Within the property the brooks are in their natural state and the surrounding environment maintains them as coldwater streams. Although fisheries data is lacking for the brooks they can be expected to contain some or all of the following fish species: brook trout, blacknose dace, longnose dace, white sucker, and tessellated darter.

The development will be affected by the following if proper precautions are not enacted:

1. Siltation of stream from soil erosion during construction.
2. Movement of septic tank leachate, lawn fertilizer and lawn chemicals into the watercourses.
3. Diminishing the water flow during periods of low precipitation due to groundwater withdrawal for domestic usage.
4. Inhibiting fish passage by improper culvert design and/or placement.

The impacts of the development can be minimized by:

1. Establishing a streambelt corridor of open space which will serve as a buffer strip along the stream edge. The streambelt should be a strip of unaltered land 50 to 100 feet in width along each streambank.
2. Establish and maintain a comprehensive erosion and sediment control plan.
3. Properly design, locate, and maintain septic systems.
4. Set restrictions on the application of lawn fertilizer and chemicals to properties adjacent to the streams.
5. Set restrictions on the rate of groundwater withdrawal especially during periods of low precipitation.
6. Install culverts to allow for a contiguous streambed. This can be accomplished by placing the base of the culvert below the level of the stream-substrate and re-establishing the substrate through the culvert. The developer may wish to consider the use of box culverts rather than corrugated pipe or round concrete pipe.

13. PLANNING REVIEW

The proposed subdivisions are located in the northern section of the Town of Canton. This section considers the following issues and how they relate to the concerns of the Town of Canton Inland Wetlands and Watercourses Agency and the Canton Planning Commission. The issues to be addressed are:

1. Traffic and Access
2. Land Use, Site Design Compatibility
3. Recreation and Open Space

Traffic and Access:

The existing access to the proposed development is Andrew Drive, (a cul-de-sac) off the West Simsbury Road, Route 309. Hidden Valley Trail, the proposed second access point is located off of Cherry Brook Road, Route 179.

The State Department of Transportation (DOT) will more than likely require a traffic study to assure that the sight distances from the entranceways onto Routes 309 and 179 are consistent with the probable amount and speed of traffic, terrain and road alignments. Since the project contains more than 100,000 square feet of space and is adjacent to two state highways, the DOT will require the developer to obtain a permit from the State Traffic Commission (STC).

In addition, the DOT will require an encroachment permit for any work that will take place within the state highway right-of-way. The Town of Canton Planning Commission should make sure that the developer has obtained all the necessary permits and approvals from the DOT prior to approving the subdivisions.

The grade (% of slope) of the proposed road design appears to average around 10%. This steep a grade can create a number of complications for: access by emergency vehicles, steep driveway entrances, safety problems during rain and snow storms, excessive use of road salts, etc. Efforts should be made to insure that the horizontal and verticle alignment of the road design relates as best can be expected to the natural contours and terrain of the site and that the grade is kept below 10% as much as possible. For additional comments regarding the road design, see the section on design compatibility.

Wetland Crossings:

The proposed developments would require the crossing of five wetland areas. The entrance off Route 179, Hidden Valley Trail will be the major gateway into the proposed subdivisions and the site of the first wetlands crossing. The developer has proposed to construct a raised road into the site, which would require the crossing and filling of an extensive area of wetlands. The end result would be a raised road with steep shoulders sloping into the wetlands.

It is recommended that as an alternative to the raised road the developer consider constructing a bridge across the stream and wetlands area. The construction of a bridge would not only prevent the filling of a large area of the wetlands, but also create a much more aesthetic and visually impressive entrance into the site.

The second major wetlands crossing is located further up Hidden Valley Trail. This would require the crossing of a stream and a large area of wetlands and extensive cutting and filling for construction of the road. The construction of a bridge at this location would again lessen the impact upon the existing wetlands. The three other wetlands crossings appear to be minor and can be achieved with some filling and the use of culverts.

Land Use:

North Canton is a scenic and rural area of rolling hills and valleys, with older restored homes and new traditional and contemporary style homes dotting the landscape. The site under review and the adjacent properties are located within the Town of Canton's AR -3 Zoning District. Building lots in this zone must contain a minimum of 87,120 square feet. The proposed subdivisions are in compliance with the town zoning regulations.

Site Design Compatibility:

The State Department of Health Services (DOHS) Sanitarian has indicated that only two sections of the 450+ acres tract of land have been submitted for review relative to subsurface sewage disposal feasibility. Those areas are Blueberry Hill Section I and Hidden Valley Estates Section I. The DOHS Sanitarian has found that a large number of the lots in both sections may not be feasible as presently designed with regards to the subsurface sewage disposal systems.

When all the tests have been completed, the conclusion may be that an even larger number of the lots are not feasible in regards to the sub-surface sewage disposal systems. As a result of this, the developer may be forced to reduce the overall number of lots, ~~redesign the lot layout~~ and even change the road design. Either way, the Town of Canton Planning Commission should consider the DOHS Sanitarian's comments and the following comments when reviewing the proposed subdivision.

Proposed Lot Layout:

The proposed lot layout design makes little effort to relate to the unique natural features of the site. The developer has attempted to get the maximum number of lots with a minimal regard for the natural contours of the terrain and the extensive amount of wetlands present at the site.

Extensive efforts should be made to strengthen the relationship between the lot layout and the topography of the site. The developer should consider using cul-de-sacs on the higher plateaus to vary the road design and create lots which take advantage of the views and natural features of site.

The DOHS Sanitarian has recommended that the amount of wetlands present on some of the lots be reduced and that the size of some lots be increased. (See comments on Blueberry Hill Section I).

The large number of rear lots located off of curves in the road has created potentially dangerous driveway access points. Efforts should be made to minimize the number of driveway accesses located off of road curves, (see lots #12, 13, 14, 15, 16, 2, 30 and lots #36, 37, 38, 39, 40 and 41 in Hidden Valley Estates Section I).

Recreation and Open Space:

The Town of Canton Subdivision Regulations permit the Town Planning Commission to require that certain areas be set aside as open space in any subdivision. The Commission may accept up to 10% of the land in any subdivision as dedicated for open space. The Commission may require the open space areas be located and/or improved to be suitable for active recreation. The Commission may require that up to 45 acres be set aside for open space from the proposed subdivisions.

The regulations note that in determining whether or not to require open space and the size and location of such areas, the Commission shall consider, but not be limited to, the following criteria:

- * Buffer areas between adjoining land use;
- * Flood plains and legally defined wetlands;
- * Such natural features as scenic vistas, ridge tops, brook, waterfalls, etc.;
- * Linkages connecting open spaces;
- * Land suitable for active recreation.

The site of the proposed subdivisions contains rugged terrain with extensive amounts of wetlands and streams. The large area of wetlands located in Blueberry Hill Section II, includes unique wetland plants, floodplain areas and a beaver pond. The Town of Canton should consider acquiring these wetlands with their unique natural features as part of the 45 acres of open space it will obtain from the developers. Those wetlands would be an ideal location for a nature walk.

Some communities require that the department of parks and recreation or the board of education review proposed developments to determine if a need exists for a community recreation facility within a proposed development. The decision is usually based upon a written policy of the community, i.e. the town plan. It can also be based upon a review of existing recreation facilities, the type of market being built for, and the proximity of existing facilities.

Representatives of the Town of Canton have indicated that the Town Plan of Development is currently being revised. The committee in charge of revising the plan should be contacted to discuss what recommendations have or will be made regarding future open space and recreation requirements for the area where the subdivisions are located.

About The Team

The Eastern Connecticut Environmental Review Team (ERT) is a group of professionals in environmental fields drawn together from a variety of federal, state, and regional agencies. Specialists on the Team include geologists, biologists, foresters, climatologists, soil scientists, landscape architects, archeologists, recreation specialists, engineers and planners. The ERT operates with state funding under the supervision of the Eastern Connecticut Resource Conservation and Development (RC&D) Area--an 86 town area.

The Team is available as a public service at no cost to Connecticut towns.

PURPOSE OF THE TEAM

The Environmental Review Team is available to help towns and developers in the review of sites proposed for major land use activities. To date, the ERT has been involved in reviewing a wide range of projects including subdivisions, sanitary landfills, commercial and industrial developments, sand and gravel operations, elderly housing, recreation/open space projects, watershed studies and resource inventories.

Reviews are conducted in the interest of providing information and analysis that will assist towns and developers in environmentally sound decision-making. This is done through identifying the natural resource base of the project site and highlighting opportunities and limitations for the proposed land use.

REQUESTING A REVIEW

Environmental reviews may be requested by the chief elected officials of a municipality or the chairman of town commissions such as planning and zoning, conservation, inland wetlands, parks and recreation or economic development. Requests should be directed to the Chairman of your local Soil and Water Conservation District. This request letter should include a summary of the proposed project, a location map of the project site, written permission from the landowner allowing the Team to enter the property for purposes of review, a statement identifying the specific areas of concern the Team should address, and the time available for completion of the ERT study. When this request is approved by the local Soil and Water Conservation District and the Eastern Connecticut RC&D Executive Council, the Team will undertake the review on a priority basis.

For additional information regarding the Environmental Review Team, please contact Elaine A. Sych (774-1253), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, P.O. Box 198, Brooklyn, Connecticut 06234.