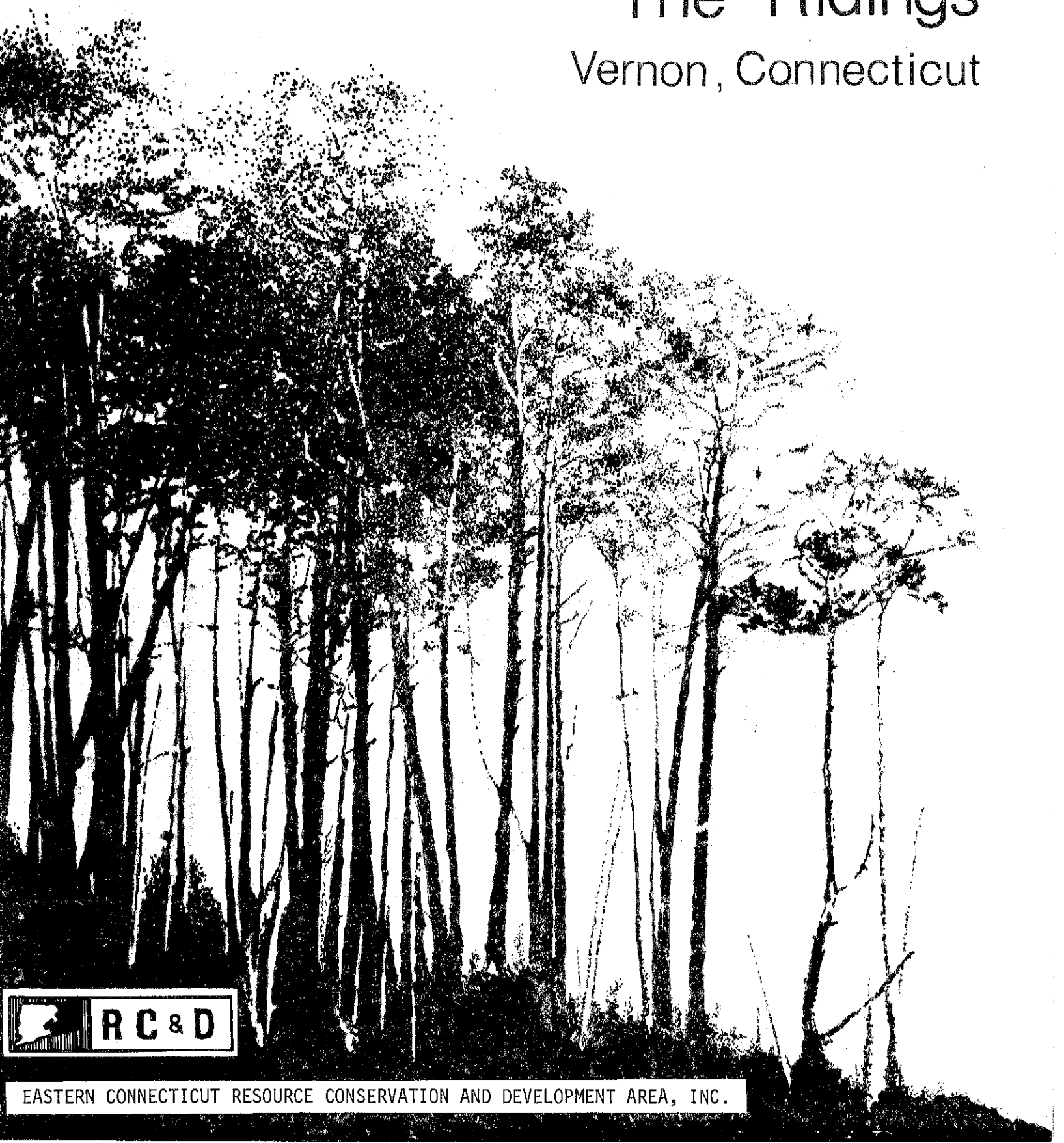
013-039

Environmental Review Team Report

The Ridings

Vernon, Connecticut



RC&D

EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

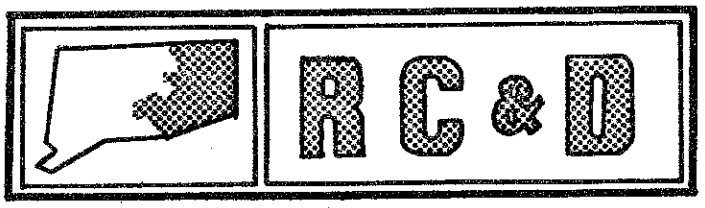
Environmental Review Team Report

on

The Ridings

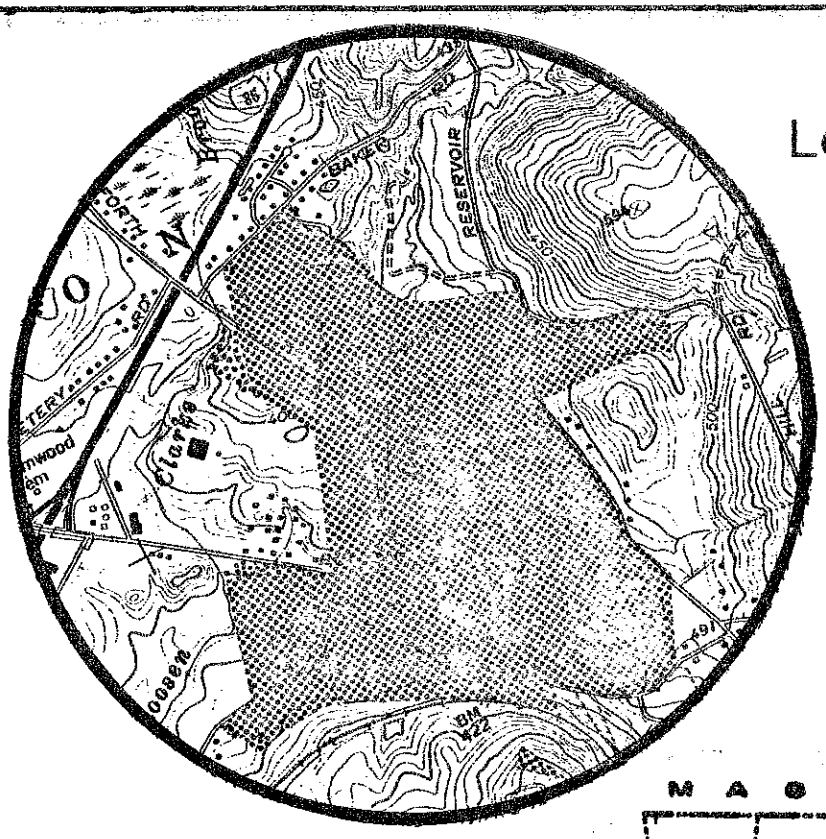
Vernon, Connecticut

May 1979



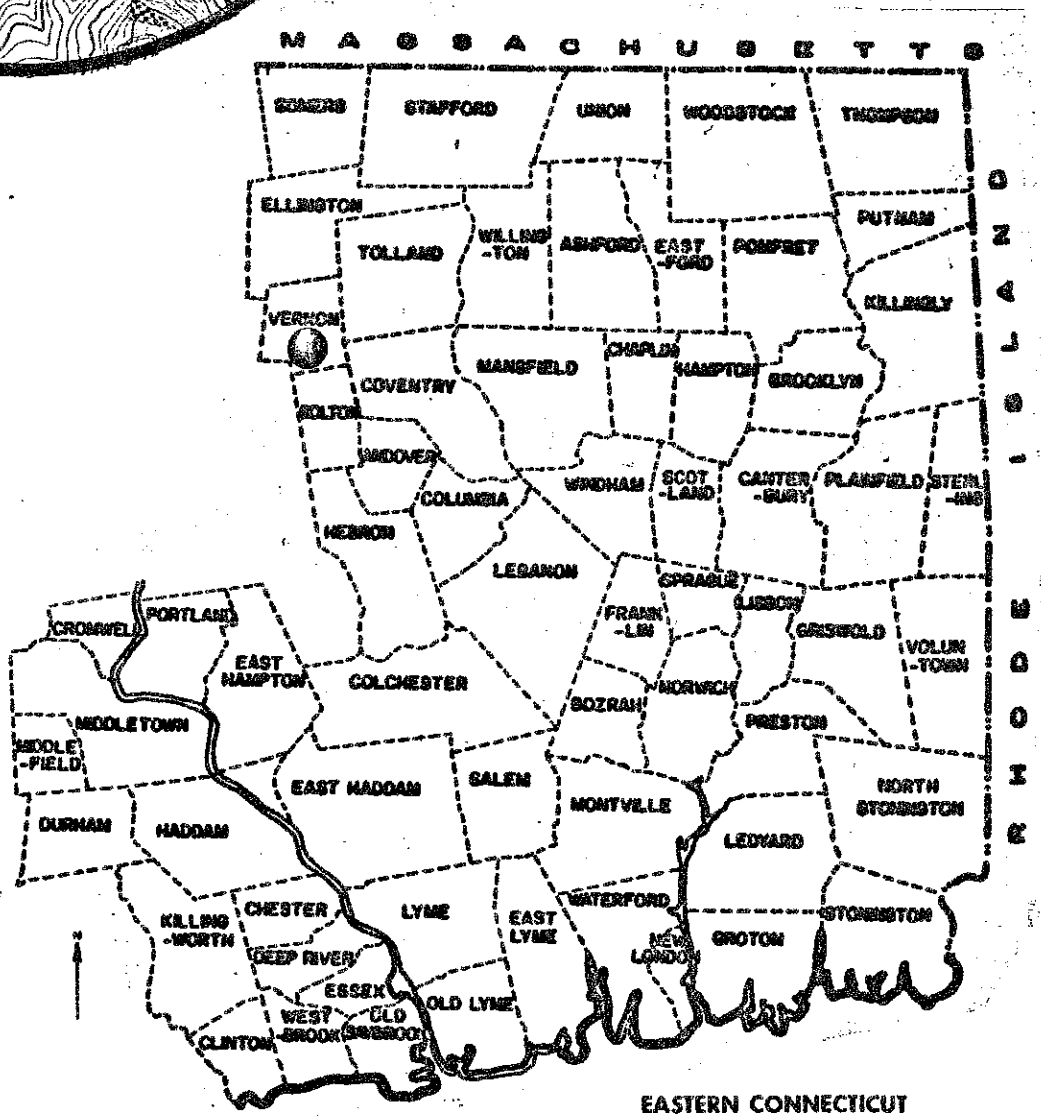
eastern connecticut resource conservation & development area

environmental review team
139 boswell avenue
norwich, connecticut 06360



Location of Study Site

"THE RIDINGS"
VERNON, CONNECTICUT



EASTERN CONNECTICUT
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ENVIRONMENTAL REVIEW TEAM REPORT
ON
THE RIDINGS SUBDIVISION
VERNON, CONNECTICUT

This report is an outgrowth of a request from the Vernon Planning and Zoning Commission to the Tolland 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 was reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The soils of the site were mapped by a soil scientist from the United States Department of Agriculture, Soil Conservation Service (SCS). Reproductions of the soil survey map, a table of soils limitations for certain land uses and a topographic map showing property boundaries were distributed to all Team members prior to their review of the site.

The ERT that field-checked the site consisted of the following personnel: Timothy Dodge, District Conservationist, Soil Conservation Service (SCS); Tom Ladny, Soil Conservationist, (SCS); Ed Minnick, Engineer, (SCS); Al Roberts, Soil Scientist, (SCS); Michael Zizka, Geologist, Connecticut Department of Environmental Protection (DEP); Rob Rocks, Forester (DEP); Al Buzzetti, State Department of Health, and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

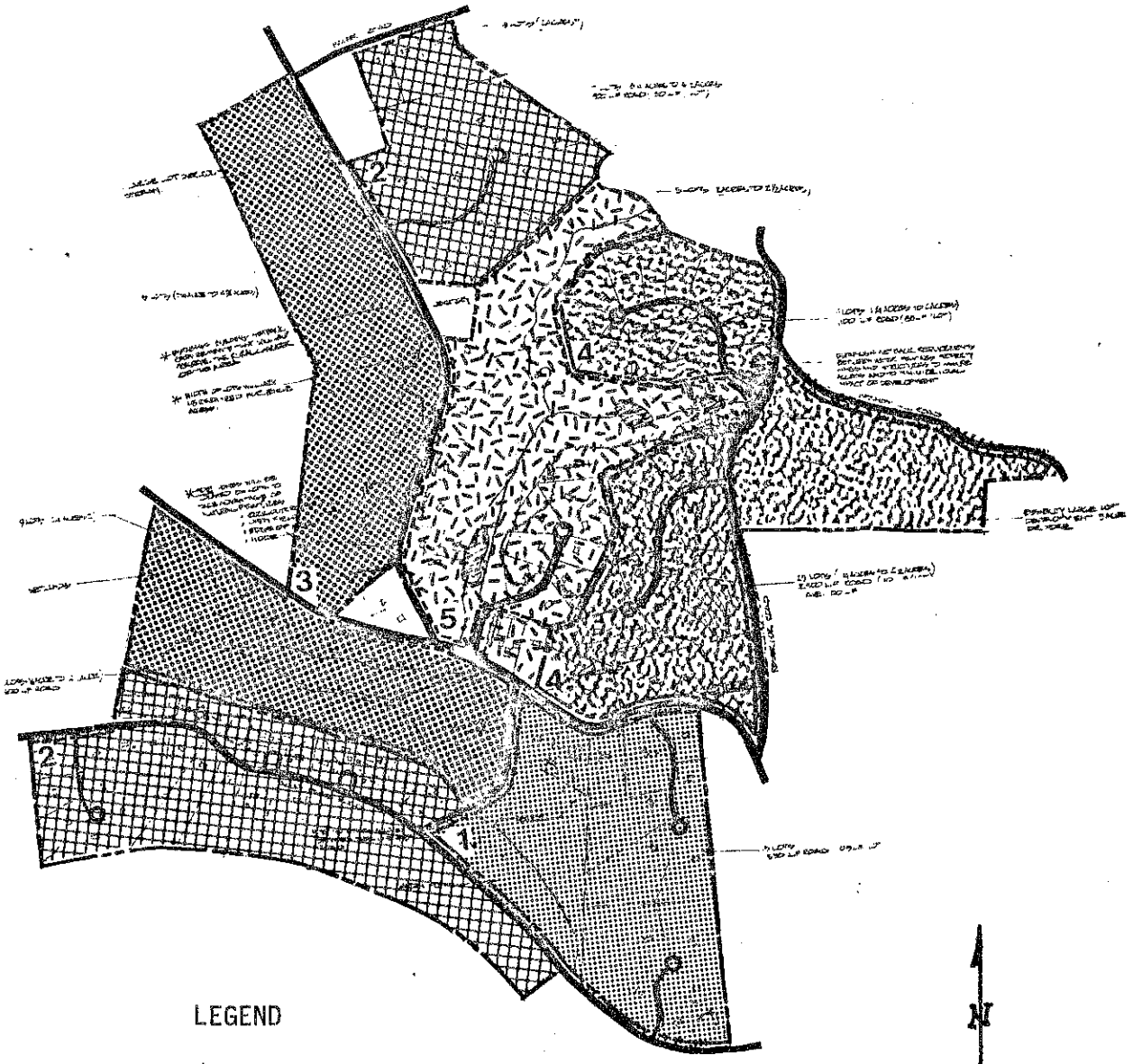
The Team met and field checked the site on Thursday, April 19, 1979. Reports from each contributing Team member were sent to the ERT Coordinator for review and summarization for the final report.

This report is not meant to compete with private consultants by supplying site designs or detailed solutions to development problems. 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 of Vernon. The results of this Team action are oriented toward the development of a better environment quality and the long-term economics of the land use.

The Eastern Connecticut RC&D Area Committee hopes that this report will be of value and assistance in making any decisions regarding this particular site.

If you require any additional information, please contact: Ms. Jeanne Shelburn, Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, 139 Boswell Avenue, Norwich, Connecticut 06360, 889-2324.

Preliminary Subdivision Plan



LEGEND

Phase 1 —

Phase 2 —

Phase 3 —

Phase 4 —

Phase 5 —

N

photographic reduction
no scale

INTRODUCTION

The Eastern Connecticut Environmental Review Team was asked to provide an environmental assessment of the preliminary plans for "The Ridings" subdivision. The 350± acre parcel in question is located in the Town of Vernon, generally bounded on the north by Baker Road, on the east by Reservoir Road, on the south by Valley Falls Road, and on the west by Bamforth Road. The area is centrally crossed by the Tankerhoosen River and Valley Falls Brook, a tributary to the Tankerhoosen River. The method of development in this subdivision will determine the degree of impact it will have on the already problem-ridden dam structure located farther downstream on the Tankerhoosen.

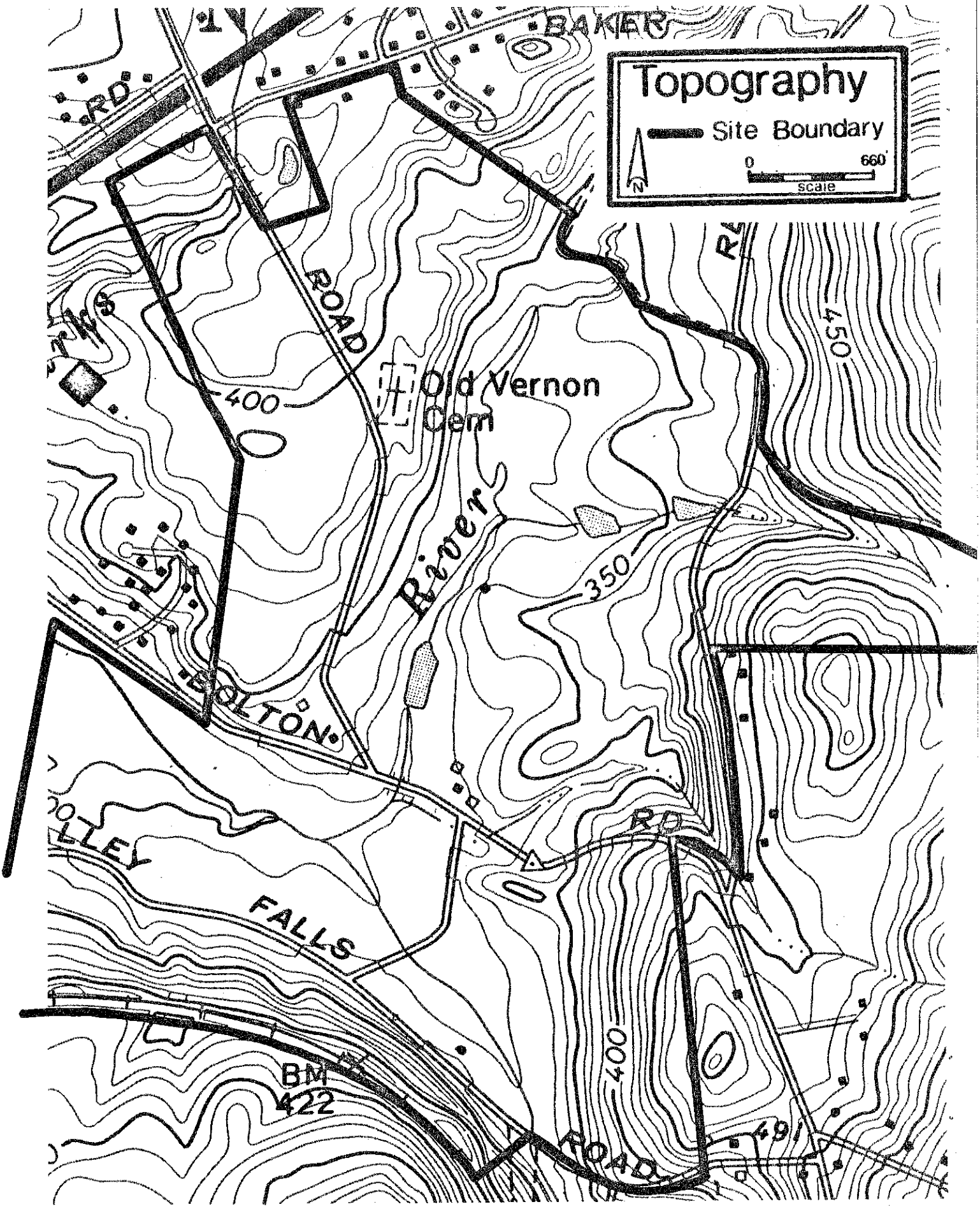
The property is owned by Mason-Belding Associates and the major portion is currently used as a fishing preserve. A section between Valley Falls Road and Bolton Road is being actively farmed for corn production. Developers for the property are Design Group I of West Hartford. Engineering consultants are Gardner and Peterson Associates. Preliminary plans were prepared and test pit information for Section I was available for Team evaluation.

Preliminary plans show the development of 120 to 150 lots of 1 1/2 to 7 acres in size. These lots would be served by on-site wells and on-site septic disposal systems. The majority of these lots would be used for single family residences; however, several cluster town houses are planned for the Valley Falls Road area. Approximately 125 acres will be reserved as open space, to be maintained by a homeowners association. Tennis courts and a riding stable are also planned for this area. Pre-review discussion with the developers indicated that they intend to build the inner road system first and sell off lots to individuals. The buyer would decide, at his discretion, when and how he would develop his lot. Development of the property will occur in five phased sections as shown on the preliminary plan.

The site has a varied topography, ranging from rocky, steep areas to low, flat areas within the 100 year flood zone. As previously mentioned, the development is located in the watershed of the Tankerhoosen River which has experienced some flooding problems. The Team hydrologist indicates that the development itself as proposed should not add to that problem; however, a series of future developments in this watershed may alter the flooding characteristics of the Tankerhoosen. The Town of Vernon may wish to consider these compound effects before taking any action on this proposal.

Soils on the site which have severe limitations for development include the Hollis series, the Rumney series, and Alluvial land. Rumney soils and Alluvial soils are regulated wetland soils under Public Act 155. Detailed soil investigations will be needed in the eastern portion of Section 1, the western portion of Section 3, and the eastern portion of Section 4 to locate suitable building sites. Wetland areas are generally unsuitable for building. Due to the nature of the soils on this site and development proximity to the Tankerhoosen River, a sediment and erosion control plan should be developed for this area.

Installation of septic systems may be difficult in some areas of this development due to soil conditions. Percolation tests should be conducted in the area of sewage disposal systems on each proposed lot. Appropriate soil testing of Phase 3, 4, and 5 lots should be conducted prior to submission of these Phases for Planning


Topography
Site Boundary
0
660'
scale
N
BAKER
RD.
ROAD
Old Vernon
Cem
River
400
450
350
BOLTON
FALLS
BM
422
400
RO
ROAD

and Zoning review.

Protection of trout streams should also be a major concern. Dwelling establishment in certain portions of Sections 1 and 3 may cause problems with oxygen levels in the streams.

The Planning and Zoning Commission may also wish to consider the large number of single drives which will be entering the local road system, the road system's capacity to handle the additional traffic, and the line of sight problems along most of these town roads which would be serving the subdivision.

ENVIRONMENTAL ASSESSMENT

GEOLOGY

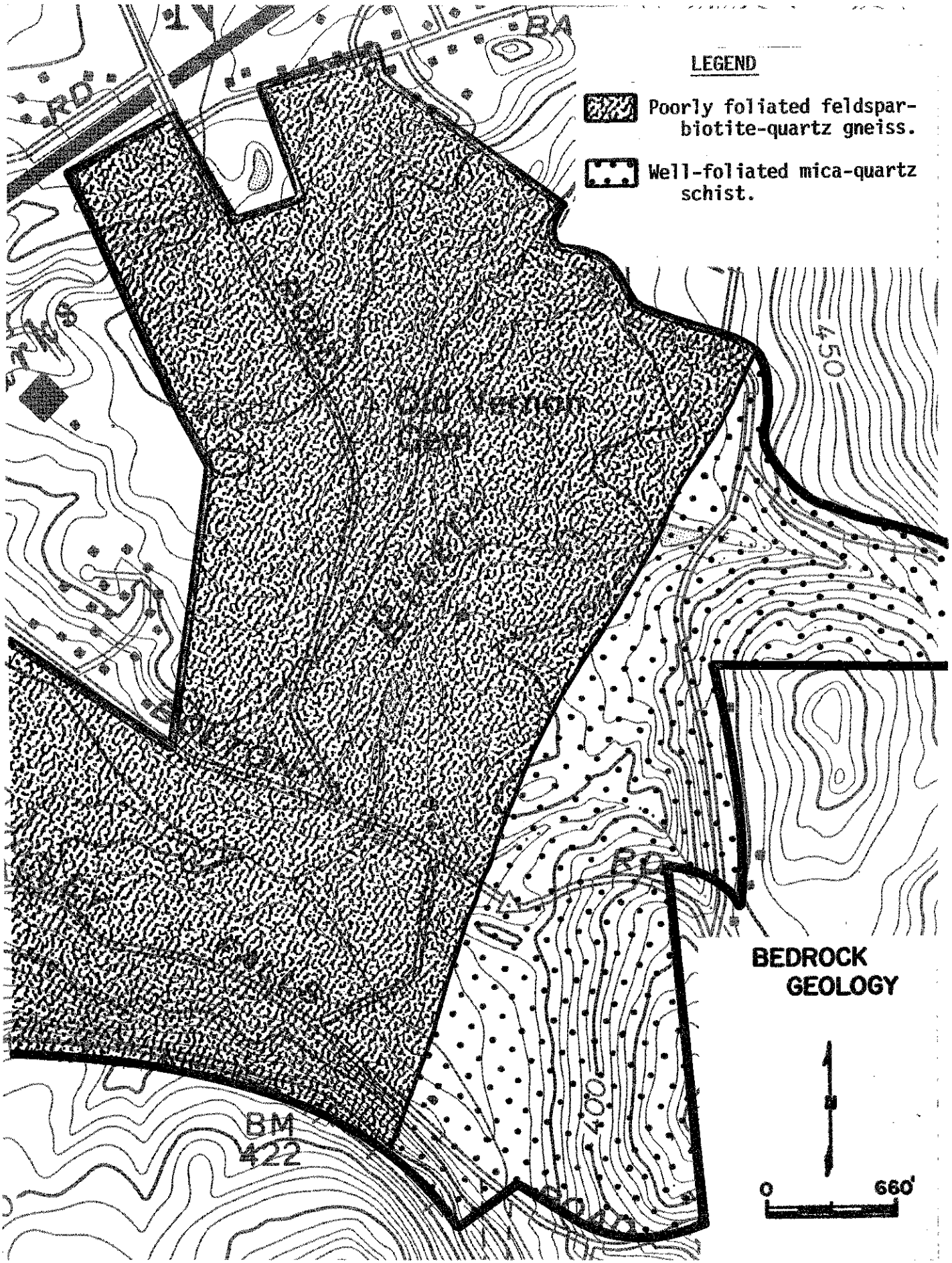
Bedrock underlying or cropping out on the site is described in The Bedrock Geology of the Rockville Quadrangle, Connecticut Geological and Natural History Survey Quadrangle Report No. 6, by J.M. Aitken (1955). A bedrock map of the site, adapted from Aitken's map, accompanies this report. The western two-thirds of the property contains a very poorly foliated gneiss consisting principally of feldspar, biotite, and quartz. This rock is well fractured and forms numerous outcrops along Valley Falls Road and Bamforth Road. The eastern third of the property contains a mica-quartz schist that is prominently layered along crinkled mica surfaces. Graphite, sturolite, specular hematite, tourmaline, and especially garnet are accessory minerals in this rock, which is also well-fractured.

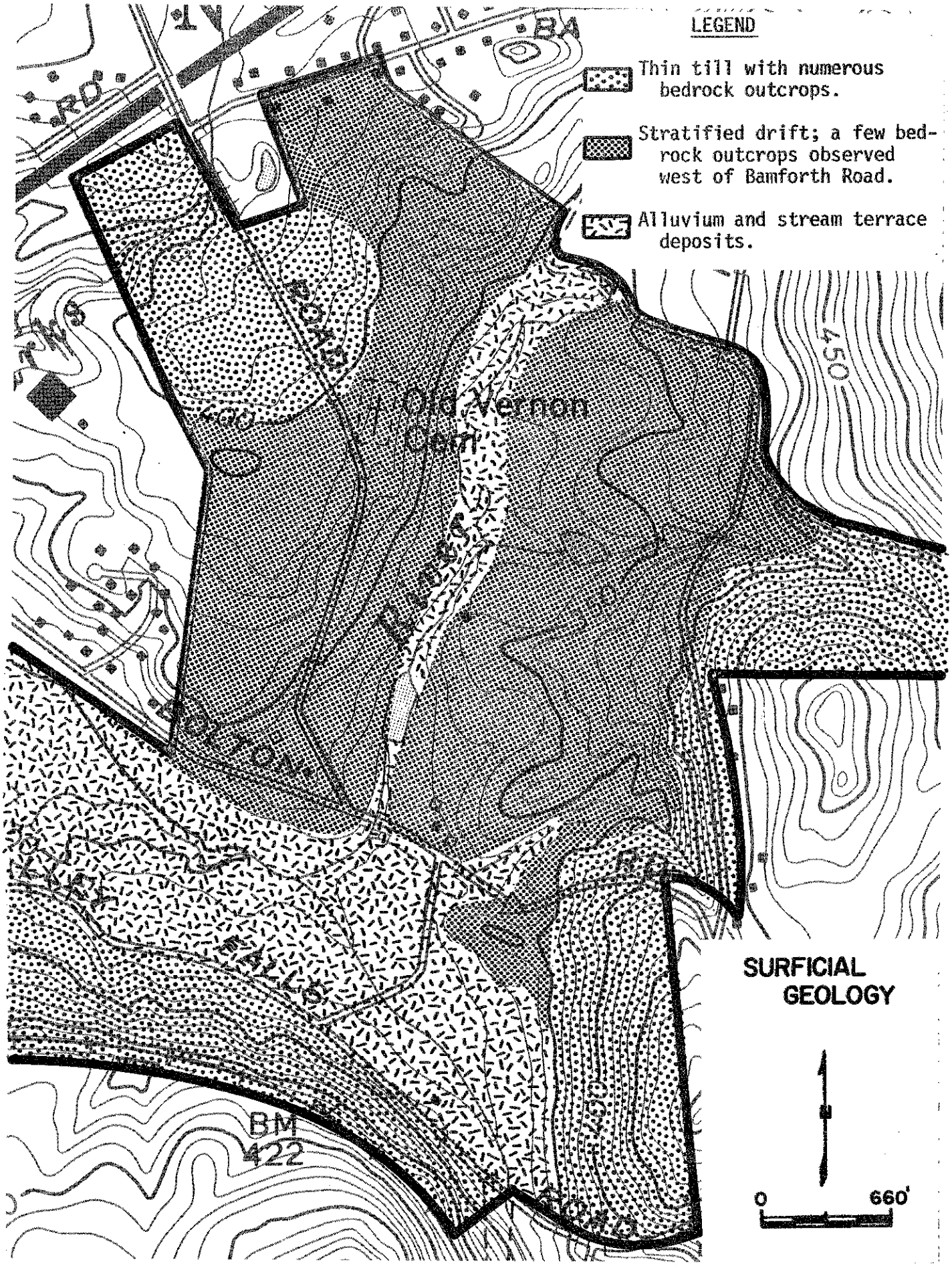
The bedrock on the site is generally overlain by glacial deposits. Due to time constraints, the exact distribution of these deposits could not be determined; an approximate distribution is shown in an accompanying illustration. Till and stratified drift are the major glacial sediment types. Till is a nonsorted mixture of rock particles with widely variable sizes and shapes. This material generally was plastered onto preglacial bedrock surfaces from beneath an ice sheet. Till predominates along the southern and eastern boundaries of the site, as well as in the northwestern corner. Stratified drift consists largely of sand and gravel. These materials were deposited by glacial meltwater adjacent to or away from a stagnant ice sheet. Stratified drift may be found in most areas of the site, either as a distinct surficial deposit, a pocket within a till deposit, or a material underlying recent stream sediments (alluvium).

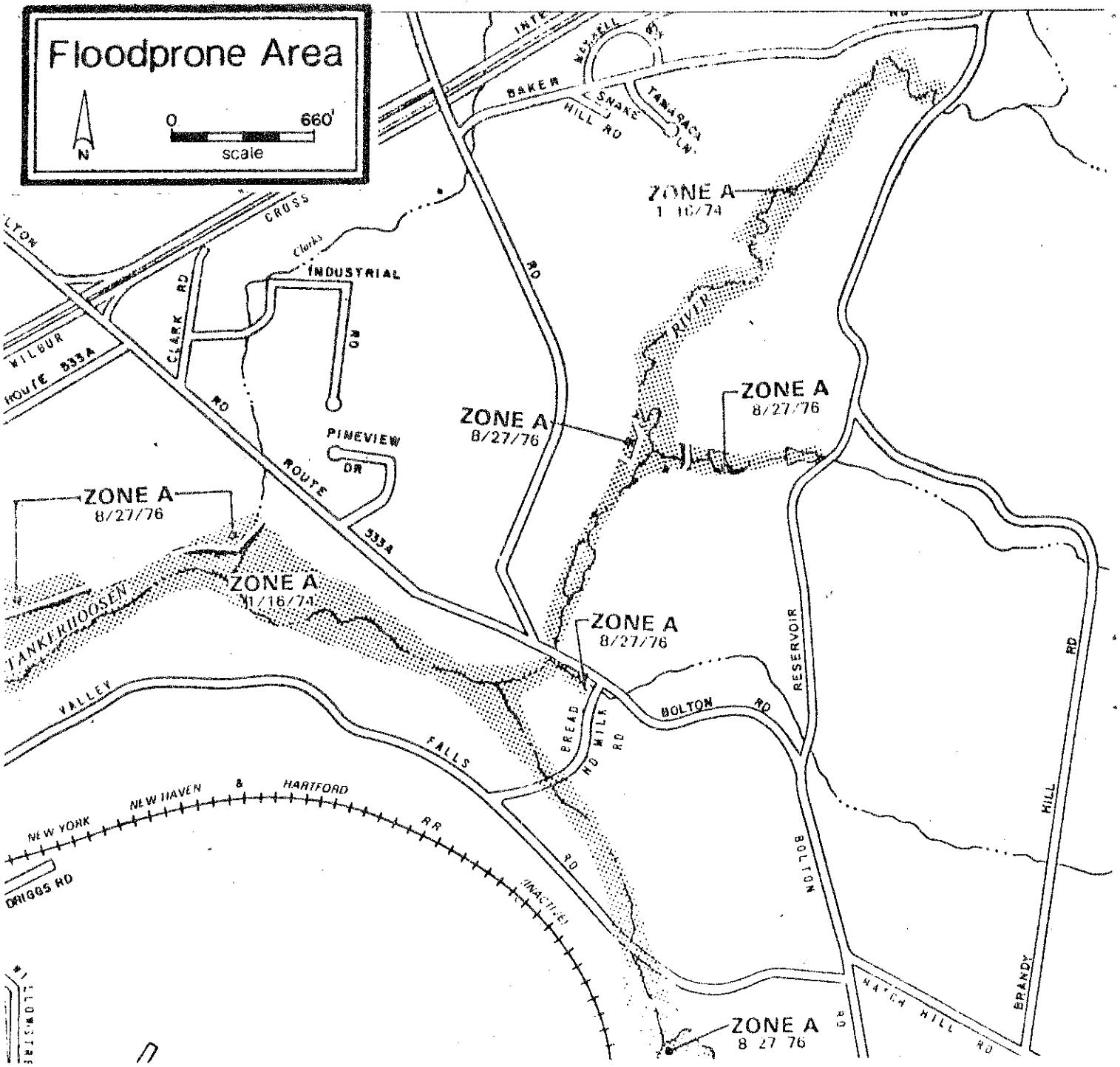
As mapped in the accompanying illustration, alluvium consists not only of sand, silt, and gravel deposited by postglacial streams, but also of low terraces sculpted by such streams. Alluvium is found along Tankerhoosen River and several of its tributaries on the site. Swampy areas within the alluvium may contain accumulations of organic material.

HYDROLOGY

The entire site lies within the watershed of Tankerhoosen River. Flooding problems have been experienced along this river in the Talcottville section of Vernon. It seems likely that the proposed development of the property, in itself,


LEGEND
Poorly foliated feldspar-biotite-quartz gneiss.
Well-foliated mica-quartz schist.
450
400
BM 422
0
660'
BEDROCK GEOLOGY


LEGEND
Thin till with numerous bedrock outcrops.
Stratified drift; a few bedrock outcrops observed west of Bamforth Road.
Alluvium and stream terrace deposits.
Old Vernon Cem.
450
BM 422
SURFICIAL GEOLOGY
0
660'



LEGEND

Floodprone area

Adapted from HUD, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Vernon, Connecticut, dated 8/27/76.

would not add seriously to those problems. At its point of exit from the site, Tankerhoosen River has a drainage area of approximately 5076 acres (7.9 square miles). Actual site development would involve a change in land cover of less than 5 percent of this area. Hence, while the runoff increase from developed portions may be substantial, the outlying drainage area provides a buffer that would minimize impact on flows in the river itself.

Nevertheless, much of the Tankerhoosen watershed is presently undeveloped. If a series of developments occurred in the watershed in the future, the combination of small runoff increases from each could have serious consequences on the river. For this reason, it may be desirable to establish some means of runoff detention on the site, or alternatively, to define limits for the amount of development that will be allowed in the watershed. The first alternative is costlier but more flexible.

Part of the section of the site between Valley Falls Road and Bolton Road is presently subject to inundation by the statistical 100-year flood. A portion of a 1974 HUD study outlining this special flood-hazard area is included.

VEGETATION

This 350± acre tract has a great variety of vegetation types; in all, 12 are described. (see vegetation type map and vegetation type description.)

Development in the neglected spruce and pine plantation deserves special consideration due to the high susceptibility of these trees to wind throw and top breakage. Reducing the crowding through periodic light thinnings will increase the stability and wind firmness of this stand. The thinning suggested for Stand A would provide substantial revenue and improve the health, vigor and stability of the residual stand.

Vegetation Type Descriptions

Stand A. (Mixed Hardwoods) - This 69-acre fully stocked stand is made up of pole to sawlog-size white oak, black oak, hickory, red maple, and scattered American Beech. The trees in this stand are becoming crowded and are declining in vigor. Hardwood tree seedlings, gray birch, white pine, maple leaf viburnum, highbush blueberry, sheep laurel, and occasional mountain laurel are present in the understory. Huckleberry, lowbush blueberry, club mosses, and various wild flowers including pink lady slippers and Canada mayflower form this area's ground cover vegetation.

Stand B. (Pine) - Pole to sawlog-size white pine dominate this 49-acre site. This stand is over-stocked and many of the trees have small crowns. Pitch pine and black oak are scattered throughout the drier parts of this stand. Understory vegetation is lacking, except for widely scattered patches of maple leaf viburnum and cherry seedlings. Ground cover vegetation is present on the wetter sections of this site and is primarily made up of poison ivy, ferns, and skunk cabbage.

Stand C. (Hardwood swamp/stream belt) - Shallow-rooted sapling to pole-size red maple dominate this 46-acre fully stocked stand. Scattered white pine seedlings and dense thickets of spicebush and highbush blueberry make

up the understory in this stand. Ferns, skunk cabbage, club mosses, sedges, and Canada mayflower are also present.

Stand D. (Open Fields) - Open fields used for grazing and growing corn comprise 43-acres of this tract. Grasses, goldenrod, and assorted weed species are present. Sedges and skunk cabbage are present on the wetter sections of this site. Dense thickets of raspberry, Tatarian honey-suckle, and barberry border many of these fields.

Stand E. (Softwoods-hardwoods) - This 29-acre fully stocked stand is made up of sawlog-size pitch pine and eastern white pine with pole-size black oak and white oak. Hardwood tree seedlings, mountain laurel, gray birch, and highbush blueberry form the understory in this stand. Huckleberry, lowbush blueberry, club moss, and Canada mayflower are dominant ground cover species present.

Stand F. (Mixed Hardwoods) - Pole-size chestnut oak, black oak, yellow birch, black birch, paper birch, and scattered hemlock are present in this 23-acre fully stocked stand. Where soils are shallow to bedrock, root systems are shallow and trees may not be anchored well. Considerable oak mortality is present in this stand. Understory vegetation consists primarily of mountain laurel, scattered eastern white pine, black birch seedlings, and witchhazel. Club moss, huckleberry, lowbush blueberry, Canada mayflower, and interrupted fern make up this site's ground cover vegetation.

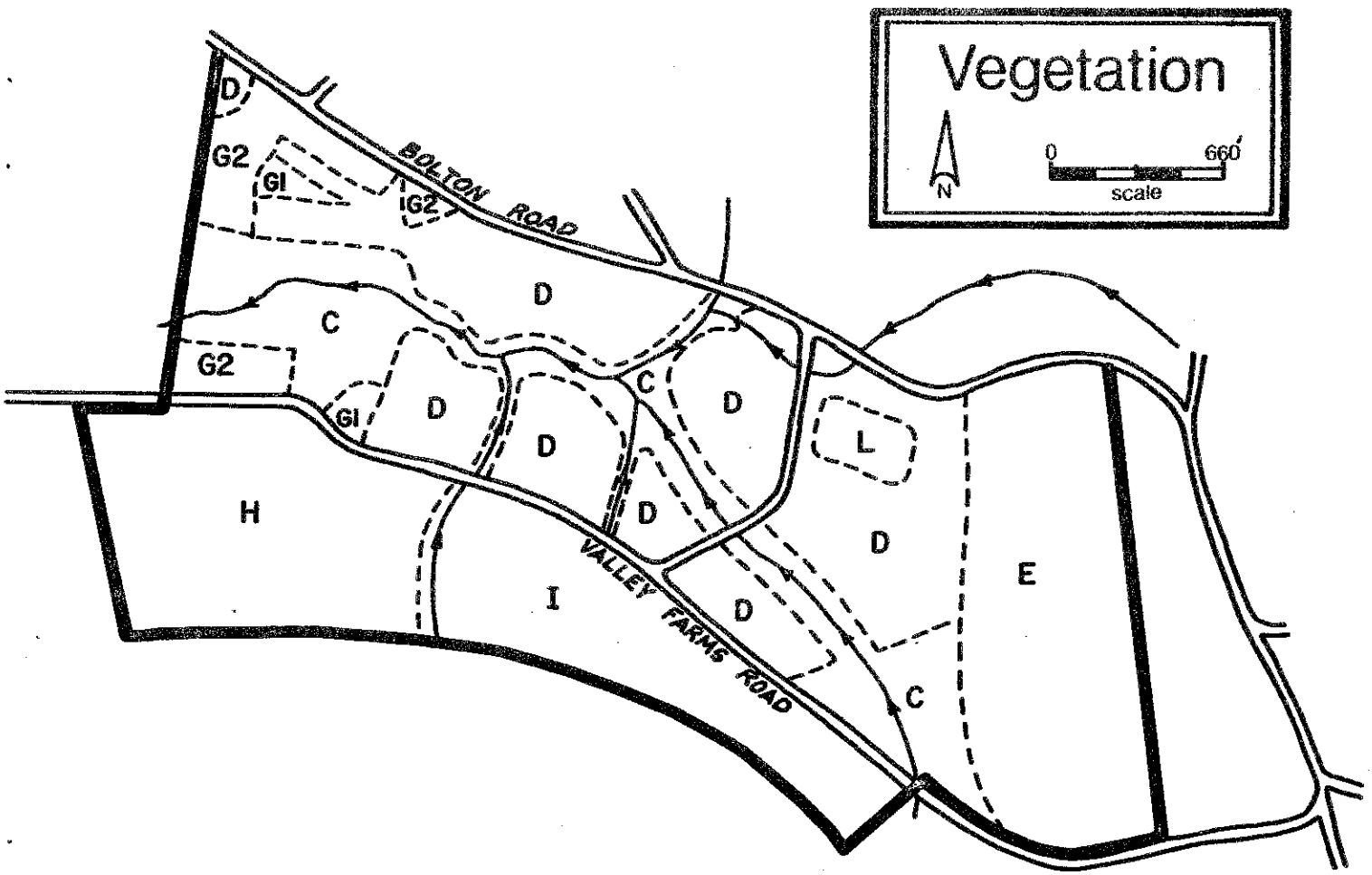
Stand G. (Plantation) - Several plantations of softwoods collectively totaling 21-acres are present on this property. Each of these stands is overstocked. A majority of the trees have small unhealthy crowns as a result of the excessive crowding. Some stands were introduced on poorly drained soils; the trees present on these sites have shallow root systems. Understory and groundcover vegetation is lacking in most of these areas because of the lack of sunlight reaching the forest floor. Where sunlight does penetrate, cherry seedlings, viburnum, honeysuckle, poison ivy, ferns, and skunk cabbage have become established.

Summary of Plantation:

G.1 Norway spruce, pole-size - 7 acres
G.2 eastern white pine, pole-size - 7 acres
G.3 eastern white pine, pole to sawlog-size - 6 acres
G.4 red pine, sapling size, 1 acre.

Stand H. (Mixed Hardwoods) - This 20-acre fully stocked stand is made up of pole-sized black oak and white oak. This stand has recently been thinned and residual trees are healthy. Understory vegetation consists of oak seedlings, bluebeech, mapleleaf viburnum, and, in the western corner of this stand, eastern white pine. Sheep laurel, lowbush blueberry, and club mosses make up this area's ground cover vegetation.

Stand I. (Mixed Hardwoods) - Pole to sawlog-size black oak, black birch, paper birch, sugar maple, and patches of bigtooth aspen are present in this fully stocked 18-acre stand. Hardwood tree seedlings, bluebeech, mapleleaf viburnum, and scattered mountain laurel are present in the understory. Ground cover vegetation is primarily club mosses, sheep laurel,

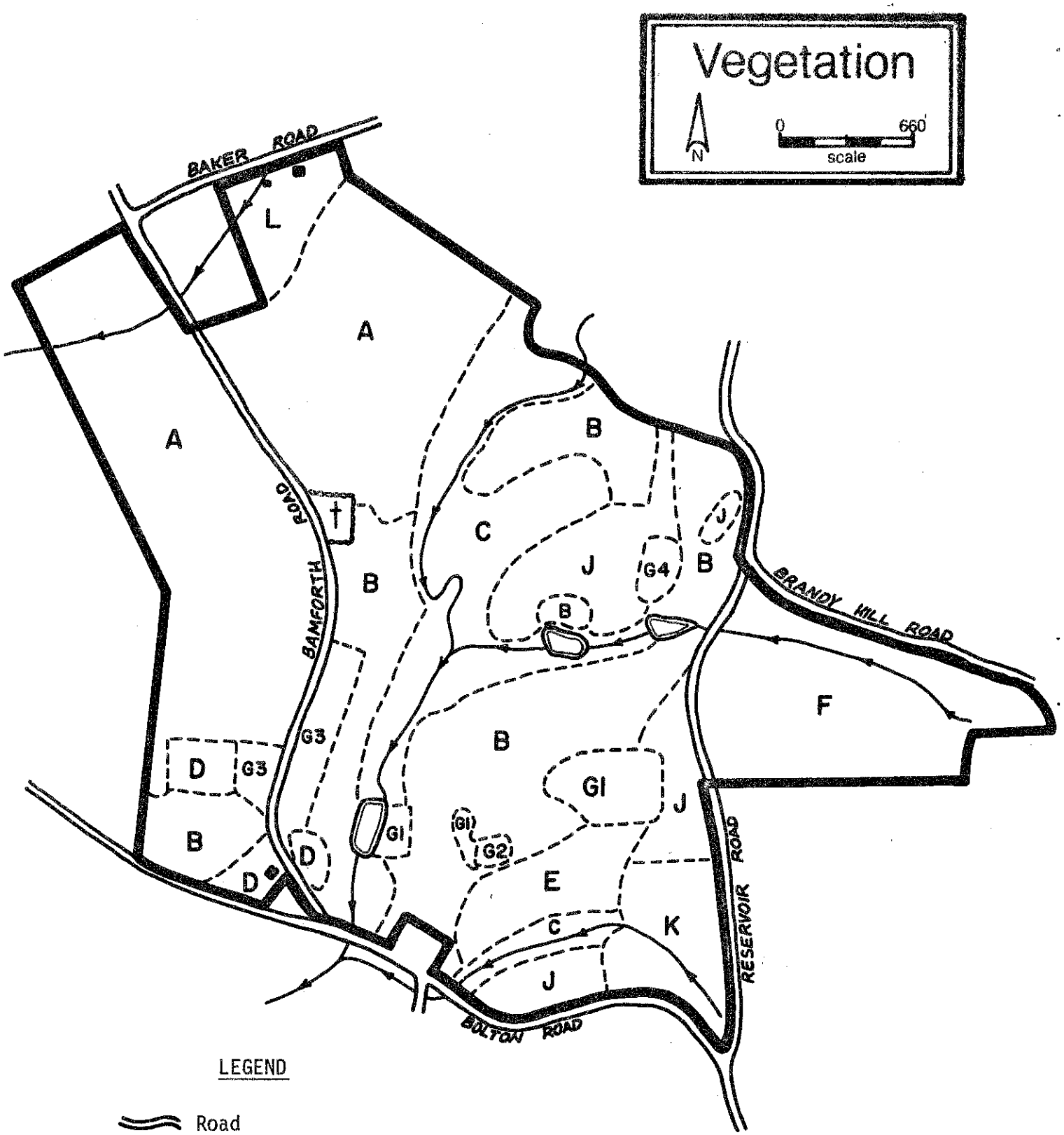


LEGEND*

STAND A	Mixed hardwoods, fully-stocked pole to sawlog-size, 69 acres.	STAND H	Mixed hardwoods, fully-stocked, pole-size, 20 acres.
STAND B	Pine, over-stocked, pole to sawlog-size, 49 acres.	STAND I	Mixed hardwoods, fully-stocked, pole to sawlog-size, 18 acres.
STAND C	Hardwood swamp/stream belt, fully stocked, sapling to pole-size, 46 acres.	STAND J	Mixed hardwoods, fully-stocked, sawlog-size, 16 acres.
STAND D	Open fields, 43 acres.	STAND K	Northern hardwoods, fully-stocked, pole-size, 9 acres.
STAND E	Softwoods-hardwoods, fully-stocked sawlog-size, 29 acres.	STAND L	Old field, 7 acres.
STAND F	Mixed hardwoods, fully-stocked, pole-size, 23 acres.		

STAND G Plantation, over-stocked, 21 acres total.
- G1 Norway spruce, pole-size, 7 acres
- G2 Eastern white pine, pole-size, 7 acres
- G3 Eastern white pine, pole to sawlog-size, 6 acres
- G4 Red pine, sapling size, 1 acre

* Seedling-size = trees less than 1 inch in diameter at breast height (D.B.H.)
Sapling-size = trees 1 to 5 inches in D.B.H.
Pole-size = trees 5 to 11 inches in D.B.H.
Sawlog-size = trees 11 inches and greater in D.H.B.



LEGEND

- Road
- Property Boundary
- Vegetation Type Boundary
- Stream
- Impoundment
- Buildings

Note*

See Vegetation Type Map I for Legend.

lowbush blueberry, Canada mayflower, Christmas fern, and occasional striped pipsissewa.

Stand J. (Mixed Hardwoods) - This 16-acre fully stocked stand contains predominantly sawlog-size black birch, white oak, black oak, red oak, and scattered paper birch and sugar maple. White pine, red maple, chestnut sprouts, viburnum, and sassafras are present in the understory. Club mosses, Canada mayflower, and hayscented fern dominate this area's ground cover.

Stand K. (Northern Hardwoods) - Pole-size sugar maple, yellow birch, and red maple are present in this 9-acre fully stocked stand. Sugar maple seedlings dominate the understory. Club mosses,Christmas fern, hay scented fern and Canada mayflower form this stand's ground cover.

Stand L. (Old Field) - Old field brush species dominate this 7-acre stand. Sapling-size gray birch, red cedar, and red maple are present with cherry seedlings, Tatarian honeysuckle, old field juniper, multi-flora rose, barberry, grasses, and goldenrod.

The great variety of vegetation types that are present, including spruce and pine plantations, open fields, wetlands, northern hardwoods, and mixed hardwoods, make this 350-acre tract interesting and unique. This property would have great value for nature study and environmental education. The areas designated as open space, if preserved from development, could serve this purpose.

Several of the stands which make up this tract have a small number of mature, exceptionally healthy trees that would have great aesthetic value if preserved as specimen trees. Of particular interest are the large black birch and paper birch located in Stand I, the large pitch pines located in Stand E and parts of Stand B, and the mature red oak in Stand J.

At the present time severe crowding is limiting the health and vigor of the trees in the spruce and pine plantations (Stand G). Many of these trees have less than 1/4 of their height in live crown and are unable to manufacture enough food to grow vigorously. Trees in this unhealthy condition are unstable and extremely susceptible to damage by disease, insects, and weather.

The soils found in Stand F are generally shallow to bedrock and excessively drained, and have restricted moisture reserves. The trees present are slow-growing because of lack of adequate moisture during the rapid growth season. Chestnut oak, which is somewhat tolerant of these low moisture conditions, is the dominant tree species present.

The high water table and poor soil aeration in the hardwood swamp sections of Stand C limit vegetative growth to species tolerant of excessive moisture conditions. Red maple will survive under these conditions; however, root systems are shallow, growth rates are usually slow, and tree quality is commonly poor. Management of these areas for timber production is not economically feasible.

The trees in the spruce and pine plantations (Stand G) and also part of Stand B (Pine) are unstable as a result of over-crowding. If left alone these trees will eventually be damaged by adverse weather conditions, disease, or insects. Openings made in these stands for construction of roadways or houses will allow wind to pass through rather than over these areas. This may result in tree breakage and windthrow. This condition may be critical in areas where soils are poorly

drained and trees are shallow-rooted. Periodic light thinnings in these stands will reduce competition and increase stand stability.

Windthrow may also be a potential hazard in Stands F and C. The soils in Stand F are shallow to bedrock and, as a result, tree root systems are shallow. If the underlying bedrock is not highly fractured, tree roots cannot become adequately anchored and windthrow potential remains high. A thinning in this stand should stimulate crown and root growth, increasing wind firmness and stability over time. The trees in the hardwood swamp (Stand C) are also shallow-rooted. The saturated soils do not provide adequate substrate for the trees present to become well-anchored; as a result, potential for windthrow is high. Openings that change wind flow patterns may increase the chance of windthrow in these areas and should be avoided if possible.

Excavating, filling, and grading for construction of roads, driveways, or buildings, will cause changes in soil condition which may in time affect tree health and vigor. Trees are sensitive to changes which affect the aeration, moisture level, and physical construction of the soil within their root zones. This zone corresponds to the entire area under a tree's crown. Soil disturbances in this area may cause a decline in the tree's health, potentially resulting in their death within 3 to 5 years. Soil disturbances near trees which are to be preserved must be minimized to maintain tree health and vigor. Care must also be taken during construction to avoid mechanical injury to trees.

A light thinning in the spruce and pine plantations (Stand G) and parts of Stand B (Pine) is needed to reduce crowding and to increase stability. This harvest should remove about one-fourth of the trees, releasing the largest and healthiest trees for further growth. Tree stumps (especially in the red pine plantation) should be promptly treated with borate crystals to reduce Fomes root-rot infection. Ideally, another harvest in approximately 5 years should be implemented, removing about one-third of the trees. The result would be a healthier and more stable plantation and pine stand.

A commercial thinning in Stand A would reduce competition between trees for space, sunlight, water, and nutrients. The health, vigor, and stability of residual trees would in time be improved. The healthier trees resulting from this thinning will be better able to withstand stresses brought about by development. Removal of approximately one-third of the volume in this stand would generate about 2000 board feet per acre of medium quality sawlogs. This thinning, if implemented, should focus on removing poor quality, unhealthy, and undesirable trees along with trees which are directly competing with healthy, high-quality trees. Healthy, high-quality trees should be left undisturbed for aesthetics and forest stability. Utilization of the tops for fuelwood will greatly improve aesthetics after the harvest has been completed.

A consultant forester should be contacted to mark the trees to be removed and oversee the harvest operations.

WILDLIFE

The 350^{+} acre site contains two major types of habitat. Woodland habitat is the dominant type in proposed development areas 3, 4, 5, and 2. The eastern portion of area 1 also provides elements of woodland habitat. Open-land habitat is provided throughout the majority of area 1.

The open-land habitat provides elements of food, cover, and water to a variety of game and non-game species. Animals which may depend in part or whole on this area for their daily and seasonal needs include ringneck pheasant, white-tail deer, raccoon, red fox, gray squirrels, small rodents, seasonal song birds, and birds of prey, including horned owls and hawks. Cottontail rabbit are probably common in the grassy and overgrown brush areas.

Vegetative elements of open-land habitat are provided by corn (during season), grasses, and weedy growth in the open field areas. Field borders and hedgerows provide food and cover through trees, shrubs, and brushy growth. Tankerhoosen River provides a natural streambelt through a mix of grasses, trees, and fruiting shrubs in its border vegetation. This provides excellent edge effect and use of travel lanes and cover to small animals.

The woodland areas which cover the remaining portions provide quality habitat. There is a desirable mix of hardwoods, conifers, and shrubby growth intermixed with a number of small openings and roadside edges. Hardwoods include, but are not limited to, oaks, maple, birch, hickory, ash, and cherry. Conifers include spruce, pine, and fir. Understory growth is sparse to dense, depending on soil and drainage conditions. The shallow-to-bedrock areas are mostly droughty and have the sparsest growth. Wetter low areas have denser growth usually accompanied by spicebush and other wetland plants. Woodland understory vegetation includes mountain laurel, low bush blueberry, tree seedlings, viburnums, and other low-growing shrubs. In many locations, there is a thick development of duff (leaf-litter) on the forest floor which conserves water, maintains organic tilth, and provides insect and rodent habitat. Many of the shrubs and trees produce nut or nutlike fruit valuable to wildlife as food.

Development of this large parcel will reduce both the quality and quantity of wildlife habitat. Development to housing will increase the disturbance factors and increase the incidence of free-roaming cats and dogs. Both these factors have negative impacts on habitat and animals. The amount of habitat and its generally undisturbed character will be reduced proportionately to the amount of development.

Some losses can be compensated by utilizing a development concept of minimal disturbance and clearing of native vegetation. Using fruiting shrubs and trees with values to wildlife rather than ornamental vegetation when landscaping will provide elements of food and cover to wildlife.

These efforts will increase song bird habitat and will probably increase rabbit and raccoon populations, but they will not provide for deer, ruffed grouse, and fox, which require more undisturbed habitat.

The large acreage, 80^{+} acres, of land proposed to remain in its natural state will be beneficial to wildlife. By leaving the land adjacent to the streams undeveloped, including ponds and wetland areas, much of the streambelt can be preserved. These are probably some of the most productive habitat areas on the parcel.

FISH RESOURCES

In order to prevent the loss of Tankerhoosen River and Valley Falls Brook as valuable fishery resources, hillside and floodplain development planned for Phases 1 and 3 should be minimized. Currently both brooks support populations of brook trout

and Tankerhoosen River is stocked with trout by the State.

Three factors are paramount in protecting these trout streams:

1. Retention of existing shade to maintain cool water temperatures. Slopes adjacent to the floodplain should be maintained in a forested condition.

2. Minimizing drainage from the development which can enter the streams without filtering through the soil.

3. Prevention of septic tank leachate entry into the brook.

Roadway drains for the proposed development should be numerous to minimize the formation of drainage channels on the slopes leading to the brooks' floodplains. The proposed road off Bolton Road which has been planned for construction during Phase 5 could be restructured as a continuation of the proposed road constructed in Phase 4. A road in this location would minimize drainage problems and meet the Town's requirement of no more than 20 dwellings on a dead-end street if two or three lots had driveways to Reservoir Road.

The Phase 1, 2, and 3 dwellings planned for south of Bolton Road could present septic leachate problems due to soils characteristics leading to high B.O.D.s (biological oxygen demands) and low oxygen levels in the streams and creating unsuitable conditions for trout.

Although the developer apparently recognizes the value of the streams in planning to avoid problems near them in Phases 4, 5, and the northern portion of Phase 2, and in leaving most of the stream-belt as open space, problems may occur if Phase 1, 3, and the southern portion of Phase 2 go ahead as planned.

SOILS

A detailed soils map of this site is included in the Appendix to this report, accompanied by a chart which indicates soil limitations for various urban uses. As the soil map is an enlargement from the original 1,320'/inch scale to 660'/inch, the soil boundary lines should not be viewed as absolute boundaries, but as guidelines to the distribution of soil types of the site. The soil limitation chart indicates the probable limitations of each of the soils for on-site sewage disposal, buildings with basements, streets and parking, and landscaping. However, limitations, even though severe, do not preclude the use of the land for development. If economics permit large expenditures for land development and the intended objective is consistent with the objectives of local and regional development, many soils and sites with difficult problems can be used. The soils map, with the publication Soil Survey: Tolland County Connecticut, can aid in the identification and interpretation of soils and their uses on this site. Know Your Land: Natural Soil Groups For Connecticut can also give insight to the development potentials of the soils and their relationship to the surficial geology of the site.

Soils mapped as occurring on the site include:

Alluvial land (land subject to flooding); Charlton, stony fine sandy loam; Cheshire, fine sandy loam; Ellington, fine sandy loam; Hollis, very rocky fine sandy loam; Manchester, gravelly fine sandy loam; Merrimac, fine sandy loam; Rumney,

fine sandy loam; and sand and gravelly material mapped as Terrace Escarpments.

The Rumney and Alluvial land are inland wetlands as defined by PA 155 as amended, and are regulated by that act.

The Rumney series is a poorly drained soil occurring on flood plains. These soils are unsuited to development.

Merrimac and Hartford series are deep, well-drained to somewhat excessively well-drained soils. They are formed in glacial outwash on terraces. Both soils are prime farmland soils in Tolland County. They have few limitations to development.

The Charlton series is a deep, well-drained soil occurring on uplands. These soils formed in glacial till mainly from schist and gneiss. The series mapped is stony. Limitations to development are largely due to slope and stoniness.

The Cheshire series consists of deep, well-drained soils formed in reddish, acid glacial till. This series is also a prime farmland soil. It, too, has few natural limitations to development.

The Ellington series is a deep, moderately well-drained soil formed in glacial outwash. As with the Hartford and Cheshire soils, it is considered a prime farmland soil. The major limitations to development are frost action and a seasonally high water table from November to April. The high water table may be within 18 inches of the surface.

The Hollis series consists of a shallow, well-drained to excessively well-drained soil formed in acid glacial till from schist and gneiss. Depth to bedrock averages 10 to 20 inches. This soil has severe limitations to development, including foundation excavation and on-site septic. However, it is possible to find pockets of soil which may exceed 10 feet in depth. If these locations can be identified, septic and other development activities may be constructed with little difficulty.

Manchester series consists of deep, excessively well-drained soils on terraces. The phase that is mapped ranges in slope from 3-15%. The major limitation to development includes slope.

The well-drained to excessively well-drained soils may present problems in establishing vegetation due to droughty conditions. Individual site recommendations should be made for type of cover based on slope, stoniness, and other on-site conditions.

Sand and gravel terrace escarpments may have short steep slopes. This land is naturally droughty but has few limitations to development.

Detailed investigations revealed the need for extensive deep observation pits in the eastern portion of section one, the western portion of section three and the eastern portion of section four. These areas were mapped as the Hollis series, which has severe limitations for building. Pockets of deep soils may be located in these areas that may be adequate for house lots. Section three is mapped as Manchester gravelly sandy loam; however, rock outcroppings are indicated on the soil maps. These areas were checked more closely and found to be accurate;

therefore, additional observation pits would be required to locate suitable house sites.

Consideration must be given to the complexity and steepness of slope in 80 percent of the area to be subdivided. To prevent major soil loss when cleared, erosion and sediment control measures should be implemented.

It was observed from the preliminary plan that some house lots may be located in areas that are too wet for septic systems. Concern must be given to each individual house lot for proper location of the system. The scale used to make the initial soil survey was not intended to delineate small wet areas that may cause considerable problems in areas as small as a house lot. For this particular use, more detailed on-site investigations are required. The investigations made on April 19th confirmed the need for individual lot inspections before final plans are approved.

Approximately 10 acres of land are currently devoted to grasses for pasture. Additionally, approximately 20 acres are utilized for the production of corn for silage. Development of this land or portions of it to housing will further limit agricultural opportunities in Connecticut and particularly in Vernon.

The Cheshire, Ellington, Hartford, and Merrimac soils are prime farmland soils as defined by the USDA National Cooperative Soil Survey. These soils are suited to most intensive agricultural use and are located in areas currently used for corn.

Erosion and Sedimentation:

Due to the complexity of the site with respect to topography, soils, and drainage, and to the size of the development proposal, a sediment and erosion control plan should be developed and implemented during construction. This plan should be developed along with other necessary engineering during the planning stages. It should not be viewed as something requiring detailed input after all other planning is completed.

The Erosion and Sediment Control Handbook for Connecticut, published by the Soil Conservation Service can aid both the developer and the town in preparing an adequate erosion and sediment control plan. Standards and specifications for both mechanical and vegetative practices listed within the handbook are available through the Tolland County Soil and Water Conservation District office in Vernon.

The flat land currently utilized for corn production should not present major erosion problems during construction. However, permanent sod cover should be established where corn production has removed the vegetation. Maintaining the streams in their natural condition with a buffer strip of vegetation on either side, as proposed, will help maintain stable streambanks and reduce the chance of sediment entering the streams.

Development of interior roads will have the greatest impact from an erosion and sediment control viewpoint. Construction of driveways should utilize mechanical and vegetative practices as necessary to control erosion and sediment deposition. This is especially true on lots south of Valley Falls Road which slope toward the road. Driveways should parallel the contours as much as feasible and avoid deep cuts which leave a raw bank exposed.

A natural waterway separating corn fields north of Valley Falls Road should be stabilized and enlarged if necessary to prevent erosion and sedimentation.

Lot development which includes siting the house to existing topography is desirable. To minimize chances of erosion, removal of natural vegetation should be only that required for construction.

The use of temporary seedings on stockpiles of topsoil and areas left exposed during winter construction shutdown would be desirable.

Other steeply sloping areas which may need vegetative or mechanical practices include lots east of Bamforth Road, south of the cemetery; lots in area 2, south of Baker Road; and lots west of Reservoir Road near the intersection with Bolton Road.

Control of storm water runoff onto lots where existing culverts cross town roads or proposed interior roads may be necessary. The use of energy dissipators and protection of these outlet areas with riprap is recommended.

FOUNDATIONS/GRADED CONDITIONS

Phase 1 - 15 lots, Southeast Corner of Proposed Subdivision.

The shallow-to-bedrock soils which encompass 12 of the 15 proposed building lots in this phase are excellent from the standpoint of mechanical strength for foundation development. The steep 14 percent to 30 percent slopes makes placement of roads and driveways critical with regards to safety and surface drainage.

The installation of basements, road cuts, and storm water drainage systems will most likely require rock blasting. Slope stability of the existing forested areas is not a problem; however, if the developer or property owner attempts to remove many of the trees and the associated forest litter to install a lawn, excessive runoff and erosion will probably result. Storm water outlets should be located to insure a non-erosive flow to the collecting stream or river.

In these soils the proper location of the leachfield for sewage disposal is imperative. The location of the house and possible the use of the lot depends on finding an area where the disposal field will operate properly.

Phase 2 - Southern portion - Approximately 26 lots both sides of Valley Falls Road.

The westerly lots both north and south of Valley Falls Road appear to have only slight limitations for development.

The double loop-road configuration north of Valley Falls Road has more severe limitations. The high water table in this area is the primary reason for concern. High water table causes wet basements and/or septic tank failure.

Phase 2 - Northern portion - Approximately 10 lots, South of Baker Road and East of Bamforth Road.

The primary limitations to building lots in this portion is due to slope. Careful planning should be done to determine the best location for driveways

and houses. Things to consider when selecting the driveway site are ease of ingress and egress, pitch or slope, and keeping the runoff onto the driveway to a minimum.

There appears to be no difficulty with the soils in relation to mechanical strength for foundation development. Slope stability could become a problem where cuts and fills are steep. Due to the droughtiness of the soil, disturbed areas will require special vegetative measures to assure stability.

Phase 3 - Southern portion - Approximately 9 lots south of Bolton Road.

Potential flooding and high water table are the major obstacles to lot development in this portion.

The mechanical strength of the substratum is most likely adequate.

Erosion and sediment potential should be minimal due to the flat slopes.

Phase 3 - North-Western portion - Approximately 14 building lots west of Bamforth Road.

Rock outcrops at several locations were noted. The same statement made in Phase 1 about the proper location of the leachfield for sewage disposal being imperative applies. The location of the house and possibly the use of the lot depends on finding an area where the disposal field will operate properly.

Mechanical strength of the substratum should be adequate.

Due to the droughty soil, cuts and fills with steep slopes may offer difficulties in getting vegetation established, which in turn could cause instability.

Driveway slopes and their intersections with Bolton Road should be planned keeping in mind potential icing due to runoff and ingress and egress safety.

Phase 4 - Southeastern portion - Approximately 17 lots north of Bolton Road and east of Reservoir Road.

Same statements that were made for Phase 2, Northern portion, apply.

Phase 4 - Northeastern portion - Approximately 14 lots east of Reservoir Road.

Same statements that were made for Phase 2, Northern portion, apply.

Phase 4 - Eastern portion - Approximately 3 lots east of Reservoir Road.

Same statements that were made for Phase 1 apply to this portion.

Phase 5 - West central portion - Approximately 5 lots east of Bamforth Road.

With the possible exception of the lot adjacent to the cemetery, these lots will have severe limitations for several reasons.

Abandoned shallow wells located approximately 50' to 70' into the lots from Bamforth Road indicate that the water table is close to the surface. It would

be difficult to locate a septic system that could work effectively under these conditions.

Construction of driveways with proper grades and safe ingress and egress on these slopes will be difficult.

Phase 5 - Central portion - Approximately 8 lots, north of the existing homestead off Bolton Road.

Same statements that were made for Phase 2, Northern portion, apply.

WATER SUPPLY

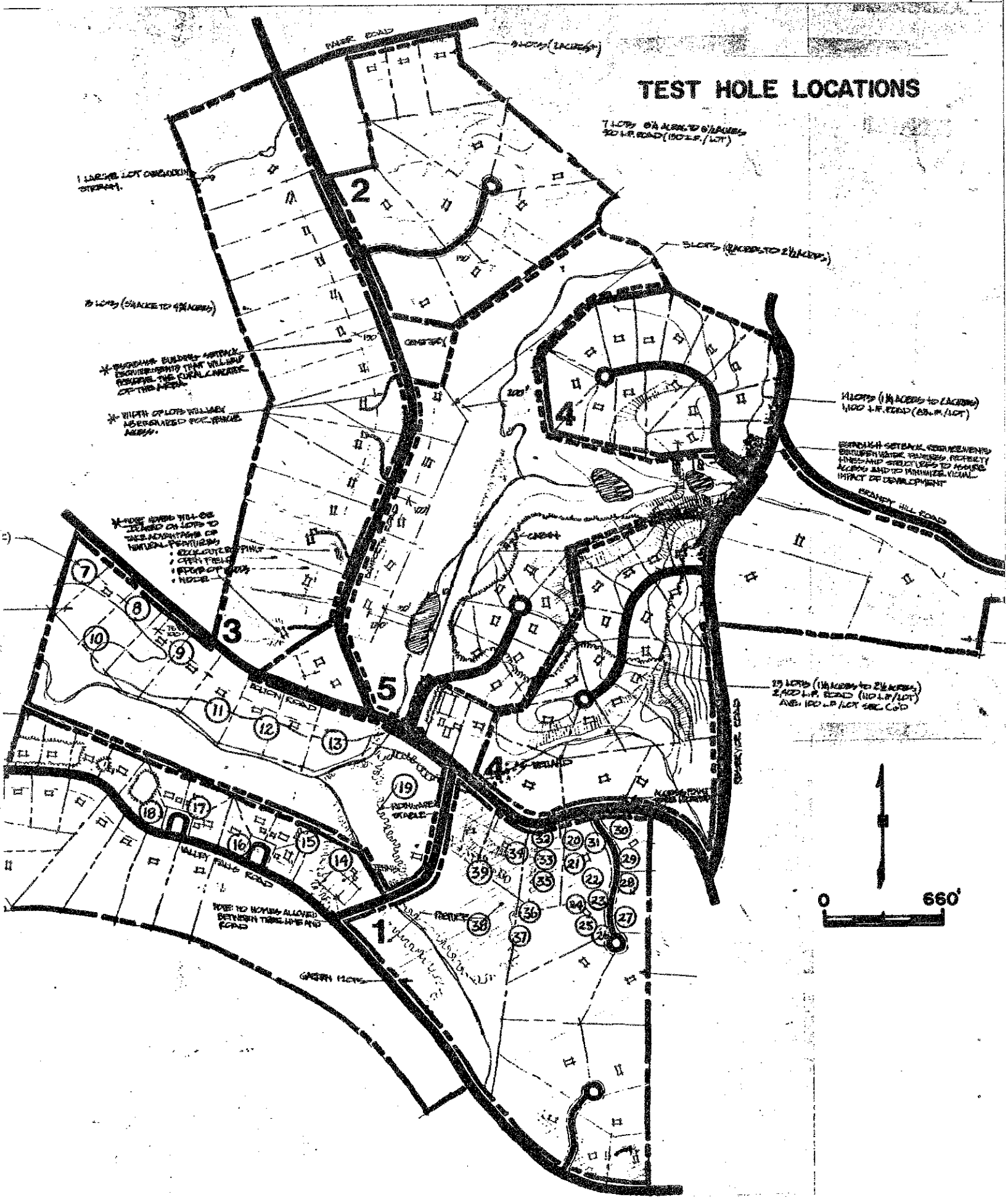
Each lot in the proposed subdivision would be served by on-site wells. Two potential sources of groundwater would be available to such wells: bedrock and stratified drift. Wells in stratified drift would be feasible only where the texture of the deposits is sufficiently coarse and the saturated section is sufficiently thick to allow an adequate yield to be withdrawn. Fine-grained particles could restrict groundwater movement into the wells, while a thin saturated section could dry up seasonally. The most likely area to establish successful wells in stratified drift is the section between Bolton Road and Valley Falls Road, and west of Bread and Milk Road. Wells in this section could be influenced by the quality of water in Tankerhoosen River.

Bedrock-based wells probably could be established on any of the lots, but the costs would be greater. Lots in the till-covered, shallow-to-bedrock areas would have to have bedrock wells unless water were piped from an alternate source. Wells drilled into bedrock are supplied with water through fractures in the rock. Because the rock underlying the site appears to be well-fractured, it is likely that a yield of 3 gallons per minute or more could be obtained on most lots. If smaller yields are obtained, it may be possible to offset this problem by providing ample storage capacity within the well itself.

The natural quality of the groundwater should be good. Some potential exists for high concentrations of iron or other mineral constituents, particularly in the eastern third of the site, but suitable filtration methods could alleviate most such problems. Contamination of wells by septic-system effluent is possible in shallow-to-bedrock areas and in those areas that may be served by wells in stratified drift. In shallow-to-bedrock areas, careful engineering may be needed to overcome this potential, while in stratified drift areas, appropriate spacing of wells and septic systems would be needed.

WASTE DISPOSAL

The most difficult areas for establishing septic systems appear to be those south of Valley Falls Road and those along the eastern boundary of the site. In these places, bedrock is near the surface and slopes are steep. Water percolating down through the soil tends to flow along the rock-soil interface, and it may reemerge at the surface downslope. Septic wastewater would follow a similar path. Surfacing of effluent would be a health and aesthetic nuisance and could contaminate streams in the area.


TEST HOLE LOCATIONS
RALEIGH ROAD
BOLTON ROAD
VALLEY FALLS ROAD
BRANDY HILL ROAD
1
2
3
4
5
0
660'

In the area between Valley Falls Road and Bolton Road, the major limiting factor is the high water table. Failure to design for this limitation may allow septic systems to be flooded, causing backups, surfacing of effluent, and/or contamination of groundwater. The latter possibility would be very serious if stratified-drift-based wells were used in this area.

The following comments were submitted by the Team Sanatarian from the State Department of Health. They are in reference to the 39 deep observation pits located on Phase 1 of the preliminary plans. Test results and soil observations were submitted by Gardner and Peterson Associates, engineers for the developer.

Test holes numbers 17 and 18 located north of Valley Falls Road and west of the stream which crosses Valley Falls Road flowing in a northerly direction, were found to have extremely high water table conditions. The area had little or no slope. This area would not be acceptable for subsurface sewage disposal.

Test hole number 16, located north of Valley Falls Road and east of the aforementioned stream, exhibited soil characteristics which would place no extraordinary constraints on subsurface sewage disposal. A five foot deep stand pipe was dry to 60 inches below grade on April 19. However, the area of this soil was limited and extremely wet conditions were observed as one proceeded further north from Valley Falls Road. This wet area coincides with that mapped as alluvial by the Soil Conservation Service (Inland Wetland - subject to flooding).

Test holes numbers 7, 8, 9, 10, 11, and 12 exhibited soils which may be expected to have rapid percolation rates. Stand pipes at test holes 9 and 10 had water at 46 and 42 inches below grade on April 19. Seepage was recorded at depths of 44, 58, and 60 inches in test holes 7, 8, and 11, respectively, during the original testing. No groundwater was observed in test hole #12. Little slope was present on any of these proposed lots.

Based on these tests, subsurface sewage disposal would appear to be feasible in these general areas. Engineering design would be necessary in order to assure proper separation distances from the botton of leaching areas to maximum high ground water levels by proper system design in regard to invert elevations of house sewers, septic tank inlets and outlets, and distribution pipes. The Public Health Code requires a minimum separation distance of 18 inches between the bottom of leaching areas and maximum ground water elevations.

Therefore, systems in this area would have to be kept shallow. Areas toward the front of proposed lots (particularly near test holes 7, 8, 9) would have to be utilized as standing water was noted in the wooded area south of these test holes, between test holes 8 and 10. This wooded area coincides with the area mapped as Rumney Soil Series by the Soil Conservation Service (Inland Wetland soil type) and is not acceptable for subsurface sewage disposal.

Test hole #13 lies in an area mapped as Alluvial by the Soil Conservation Service. Soil tests indicate seepage at a depth from 24 to 45 inches below grade. The area may be subject to flooding. No standpipe was provided in this area. Either further testing would have to be conducted to delineate an acceptable area for subsurface sewage disposal or the proposed lot combined with an adjacent lot.

The knoll area on the lots south of Bolton Road and east of the connector road between Bolton Road and Valley Falls Road would appear to be the most acceptable

location for subsurface sewage disposal in this area as indicated by test hole number 34. The low lying flat areas around the knoll receive much water runoff and are subject to high ground water tables (test holes numbers 32, 33, 35, 36, 37, 38 and 39). Additionally, percolation tests throughout this low lying area would be expected to be slow.

The area where test holes 20 through 31 were excavated exhibited bedrock and ground water constraints. Rock outcrops were noted near the eastern border of the subdivision toward the ridge. Bedrock was observed at 0" - 6" below grade in the area of test hole #24 and rock was indicated at depth ranging from 66" to 78" below grade in test holes numbers 25, 26, 27, 28, 29, 30, and 31. No ground water was observed in any of the test holes numbers 25 - 31. However, the compact soil layers may cause water movement on top of these layers after rains, possibly necessitating the protection of sewage disposal systems by ground water control drains. Distinct areas of adequate size for sewage disposal systems and with sufficient soil depth to permit the bottom of leaching areas to be placed at least 4 feet above bedrock would have to be delineated on each lot. Due to the presence of bedrock, careful siting of well water supplies so as to locate these water supplies uphill from sewage disposal systems and other sources of contamination (eg. in-ground fuel oil tanks) is necessary.

Test hole number 21 exhibited a high water table (24 inches below grade) on a hardpan layer. Soil horizons as reported indicate that a ground water control drain may be effective in this area. Sufficient slope is present for dicharge of such a drain.

Soil Conservation Service mapping indicates generally suitable soil conditions for subsurface sewage disposal (Manchester gravelly, sandy loam - MgC) through a large portion of Phases 3, 4 and 5 of the proposed subdivision. Appropriate soil testing in areas of proposed sewage disposal systems should be conducted prior to submission of these phases for Planning and Zoning Review. This testing is necessary to either verify the presence of mapped soils at individual sites or reveal actual soil conditions not reflected in the mapping.

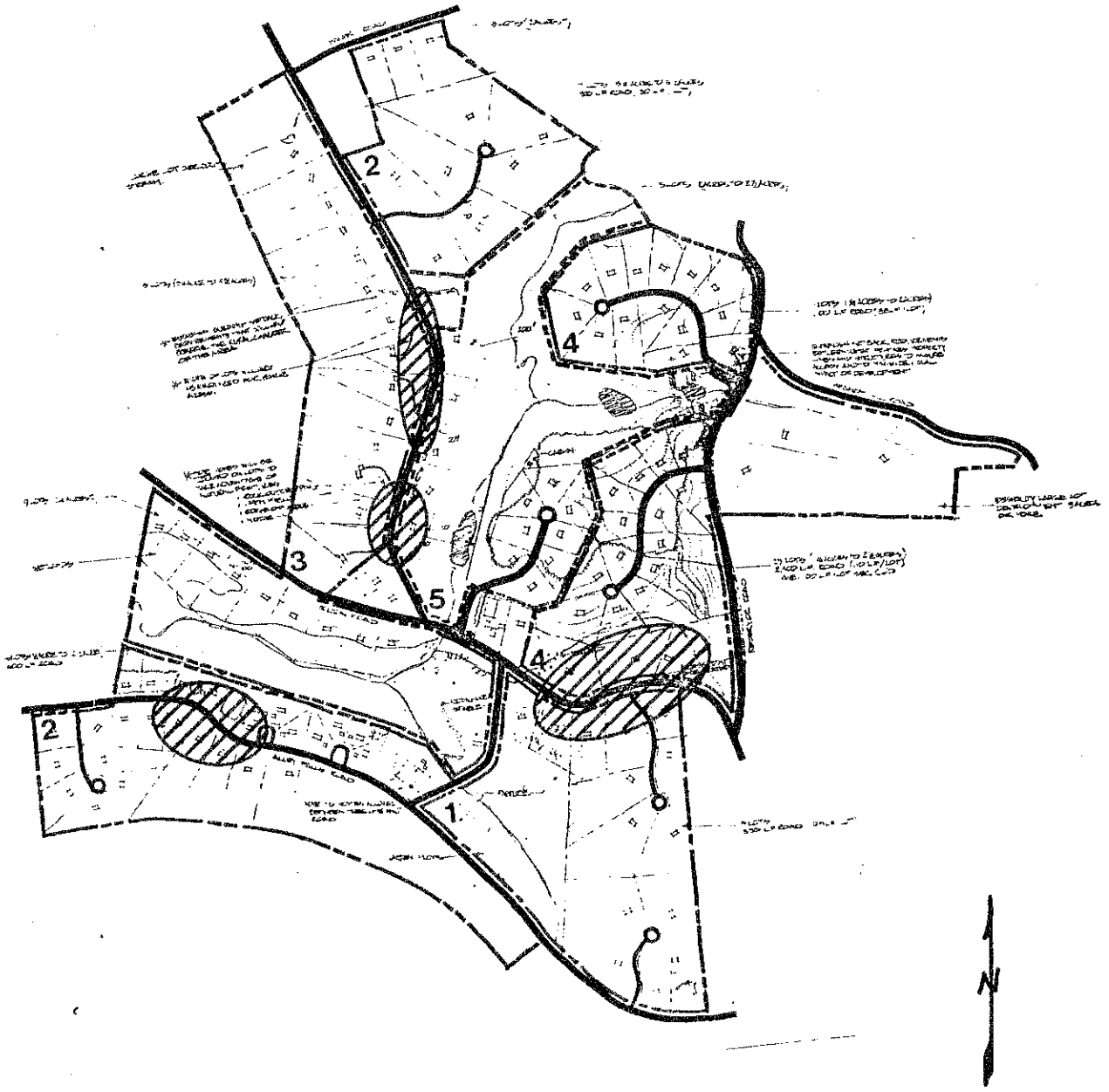
Two dug wells were noted east of Bamforth Road during the subdivision review. Ground water levels were approximately 9 feet below grade in the well nearest Bamforth Road and 6 feet below grade in the well furthest from Bamforth Road.

PLANNING CONSIDERATIONS

Design Group I appears to have taken a sensitive approach to development of this parcel with regard to the natural resource base of the site. Sensitive streambelt areas have been designated for open space, large lots occur on areas of steepest slope. Seven cul-de-sacs serve interior lots and could provide access to some lots which front on established town roads. Town roads in the vicinity of the proposed subdivision range from 18 to 25 feet in width and the pavement is generally in good condition. Although posted speed limits are low, traffic along these roads travels at a rapid rate.

A major concern for the Vernon Planning and Zoning Commission are the number of driveways which will be entering these established town roads. A potential of 19 lots would enter onto Bamforth Road, 16 lots may enter Bolton Road and 15 lots would enter Valley Falls Roads. Due to the curving nature of certain parts of

AREAS WITH POSSIBLE LINE-OF-SIGHT PROBLEMS



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these roads, blind driveways may be a common occurrance. It is the Team's recommendation that in danger spots such as those noted, lots be reoriented to have access onto cul-de-sacs. Another alternative on Bamforth Road in particular, would be the establishment of additional townhouse clusters served by small loop roads or a reorientation of lots to several cul-de-sacs extending from the existing road. These methods would reduce the excessive number of entrances onto Bamforth Road and eliminate some of the line-of-sight problems which would exist with the proposed plan.

RECREATION POTENTIAL

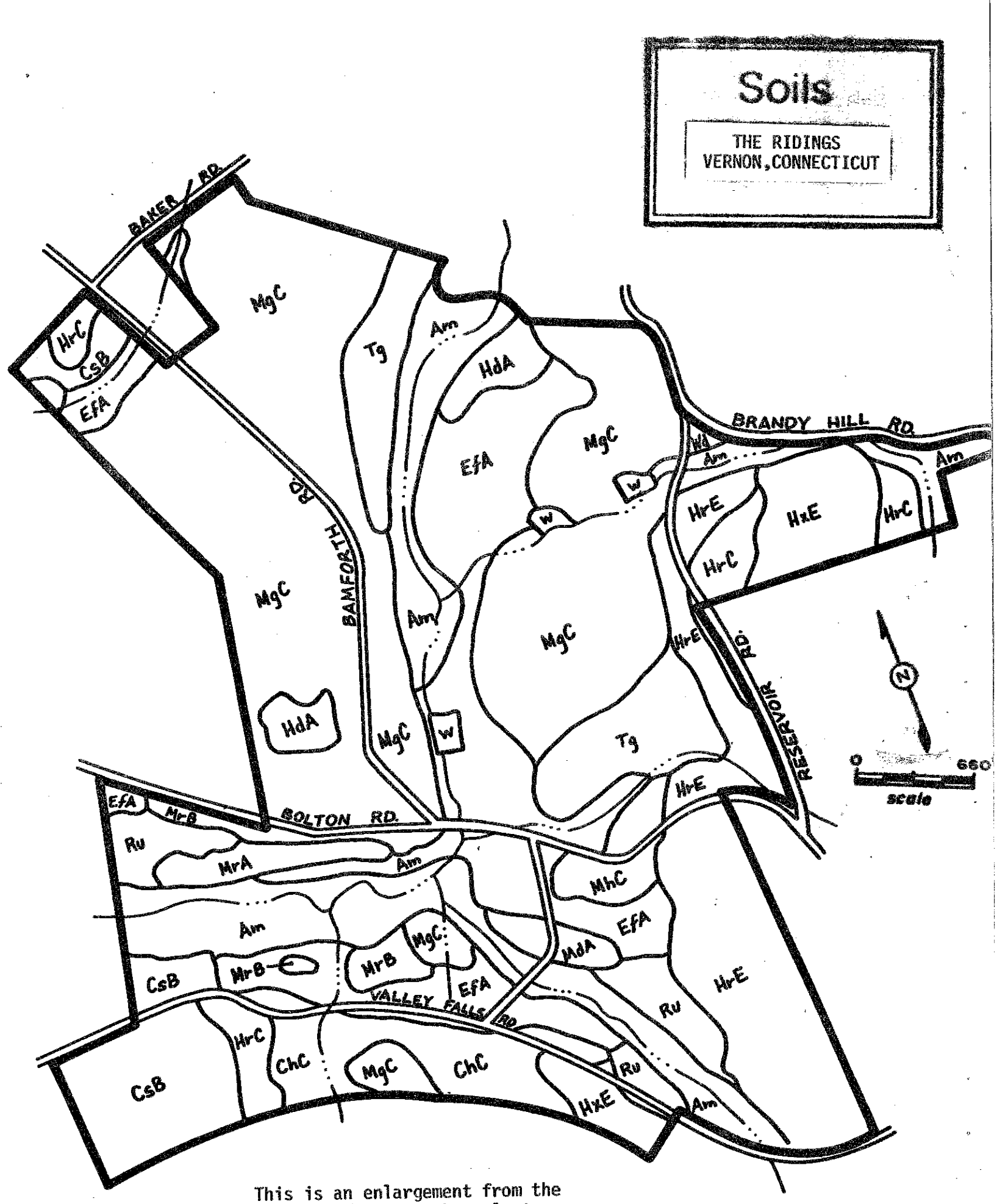
Tennis courts proposed for this development should be centrally located on suitable soils and screened from the road. Soils in the area presently under consideration are suitable for establishment of these courts. Three courts would require an area of approximately 3/4 acre. The courts should be oriented perpendicular to the sun's direction of travel; i.e. on a N/S axis. A gravel parking lot, properly graded and maintained, would be adequate in this flat area. Location, type, and size of parking facilities should be indicated on the plan.

A riding stable is also planned for this subdivision. Concerns involved with this proposal include ownership, management and maintenance of the stables, adequate waste management and disposal, and supply of feed sources for the animals. In addition, necessary precautions should be taken to prevent water pollution and sedimentation. Fencing of stream areas from access by animals may be necessary. Planning considerations should include the layout of riding trails, and the ability of the subdivision alone to support the stable. The concerns should be addressed by the developer.

Several alternatives are applicable to this land. Most obvious is the continued use for farming. Quality farmland is becoming a dwindling natural resource. The wooded areas with the numerous ponds and streams and wildlife edges provide good natural wildlife habitat. The many trails throughout make this land suitable for passive recreation such as hiking, nature study, fishing, photography, etc. It is an area which would compliment the adjoining Valley Falls Park. That park could be expanded with the addition of this land and be preserved in its natural state.

Other alternatives include preserving the farmlands for community gardens. Playgrounds are possible in several areas. Ball fields and athletic fields are most suitable on the flat bottom lands currently used for corn production.

Appendix



This is an enlargement from the original 1,320'/inch scale to 660'/inch.

THE RIDINGS

Vernon, Connecticut

SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

Soil Series and Map Symbol		Septic Tank Absorption Field	Dwellings with Basements	Streets and Parking	Lawns and Landscaping
*Am	Alluvial land	Severe Floods, Wetness	Severe Floods, Wetness	Severe Floods, Wetness Frost Action	Severe Floods, Wetness
ChC	Charlton stony fine sandy loam, 8-15% slopes	Moderate Large Stones	Moderate Large Stones Slope	Moderate Slope	Severe Large Stones
**CsB	Cheshire fine sandy loam, 3-8% slopes	Slight	Slight	Slight	Slight
**EfA	Ellington fine sandy loam, 0-3% slopes	Severe Wetness	Severe Wetness	Severe Frost Action	Slight
**HdA	Hartford fine sandy loam, 0-3% slopes	Slight	Slight	Slight	Moderate Droughty
HrC	Hollis very rocky fine sandy loam, 3-15% slopes	Severe Depth to Bedrock	Severe Depth to Bedrock	Severe Depth to Bedrock	Severe Depth to Bedrock
HrE	Hollis very rocky fine sandy loam, 15-35% slopes	Severe Depth to Bedrock	Severe Depth to Bedrock	Severe Depth to Bedrock	Severe Depth to Bedrock
HxE	Hollis extremely rocky fine sandy loam, 15-35% slopes	Severe Depth to Bedrock	Severe Depth to Bedrock	Severe Depth to Bedrock	Severe Depth to Bedrock
MgC	Manchester gravelly sandy loam, 3-15% slopes	Moderate Slope	Moderate Slope	Moderate Slope	Severe Small Stones, Droughty

SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

Soil Series and Map Symbol		Septic Tank Absorption Field	Dwellings with Basements	Streets and Parking	Lawns and Landscaping
MhC	Manchester loamy sand, 3-15% slopes	Moderate Slope	Moderate Slope	Moderate Slope	Severe Small Stones Doughty
**MrA	Merrimac fine sandy loam, 0-3% slopes	Slight	Slight	Slight	Slight
**MrB	Merrimac fine sandy loam, 3-8% slopes	Slight	Slight	Slight	Slight
*Ru	Rumney fine sandy loam	Severe Floods Wetness	Severe Floods Wetness	Severe Floods Wetness	Severe Floods Wetness
Tg	Terrace escarpments	Slight	Slight	Slight	Moderate Droughty

*Inland Wetlands as defined by P.A. 155 as amended

**Prime Farmlands as defined by USDA National Cooperative Soil Survey

SOIL INTERPRETATIONS FOR URBAN USES

The ratings of the soils for elements of community and recreational development uses consist of three degrees of "limitations:" slight or no limitations; moderate limitations; and severe limitations. In the interpretive scheme various physical properties are weighed before judging their relative severity of limitations.

The user is cautioned that the suitability ratings, degree of limitations and other interpretations are based on the typical soil in each mapping unit. At any given point the actual conditions may differ from the information presented here because of the inclusion of other soils which were impractical to map separately at the scale of mapping used. On-site investigations are suggested where the proposed soil use involves heavy loads, deep excavations, or high cost. Limitations, even though severe, do not always preclude the use of land for development. If economics permit greater expenditures for land development and the intended land use is consistent with the objectives of local or regional development, many soils and sites with difficult problems can be used.

Slight Limitations

Areas rated as slight have relatively few limitations in terms of soil suitability for a particular use. The degree of suitability is such that a minimum of time or cost would be needed to overcome relatively minor soil limitations.

Moderate Limitations

In areas rated moderate, it is relatively more difficult and more costly to correct the natural limitations of the soil for certain uses than for soils rated as having slight limitations.

Severe Limitations

Areas designated as having severe limitations would require more extensive and more costly measures than soils rated with moderate limitations in order to overcome natural soil limitations. The soil may have more than one limiting characteristic causing it to be rated severe.

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.

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, and a statement identifying the specific areas of concern the Team should address. 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 Jeanne Shelburn (889-2324), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, 139 Boswell Avenue, Norwich, Connecticut 06360.