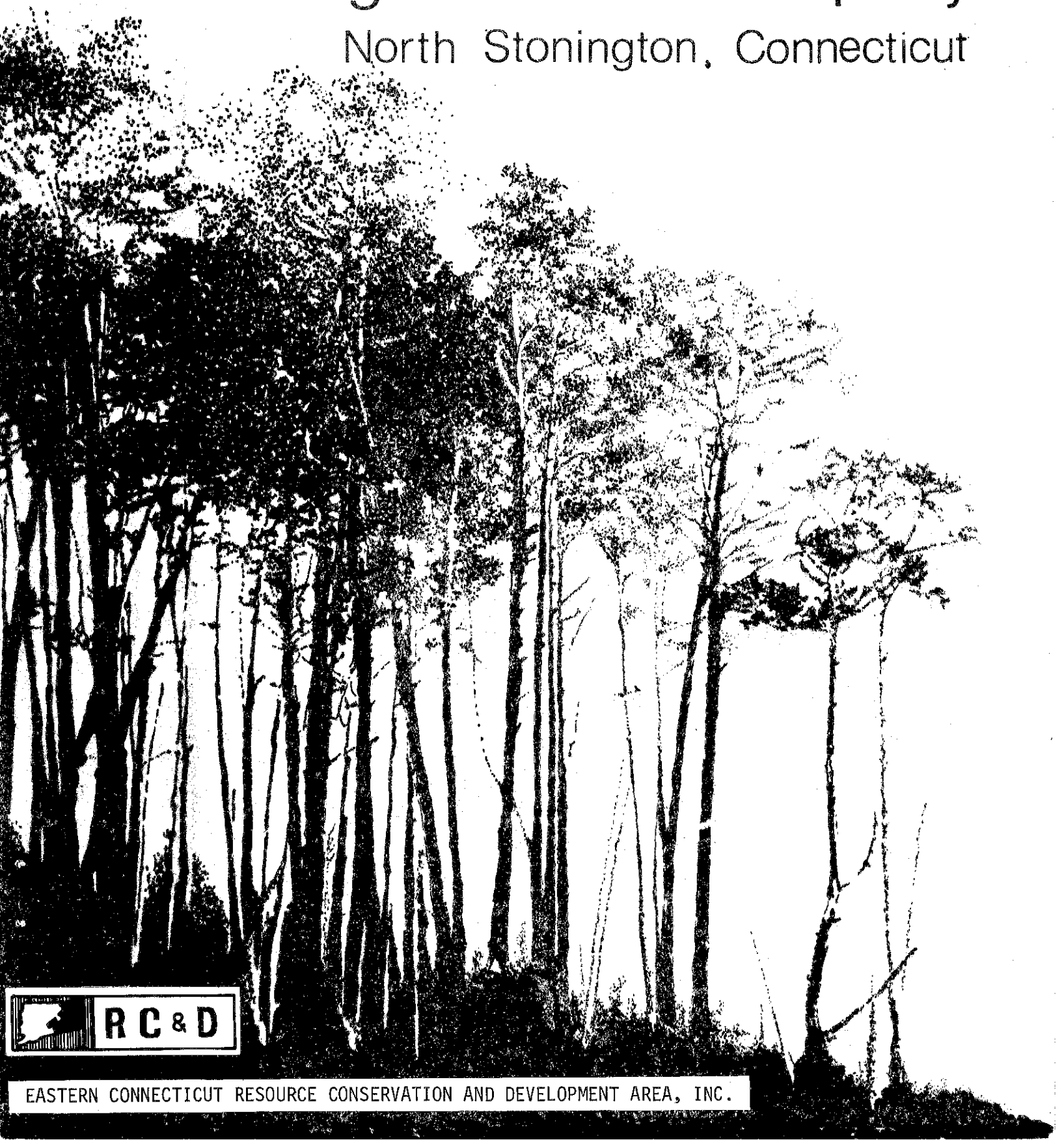
Environmental Review Team Report

Stonington Land Company

North Stonington, Connecticut



R C & D

EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

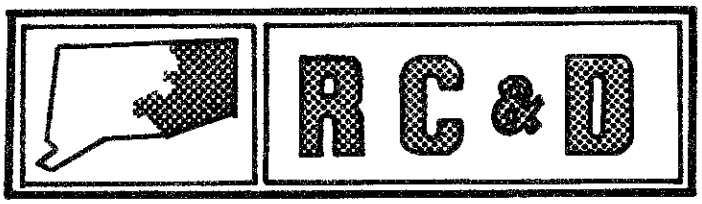
Environmental Review Team Report

on

Stonington Land Company

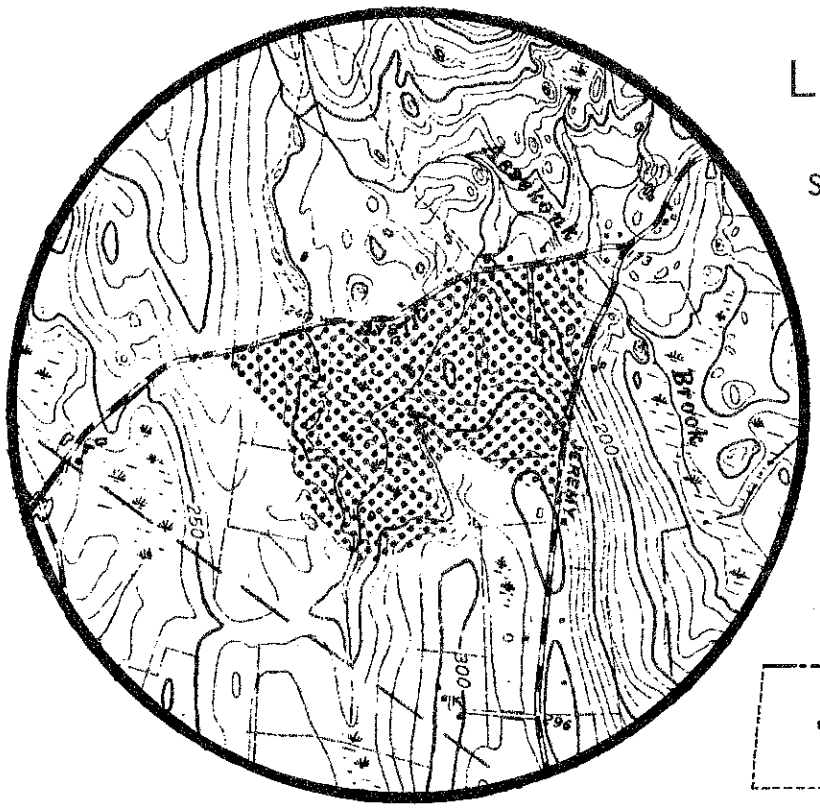
North Stonington Connecticut

February 1979



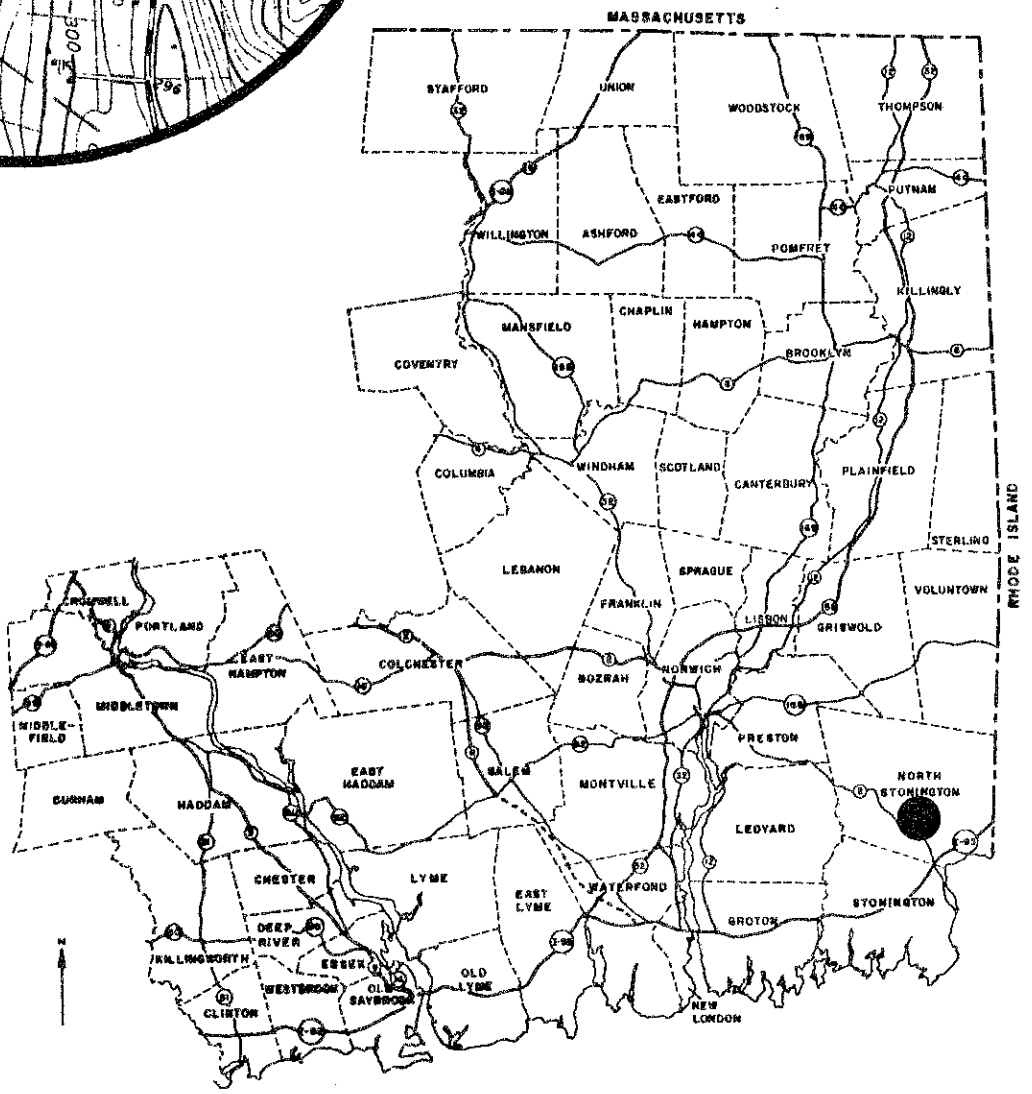
eastern connecticut resource conservation & development area

environmental review team
139 boswell avenue
norwich, connecticut 06360



Location of Study Site

STONINGTON LAND COMPANY SUBDIVISION
NORTH STONINGTON, CONNECTICUT



EASTERN CONNECTICUT
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ENVIRONMENTAL REVIEW TEAM REPORT
ON
STONINGTON LAND COMPANY SUBDIVISION
NORTH STONINGTON, CONNECTICUT

This report is an outgrowth of a request from the North Stonington Inland Wetlands Commission to the New London 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 as a project measure. The request was approved and the measure reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The soils of the site were mapped by a soil scientist of the United States Department of Agriculture (USDA), Soil Conservation Service (SCS). Reproductions of the soil survey map as well as a topographic map of the site were distributed to all ERT participants prior to their field review of the site.

The ERT that field checked the site consisted of the following personnel: Gary Parker, District Conservationist, Soil Conservation Service (SCS); Tom Peragallo, Soil Scientist, (SCS); Mike Zizka, Geologist, Department of Environmental Protection (DEP); Rob Rocks, Forester, (DEP); Donald Capellaro, Sanitarian, State Department of Health; Gerhard Amt, Regional Planner, Southeastern Connecticut Regional Planning Agency; and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

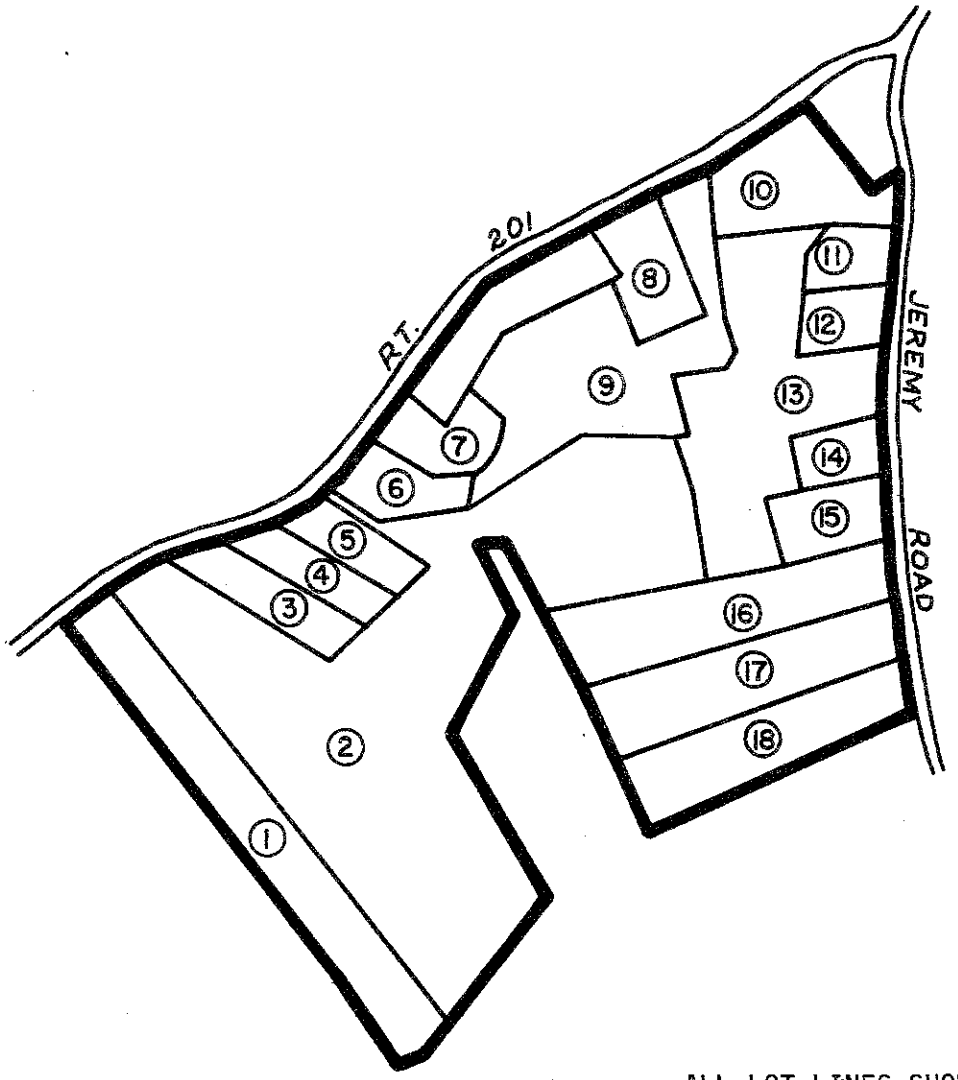
The Team met and field checked the site on Thursday, December 7, 1978. Reports from each Team member were sent to the ERT Coordinator for review and summarization for the final report.

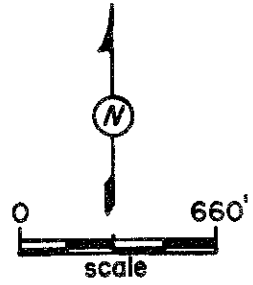
This report is not meant to compete with private consultants by supplying site designs or detailed solutions to development problems. This report identifies the existing resource base and evaluates its significance to the proposed development and also suggests considerations that should be of concern to the developer and the Town of North Stonington. The results of this Team action are oriented toward the development of a better environmental quality and the long-term economics of the land use.

The Eastern Connecticut RC&D Project Committee hopes you will find this report of value and assistance in making your decisions on 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





ALL LOT LINES SHOWN ARE APPROXIMATE

INTRODUCTION

The Eastern Connecticut Environmental Review Team was asked to review a preliminary proposal for a 100 ± acre subdivision in the town of North Stonington. The property is located near the junction of Route 201 and Jeremy Hill Road. It is presently in the private ownership of the Stonington Land Company, a development corporation, which intends to subdivide the land and sell it as building lots. An established 10 acre farmstead on the site has already been sold.

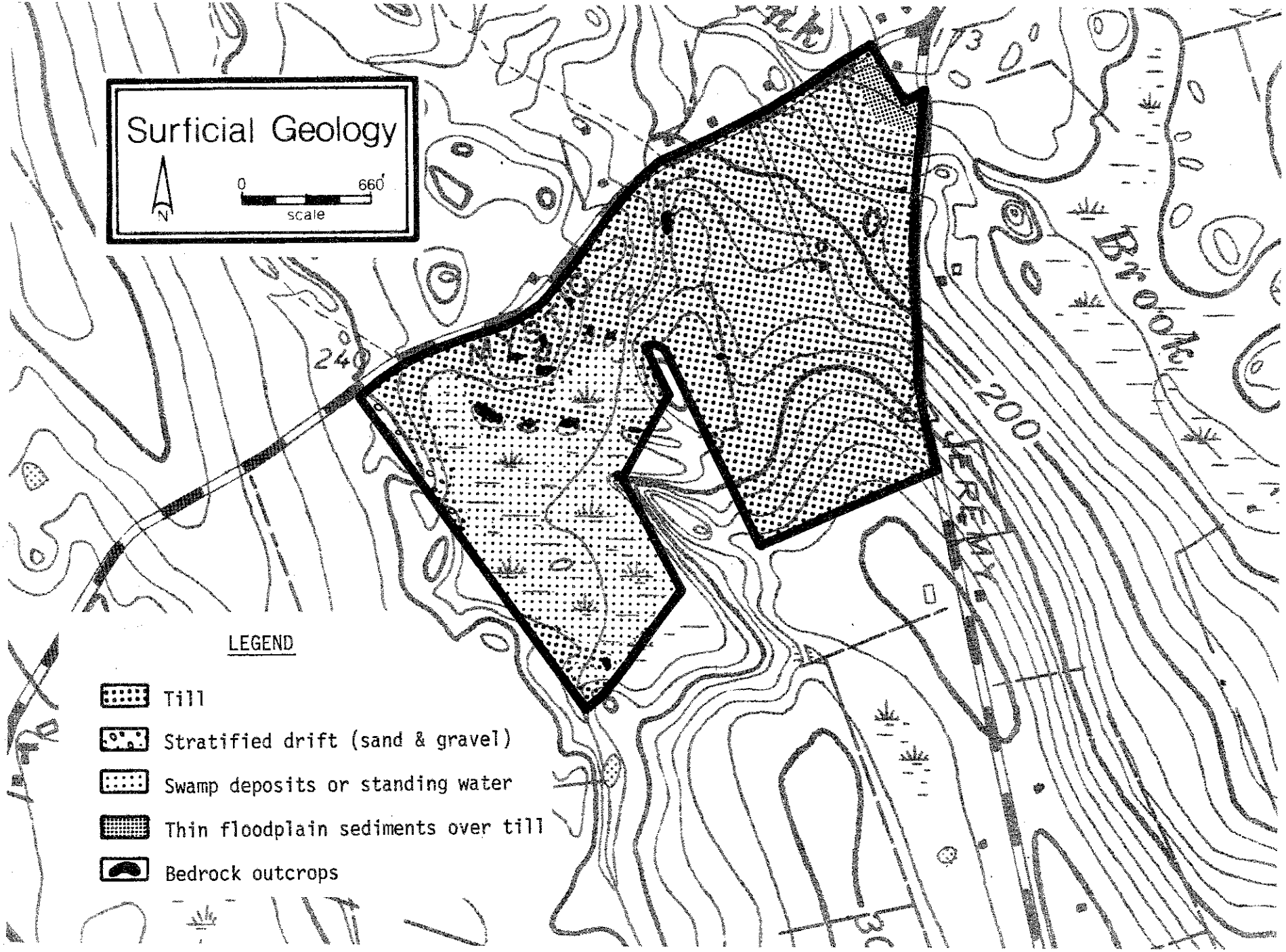
Additional land on the site has been divided into 18 lots of two or more acres. Residences in the proposed subdivision will be served by on-site wells and on-site sewage disposal facilities. There are no public sewers existing or proposed in this area, and the nearest public water system is more than a mile away. The proposed subdivision lies about two miles from North Stonington Village, where the local schools, town hall, post office, and some commercial establishments are located.

The site has a varying terrain. It is characterized by very stony old fields and wooded slopes.

Assekonk Brook crosses the property near the junction of Route 201 and Jeremy Hill Road. Another intermittent stream and its associated wetland form a pond in the southwestern part of the parcel.

The Team is concerned with the effect of this land use proposal on the natural resource base of this site. Examination of soils data before the field review and at the site reveal problems which may exist with foundation development on lots 8, 10, 14, 15, 16, 17, and 18, and with establishment of septic systems on lots 3 through 7. These problems relate to soils with seasonally high water tables and shallow-to-bedrock soils, respectively. Due to the number of wetland soils and open watercourses on the site, a sediment and erosion control plan should be implemented during construction on each individual lot. Conformance to current frontage requirements of the Town Zoning Ordinances may cause problems for the present proposal. A provision for open space also does not appear on the plan.

A potential solution to some of these problems could be reached by designating lots 1 and 2 as open space land. Combining lots 8 and 10 with other adjacent lots would be in the best interest of prospective buyers and the natural resource base of the site due to the wet soil conditions. Also, due to the travel conditions of Route 201 and Jeremy Hill Road, the Team Planner suggests that lots contain a road-improvement easement for future upgrade of these roads with increased traffic demands.


Surficial Geology
N
0
660'
scale
LEGEND
Till
Stratified drift (sand & gravel)
Swamp deposits or standing water
Thin floodplain sediments over till
Bedrock outcrops
240
200
JEREMY
Brook

ENVIRONMENTAL ASSESSMENT

GEOLOGY

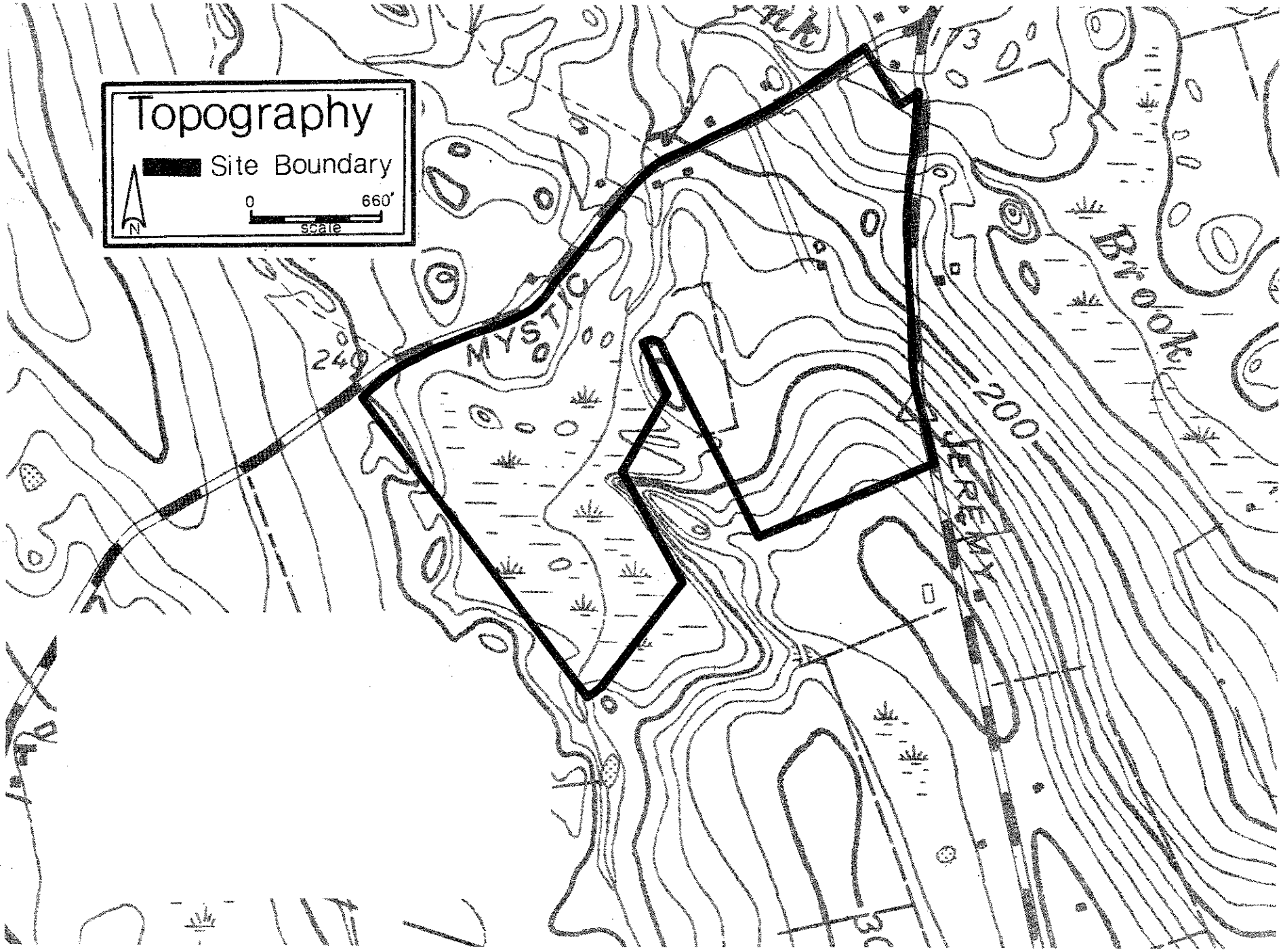
The site is geologically varied and may be divided into three main sections. The first section, comprising most of the eastern half, is a gentle to moderately steep hillside on which bedrock is covered by a continuous, but probably thin, blanket of glacial till. Till is an accumulation of rock particles of varied shapes and sizes. Because they were deposited directly from the ice that transported them, the particles are not conspicuously sorted by grain size. However, the till tends to have a sandy, stony texture at least in its upper few feet. The second section of the site, comprising most of the western half, consists of several very thinly covered rock outcrops, both in and around a large swamp. The third section, contained entirely within the proposed lot 1, consists of a ridge-like deposit of poorly sorted sand, gravel, and boulders. These materials were deposited in a tunnel within or beneath stagnant glacier ice or in a crack (crevasse) on the surface of the ice. The ridge, much of which lies north of the property, is one of the most unique glacial geologic features within the town of North Stonington. Some thought should be given to preserving it, although small pits have already destroyed a few sections.

No bedrock geologic maps of the Old Mystic quadrangle, in which the site is located, have been published to date. Most of the bedrock outcrops observed on the property consisted of granite or granitic gneiss. The location of bedrock outcrops on the site is shown in an accompanying illustration.

HYDROLOGY

The property lies within the watershed of Assekonk Brook. Runoff from most of the western section of the site flows into a large swampy area, from which it is channeled northward into Assekonk Brook via a tributary stream. Runoff from the front portions of lots 3 - 7 flows either across or along Route 201 for a short distance before joining the waters of the tributary. Runoff from the eastern section of the site moves either by sheet flow or by very small intermittent streams toward Assekonk Brook.

Development of the site would not be likely to have a significant effect on peak flows in the nearby streams, but localized sheet runoff may be a concern in a few areas. The town was particularly interested in the effects of runoff coming from lots along Jeremy Hill Road. It is the opinion of Team members that sheet flow problems from these lots can be minimized by laying out the driveways and shaping the land around them in such a way that water would not be channeled directly eastward onto the road. Preventive measures could include curving the ends of the driveways toward the south (uphill). Sheet runoff may be somewhat more problematic in lots along Route 201. Because of the shallow nature of the soils in that area, more runoff would be generated from a given storm than from those lots along Jeremy Hill Road, on an acre-to-acre basis. Moreover, since the driveways would slope north-northwest, they would receive less sunlight in winter, enhancing the probability of icing. A drainage swale on the southeast side of Route 201 might help to mitigate these potential problems.


Topography
Site Boundary
0
660'
scale
N
MYSTIC
240
200
JEREMY
Brook

WILDLIFE

This parcel covers a wide range of ecotypes, from old field upland to inland wetland and open waterbody. This diversity provides excellent habitat for many species. Deer, grouse, raccoon, quail, squirrel, rabbit and duck utilize this area, with numerous songbird and other non-game species.

Development of this area will result in a degradation of habitat, with the possible loss of some of the forest wildlife species, such as deer and grouse. Adaptable wildlife, such as raccoon and squirrel will probably not decrease in numbers. The impact on wildlife will be determined by the amount of development of the area after the actual construction of the houses. The loss of habitat due to the creation of lawns and roads will probably exceed that caused by construction of the houses themselves.

The marsh/pond located in Lot 2 would lend itself to improvement for wetland wildlife. This would call for establishment of nesting boxes, islands, and water level regulation. This could offset other habitat losses on the site.

FOREST RESOURCES

At present, only 49 acres of the 100 ± acre tract are forested. This land may be divided into two forest types, mixed hardwoods and hardwood swamp. The remainder of the property is either pasture land or open swamp. It appears that the mixed hardwood area and portions of the pasture land could be developed without causing major environmental disturbance.

Stand A: (Mixed Hardwoods) This 17 acre stand is made up of pole (5 to 11 inch in diameter at breast height - DBH) and sawlog size (11 + inch DBH) trees. The stand is fully stocked and becoming overcrowded in some places. Red oak, white oak, tulip tree, American beech, sugar maple, white ash, yellow birch, black birch and hickory dominate the stand. Understory in this area is composed of hardwood tree seedlings. Groundcover consists of club mosses and ferns.

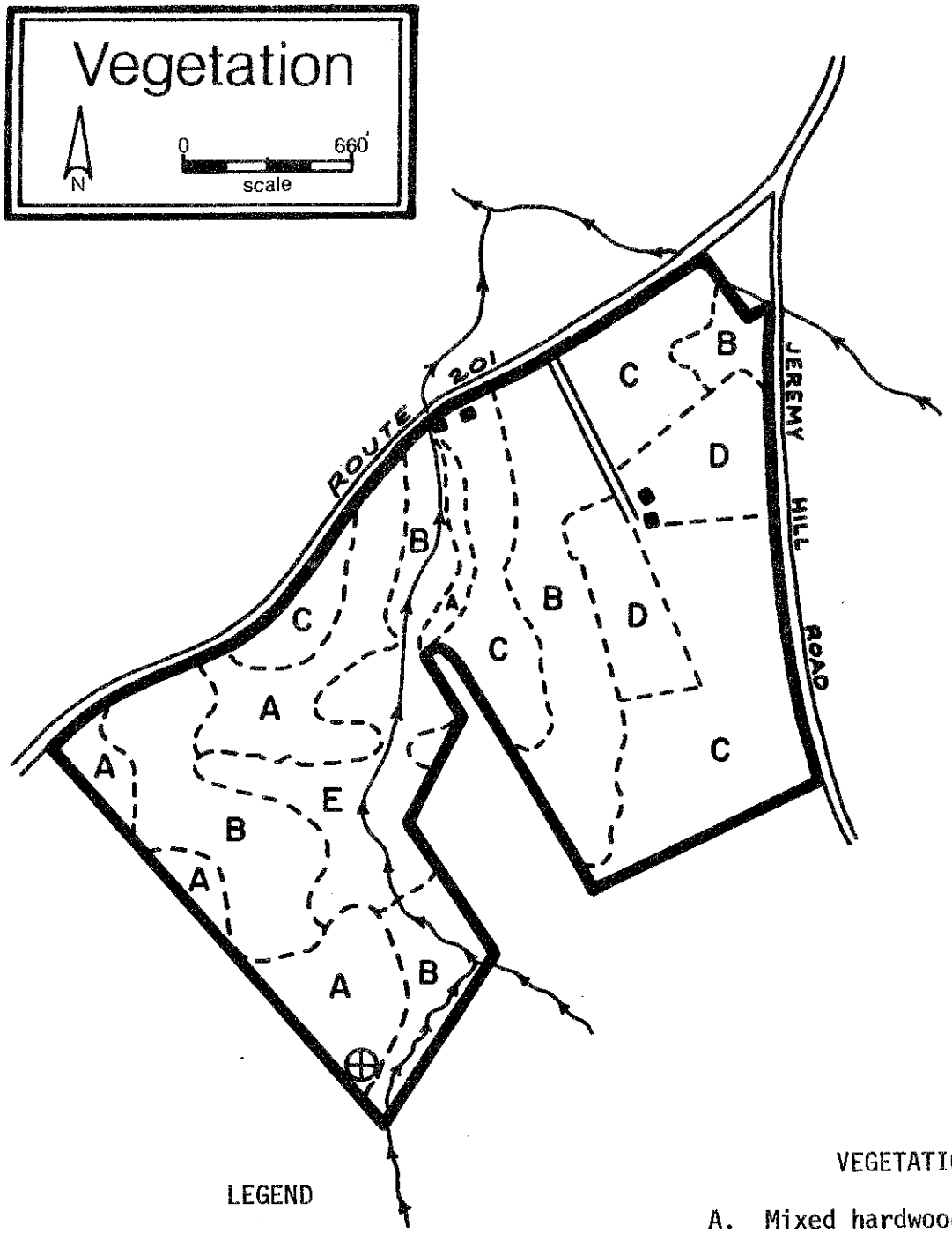
Stand B: (Hardwood Swamp) Sapling (1 to 5 inch DBH) to pole size red maple dominate this 32 acre overstocked stand. Scattered white ash, yellow birch and black birch are also present. High bush blueberry, sweet pepperbush and red maple seedlings form the understory. Club mosses, ferns, marsh grasses and skunk cabbage are the principle ground cover species.

Stand C: (Old Field) Most of this 31 acre area is presently being used as pasture land. Scattered hardwoods such as seedling size red maple and sapling-size apple trees appear with red cedar, barberry, multiflora rose and poison ivy are present with the grasses which cover the entire area.

Stand D: (Open Field) This 11 acre pasture is vegetated by grasses and goldenrod. It is being actively grazed.

Stand E: (Open Swamp/water) This 9 acre area is vegetated with marsh grasses and skunk cabbage. The remainder of the area is open water.

Dead and dying trees may become hazardous if they are near driveways, utility lines, buildings or recreation areas. Trees which have soil disturbed under their crowns from development practices, may die within three to five years after the



LEGEND

- Road
- Property boundary
- Stand type boundary
- Stream
- ⊕ Sassafras tree, 34" in diameter at breast height

VEGETATION TYPES*

A. Mixed hardwoods, pole to sawlog size
B. Hardwood swamp, sapling to pole size (red maple)
C. Old field
D. Open field
E. Open swamp/open water

* Sapling size trees = 1" to 5" in diameter at breast height (4 1/2' above ground).
Pole size trees = 5" to 11" in diameter at breast height.
Sawlog size trees = 11" or greater in diameter at breast height.

initial disturbance. Trees which will be disturbed should be removed. Trees which are planned to be preserved should be protected from such soil disturbances.

Those trees located in wetland areas are intolerant of changes in groundwater levels. Raising water levels may "drown" many of the trees and shrubs in these fragile areas. Development around or near wetland areas should be carefully designed so water levels are altered as little as possible. Blow down of shallow rooted trees, especially those which have low vigor, may occur when openings are created in or near wetland areas.

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 for 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 "Special Soils Report: Southeastern Connecticut Region," 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 typical of the Stonington Land Company site include the Carlisle series, the Canton-Charlton series, the Charlton-Hollis series, the Sutton series, the Ridgebury-Leicester-Whitman series, and the Woodbridge series. These soils limit development due to their slope, depth to bedrock, wetness, susceptibility to frost action, and large stones.

The Carlisle series (92) consists of nearly level, very poorly drained soils in bogs and other depressional areas within lake plains, outwash plains, till plains and moraines. They formed in muck deposits greater than 51 inches thick. Carlisle soils have slow to rapid permeability and a high water table at or near the surface 9 to 10 months of the year. Major limitations are related to wetness and low strength.

The Canton series (11XB, 11MC) consists of gently sloping, sloping, moderately steep and steep, well-drained soils on uplands. They formed in a fine sandy loam mantle underlain by friable gravelly sand glacial till. Canton soils have moderately rapid or rapid permeability. Major limitations are related to slope and stoniness.

The Charlton series (11XB, 11MC, 17LC) consists of gently sloping, sloping, moderately steep, and steep, well-drained soils on uplands. They formed in friable glacial till. Charlton soils have moderate to moderately rapid permeability. Major limitations are related to slope and stoniness.

The Hollis series (17LC) consists of gently sloping, sloping, moderately steep and steep, shallow, well-drained soils on uplands where relief is influenced by the underlying bedrock. They formed in glacial till less than 20 inches deep, over granite, gneiss and schist bedrock. Hollis soils have moderate permeability. Major limitations are related to depth to bedrock, rockiness, and slope.

The Sutton series (41MB) consists of nearly level and gently sloping, moderately well-drained soils on uplands. They formed in friable glacial till. Sutton soils have moderate or moderately rapid permeability, and a seasonal high water table at 18 to 24 inches. Major limitations are related to stoniness and wetness.

The Woodbridge series (31C) consists of nearly level, gently sloping and sloping, moderately well-drained soils on drumlins, and rounded or elongated hills of uplands. They formed in compact glacial till. Woodbridge soils have moderate permeability in the surface layer and subsoil, slow or very slow permeability in the substratum (fragipan), and a seasonal high water at 18 to 24 inches. Major limitations are related to wetness, slow permeability, and stoniness.

The Ridgebury, Leicester and Whitman series (43M) is made up of poorly and very poorly drained soils. These soils occur in an intricate and complex pattern and separation of each individual soil was not practical on the scale surveyed. Each mapping unit may contain an individual soil or a percentage of each of the three soils. They are similar to the soil described for their series.

The Ridgebury series consists of nearly level, poorly drained soils on drumlins, and rounded or elongated hills of uplands. They formed in compact glacial till. Ridgebury soils have moderate to moderately rapid permeability in the surface layer and subsoil, slow or very slow permeability in the substratum (fragipan), and a high water table at or near the surface 7 to 9 months of the year. Major limitations are related to stoniness, wetness, and slow permeability in the substratum.

The Leicester series consists of nearly level, poorly drained soils on uplands. They formed in friable glacial till. Leicester soils have moderately rapid permeability and a high water table at or near the surface 7 to 9 months of the year. Major limitations are related to wetness and stoniness.

The Whitman series consists of nearly level, very poorly drained soils on uplands. They formed in compact glacial till. Whitman soils have moderate to moderately rapid permeability in the surface layer and subsoil, slow or very slow permeability in the substratum (fragipan), and a water table at or near the surface 9 to 10 months of the year. Major limitations are related to slow permeability, wetness and stoniness.

The soils that occur on the site have been accurately mapped and described on the soil map presented at the field review. A number of small inclusions in mapping units were identified and discussed. There was one small area of Sutton soil included in the Canton-Charlton map unit (11MC) where it joins the Woodbridge unit (31C) along Jeremy Hill Road. A wet spot was also noted at this point, which appears to be caused by seepage of perched water from the above slope on which the Woodbridge soil occurs (31C). Possible bedrock outcrops in the Canton-Charlton unit (11XB) adjacent to the stream that drains the ponded area (92) were pointed out.

Due to the nature of the soils on this property and their proximity to wetlands and water courses, a sediment and erosion control plan should be developed for each lot in this subdivision. Connecticut's Sediment and Erosion Control Handbook will aid both the developer and the Town in preparing and approving such a plan. Technical expertise for implementing both the vegetative and mechanical means illustrated in the Handbook is available at the New London County Soil Conservation Service office in Norwich.

FOUNDATION DEVELOPMENT

On lots 1, 2, 3, 4, 5, 6, 7, 9, 11, and 12, house sites with good foundation support and proper drainage should not be difficult to locate. Foundation drains will be necessary on lots # 8, 10, 14, 15, 16, 17, 18 to prevent seepage through basement walls and floors.

Large stones and boulders present some limitation to excavations on most lots but especially lots # 8, 10, 11, 12, 14 and 15.

Cuts and steep slopes in Woodbridge and Sutton soils are unstable due to soil wetness.

WATER SUPPLY

Individual on-site wells are proposed for this subdivision. These would be drilled into bedrock because of the unsuitability of the till as an aquifer. Bedrock wells commonly provide small but reliable yields of groundwater. Granitic bedrock, such as that which underlies the site, is usually more productive than other rock types found in eastern Connecticut. Fractures, which are the principal source of groundwater in bedrock-based wells, tend to be more open in granitic rocks than in other types of rock.

It is likely, then, that most lot owners will be able to maintain an adequate water-supply well. The most significant potential problem appears to be on lots 3-7, where narrowness of the lots may force wells to be closer together than is desirable. Such a situation may result in mutual interference of wells. If wells cannot be located at least 250 feet apart, it might be practical to supply two adjoining houses from one well. Yields of 4-6 gallons per minute (gpm) probably would be adequate for this purpose. A local resident's well, only 70 feet deep, supplied 3 gpm; it seems likely that deeper wells could supply at least a few extra gallons per minute. In general, wells should be located towards the higher elevations of the lots. As the direction of ground water flow is usually similar to that of surface flow, sewage disposal systems should be placed downgrade of the well sites. Consideration should be given to other potential water pollutants, such as buried fuel oil storage tanks and back wash water from water softeners. On land that has also been intensively farmed (crops and/or dairy) for a period of time, elevated nitrogen constituents can sometimes be a factor in the sanitary quality of the water. Other chemicals, such as iron and manganese, may, if in sufficient concentration, impart a disagreeable taste or undesirable property (staining) to the water. When elevated concentrations of these minerals are encountered, appropriate water treatment is necessary.

The expected yield from a drilled or rock well should be adequate to supply sufficient water for the daily needs of single family houses. In some cases where a marginal yield is obtained, a larger water storage tank should be installed.

WASTE DISPOSAL

As this rural town does not have a municipal sewerage system, individual subsurface sewage disposal systems will serve the proposed subdivision. The proposed density of development on this site appears to be conservative for the amount of acreage involved; however, adverse site conditions such as steep slopes, wetlands, and shallow depth to bedrock limit the buildable areas on these lots.

Of particular concern would be the areas of lot #10 (very high water table at least on the lower portion of the lot which goes to Assekonk Brook), lot 14 (lower part very wet and lot slopes steeply), and one or two lots along Route 201 near and west of the stream crossing (wetness, limited usable area).

The shallow-to-bedrock nature of the soils in lots 3-7 is likely to be a problem in terms of septic system installation and usage. High groundwater levels in lot 3 are also probable. Bedrock outcrops were observed in several places, suggesting that most of the overburden (soil and subsoil zones) is less than 5 feet thick in these lots. Without careful engineering, such conditions may result in subsurface "ponding" of effluent, surfacing of effluent, and/or contamination of bedrock wells. If the system were constructed in the central to southeastern sections of the lots where the slope is to the southeast, surfacing of effluent would still be likely but the potential for subsurface "ponding" or well contamination would be smaller. The wells, in this instance, preferably would be drilled on the higher sections of the lots. It is generally desirable to maintain a distance of at least 250 feet between bedrock-based wells to prevent mutual interference, but this may not be possible due to the narrowness of the lots.

Septic systems in lots along Jeremy Hill Road are less likely to be problematic. Bedrock does not seem likely to be near the surface in any of those lots, with the possible exception of lot 12. The compact nature of the overburden and the resulting slow percolation rates may be a hindrance, but this problem could be overcome with appropriate engineering. Extension of the drainage channels may be one practical alternative. It would be desirable to place the systems in those sections of the lots where the slope is generally to the north or west and not to the east. This would minimize the potential for surfacing of the moving effluent near or onto Jeremy Hill Road. Wells should not be located downslope of any septic system to avoid contamination by wastewater.

On-site testing of the proposed lots will be needed in order to define the most suitable location for sewage disposal purposes. This would also determine the areas which might be used for house sites. It would appear that detailed engineered design plans would be necessary for many of the lots under consideration. In several cases proposed, lot lines should probably be re-established to accommodate on-site restrictions.

PLANNING CONSIDERATIONS

The Plan of Development for North Stonington, prepared in 1967, recommends residential development of this part of North Stonington at a density of .5 to 4

families per acre. Current zoning limits land uses for the area of the proposed subdivision to relatively low-intensity uses, including single-family detached dwellings, public buildings and uses, recreational facilities and agriculture. Lot sizes must be a minimum of 60,000 square feet in size. The proposed subdivision appears to be consistent with the land use objectives of both the Plan of Development and the zoning regulations.

The layout of the proposed subdivision reflects an attempt to make maximum use of existing roads and the better building land of the tract while, at the same time, avoiding the construction of new roads. Achieving this is complicated by the complex topography and soils of the site. A significant amount of the site's better building land is blocked from having convenient access to existing roads by existing residential lots or by the water course which runs through the western half of the property.

The North Stonington Zoning Regulations require a front yard width of 200 feet in the R-R District. The front yard is defined as the "space extending for the full width of the lot between the front line of the nearest building wall and the front lot line." It does not appear that this requirement can be met for lots 2, 3, 4, 5, 7, 8 and 9 in the layout presently being considered.

The proposed plan also makes no provision for open space in the subdivision, although North Stonington's regulations require that 5% of the tract be devoted to this purpose and not more than half of the open space can be wetlands or slopes greater than 5%.

The area of the proposed subdivision is predominantly rural. Although there are several residences adjacent to or within a short distance of the site, the area consists mostly of undeveloped woodlands and wetlands, pastures and croplands.

The site is bounded on the east by Jeremy Hill Road, an important north-south route of travel between the Village area of North Stonington and the central part of Stonington. The road is narrow but reasonably straight. State Route 201, which runs along the north side of the site, is similarly narrow, but winding. It is a direct travel route between North Stonington and the Mystic area of Stonington, and 1977 traffic counts by the Connecticut Department of Transportation indicate that the segment of this route in the vicinity of the proposed subdivision carries about 2,200 vehicles daily.

As development continues to expand along the frontages of these roads, improvements will be required. Greater paved width and drainage features are already needed in some places. The town should consider requiring that land in the subdivision within 25 feet of the centerline of each road should be deeded to the town to permit eventual improvements.

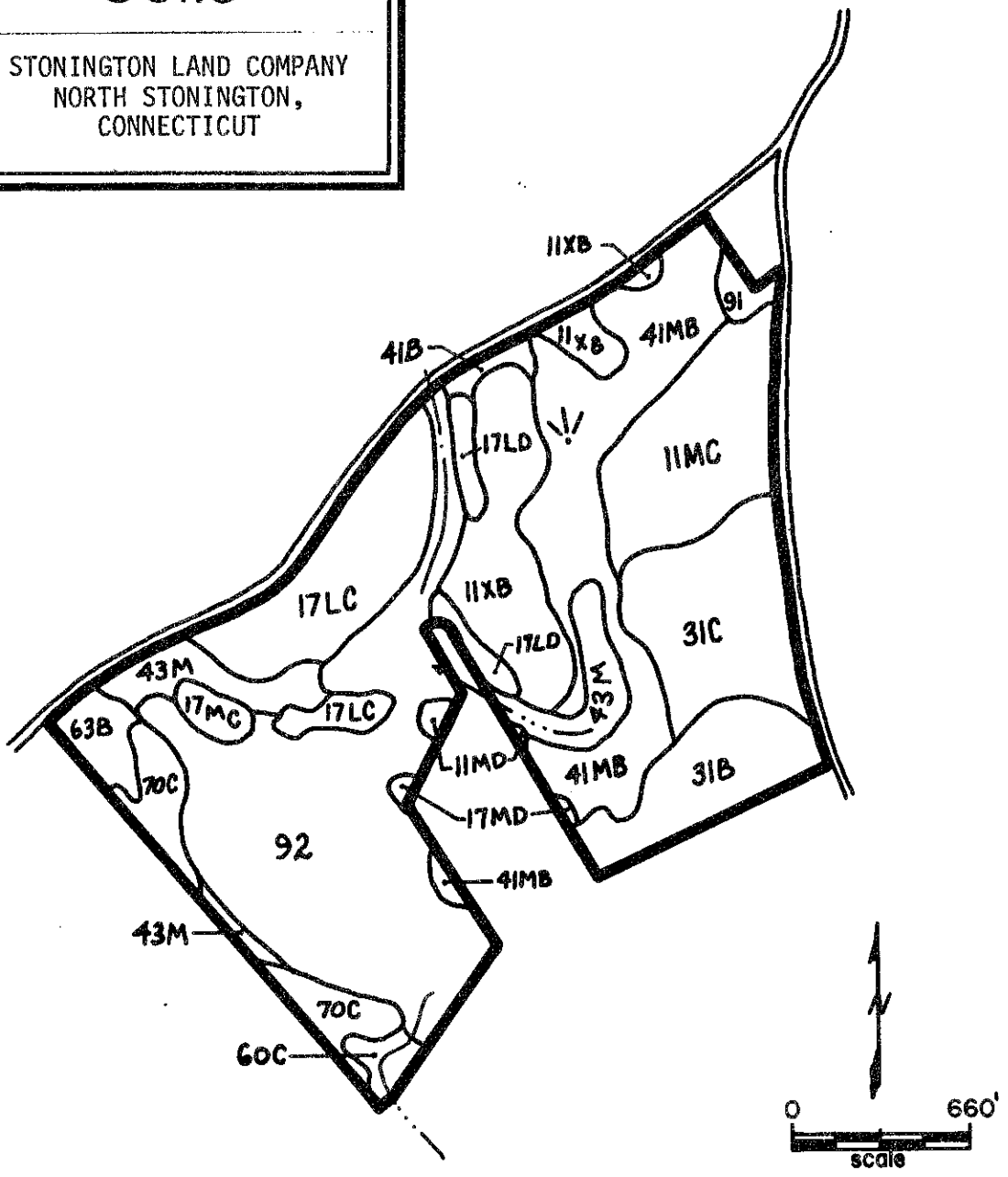
AESTHETICS AND PRESERVATION

A large sassafras tree measuring 8 feet 10 inches in girth or 34 inches DBH is located on the most southerly tip of Stand A. This species rarely reaches sawlog size in Connecticut. Although the tree's trunk is partially rotted,care should be taken to preserve it in as healthy a condition as possible.

Appendix

Soils

STONINGTON LAND COMPANY
NORTH STONINGTON,
CONNECTICUT



This is an enlargement from the original 1320'/inch scale to 660'/inch.

Information taken from: The Interim Soil Survey Report, New London County, Connecticut, soil survey sheet #816; prepared by the United States Department of Agriculture, Soil Conservation Service. Advance copy, subject to change.

STONINGTON LAND COMPANY
NORTH STONINGTON, CONNECTICUT

PROPORTIONAL EXTENT OF SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

Soil Series	Soil Symbol	Approx. Acres	Percent of Acres	Principal Limiting Factor	Urban Use Limitations*			
					On-Site Sewage	Buildings with Basements	Streets & Parking	Land-Scaping
Charlton-Hollis Charlton Part Hollis Part	17LC	11	10	Slope, large stones, depth to rock	2 3	2 3	2 3	2 3
Charlton-Hollis	17LD	4	4	Slope, depth to rock	3	3	3	3
Hollis-rock outcrop	17MC	1	1	Slope, depth to rock	3	3	3	3
Hollis-rock outcrop	17MD	1	1	Slope, depth to rock	3	3	3	3
Canton-Charlton	11MD	1	1	Slope, large stones	3	3	3	3
Canton-Charlton	11XB	10	9	Slope, large stones	2	2	2	2
Canton-Charlton	11MC	9	8	Slope, large stones, seepage	3	3	3	3
Woodbridge	31B	7	6	Frost action, percs slowly	3	3	3	1
Woodbridge	31C	9	8	Frost action, percs slowly	3	3	3	1
Sutton	41B	2	1	Frost action, wetness	3	3	2	1
Sutton	41MB	16	14	Large stones, wetness	3	3	2	3

STONINGTON LAND COMPANY
NORTH STONINGTON, CONNECTICUT

PROPORTIONAL EXTENT OF SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

Soil Series	Soil Symbol	Approx. Acres	Percent of Acres	Principal Limiting Factor	Urban Use Limitations*			
					On-Site Sewage	Buildings with Basements	Streets & Parking	Land-Scaping
Ridgebury, Leicester, Whitman	43M	8	7	Large stones, wetness	3	3	3	3
Hinckley	60C	2	1	Slope, droughty	2	2	2	2
Haven	63B	2	1	Frost action	1	1	2	1
Merrimac	70C	4	4	Slope	2	2	2	2
Adrian-Palms	91	1	1	Wetness, excess humus, floods	3	3	3	3
Carlisle	92	26	23	Wetness, excess humus	3	3	3	3

Limitations: 1 = slight, 2 = moderate, 3 = severe.

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.