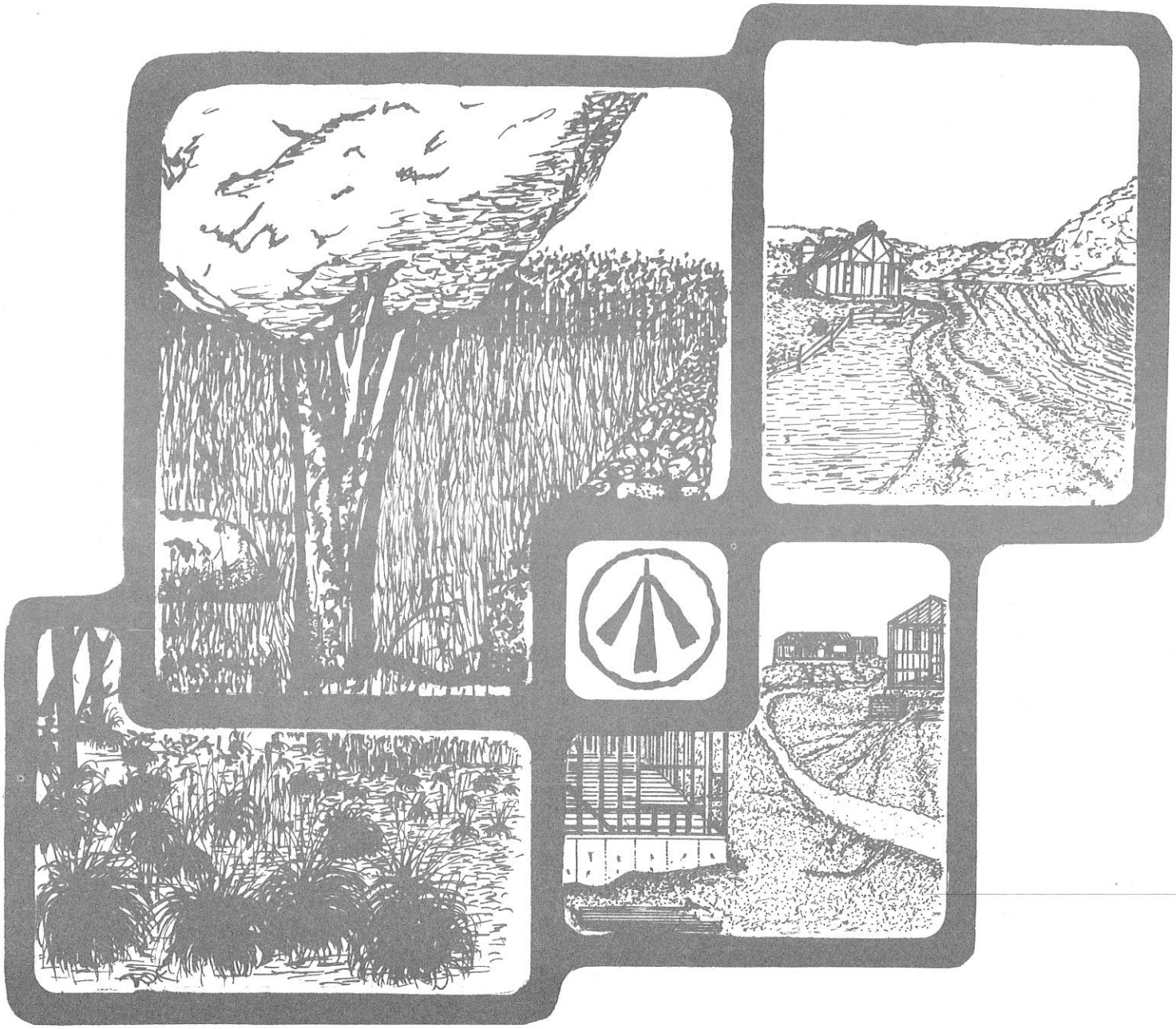
ENVIRONMENTAL REVIEW TEAM REPORT



HIGH MEADOWS SUBDIVISION
ROXBURY, CONNECTICUT

KING'S MARK
RESOURCE CONSERVATION AND DEVELOPMENT AREA

KING'S MARK
ENVIRONMENTAL REVIEW TEAM REPORT

On

HIGH MEADOWS SUBDIVISION
ROXBURY, CONNECTICUT

MARCH 1979

King's Mark Resource Conservation & Development Area

Environmental Review Team
P.O. Box 30
Warren, Connecticut 06754

ACKNOWLEDGMENTS

The King's Mark Environmental Review Team operates through the cooperative effort of a number of agencies and organizations including:

Federal Agencies

U.S.D.A. SOIL CONSERVATION SERVICE

State Agencies

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEPARTMENT OF HEALTH
DEPARTMENT OF TRANSPORTATION
UNIVERSITY OF CONNECTICUT COOPERATIVE EXTENSION SERVICE

Local Groups and Agencies

LITCHFIELD COUNTY SOIL AND WATER CONSERVATION DISTRICT
NEW HAVEN COUNTY SOIL AND WATER CONSERVATION DISTRICT
HARTFORD COUNTY SOIL AND WATER CONSERVATION DISTRICT
FAIRFIELD COUNTY SOIL AND WATER CONSERVATION DISTRICT
NORTHWESTERN CONNECTICUT REGIONAL PLANNING AGENCY
VALLEY REGIONAL PLANNING AGENCY
LITCHFIELD HILLS REGIONAL PLANNING AGENCY
CENTRAL NAUGATUCK VALLEY REGIONAL PLANNING AGENCY
HOUSATONIC VALLEY COUNCIL OF ELECTED OFFICIALS
AMERICAN INDIAN ARCHAEOLOGICAL INSTITUTE

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Staff Administration Provided By

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Richard Lynn, ERT Coordinator
Rebecca West, ERT Draftsman
Irene Nadig, Secretary

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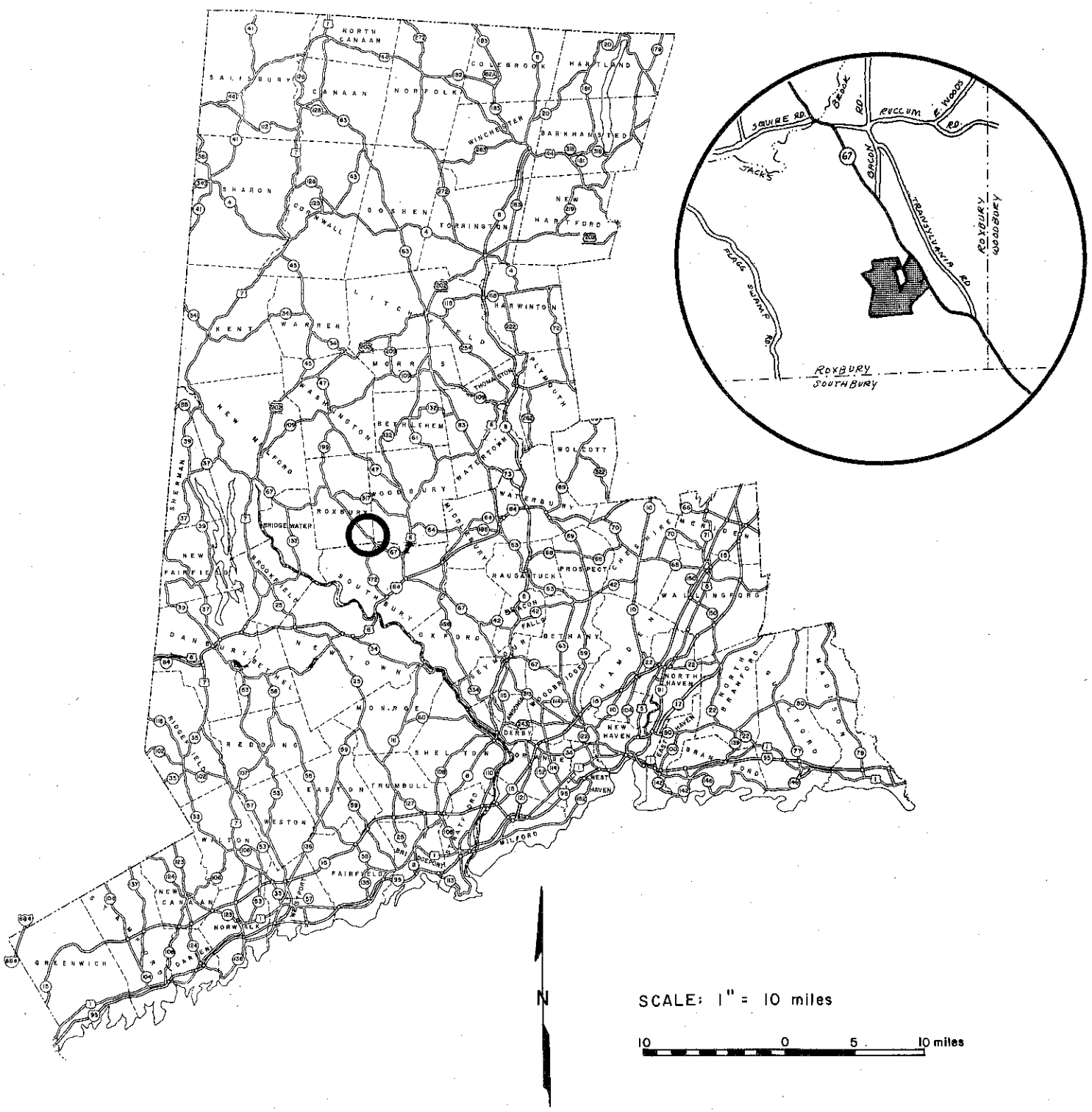
ROXBURY, CONNECTICUT



ENVIRONMENTAL REVIEW TEAM REPORT
ON
HIGH MEADOWS SUBDIVISION
ROXBURY, CONNECTICUT

I. INTRODUCTION

The Town of Roxbury, Connecticut is presently reviewing a preliminary proposal for subdivision of ± 100 acres of land. The subject site is located in the southeastern corner of town off Route #67 in an area known as Bronson Mountain. The conceptual development plan calls for 24 lots in cluster subdivision with a single interior zone of two lots to total 26 lots (see Figure 1). Another parcel of land just east of lot B (C(?) in Figure 1) may be included with the subdivision plans as a third interior lot if negotiations by the applicant are successful with the current owner of this parcel. All proposed house lots would be serviced by on-site wells and septic systems.

Two "open space" lots are being proposed under the conceptual plan to meet the requirements of the town's cluster subdivision regulations. Also as shown in Figure 1, the development would entail the construction of one new interior road off Route #67.

The Planning Commission from the Town of Roxbury requested the assistance of the King's Mark Environmental Review Team (ERT) to help the town in analyzing the proposed development. Specifically, the ERT was asked to identify the natural resources of the site and to highlight opportunities and limitations for development of the land as proposed. Major concerns raised by the town in requesting this review included the impact of the project on soils, drainage, and transportation; and the suitability of the land for on-site sewage disposal and access via the proposed interior road.

The ERT met and field reviewed the site on February 14, 1979. Team members for this review consisted of the following:

Arthur Cross.....District Conservationist.....Soil Conservation Service

Michael Zizka.....Geohydrologist.....State Department of Environmental Protection

Robert Rocks.....Forester.....State Department of Environmental Protection

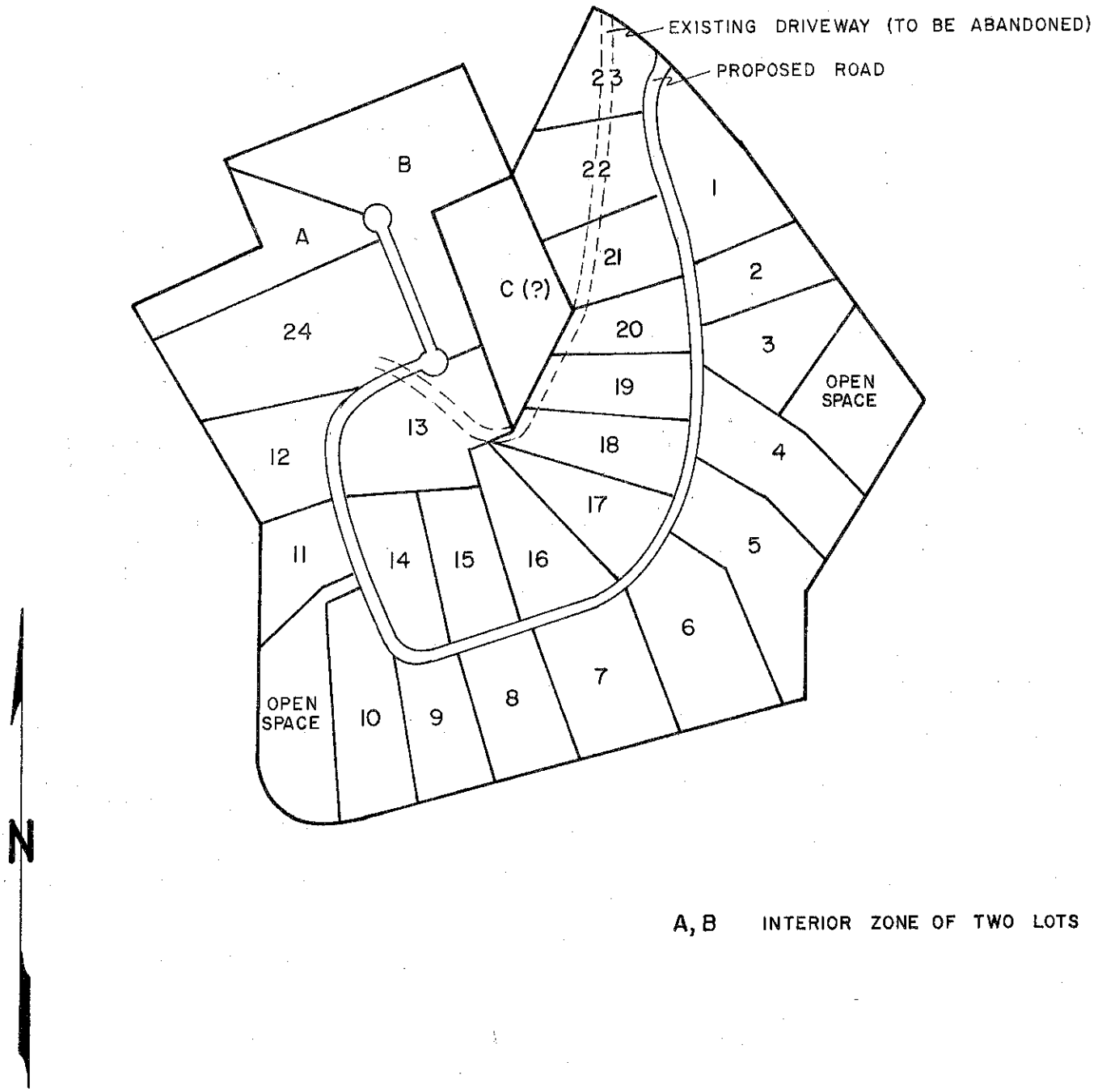
Russell Handsman.....Archaeologist.....American Indian Archaeological Institute

Lee Markscheffel.....Planner.....Northwestern Connecticut Regional Planning Agency

Prior to the review day, each team member was provided with a summary of the proposed project, a checklist of concerns to address, a detailed soil survey map, a soils limitation chart, a topographic map, and a simplified site plan of

FIGURE 1.

SIMPLIFIED SITE PLAN



A, B INTERIOR ZONE OF TWO LOTS

SCALE: 1" = 500'

0 500' 1000'

0 1/8 1/4 mile

the development proposal. Following the field review, individual reports were prepared by each team member and forwarded to the ERT Coordinator for compilation and editing into this final report.

This report presents the team's findings and recommendations. It is important to understand that the ERT is not in competition with private consultants, and hence does not perform design work or provide detailed solutions to development problems. Nor does the team recommend what ultimate action should be taken on a proposed project. The ERT concept provides for the presentation of natural resources information and preliminary development considerations--all conclusions and final decisions rest with the town and developer. It is hoped the information contained in this report will assist the Town of Roxbury and the landowner/developer in making environmentally sound decisions.

If any additional information is required, please contact Richard Lynn, (868-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, P. O. Box 30, Warren, Connecticut 06754.

* * * * *

II. SUMMARY

- The steep slopes in the eastern portion of the site present severe limitations for construction of septic absorption fields, buildings with basements, roads and driveways. The difficulty will increase where the hardpan soils (Paxton) are present. Although these limitations do not necessarily preclude development of this area, it is clear that careful planning and engineering will be required.

- The major limitation for development of the table land on the western portion of the site is the presence of hardpan soils (Paxton) over much of the area. Here again, careful engineering will be required to avoid future problems.

- The soils at this site can be easily eroded if not properly protected during construction. With development of this property, it is recommended that an erosion and sediment control plan for the entire development process be prepared and followed.

- The tract may be divided into six distinctive vegetation types. About 70% of the site is wooded while about 27% of the site is open field and cornland. The trees in one forest stand are becoming overcrowded and would benefit by a thinning. The trees in the remaining forest stands are not showing signs of being overcrowded at this time. Poison ivy is prevalent throughout all of the forest stands and should be controlled prior to development of the subdivision. It should be noted that all of the farmland on the site is considered by the U.S.D.A. as "prime" farmland.

- Development as proposed would generate additional runoff from the site, causing an increase in peak flows in nearby brooks. These increases, however, should be relatively small.

- With implementation of the subdivision plan, most residents should be able to obtain an adequate yield of water from individual wells tapping bedrock.

- With the exception of one recent historic site, the proposed development will not adversely impact any known prehistoric or historic archaeological resources. The one exception, a standing structure in the eastern portion of the site used as an incinerator, potentially contains significant archaeological information about the recent historic past. Upon approval of the proposed project, it is recommended that the American Indian Archaeological Institute be contacted to conduct brief salvage excavations prior to the disturbance of this structure.

- The proposed project does <u>not</u> appear to be consistent with advisory state and regional plans which recommend the conservation or preservation of prime agricultural land and scenic ridge lines.

- Route 67 should easily be able to absorb the increase in traffic generated by the proposed development. It also appears that nearby schools could accommodate the school age children generated from the project.

- It is recommended that the applicant make provisions for the possible future extension of the subdivision road to the north and south ends of the property along the summit of Bronson Mountain.

III. SETTING, TOPOGRAPHY, LAND USE

The subject property is located in southeastern Roxbury adjacent to Route 67 and approximately one mile northwest of the Roxbury/Woodbury town lines. The property includes the major portion of the eastern flank and the table land on the summit of Bronson Mountain (see Figure 2). Slopes on the eastern half of the property average approximately 16% with the property dropping more than two hundred feet from the summit of Bronson Mountain to Route 67. The western half of the site is nearly level.

The site is bounded on the east by Route 67 and on the south, west and north by vacant lands or single family units situated on large lots.

Present land use of the site is ± 70% woodland, 27% farmland (hayland and cornland), and 3% residential (one house plus driveway). All of the farmland on the site is considered by the U.S. Department of Agriculture as "prime farmland".

Vehicular access to the site is presently offered by a private driveway off of Route 67. This drive rises from Route 67 at an average slope of ± 12% for a distance of 1500 feet before the topography tapers off to slopes of ± 3-5%.

A tributary of Transylvania Brook fronts the property along Route 67 and flows southerly towards Southbury, Connecticut. This stream is mapped as a perennial stream on the U.S.G.S. Roxbury quadrangle map.

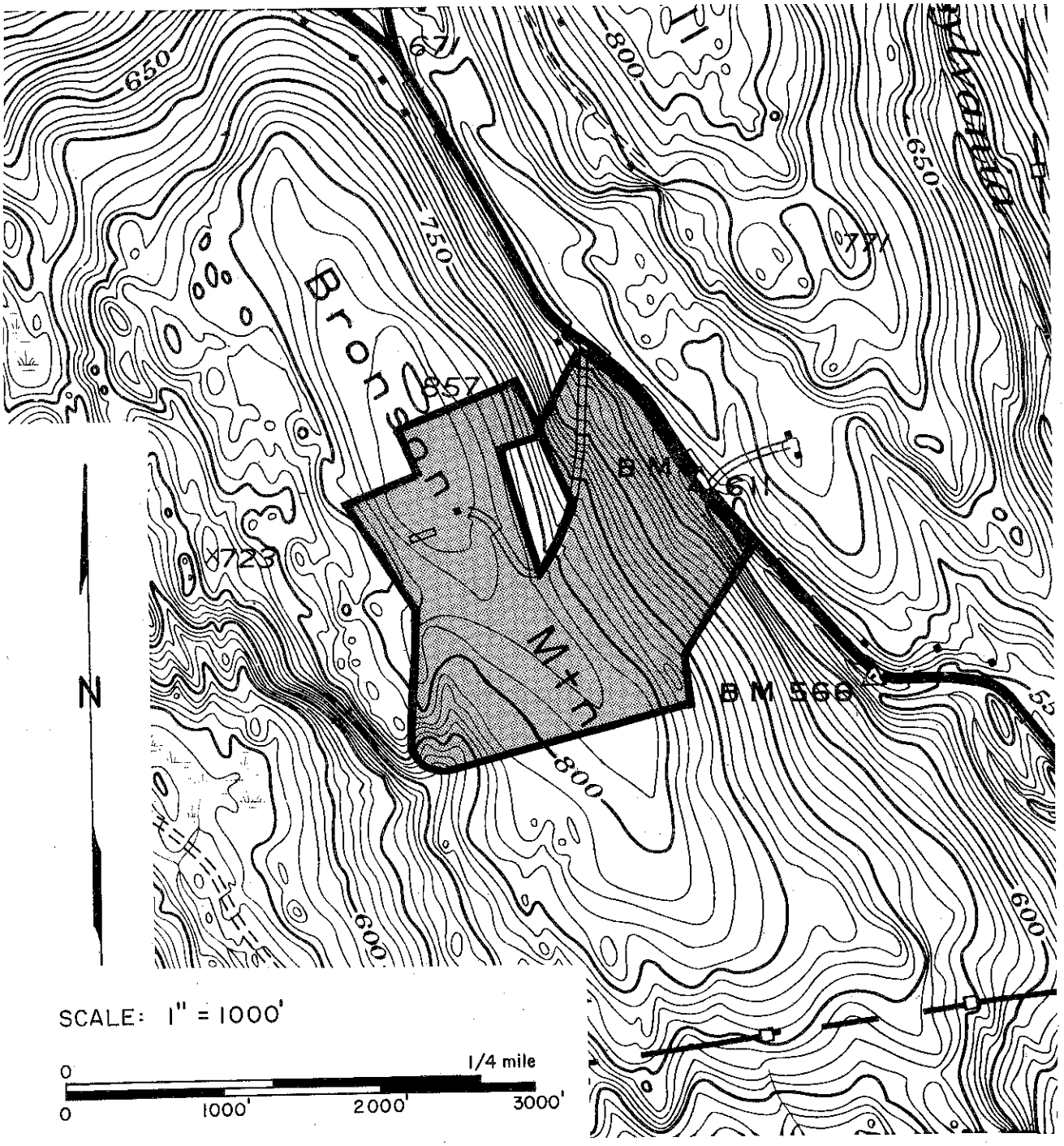
IV. GEOLOGY

The High Meadows property lies within the Roxbury topographic quadrangle. Bedrock and surficial geologic maps of the quadrangle have been published by the U. S. Geological Survey (respectively, Map GQ-121, by R. M. Gates, and Map GQ-611, by H. E. Malde). The only bedrock outcrops observed on the site were located along Route 67 at the present driveway entrance. Other outcrops probably exist in the southwestern corner of the site. The outcrops, as well as the bedrock underlying the site, are part of a unit known as the Hartland Formation. On the property, this unit consists primarily of interlayered mica quartzite and schist and feldspathic mica quartzite and schist, with subordinate layers bearing the minerals garnet and staurolite. The schist, a weak, easily crumbled rock often having a bright, silvery metallic sheen, forms the bulk of the outcrops. This should ease construction problems if it is necessary to cut through the outcrops to establish the new road.

The surficial geologic material covering the site is till. Till is a deposit which consists of rock particles of varied shapes and sizes and which was deposited directly from glacier ice without being reworked by glacial meltwater. The northwest-southeast trend on Bronson Mountain probably reflects the direction of movement of the last ice sheet to pass through the area. Most of the till on the site, especially those portions at a depth of five feet or greater, is silty, very compact, and only slightly permeable. Closer to the surface, the till is often sandier and less compact, with moderate permeability.

FIGURE 2.

TOPOGRAPHIC MAP



V. SOILS

A detailed soil survey map and soils limitation chart of the tract is presented in the Appendix of this report. The soils map illustrates the geographic location of all soils identified on the property. The soils limitation chart identifies limiting factors for various land uses on individual soil types and also rates the severity of the limitations as determined by the U.S.D.A. Soil Conservation Service.

Detailed descriptions and characteristics of the soils underlying this property are presented in Soil Survey of Litchfield County, Connecticut (U.S.D.A. Soil Conservation Service et al, 1970). A file copy of this report is available for reference at the Litchfield County Conservation District.

Soils vs. Proposed Access Road

Construction of the proposed access road will be difficult and costly due to the steep slopes and soil characteristics of the eastern portion of the site.

The developer indicated to the ERT that the proposed access road would be constructed at a gradient not exceeding 10% in order to meet town road specifications. This will involve considerable cutting and filling along the steep eastern section of the property where the road is proposed. In order to avoid severe erosion and sedimentation problems, strigent erosion and sediment control measures will be necessary (see discussion below).

About 50% (± 900 feet) of the road traverse on the steep section of the property would be on soils mapped as Paxton fine sandy loam, 15-25% slopes. This soil has a compact layer of glacial till (hardpan) at a depth of 16-36 inches. In the construction of any road with a paved surface, the hazard of frost heaving because of water accumulation above the hardpan requires special considerations such as subsurface drainage. Also, soil slippage on road cuts can be a problem during wet seasons. It is important that these site limitations be recognized and properly addressed in the design and construction of the proposed access road.

Soils vs. Proposed Lots

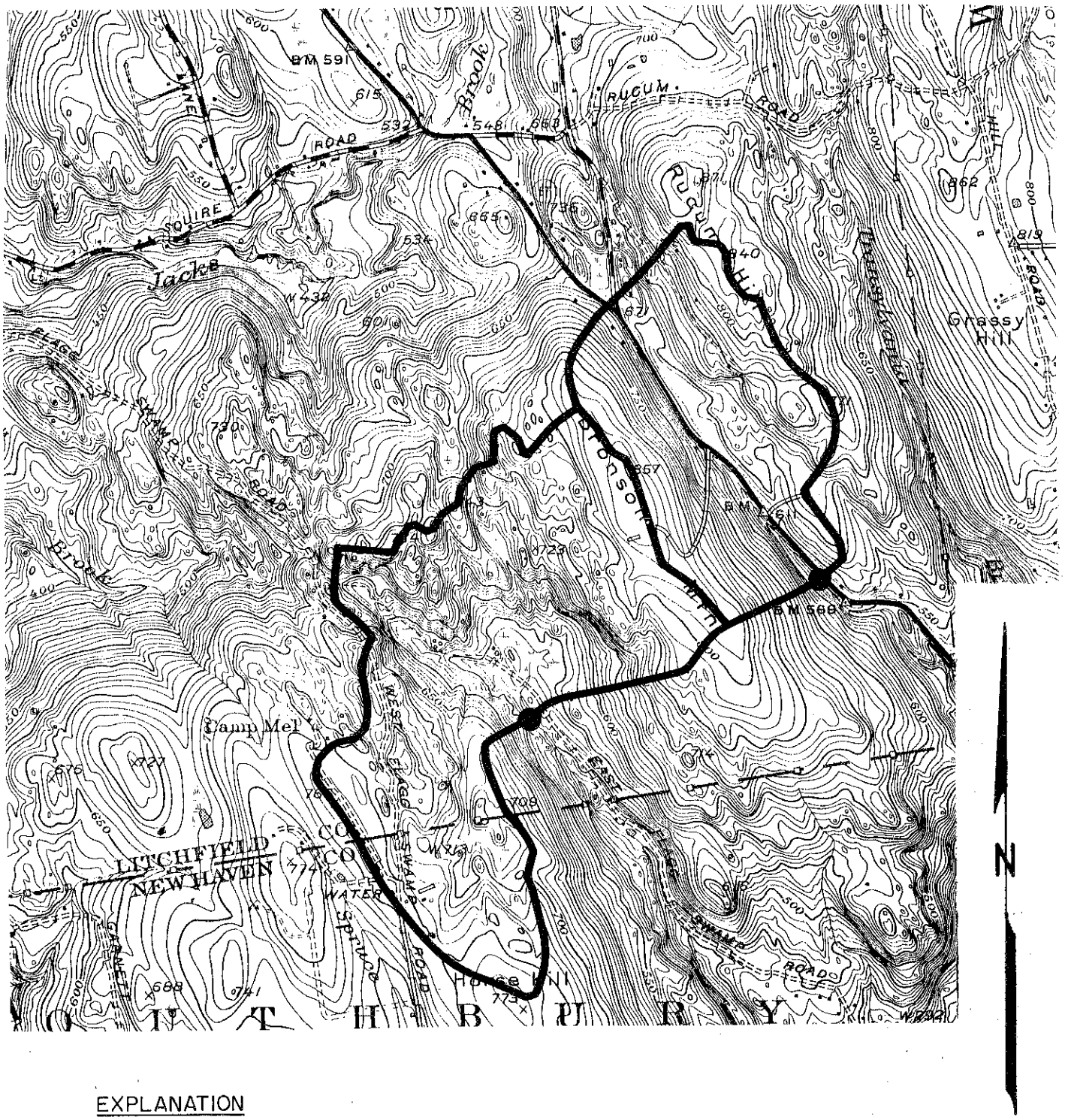
Lots 1-6 and 17-23 are on soils with slopes primarily in excess of 15%, with (Paxton soils) and without (Charlton soils) a slowly permeable hardpan.

Driveway construction (and maintenance) will experience the same severe limitations as the access road previously commented on.

The design and installation of septage effluent absorption fields that function satisfactorily will be very difficult on these lots because of the steep slopes. The difficulty will increase where the hardpan soils (Paxton) are present. The presence of hardpan is significant in that it may lead to seasonally high or perched water tables. With water accumulation above this hardpan, the danger of groundwater entering leaching trenches exists as does the problem of down slope breakout of septic effluent. This could ultimately lead to the pollution of the stream along Route 67 unless the systems are carefully located and designed to prevent these problems.

FIGURE 4.

DESIGN POINTS AND WATERSHED AREAS FOR BROOKS RECEIVING RUNOFF FROM THE HIGH MEADOWS PROPERTY



EXPLANATION

● DESIGN POINT

WATERSHED BOUNDARY

SCALE: 1" = 2000'

0 1/2 1 mile

0 2000' 4000' 6000'

Development as proposed would generate additional runoff from the site, causing an increase in peak flows in the brooks. These increases, however, should be relatively small. Figure 4 shows the two points along the brooks at which runoff from the site may be expected to have its maximum effect on flow rates. The overall drainage areas for the brooks at those points is also shown.

Under the proposed plan, approximately 6 percent of the eastern drainage area would be developed. Table 1 shows estimated present and future peak flows for the Route 67 brook for the 25-year, 24-hour storm, and for the 50-year, 24-hour storm (these are storms which occur on a statistical average of once in 25 years and once in 50 years, respectively, and which have a duration of 24 hours each). The figures were derived from a method described in Technical Release No. 55 of the Soil Conservation Service. As Table 1 shows, the peak flow increases represent only 5 to 6 percent of the overall flow. Because development would affect only 2 percent of the western drainage area, the peak flow increases in the East Flagg Swamp Road brook should be even smaller than those in the Route 67 brook.

Table 1. Estimated present and future peak flows in the Route 67 brook at the point shown in Figure 4. All peak flows given in units of cubic feet per second.

	25-year, 24-hour storm	50-year, 24-hour storm
Present:	243	342
Future:	258 (6% increase)	359 (5% increase)

Note: The flow rates listed above are only estimates based on broad assumptions; they should not be used as exact data for any engineering design purposes.

VIII. WATER SUPPLY

Because of its slow permeability, the till on the site is unlikely to prove practical as a source of water. A till well on nearby Grassy Hill in Woodbury, used for the Watertown Fire District, is 15 feet in diameter (reference: Connecticut Water Resources Bulletin No. 20). Bedrock is a more commonly used and, in general, more feasible aquifer. It is difficult to predict the yields that will be generated from bedrock wells on the site since the yields depend upon a combination of many hydrologic and geologic factors. Most important among these factors is the nature and distribution of fractures in the rock. In the lower Housatonic River basin, a survey was made of 294 bedrock-based wells (reference: Connecticut Water Resources Bulletin No. 19). Of these, 68 wells were known to have been drilled into schist, the type of rock that underlies the site. Of the schist-based wells surveyed, 70 percent yielded 3 gallons per minute or more of groundwater; 80 percent yielded 2 gpm or more; and 92 percent yielded 1 gpm or more. A yield of 3 gpm is considered adequate for an average home. With implementation of the subdivision plan, most residents should be able to obtain an adequate yield within the first 200 feet of bedrock. If wells are unproductive from the first 100 feet, they are likely to be unproductive even with deeper drilling.

The natural quality of the groundwater should be good. High iron or manganese concentrations are possible in some cases, but they are not known to be

a problem in the general vicinity of the site. Assuming till thicknesses of 10 feet or more, septic system effluent should not cause a significant deterioration of water quality. Two precautions are urged, however: 1) wells should not be placed directly downslope from any septic system; 2) the well on any given lot should be separated as much as practically possible from the septic system.

IX. SEWAGE DISPOSAL

Because of the small amount of bedrock exposure, it appears likely that the most critical limiting factors in terms of septic systems are the compact nature of most of the till overburden (hardpan) and the moderate to steep slopes on the eastern part of the property. It is possible that shallow depths to bedrock will be found in some of the eastern lots, but deeper, more suitable areas of soil probably can be found within the same lots.

As mentioned in the "Soils" portion of this report, the presence of hardpan is significant in that it may lead to seasonally high or occassionally perched water tables. These conditions may in turn cause the flooding of drainage trenches, producing backups and/or plugging the tile with sediment. Soil testing on the property is needed to estimate the high-water levels in each lot. Where very compact soil or near-surface seasonal water tables are indicated (as by the presence of mottling), septic systems should be engineered to prevent the problems mentioned above. A wise precaution would be to test each new septic system, or at least to perform the soils investigations, during the normally wetter times of the year, such as late March to early April. A common mistake has been to design systems on the basis of tests performed during dry months, only to have the systems fail under less favorable climatic conditions at another time of the year.

X. CULTURAL RESOURCES

A field study of the ± 100 acre tract did not locate any prehistoric cultural resources which would be adversely impacted by the proposed residential subdivision. The American Indian Archaeological Institute's (Institute) site files do contain certain known resources within one mile of "High Meadows" but no sites are known within the boundaries of the tract.

An archival search, using the 1874 Beers' Atlas of Litchfield County, revealed that there were no structures on the land in the mid-to-late nineteenth century. However, informants did locate a standing structure on the tract whose presence was confirmed by the Institute on March 20, 1979. This structure is located along the eastern side of the project area and would be disturbed or destroyed by proposed construction. Construction and debris inside this structure indicate it was used as an incinerator.

While not of a great age, this cultural resource potentially contains significant archaeological information about the recent historic past. Specifically, anthropological research could be undertaken to determine patterns of consumption and disposal associated with a rural family in the 20th century.

The site is probably significant enough to warrant preservation but neither the town nor the developer is under legal mandate to protect the site. Since protection is lacking, the Institute would like to be kept informed of the progress of the project. If approval is granted and the site becomes threatened, the Institute would like to conduct brief salvage excavations, prior to its disturbance.

In summary, other than this recent historic site, the proposed development will not adversely impact any known prehistoric or historic archaeological resources.

XI. PLANNING CONSIDERATIONS

Consistency of Proposed Project With State Plans

The "Conservation & Development Policies Plan 1979-1982" is before the General Assembly for their review and action during this session. The document is to serve as a planning guide for those development activities which involve state funding or state review. The Locational Guide Map which accompanies the report indicates that the subject area is designated "Conservation". This designation includes a variety of important natural resource areas throughout the state such as public water supply watersheds, flood fringe areas, prime agricultural lands, historic areas, and scenic streambelts. Apparently, the presence of prime agricultural land on the "High Meadows" property is the reason why this area has been classified as "Conservation".

The "State Action Strategy" for "Conservation" areas is as follows: "Plan and manage for the long term public benefit the lands contributing to the State's need for food fiber, water and other resources, open space, recreation and environmental quality and insure that changes in use are compatible with the identified conservation values.

The proposed development does not appear to be in conformance with the Conservation and Development Policies Plan. However, given the limited tools available for preservation of agricultural lands, there appears to be no practical solution to the conflict.

Consistency of Proposed Project With Regional Plans

The planning document, "A Preservation and Conservation Study, Northwestern Connecticut Regional Planning Agency" by Dougherty, McGowan, and Everett indicates two concerns with the property. The Composite maps developed for Roxbury indicate that the immediate foreground along Route 67 has "scenic quality". This designation recognizes the importance of visual features seen from the roads in determining an area's aesthetic character. To be consistent with this planning document, development along Route 67 should be situated as far uphill as possible and retain a vegetative buffer strip adjacent to Route 67 in order to preserve aesthetic viewlines.

The second concern involves the classification of the summit areas of Bronson Mountain as a "hilltop containment" area. A description of the importance of hilltop containment areas according to this study is as follows:

> "unless special measures are devised to avoid it, new residential growth will inevitably seek sites that are accessible and open, hence most vulnerable visually. Such changes will cause a dramatic change in the rural appearance of the region. The potential for incompatibility between new development and existing landscape patterns is particularly high on the accessible open ridges and hill tops which were often cleared for farm use. These sites command dramatic views which are especially attractive to the land developer. Emphasis should be placed upon the preservation of the hilltop farm in preference to the farm land located in a less visually vulnerable setting. Extensive areas of farmland vulnerable to detrimental transition exist in major sections of Roxbury....If the region is to maintain its high visual quality, special provision should be directed to the preservation of these dominant visual elements".

While the above comments are valid, the Bronson Mountain summit is visually isolated from all locations except a few neighboring ridges. The open lands and vistas are not visible from Route 67 which runs at the base of the mountain, but only to landowners on nearby ridges. Therefore, the greatest visual impact appears to be on those people who would be living on nearby ridges and not the majority of Roxbury residents.

Consistency Of Project With Local Plans

There are two references in the 1963 Roxbury Plan of Development which are directly related to this site. On page 35, there is a reference to lot areas and the need to provide effective protection against health hazards. "With surrounding towns adopting similar rules and job opportunities in the area improving, more building can be anticipated. In order to guide this into areas most easily served, this report recommends the establishment of a 3 acre minimum building lot in the following areas:

1. All land sloping in excess of 15%.

2. Land between Route 199 and the Woodbury line and south of Squire and Rucum Roads."

The second reference is on the Plan of Development Map on page 42. The map indicates the following for the southeastern corner of the town, "Rugged area of the town difficult to service and generally unsuitable for development except near existing road."

It should be noted that at this site major portions of the property on the top of Bronson Mountain do not appear to contain the developmental restrictions cited in the Master Plan. Therefore, environmentally sound development at a density of two to three acres per unit may be possible if the limitations and concerns identified earlier in this report are recognized and properly addressed.

Roxbury Zoning and Subdivision Regulations

The proposed project appears to be in conformance with the towns zoning and subdivision regulations. The property is within building zone "C" which permits single family residences on lots of minimum size of 3 acres.

The applicant is utilizing the Interior Zone special permit provisions allowed in the Zoning Regulations. Under this provision, lots A and B are proposed as interior lots. The land locked parcel east of Lot B may become a third interior lot if negotiations by the applicant are successful. Each interior lot must have a minimum lot size of 4 acres.

The applicant is also proposing to use the Cluster Subdivision provision of the subdivision regulations for 17 lots. Under these provisions, the lot sizes may be reduced to 2.25 acres - land not allocated for lots and streets shall be set aside as permanent open space. The open space shall equal "a minimum of six acres or the same percentage of the entire tract by which the lot area has been reduced, whichever is greater...." The applicant has proposed to set aside 12 acres as open space. The open space may have to be enlarged slightly to 12.75 acres to meet the provisions of the cluster subdivision regulations.

Traffic Impact

The access to this project will be via state Route 67 which borders the property on the east. Route 67 at this point is a two lane paved road with little, if any, shoulders. Route 67 is one of the principal routes between Roxbury and Southbury. The average daily traffic (ADT) in 1977 was 1850 vehicles. This represents an increase of 50 vehicles per day over counts on the same section of highway in 1975. However, the 1850 average daily traffic is well below the capacity of the highway. The capacity in both directions is 2000 vehicles per hour. Hence, current traffic volumes are only approximately 12% of capacity. The 1977 "Northwestern Connecticut Regional Planning Agency's Regional Transportation Plan" indicates as an item to "consider need later" the reconstruction of Route 67 from .2 miles east of Rucum Road to Route 172 in Southbury. This reconstruction may be necessary because of restricted sight distances in several locations.

It is difficult to calculate the immediate impact of this project on Route 67 since there is no time table for development. However, the ultimate traffic impact may be determined. Two independent studies, one by the Institute of Transportation Engineers, the second by Traffic Statistics Unit, Connecticut Department of Transportation indicate a traffic generation rate median range of between 10 and 10.6 one-way traffic movements per dwelling unit per week day for single family detached housing. Using these figures, it is estimated that this 26 lot development will generate between 260 and 276 trips per day when fully developed. Given the capacity of Route 67, it appears that the road will be able to absorb the added increase in traffic.

Internal Circulation

The proposed subdivision road entrance is approximately 260 feet south of the existing driveway serving the property. Sight distances at the proposed road location are restricted to approximately 100 feet and some tree and shoulder removal may be necessary to improve sight distance. The developer should review the proposed road location with the State Traffic Commission to see if a permit will be necessary since access is proposed on a State highway. Also, the Roxbury Inland Wetlands Commission should review any tree clearing and shoulder regrading operation to insure the maintenance of the wetland corridor adjacent to Route 67.

The applicant has proposed a subdivision road to serve the development which meets all the standards of the town's subdivision regulations. The applicant has informally proposed as an alternative, the retention of the existing driveway as the subdivision road despite the 15% grades present in at least one portion. Although the retention of the existing drive would result in less disruption to the eastern wooded slope of Bronson Mountain, the steep grades may pose a significant safety problem. This is due to the fact that the subdivision road is the only means of access to the 27 lots of the subdivision. Since it is the sole means of access, the road should be of standards adequate for proper access for emergency vehicles such as police, fire, ambulance and snow removal service.

It is recommended that the applicant make provisions for the possible future extension of the subdivision road to the north and south ends of his property. Access to the table land on the summit of Bronson Mountain is not easy given the steep grades along its eastern flank. Provision for future road connections for the table land areas to the north and south would eliminate the need for additional access roads down the flank of Bronson Mountain. This would be in conformance

with Sec. 6.D.5 of the Subdivision Regulations which states:

> "Subdivisions shall be laid out so as to provide street connections with existing streets or adjoining properties and also with proposed streets that may be provided for in the comprehensive plan of development.
>
> a. When a subdivision adjoins undeveloped land, its streets shall be laid out so as to provide suitable future street connections with the adjoining land where it appears probable that the latter could be subdivided."

Community Impact

Because of the lack of a developmental time table for the subdivision, it is very difficult to determine what its impact will be on community services. In 1975, the State of Connecticut estimated Roxbury's total population at 1,403 while the total school age population (5-19) was 395[1] Given the total number of housing units at 522 for 1975[2], the total population/housing unit was 2.69 while the school age population/housing unit was .76. If the same proportion as existing in 1975 remains during the construction life of the project, the total population from the 26 units will be approximately 70 persons with the school age population approximately 20 students. Given the fact that the Booth Free Elementary School is now operating at approximately 41% of its 225 students capacity, looking at this site independently of any other growth in the town, it appears that the elementary school could well accommodate the kindergarten through fourth grade students from the project. The Shepaug Valley Regional Middle and High School would accommodate children from grades 5 - 12. The current enrollment in the combined schools is 792 students with 184 of those from Roxbury. The capacity at the middle and high school is slightly less than 1,000 students. Therefore, given this project independent of any other growth which may occur in the district, it appears that the middle and high schools can accommodate the increased number of students.

The above figures are only very preliminary. Changes in rates of population growth and family size may have a significant impact on the total population generated by the site. Because the developmental time table for this project is not known, it is impossible to gauge the effect of this project on other community facilities. Shopping areas in nearby towns should be able to supply the commercial needs of the development.

---

[1] Preliminary Population Projections - Connecticut Towns by Age and Sex 1970-2000 Regional Planning Agency Tools, Div. of Health Statistics, State Department of Health.

[2] Construction Activity Authorized by Building Permits - Housing Units in Connecticut, Annual Summary 1975 State of Connecticut.

Open Space And An Alternative to the Proposed Project

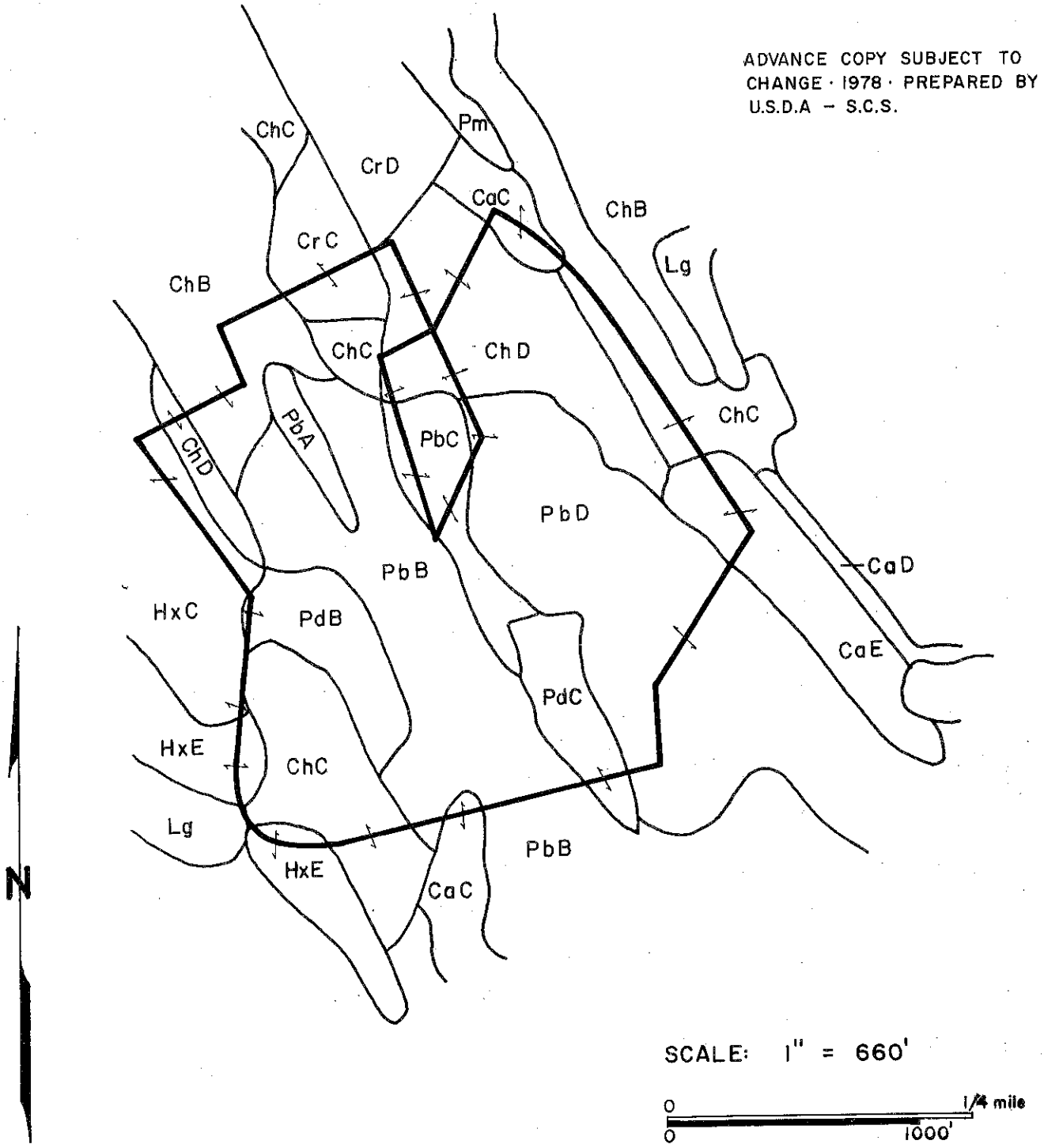
The developer has proposed that 17 of the 24 standard lots be reduced in size from 3 to 2.25 acres under the cluster provisions of the subdivison regulations. This alternative would set aside approximately 12 acres as open space in the southwest and southeast corners of the project (see Figure 1). The southwest parcel preserves a wetlands corridor and steep slope areas on the western flank of Bronson Mountain. The southeast parcel is on an area of steep slopes adjacent to Route 67 and preservation of this parcel may help to protect a natural spring on the adjacent property.

Given the soils and slope conditions of the property, consideration should be given to concentrating cluster development on the summit of Bronson Mountain and restricting or abandoning development along the steep eastern flank where soil conditions are not as favorable. This alternative would serve to preserve the visual integrity along the highway and offer greater protection of the wetlands corridor along Route 67. The feasibility of this alternative would of course depend upon results of soil testing performed in the area proposed for clustering. It should also be recognized that this alternative does represent a tradeoff as the aesthetic impact of this alternative would be greater on surrounding ridgelines (i.e. more homes on the summit would be visible from the adjacent ridgeline areas).

* * * * *

APPENDIX

SOILS MAP


ADVANCE COPY SUBJECT TO CHANGE · 1978 · PREPARED BY U.S.D.A – S.C.S.
ChC
CrD
Pm
CaC
ChB
CrC
Lg
ChB
ChC
ChD
ChC
PbA
PbC
ChD
PbD
CaD
PbB
HxC
PdB
CaE
PdC
HxE
ChC
Lg
PbB
HxE
CaC
N
SCALE: 1" = 660'
0
1/4 mile
0
1000'

SOILS LIMITATION CHART
HIGH MEADOWS SUBDIVISION

MAP SYMBOL	SOIL NAME	SEPTIC ABSORBTION FIELDS		BUILDINGS W/ BASEMENTS		ROADS OR DRIVEWAYS		LANDSCAPING	
		RATING	REASON	RATING	REASON	RATING	REASON	RATING	REASON
CaC	Charlton Fine sandy loam, 8-15% slopes	Moderate	Slope	Moderate	Slope	Moderate	Slope	Moderate	Slope
CaD	Charlton fine sandy loam, 15-25% slopes	Severe	Slope	Severe	Slope	Severe	Slope	Severe	Slope
CaE	Charlton fine sandy loam, 25-35% slopes	Severe	Slope	Severe	Slope	Severe	Slope	Severe	Slope
ChB	Charlton stony fine sandy loam, 3-8% slopes	Moderate	Large stones	Moderate	Large stones	Slight		Moderate	Large stones
ChC	Charlton stony fine sandy loam, 8-15% slopes	Moderate	Large stones	Moderate	Large stones, Slope	Moderate	Slope	Moderate	Large stones
ChD	Charlton stony fine sandy loam, 15-25% slopes	Severe	Slope	Severe	Slope	Severe	Slope	Severe	Slope
CrC	Charlton very stony fine sandy loam, 3-15% slopes	Moderate	Large stones	Severe	Large stones	Moderate	Large stones	Severe	Large stones
CrD	Charlton very stony fine sandy loam, 15-35% slopes	Severe	Slope	Severe	Slope	Severe	Slope	Severe	Slope
HxC	Hollis extremely rocky fine sandy loam, 3-15% slopes	Severe	Depth to Rock	Severe	Depth to Rock	Severe	Depth to Rock	Severe	Depth to Rock
HxE	Hollis extremely rocky fine sandy loam, 15-35% slopes	Severe	Depth to Rock	Severe	Depth to Rock	Severe	Depth to Rock	Severe	Depth to Rock
Lg	Leicester, Ridgebury & Whitman very stony fine sandy loams	Severe	Wetness	Severe	Wetness	Severe	Wetness, Frost Action	Severe	Wetness

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MAP SYMBOL	SOIL NAME	ABSORBTION FIELDS RATING	ABSORBTION FIELDS REASON	BUILDINGS W/ BASEMENTS RATING	BUILDINGS W/ BASEMENTS REASON	ROADS OR DRIVEWAYS RATING	ROADS OR DRIVEWAYS REASON	LANDSCAPING RATING	LANDSCAPING REASON
PbA	Paxton fine sandy loam, 0-3% slopes	Severe	Percs slowly	Moderate	Wet	Moderate	Frost action	Moderate	Small stones
PbB	Paxton fine sandy loam, 3-8% slopes	Severe	Percs slowly	Moderate	Wet	Moderate	Frost action	Moderate	Small stones
PbC	Paxton fine sandy loam, 8-15% slopes	Severe	Percs slowly	Moderate	Wet	Moderate	Frost action	Moderate	Small stones
PbD	Paxton fine sandy loam, 15-25% slopes	Severe	Slope	Severe	Slope	Severe	Slope	Severe	Slope
PdB	Paxton stony fine sandy loam, 3-8% slopes	Severe	Percs slowly	Moderate	Wet, Large stones	Moderate	Frost action	Moderate	Large stones
PdC	Paxton stony fine sandy loam, 8-15% slopes	Severe	Percs slowly	Moderate	Wet, Large stones	Moderate	Frost action	Moderate	Large stones
Pm	Muck, shallow	Severe	Wet, Floods	Severe	Wet, Floods	Severe	Wet, Frost Action Low strength	-	-

EXPLANATION OF RATING SYSTEM:

1. SLIGHT LIMITATION: indicates that any property of the soil affecting use of the soil is relatively unimportant and can be overcome at little expense.
2. MODERATE LIMITATION: indicates that any property of the soil affecting use can be overcome at a somewhat higher expense.
3. SEVERE LIMITATION: indicates that the use of the soil is seriously limited by hazards or restrictions that require extensive and costly measures to overcome.

ABOUT THE TEAM

The King's Mark Environmental Review Team (ERT) is a group of environmental professionals drawn together from a variety of federal, state, and regional agencies. Specialists on the team include geologists, biologists, foresters, climatologists, soil scientists, landscape architects, recreation specialists, engineers, and planners. The ERT operates with state funding under the aegis of the King's Mark Resource Conservation and Development (RC&D) Area - a 47 town area in western Connecticut.

As a public service activity, the team is available to serve towns and developers within the King's Mark Area --- free of charge.

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 the review of a wide range of significant activities including subdivisions, sanitary landfills, commercial and industrical developments, and recreation/open space projects.

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 official of a municipality or the chairman of an administration agency such as planning and zoning, conservation, or inland wetlands. Requests for reviews should be directed to the Chairman of your local Soil and Water Conservation District. This request letter must include a summary of the proposed project, a location map of the project site, written permission from the landowner/developer 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 King's Mark RC&D Executive Committee, the team will undertake the review. At present, the ERT can undertake two reviews per month.

For additional information regarding the Environmental Review Team, please contact your local Soil Conservation District Office or Richard Lynn (868-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, P.O. Box 30, Warren, Connecticut 06754.