ENVIRONMENTAL REVIEW TEAM REPORT

ROXBURY COMMERCIAL ZONE
ROXBURY, CONNECTICUT

KING'S MARK
RESOURCE CONSERVATION AND DEVELOPMENT AREA

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On

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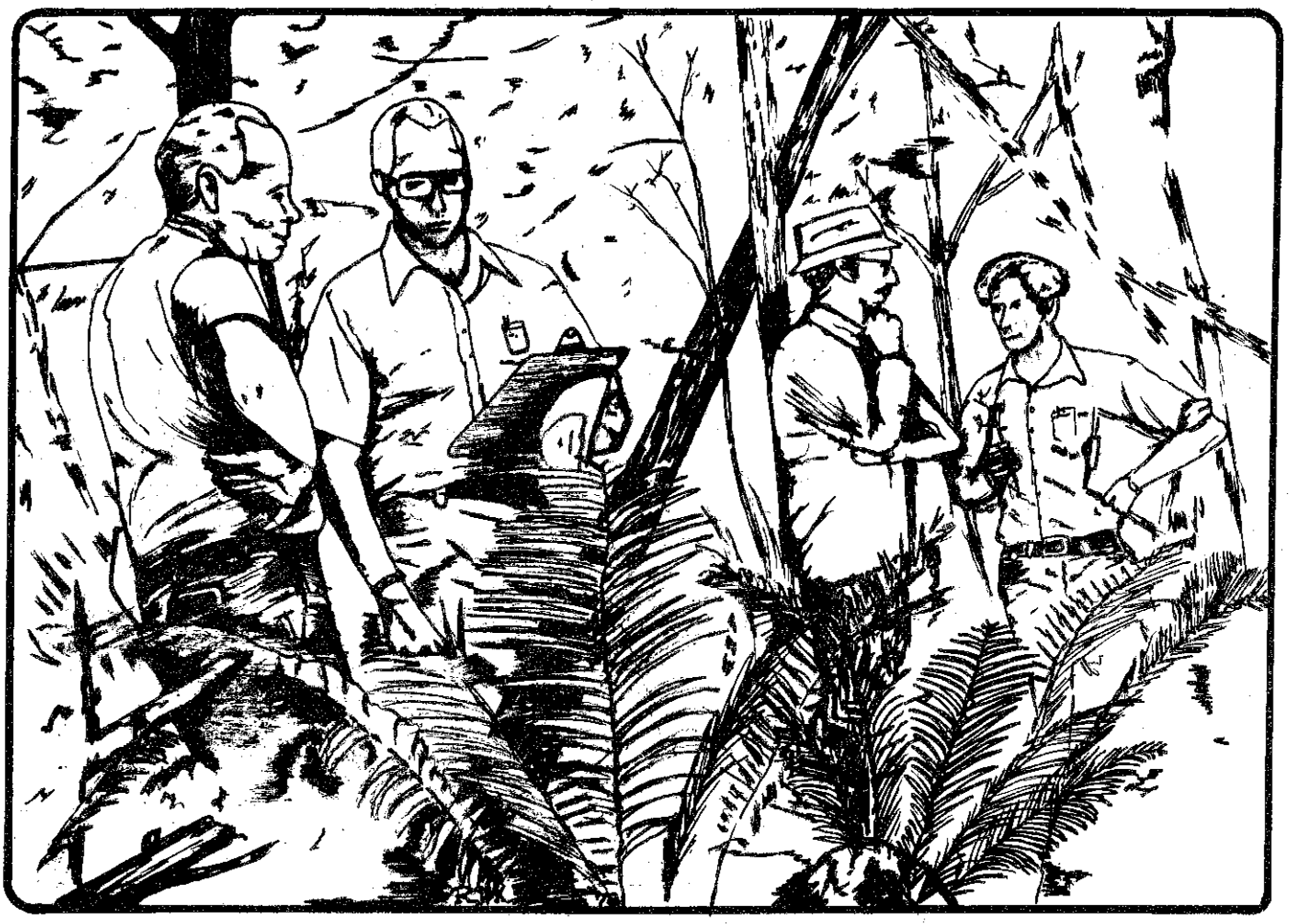

JANUARY 1979

King's Mark Resource Conservation & Development Area

Environmental Review Team
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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
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TABLE OF CONTENTS

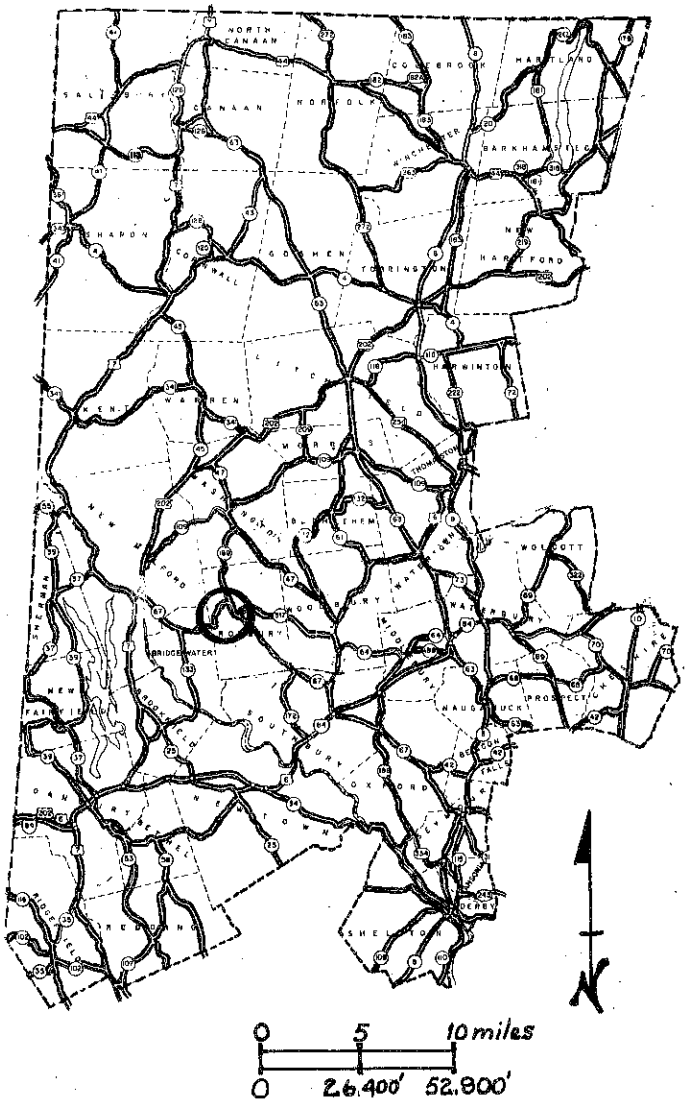
		Page
I.	Introduction	1
II.	Summary	4
III.	Setting, Topography, Land Use	5
IV.	Soils	5
V.	Geology	7
VI.	Hydrology	7
VII.	Water Supply	10
VIII.	Sewage Disposal	12
IX.	Cultural Resources	13
X.	Planning Considerations	13
XI.	Appendix	17
	Soils Map Soils Limitation Chart	

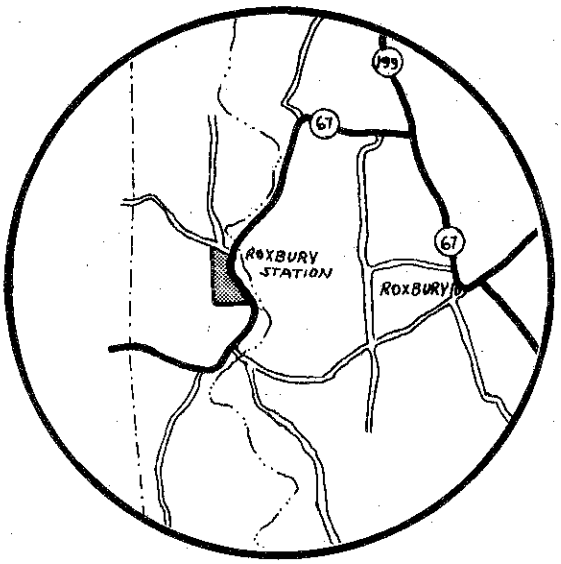
LIST OF FIGURES

1	Topographic Map	6
2	Simplified Site Plan - Roxbury Station Market	9
3	Generalized Map of 100-Year Floodprone Area (Roxbury Station Vicinity)	11

LOCATION OF STUDY SITE

ROXBURY COMMERCIAL ZONE
ROXBURY, CONNECTICUT





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ROXBURY, CONNECTICUT

I. INTRODUCTION

The Roxbury Planning Commission in developing its current update of the Town Plan of Development has under consideration rezoning the Town's present commercial zone (+ 12 acres) out of commercial use and at the same time rezoning another area (not determined at this time) into commercial use. The principal reason for this rezoning is the belief among a number of townspeople that the current commercial zone is located in a flood hazard area (Shepaug River Floodplain).

The Federal Insurance Administration (FIA) of the U. S. Department of Housing and Urban Development is responsible, under the National Flood Insurance Program, for identifying all floodprone communities. The FIA is also responsible for delineating the boundaries of floodplain areas which have special flood hazards. The Town of Roxbury is currently in the emergency phase of the Federal Flood Insurance Program. Preliminary (subject to change) flood hazard boundary maps dated June 7, 1974 have been issued for the town by the FIA. These maps indicate that the present Roxbury commercial zone is not in the special flood hazard area.[1] This delineation is challengeable in the memory of several residents of the town who recall extensive flooding of this area during the 1955 flood at least. A more detailed field study by the FIA is scheduled to be conducted within the next one or two years which will result in final, detailed flood insurance rate maps. Upon acceptance of these final maps and the accompanying report, the town will have to approve Floodplain Management regulations consistent with Federal Regulations in order to remain eligible in the Federal Flood Insurance Program. Requirements for land use and control measures under the Flood Insurance Program are described in the Federal Register. These requirements include, but are not limited to the provision that:

- *All new construction or substantial improvements of residential structures within the area of special flood hazards shall have the first floor, including basement, elevated to or above the level of the 100-year flood.*

- *All new construction or substantial improvements to non-residential structures shall have the first floor including basement elevated to or above the level of the 100 year flood or together with attendent utility and sanitary facilities, shall be flood proofed up to the level of the 100-year flood.*

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[1]The standard which has been adopted by the Federal Insurance Administration for the identification of special flood hazard areas is the so-called "100-year flood". This standard represents the flood level that on the average has a 1 percent chance of being equalled or exceeded in any given year.

- *Until a floodway[2] has been designated, no use, including land fill, may be permitted within the floodplain area having special flood hazards unless the applicant for the land use has demonstrated that the proposed use, when combined with all other existing and anticipated uses, will not increase the water surface elevation of the 100-year flood more than 1 foot at any point. If a floodway has been defined, the community must adopt regulations which prohibit fill or encroachments within the designated floodway that would impair the ability of the river to carry and discharge the waters resulting from the 100-year flood, except when the effect of flood heights is fully offset by stream improvements.*

Recently the Roxbury Zoning Commission received a letter from "The Roxbury Contractors" signalling intent to erect 3 - 4 shops on about 3 acres of land within the present town commercial zone. Because of the timing of the "Roxbury Contractors" statement of intent, the preliminary and "subject to change" nature of the present Flood Hazard Boundary Map, and the year or more required for release of a more accurate map by the FIA, the Roxbury Planning Commission requested the assistance of the King's Mark Environmental Review Team (ERT).

The ERT was asked to identify the natural resource base of the present commercial zone and comment on the suitability of the land for development from an environmental standpoint. The major concern of the request centered on the potential for flooding of the area and the team was asked to refine, if possible, preliminary floodplain boundary estimates. This information was requested to assist the town in making decisions regarding the rezoning issue and future use of the land. It should be noted that existing FIA regulations provide that prior to the provision of data by the FIA, a community may use data obtained from other federal or state agencies or from consulting services as a basis for land use control measures in flood hazard areas.

The ERT met and field reviewed the site on December 6, 1978. Team members for this review consisted of the following:

Mallory Gilbert	Soil Conservationist	U.S.D.A. Soil Conservation Service
Michael Zizka	Geohydrologist	Connecticut Department of Environmental Protection
Thomas Furgalack	Sanitarian	Connecticut Department of Health
Russell Handsman	Archaeologist	American Indian Archaeological Institute
Lee Markscheffel	Regional Planner	Northwestern Connecticut Regional Planning Agency

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[2]The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment in order that the 100-year flood be carried without substantial increase in flood heights. As minimum standards, the FIA limits such increases in flood heights to 1.0 foot, provided that hazardous velocities are not produced.

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 boundary map of the Roxbury commercial zone, a topographic map of the area, and a copy of the FIA map of the area. 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 consideration--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.

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II. SUMMARY

- Soils underlying the proposed development site have slight limitations for most development activities. The developers would likely encounter few soil related problems in implementing the proposed project.

- The major problem investigated by the Team was whether the site proposed for development lies within the zone that would be inundated by a flood of 100-year frequency (such a flood has a one percent chance of occurring in any given year). Analysis of available information indicates the site would be completely or almost completely inundated by a 100-year flood.

- Although the property is underlain by sand and gravel, the suitability of the material for water supply purposes is unknown. Bedrock may be the most suitable aquifer for the proposed commercial establishments. Although bedrock typically provides smaller yields than sand and gravel, these yields may be more than adequate for the relatively low demands that may be predicted by the new shops.

- Based upon preliminary soils information and the modest size of the development proposal, it is likely that the proposed development could be adequately served by a properly designed and maintained septic system providing the area is not subject to frequent (e.g. annual) flooding.

- A field study of the ± 12 acre tract revealed no obvious cultural resources which would be adversely impacted by the proposed development or zoning change. However, the ± 3 acre parcel proposed for development may contain prehistoric or historic cultural resources. To help in determining whether any significant cultural resources exist on the parcel slated for development, a field crew from the American Indian Archaeological Institute will undertake a program of subsurface testing, with the permission of the landowners, in the spring of 1979.

- Although the proposed development could approximately triple the traffic on Route #67 in the immediate vicinity, Route #67 would still be operating well within its design capacity.

- The "Roxbury, Connecticut Plan of Development, 1966" recommends the ± 12 acre tract for a commercial zone. It appears that present zoning has followed the recommendations in the Plan of Development as the subject parcel is located within the town's Business Zone D.

III. SETTING, TOPOGRAPHY, LAND USE

The ± 3 acre parcel proposed for commercial development is located in Roxbury's Business Zone D (see Fig. 1). The subject parcel is bounded on the east by State Route #67. Approximately 800 feet to the north is the intersection of Mine Hill Road and Route #67. Wellers Bridge Road intersects Route #67 approximately one quarter mile south of the project area.

There are approximately ten structures within the immediate vicinity of the project site. At the intersection of Mine Hill Road and Route #67 are three barns currently housing an antique lumber finishing operation. Immediately adjacent to the barn to the north is a residence. Between the barns and the project site are three residences. The project site is currently not occupied by any structures and is an open field of nearly level topography (see Fig. 1). To the southeast are two residences. To the southwest is an old state highway facility now housing a well drilling operation. Across Route #67 from the site is the Shepaug River. To the west are steeply rising wooded hills.

IV. SOILS

A detailed soil survey map and soils limitation chart of Business Zone D 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 these limitations as determined by the U.S.D.A. Soil Conservation Service.

The dominant soils series on the site are: Hartland silt loams, Merrimac sandy loams, and Madeland.

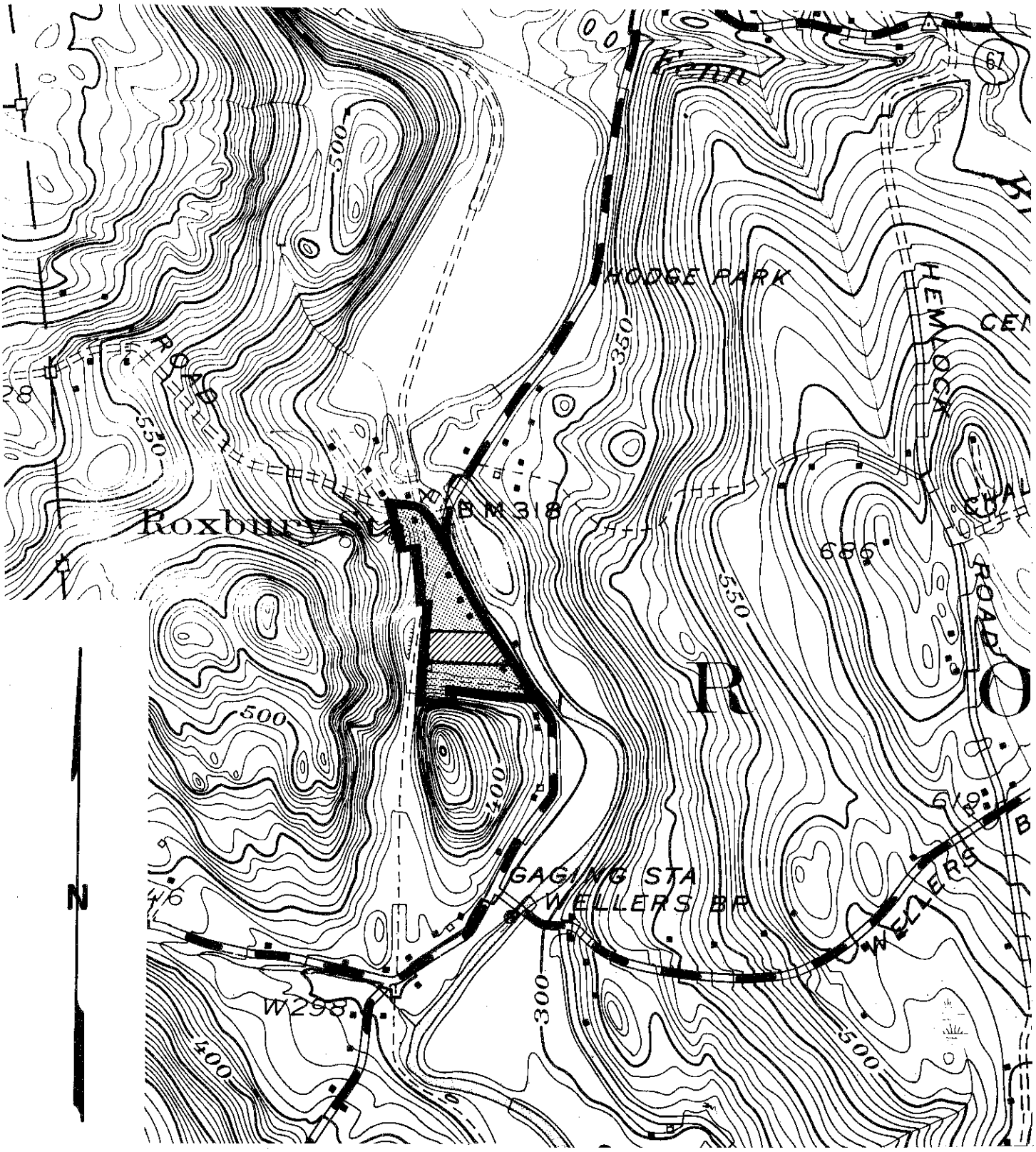
The Madeland designation refers to fill material which has been placed at sufficient depths over original soils to make identification of them difficult or impossible. The fill is usually variable in composition, but contains some percentage of earthy material.

Hartland Silt loams are deep, well-drained soils that develop in silt and very fine sand deposits on terraces in valleys. Due to their fine texture they are only moderately permeable and are therefore subject to frost action in the colder seasons.

Merrimac sandy loams are underlain by stratified sand and gravel at a depth of ± 2 feet. Their permeability varies from moderately rapid to rapid through the soil profile. In general, they have only slight limitations for most development purposes where slopes are not excessive.

As witnessed in the field during the December 6th review, the soils in the area where the proposed development is planned actually appear to be Merrimac sandy loams. This more detailed soils investigation results in an alteration of possible soils limitations. As mentioned above, the Merrimac soils have slight limitations for most development associated activities.

FIGURE 1. **TOPOGRAPHIC MAP**



Erosion and Sedimentation Concerns:

The developers should encounter few soil related problems in implementing the plan which was shown to the ERT during the team's on-site investigation. However, some standard precautions should be taken during development to reduce possible erosion and sedimentation problems:

1) All excavated materials should be regraded and vegetated as soon as possible.

2) If the parking lot is to be gravel based, this material should be sufficiently clean material to avoid mud problems in wet periods.

3) Runoff from the site should be judiciously handled to insure it will not add significant sediment to the Shepaug River. A storm water retention system with sediment traps should be considered.

If further information on erosion and sediment control is desired, the "Erosion and Sediment Control Handbook" for Connecticut may prove helpful. This publication is available from the Litchfield County Soil and Water Conservation District, Agricultural Center, Litchfield, Connecticut 06759.

V. GEOLOGY

The site proposed for development is underlain principally by stratified sand and gravel. Most of these materials probably were deposited by meltwater streams issuing from a wasting tongue of glacier ice that was formerly ensconced in the Shepaug River valley. The topmost portion of the sand and gravel, possibly the upper 3 to 6 feet, is the result of more recent deposition by the modern Shepaug River. The total depth of these coarse materials is not known, but it is estimated to be less than 30 feet.

Underlying the sand and gravel may be a thin deposit of glacial till, a compact, stony, nonsorted accumulation of rock particles that was plastered onto the bedrock surface by the moving ice. The bedrock itself consists of mica quartzite and schist, and feldspathic mica quartzite and schist. This rock ranges from massive or poorly foliated (layered) to well-foliated. The closest outcrops are found immediately south and west of the site.

Other information about the geology of the area may be found in U. S. Geological Survey publications GQ-121 and GQ-611, which are bedrock and surficial geologic maps, respectively, of the Roxbury topographic quadrangle.

VI. HYDROLOGY

The major problem investigated by the team was whether the site proposed for development lies within the zone that would be inundated by a flood of 100-year frequency (such a flood has a one-percent chance of occurring in any year). Town residents have stated that the site was submerged during the flood of August, 1955. Nevertheless, two current maps of the 100-year floodprone area do not include the site within that area. The more recent of the two maps was released

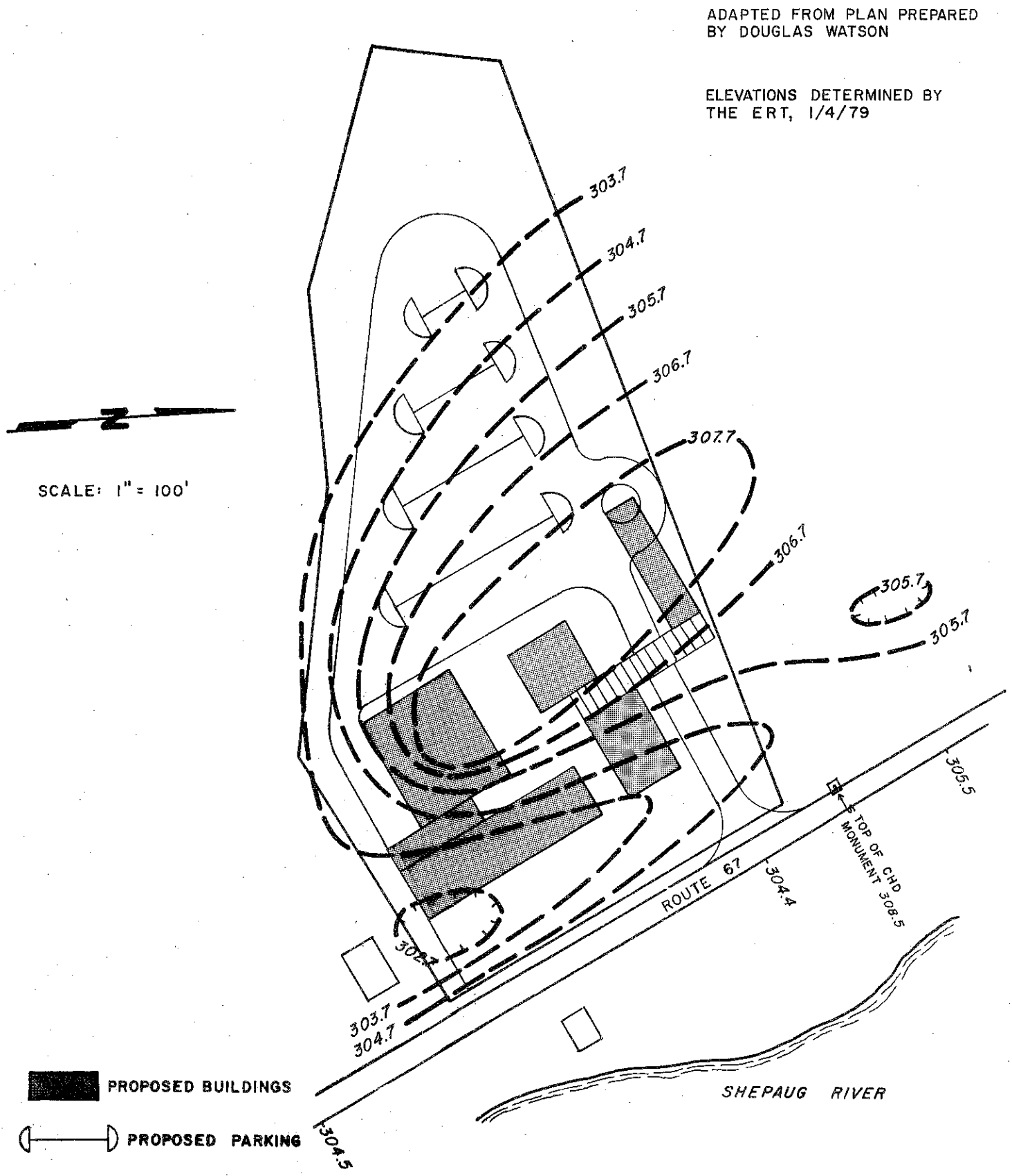
by the U. S. Department of Housing and Urban Development, Federal Insurance Administration, in 1974. As discussed above, an updated, more accurate version of that map is expected to be prepared within a year or two of the publication of this ERT report. The other currently available floodprone areas map was prepared by the U. S. Geological Survey (USGS). It should be noted that information compiled by the U.S.G.S. indicates that the magnitude of flooding during the 1955 storm was greater than would be expected for a 100 year flood.

A plan and profile of Shepaug River during the 1955 flood was constructed by two Connecticut certified professional engineers under contract with the U.S. Army Corps of Engineers. The profile was drawn on the basis of high water elevations recorded at various points along Shepaug River, from the confluence of Bantam River south to the confluence of Housatonic River. This profile tends to confirm that the site proposed for development was flooded during that storm. According to the profile, a recorded high water elevation near the downstream end of the site was 309.9. A comparison of this elevation with those shown in Figure 2 indicates the entire subject parcel was indeed flooded by the 1955 flood. Interestingly, however, the plan accompanying this profile does not show the site within the affected flood zone. It is suspected that the lack of detailed topographic information influenced the delineation of the plan. Similarly, the U.S.G.S. map and the current HUD map were constructed largely on the basis of the Roxbury quadrangle's topography. These maps are consequently limited in that the lateral extent of the hypothetical 100-year flood prone area was interpolated between contour lines that differ in elevation by 10 feet. As a result, small topographic features may have been overlooked when the flood prone area boundaries were drawn.

The team attempted to overcome these limitations with respect to the site by using a detailed plan with a 1 foot topographic contour interval. The plan was prepared by Douglas Watson, a consulting engineer for the developer of the proposed project. The contour elevations on the plan were assigned with respect to an arbitrary datum; hence, a survey was required to determine the elevation of these lines with respect to mean sea level. Such a survey was performed on January 4, 1979, by two team members and an engineer from the Water Resources unit of the Department of Environmental Protection. A bench run was made from a U.S.G.S. marker located north of the property to a Connecticut Highway Department (CHD) monument, located on the eastern boundary of the site. After determining the true elevation of the CHD monument, which had been surveyed and included on the plan, the team was able to assign correct values to the contour lines shown.

To estimate the 100-year flood elevations of Shepaug River in the vicinity of the site, the team used a discharge-rating table and a discharge-frequency table prepared by the U.S.G.S. on the basis of records gathered at a gaging station near Wellers Bridge, approximately 0.3 mile south of the site. The frequency table, which estimates that the 1955 flood was of 350-year frequency, was made by using a Log-Pearson Type III mathematical analysis, a method in widespread use today. Both tables are believed to represent the most accurate information currently available. The team assumed that the variations in elevation of Shepaug River at the gaging station during different discharges would be approximately the same as at the site (e.g. a 2 foot rise in the water level at the gaging station would mean a 2 foot rise in the water level at the study site). Hence, by using the data recorded on the 1955 Shepaug River profile, the team was able to estimate river elevations for floods of different frequencies.

FIGURE 2. SIMPLIFIED SITE PLAN – ROXBURY STATION MARKET



According to these calculations, a 100-year flood of the river would produce a water elevation of approximately 309 feet at the site. As such, the floodwaters would completely cover the site, with depths ranging from less than 1 foot on the higher portions to approximately 6 feet in the low area at the southeast corner. A 200-year flood would produce a river elevation of about 310 feet, 1 foot higher than the 100-year flood, at the site. (See Fig. 2 for site elevations.)

As a check on the method used by the team, a calculation was made of the river elevation at which water would begin to overtop Route #67. The developer's site plan was used to estimate the elevation of the road. The discharge for such a condition was calculated to be about 9800 cubic feet per second (cfs). In 1975, a discharge of 10000 cfs, very near the above estimate, occurred at the Wellers Bridge gaging station. Discussion with Roxbury residents indicated that Shepaug River was indeed at the threshold level in this area, shallowly covering the road in a few places. From this check, it would seem that the method used to estimate the 100-year flood elevations is reasonably accurate. This is not to suggest that the results are exact: considering the many limitations, such as the lack of detailed river cross sections and profiles and the uncertain reliability of the 1955 study, the safest conclusion to reach from the calculations may be that the site would be completely or almost completely inundated by a 100-year flood, but that the depth of floodwaters on the higher parts of the site would be, at most, a few feet. Hence, it seems likely that the planned commercial buildings could be easily floodproofed. The major complication would be the restrictions on access to and egress from the site.

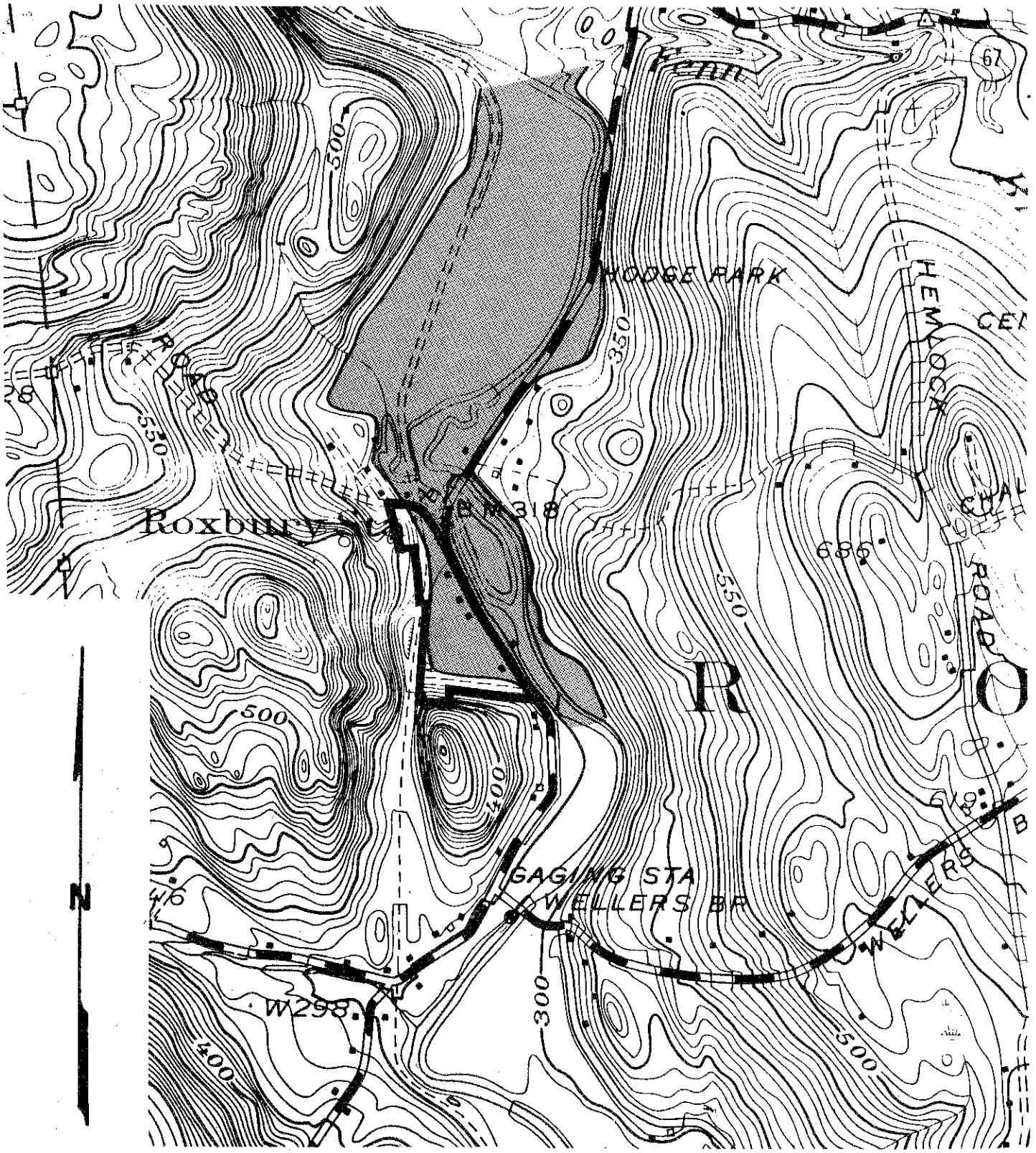
A generalized map of 100-year floodprone areas along a short section of Shepaug River is shown in Figure 3. The team's calculations were used in drawing this map, but the topography shown on the Roxbury quadrangle was used as a base. The map therefore, is limited by the considerations of scale mentioned earlier in this section. Because of the rather flat topography near Hodge Park, for instance, no indication of small rises and falls in the land is shown on the map. Hence, the map should be used as a guideline to potential problem areas, but should not be expected to obviate a more detailed topographic survey.

VII. WATER SUPPLY

Although the property is underlain by sand and gravel, the suitability of this material for water-supply purposes is unknown. Connecticut Water Resources Bulletin No. 21 estimates that the saturated thickness of the deposit is less than 10 feet. This thickness is likely to decrease from east to west, progressively further from Shepaug River. The water table in the deposits is probably closely adjusted to the river level; hence, when the stream is in a low-flow phase, the saturated thickness of the adjacent sand and gravel is likely to be at its minimum level.

It would be helpful to determine the types of wells used by homeowners along Route #67 on the eastern boundary of the site--such records were not readily available to the team. If sand-and-gravel based wells are used, their yields and any water quality problems they may have should be studied. If bedrock wells are used, this may be a sign that sand-and-gravel wells had been tried in the past and found inadequate.

FIGURE 3. GENERALIZED MAP OF 100-YEAR FLOODPRONE AREA (ROXBURY STATION AREA)



SCALE: 1" = 1000'

0 1/4 1/2 mile

0 1000' 2000' 3000'

FLOODPRONE AREA

It should also be noted that the coarse gravelly materials underlying the site are typically poor in terms of their capacity to renovate septic effluent. Hence, discharge from the septic system that would be installed to serve the commercial buildings could have an adverse effect upon groundwater quality. If the sand and gravel ultimately is utilized for water supply, the septic system should be located as far as is practically possible from the well. It would also be desirable to locate the well away from the parking area, to minimize the risk of groundwater pollution from automobile residues. This risk probably would be small unless a spill of fuel occurred.

Bedrock may be the most suitable aquifer for the proposed commercial establishments. Although bedrock typically provides smaller yields than sand and gravel, these yields may be more than adequate for the relatively low demands that may be predicted for the new shops. The consulting engineer for the developer estimated a demand of 1100 gallons per day (gpd) for waste disposal purposes. If a much more conservative estimate of 1500 gpd of total demand were used, a single well yielding no more than 2 gallons per minute (gpm) could satisfy these needs. Of course, the demand at any one moment may greatly exceed 2 gpm so that an adequate water-storage facility should be provided, either in the well itself or in tanks. Connecticut Water Resources Bulletin No. 21, using a statistical analysis of many bedrock-based wells in the upper Housatonic River basin, reports that approximately 85 percent of the wells yielded 2 gpm or more of groundwater; approximately 58 percent yielded 5 gpm or more; and approximately 30 percent yielded 10 gpm or more.

VIII. SEWAGE DISPOSAL

The developer of the proposed project indicated to the ERT that all commercial structures would be serviced by an on-site septic system. According to the soil survey of Litchfield County, Connecticut (U.S.D.A. Soil Conservation Service, 1970), the subject parcel is underlain by Hartland silt loam soils which typically have moderate limitations for septic systems due to slow percolation. However, according to the soil conservationist for the ERT, who dug several on-site test holes the day of the field review, the soils in the area of the proposed development are believed to be Merrimac sandy loam of 3-8% slopes. These soils present only slight limitations for septic systems according to criteria adopted by the U.S.D.A. Soil Conservation Service.

Based upon the foregoing preliminary information and the modest size of the development proposal, it is likely that the proposed development could be adequately served by a properly designed and maintained septic system. One area of concern (mentioned previously) which should be recognized in designing a septic system to service the development is that Merrimac soils are characterized by rapid drainage which may result in pollution of shallow wells.

The suitability of this land for subsurface sewage disposal naturally is dependent upon the extent and recurrence of flooding in the area. Frequent (e.g. annual) inundation of the parcel by flood water would obviously create problems with effective subsurface sewage disposal. In Section 19-13-B-204 of the Public Health Code of the State of Connecticut it is stated that "No subsurface sewage system shall be laid out in areas where.....surface flooding .....will interfere with its effective operation".

Should the Town Zoning Commission decide not to rezone the parcel and the developer further pursues the project, the State Department of Health, Environmental Health Services Division, is available to both the town of Roxbury and the developer for consultation concerning the Public Health Code requirements and

recommendations of the State Health Department. Accompanying any request should be complete soil profile information.

At the ERT field review, the developer indicated interest in placing the septic system below the proposed gravel based parking lot. It should be noted that this practice is not recommended by the State Health Department. Should the developer opt to install such a system, the plans should demonstrate effective means to protect the system from harm due to vehicular traffic.

IX. CULTURAL RESOURCES

A field study of the 12 acre tract under consideration by the Planning Commission did not locate any obvious cultural resources which would be adversely impacted by the proposed rezoning. The majority of the tract (approximately 9 acres) would not be affected by either the zoning change or the proposed commercial development.

The parcel of land proposed for development (± 3 acres) may contain prehistoric or historic cultural resources. Prior field and archival surveys along the Shepaug River indicate that this section is a sensitive locality for archaeological and historic sites. An examination of relevant historic maps (1859, 1874) shows that the contemporary configuration of houses dates to at least the 1850's.

It is possible that subsurface midden (garbage) deposits, associated with these structures, could extend into the locality proposed for construction. A field survey indicated that the ground surface of the 3-acre parcel had not been previously disturbed except through plowing. Any deposits which might exist under the ground surface have not been disturbed or destroyed.

Given the potential of the property, a field crew from the American Indian Archaeological Institute will undertake a program of subsurface testing, with the permission of the land owners, in the spring of 1979. This work will help in determining whether any significant cultural resources exist on the parcel slated for development.

The Roxbury Planning Commission should understand that the question of rezoning does not legally require that an archaeological evaluation be undertaken. Ordinarily, privately financed land developers are not legally responsible for archaeological sites or structures on their land. As long as the proposed construction is not assisted or financed by the Federal government, then no mandate exists to force the town or the developers to locate and evaluate cultural remains. Based upon the data now available, there will be no adverse impact if the proposed zoning change is not enacted. Obviously if the change is enacted and the development not allowed, then there will be no immediate threat to archaeological sites. In either case, the Institute will seek permission to test the property as soon as weather permits.

X. PLANNING CONSIDERATIONS

TRAFFIC ANALYSIS

The 1977 traffic count as reported in "Connecticut Department of Transportation, Bureau of Highways, Traffic Volumes on State Roadways, 1977" for Route

#67 between Wellers Bridge Road and Route 199 is 1300 ADT (Average Daily Trips). The road capacity is estimated at 2,000 vehicles per hour. The actual peak hourly volume is only approximately 325 vehicles.

In the "Northwestern Connecticut Regional Planning Agency Regional Transportation Plan" under Priority VIII - Highway Improvements, Route #67 from Wellers Bridge Road west of Botsford Hill Road is noted as one of the region's most accident-prone locations and requires roadway improvements.

The trip generation rate for a rural use shopping facility of this size as supplied by the Connecticut Department of Transportation, Bureau of Planning and Research is approximately 110 trips (one-way motor vehicle movements) per day per 1,000 square feet of floor area. Therefore, with a floor area of approximately 14,100 square feet the traffic generation would be approximately 1,551 trips/day. If the development were expanded to 19,700 square feet, as detailed on the plans, the traffic generation would be approximately 2167 trips/day. However, the exact generation would be dependent on the types of establishments in the shopping center.

It appears that sight distances along Route #67 in the vicinity of the proposed shopping facility access drive may be reduced by the existing stone wall. With the implementation of the proposed project, it is recommended that a portion of the stone wall be moved back to provide necessary unrestricted sight lines.

In conclusion, it appears as though the proposed development could approximately triple the traffic on Route #67 in the immediate vicinity. However, even with the increased traffic the road would be operating well within its design capacity.

CONFORMANCE OF PROJECT WITH STATE AND REGIONAL PLANS

State Conservation and Development Policies Plan

The "State of Connecticut - Conservation and Development Policies Plan - Proposed Revision of 1979 - Locational Guide Map - Land Area Classification - March 1978" identifies the Shepaug River and its immediate environs as a "Preservation Area" while the surrounding watershed is designated "Conservation Area". The Preservation Areas are defined as primary areas of recreation, access, environmental or scenic importance. The State Action Strategy for Preservation Areas is a "High Priority of affirmative action in support of the preservation of open space character and in avoiding the encouragement or support of structural development except as directly consistent with the preservation values, e.g. recreation, flood damage control, public water supply".

The Conservation Areas are defined as the remaining areas of the streambelts that are of significant aesthetic and outdoor recreational importance. The State Action Strategy for Conservation Areas is avoiding encouragement or support of structural development which cannot insure that site planning and design and secondary effects are compatible with the identified conservation values of the site environs.

The "State of Connecticut - Conservation and Development Policies Plan" shows Roxbury Center as a Rural Community Center. The State Action Strategy is stated as "High priority and affirmative support for the clustering in locally designated centers of the relatively higher intensity land uses of residential, shopping, employment and public facilities and services occurring in rural communities". This strategy is in conformance with current planning philosophy that community facilities, commercial activity and higher density residential activity are supportive of each other and that grouping these activities together helps to strengthen town centers.

It must be noted that the "State Conservation and Development Policies Plan 1979 revision" is only a draft and has not been adopted by the State Legislature as an official document.

Shepaug-Bantam River Corridor

The Shepaug-Bantam River Corridor has been declared eligible for designation as a Wild and Scenic River by the Department of the Interior depending on the development and acceptance of river corridor management plans. Also, the five towns along the Shepaug-Bantam have joined in the Shepaug-Bantam River Board to attempt to draft a set of standardized management regulations along the rivers. It is premature at this point to discuss the scope or substance of possible management regulations.

The proposed commercial development in Roxbury is not affected by the moratorium on water resource projects that has been in effect on the Shepaug River as a result of its eligibility as a Wild and Scenic River.

Upon discussion with representatives of the National Park Service there is one significant consequence that might develop as a result of the construction of the project with regards to Wild and Scenic River classification. The consequence will depand upon how the project would be developed and screened from the river.

To elaborate, as a result of the Shepaug Wild and Scenic River Study, the Secretary of the Interior has classified a twenty-six mile section as "scenic" and eligible for designation as Wild and Scenic River. If the Secretary is requested by the towns to designate the Shepaug-Bantam River he will investigate any changes in land use within the corrdior which have occurred which may alter the scenic classification. If a change has occurred, the Secretary would evaluate the degree to which it has a direct and adverse effect on the values of the corridor. Based upon this evaluation the Secretary would have the following options available: 1) Do nothing to change the classification, 2) Change the classification from "scenic" to "recreational", 3) Delete that portion of the Shepaug affected by the project from any classification.

COMPARISON OF PROJECT WITH EXISTING TOWN PLAN OF DEVELOPMENT & ZONING

The project site and the other business zoned properties in Roxbury Station are mentioned in the "Roxbury, Connecticut Plan of Development 1966". It appears that present zoning has followed the recommendations in the Plan of Development for this area. The Plan of Development states in part:

"South of the old station group is a triangular parcel of land bounded by the old railroad right-of-way, Route #67, and a small hill (to the

south). By reason of topography this area is visually isolated. On its northern boundary is Roxbury's most substantial existing commercial use. Along the eastern boundary is Route #67. The site itself is relatively flat and not difficult to develop with the necessary off-street parking."

"The site is recommended for a commercial zone. The regulations, however, should include site layout requirements to insure a careful utilization of the land and a standard of layout, grading and a landscaping appropriate to the character of the surroundings and the proximity of the historic mines."

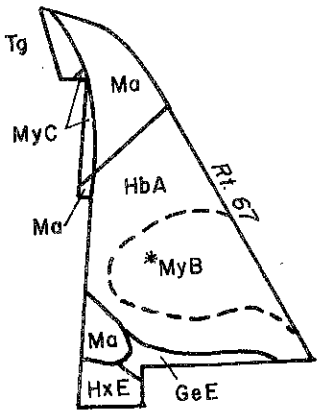
The "Town of Roxbury,Connecticut Zoning Regulations Revised June 16, 1975" indicate that the subject parcel is within Business Zone D. Under the Zoning Regulations, any use permitted in the three residence zones is permitted as well as business uses such as but not limited to clothing, drugs, auto service stations, shoes, and "such light shopping goods as are customarily sold as retail merchandise, excluding the sale of beer for consumption on the premises". The Zoning Regulations also indicate a list of prohibited uses such as commercial recreation, manufacturing, public dumps, and junk yards. The Zoning Regulations also contain sign regulations for Business Zone D.

The maximum height limitations are 2 1/2 stories under present zoning regulations and site plans for a proposed commercial development must be reviewed by the Zoning Commission. Also included within the zoning standards are a fifteen foot wide planting strip across the front of the lot, and a buffer strip 20 feet wide where business property abuts a residential zone. There are no provisions for building coverage or floor area ratios or maximum lot coverage. Finally , it should be pointed out that Section 3I of the Zoning Regulations states that "there shall be no building in flood prone areas except in conformity with the requirements for insurance eligibility under the Federal Flood Insurance program".

* * * * * * *

APPENDIX

SOILS MAP



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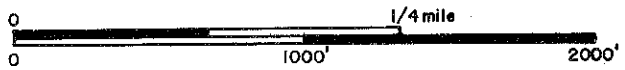
ADVANCE COPY SUBJECT TO CHANGE
1978 PREPARED BY U.S.D.A. – S.C.S.

* Tentative mapping based on 12-5-78 field investigation by M. Gilbert, Soil Conservationist, U.S.D.A. Soil Conservation Service.

SCALE: 1" = 660'



SOILS LIMITATION CHART

ROXBURY COMMERCIAL ZONE

MAP SYMBOL	SOIL NAME	SEPTIC ABSORBTION FIELDS		BUILDING W/ BASEMENTS		ROADS OR DRIVEWAYS		LANDSCAPING	
		RATING	REASON	RATING	REASON	RATING	REASON	RATING	REASON
GeE	Gloucester very stony sandy loam, 15-35% slopes	Severe	Slope	Severe	Slope	Severe	Slope	Severe	Slope
HbA	Hartland silt loam, 0-3% slopes	Moderate	Percs Slowly	Moderate	Low Strength	Severe	Frost Action	Slight	--
HxE	Hollis extremely rocky fine sandy loam, 15-35% slopes	Severe	Slope, Depth to Bedrock	Severe	Slope, Depth to Bedrock	Severe	Slope, Depth to Bedrock	Severe	Slope, Depth to Bedrock
Ma	Made land (varible fill)	NO DETAILED SOILS INFORMATION AVAILABLE							
MyB	Merrimac sandy loam 3-8% slopes	Slight	--	Slight	--	Slight	--	Slight	--
MyC	Merrimac sandy loam 8-15% slopes	Moderate	Slope	Moderate	Slope	Moderate	Slope	Moderate	Slope
Tg	Terrace escarpments	Severe	Slope, Excessive Drainage	Severe	Slope	Severe	Slope	Severe	Slope

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.