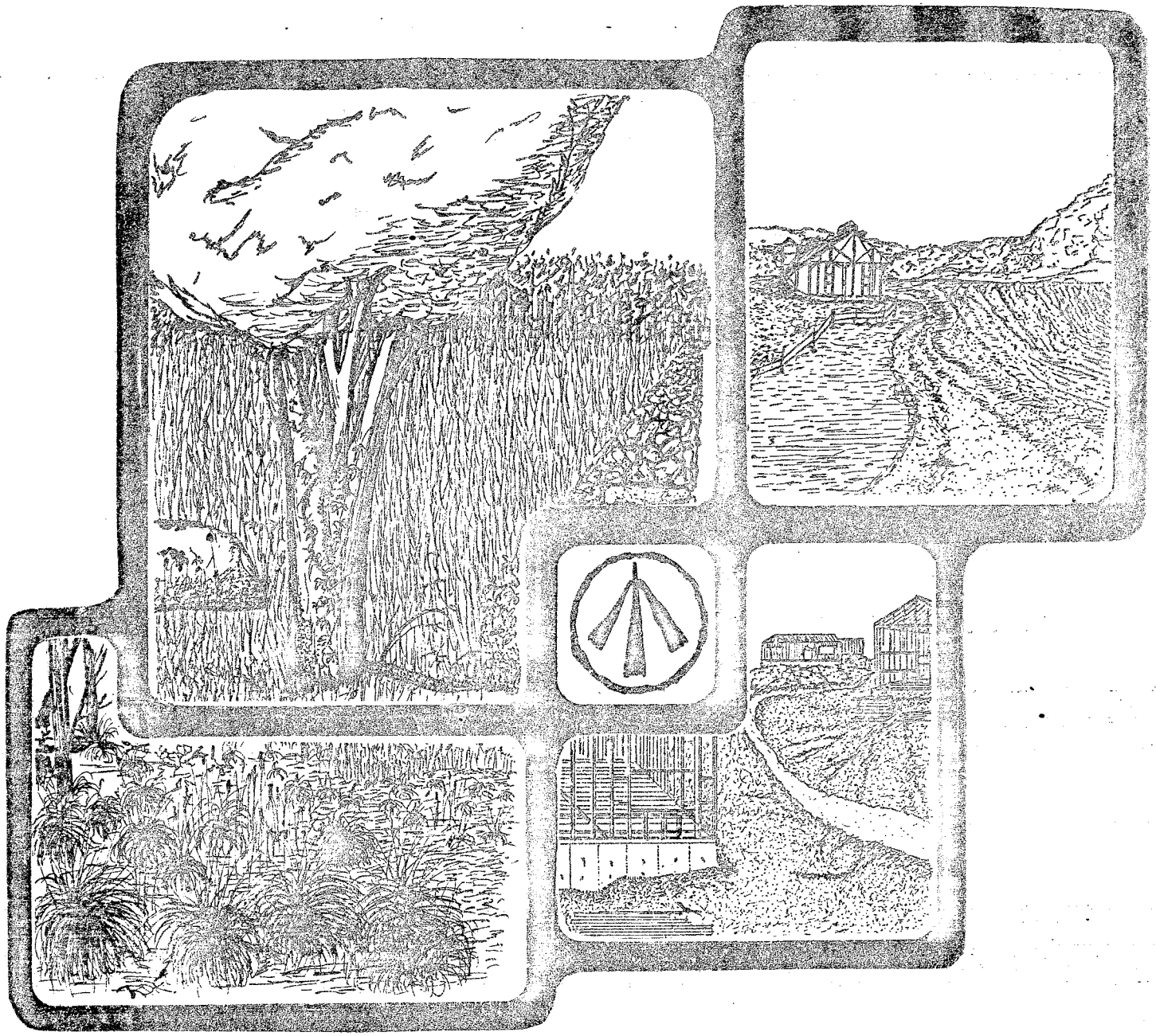
ENVIRONMENTAL REVIEW TEAM REPORT



PROPOSED ELDERLY HOUSING / TOWN OFFICE SITES

HARWINTON, CONNECTICUT

KING'S MARK

RESOURCE CONSERVATION & DEVELOPMENT AREA

KING'S MARK
ENVIRONMENTAL REVIEW TEAM REPORT

PROPOSED ELDERLY HOUSING / TOWN OFFICE SITES

HARWINTON, CONNECTICUT

King's Mark Resource Conservation and Development Area
Environmental Review Team
Sackett Hill Road
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
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
Central Naugatuck Valley Regional Planning Agency
Housatonic Valley Council of Elected Officials
Southwestern Regional Planning Agency
Greater Bridgeport Regional Planning Agency
Regional Planning Agency of South Central Connecticut
Central Connecticut Regional Planning Agency
Capitol Regional Council of Governments
American Indian Archaeological Institute
Housatonic Valley Association

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FUNDING PROVIDED BY
State of Connecticut

POLICY DETERMINED BY
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Northwestern Connecticut Regional Planning Agency

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Richard Lynn, ERT Coordinator
Sandra Bausch, ERT Cartographer
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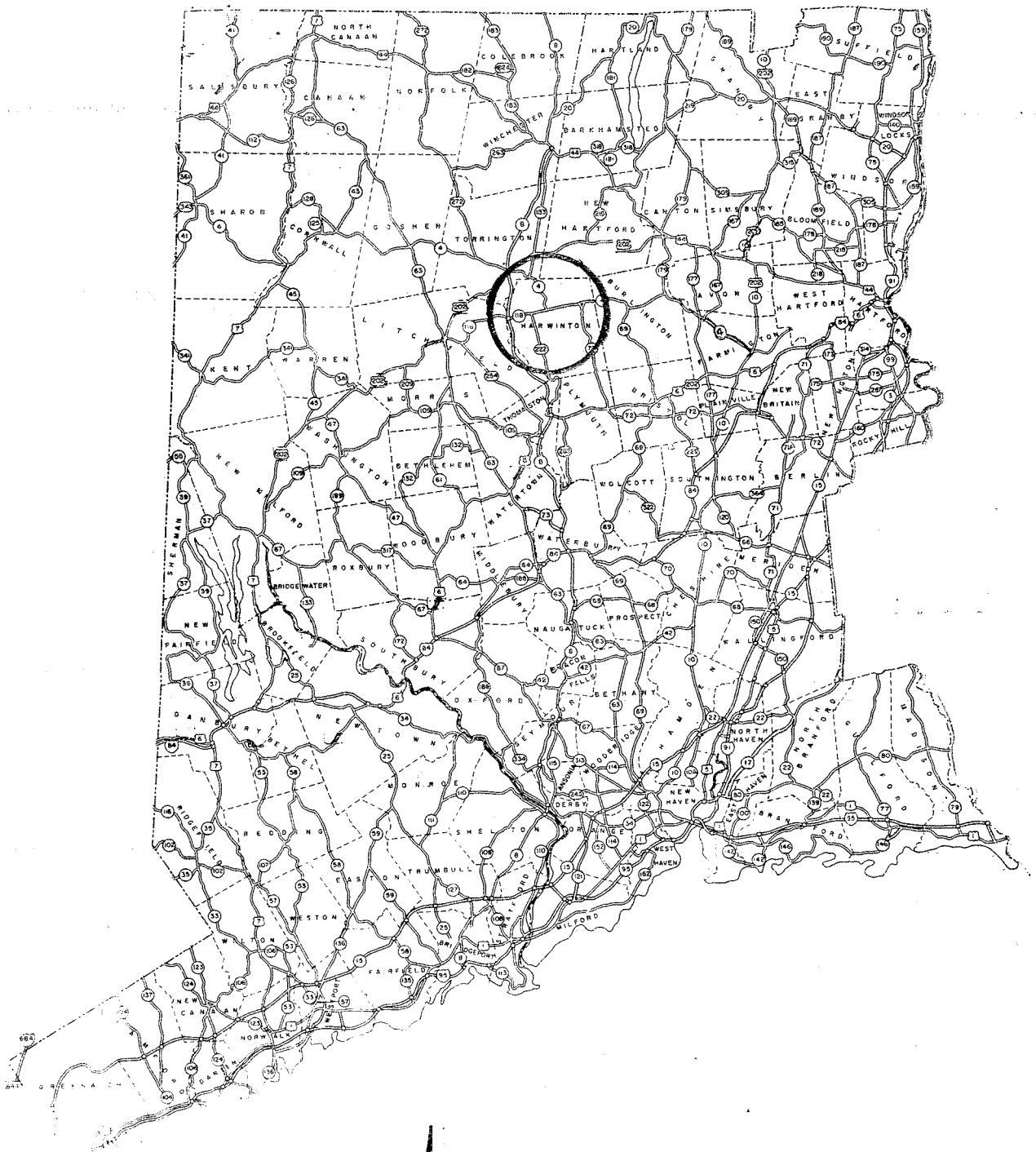


ENVIRONMENTAL REVIEW TEAM REPORT
ON
PROPOSED ELDERLY HOUSING/TOWN OFFICE SITES
HARWINTON, CONNECTICUT

I. INTRODUCTION

The King's Mark Environmental Review Team was requested by the First Selectman of Harwinton to prepare an environmental evaluation of two alternate sites being considered for elderly housing and town office development. This report presents the Team's findings.

Parcel A (see Figure a) is 26.7 acres in size and located directly behind (south of) the Harwinton Consolidated School. The site is owned by the town and characterized by wooded land of slight to moderate slope. Access to the site is available via a right-of-way off Rte. 118.

Parcel B is 18.2 acres in size and located about one mile west of Parcel A. The site is privately owned and consists of moderately to steeply sloping wooded land and old field. Access to the site is available from the north off Rte. 118.

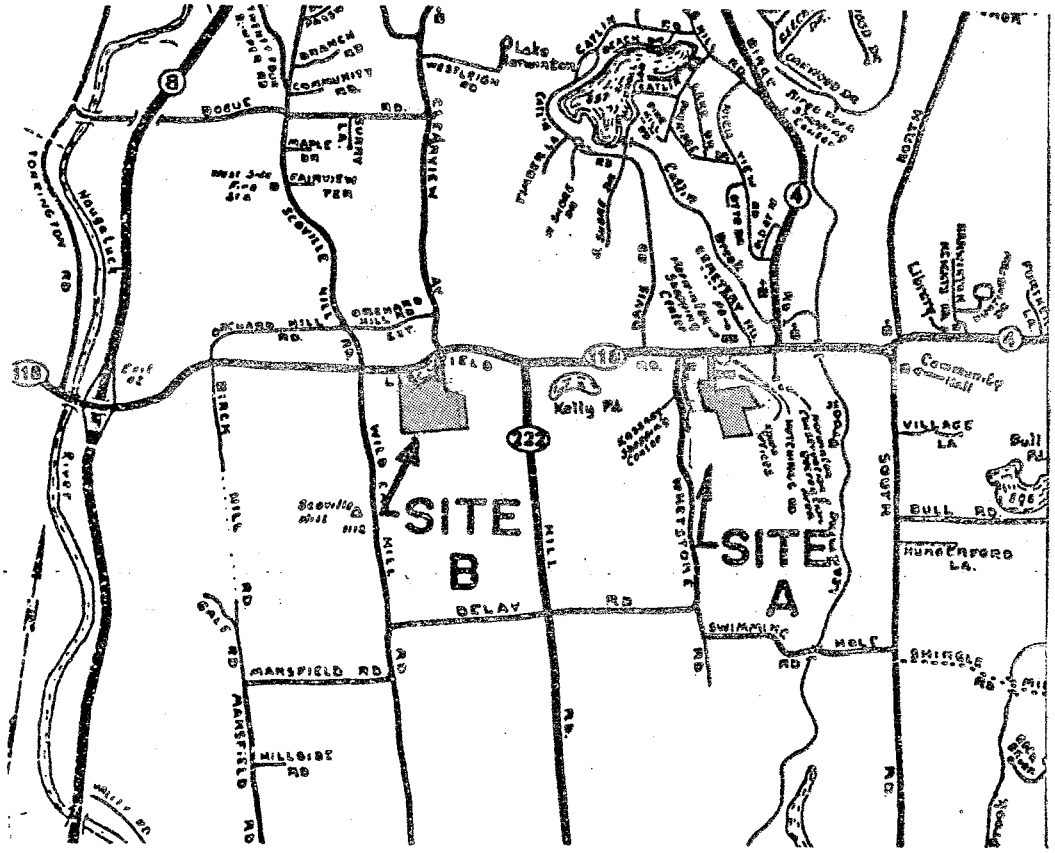
Currently, there are no elderly housing projects in town. According to the First Selectman, the need for such housing and a complementary senior center is great. The Town has applied for a grant from the State Department of Housing to construct the Senior Citizen Center and a 40 unit Elderly Housing Complex. The grant is to pay for the Senior Citizen Center and the site work for the housing complex. Remaining funds would come via a loan from FmHA for which the town is currently applying.

The Town of Harwinton requested the ERT study to learn of the environmental suitability of the two sites now being considered for the project. Specifically the Team was requested to: 1) identify the natural resource base of the two sites, and 2) to discuss the opportunities and limitations of the two sites for construction of the project.

The Town of Harwinton is also interested in constructing a new town office building. Although there are no immediate plans for construction, the Environmental Review Team was asked to comment on the suitability of Parcels A and B for construction of a town office building in addition to their use for elderly housing.

The King's Mark Executive Committee considered the Town's request, and approved this project for review by the Team.

a. LOCATION MAP



SCALE 1" = 4000'

The ERT met and field reviewed the sites on October 13, 1982. Team members participating on this review included:

John Alexopoulis.....Landscape Architect.....Ct. Cooperative Extension Service

Art Cross.....District Conservationist.....USDA Soil Conservation Service

Steve Dunn.....Transportation Planner.....Northwestern Ct. Regional Planning Agency

Richard Lynn.....ERT Coordinator.....King's Mark RC&D Area

Gil Roberts.....Sanitarian.....Torrington Area Health District

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, and a topographic map. Following the field review, individual reports were prepared by each team member and forwarded to the ERT Coordinator for complilation 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. It is hoped the information contained in this report will assist the Town of Harwinton 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, Sackett Hill Road, Warren, CT 06754.

* * * * *

II. GENERAL PLANNING CONSIDERATIONS

A. Land Use

Both sites A and B are located in "Country Residential" zones, the least dense of Harwinton's residential zones. Although, by special exception, a town office building may be permitted in this zone, a zoning change would be required at either site before the proposed elderly housing project could be built.

Site A is adjacent to present town facilities and is near stores and other amenities. Its use for elderly housing and/or a town hall would be quite compatible with existing adjacent land use.

Site B is located in a residential area and a town office building would not be consistent with surrounding land use in this area. Elderly apartments, although of a greater residential density than the existing dwellings, would be more in keeping with the character of the neighborhood.

B. Traffic

Both sites are located on State Route 118 which is the main road between Harwinton and Litchfield, and is also the access to expressway Route 8, two to three miles away. State traffic figures (1979) show an Average Daily Traffic (ADT) of 5000 at Site B and 5400 at Site A. Traffic generation statistics show that retirement communities generate 3.3 trip ends per unit and apartments 6.1 trip ends per unit. The proposed 40 unit development would therefore add 132 to 244 to the ADT. Hourly capacity of this road is 1760. At the most, the added traffic would create a volume/capacity (V/C) ratio of .42 at Site A. V/C ratios in excess of .75 are indications of congestion problems; therefore, the elderly housing proposal should not cause any traffic congestion problems at either site.

Traffic generation statistics for town office buildings are not available. Should either site be developed as a town office complex, it would presumably replace the existing one and therefore not alter current traffic conditions on Route 118.

C. Public Transportation

At the present time there is no public transportation in Harwinton. The Rural Transit Project for the Elderly, which has served neighboring towns for over three years, briefly offered service to Harwinton but it was not used and hence it was dropped from the schedule. At one time Harwinton was involved in another project with surrounding towns but this project folded. Just starting in the Litchfield Hills-Northwestern Planning Regions is Northwestern Connecticut Rural Transit which will offer bus service to all areas. Although Harwinton is not on the original routes, transit services and housing complexes tend to reinforce one another, and should senior housing be built in Harwinton, it would then make bus service to town more viable.

III. PARCEL A

A. Topography

As shown in Figure 1, the topography of Parcel A is diverse and consists primarily of moderate slopes. Several small former sand and gravel pits are located along the northern border of the property.

One perennial stream, located in the northeastern corner of the site, receives drainage from most of the property. This stream flows southeasterly from the site for about 1/2 mile where it joins Leadmine Brook. The southwestern corner of the property drains southwesterly to Kelly Pond Brook which in turn drains to Leadmine Brook.

As can be seen from Figure 1, the land surrounding Parcel A to the south and east is undeveloped. To the west, the land is large lot residential or farmland. To the north of the site is the Harwinton School, Route 118, and various residential and commercial buildings.

B. Soils

Figure 2 shows the soil types mapped for this property by the U.S.D.A. Soil Conservation Service. Table 1 names the soils and lists limiting factors for various land uses for each soil type. By comparing the Soils Map with Table 1, one can gain an appreciation of the suitability of various soils for alternate land uses.

As shown in Figure 2, the majority of Parcel A is mapped as well drained, Charlton stony fine sandy loam on slopes 3-8%. According to Soil Conservation Service criteria, limitations are slight for septic systems, buildings with basements, and roads or driveways. Limitations are moderate for landscaping due to large stones. There are some old borrow (sand and gravel) areas within this soil type which will need regrading if this area is developed.

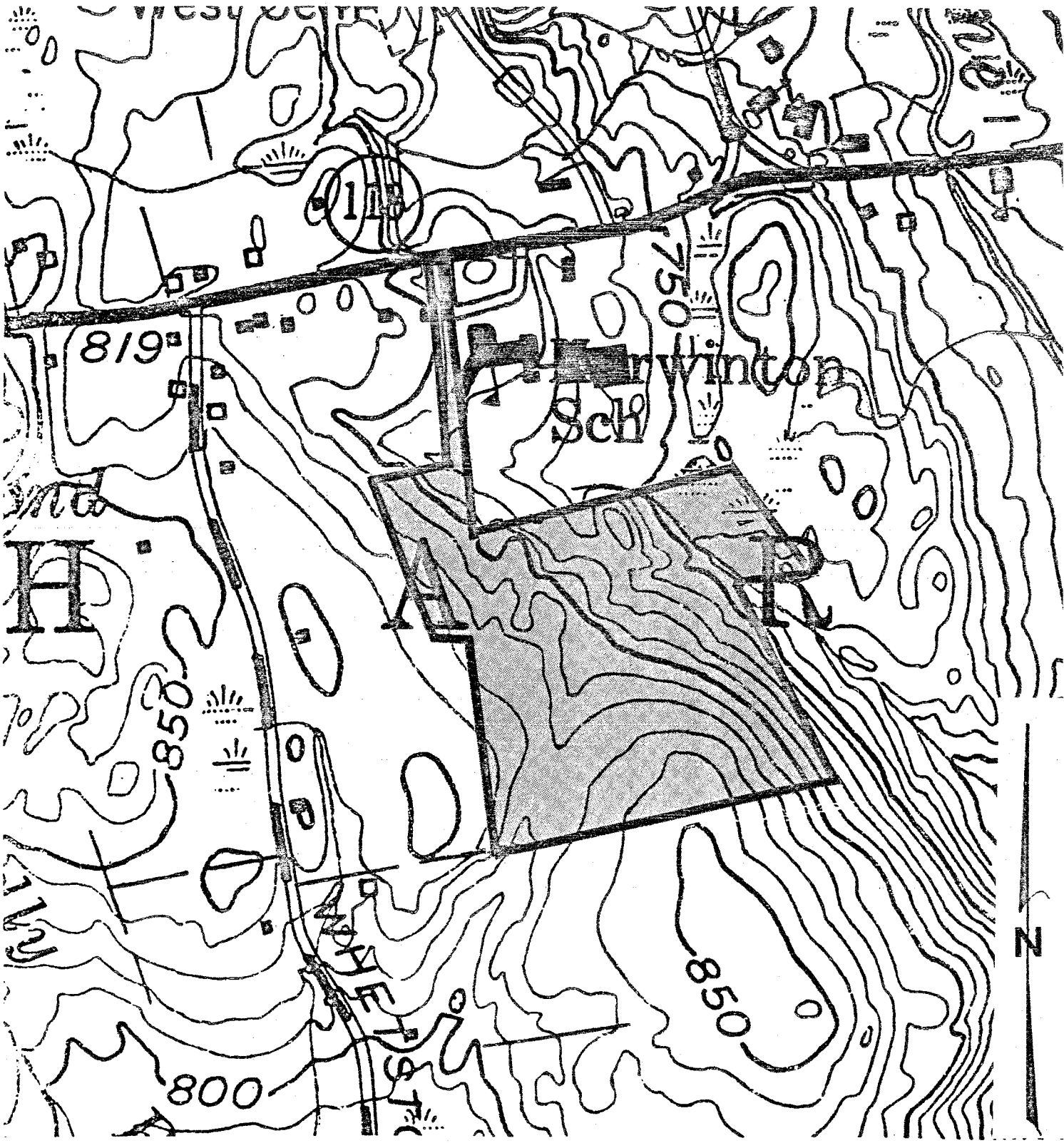
The area mapped as HkC (Hinckley gravelly sandy loam, 3-15% slopes) also has good potential for community development.

These two soil areas (ChB, HkC) have the best development potential on the property and there appears to be sufficient space to construct both an elderly housing complex and a town office building within this area. Figure 3 shows a conceptual site plan for the use of the property. As discussed in a later section of this report, access is a key consideration with regard to development of the site.

One advantage of constructing the elderly housing complex at the north end of the property is that the town recreation area to the east would be within easy walking distance. A properly constructed walking trail across ± 200 feet of wetland soil could provide direct access to the amenities of the Recreation Area (other trails, tennis courts, pond, picnic areas, etc.). Alternatively, access could be provided along the edge of the school fields to reach the recreation area. Although this alternate route would be longer, it would avoid disturbance to the wetland area and would be easier to develop and maintain.

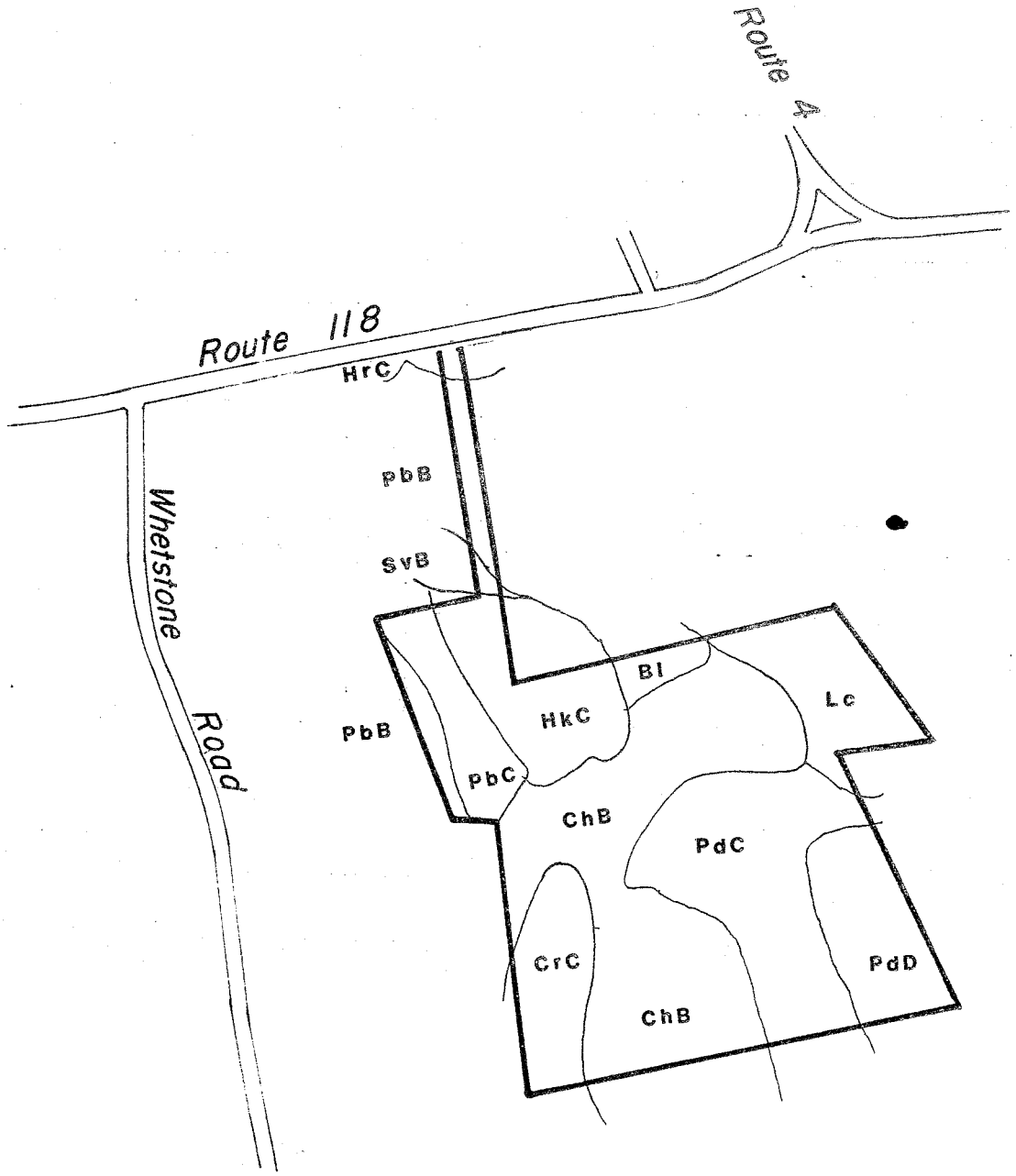
SITE A Figure 1

TOPOGRAPHIC MAP



1"=50

SITE A Figure 2
SOILS MAP



Scale 1"=500'

- Soil boundary lines derived from smaller scale map (1"=1320') and should not be viewed as precise boundaries but rather as a guide to the distribution of soils on the property.
- Adapted from Litchfield County Soil Survey, U.S.D.A.

TABLE 1.

SOILS LIMITATION CHART

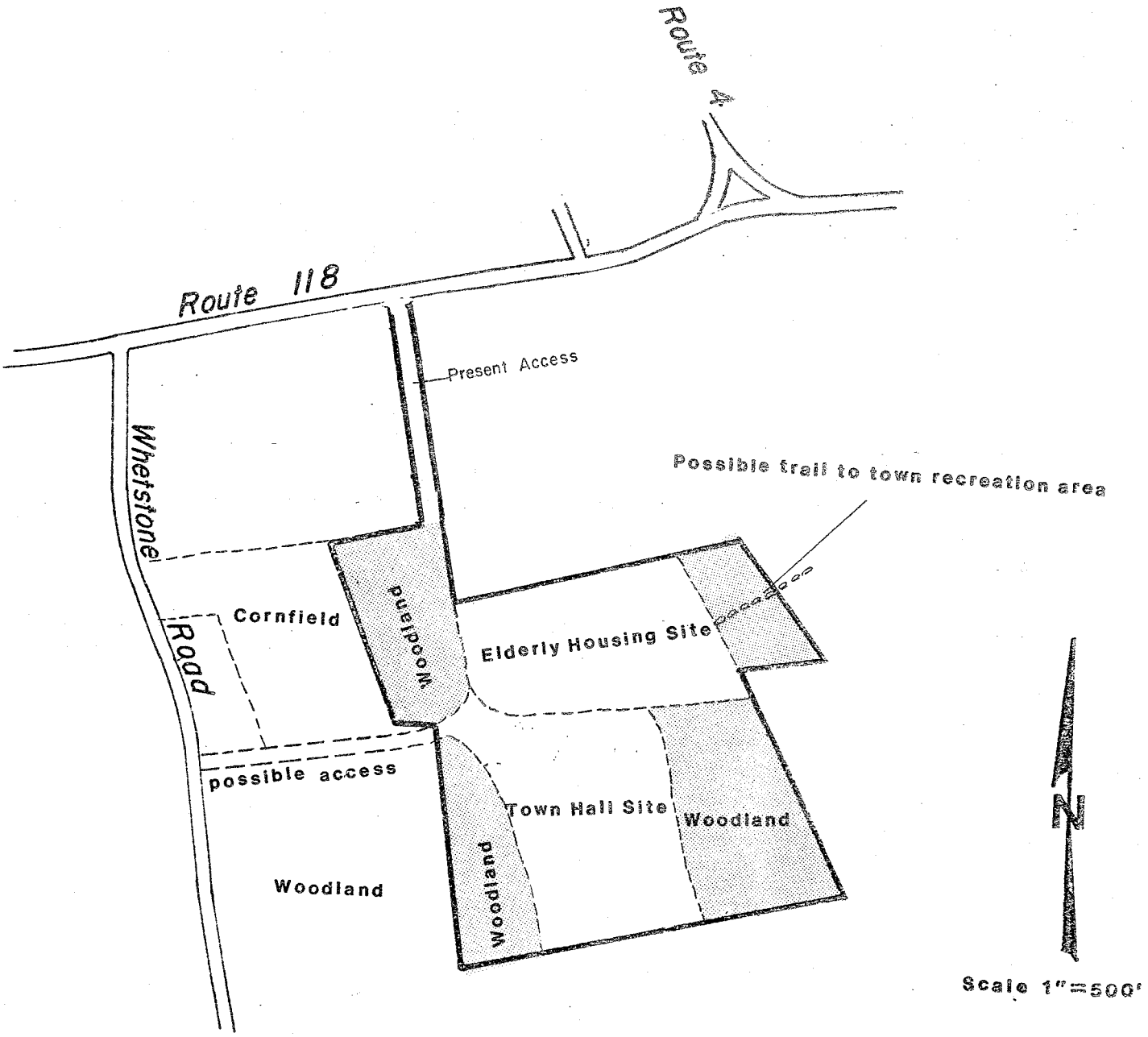
Parcel A

MAP SYMBOL	SOIL NAME	SEPTIC ABSORBTION FIELDS RATING	SEPTIC ABSORBTION FIELDS REASON	BUILDINGS w/ BASEMENTS RATING	BUILDINGS w/ BASEMENTS REASON	ROADS OR DRIVEWAYS RATING	ROADS OR DRIVEWAYS REASON	LANDSCAPING RATING	LANDSCAPING REASON
HkC	Hinckley gravelly sandy loam 3-15% slopes	Moderate	Slope	Moderate	Slope	Moderate	slope	Severe	Droughty
PdC	Paxton stony fine sandy loam 8-15% slopes	Severe	percs slowly	Moderate	slope wetness	Severe	slope, frost actn. wetness	Moderate	slope, large stones
HrC	Hollis very rocky fine sandy loam 3-15% slopes	Severe	depth to rock	Severe	depth to rock	Severe	depth to rock	Severe	thin layer
PbB	Paxton fine sandy loam 3-8% slopes	Severe	percs slowly	Moderate	Wetness	Moderate	frost action, wetness	Slight	
SwB	Sutton fine sandy loam 3-8% slopes	Severe	wetness	Severe	Wetness	Severe	frost action	Moderate	wetness
ChB	Charlton stony fine sandy loam 3-8% slopes	Slight		Slight		Slight		Moderate	large stones
PbC	Paxton fine sandy loam, 8-15% slopes	Severe	percs slowly	Moderate	slope, wetness	Moderate	slope, frost actn. wetness	Moderate	slopes
CrC	Charlton very stony fine sandy loam 3-15% slopes	Moderate	slope	Moderate	slope	Moderate	slope	Moderate	slope, large stones
PdD	Paxton stony fine sandy loam, 15-25% slopes	Severe	percs slowly	Severe	slope	Severe	slope	Severe	slope
Lc	Leicester stony fine sandy loam	Severe	wetness	Severe	wetness	Severe	wetness, frost actn.	Severe	wetness
Bl	Borrow & fill land loamy material	ON SITE INSPECTION NEEDED							

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.

Site A Figure 3
CONCEPTUAL SITE PLAN



If Site A is developed, the following measures should be considered to minimize environmental impact:

1) Land disturbance should be kept to a minimum so as to preserve the scenic character of the area, to minimize the landscaping that would be required, and to preserve the value of existing vegetation for erosion and stormwater runoff control.

2) Internal roads should be designed to follow existing land contours as much as possible.

3) Final plans should include erosion, sediment and runoff control measures.

C. Septic Systems and Water Supply

As previously discussed, there appears to be quite an extensive area of desirable soils for subsurface sewage disposal on this site. This area is mapped as Charlton (ChB) and Hinckley (HkC) soils in Figure 2. Six deep test pits and two percolation tests were conducted on this site by the Torrington Area Health District. The percolation rates were rapid (greater than 1 inch/ 5 minutes) and the deep test pits indicate that significant deposits of coarse grained sands and gravels are found to depths exceeding 10 feet. Soil stratification data and perc test information are included in the Appendix of this report together with a map of testing locations.

There are two large borrow pits on the site which approach 20 feet in depth revealing sandy materials. Some evidence of groundwater was noted at 9-10 feet depths, however the Team sanitarian does not believe that high groundwater levels will be a problem in these soils.

Conservative estimates of waste water generated by an elderly housing/town office complex would likely exceed 5,000 gallons/day and would therefore require design by a professional engineer and review by the State Department of Health and Environmental Protection. Additional soil testing would also be required to complete a final design.

Of the two sites evaluated for subsurface sewage disposal by the ERT, Parcel A is the most favorable. The extensive area of the suitable soils offers a greater flexibility in building locations and design and the excellent perc rates found would require a smaller and consequently less expensive septic system than Parcel B.

Based on data for existing wells in the area, it is unlikely that a single drilled well would produce sufficient yield to supply a complex of this size. Bedrock underlying the site is mapped as granite which has median well yields of 7 gallons per minute ("Water Resources Inventory of Connecticut, Part 5, Lower Housatonic River Basin", U.S.G.S., 1974). Of the wells surveyed by the U.S.G.S. in the aforementioned publication, less than 10% yielded 20 gallons per minute or more. (Note: a well yield of 2-3 gallons per minute is considered adequate for single family residential use.) It is probable, however, that the combined yield from a series of wells could satisfy water supply demands. If the coarse grained sands and gravel encountered in the deep test pits extend to sufficient depths

the installation of a gravel well might be possible. Such wells usually are high yielding and produce excellent quality water.

In the unlikely event that adequate water supply cannot be developed on this site, it should be noted that a significant stratified drift aquifer is located ± 1500 feet east of the site adjacent to Lead Mine Brook. High volume water yields can be expected from this aquifer.

D. Access

The proposed access to Site A is through the driveway currently used by the elementary school and the town offices. Traffic on this driveway currently follows a one-way "U" pattern (see Figure 1). At the eastern leg of the "U", sight distance to the east (right) is adequate, about 350 feet before a vertical curve. To the west (left) sight distance is blocked by a ledge outcrop at road's edge, only 60 feet from the driveway exit. If this ledge were removed, there would be another 400 feet of visibility before the next obstruction. For safety reasons, it is recommended that this ledge be removed whether or not Parcel A is developed.

It has been suggested that all traffic to and from Parcel A enter and exit on what is now the western leg of the "U". In this case, sight distance to the east is blocked by the aforementioned ledge. If the ledge is removed, visibility would be about 550 feet. To the west there is about 260 feet visibility before a ledge obstruction. Removal of this obstruction would give a clear view of well more than 1,000 feet.

The access strip to Parcel A as it passes the school is quite narrow; approximately 35 feet of right-of-way appears to be available. Passing so close to the school creates a hazard to young school children running around the corner from behind the school. If this driveway is used for vehicular traffic, a fence should be installed alongside to protect school children.

Better vehicular access could be achieved if the town were to acquire a right-of-way from the property westward to Whetstone Road. The right-of-way and road bed could be of proper width and conflict with school traffic and activities would be reduced. As a result provision of a Whetstone Road access to either town hall of senior center or both would greatly enhance the safety of school children. In addition, the slopes are not as steep or irregular from Whetstone Road, so less regrading would be required. For these reasons, an access from Whetstone Road should receive strong consideration, if this property is developed.

A disadvantage to the Whetstone Road access is the fact that road distance from the property to the shops, offices and churches would be increased by about 2/3 mile over the direct Route 118 access. In contemplating elderly housing, walking distances to amenities, even in a rural community, should be strongly considered. Although according to the Northwestern Area Agency on Aging, there are no planning standards for walking distance proximities for the elderly, it appears that an upper limit of about one-half mile would be reasonable. It would be possible to use a Whetstone Road vehicular approach and use the school-town office driveway for pedestrian access. This is probably the most desirable access solution as it would minimize vehicular hazards but still provide pedestrian access to the town center.

E. Vegetation and Landscaping Considerations

Parcel A is almost entirely wooded with mixed harwoods and occassional patches of conifers. Tree species are predominantly pole size (5-11 inches in diameter at breast height) and include red oak, white oak, sugar maple, red maple, white ash, white birch, black birch and black cherry. Conifers observed on site include eastern hemlocks, white pine and spruce. There are a number of large oaks and white pine on this site which have particularly high aesthetic value. These specimen trees should be preserved wherever possible if the site is developed. Other trees on the property have natural landscaping potential and should be saved and incorporated into landscape plans where possible.

Beneath the tree canopy, the growth of vegetation is generally sparce which gives the area an open character. Species observed in the understory include hardwood saplings, spicebush, huckleberry, mountain laurel, and various ferns and grasses. The patches of mountain laurel on the site are particularly valuable from an aesthetic standpoint and consideration should be given to protecting these during construction. Removing the overtopping tree cover will provide the mountain laurel with additional sunlight and stimulate flowering.

Consideration should be given to temporarily, but clearly, marking the tree species that are to be saved if they are near the construction area.

Solar access on this site is not ideal as the property slopes generally to the northeast. More trees than normal would require removal in order to increase passive solar radiation. There are nonetheless opportunities for passive solar design with construction of the project and the opportunities should be explored during the design phase.

In the opinion of the Team's landscape architect, noise from the playfield will only be generated during daylight hours, and the planting of an evergreen "buffer" would probably be sufficient to screen the two land uses and mitigate noise levels. A sufficient distance, perhaps 100' should nonetheless be kept between the playfields and any residence.

Due to existing slopes, housing units can more easily be constructed on this site than any large structures or parking lot. This is due to the ability to change floor levels easily with small structures, even if three or four are joined in clusters. Parking at two stalls per unit can also be designed more easily into the existing slopes.

* * * * *

IV. PARCEL B

A. Topography

As shown in Figure 4, Parcel B consists of gently sloping land in the southeastern and northwestern corners of the property. Elsewhere the land is moderately to steeply sloping.

There are no perennial streams on the site. Surface runoff flows northwesterly to an unnamed tributary of Pickett Brook, which in turn flows to the Naugatuck River.

The land surrounding Parcel B to the east, south, and west is undeveloped wooded land. To the north of the site is Route 118 and a number of residential buildings.

B. Soils

According to Soil Conservation Service mapping, Parcel B is underlain by eight (8) soil types (see Figure 5). Table 2 names the various soils and lists their limitations for various land uses. By comparing the Soils Map with Table 2, an appreciation of the soil suitability of this site for various land uses can be ascertained.

As shown in Table 2, the area most suitabile for development is in the southeastern portion of the property mapped as CaB (Charlton fine sandy loam, 3-8% slopes) and PbC (Paxton fine sandy loam, 8-15% slopes). This area is about 8 acres in size and appears to be large enough to support an Elderly Housing/Town Office Complex. The difficulty however is in providing access to this area. Access from Rte. 118 would have to traverse slopes of ± 20% to reach this area. To provide reasonable road grades of under 10%, considerable cutting and filling would be required and is probably not feasible.

C. Septic Systems and Water Supply

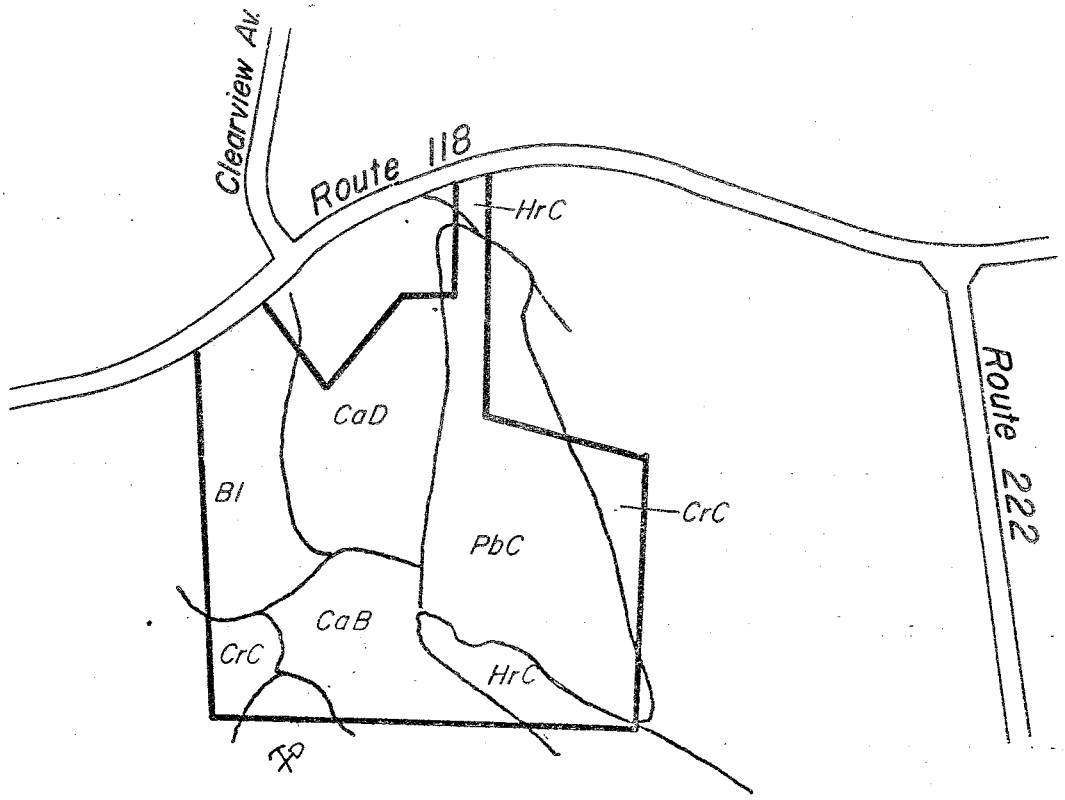
Three deep test pits and one percolation test were conducted on this site by the Torrington Area Health District. The percolation rate was in the 10-20 minute range, which is moderate for the soils encountered. Ledge rock was found in the deep test pits at various depths and is visible at the surface on the lower portion of the access road. For a complex of the size proposed, ledge could represent a design problem, particularly if it occurs at shallow depths on the more severely sloped hillsides. The results of the soil testing on this property by the Torrington Area Health District are presented in the Appendix of this report.

While it would appear the limitations of Parcel B can be engineered around to support the subsurface sewage disposal facilities required for the elderly housing/town complex, Parcel A is more favorable in its natural condition. As a result, subsurface sewage disposal facilities can more easily be constructed and at less expense at Parcel A than at Parcel B.

Site B Figure 4
TOPOGRAPHIC MAP

SCALE 1" = 500'

SITE B Figure 5
SOILS MAP



SCALE: 1" = 500'

Soil boundary lines derived from smaller scale map (1"=1320') and should not be viewed as precise boundaries but rather as a guide to the distribution of soils on the property.

Adapted from Litchfield County Soil Survey, U.S.D.A. - S.C.S.

TABLE 2.
SOILS LIMITATION CHART

Parcel B

MAP SYMBOL	SOIL NAME	SEPTIC ABSORBTION FIELDS RATING	SEPTIC ABSORBTION FIELDS REASON	BUILDINGS W/ BASEMENTS RATING	BUILDINGS W/ BASEMENTS REASON	ROADS OR DRIVEWAYS RATING	ROADS OR DRIVEWAYS REASON	LANDSCAPING RATING	LANDSCAPING REASON
PbC	Paxton fine sandy loam	Severe	percs slowly	Moderate	slope, wetness	Moderate	slope, frost actn. wetness	Moderate	slopes
CaD	Charlton fine sandy loam 15-25% slopes	Severe	slope	Severe	slope	Severe	slope	Moderate	slope
Wp	Whitman stony fine loam	Severe	percs slowly, ponding	Severe	ponding	Severe	frost actn. ponding	Severe	ponding
CrC	Charlton very stony fine sandy loam 3-15% slopes	Moderate	slope	Moderate	slope	Moderate	slope	Moderate	slope, large stones
SwB	Sutton stony fine sandy loam 3-8% slopes	Severe	wetness	Severe	wetness	Severe	frost action	Moderate	large stones, wetness
HrC	Hollis very rocky fine sandy loam 3-15% slopes	Severe	depth to rock	Severe	depth to rock	Severe	depth to rock	Severe	thin layer
CaB	Charlton fine sandy loam 3-8% slopes	Slight		Slight		Slight		Slight	
Bk	Borrow & fill land coarse material	ON SITE INSPECTION NEEDED							
Sand & Gravel									

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.

Bedrock underlying Parcel B is similar to that underlying Parcel A (i.e. granite). Therefore, bedrock well yields can be expected to be similar for the two parcels. As previously discussed, it is likely that the combined yield from a series of bedrock wells on each property could satisfy the water supply demands of the proposed project.

D. Access

Good access to Site B would be difficult to achieve. There are two possible accesses. The eastern most has nearly zero visibility to the east (right) due to ledge and vertical curvature, although to the west (left) visibility is more than adequate. At the western most location, visibility to the east (right) is more than adequate, to the west (left) it is marginally adequate, about 250 feet, due to vertical curvature. Both potential access locations enter the property and approach the more desirable building site at rather steep grades of the order of 20%. Construction to provide grades of 10% or less would be extremely difficult at best.

Site B is located more than 1½ miles from town services on a steep and winding road. Walking would be treacherous, especially for the elderly in the winter and is not recommended. All transportation to and from Site B should therefore be vehicular.

Due to these access limitations, Parcel B is considered by the Team planner to have poor suitability for development of an elderly housing and/or town office complex.

E. Vegetation and Landscaping Considerations

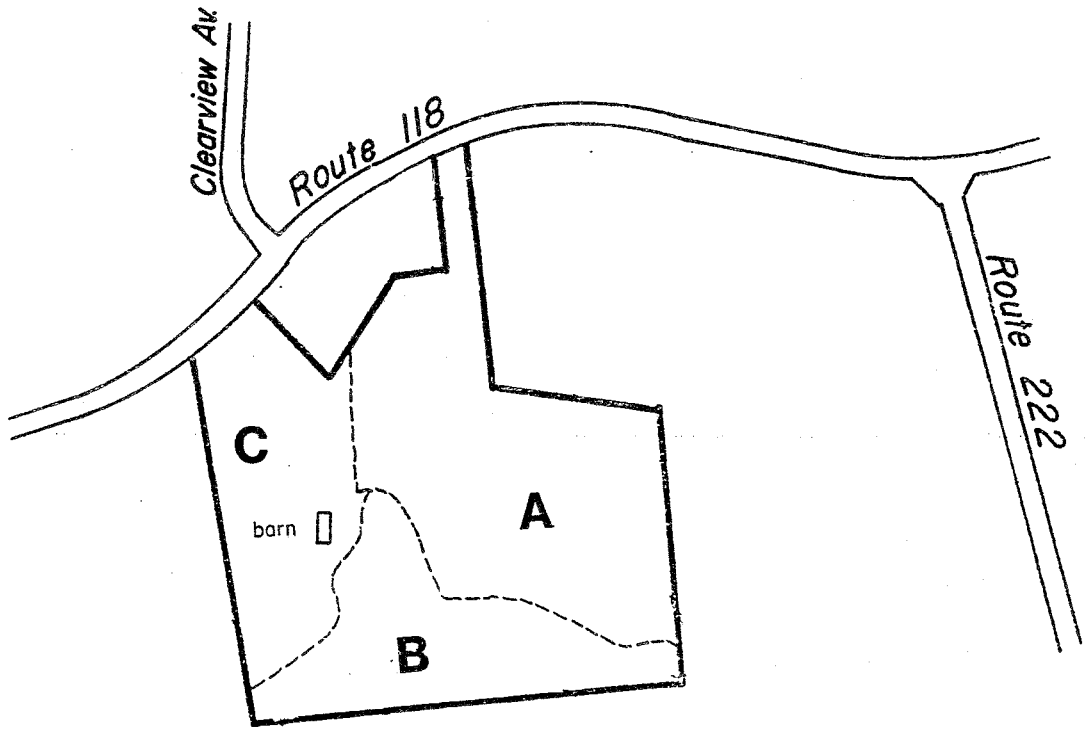
As shown in Figure 6, three major vegetation types are present on this property. These include:

STAND A. OLD ORCHARD. This ± 8 acre area is an old apple orchard. In addition to numerous apple trees, the area consists of early successional species of vegetation such as white pine, white birch, black birch, poplar, sweet fern, golden rod, and grasses. Most of the tree species present are sapling size (1-5" in diameter).

STAND B. MIXED HARDWOODS. This area is relatively open and consists of a variety of hardwood tree species including white pine, red oak, white birch, and black cherry. Patches of mountain laurel are present in the understory. The tree species present are mostly pole size (5-11 inches in diameter) and do not have high commercial value.

STAND C. MIXED HARDWOODS. This land was denuded about 25 years ago, apparently for fill material. The land has since reverted to a young mixed hardwood stand of white birch, poplar, sugar maple, and black birch. The trees are mostly sapling to pole size and the growth is dense.

SITE B Figure 6
VEGETATION TYPE MAP



Scale 1"=50

LEGEND

STAND **A** Old orchard, ± 8 acres.

STAND **B** Mixed hardwoods, pole size, ± 5 acres.

STAND **C** Mixed hardwoods, sapling to pole size, ± 5 acres.

LANDSCAPING CONSIDERATIONS

The vegetative diversity, topographic variety and scenic view to the northwest combine to make Parcel B an attractive piece of property. As with Parcel A, opportunities for solar development are not great due to the north sloping relief of the property. Should this property be developed in the future, efforts should be taken to incorporate existing vegetation (particularly the apple trees) into landscaping plans. At the present time, this property offers excellent wildlife habitat due to the variety of vegetation types on the site.

* * * * *

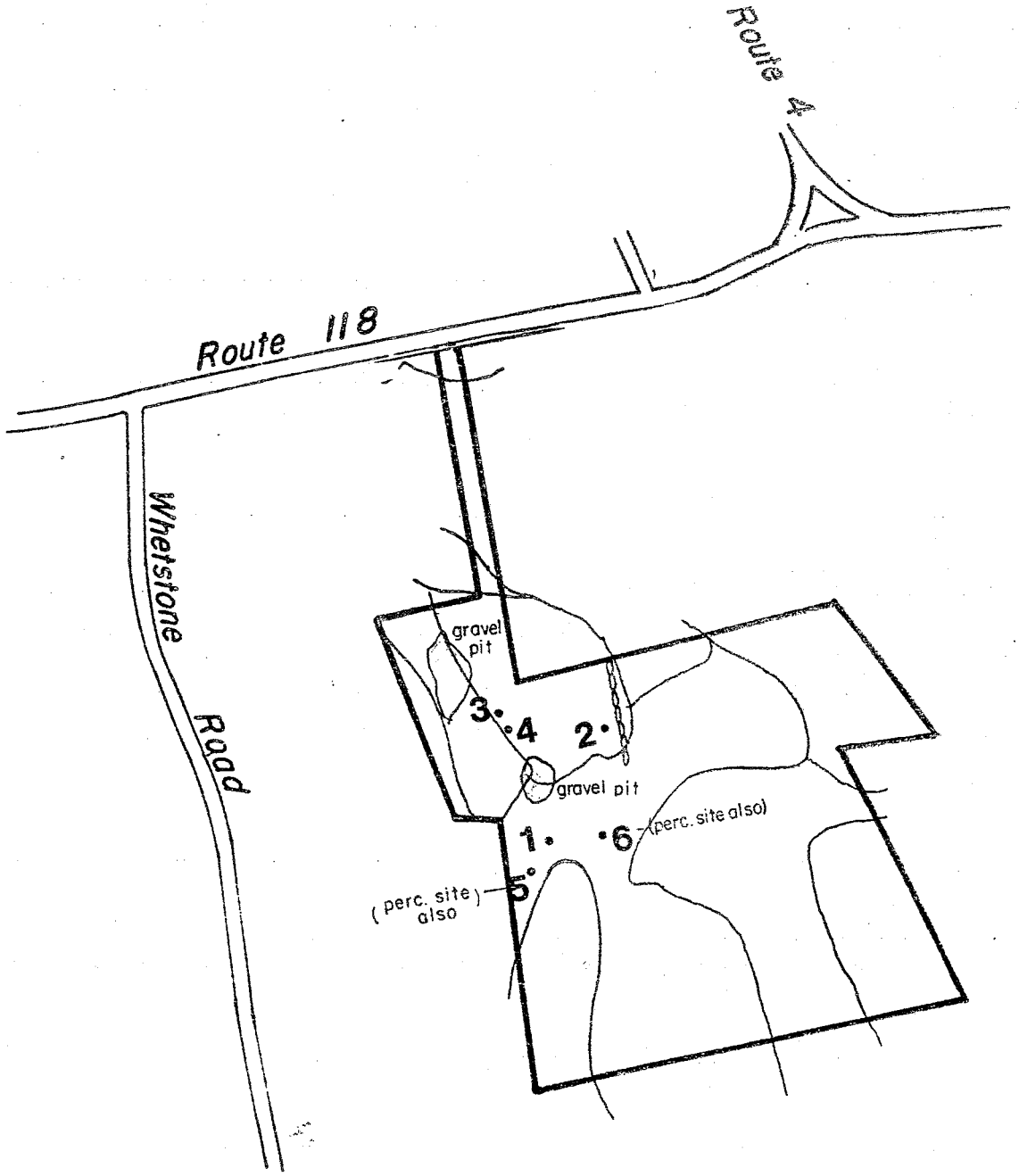
V. APPENDIX

. Results of on-site testing by the Torrington Area Health District.

Site A

Approximate

TEST PIT LOCATIONS



Scale 1"=5

Test pit results on following page

FORM #2 THOMASTON [illegible] TH DEPARTMENT APPLICATION NO. _____

INVESTIGATION FOR SEWAGE DISPOSAL SYSTEM

Owner TOWN OF HARWINTON LOCATION Behind School - Off RT 118 - PARCEL "A"

PERCOLATION TESTS: (Record all tests) Nov 4, 82 SOIL MOISTURE: (High, ~~Med.~~ Low, etc.
(Date)

TEST READINGS

HOLE #1		HOLE #2		HOLE #3		HOLE #4	
Time	Reading	Time	Reading	Time	Reading	Time	Reading

TABULATION OF TEST RESULTS

Hole	Location	Depth (Inches)	Presoak (Hrs.)	Minimum Percolation Rate (Min./Inch)
1				
2				
3				
4				

OBSERVATION PITS: (Record all pits) _____ Ground Water Table: (Near Max., Below Max., Et
(Date)

SOIL DESCRIPTIONS

PIT A 5	PIT B 6	PIT C	PIT D
0-6 Topsoil of Humus 6"-28" silty sandy brown loam 28"-36" red-yellow coarse sand 36"-5' sifted yellow coarse sand & stone 1/2"-1 1/2" 5'-8' uniform coarse gray sand H2O @ 8'	0-6 Topsoil of Forest Mat 6-20" red-yellow sand 20"-4 1/2' red yellow sand with stone (very loosely deposited) 4 1/2-8' light gray brown sand (coarse in) silty sand at 8' very wet @ 8' but no water		

TABULATION OF OBSERVATION PITS

Pit	Location	Depth	Ledge At	Ground Water At	Soil Mottling
A 5	See sketch	8'	NONE	8'	NOT DISTI
B 6	" "	9'	NONE	8'	" "
C					
D					

FORM #2 THOMASTON [illegible] TH DEPARTMENT

APPLICATION NO. _____

INVESTIGATION FOR SEWAGE DISPOSAL SYSTEM

Owner TOWN OF HARWINTON LOCATION BEHIND SCHOOL OFF RT 118 - PARCEL "A"

PERCOLATION TESTS: (Record all tests) Nov 4, 82 (Date) SOIL MOISTURE: (high, ~~med~~, ~~low~~) etc

TEST READINGS

HOLE #5		HOLE #6		HOLE #3		HOLE #4	
Time	Reading	Time	Reading	Time	Reading	Time	Reading
1:31	19¼	1:33	19¼				
1:36	21¾	1:38	22⅞				
1:41	23¾	1:43	24¾				
1:46	25½	1:48	26¼				
1:51	27¼	1:53	28				
1:56	29	1:58	empty				

empty

TABULATION OF TEST RESULTS

Hole	Location	Depth (Inches)	Presoak (Hrs.)	Minimum Percolation Rate (Mins./Inch)
1 6	SITE #5 SKETCH	30"	4	LESS THAN 5 MIN/IN
2 6	SITE #6 SKETCH	31"	4	" "
3				
4				

OBSERVATION PITS: (Record all pits) _____ (Date) Ground Water Table: (Near Max., Below Max., Ft

SOIL DESCRIPTIONS

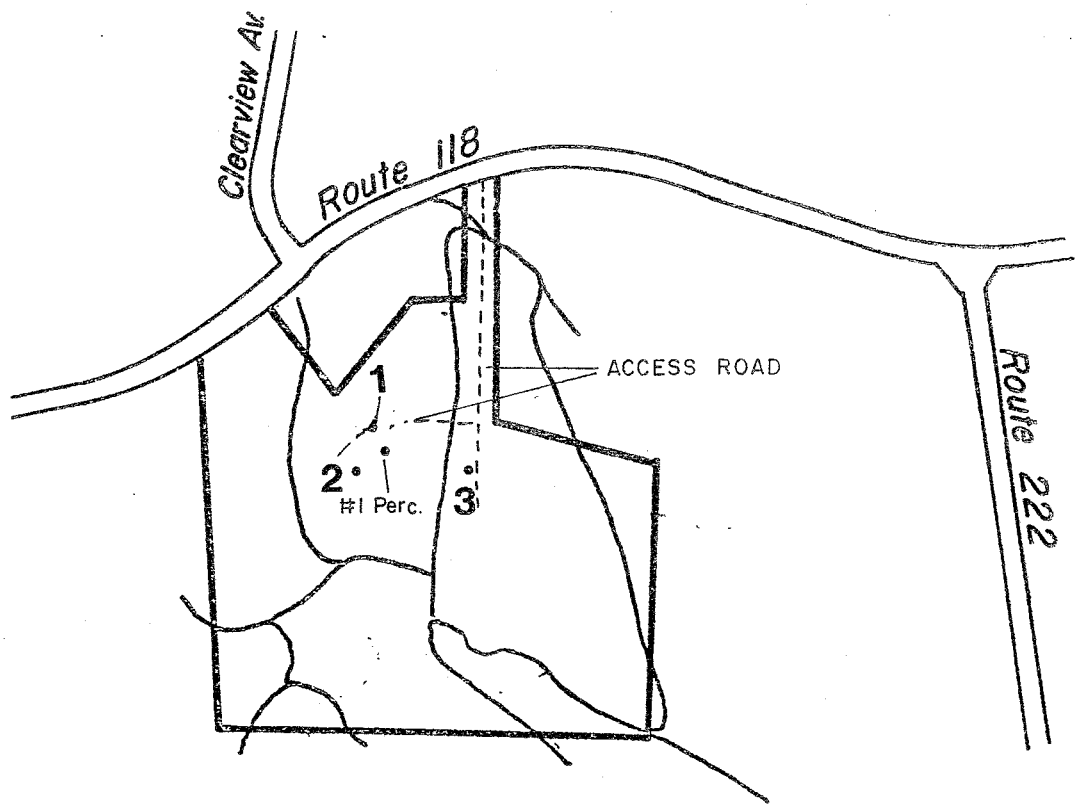
PIT A 1	PIT B 2	PIT C 3	PIT D 4
0-8 TOPSOIL & FOREST MAT. 8-32 Light brown sandy loam 32"-38" fine grey sand 38"-10' yellow brown very sandy stoney & sand H2O @ 9'	0-10 TOPSOIL FOREST MAT. 10"-3' red brown sandy loam 3'-5' very coarse textured, loosely deposited grey sand 5'-8' Sandy brown grey full-tightly deposited. no water	large flat boulders & rocks - moved to location #4	0-8 TOPSOIL FOREST MA 8"-48" silty brown loam with many round ston 48-52 band of fine grey sand (silty) - cou be seasonal water live 52" 7½' grey sand tightly packed

TABULATION OF OBSERVATION PITS

Pit	Location	Depth	Ledge At	Ground Water At	Soil Mottling
A 1	See sketch	9'	NONE	9'	NOT DISTIN
B 2	" "	8'	NONE	NONE	" "
C 3	" "	2½'	NONE	NONE	" "
D 4	" "	7½'	NONE	NONE	48"?

SITE B

Approximate
TEST PIT LOCATIONS



Test pit results on following page

SCALE: 1" = 500'

FORM #2 THOMASTON HEALTH DEPARTMENT

APPLICATION NO. _____

INVESTIGATION FOR SEWAGE DISPOSAL SYSTEM

Owner _____ LOCATION SITE B OFF RT 118 (OPP CLEAR [illegible]

PERCOLATION TESTS: (Record all tests) Nov 4, 82 (Date) SOIL MOISTURE: (high, (med.), (low), etc.

TEST READINGS

HOLE #1		HOLE #2		HOLE #3		HOLE #4	
Time	Reading	Time	Reading	Time	Reading	Time	Reading
1:58	18						
2:03	18 1/2						
2:08	18 7/8						
2:13	19 1/8						
2:18	19 1/8						
2:23	19 3/4						

TABULATION OF TEST RESULTS

Hole	Location	Depth (Inches)	Presoak (Hrs.)	Minimum Percolation Rate (Mins./Inch)
1	SEE SKETCH	30	4	10 20 MIN/INCH
2				
3				
4				

OBSERVATION PITS: (Record all pits) _____ (Date) Ground Water Table: _____ (Near Max., Below Max., Etc)

SOIL DESCRIPTIONS

PIT A	PIT B	PIT C	PIT D
0-8 TOPSOIL 8-36" SILTY LOAM 36"-9' LIGHT GRAY SANDY MATERIAL-INCREASING DENSITY W DEPTH	SIMILAR TO A BUT LEDGE @ 5 1/2'	SIMILAR TO A BUT LEDGE @ 8'-LOOSE MICA SHIST AT 30"	

TABULATION OF OBSERVATION PITS

Pit	Location	Depth	Ledge At	Ground Water At	Soil Mottling At
A	SEE SKETCH	9'	NONE	NONE	NOT DISTIN
B	"	5 1/2'	5 1/2'	NONE	"
C	"	8'	8'	NONE	"
D					

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.