Environmental Review Team Report

Corson & Kranc Subdivision

Brooklyn, Connecticut

RC&D

EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

Environmental Review Team Report

Corson & Kranc Subdivision

Brooklyn, Connecticut

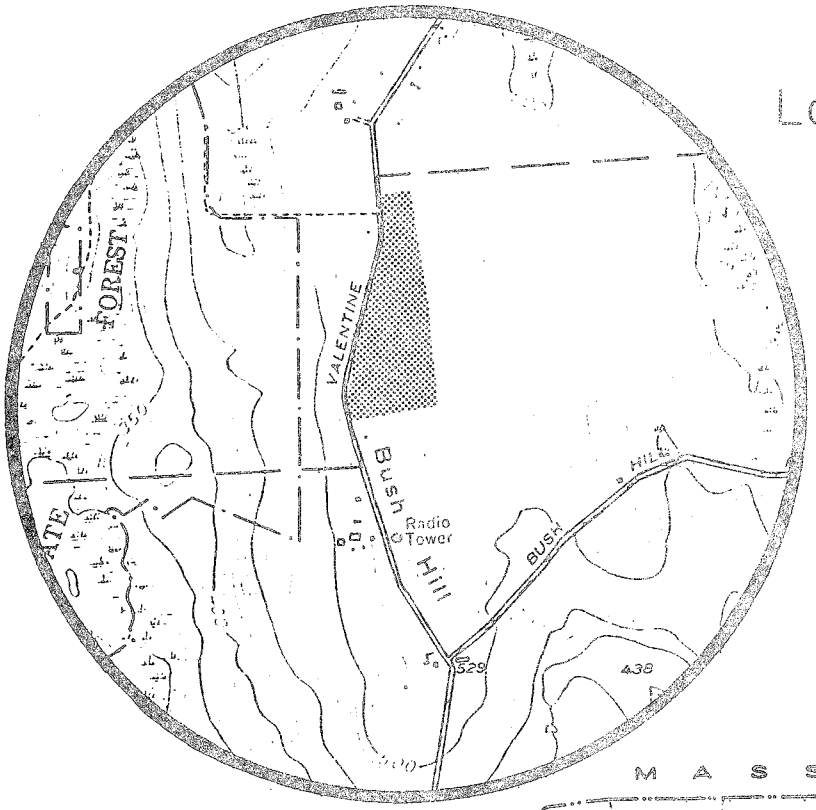
March 1983

Eastern Connecticut Resource Conservation & Development Area

Environmental Review Team
PO Box 198
Brooklyn, Connecticut 06234

Location of Study Site

CORSON & KRANC SUBDIVISION
BROOKLYN, CONNECTICUT



EASTERN CONNECTICUT
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ENVIRONMENTAL REVIEW TEAM REPORT
ON
CORSON & KRANC SUBDIVISION
BROOKLYN, CONNECTICUT

This report is an outgrowth of a request for the Brooklyn Inland Wetlands Commission to the Windham County Soil and Water Conservation District (S&WCD). The S&WCD referred this request to the Eastern Connecticut Resource Conservation and Development (RC&D) Area Executive Committee for their consideration and approval. The request was approved by the RC&D Executive Committee and the measure was reviewed by the Eastern Connecticut Environmental Review Team (ERT).

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

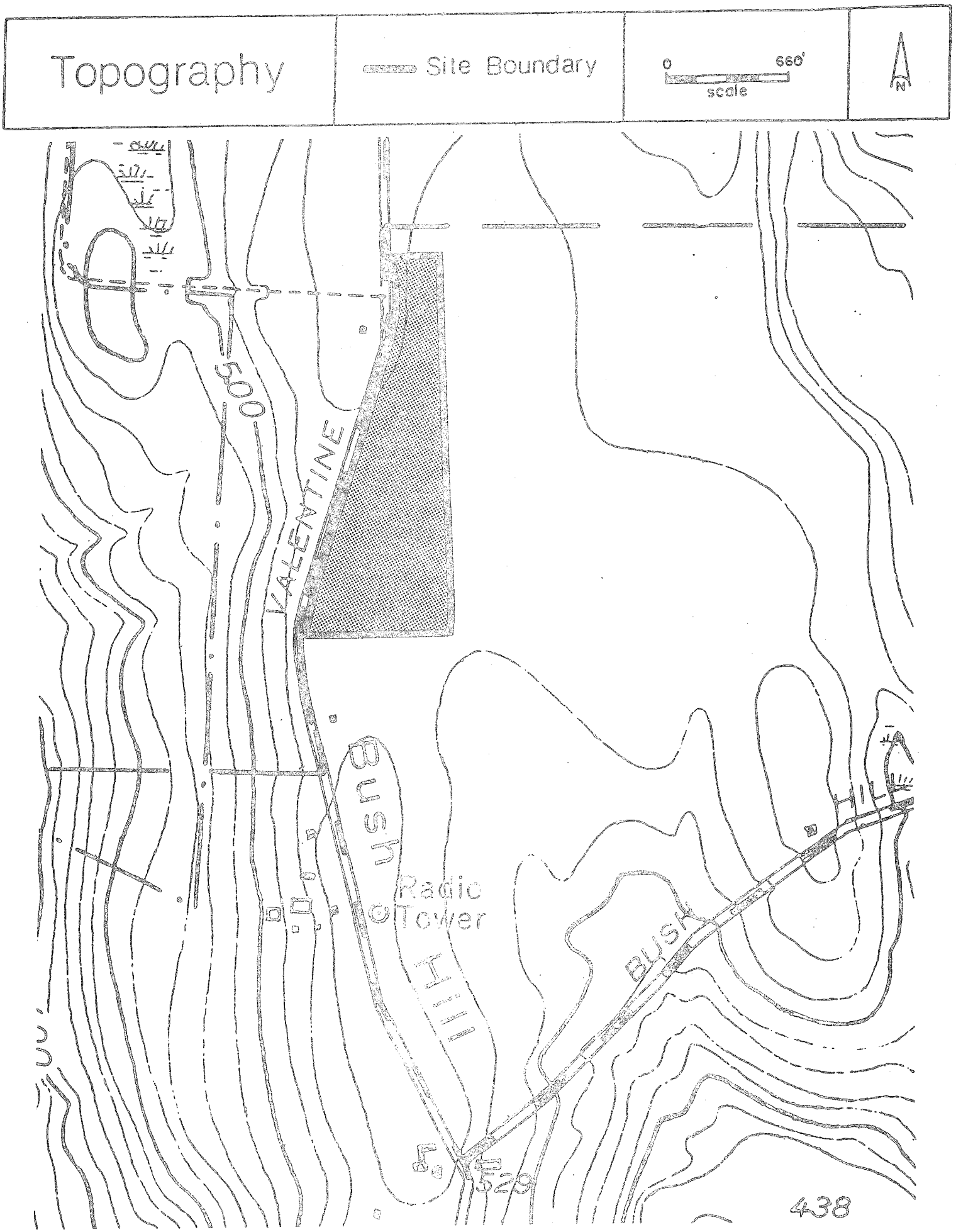
The ERT that field-checked the site consisted of the following personnel: Howard Denslow, District Conservationist, Soil Conservation Service (SCS); Al Roberts, Soil Resource Specialist (SCS); Bill Warzecha, Geologist, Connecticut Department of Environmental Protection (DEP); Dick Raymond, Forester, (DEP); Maureen Peters, Regional Planner, Northeast Regional Planning Agency; Don Capellaro, Sanitarian, State Department of Health, Marla Butts, Wildlife Biologist, (DEP); and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

The Team met and field-checked the site on Tuesday, March 1, 1983. Reports from each contributing Team member were sent to the ERT Coordinator for review and summarization for the final report.

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

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

If you require any additional information, please contact: Ms. Jeanne Shelburn, Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, P.O. Box 198, brooklyn, Connecticut, 06234, 774-1253.


Topography
Site Boundary
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660'
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VALENTINE
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INTRODUCTION

The Eastern Connecticut Environmental Review Team was asked to prepare an environmental assessment for a proposed subdivision in the town of Brooklyn. The property is approximately 20 acres in size, with an estimated 2000 feet of road frontage. The site is located on the eastern side of Wolf Den Road, near the town's boundary with Pomfret. The property is presently owned by Charles Corson, Jr. and Sam Kranc. Engineering plans have been prepared for the proposal and were presented for Team examination on the date of the field review.

Plans show six proposed lots ranging in size from 1.3 acres to 8.8 acres each. All will front on Wolf Den Road. Each lot will be served by on-site wells and on-site septic systems. The developer plans to build homes on these proposed lots prior to sale of the land.

The property is forested at present, although a woodland thinning was undertaken in 1981. A considerable portion of the site is comprised of regulated wetland soils (P.A. 155). Another large soil component on the site has a seasonal high water table. Most of the property is extremely flat, which may lead to future drainage problems. The nothernmost section of the site has many large stones which may need to be removed prior to home construction.

The Team is concerned with the effect of this proposal on the natural resource base of this site. This particular property has a number of severe limitations to development which will be discussed in detail in the following sections of this report. Although many severe limitations to development can be overcome with appropriate engineering techniques, such as those proposed by this developer, these measures can become costly, making a project financially unfeasible.

The most severe limitation to development of this site is posed by the wetland soils and those poorly drained soils with a high water table. Fill material will be required for siting and grading around houses, as well as for installation of septic systems. Improper placement of fill may result in wet basements and failing septic systems. If this proposal is approved, the Commission should make every effort to inspect this development on a regular basis during construction.

ENVIRONMENTAL ASSESSMENT

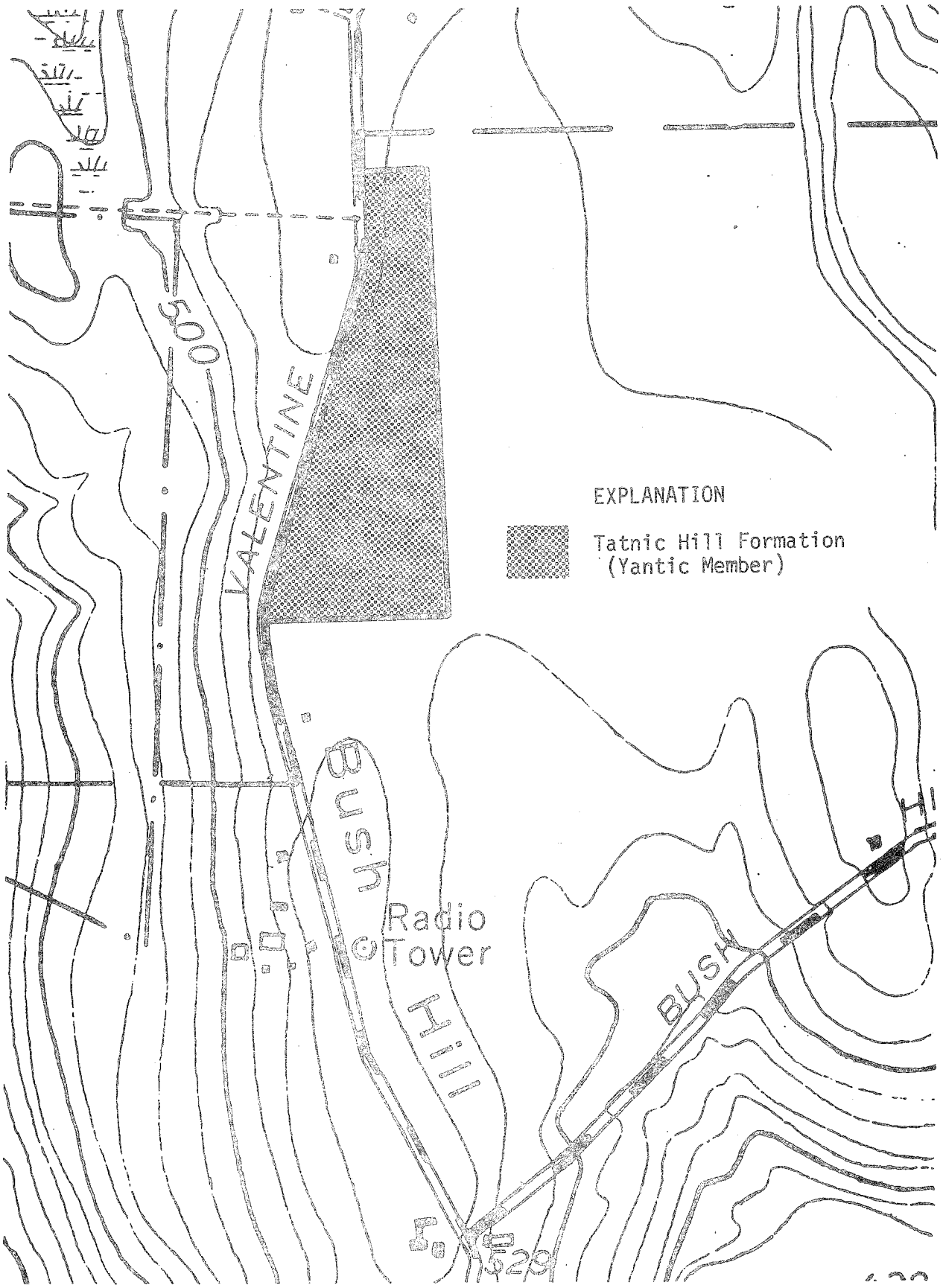
TOPOGRAPHY

The proposed 6 lot subdivision is located north of Bush Hill on the east side of Wolf Den Road in the town of Brooklyn. The land surface elevation of the site ranges between 520 and 530 feet above mean sea level. Slopes throughout the property are generally flat. Elevations were taken from the Danielson quadrangle map published by the United States Geological Survey (USGS).

Bedrock Geology

0 660
scale

N



GEOLOGY

The site is located in a section of Brooklyn which is included in the Danielson topographic quadrangle. A bedrock geology map of the quadrangle (Map GC-696 by H. Roberta Dixon) and a surficial geology map of the quadrangle (Map GC-660 by Allan D. Randall and Fred Pessl, Jr.) have been published by USGS. Both maps can be acquired at the Natural Resource Center of the Department of Environmental Protection in Hartford.

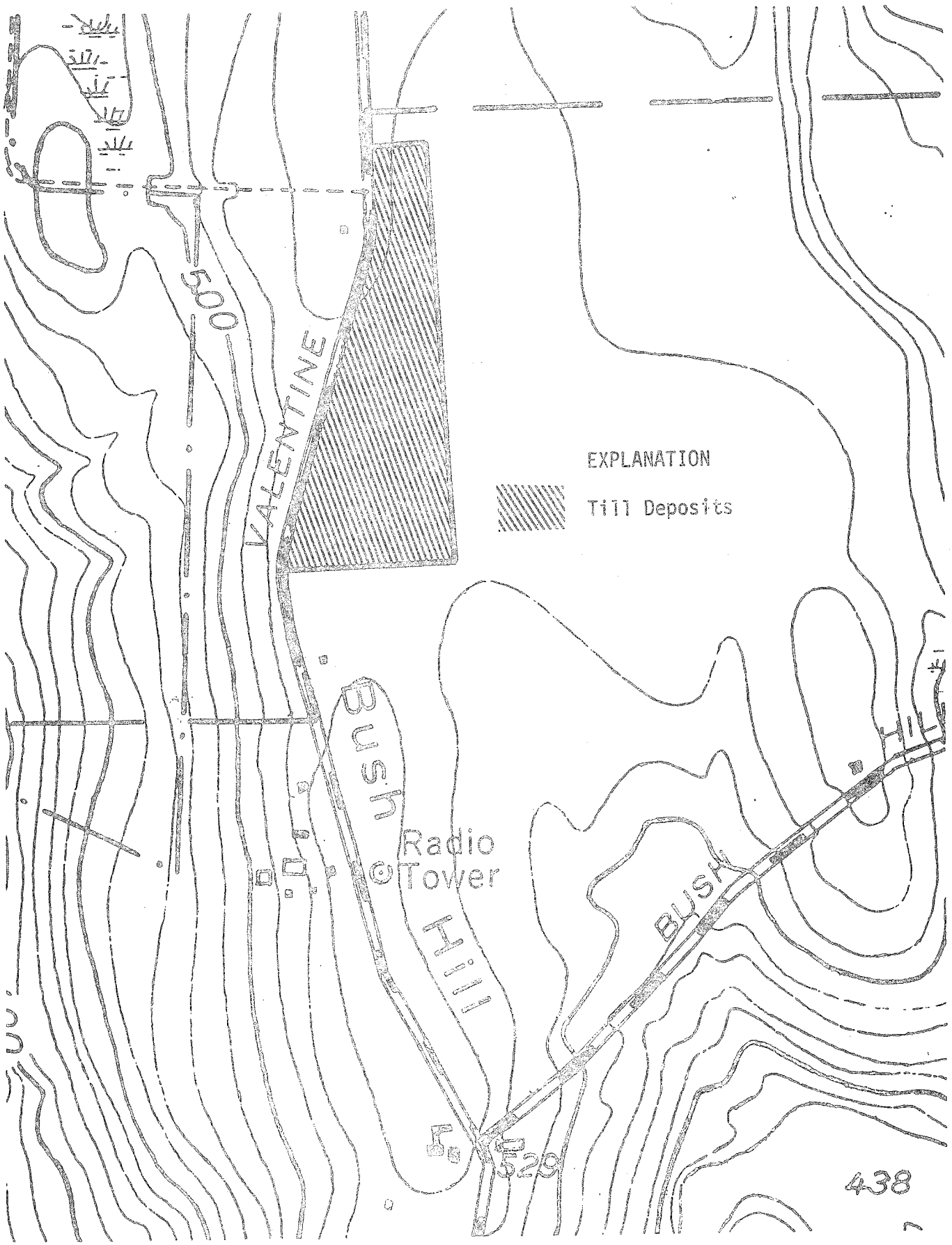
Till is the surficial geologic material overlying bedrock which covers the entire property. "Till" is a sediment composed of a nonsorted, nonstratified mixture of sand, sile, clay, gravel and boulders which were deposited directly by the glacier. The texture of till may be sandy and loose, silty and compact, stoney or nonstoney or otherwise. Based on deep test hole information supplied by the engineer a compact layer of till was encountered at depths ranging between 24" and 32" below the surface of the ground. Due to the silty and compact texture of the till, groundwater does not easily filter through this layer creating a perched water table. The presence of the perched water table throughout the site makes it an area of special concern, primarily with respect to subsurface sewage disposal systems. Also, if house foundations are not properly constructed and footing drains not installed, groundwater may seep into basements. The total thickness of this material is not known, but probably is not much greater than 10 feet.

No bedrock outcrops were observed on the site during the review, however, bedrock underlying the site is classified with the Yantic Member of the Tatnic Hill Formation. The Yantic Member is described as a medium to dark gray, fine to medium grained, muscovite-biotite-oligoclase, quartz schist. Accessory minerals are zircon, apatite and opague minerals. The term "schist" is used for metamorphic rocks in which wlongate or flaky minerals are predominant and aligned giving the rocks a layered structure. "Metamorphic rocks" are rocks which have been changed under conditions of high temperature and pressure deep within the earth. Based on deep test hole information, bedrock was not encountered in any holes which averaged about seven feet. The proposed subdivision bedrock will have little influence except in terms of on-site water supply and water quality.

HYDROLOGY

As mentioned earlier in the report, much of this site is very wet. This wetness is attributed mainly to the compact nature of the substrata which tends to maintain high groundwater table. Although no major watercourse were observed on the property the rear portions of all lots has been mapped as a wetland by the soil scientist. Surface and subsurface runoff emanating from the front portions of Lot 4, 5 and 6 moves slowly westward by sheet flow until it finally re-emerges at the surface in the ditch which runs along Wolf Den Road. This ditch is drained by two 18" reinforced concrete pipes both of which discharge onto properties west of Lots 5 and 6. Ultimately, runoff discharges into Blackwell Brook in the Natchaug State Forest. (See Watershed Drainage Map).

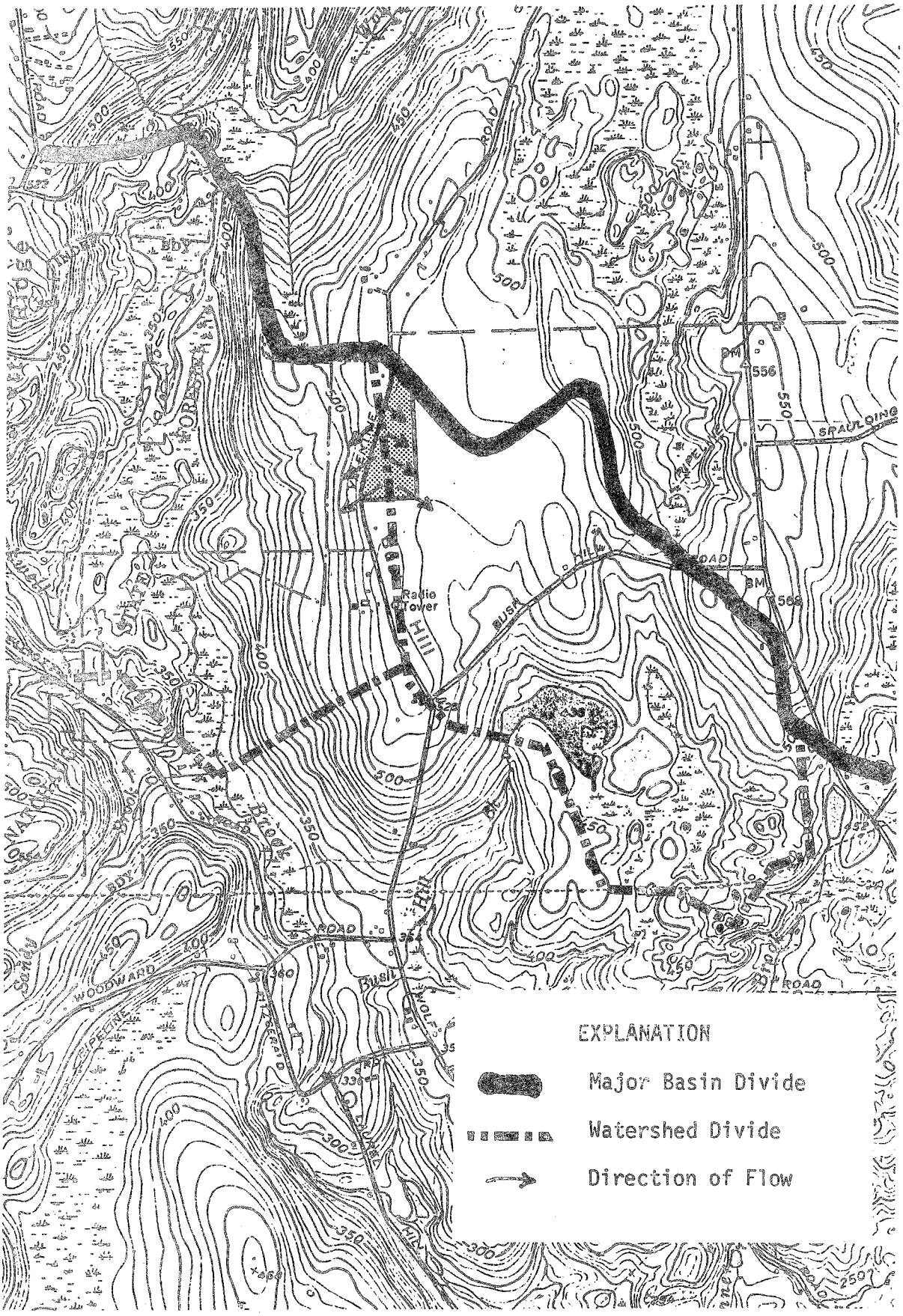
Surficial Geology



Drainage Areas

0 660'
scale

N



Since water percolates very slowly through the compact substrata, the soil above it quickly becomes saturated during heavy rainfalls. Therefore, most precipitation endus up as surface runoff, as was observed on lots 2, 3, 4 and 5 at the time of the review. The high ground water levels probably occur most often during the wet season (spring) and remain relatively high for several weeks thereafter. As mentioned in the Waste Disposal section, the groundwater table can have an adverse affect on hte subsurface sewage disposal systems. Also, it can cause the flooding of basements if precautionary measures such as drainage (footing drains) are not taken. Other meausres to protect homes from basement flooding may include raising the house foundation as is proposed by the consulting engineer and/or possibly by providing sump pumps in basement as a back up.

Runoff increases on the site will result mainly from the presence of slowly permeable soil and impervious surfaces such as roofs and driveways. It should be noted that the developer is proposing impaved driveways. Development of the property to the extent presently proposed would cause at least a slight increase in runoff, but unless the total amount of impervious surfaces created were larger, the increase should not have a significant affect on peak flows of the ditch in the front portion of lots 4, 5 and 6 along Wolf Den Road or the wetlands. Because much of the runoff from the proposed site takes the form of sheet flow and since soils are subject to high ground water levels, the potential for erosion should be of more concern. Therefore, it is recommended that the sediment erosion plan indicated in the engineer's report (6.1.6. Measures to Minimize or Avoid Adverse Impact) be implemented during the construction phase of all lots. This should ameliorate any potential erosion/sedimentation problems that may arise as a result of development. If further technical assistance is required, the Soil Conservation Service Office in Brooklyn may be helpful.

SOILS

A detailed soils map of this site is included in the Appendix to this report accompanied by a chart which indicates soil limitations for various urban uses. As the soil map is an enlargement from the original 1,320 feet/inch scale to 660 feet/inch, the soil boundary lines should not be viewed as absolute boundaries, but as guidelines to the distribution of soil types on the site. The soil limitations chart indicates the probable limitations for each of the soils for on-site sewerage, buildings with basements, buildings without basements, streets and parking, and landscaping. However, limitations, even though severe, do not preclude the use of the land for development. If economics permit large expenditures for land development and theintended objvective is consistent with the objectives of local and regional development, many soils and sites with difficult problems can be used. The soils map, with the publication Soil Survey, Windham County, Connecticut, can aid in the identification and interpretation of soils and their uses on this site. Know Your Land: Natural Soil Groups for Connecticut can also give insight to the development potentials of the soils and their relationship to the surficial geology of the site.

The detailed soil map shows four soil series of glacial till origin. Ridgebury, Leicester and Whitman soils make up one soil unit that occupies about 45 percent of the area. The remaining soils are of the Woodbridge series. The Woodbridge soils are separated into two slope phases. Slopes on this property range from 0 to 8 percent, but are mostly less than 2 percent. The soils with slopes from 3 to 8 percent (less than 3 percent of the area) are on the south end and western edge of the property.

The twenty-acre site is on a drumlodial landform. The soils are distributed as indicated by the detailed soil map. However, for the proposed use, detailed refinement of the poorly drained and very poorly drained soil boundaries is required. These boundaries were previously flagged in the field by a private consultant. The flagging was checked and minor adjustments were made as can be noted in the field by orange flags. It is noteworthy that flagging the boundaries of wetland soils onsite is important since the Soil Survey of Windham County does not refine the boundary to the scale of the subdivision plan.

The Woodbridge soils are spread over the portions of the property planned for houses with on-site septic systems. These soils are moderately well drained with a dense basal till layer (hardpan) below the depth of 18 inches. This hardpan is a continuous layer to depths greater than 60 inches. The hardpan is consistently at a depth of 24 inches in the areas investigated during the review. The groundwater is at the surface or just below the surface where several holes were dug; however, the soil properties indicate the water table fluctuates between 14 and 24 inches. Interspersed throughout this area of Woodbridge soils are small spots of wetter soils. These spots are sometimes 10 feet in diameter with other areas 3 or 4 feet wide and 20 or 30 feet long. The Woodbridge soils have severe limitations for residential development with onsite septic systems because of wetness. Special design considerations and importing of suitable fill materials are required.

The Ridgebury, Leicester and Whitman soils are poorly drained and very poorly drained. These soils are in the slightly depressed areas of the landscape mainly along drainageways. These soils were flagged in the field to be distinguised from the better drained Woodbridge soils. The slopes are less than 2 percent. Ridgebury, Leicester and Whitman soils are designated wetlands according to Connecticut General Statutes and are subject to regulation by the local Inland Wetland Commission.

The major limitation to development of the proposed lots is the wetness of the property and the flat topography which inhibits drainage. Although homes are not to be built on regulated wetlands, the Woodbridge soils where they are proposed have a seasonally high water table. Designed homes and septic systems (by regulation) must be located above the seasonal high water table. The flat slope of the land means a potential flooding threat to areas of lots 3, 4, and 5 except where fill is brought in to raise yards immediately around a home and septic system. Rather than threatening the wetlands with residential development, the wetlands pose a severe threat to homes. Again, except where fill is placed, most lots will be wet, at least seasonally. It would be possible to locate foundation footing drains on lots 1, 2, and 6 with properly installed outlets to wetlands. With up to 6 feet of fill around homes footing drains could be outletted into back yards on the other lots. Septic systems engineered properly and installed properly should work well; however, their potential for failure is greater on hardpan (Woodbridge) and wetland soils than on better drained soils with more slope.

The increase in runoff directed toward the road culverts is not substantial enough with this density of proposed development to adversely affect the road or property across the street. It is important to grade around homes properly allowing surface water to flow away - not puddle.

With fill on lots it will be appropriate to bring in 4 inches of topsoil and vegetate and/or mulch all disturbed sloping areas. Placing hay bale check dams at the toe of expected fill areas near wetlands will be appropriate - before filling. After final grading around homes and planting a lawn the hay bales could be broken apart and scattered as mulch.

In conclusion, the limitations are obviously severe. If development is allowed, engineered plans must be strictly followed, and inspections made frequently during construction.

VEGETATION

The tract proposed for subdivision may be divided into two major vegetation types. These include mixed hardwoods which total 13± acres and hardwood swamps which total 7± acres.

Vegetation Type Descriptions:

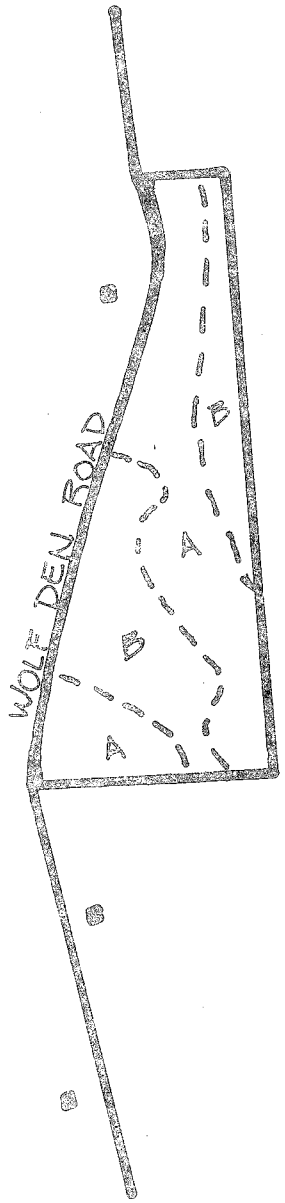
Type A. (Mixed Hardwoods) Poor to medium quality pole and sawtimber-size red maple, white oak, black oak, sweetgum, and eastern white pine are present in this variably stocked 13± acre stand. Sugar maple and hickory frequently occur in the northern portion of the stand. Hardwood and white pine seedlings, mountain laurel, spicebush, and swamp azalea form the understory. Ground cover consists of mosses, grasses and ferns. This stand was thinned for sawtimber and fuelwood in 1981.

Type B. (Hardwood Swamp) This 7± acre overstocked stand is made up of poor to medium quality pole and small sawtimber-size red maple with occasional swamp white oak, sweetgum and eastern white pine. An understory of hardwood and white pine seedlings, swamp azalea, spicebush, sweet pepperbush, mountain laurel, and highbush blueberry exists. Sphagnum moss, skunk cabbage, tussock sedge, and ferns form the groundcover. Operable potions of this stand were also thinned in 1981.

Care should be taken during the construction period not to disturb the trees that are to be retained for their aesthetic value. In general, healthy, high vigor trees should be favored for retention because they are usually more resistant to environmental stresses brought about by construction.

Trees are very sensitive to the condition of the soil within the entire area under their crowns. The filling and grading for construction of driveways, septic systems and buildings may disturb the balance between soil aeration, soil moisture level and soil composition. These disturbances may also cause a decline in tree health and vigor, potentially resulting in tree mortality within three to five years. Mechanical injury may cause the same results. Dead trees reduce the aesthetic quality of an area and may become hazardous and expensive to remove if near driveways, buildings, or utility lines.

Vegetation



VEGETATION TYPE DESCRIPTIONS

TYPE A: Mixed Hardwoods, 13+ acres, variably stocked, pole to sawtimber size.

TYPE B: Hardwood Swamp, 7+ acres, overstocked pole to sawtimber size.

* Seedling size = Trees less than 1 inch diameter at 4.5 feet above the ground, (DBH).
Sapling size = Trees 1 to 5 inches in DBH.
Pole size = Trees 5 to 11 inches in DBH.
Sawtimber size = Trees 11 inches and greater in DBH.

If trees are to be retained within the filled areas, they will need protection from soil compaction around their root systems. Wells will give trees the needed protection, but, with seven feet of fill, the wells must be quite large. Thought should be given to replacing these below grade trees over a period of time.

The poorly drained and saturated soils which are present in the hardwood swamp areas limit not only the potential for tree growth and tree quality but also limit the ability to effectively manage these areas. The 1981 thinning operation was not completed in certain swampy areas, as evidenced by the remaining marked trees. Red maple and occasional sweetgum, swamp white oak and white pine are able to tolerate the excessive moisture levels which are present; however, under these conditions, the trees are generally slow growing and of poor quality.

The loss of trees to windthrow in the hardwood swamps represents a potential hazard. The saturated soils present result in the development of shallow root systems which are unable to securely anchor trees. The crowded condition may aggravate this hazard because the trees rely on each other for stability. Heavy thinning operations and clearing in or along side these areas may increase the windthrow potential by allowing wind to pass through rather than over these areas. Disturbances in or near these areas should be kept to a minimum to avoid increasing the windthrow potential.

The trees which are present in Vegetation Type B (Hardwood Swamp) are declining in health and vigor as a result of their crowded condition. Periodic fuelwood thinnings that are focused on the removal of the poorest quality trees in the overstory will reduce the crowded condition enough to allow the residual trees to respond over time with improved health, vigor and stability. Removing the remaining marked trees will adequately thin the stand.

As Vegetation Type A (Mixed Hardwood) was thinned in the spring of 1981, the stand should be left as is until 1991. A re-evaluation at that time would determine the necessity of instituting a management practice such as thinning.

To avoid irreversible soil damage, thinning operations on this tract should only be implemented during the winter months when the ground is frozen or the summer months when the ground is dry.

With implementation of the remaining thinning not being feasible, both from a timing and lack of suitable volume, prior to actual subdivision of the property, thinnings on an individual lot basis by the lot owners would be desirable. These "mini-thinnings" will provide new lot owners with a limited supply of fuelwood and also reduce the crowded condition, providing for healthier trees over a period of time.

WILDLIFE

This 20-acre site is wooded with an overstory of red maple (Acer ruba) and swamp white oak (Quercus sp.) Recent cord wood operations have opened the forest canopy allowing more sunlight to reach the forest floor.

The shrub story is dominated by blueberry (Vaccinium sp.), mountain laurel (Kalmia latifolia) and sweet pepperbush (Clethra alnifolia). The herbaceous understory could not be completely assessed due to the time of year. However, shallow undulations in the topography supported ground pine (Lycopodium sp.) in the drier spots. Because the canopy has been recently opened by logging, the shrub and herbaceous understory is expected to become more diverse and better developed.

The property is associated with large tracts of undeveloped woodlands, swamplands and agricultural lands. Based on this association and coupled with the condition of the plant community on-site, it provides significant deer habitat to the resident deer population. While the lack of interspersion of other types of plant communities (i.e., marsh, open water) limits use by wildlife, it does function to support wildlife habitat in the adjoining lands utilized by small mammals (e.g., squirrels, raccoons, oppossum, skunk, fox, weasel), songbirds, and occasionally snakes and turtles. The wetland does lack permanent open water and, therefore, limits its habitat value to waterfowl and other species which require open water.

The development of a six-lot subdivision will reduce the available deer habitat. However, in and of itself, it should not significantly reduce resident wildlife populations and diversity in the Wolf Den Brook watershed particularly that area south of Pomfret Center. Over time, repeated subdivisions in the watershed will incrementally add their toll to the loss of wildlife habitat and may at some time become significant.

WATER SUPPLY

Water supply for the proposed subdivision will be provided by individual on-site wells. Since no suitable sand and gravel aquifers appear to be present within the site, the developer will have to rely on bedrock wells. Based on studies reported in the Connecticut Water Resource Bulletin, No. 8, 90 percent of the bedrock wells in the area should yield 3 gallons per minute or more. This yield should be sufficient for a single-family dwelling. Yield of bedrock wells depend upon the number and size of water bearing fractures that the well intersects, and since the fractures are distributed irregularly through the bedrock it is extremely difficult to predict the yield.

In reviewing well completion reports of wells serving residential homes in the area of Wolf Den Road and Valentine Road, yields of wells ranged between three and twelve gallons per minute at varying depths into the bedrock (70 to 320 feet). Water quality of bedrock wells in this area should be satisfactory. Water quality reports of wells serving three residential homes in the area mentioned above reported satisfactory water quality. If the property owners are concerned about water quality of wells, it may be possible to learn much by asking owners of existing bedrock wells in the area of the subdivision.

Drilled wells properly constructed will usually provide a greater degree of protection of the water source and also be more reliable during periods of low rainfall or drought condition. Nevertheless, judicious care should be taken in the proper placement of wells since on-site sewage disposal systems are to be installed on each of the sites. Generally speaking, a well should be located at a relatively high point of any lot in a direction which will be away from the normally expected flow of contaminants such as the on-site sewage disposal system.

WASTE DISPOSAL

Since public sewers are not available to the site, each lot will be served by individual on-site sewage disposal systems. Based on visual observation and review of deep test hole information, it is concluded that all or most of the property is poorly suited for subsurface sewage disposal systems. The major limiting factor is the presence of the compact substrata which results in the perched water table. Also, because there are insufficient slopes on the site to attempt curtain draining, proposed systems will require extensive filling, special engineering design, and increased cost. The State Public Health Code requires that the bottom area of the leaching system be at least 18" above maximum high groundwater level to prevent effluent from being in direct contact with the groundwater. Since maximum groundwater levels are less than three feet below ground surface throughout the site, all lots will require specially designed sewage systems which will subsequently be reviewed by both the local and State Health Departments for possible approval. The presence of high groundwater levels combined with wastewater discharges may interfer with the proper functioning of the systems in the following ways: (1) flooding of tile lines which may cause back up of the system; (2) lack of aeration of the effluent would reduce its renovation in the soil, allowing undesirable bacteria and biochemical constituents to enter the groundwater; and (3) frequent saturation of leaching fields could plug pore spaces with fine sediments causing the system to fail. In reviewing the site development plans prepared by the consulting engineer, sewage disposal systems serving lots 5 and 6 are proposed in the rear portions of the property and in the front portions of lots 1-4. Based on the wetland limits determined by the soil scientist and deep test hole information, the proposed leaching systems appear to be located in the most favorable areas for the given conditions with the exception of lots 4 and 5. As a result of visual observations during the review, the proposed leaching areas for lots 4 and 5 were observed to be under water. Therefore, it is recommended that further soil testing be conducted on these lots to locate a more suitable area for the leaching system, if possible.

It appears that engineered systems could function in some areas of the proposed subdivision but only at added expense and perhaps if development is less dense.

If sewage disposal systems are approved for installation by the health departments, it is recommended that the construction be supervised not only by the local health department officials but also by the consulting engineer who designs the systems to insure proper construction of the systems.

PLANNING CONCERNS

The proposed subdivision by Corson & Kranc on Wolf Den Road is designed in accordance with existing town zoning regulations. The plot plan provides for the necessary minimum lot size, frontage requirements, and minimum setback distances, as well as minimum health code requirements for on-site septage disposal and on-site water supply. The primary concern with the site, however, is the location of wetland soils on much of the site and the need to protect these areas.

The wetland areas found on much of the site greatly restrict the development of these lots. Wetland soils have obvious limitations for development due to the wetness of these soils, the slow percolation rate associated with these soils and the tendancy for ponding and frost action. Aside from these inherent limitations of wetland soils, wetland areas are protected under the Connecticut Inland Wetlands and Watercourses Act (1972) and thus permitted activities are limited in these areas.

While no building is actually proposed on the portion of the site which is designated as regulated wetlands under Public Act 155, there is concern over the effect of development on the entire parcel and the suitability of the soils on the remainder of the lot for development. The soils on the lot which are not officially designated as wetlands also present numerous limitations for development which are similar to those of wetland soils. Wetness, ponding, slow percolation rates, frost action and large stones are among the limitations of the soils on the site. The soils are characterized by a seasonal high water table and slow permeability in the substratum. In addition, the very small slopes (nearly flat land) on the site minimize the potential for natural drainage and runoff to minimize these problems associated with these wet soils.

It would be possible to overcome these site constraints and development limitations by providing extensive, costly site modifications. Large amounts of fill will be required for septic systems and for landscaping these sites. Engineered septic systems will be required on all of the proposed lots. While the health department must approve a system if it complies with the requirements of the health code, this does not mean that even these costly engineered systems will not fail unless frequent maintenance is practiced.

Seasonal fluctuations in the water table could result in ponding problems in yards or possibly leakage in basements. Care should be taken in construction and landscaping to minimize these potential problems by including the appropriate grading, building culverts and providing footing drains around the homes.

Lots #'s 1, 2, and 5 seem to have the least problems and homes could be constructed as indicated on the plans. Removal of stones on lots #'s 1 and 2 would represent the biggest limitation and cost for development on these sites.

Lots #'s 4 and 6 are the greatest areas of concern and perhaps plans should be revised to combine these with other lots to minimize potential problems. Combining lots 3 and 4 and lots 5 and 6 to result in a total of 4 lots on the entire parcel would be a possible revision. This would minimize potential problems of separating distances and location of on-site septic systems and water supplies and provide lots which would be least likely to have drainage problems. This would also minimize the potential damage to adjacent wetlands from development in such close proximity.

Whatever the final plans include, consideration should be given to provide erosion and sedimentation control measures during construction. Efforts should be made to minimize the adverse impacts on the wetland areas incurred during construction by preventing unnecessary erosion and runoff into these sensitive wetland areas.

The additional traffic onto Wolf Den Road as a result of this proposed subdivision should not present significant problems. The sight lines from all the proposed lots are relatively clear and should not cause dangerous access onto Wolf Den Road.

Appendix

Soils

0 660'
scale

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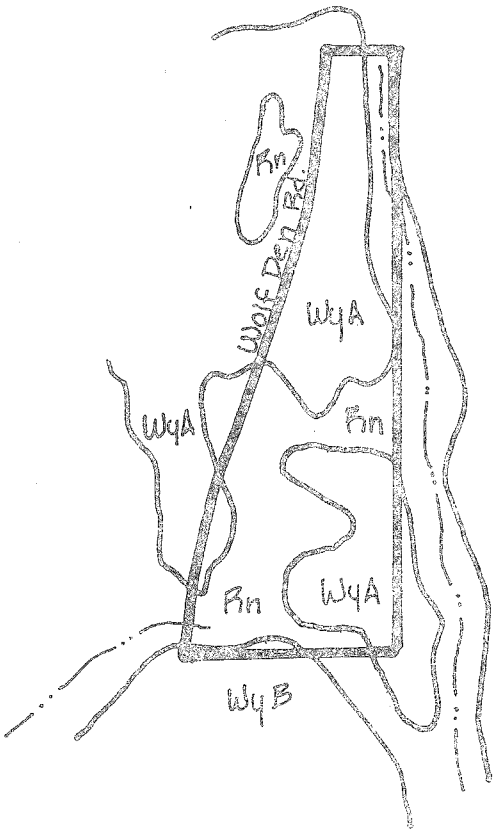

C. Corson/S. Kranc

6 Lot Subdivision

Wolf Den Road, Brooklyn, CT.

Principal Limitations and Ratings of Soils For:

RESIDENTIAL DEVELOPMENT

Soil Map Symbol and Soil Name	Dwellings without Basements	Dwellings with Basements	Lawns and Landscaping	Septic Tank Absorption Fields	Drainage
WyA Woodbridge	Moderate: wetness	Severe:wetness	Moderate:large stones,wetness	Severe: percs slowly,wetness	Percs slowly, frost action
WyB Woodbridge	Moderate: wetness	Severe:wetness	Moderate:large stones:wetness	Severe: percs slowly,wetness	Percs slowly, slope, frost action
WzC Woodbridge	Moderate:slope, wetness	Severe:wetness	Moderate:slope, large stones, wetness	Severe: percs slowly,wetness	Percs slowly, slope, frost action
*Rn Ridgebury	Severe: wetness	Severe:wetness	Severe:wetness	Severe: percs slowly,wetness	Percs slowly, frost action
Leicester	Severe: wetness	Severe:wetness	Severe:wetness	Severe:wetness	Frost action
Whitman	Severe: ponding	Severe: ponding	Severe: ponding	Severe: percs slowly,ponding	Percs slowly, frost action

* Designated wetland soil by Public Act 155.

SOIL INTERPRETATIONS FOR URBAN USES

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

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

Slight Limitations

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

Moderate Limitations

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

Severe Limitations

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

About the Team

The Eastern Connecticut Environmental Review Team (ERT) is a group of professionals in environmental fields drawn together from a variety of federal, state, and regional agencies. Specialists on the Team include geologists, biologists, foresters, climatologists, soil scientists, landscape architects, archeologists, recreation specialists, engineers and planners. The ERT operates with state funding under the supervision of the Eastern Connecticut Resource Conservation and Development (RC&D) Area.

The Team is available as a public service at no cost to Connecticut towns.

PURPOSE OF THE TEAM

The Environmental Review Team is available to help towns and developers in the review of sites proposed for major land use activitis. To date, the ERT has been involved in reviewing a wide range of projects including subdivisions, sanitary landfills, commercial and industrial developments, sand and gravel operations, elderly housing, recreation/open space projects, watershed studies and resource inventories.

Reviews are conducted in the interest of providing information and analysis that will assist towns and developers in environmentally sound decision-making. This is done through identifying the natural resource base of the project site and highlighting opportunities and limitations for the proposed land use.

REQUESTING A REVIEW

Environmental reviews may be requested by the chief elected officials of a municipality or the chairman of town commissions such as planning and zoning, conservation, inland wetlands, parks and recreation or economic development. Requests should be directed to the Chairman of your local Soil and Water Conservation District. This request letter should include a summary of the proposed project, a location map of the project site, written permission from the landowner allowing the Team to enter the property for purposes of review, and a statement identifying the specific areas of concern the Team should address. When this request is approved by the local Soil and Water Conservation District and the Eastern Connecticut RC&D Executive Council, the Team will undertake the review on a priority basis.

For additional information regarding the Environmental Review Team, please contact Jeanne Shelburn (774-1253), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, P.O. Box 198, Brooklyn, Connecticut 06234.