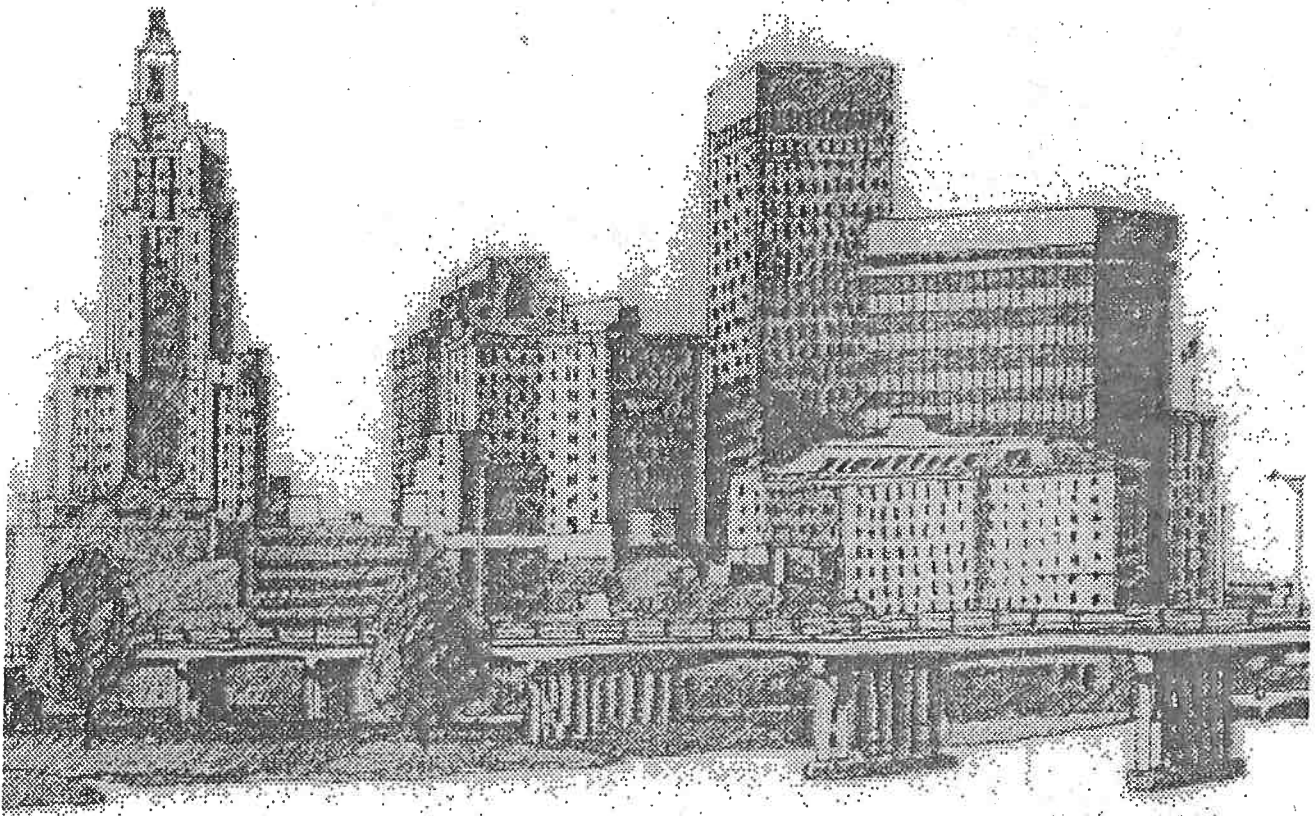


INVENTORY  
OF  
RHODE ISLAND  
ROADWAYS  
WITH  
SCENIC CHARACTER



June 1996

RHODE ISLAND SCENIC ROADWAYS BOARD



Providence Skyline as seen from Point Street Bridge, a Scenic Inventory Roadway

# TABLE OF CONTENTS

## PREFACE

INTRODUCTION.....Page 1

CRITERIA.....Page 3

METHODOLOGY.....Page 4

SECTION A.....Page 6

### IDENTIFICATION OF AREAS OF PRIME SCENIC CHARACTER

VISUAL CHARACTER..... Page 7

Rural Visual Character..... Map 1 ..... Page 7

Urban Visual Character..... Map 2 ..... Page 9

Composite Visual Character..... Map 3 ..... Page 11

HISTORICAL CHARACTER..... Map 4 ..... Page 12

NATURAL CHARACTER..... Page 14

Surface Water..... Map 5 ..... Page 14

Preserved Open Space..... Map 6 ..... Page 16

Composite Natural Character..... Map 7 ..... Page 18

LOCALLY IDENTIFIED CHARACTER.. Map 8 ..... Page 19

SUPPLEMENTARY DATA..... Map 9 ..... Page 21

AREAS OF SCENIC POTENTIAL..... Map 10 ..... Page 23

SECTION B..... Map 11 ..... Page 24

### PRELIMINARY IDENTIFICATION OF ROADWAYS WITH SCENIC CHARACTER

SECTION C..... Map 12 ..... Page 26

### EVALUATION OF ROADWAYS WITH SCENIC CHARACTER

SECTION D ..... Map 13 ..... Page 29

### ROADWAYS WITH SCENIC CHARACTER AND POTENTIAL DESIGNATION

## FOLDOUT MAP

DOCUMENTATION..... Graphic 1 ..... Page 31

CONCLUSIONS..... Page 32

## ABSTRACT

# PREFACE

The six currently designated Rhode Island Scenic Roadways give just a hint of the fragile nature and variety of the scenic resources throughout the state. A recognition of the general development pressures that exist in our densely populated state should also sound a loud alarm for the urgent need to devise practical ways of protecting such roads.

Scenic designation can focus these efforts through the recognition of the scenic character of certain roadways, the acceptance of special engineering design guidelines, and encouragement for planning and regulations designed to preserve the essential qualities of the road and its landscape.

The principle task of the Inventory of Scenic Roadways was to clearly locate those specific roadways that have identifiable scenic character so that, instead of broad generalizations about the variety and abundance of the wonderful scenic places in Rhode Island followed by a regretful sigh and comment about everything changing and scenic resources being lost, specific preservation measures can be planned and implemented. It is hoped that this identification will act as a catalyst to encourage protection and designation of critical roads. It must be emphasized, however, that the inventory identification is only a list of roads with visual character suitable for designation. Actual designation applications are initiated at the local level, must demonstrate a commitment to protection with appropriate corridor management planning and regulations, and must be formally approved by the municipalities involved. In addition, although designation is a valuable preservation tool in itself, any promotion or funding for

planning or enhancements that might be contingent on this designation would be by specific agreement with the city or town in the jurisdiction in which the scenic roadway falls.

The inventory list was developed with well defined criteria but it is in no way intended to be exclusive or to include all roadways that may be acceptable to the Board. Communities are encouraged to apply for designation for any roadways they consider scenic but to use this inventory as a guide to the categories and types of features that contribute to scenic character recognized by the Board.

## ACKNOWLEDGMENTS

During the process of preparing this inventory many individuals and agencies were consulted for their advice and knowledge. It is with special thanks that we acknowledge the help of the computer graphics specialists in the Department of Administration, Division of Planning and at the Department of Transportation. We would also like to thank the individual town planners and members of various city and town boards and commissions who offered valuable advice and provided us with a local perspective of which we otherwise would not have been aware.

This study is clearly not the end of the process. It is only the start. We encourage local communities to become involved in the on-going process of preserving our scenic heritage. It is also clear that simply identifying roadways that seem to have scenic value is not enough. The next critical steps are to continue the planning processes, at both the local and state level, that recognize the special nature of such places and devise rules and standards that

sensibly protect our landscape heritage. The scenic beauty of Rhode Island, although small in scale, is very real and worthy of rational preservation. This study is dedicated to that ambition.

# INTRODUCTION

So much of the best of Rhode Island can be seen from the road. The historic mill villages and seaside fishing ports, beaches, fields and wooded hillsides, quiet rural areas and bustling urban centers all contribute to the visual richness that is our landscape heritage. These are all aspects of our State's rich scenic character. They are part of our routine life and the special places our visitors enjoy.

Through the Rhode Island Scenic Roadways program, roadways that are especially rich in visual character and quality and valued as special places in our landscape can be designated as "scenic roadways." This designation encourages a sensitive approach to improvements and maintenance of the roadways as well as promoting effective community planning and regulations for both preservation and sensitive development of the roadway corridors.

Scenic Roadways legislation states that the general purposes of the statute are

*"to create and preserve rustic and scenic highways for vehicular, bicycle and pedestrian travel in unhurried, quiet and leisurely enjoyment; to protect and preserve recreational driving, culture, beauty, trees, vegetation, shoreline and wildlife."*<sup>1</sup>

The identification and designation of scenic roadways has two basic purposes:

1. The preservation and protection of the scenic resources is the primary purpose of both identification and designation.

2. The recreation and travel experience - *"the unhurried, quiet, leisurely enjoyment"* of the scenic roadways - is a secondary purpose, important to local residents and the occasional traveler but accompanied with promotion only where appropriate and acceptable.

Although the language of scenic roadways legislation refers to pedestrians and bicyclists, the focus of this inventory is on the use of personal vehicles. Bicyclists and pedestrians were not considered in the determination of the inventory roads. The Department of Administration, Division of Planning, has recently completed a plan for bikeways and recreational trails<sup>2</sup> enhancing the potential to address the broader possibilities for recreational travel with coordination between that plan and scenic roadways routes that might be developed from this inventory.

## PURPOSE

The purpose of the scenic roadways inventory is to identify all public roadways in the State that have visual quality appropriate for "Rhode Island Scenic Roadway" designation.

It has three basic functions:

1. It can be used to inspire local initiatives for designation and encourage approval by local legislative bodies. In addition the methodology and data assembled in this study can assist in the preparation of the formal documentation necessary for the designation application.

2. The inventory can be a valuable tool for the Board (Rhode Island Scenic

Roadways Board) when evaluating applications for designation or for approval of alterations to existing designated scenic roadways.

3. In the broadest sense, the inventory shows the variety and location of the many scenic roadway resources throughout the state and can encourage interest and appreciation of the state's special scenic qualities.

The applicability of the inventory to the community level of support and interest is essential to the scenic roadways concept and success. Most applications for designation will be generated from community groups and all must be approved by the town/city councils. More importantly, because the scenic character of a roadway extends well beyond the public right of way, local governments must demonstrate clearly that they recognize and affirm the importance of protecting these scenic resources through the creation of appropriate planning and regulations.

Local initiative is the primary catalyst for consideration of scenic roadway status. However, Rhode Island Scenic Roadways are designated by a state board and based on statewide standards. In turn, these standards are related to criteria established by the National Scenic Byways Program. By developing an inventory methodology in concert with the national guidelines there is the advantage of both a workable system and the possibility that exceptional state scenic roadways can be eligible for recognition as National Scenic Byways or All American Roads.

1. Rhode Island General Laws. Chapter 15, section 24-15

2. Rhode Island Department of Administration, Division of Planning. A Greener Path... Greenspace and Greenways for Rhode Island's Future. November, 1994

# CRITERIA

A scenic roadway has special value due to its natural and man-made landscape features that contribute to the cultural, visual and recreational appreciation of the landscape. Such a roadway is one that we would go out of our way for, one that there is pride in, that an out-of town visitor should see, and above all, one that is valued and should be preserved.

It is clear that the broad panoramic ocean views along Narragansett Bay are scenic but so also are more discrete fields and open areas set within the common second growth woodlands and development sprawl that dominates much of our landscape. It is also clear that the rare or unusual natural features and the historic structures and sites that enliven our landscape in both rural and urban areas are visual events that remind us of the richness of our cultural heritage.

The criteria used to assess the scenic value of the Rhode Island landscape must be designed to fit the state's particular landscape. However, precedent and ideas from both national evaluations and those of other states can be used to develop the particular criteria appropriate for Rhode Island.

For example, six basic criteria have been defined by the National Scenic Byway Program and they have been widely referenced in previous landscape assessment programs. Within this system a qualifying road must exhibit exceptional resources in at least one of the following six categories of character:

- Natural
- Historical
- Archeological
- Cultural
- Visual experience
- Recreational

These are useful basic criteria and are broad enough to assist in the definition of what is scenic and should be preserved in Rhode Island. Thus, assuming that definitions or interpretations of them readily fit the specific characteristics of the Rhode Island landscape and meet the priorities of its' citizens, the national criteria can be applied to Rhode Island's scenic roadways permitting them to comfortably within the framework of the national program.

•Natural is a broad topic which includes surface water (both salt and fresh water), vegetation, woods, wetlands and wildlife habitats, topography and surficial geological formations. Rhode Island's 'natural' landscape has been so strongly altered by human involvement that this category rarely refers to a truly undisturbed natural landscape. It can, however, relate to currently undeveloped areas including agriculture and other man made landscapes and thus tends to overlap with historical and contemporary cultural landscape characteristics.

•Historical features are both individual buildings or groups of buildings that have intrinsic architectural value and landscapes with similar historical characteristics.

•Cultural is interpreted as meaning contemporary built features such as buildings, bridges, and designed landscapes.



- Archeological features are interpreted as being generally older subsurface historical features. They are usually small and often too vulnerable to be specifically and publicly located. Because of this, they do not generally contribute to the visual character of the landscape. However, preservation may be enhanced by including them within the protection of the scenic context.

- Recreational opportunities that are important to the scenic quality exist in both the public and private realms. They may be active or passive, seasonal or special events but to be included they must be both well known and recurring events.

- Visual experience includes striking and memorable views and interesting and attractive spaces, all exhibiting the continuity and integrity necessary to provide a 'kinesthetic' (pleasure in moving through the area) experience.

The contributing criteria as presently outlined in the Rhode Island Scenic Roadways Board's application procedure can be translated or reorganized into the six categories described above. This will ensure that the evolving inventory is building upon and therefore systematically relates to the currently accepted system for the evaluation of the six presently designated Rhode Island scenic roadways.

## METHODOLOGY

The primary intent of the methodology was to develop a rational system that, to the extent possible, relied on objective evaluations to identify roadways with visual character suitable for scenic roadway designation.

The initial assumption was that all public roads in the state could be considered as being 'potentially scenic.' Through the inventory process those roadways that were found to lack specified contributing scenic characteristics were systematically eliminated from further consideration.

Even in a small state such as Rhode Island, the idea of driving all the roads seeking scenic character would be a daunting prospect. Fortunately there is good data commonly available that could be used in identifying areas with characteristics that contribute to scenic quality. The system of evaluation utilized was developed to take advantage of the existing data and minimize the need for additional data collection or research.

RIGIS (Rhode Island Geographic Information System) was the source of most of the primary data. It was generally used verbatim without confirmation or editing, however, in some instances the scale of information was too generalized to be effective so original or secondary sources were referenced for verification, detail or up-dating.

The primary phases of the inventory were essentially a 'desk top' study, mapping the occurrences of areas of key characteristics or combinations of characteristics in order to identify areas with scenic attributes and

then the locations of potentially scenic roadways.

As a result of the initial screening, the actual driving and field evaluation of potential scenic roadways was restricted to roads that had been identified through the preliminary survey process. Criteria based on detail features or requiring a more subjective response were addressed in the field evaluation phase.

The inventory process can be generally outlined as the following sections:

#### **A. IDENTIFICATION OF AREAS WITH SCENIC ATTRIBUTES**

Based on criteria derived from the National Scenic Byways' categories but modified to recognize the special character of the Rhode Island landscape and to utilize available data:

1. Primary determinants:
  - a. Visual landscape character
  - b. Historical character
  - c. Natural character
    - Preserved open space
    - Water
  - d. Locally identified character
  
2. Supplementary data
  - a. Archeological Sites
  - b. Natural Heritage Areas
  - c. Greenway Corridors
  - d. Preserved Agricultural Land
  - e. National Register Historic Sites and Candidate Sites

#### **B. IDENTIFICATION OF ROADWAYS WITH VISUAL CHARACTER SUITED TO SCENIC ROADWAY STATUS**

1. Roadways through or adjacent to areas with scenic attributes
2. Recommended routes
3. Sufficient size of road segments impacted by individual attribute areas or aggregations of areas and features
4. Supplementary attributes as enhancements to potential scenic roadways
5. Preliminary determination of possible links and connections to include longer and related scenic experiences

#### **C. EVALUATION OF IDENTIFIED ROADWAYS**

1. Field verification
2. Detail characteristics
3. Esthetics based characteristics

#### **D. LISTING OF ROADWAYS WITH VISUAL CHARACTER SUITED TO SCENIC ROADWAY DESIGNATION**

1. Mapping and Listing
2. Summary Charts

# SECTION A

## IDENTIFICATION OF AREAS WITH SCENIC ATTRIBUTES

Primary factors were derived from interpretation and prioritizing of the six intrinsic qualities outlined in the National Scenic Byways program.

The categories used to address and compile data for the primary factors were determined from the appropriate data available from RIGIS (Rhode Island Geographic Information System) data base listings. Most data was utilized with ArcView II <sup>1</sup> software to graphically illustrate areas with the specific characteristics.

There were four primary determinants. In synthesis, mapping of these factors areas often overlapped because of the basic composite information and the character of the resources. However, where visual or historic character occurred alone or in combination with other factors, it was considered an indication of a landscape with scenic attributes. Preserved open space and water alone were not prime factors but in combination were also considered an indication of landscape with scenic attributes.

The inventory concepts are explained in the following illustrations and text. The sample area map location and the sketches are drawn from actual places but are selected to represent the concepts and are not to be taken as specific examples for identification of areas with scenic attributes.

1. ArcView II, 1995. Environmental Systems Research Institute, Inc.



MAP 1 - Areas of Rural Visual Character

## VISUAL CHARACTER

### Rural Visual Character:

The quality of landscape character of the rural (non-urban) areas of the state was

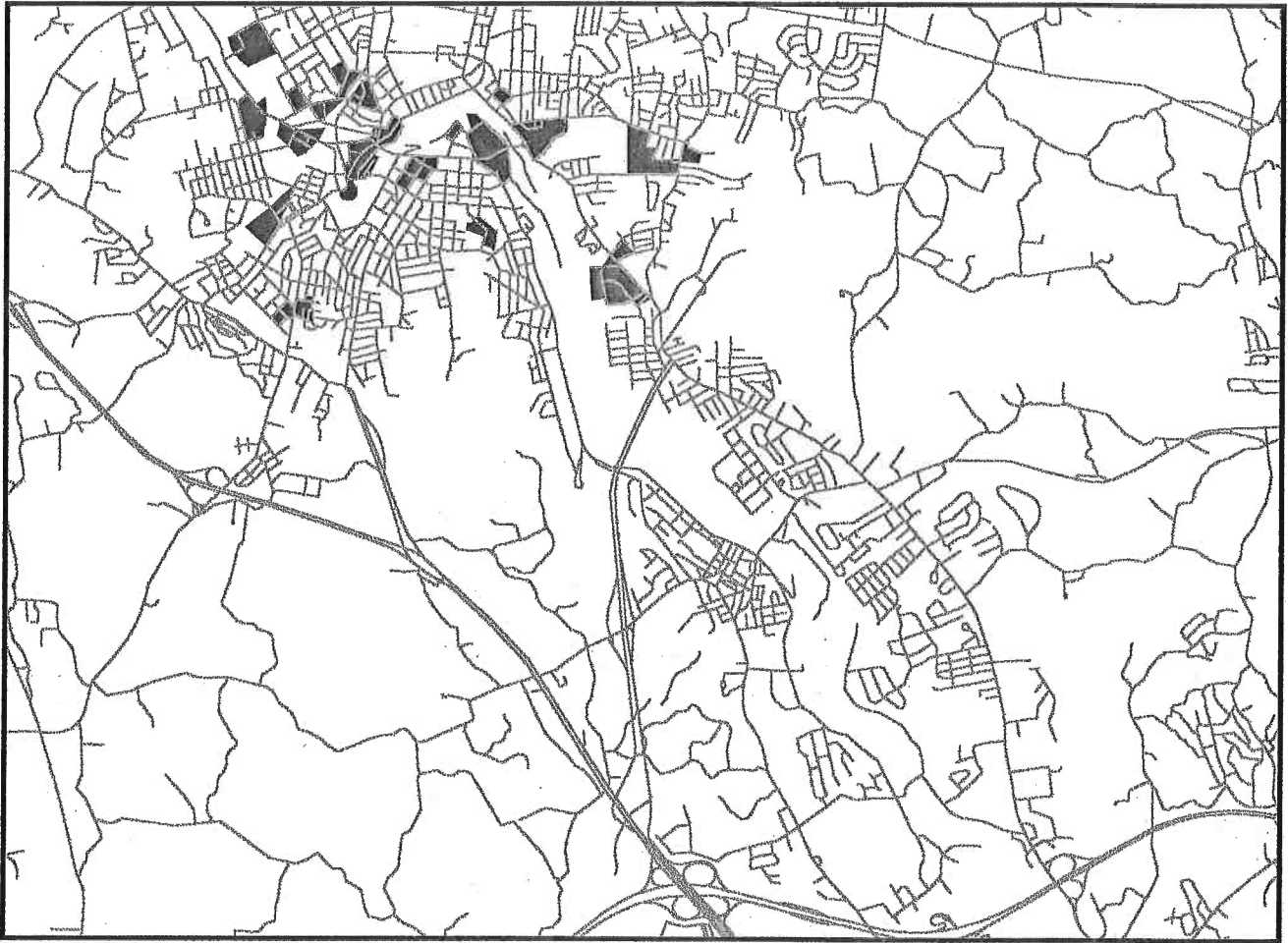


evaluated in the Rhode Island Landscape Inventory <sup>1</sup> prepared in 1990 by the RI Department of Environmental Management. This study was a composite of information that focused on areas (20

acres or more) that were visually 'open' and in which the 'natural' landscape was dominant over built features. In this study the state's rural landscapes were identified as 'distinctive', 'noteworthy' or 'common.'

For the Scenic Roadways inventory, the categories of 'distinctive' and 'noteworthy' were combined and used as a means of identifying rural landscapes of visual quality.

1. Rhode Island Department of Environmental Management, 1990. The Rhode Island Landscape Inventory - A Survey of the State's Scenic Areas  
RIGIS s44nsv89



MAP 2 - Areas of Urban Visual Character



Urban Visual Character:

The DEM landscape inventory acknowledged that urban areas do have scenic qualities. However, these areas were specifically excluded from that study, primarily because they do not have large tracts of land that are either open and/or subject to strong development pressures. Therefore, for the scenic roadways inventory, it was necessary to develop a separate evaluation to describe urban visual quality. This was an attempt to address the dramatic scale and massing of urban form, which is typically dominated by buildings in which the form and density of development clearly overpowers the natural landscape. Factors for evaluation were selected to be comparable to the criteria used to evaluate rural landscape

character. The basic attributes of historical significance, surface water and preserved open space were identified in the cities as in other areas but the following additional factors were mapped in an attempt to more accurately describe the urban visual quality.

- building mass and urban density
- significant civic and cultural buildings
- significant topography

#### Building Mass:

Building mass was defined as being buildings of a significant size or bulk, identifiable as such from aerial photographs.

#### Urban Density:

Density represents the concentration of buildings that typically give a city its visual complexity and urban character. Using aerial photographs, the locations in which buildings typically occupied 50% or more of their context were identified and mapped.

#### Buildings of Civic or Cultural

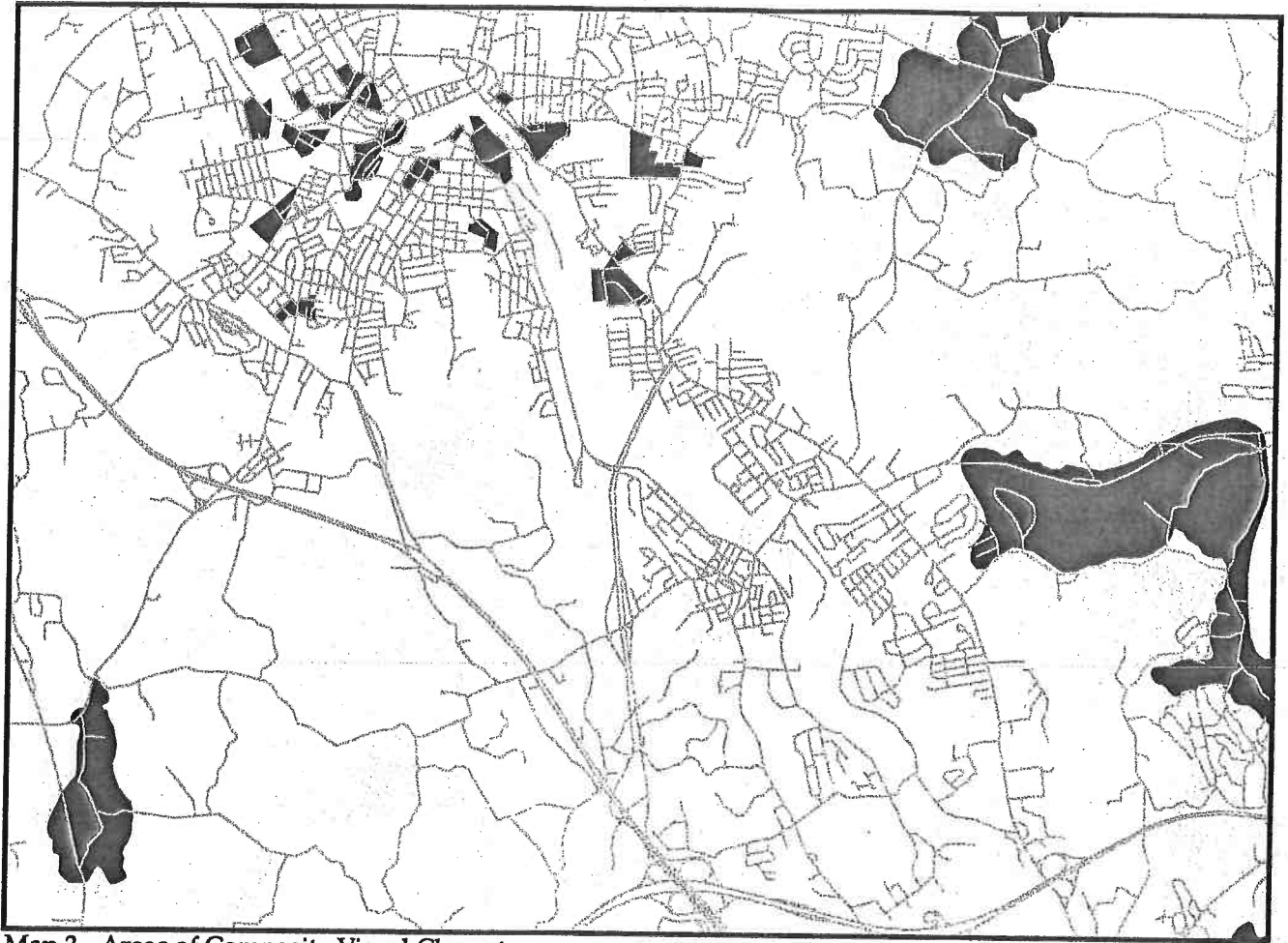
##### Significance:

To a certain extent a city can be defined by its institutions. Urbanity is a condition wherein the aggregations of cultural activity are frequently expressed in a concentration of buildings such as municipal buildings, schools, churches, and museums whose public intentions contribute significantly to the life of a city. The locations of such buildings were mapped in order to identify aggregations of culturally important buildings that had public functions.

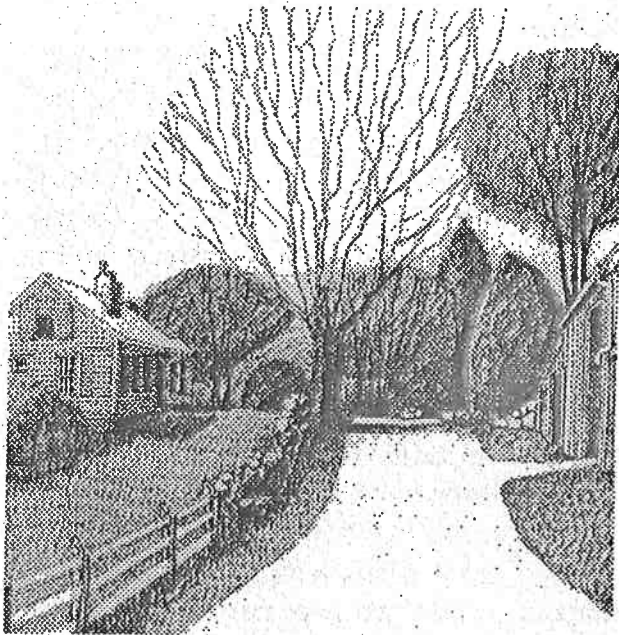
#### Topography:

The urban form of most of Rhode Island's cities is derived from and is visually expressive of land form. To describe the more interesting areas, slopes steeper than 15% were identified from USGS maps as contributing to the urban visual landscape character.

Building mass and density identified the more vertical domination of urban structures and spaces as opposed to the typical horizontality of the rural landscape. With the identification of aggregations of buildings of civic and cultural significance, the centers of civic activity, often the largest and most visually articulate of the urban structures, were located. The presence of significant land forms was then added to the complexity - the spatial containment and variety in the layout of streets and form - and to the visual interest and excitement of the city.



Map 3 - Areas of Composite Visual Character

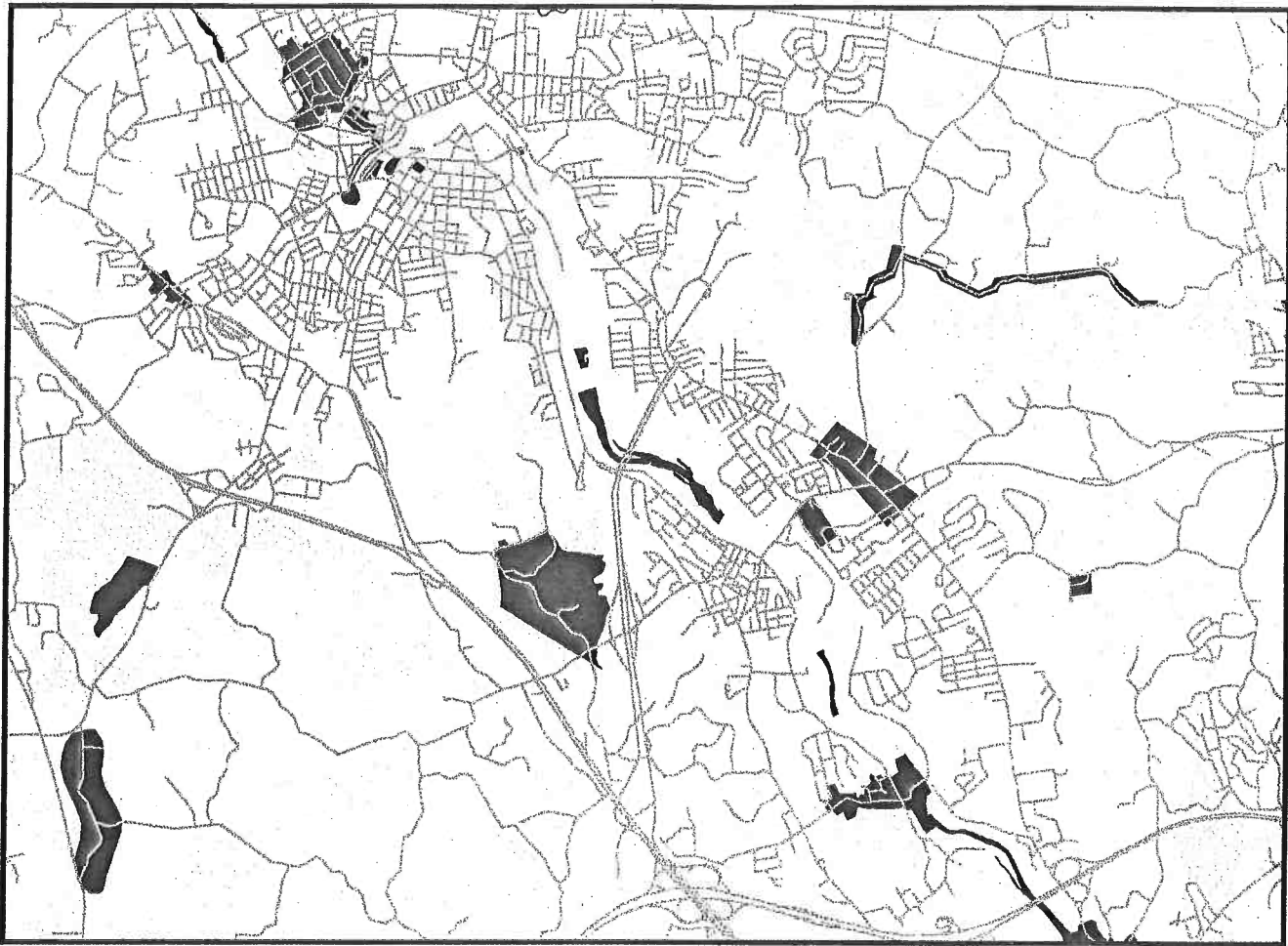


Visual Character:

Areas of visual landscape character are determined from two sources: the RI Department of Environment Landscape Inventory, which identified areas that are non-urban and from criteria developed specifically for this study to identify scenic quality in urban landscapes.

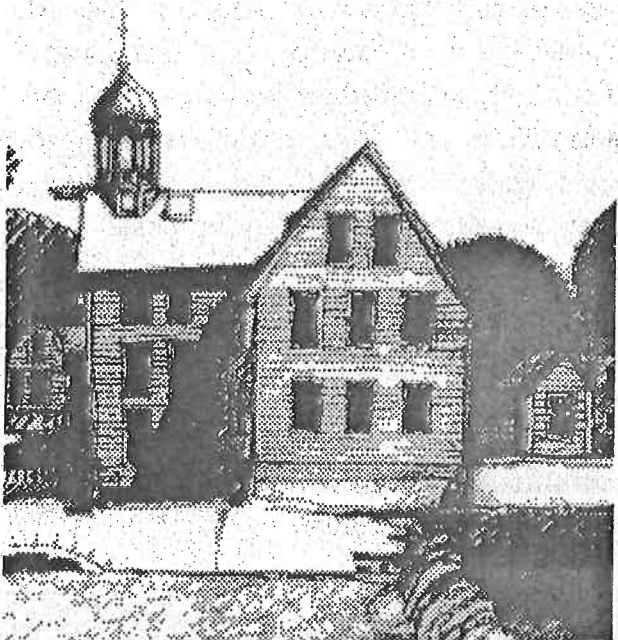
This is primarily a measure of visual character. However, because the DEM study was a composite of many factors, non urban areas of visual landscape character commonly overlap with areas of historical or natural significance.





Map 4 - Historic Districts

## HISTORICAL CHARACTER



### Historical Character:

In the landscape of New England, the patterns of occupation are critically important contributors to scenic character. They might be considered the scenic substitute for the more significant natural features that dominate the western areas of the United States.

Historical character was a significant contributing factor in the DEM Scenic Landscape study but because history is such an important component of the visible landscape in Rhode Island it was considered critical to be more specific when mapping this factor as part of the scenic roadway inventory.

National Register Historic districts, as

available from RIGIS <sup>1</sup>, were considered to constitute the primary historical character areas. This data was then supplemented with locally designated historic districts to give a more complete view of historic resources that could have a strong visual impact on potentially scenic roadways.

1. RIGIS Data Set s44chd90 Historic Districts listed in the National Register

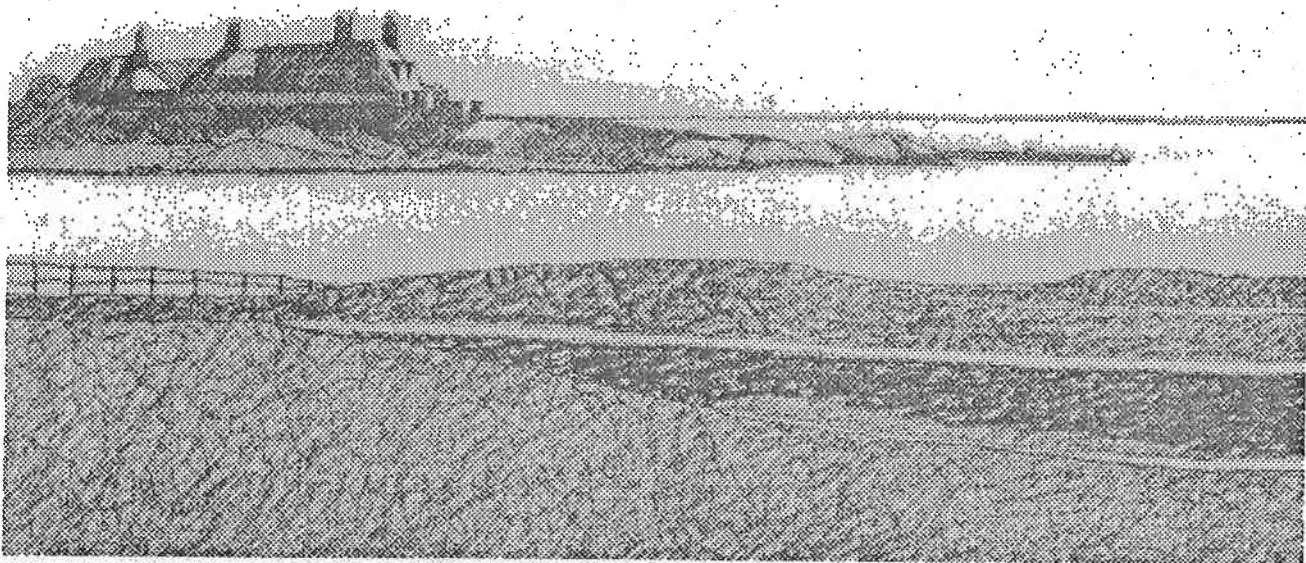


Map 5 - Surface Water

## NATURAL CHARACTER

### Surface Water:

Water is an important natural, visual asset in the Rhode Island landscape. Important



because of its own inherent character but also because of the open and more expansive views that usually accompany the presence of water. The coastal shore line, reservoirs, lakes and rivers <sup>1</sup> were considered as exhibiting prime scenic attributes.

1. RIGIS Data Set s44bcs93 Coastline; s44hhp88 Lakes and Ponds; s44hhl88 Rivers and Streams



MAP 6 - Preserved Open Space

Preserved Open Space:

RIGIS data showing public and privately owned green spaces including parks, camps, forest preserves, conservation

and recreation areas <sup>1</sup> was important to the inventory as identification of outdoor recreation facilities and natural areas. Many critical natural features have been

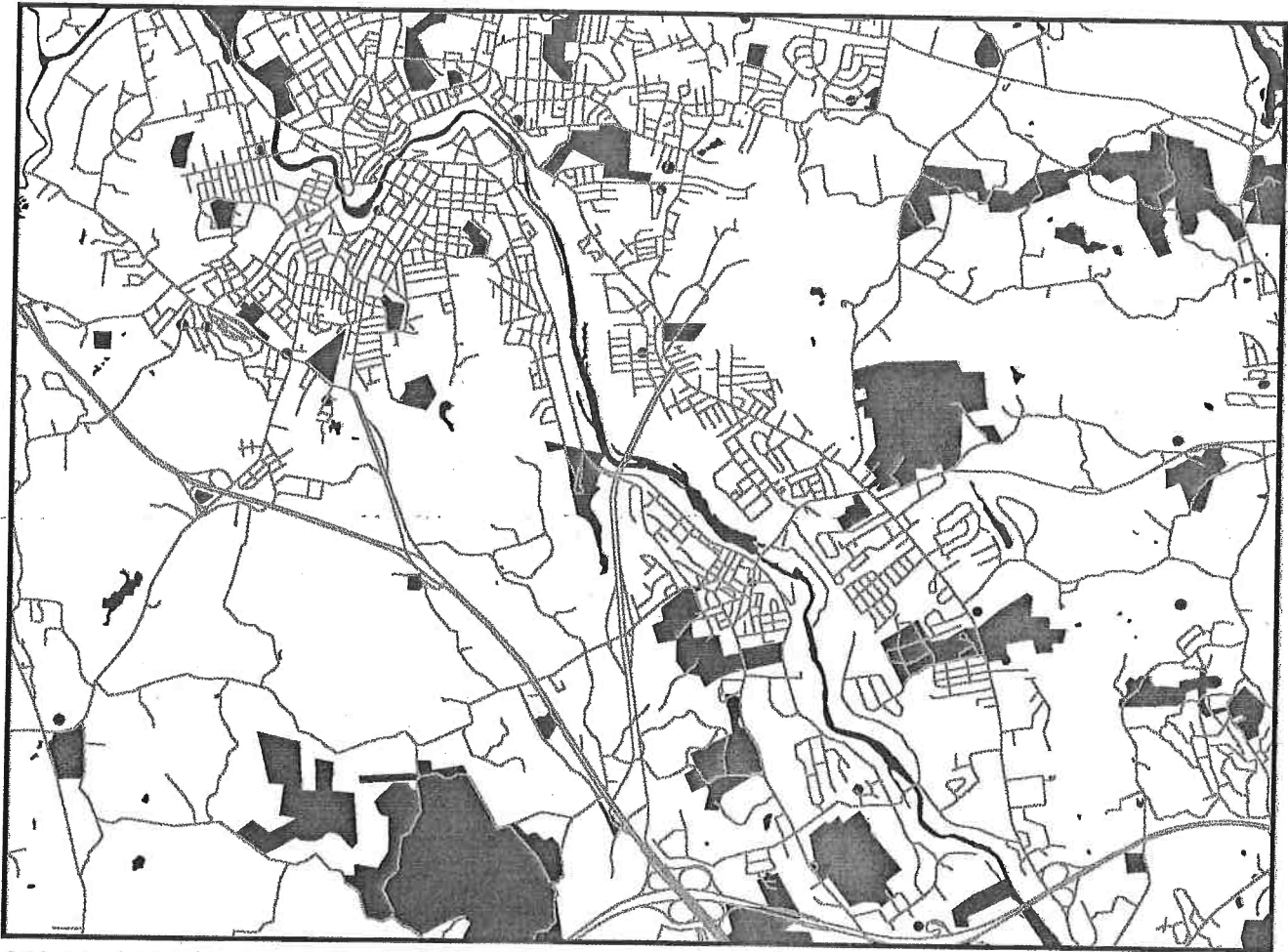
protected in properties owned by governmental and private agencies so although this category is not defined as areas with special natural features it includes many of them and was used as a preliminary identification of areas that could include that intrinsic quality.



It was also important to note that this category often included the more mature woodlands recognized here for the natural value but also important to visual character.

Additionally, although the areas included are not necessarily permanently protected, they are currently valued as green space and most will remain undeveloped.

1. RIGIS Data Set s44oos90. Open Space and Recreational Land Protected by Federal, State and Municipal governments and private foundations, societies and groups



MAP 7 - Areas of Composite Natural Character

Natural Character:

Preserved open space and water together were considered the primary determinants of natural character. Open space in itself did not have a strong visual significance. With the obvious exception of open views of Narragansett Bay and several other larger water bodies, much of the surface water occurs as small lakes, ponds and streams that often lack the visual significance when experienced from the road. Smaller preserved open space areas also often lack significant visual presence. However, in combining open space and water the scenic importance of each was effectively enhanced.

As an additional attribute many of the areas identified as having natural character are in some fashion, protected from development. The nature of this protection varies from site specific legal strategies to environmental limitations, but they nevertheless serve to protect the visual qualities of the open space, thus giving it special consideration in this inventory, especially with respect to longer term planning strategies.



MAP 8 - Locally Identified Character

## LOCALLY IDENTIFIED CHARACTER

Information from local sources was considered critical to the inventory process. It was useful to obtain first hand information and opinions about local scenic roadways and to amend existing base data. This also allowed the gaps in existing data to be filled in, such as particularly significant vegetation, mature woods, tree lined streets and or locations for special views.

After the initial mapping of scenic factors, municipal planning official(s) or knowledgeable local individual(s) in each city/town were asked to review a map of the scenic determinants of their

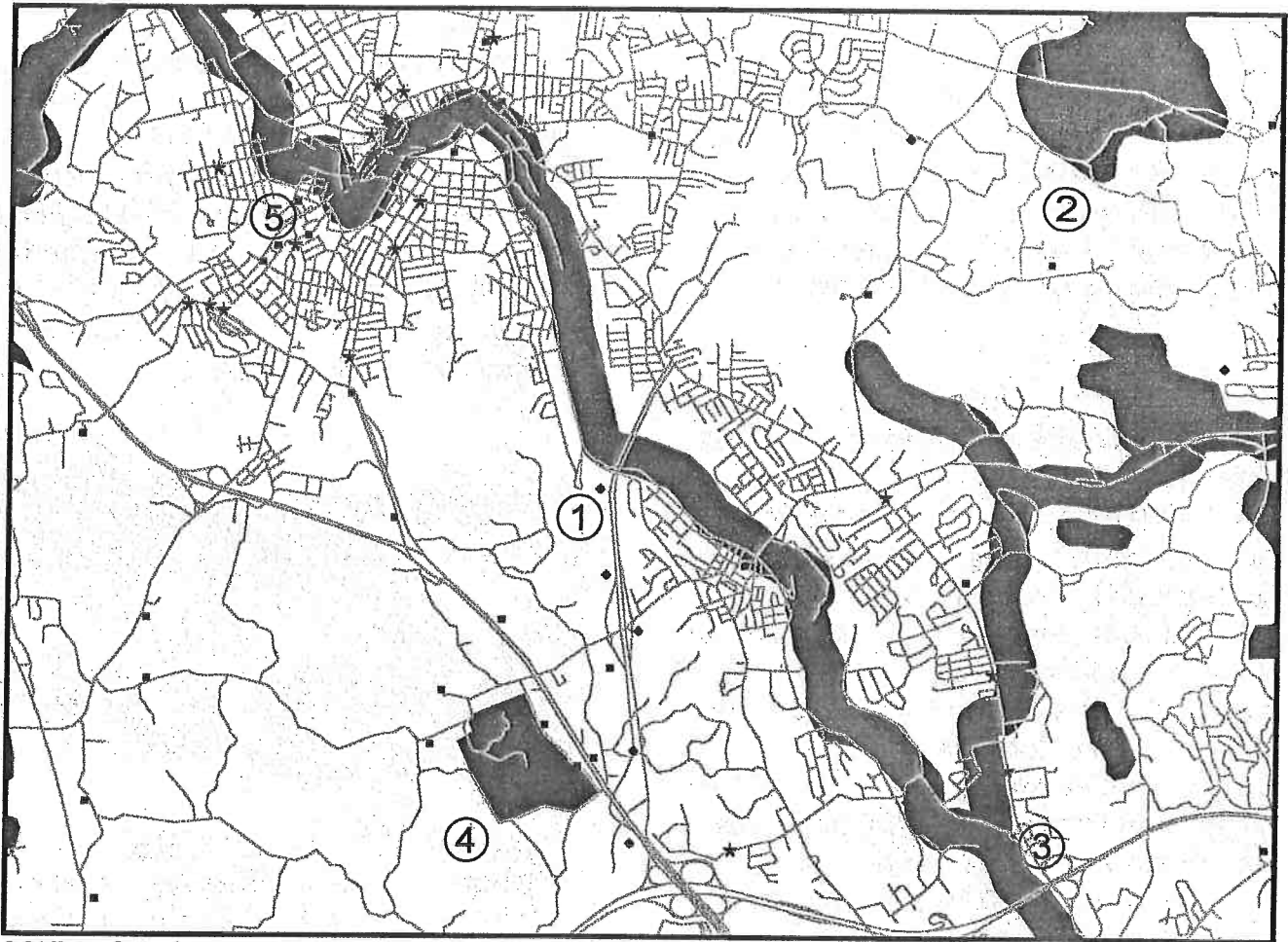
community. Most responded with helpful information. Base data was then corrected as necessary and refined or supplemented with the addition of information from relevant sections of individual City/Town Comprehensive Plans.

These Comprehensive Plans addressed scenic resources in a variety of ways in the natural, cultural, or recreational resources sections. Some gave little more than a statement referencing the DEM Landscape Inventory while others represented a full consideration, developed from community input and documenting existing conditions and plans for protection and future use of scenic areas.



City/town contacts were also asked for their recommendations for roadways that had scenic character. Individuals were asked about places they would take a visitor and what (s)he was particularly proud of in their city or town.

These informal opinions, as well as any reference to scenic roads in comprehensive plans, were welcomed as recommendations and added to the prime determinants for identification of areas of prime scenic character.



MAP 9 - Supplementary Data

### Reference Key

1. Archeological Sites
2. Natural Heritage Areas
3. Greenway Corridors
4. Preserved Agricultural Land
5. National Register Historic Sites and Candidate Sites

### SUPPLEMENTARY DATA

Several characteristics that are important for preservation and planning related to scenic resources were identified in the inventory process as having supplementary importance. In themselves they had minimal visual impact and were not considered determining factors in the desk top identification of landscapes with scenic attributes but they were noted as contributing to an identified scenic roadway's individual specific character.

#### Archeology:

Archeological areas were not considered as making a significant contribution to the visual character of the landscape.

However, such areas would benefit from the associated protection that would accompany formal scenic roadway designation. Thus, where general locations have been published in Comprehensive Plans, the areas were mapped. In many cases they coincide with areas of prime determinants of visual character.

#### Natural Heritage Areas:

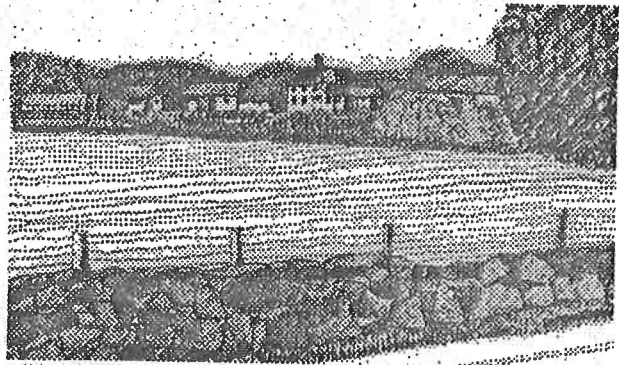
As with archeological areas, rare species habitats or locations, as identified by the RI Department of Environmental Management, Natural Heritage Program<sup>1</sup> in themselves were not considered a significant contribution to the visual character of the landscape. However, because of the importance of protecting such areas, where general locations have been published in Comprehensive Plans, these areas were mapped and, in many cases, they were found to coincide with areas of more dominant visual character, such as preserved open space.

#### Greenspace and Greenway Corridors:

In developing the Greenspace and Greenways Plan, the Division of Planning of the RI Department of Administration, utilized a composite system and criteria that was also appropriate to the scenic roadway inventory. At this stage in greenspace planning the ideas are conceptual, as the proposed greenbelts and greenway corridors with special natural character are mapped as very general shapes. There is obviously great potential for scenic views as well as recreation opportunities where scenic roadways interface with these corridors.

#### Preserved Agriculture:

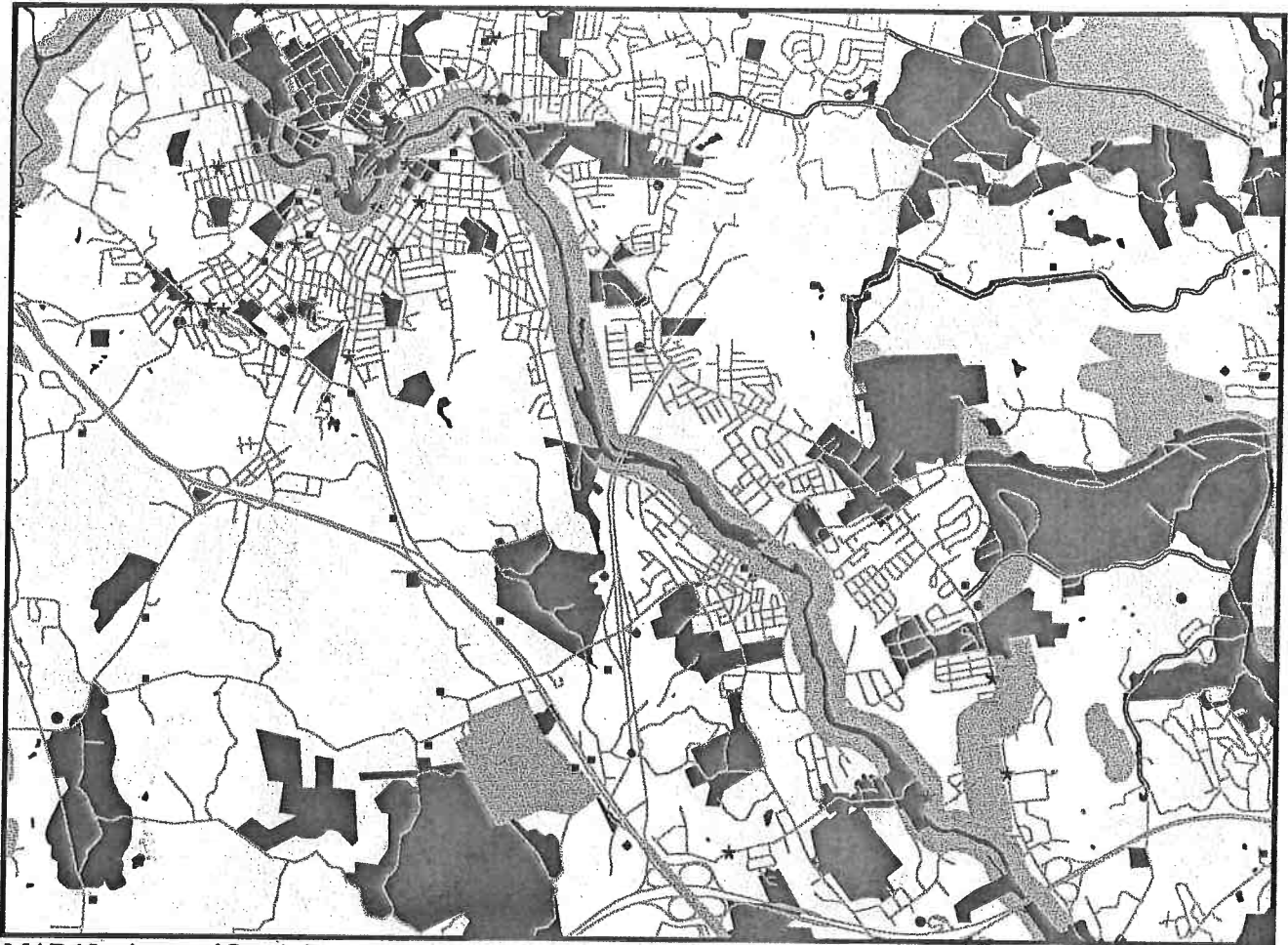
The open fields of active agricultural areas are critical scenic features and are identified in the mapping of landscape character. Farms that are formally protected, as indicated on the Division of Planning, Department of Administration, Acquisition of Development Rights to Farmlands<sup>2</sup> plan, were noted and considered as a special attribute.



#### National Register Historic Sites:

Although National Register Historic Districts are a primary factor in establishing scenic character, individual sites<sup>3</sup> or candidate sites<sup>4</sup> are often isolated incidents in the landscape and offer little scenic continuity. Thus they were not considered primarily determinants to a scenic experience although they were often important as scenic elements contributing to an otherwise scenic roadway.

1. DEM Rare and Endangered Species Protection Program, February 1994
2. Agricultural Land Preservation Commission: Acquisition of Development Rights to Farmland, Division of Planning, Dept. of Administration, July 1991
3. RIGIS Data Set s44chs90 Historic Sites including buildings on the National Historic Register
4. RIGIS Data Set s44chc92 Historic Sites which are candidates for listing on the National Register by the RIHPC



MAP 10 - Areas of Scenic Potential

## AREAS OF SCENIC POTENTIAL

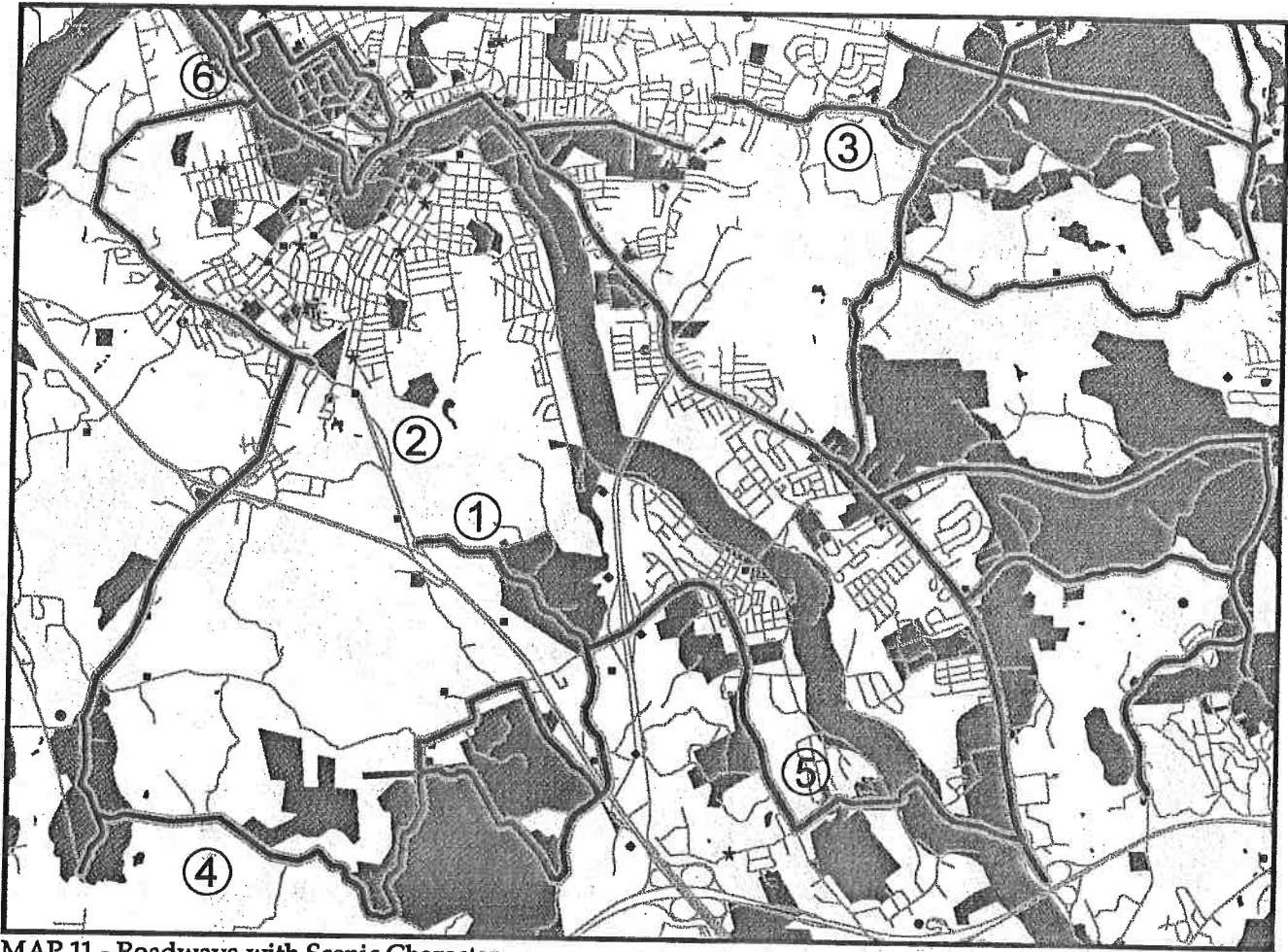
To determine the areas of scenic potential, the four principal landscape characters (indicated in black on Map 10), which are:

- Visual Character
- Historical Character
- Natural Character and
- Locally Identified Character

were combined into a single map. Wherever one or more of these prime character sets existed, the landscape was designated as being of "scenic potential." In addition, Supplementary Data was also included (shown in light gray on Map 10, except where superceded by prime

characters), indicating their secondary visual potential. The resultant combination of the prime scenic characteristics and the supplementary data was then used to identify potential scenic roadways.

The distribution of the areas of scenic potential tended to group into several large aggregations, separated by scattered, much smaller residual incidents. This map indicates, by implications, the areas of the landscape within which there is a high probability of finding roadways that have scenic potential. The next stage of the study was to further refine these probabilities through evaluation and field verification.



MAP 11 - Roadways with Scenic Character

## SECTION B

### Reference Key

1. Typical road of prime scenic landscape quality
2. Typical elimination as isolated scenic landscape
3. Typical recommended roadway
4. Typical roadway connection
5. Typical connection of two or more roads with similar or contrasting scenic characteristics
6. Typical linkage of urban streets

### IDENTIFYING ROADWAYS WITH SCENIC CHARACTER

The identification of roadways with visual character built directly on the previous identification of areas with scenic attributes. It was the critical preparatory step before field evaluation of the roadways. The primary purpose of this phase was the identification of routes for 'windshield' (field) survey of potential roadways in each town or city and at the same time eliminating all other roads from consideration. The route determination included the following:

1. roads/road segments through, adjacent to, or in close proximity to one or more areas of prime scenic character (visual landscape, historic, natural)

2. consideration of roadway segments in relation to the size, aggregation and proximity of areas of scenic character with the elimination of short, isolated roads

3. locally recommended roadways

4. potential connections or linkages of roadway segments with similar character

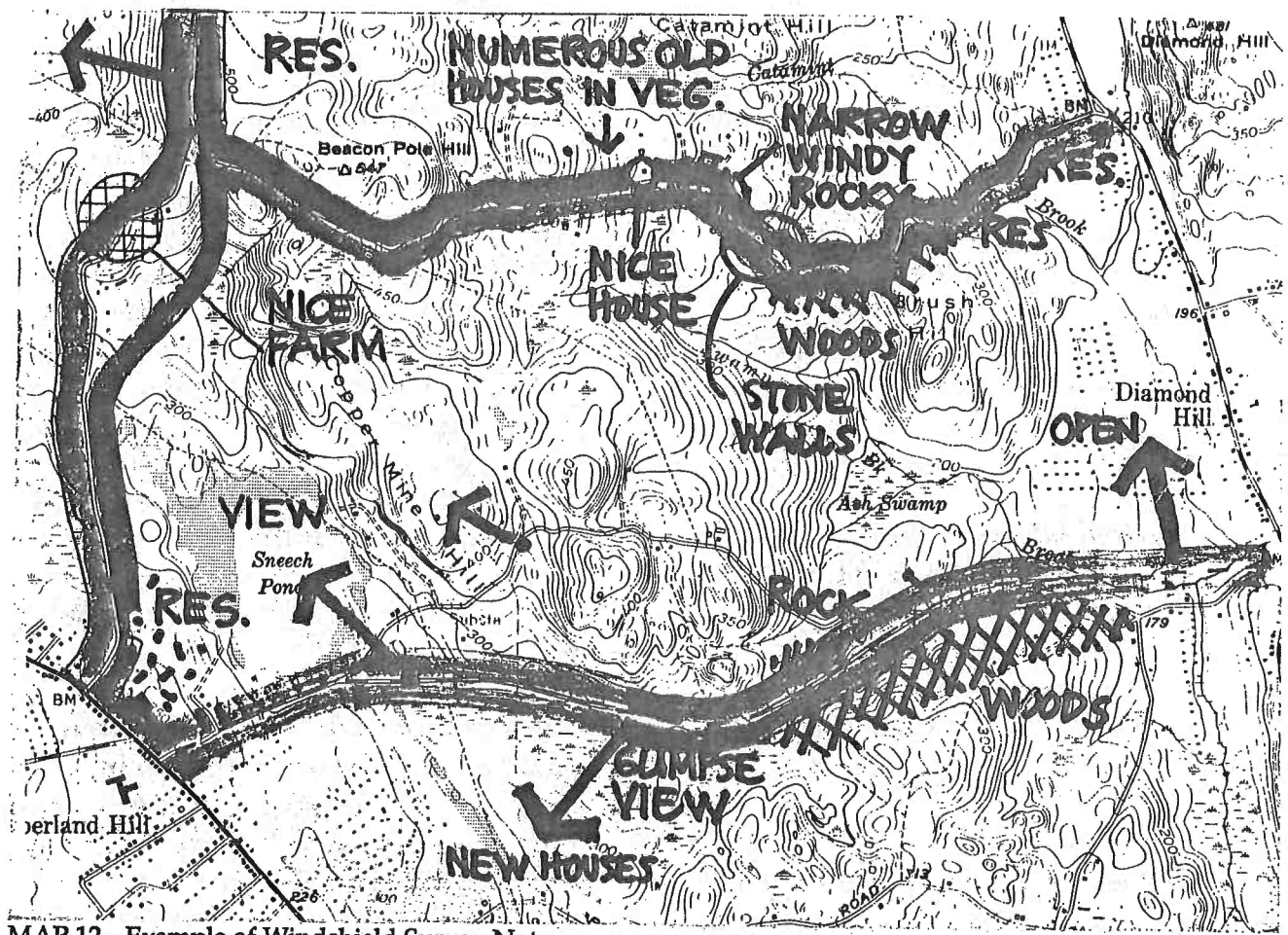
5. consideration of supplemental data as attributes and enhancements of potential scenic roadways

As an initial assumption, all public roads were considered to have potential as scenic roadways. With the identification of areas with scenic attributes in the preliminary phase of the inventory, all roads that were not inside, adjacent to or in the immediate vicinity of areas with scenic attributes were eliminated from consideration. There was also an acknowledgment that a scenic roadway was more than a scenic incident, a single view or brief landscape experience. However, segments of a roadway interrupted by landscapes of lesser quality or short segments of similar roads in close proximity could be linked and considered as a potential scenic roadway.

All roadways impacted by areas with visual landscape character and historic districts were identified at this stage. However, roadway segments abutting or enveloped in the natural landscape were subjected to size and aggregation limitations. For example, small ponds or isolated neighborhood parks located on short side streets were not acceptable, but a large pond surrounded by protected open space on a roadway of sufficient length was identified in this phase. In addition roadways recommended by town planners or other local contacts were considered as important as the prime criteria and were thus noted as roadways with visual character and appropriate for field evaluation.

Supplemental data areas alone were not enough for roadway consideration, unless there was an unusual aggregation, such as numerous historic buildings or sites grouped together. Instead supplemental areas were considered an enhancement to roadways identified through other determinants.

For both the practicality of field review and potential designation, it was necessary to logically connect the potential roadway segments. By nature, many of these segments occurred along one continuous road and were identified by a single road name or route number. Other segments were linked together by connecting a series of roadways of differing names.

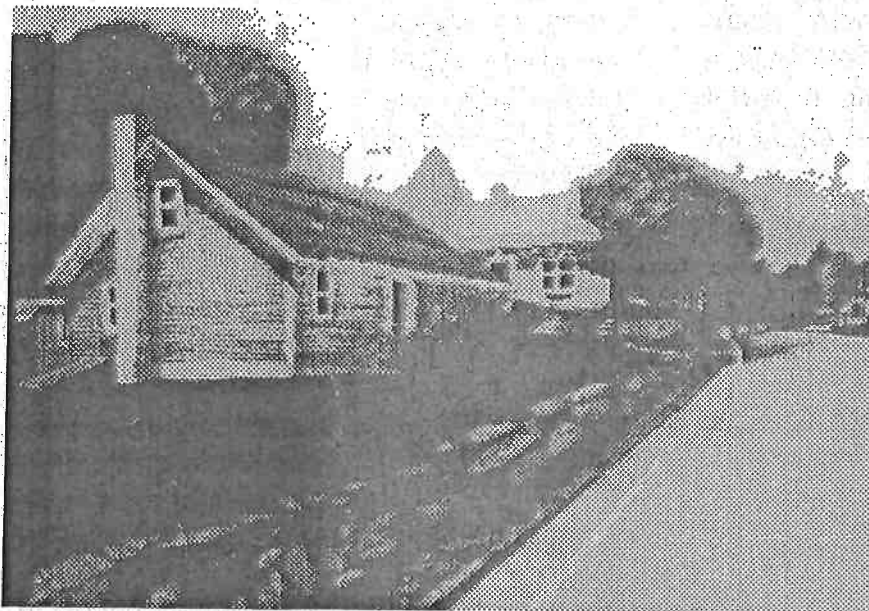


MAP 12 - Example of Windshield Survey Notes

## SECTION C

### EVALUATION OF ROADWAYS WITH SCENIC CHARACTER

The "windshield" survey provided an opportunity to verify desk top data, add criteria not available from desk top sources, conduct a more detailed review of the criteria used as well as carry out an evaluation based on more subjective aesthetic characteristics.



Field survey routes were charted out in advance of the drive, generally on a town by town basis, choosing routes for field review of identified roadways but also noting connections between them that did not meet the scenic criteria but exhibited some contributing scenic attributes. In this way short segments of potentially scenic roadways could be linked together for a more meaningful driving experience or in recognition of a district or area of scenic landscape.

#### Field Verification:

Verification of areas of rural scenic landscape proved most critical. In the five years since the DEM Scenic Landscape study was prepared, vulnerable open fields have been developed or abandoned and have become overgrown by woody vegetation.

Even where data was accurate, the field check to determine visibility from the road was critical. Overgrown roadside vegetation, stone wall vegetation or buffer areas often blocked critical views to historic buildings, open water or other potentially scenic features.

#### Detailed Scenic Criteria:

Various detail characteristics or features, such as stone walls, fences and tree lines, make an important contribution to the scenic character of a roadway and were noted at the field evaluation level. Other characteristics factored in at this point were distinctive plant communities, distinctive topography and rock formations. Cultural elements, such as notable contemporary architecture, were also identified during the field check.

#### Aesthetic evaluations:

Evaluations based on personal aesthetic judgments are highly subjective and, as

such, are considered less reliable factors but they inevitably become part of a scenic evaluation process. The character of the six currently designated scenic roadways helped set standards for comparison. The evaluators discussed these characteristics at length and proved to be relatively consistent in their responses.

#### Integrity:

Integrity, or continuity, of the landscape experience as the factor that provides consistency without undue distractions or intrusions, was an important and often limiting factor. Inevitably there are some conflicts, inconsistencies, or unrelated land uses or an occasional jarring architectural element along any stretch of roadway. These negative incidents were ignored as long as there was an overall strong continuity of dominating scenic character.

#### Spatial quality:

The wonderful spaces represented in the Rhode Island roadway landscape vary from the tunnels created by overhanging vegetation on narrow roadways to the broad open spaces with panoramic ocean views. The dramatic spaces, whether rural or urban, are easily recognized. More commonly the evaluation was based on clarity and variety of less dramatic open and closed spaces. At driving speeds, long stretches of reasonably consistent woods were monotonous, but landscapes that contrasted woods with open fields, and maybe a few farm structures, were some of the most attractive rural roadways.

Most of the field evaluations were done in the summer and fall, seasons when the deciduous vegetation was in full foliage. Spaces framed or delineated by vegetation were clearer in summer than in winter.



Scattered residential development in woods and agricultural areas is more obvious in the winter, revealing a more fragmented landscape. Woodland or forest edges are often more attractive in winter when one can see further in under the trees. Evaluators working in the summer tried to compensate by factoring in an estimation of the more transparent nature of the winter landscape. Although there was an effort to address a year round scenic condition, it was accepted that landscapes can be essentially attractive at a given season based on flowers, or foliage color or even vegetation density.

Fit:

The sense of the roadway responding to the landscape was most apparent where roadway alignment flowed comfortably with the topography. Scale was also a factor when the width of the roadway, and its clear zone, fit the character of the adjacent landscape.

Visual Incident vs. Experience:

The state is rich with picturesque landscapes, those that would fill a frame or two of film but would not constitute a longer visual experience.

Just as an historic site is an isolated feature and an historic district is the aggregation of a number of historic structures that gives a sense of history to an area, a visual incident is an individual or isolated scenic event and a scenic experience consists of several related incidents or a single experience large enough or long enough to give a roadway scenic character. The distinctions between a 'visual incident' and a 'visual experience' were difficult to codify exactly but they became critical when considering "kinesthetic" (pleasure in moving through an area) character.

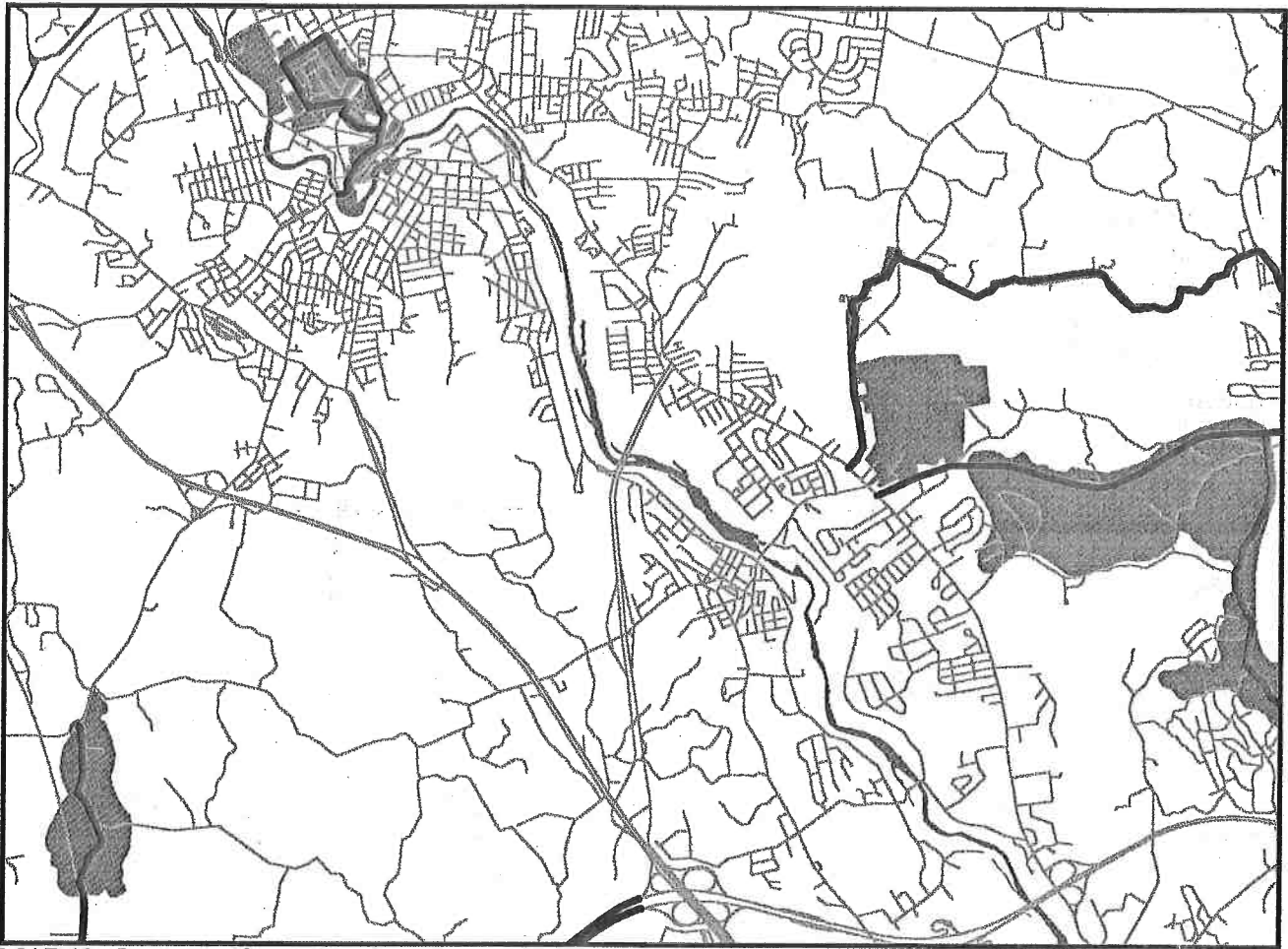
In general, it was assumed that an appreciation of overall scenic experience would require a minimum roadway length of one mile. In urban areas and at slower driving speeds, even one mile was a comparatively long distance but at faster driving speeds and in more open rural areas a reasonable scenic experience was more likely to be at least 2 or 3 miles in length.

Example:

A conscious effort was not made to pick out the most scenic roadway in a town, city or region. Inevitably comparisons were made and the inventory roadway may be considered one that is a good example of its type (in comparison with others in the town or region). Such judgments were often difficult to make and, in the end, usually depended on subjective responses. Therefore other roadways may be comparable or even more suited to scenic designation when factors such as traffic and corridor management are considered.

Public participation:

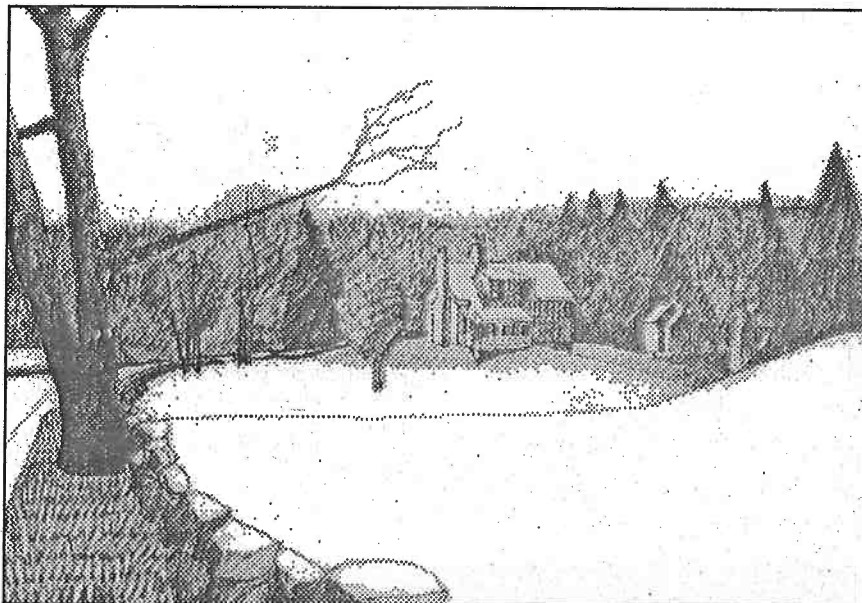
The inventory stage of the project and the relevant base data was discussed with representatives of each town in the process of identifying roads with scenic character. After a draft inventory had been completed, public workshops were held in each of four regions of the state—the north west, the east bay, the metropolitan area and the southern region. Roadways suggested by participants at these meetings or brought to our attention by other individuals were checked against roadways previously evaluated in the field and, if they had not been previously reviewed, were driven and evaluated in the same manner as others were during the "windshield" survey stage.



MAP 13 - Inventory Scenic Roadways

## SECTION D

### ROADWAYS WITH SCENIC CHARACTER AND POTENTIAL DESIGNATION



By the final phase of the inventory, roadways had been identified through a process of elimination of first areas and then roads without specific scenic character. Earlier phases were based on application of existing data in a relatively objective manner.

Field evaluation expanded the assessment with additional objective criteria but also introduced more subjective aesthetic concerns, no doubt leaving room for other interpretations and additional nominations. However, the final identification of 'inventory roadways' represents roads that communities have recognized as special roadways that meet the Rhode Island Scenic Roadway Boards criteria for visual quality and many also have the exceptional character that may qualify them as National Scenic Byways.

FOSTER	INVENTORY NUMBER	LENGTH IN MILES	ROADWAY CLASSIFICATION (D.O.A. Div. of Planning)	PAVED OR UNPAVED	PROTECTED OPEN SPACE	HISTORIC DISTRICT	SCENIC AREA	SURFACE WATER	NOTES OF CONCERN
ROAD NAME(S)									
Moosup Valley Road	F1	2.50	RURAL LOCAL	P	X	X			•openness / wide road scale
Isthmus Road	F2	2.00	RURAL LOCAL	U	X	X	X		•retain unspoiled dense woods
North Road	F3	3.20	RURAL LOCAL	P		X	X		•agriculture/residential mix
Winsor Road	F4	4.00	RURAL LOCAL	P/U	X	X	X	X	•retain contrast of fields/woods
Rams Tail Road	F5	1.40	RURAL LOCAL	P/U	X	X	X	X	•road is narrow with dense woods, limiting views to reservoir
Kate Randall Road		0.75	RURAL LOCAL	P/U					
Hemlock Road		1.00	RURAL LOCAL	P/U					
Tucker Hollow Road	F6	1.75	RURAL LOCAL	U		X	X		•nice spatial character of road
Ponaganset Road	F7	1.20	RURAL LOCAL	U	X		X	X	•limited views to reservoir

GRAPHIC 1 - Summary Chart

## DOCUMENTATION

The inventory roadways were identified and listed for each town or city. Within a town connecting roads with similar road traffic capacity characteristics and similar landscapes were identified as one roadway. Connecting roads that had different characteristics were separately identified. A road that passed through two towns was identified as two roadways.

Scenic characteristics of each roadway were noted on work sheets and the final lists were prepared in an abbreviated chart form.

These charts showed the name(s) of the

road or road(s) for each aggregate roadway, the approximate length, the classification(s), the primary scenic characteristics and brief notes. These notes were intended primarily for Board use, either as alarms triggered by some form of future concern that should be addressed in planning, by reviewing plans for road alterations or by identifying vulnerable characteristics that, if compromised, could eliminate this roadway from eventual consideration for scenic designation.

# CONCLUSIONS

## GENERAL

The inventory identified roadways are as varied as the Rhode Island landscape itself. They consist of roads along the shore, roads through agricultural areas and woodland, roads that pass through villages, and roads that are within dense urban areas. The visual character of the legal roadway rights of way are important to establishing the immediate scenic effect of any roadway but the real nature of the visual experience largely depends upon the 'borrowed' landscape, that landscape that is beyond the right of way but is clearly visible from the road. It might also be described as its 'view shed.'

A few roads, particularly those that run along the shoreline or larger bodies of inland water, look out on expansive views but most of Rhode Island's scenic roadways reveal a landscape of more limited views and a smaller scale landscape.

In fact, a major scenic attribute of a typical Rhode Island roadway may well be a relatively small open area, perhaps only a few acres in size, which, in spite of its size, may be quite important in contrast to the predominant immature woods or the sprawling residential development within which it exists.

## DISTRIBUTION and LENGTH

The overall distribution of roadways with scenic character creates a fragmentary system. Even with the inclusion of the connecting segments, most scenic roadways and scenic loops are relatively short, less than 10 miles, and are comparatively isolated from one another. Only a few major routes through the state, or even between

towns, were identified as being 'scenic.' Notable examples of these are Route 295 through Johnston and Smithfield and Route 77 in Little Compton and Tiverton.

In terms of roadway classification, as designated by the Department of Administration, Division of Planning, the inventory roadways are representative of the full range of roadways, ranging from major arterials (Interstate 295) to rural local roads.

A total of just under 330 miles of road and 96 separate roadways were identified in the inventory as having scenic character suited to potential designation. Potential scenic roadways were identified in almost all cities and towns. The exceptions were in densely developed suburban areas, which have many scenic views but these incidents are too dispersed and too small to be connected to create a scenic roadway experience.

## CONNECTIONS AND LINKAGES

With the identification of roadways that have scenic character, it becomes possible, even desirable, to create linkages that connect the scenic segments together as well as connecting the route to other places of interest.

As illustrative examples of such connective possibilities a linkage system was developed for each of four regions of the state. Each included an experience of the type of scenic landscape typical of that part of the state. They could also be combined to create longer, more extensive drives through more broadly defined or contiguous areas of the state. Primary loops were defined that were both easily accessible and could sustain increased volumes

of traffic. To create a more comprehensive system, inventory identified roads and designated roadways were connected by 'linkage' roads that exhibit similar roadway and traffic characteristics but lack the special scenic character of inventory or designated roadways. Together, they could provide an attractive drive with sufficient continuity and length to be an interesting scenic experience.

1. Scituate Reservoir Route:

The Scituate Reservoir route focused on water views and preserved open space around the state's largest reservoir. It also included the historic villages of Chepachet, Clayville and North Scituate, as well as views of agricultural and preserved forest areas in the northwestern part of the state.

2. Metropolitan Route:

The Metropolitan route revealed the rich urban character and variety as seen from the waterfronts, the civic and commercial centers, college campuses and residential areas of the capital city. It included spectacular views of notable architecture, boulevards and parks contrasting with the dramatic spaces of the commercial and civic core and the intricate pattern and scale of streets and houses in the historic residential areas.

3. Aquidneck Island Route:

The Aquidneck Island route included the well known tourist areas of Newport, the lesser known agricultural and natural areas of Middletown and the marvelous coastal views from the Naval Reservation area.

4. South County Route:

The 'South County' route passed through a rich variety of landscapes that are typi-

cally associated with this area. It did not include the shore line and beaches but did pass through major areas commonly considered as being scenic. It also included two of the currently designated scenic roadways.

These roadways tended to be State routes that generally have the necessary traffic capacity characteristics and recreation interest that make them suitable for public promotion. Such promotion will generally be the concern of the communities through which the route passes and thus should involve their participation and approval.

It is assumed that route promotion alone will generate a relatively small increase in overall traffic volume but might contribute significantly to an overall promotional plan for marketing the area. However, there may be greater concern for possible conflicts between the faster regular traffic and slower speed of drivers unfamiliar with the area interested in a more leisurely rate of travel.

### STABILITY AND VULNERABILITY

The scenic character of the inventoried roadways depends on the visual qualities of their viewsheds but, like all landscapes, they are in a constant state of change. These changes are both natural and induced, both positive and negative, both major and relatively minor but, when they are of a significant nature, they may essentially eliminate critical scenic character and the potential for a roadway to achieve scenic designation.

The slow but inexorable changes that result from natural process have great impact on scenic roadways. Perhaps the most obvious of these is the radical

change caused by the unrestrained growth of vegetation. In just a few short years the growth of vegetation can fill in abandoned fields, bury stone walls, eliminate open views and diminish critical spatial contrasts. The cause can be the unintended result of something as fundamental as the loss of agriculture or as simple as lack of routine maintenance. It can also result from intentional actions, such as screening for privacy which, while it was understandably intended to block views of the road also resulted in blocking views from the road. This has the effect of privatizing the scenic assets of an area, rendering the public appreciation of such resources virtually non-existent.

By far the most persistent and serious threat to scenic value is conventional development. Development and scenic roadways are not necessarily incompatible but in rural areas conventional development tends to subdivide and fragment the landscape, filling in open fields with houses and inappropriate ornamental landscaping or cutting up woodlands with regular patterns of houses and lawns. In urban areas it tends to set nondescript buildings in a sea of asphalt, frequently without regard for existing building patterns or spatial context.

With sensitive site planning, however, new development can be sited to both take advantage of the scenic character of a landscape while, at the same time, protecting it. In rural villages and dense urban areas sensitive in-fill and clustered development can revitalize the physical and social life of a community. It can, if carefully designed, reinforce and even enhance the scenic characteristics that originally made the place so delightful.

Roadway improvements that might be necessary to accommodate increased traffic volumes or to alleviate sub standard conditions can also be disruptive of scenic character. With more sensitive design and acceptance of special design guidelines these conflicts can also be reduced.

It is inevitable that change will occur and that the assets of inventory scenic roadways will need to be up-dated as a part of the formal designation procedure. In addition, all designated scenic roadways will have to be re-viewed on a regular basis to ensure that protection measures have been effective and that these valuable resources are still as special or even better than at the time of designation.

Even with the inevitable, possibly desirable, changes, the state's rich visual character can be protected. There are many critical components in effective protection strategies. Identification of the special scenic resources is a first step. Through the Rhode Island Scenic Roadways programs, roadways that are especially rich in visual character and quality and valued as special places, can be designated as Rhode Island Scenic Roadways and thus encourage a sensitive approach to improvements and maintenance as well as promoting effective community planning and regulations for both the preservation and sensitive development of the roadway corridors.

# ABSTRACT

**title:** INVENTORY OF RHODE ISLAND ROADWAYS  
WITH SCENIC CHARACTER

**subject:** Roadway visual character assessment

**date:** June 1996

**agency:** Rhode Island Scenic Roadways Board  
c/o The Scenic Byways Coordinator, rm 229  
The Rhode Island Dept. of Transportation  
Two Capitol Hill  
Providence, RI 02903-1124  
tel. (401) 277-2023

**project:** Technical Support Services for the R.I. Scenic Roadways Board  
Federal Highway Administration Scenic Byways FY 92 Grant

**consultants:**

**abstract:** The inventory identified public roadways of scenic quality through out Rhode Island. Primary criteria were derived from the FHWA Scenic Byways program intrinsic landscape quality categories and generally applied through data available from RIGIS (RI Geographic Information Systems).

The intent of the study was to provide base information and encourage communities to apply for designation and to provide information to assist the Board in its evaluation of requests for designation.

Approximately 330 miles of roadways, including both rural and urban areas, were identified as having the scenic character suitable for Rhode Island Scenic Roadway Designation.

Identified roadway information sheets and base information plans for each town are included in Inventory Appendix I.



# **P**ART II

## **DOCUMENTATION**

Scenic characteristics of each roadway were noted on work sheets and the final lists were prepared in an abbreviated chart form. These charts show the name(s) of the road or road(s) for each aggregate roadway, the approximate length, the classification(s), the primary scenic characteristics and brief notes. The notes were intended primarily for Board use, either as alarms triggered by some form of future concern that should be addressed in town/city planning efforts, for reviewing plans for road alterations or for identifying vulnerable characteristics that, if compromised, could eliminate this roadway from eventual consideration for scenic designation.