

IDENTIFICATION OF NONNATIVE AND UNUSUAL TREE SPECIES NOT PRESENT

IN THE NORTH BRIDGE AREA LANDSCAPE ON APRIL 19, 1775

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MIMA Technician

Circa 1980

CONTENTS

INTRODUCTION.....	1
METHOD.....	1
SPECIES EVALUATED	
<u>Acer platanoides</u> Norway Maple.....	2
<u>Acer platanoides</u> var. <u>Schewdleri</u> Schewdler Maple.....	3
<u>Ailanthus altissima</u> Tree of Heaven.....	3
<u>Berberis Thunbergii</u> Japanese Barberry.....	3
<u>Catalpa bignoides</u> Common Catalpa.....	4
<u>Cladastris lutea</u> Yellowwood.....	4
<u>Fagus sylvatica</u> European Beech.....	5
<u>Larix decidua</u> European Larch.....	6
<u>Liriodendron tulipifera</u> Tulip tree.....	6
<u>Picea Abies</u> Norway Spruce.....	7
<u>Pinus sylvestris</u> Scotch Pine.....	7
<u>Polygonum cuspidatum</u> Japanese Knotweed.....	8
<u>Populus alba</u> White Poplar.....	9
<u>Rhamnus cathartica</u> Common Buckthorn.....	9
<u>Rhamnus frangula</u> Glossy Buckthorn.....	10
<u>Robinia Pseudoacacia</u> Black Locust.....	11
<u>Rosa multiflora</u> Multiflora Rose.....	11
<u>Sorbus aucuparia</u> European Mountain Ash.....	12
<u>Taxus cuspidata</u> Japanese Yew.....	12
MISCELLANEOUS INFORMATION.....	13
RECOMMENDATIONS.....	13
CONCLUSION.....	16
KEY TO MAPS.....	17
MAPS.....	18
APPENDIX.....	32
GENERAL REFERENCES.....	38

Introduction

One of the primary objectives in the Comprehensive Management Plan of Minute Man National Historical Park is to preserve and, where feasible, restore the historic 1775 appearance of the Battle Road and associated properties, structures and sites. The landscape within Minute Man National Historical Park no longer portrays the scenery at the time the British traveled the road in 1775. Cultivated fields have grown into forests, ponds have become community dumps, marshes have been drained or filled, and crops now planted are not historically representative. In addition to these changes, various species of introduced trees and shrubs have escaped cultivation and become naturalized in the environment. As a step towards the goal of restoring the historic landscape, a plan was prepared showing existing nonnative and introduced tree species in the North Bridge area.

Method

Of the several methods available for completing a site evaluation, the use of assessors maps seemed most attractive. Assessors maps are easily obtainable and the information, once compiled and mapped, is easily understood.

The initial step of the evaluation was a foot survey to identify nonnative and unusual species. The species were listed in a numbered key and located on the appropriate assessors map. Research was then

conducted through a variety of books, organizations and individual experts to determine if these plants were "out-of-range" or introduced to the United States after 1775. (The term "out-of-range" refers to native North American species that were not normally found in this geographical location.)

Acer platanoides L.

NORWAY MAPLE

A. platanoides is a native of Europe growing in Norway, Sweden and other northern regions. Due to its adaptive qualities, it is now commonly found in many areas of the United States as well.

Although many sources agree that A. platanoides was introduced to the United States in early colonial times, few list a specific date. One source does state, however, that A. platanoides was "introduced by William Hamilton of Philadelphia after the Revolutionary War."¹ Dr. Elbert L. Little, Jr., retired Chief Dendrologist for the U.S. Forest Service, states that this species "very probably was not in the landscape in 1775, and if introduced earlier, probably would not have been naturalized."²

¹Gordon P. DeWolf and Rudy F. Favretti, Colonial Gardens (Barre, Massachusetts: Barre Publishers, 1972), p. 134.

²Dr. Elbert L. Little, Jr., Chief Dendrologist (retired), U.S. Forest Service, Washington, D.C. (letter, see Appendix)

Acer platanoides var. Schwedleri Nichols

SCHWEDLER MAPLE

A. platanoides var. Schwedleri, a variety of the common A. platanoides, was cultivated in 1867."³ This tree is characterized by very dark reddish-green, almost purple, leaves which when crushed, exude the milky substance characteristic of the A. platanoides group.

Ailanthus altissima (Mill.) Swingle

TREE OF HEAVEN,

This hardy native of China has become widespread in the United States due to its ability to withstand the poorest environmental conditions. "Introduced to the United States in 1784,"⁴ it is now thoroughly established in many eastern states and several sites within Minute Man National Historical Park.

Berberis Thunbergii DC

JAPANESE BARBERRY

Sources concur that this thorny shrub was introduced to the United States "from Japan in 1864,"⁵ many years after the close of the

³Alfred Rehder, Manual of Cultivated Trees and Shrubs, second edition (New York: Macmillon Publishing Company, 1940), p. 569.

⁴Ibid., p. 531.

⁵Ibid., p. 237.

Revolutionary War. In his article, "Introductory Dates of Familiar Trees, Shrubs and Vines," Dr. Donald Wyman lists the introduction year as 1875, while in a recent letter he stated "1864"⁶ as the correct date. In any case Berberis Thunbergii could not have been present in the landscape on April 19, 1775.

Catalpa bignoides Walt.

COMMON CATALPA

Although this tree was "introduced to the United States in 1726,"⁷ all sources indicated C. bignoides would not have been found in Massachusetts in 1775. (This tree was, and still is, out of its botanical range.) Large heart shaped leaves and showy flowers have made this tree a popular ornamental planting. Viable seeds are produced, however, few seedlings mature.

Cladastris lutea (Michx.) K. Koch.

YELLOWWOOD

"Introduced to the United States in 1812, C. lutea's natural botanical range is North Carolina, Kentucky and Tennessee."⁸ Fragrant, showy

⁶Donald Wyman (letter, see Appendix).

⁷Alfred Rehder, op, cit., p. 822.

⁸Ibid., p. 488.

white flowers have made this a popular estate tree, "Natural reproduction does not normally occur in Massachusetts."⁹

Fagus sylvatica L.

EUROPEAN BEECH

Numerous varieties of this tree, differing in shape and color of the leaves, are cultivated in the United States. The smooth, bluish-gray bark of the beech is a distinctive feature; unfortunately, it is often made unsightly by initials carved on its surface.

Although one source indicated F. sylvatica had been introduced to the United States in "early colonial times,"¹⁰ Linnaeus did not describe it as a separate species until 1785. Other varieties and hybrids of this species were later developed in the mid-1800's. Based on this information, it is unlikely that F. sylvatica was in the landscape in 1775.

⁹Thurston Hanley, U.S. Department of Agriculture Extension Service, Concord, Massachusetts (telephone conversation).

¹⁰Donald Wyman, Trees for American Gardens (New York: The Macmillan Company, 1969), p. 235.

Larix decidua Mill.

EUROPEAN LARCH

Although sources agree that L. decidua has long been cultivated and was probably introduced to the United States during colonial times, none could list a specific year. Phillip Miller, author of Miller's Gardener's Dictionary, published during the 1700's, is credited with assigning the scientific name to this species in 1768.

According to Dr. Elbert L. Little, Jr., retired Chief Dendrologist of the U.S. Forest Service, this species "very probably was not in the landscape in 1775, and if introduced earlier, probably would not have been naturalized."¹¹

Liriodendron tulipifera L.

TULIP TREE

Massachusetts is currently the northern limit of this tree's botanical range. Following the retreat of the last ice sheet, plant species have begun a northward migration. Based on this post glacial period characteristic and the fact that Massachusetts is the current botanical boundary, it is very doubtful that L. tulipifera would have been in the landscape in 1775.

¹¹Dr. Elbert L. Little, Jr., op. cit.

Picea Abies (L.) Karst

NORWAY SPRUCE

This tree was introduced to the United States during colonial times for use as a timber species due to its tall straight bole. In the past, it has been "overplanted in North America"¹² and is now very well established. Natural reproduction is not common but does occur. Although no sources listed an introduction date, Dr. Elbert L. Little, Jr., retired Chief Dendrologist of the U.S. Forest Service, stated that this species "very probably was not in the landscape in 1775, and if introduced earlier, probably would not have been naturalized."¹³

Pinus sylvestris L.

SCOTCH PINE

All sources concur that this tree was probably introduced to the United States during colonial times, however, none specify a year. Miller's Gardeners Dictionary, published in 1771, stated that this tree "grows naturally in the mountains of Scotland and is common in most parts of Europe,"¹⁴ but makes no mention of it being found in North America. Dr. Elbert L. Little, Jr., retired Chief Dendrologist of

¹²Donald Wyman, op. cit., p. 337.

¹³Dr. Elbert L. Little, Jr., op. cit.

¹⁴Phillip Miller, Miller's Gardeners Dictionary, 8th edition (London: 1771)

U.S. Forest Service, stated that this species "very probably was not in the landscape in 1775, and if introduced earlier, probably would not have been naturalized."¹⁵

Polygonum cuspidatum Sieb. & Zucc.

JAPANESE KNOTWEED

This large, bushy Asiatic introduction may be recognized by the stout, branched and jointed stems resembling bamboo. ("The family name, Polygonaceae, is derived from Greek words meaning many knees."¹⁶) First used in "1825"¹⁷ as a screen for outhouses, this tenacious weed has since "become obnoxious,"¹⁸ when allowed to grow unchecked. Early in the spring the shoots are edible.

¹⁵Dr. Elbert L. Little, Jr., op. cit.

¹⁶William A. Niering and Nancy C. Olmstead, The Audubon Society Field Guide to North American Wildflowers: Eastern Region (New York: Chanticleer Press, 1979, p. 706.

¹⁷John Kunkel Small, "A Monograph of North American Species of the Genus Polygonum" (New York: Columbia University Botanical Department, 1869).

¹⁸Thurston Hanley, op. cit.

Populus alba L.

WHITE POPLAR

Introduced to the United States from Eurasia in "colonial times."¹⁹ This tree was originally used for timber and other wood products such as wooden shoes. Miller's Gardeners Dictionary, published in 1771, noted that P. alba "grows naturally in the temperate part of Europe,"²⁰ making no mention of its having been introduced to North America. Since no date is listed elsewhere and Miller's Gardeners Dictionary is the most reliable source of information during the time period, it may be concluded that P. alba was not in the United States landscape in 1775.

Rhamnus cathartica L.

COMMON BUCKTHORN

Introduced from Europe and Asia for use as a hedge, this shrub was "quickly scattered by birds and now often appears as if native"²¹ in the eastern United States.

Several sources stated this shrub was introduced in early colonial times, although none listed a date. Miller's Gardeners Dictionary

¹⁹Donald Wyman, op. cit., p. 371.

²⁰Phillip Miller, op. cit.

²¹M. L. Fernald, Gray's Manual of Botany, 8th edition (Boston: American Book Company, 1950), p. 992.

mentions R. cathartica as "growing naturally in the hedges of England,"²² but gives no reference to the United States. Dr. Elbert L. Little, Jr., retired Chief Dendrologist of the U.S. Forest Service, stated that this shrub "very probably was not in the landscape in 1775, and if introduced earlier, probably would not have been naturalized."²³

The fruit of this shrub is edible and is a favorite among many species of wildlife. As a garden shrub, they possess little value.

Rhamnus frangula L.

GLOSSY BUCKTHORN

This species of Rhamnus was also introduced from Europe "recently and very rapidly spreading, this shrub is likely to become obnoxious."²⁴

Like R. cathartica, no source named an introduction date, Miller's Gardeners Dictionary does not mention this species at all. However, according to Dr. Elbert L. Little, Jr., retired Chief Dendrologist of the U.S. Forest Service, this shrub "very probably was not in the landscape in 1775, and if introduced earlier, would not have been naturalized."²⁵

²²Phillip Miller, op. cit.

²³Dr. Elbert L. Little, Jr., op. cit.

²⁴M. L. Fernald, op. cit., p. 993.

²⁵Dr. Elbert L. Little, Jr., op. cit.

The fruit of this shrub is edible and is a favorite among many species of wildlife. It is often found in dense thickets along with R. cathartica.

Robinia Pseudoacacia L.

BLACK LOCUST

A member of the Leguminosae family, this tree has the ability to replace the valuable element nitrogen (N_2) in barren soil. Although all sources indicated the "natural botanical range of this plant is south of Pennsylvania,"²⁶ its nitrogen fixing abilities have caused it to be planted in the Northeast in recent years. The young leaves, seeds and inner bark are poisonous if eaten or chewed.

Rosa multiflora Thunb.

MULTIFLORA ROSE

This thorny, vigorous shrub was first described by Thunberg in 1784. References concur that it was "introduced to the United States from eastern Asia in 1868."²⁷ Recommended as a natural fence and a good soil stabilizer by the U.S. Soil Conservation Service, R. multiflora has become so well established in the environment as to be a nuisance. The

²⁶ Alfred Rehder, op. cit., p. 509

²⁷ Ibid., p.445.

rose hips are edible and are high in vitamin C. They also provide food and shelter for many bird species.

Sorbus aucuparia L.

EUROPEAN MOUNTAIN ASH

Introduced to the United States during early colonial times, this native of Europe was and still is used for ornamental purposes. Although no source lists a date, Miller's Gardeners Dictionary, published in 1771, describes it as "growing naturally in many parts of Europe,"²⁸ making no reference to its growing in North America. Dr. Elbert L. Little, Jr., retired Chief Dendrologist of the U.S. Forest Service, states that this tree "very probably was not in the landscape in 1775, and if introduced earlier, probably would not have been naturalized."²⁹

Taxus cuspidata Sieb. & Zucc.

JAPANESE YEW

This hardy shrub was "introduced to the United States from eastern Asia in 1855."³⁰ Many other varieties and hybrids were later developed

²⁸Phillip Miller, op. cit.

²⁹Dr. Elbert L. Little, Jr., op. cit.

³⁰Alfred Rehder, op. cit., p. 3.

from the original introduced species. All parts of this plant, except for the fleshy aril around the seed, are poisonous.

Miscellaneous Information

Two native shrubs would also have been missing from the landscape on April 19, 1775. The first of these is Berberis vulgaris L. (AMERICAN BARBERRY) which was "outlawed in 1754, as it was a suspected alternate host for wheat rust."³¹ Modern research has verified that Berberis species are a vital link in the lifecycle of the fungus which causes the stem rust of wheat.

The second native shrub which would not have been found in the agricultural landscape of 1775 is Kalmia latifolia L. (MOUNTAIN LAUREL) which was "detested by farmers because it was poisonous to livestock."³² All parts, including the flowers, of this plant are toxic to humans.

Recommendations

One of the objectives in the Master Plan for the management of Minute Man National Historical Park is the restoration of the historic 1775 appearance of the landscape. Full implementation of this objective would require the eradication of all nonnative and out-of-range tree and

³¹Gordon P. DeWolf and Rudy F. Favretti, op. cit., p. 134.

³²Ibid., p. 39.

shrub species described in this report. A management decision will have to be made regarding the level of implementation necessary at each site.

The first area to be discussed is the grounds surrounding the Buttrick Mansion (North Bridge Visitor Center). The landscaping of the estate includes a great variety of introduced tree, shrub and flower species. Removal of these plants would seriously detract from the appearance of the building. Maintenance of the existing flora is strongly advocated until definite plans are made regarding the future of the site.

The land surrounding the Major John Buttrick House is primarily planted to grass. Two large introduced tree species grow in the lawn to the right of the front entrance. These trees are large, healthy and would be costly to remove; therefore, it is not recommended that they be cut down, but when dead, they should be replaced (if so desired) with a native species.

The land on the corner of Liberty Street and Monument Street is currently being cleared in an effort to improve its grazing potential. This activity should continue, removing all nonnative and out-of-range species. Once the land is clear, it must be provided with a strict maintenance program to prevent sprouting of vegetation. The Soil Conservation Service has recommended overgrazing to kill the root systems, seeding and then allowing the field to lie fallow for one year. Other options include herbicide spraying, removing roots manually, mowing, or any combinations of these activities.

The remaining property in the North Bridge Area, with the exception of the North Bridge Parking Area and the path to the Bridge, has no designated use at this time. Future decisions regarding its development will decide the degree of historic landscape restoration. However, for the present, nonnative and out-of-range species should be removed.

The North Bridge Parking Area and the restored section of the Battle Road leading to the Bridge, although maintained by the National Park Service, remain legally the possession of the Town of Concord. Any landscape restoration on these sites must be approved by the Town of Concord. The existing nonnative and out-of-range species should not be cut down, but when dead, they should be replaced (if so desired) with native species.

The level of implementation on the remaining land in the Park also depends greatly on management decisions regarding use. Farmers currently leasing National Park Service property should be urged to plant historically representative crops. Homeowners should be encouraged to gradually remove nonnative and out-of-range species replacing them with native plants. A memo with this recommendation and lists of suitable and unsuitable plant species should be sent to all permit holders within Minute Man National Historical Park.

The Fiske Hill Area, designated as both a National Environmental Study Area and a historic site, poses a unique resource management problem. Since 1775, the environment along the Battle Road has undergone many changes. The Fiske Hill Area presents an opportunity for the

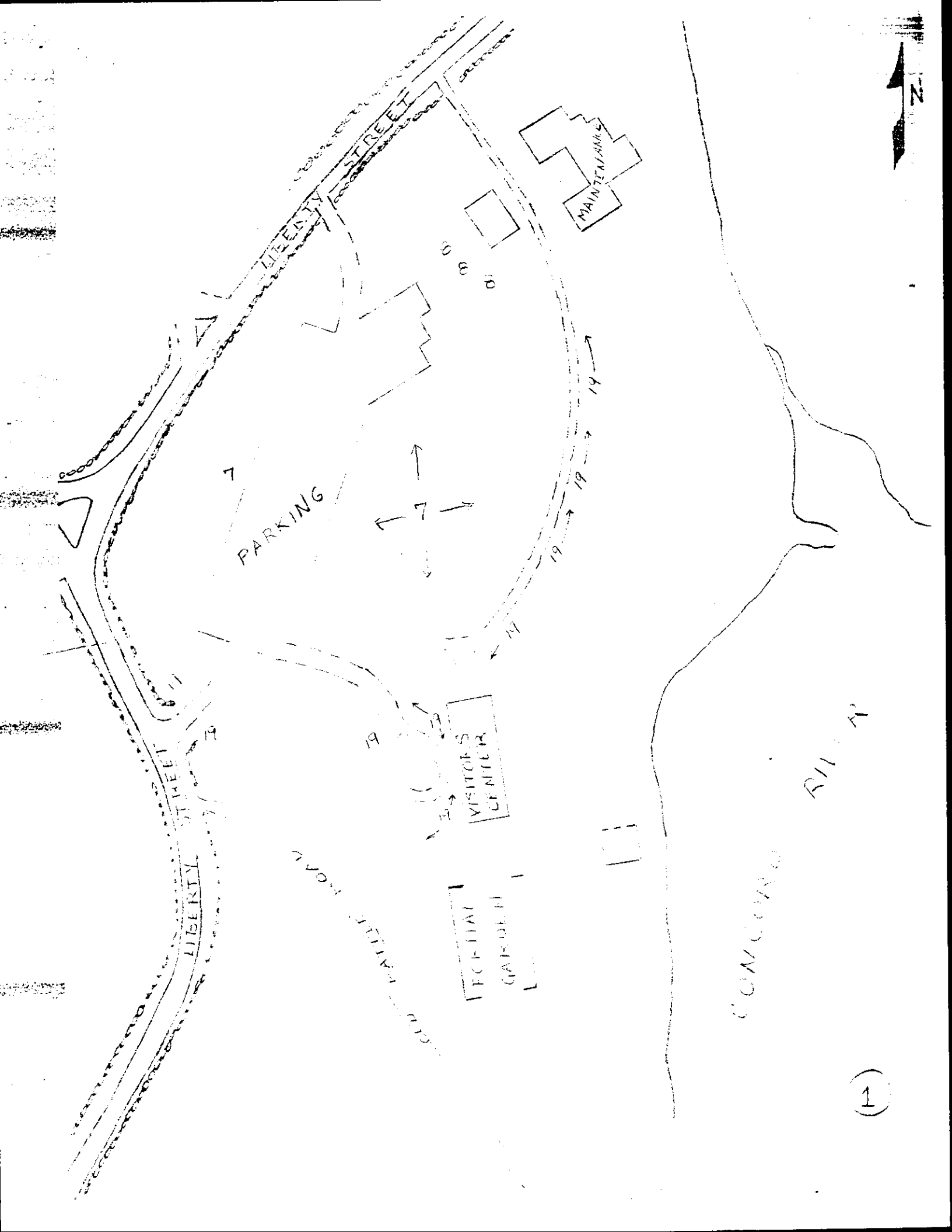
visitor to observe the natural history of New England. Since the designation of National Environmental Study Area is a primary consideration, vegetative succession should be allowed to continue with management confined to the removal of safety hazards. The exception to this practice would be the Battle Road and the archeology sites (Haywood Well and Fiske Foundations) which should be kept clear of all vegetation but grasses.

Conclusion

Management decisions will ultimately decide the use and development of each parcel of land within Minute Man National Historical Park. To facilitate this decision, a study of the historic use of all sites within the Park is necessary. Using the information presented in this report, limited historic landscape restoration may begin until a historic grounds survey is conducted.

KEY TO MAPS LOCATING NONNATIVE AND UNUSUAL
TREE SPECIES NOT PRESENT IN THE NORTH BRIDGE
AREA LANDSCAPE ON APRIL 19, 1775

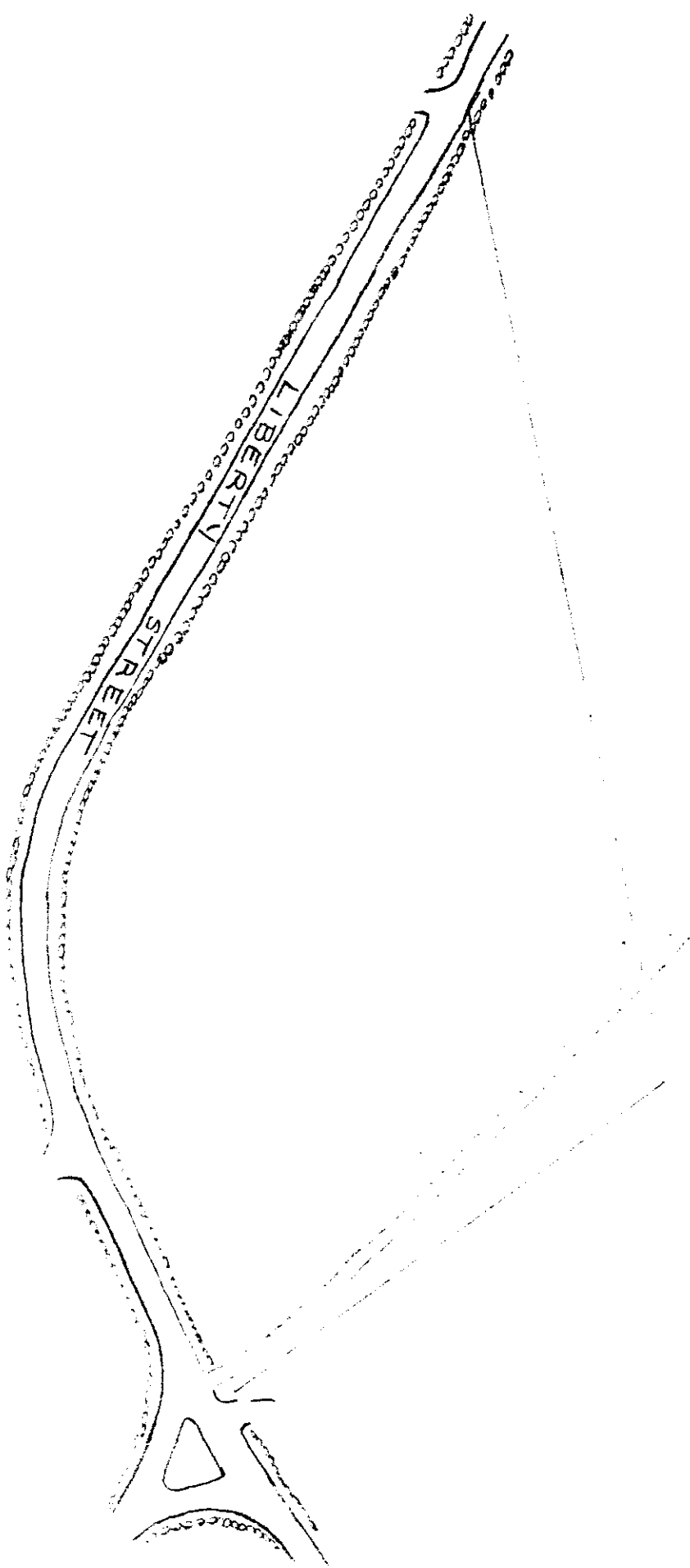
- | | |
|--|-----------------------|
| 1. <u>Acer platanoides</u> L. | Norway Maple |
| 2. <u>Acer platanoides</u> var. <u>Schewleri</u> Nichols | Schewdler Maple |
| 3. <u>Ailanthus altissima</u> (Mill.) Swingle | Tree of Heaven |
| 4. <u>Berberis Thunbergii</u> DC | Japanese Barberry |
| 5. <u>Catalpa bignoides</u> Walt. | Common Catalpa |
| 6. <u>Cladastris lutea</u> (Michx.) K. Koch | Yellowwood |
| 7. <u>Fagus sylvatica</u> L. | European Beech |
| 8. <u>Larix decidua</u> Mill. | European Larch |
| 9. <u>Liriodendron tulipifera</u> L. | Tuliptree |
| 10. <u>Picea Abies</u> (L.) Karst | Norway Spruce |
| 11. <u>Pinus sylvestris</u> L. | Scotch Pine |
| 12. <u>Polygonum cuspidatum</u> Sieb. & Zucc. | Japanese Knotweed |
| 13. <u>Populus alba</u> L. | White Poplar |
| 14. <u>Rhamnus cathartica</u> L. | Common Buckthorn |
| 15. <u>Rhamnus frangula</u> L. | Glossy Buckthorn |
| 16. <u>Robinia Pseudoacacia</u> L. | Black Locust |
| 17. <u>Rosa multiflora</u> Thunb. | Multiflora Rose |
| 18. <u>Sorbus aucuparia</u> L. | European Mountain Ash |
| 19. <u>Taxus cuspidata</u> Sieb. & Zucc. | Japanese Yew |

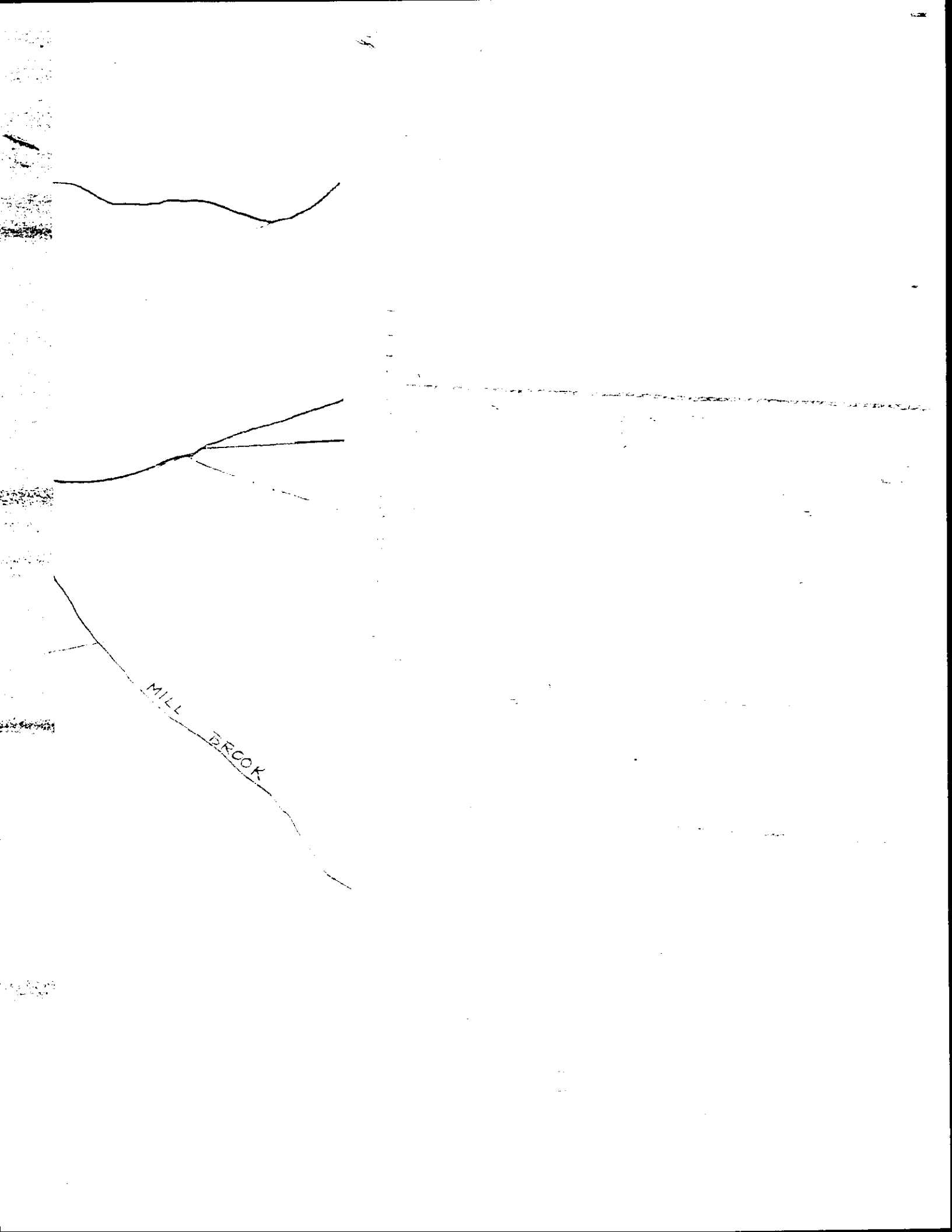
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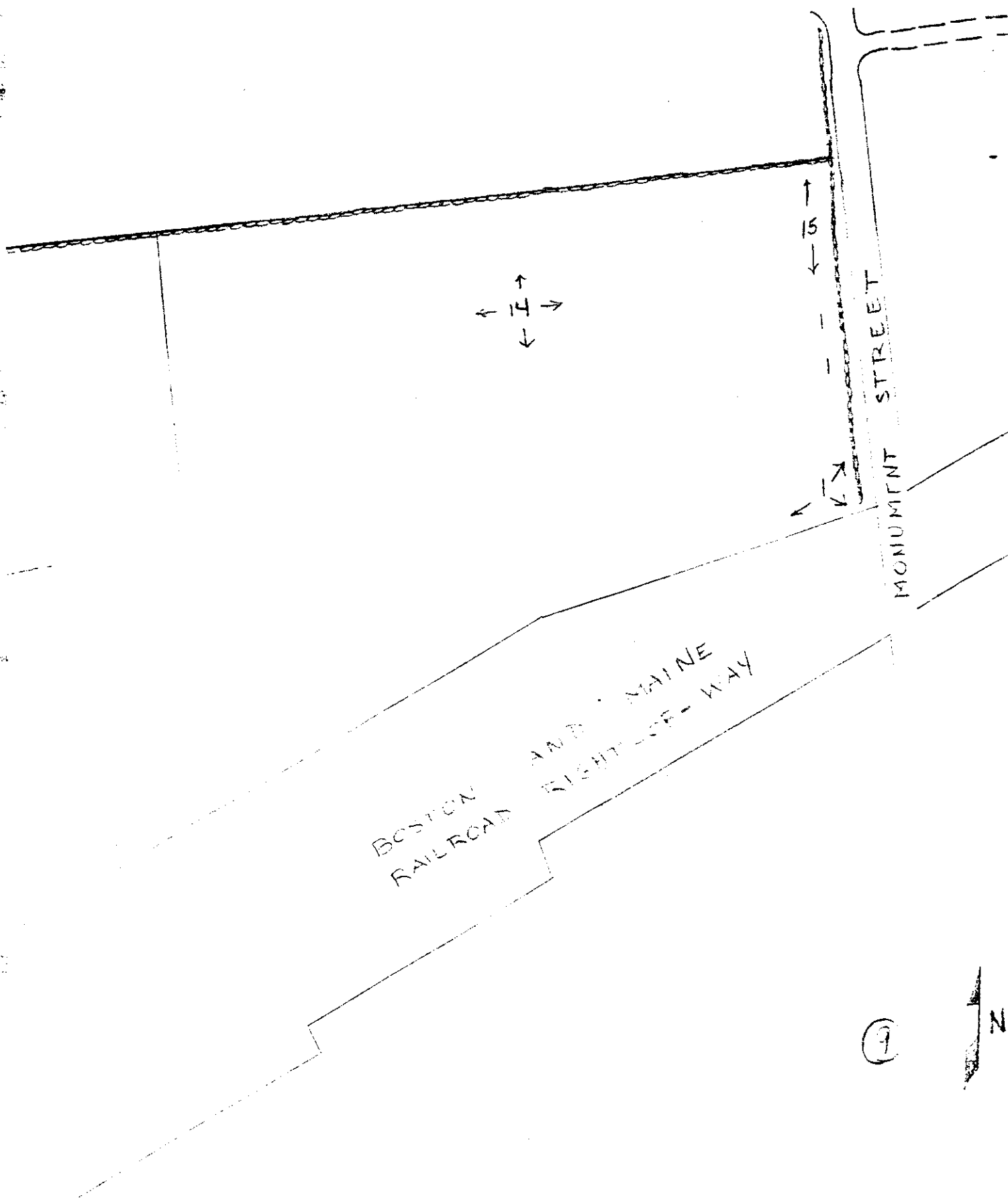
A hand-drawn site map of the Concordia University campus. The map shows several streets: Liberty Street running vertically on the left, and Convent Avenue running horizontally at the top. A large central area is labeled "PARKING". To the right of the parking lot are two rectangular buildings; the one closer to the center is labeled "VISITORS CENTER", and the one further east is labeled "MAINTENANCE". Below the visitors center is another rectangular area labeled "BOTANICAL GARDEN". Dimensions are indicated with arrows and numbers: "7" for the width of the parking lot, "19" for the length of the visitors center building, and "14" for the distance between the visitors center and the maintenance building. A north arrow is located in the upper right corner, pointing towards the top of the page. The word "CONCORDIA" is written vertically along the right edge of the map.

[illegible]

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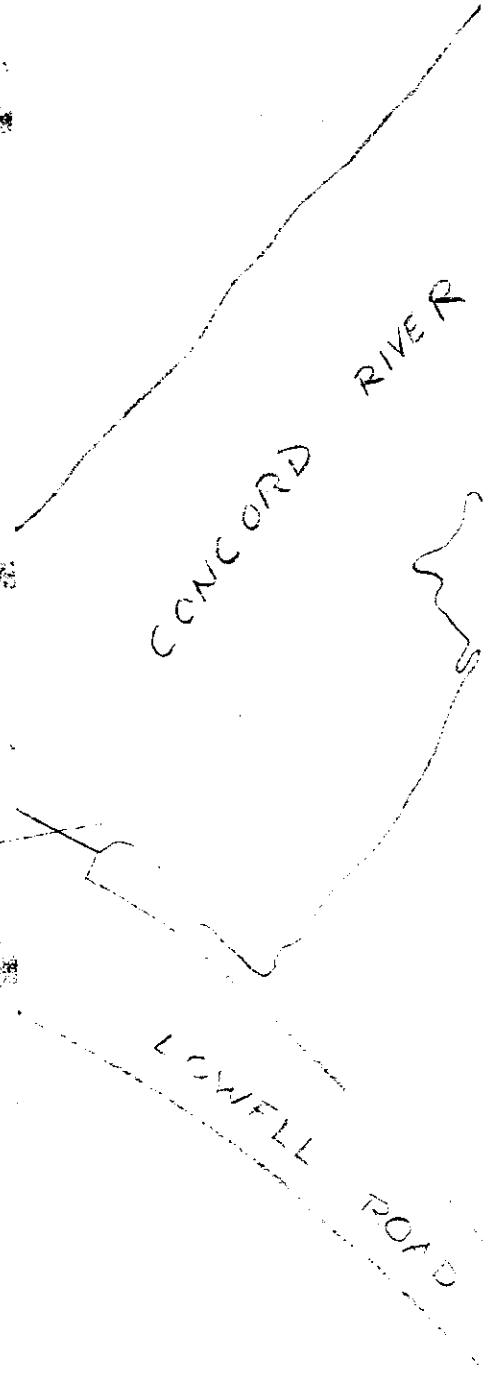






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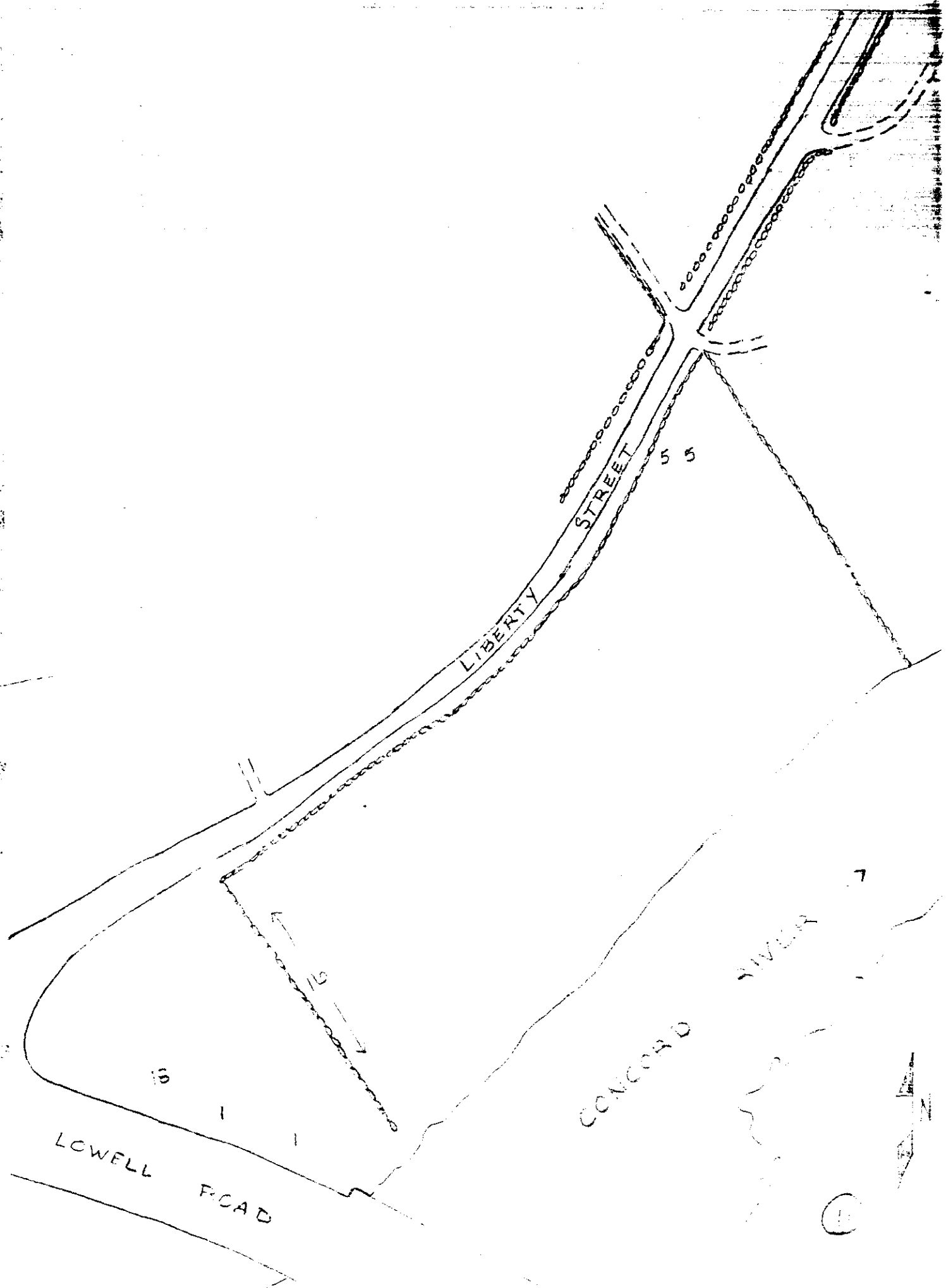


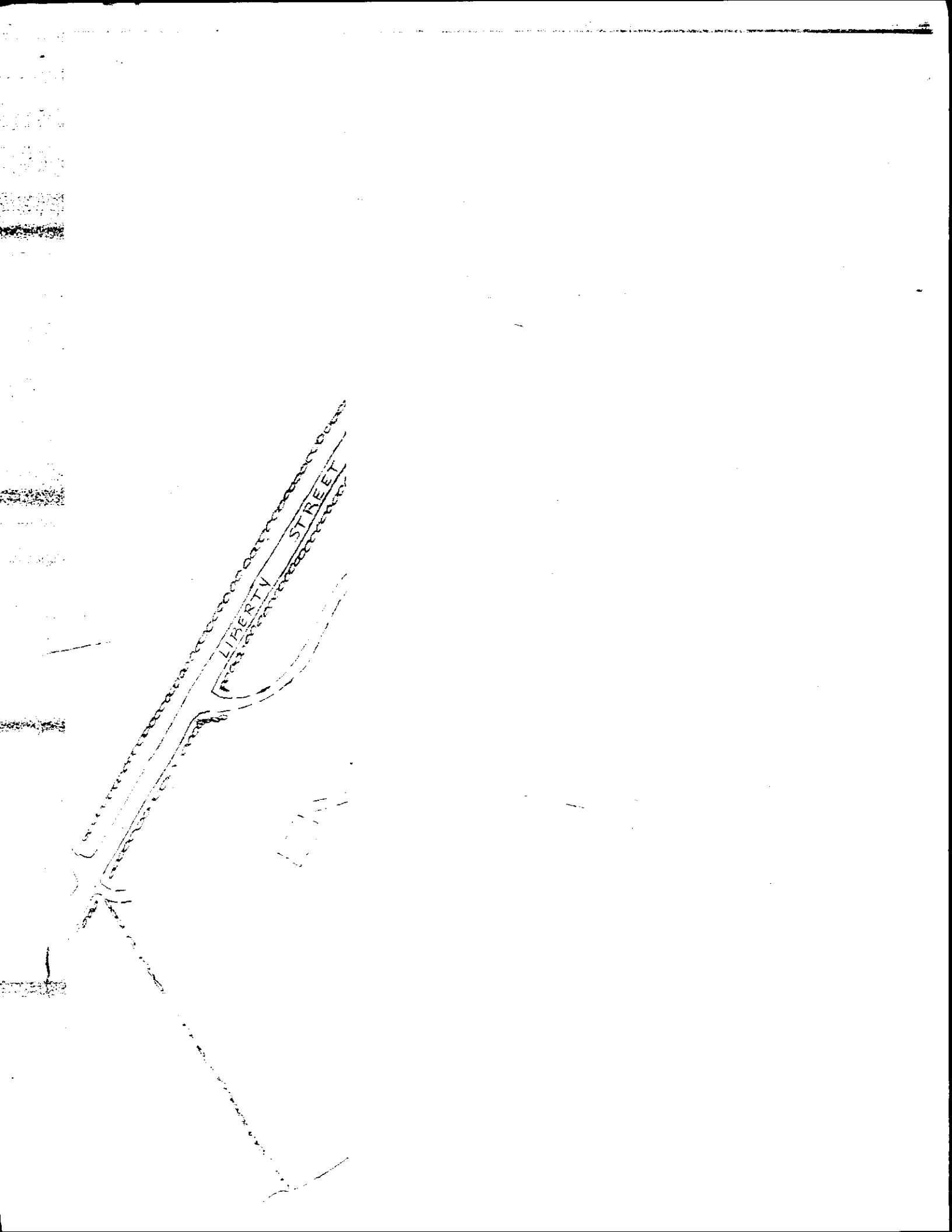


A hand-drawn sketch on a white background. A wavy line representing a river flows from the top left towards the bottom right. Below the river, a dashed line represents a road, also flowing in the same direction. The text 'CONCORD RIVER' is written in capital letters, following the curve of the river. The text 'LOWELL ROAD' is written in capital letters, following the curve of the road.

CONCORD RIVER

LOWELL ROAD





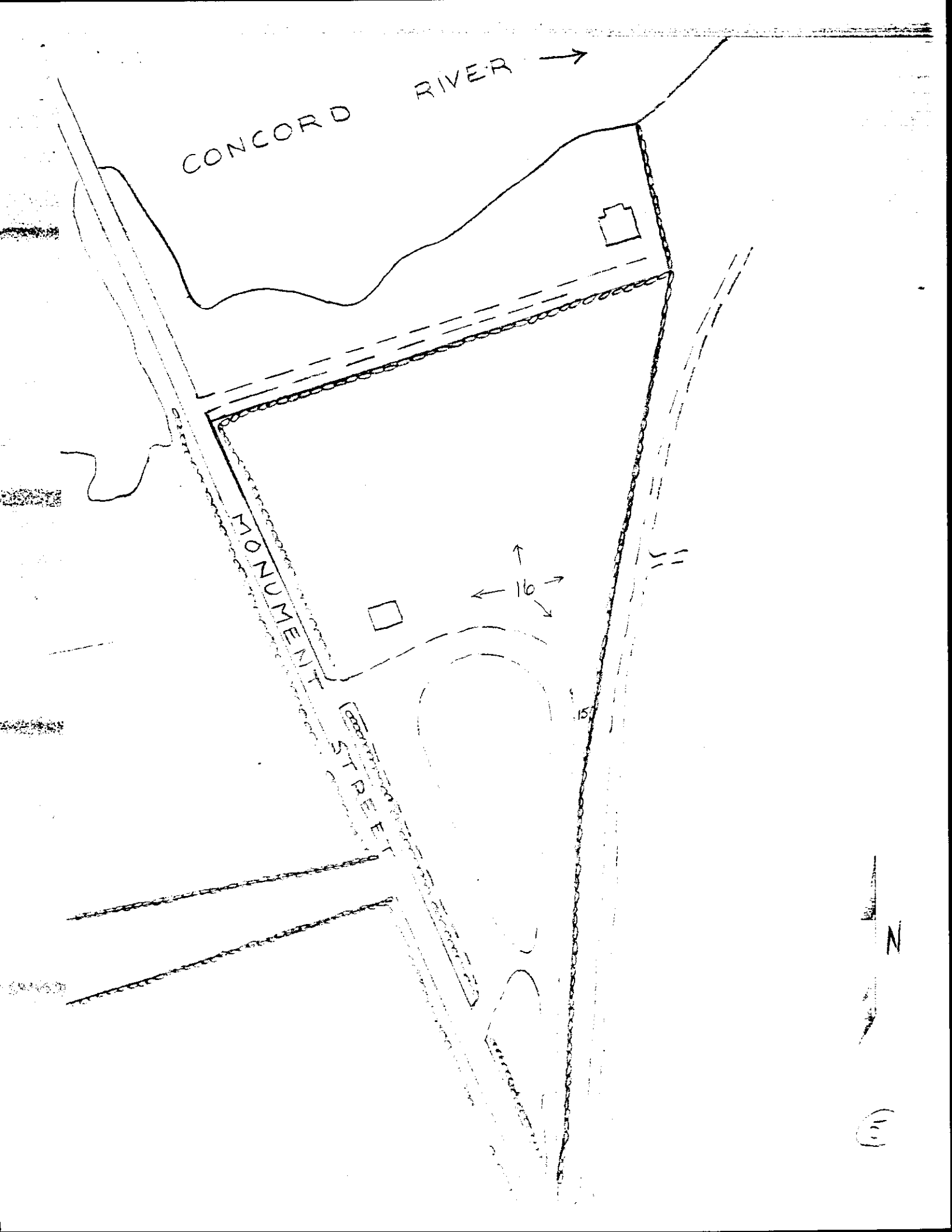
CONCORD RIVER →

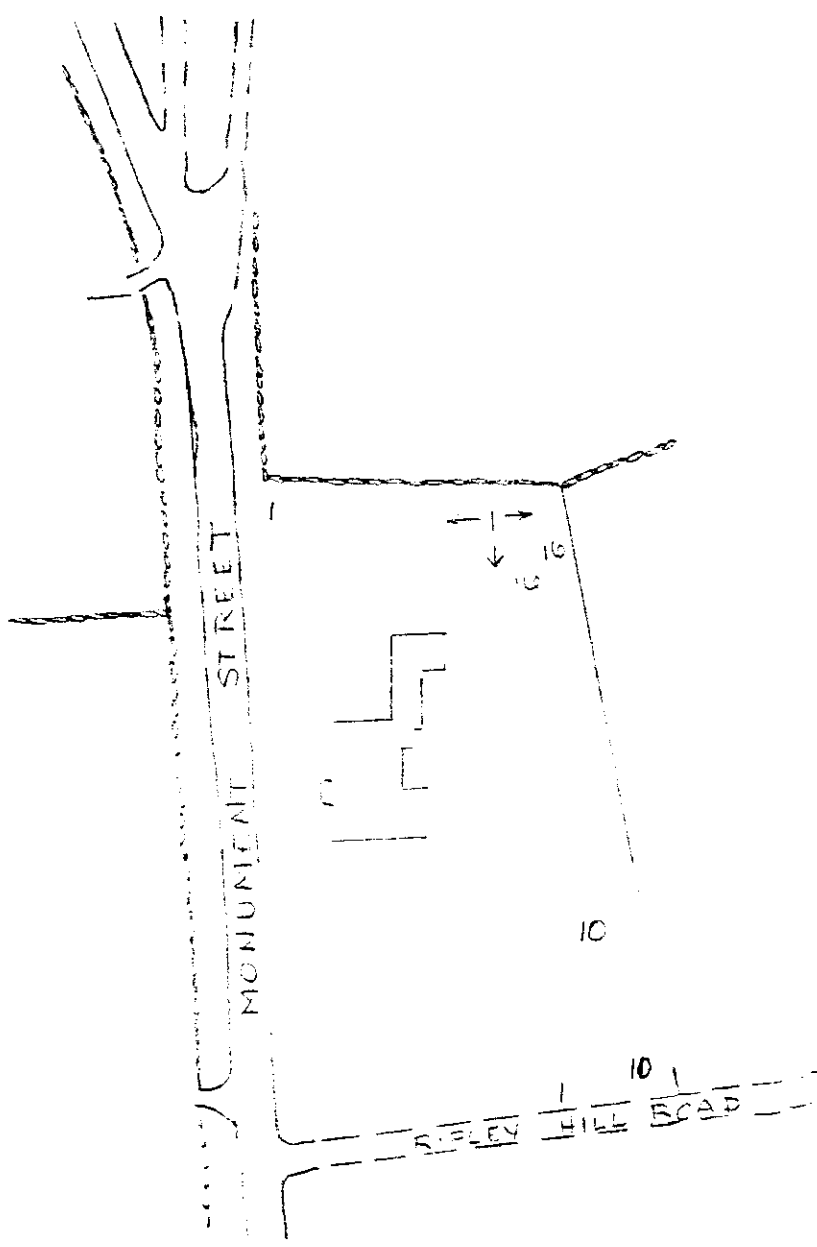
MONUMENT

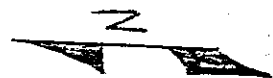
SPRING STREET

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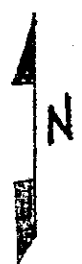
GREAT MEADOWS ROAD

STREET



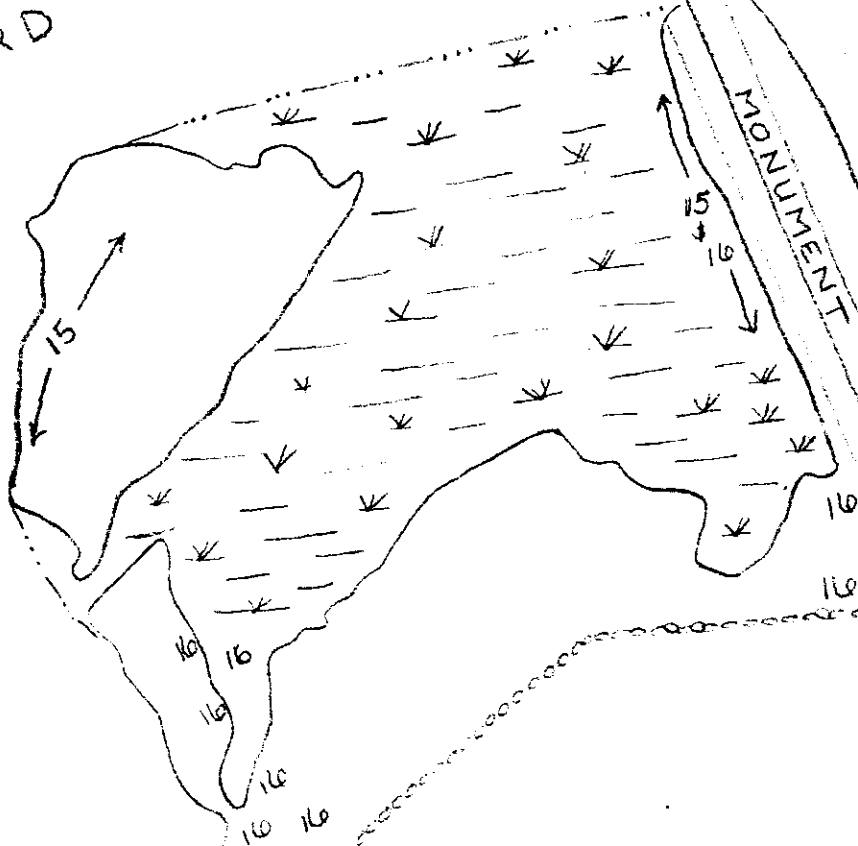


CONCORD RIVER →

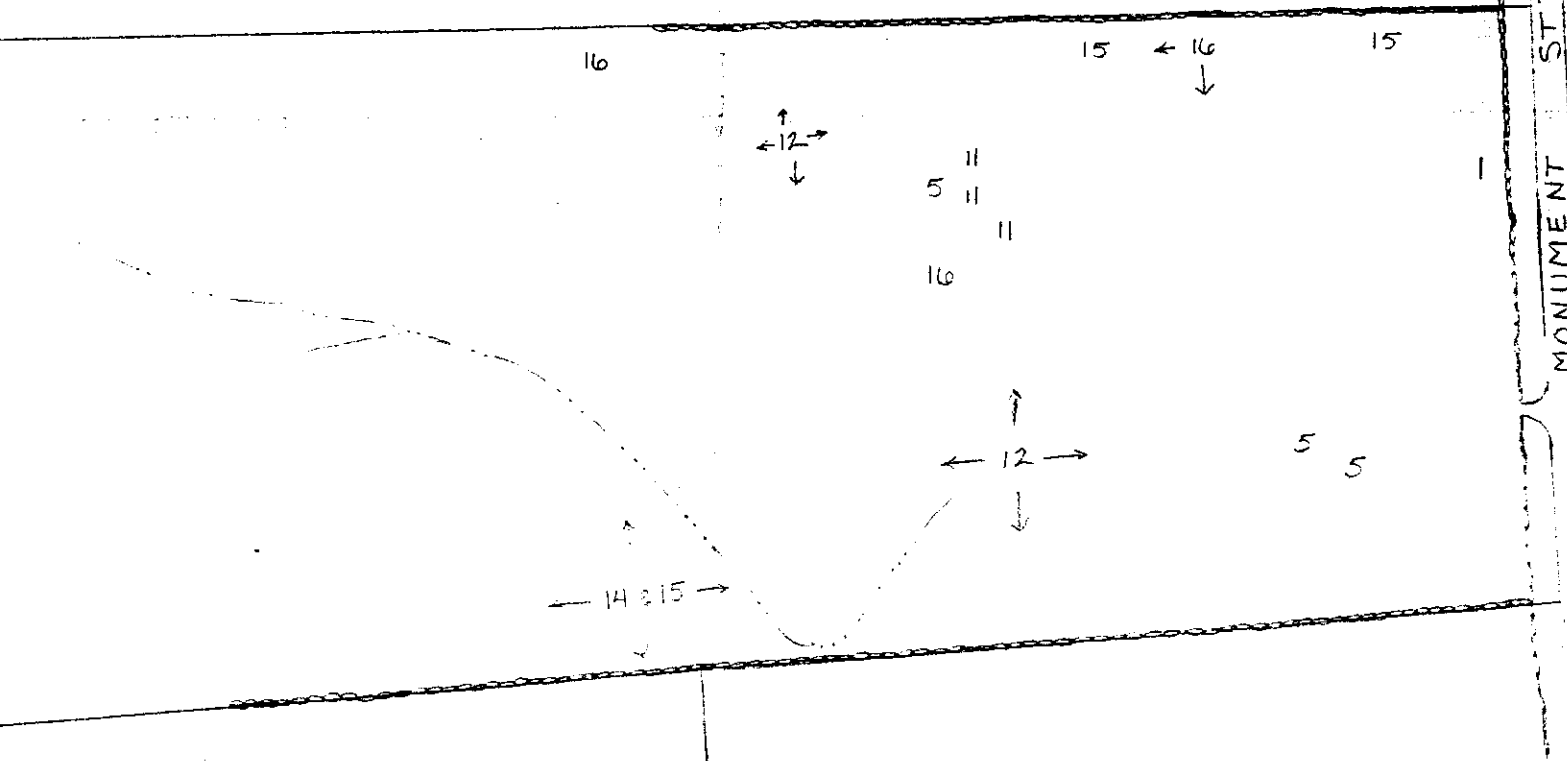


MONUMENT STREET

STREET

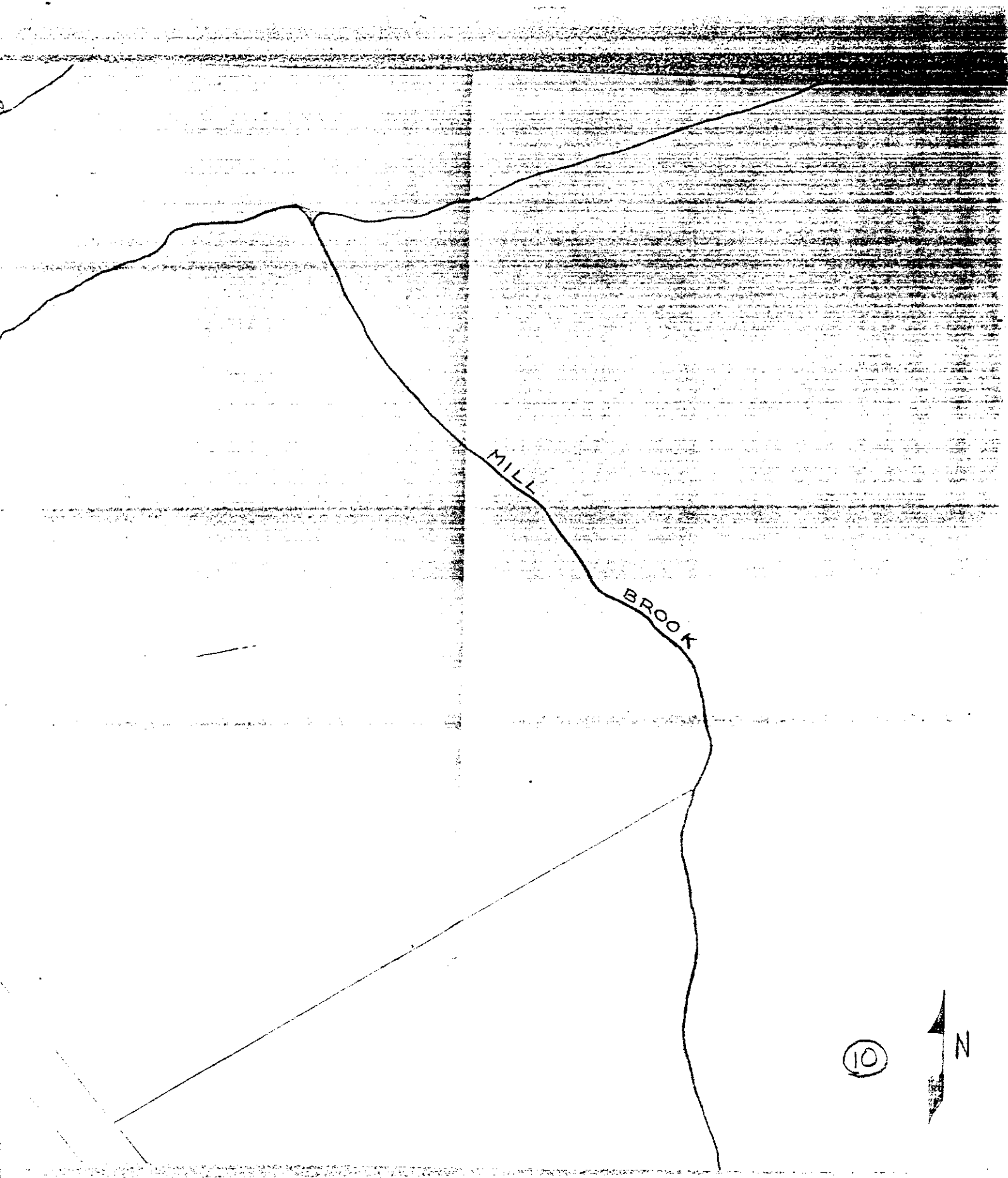


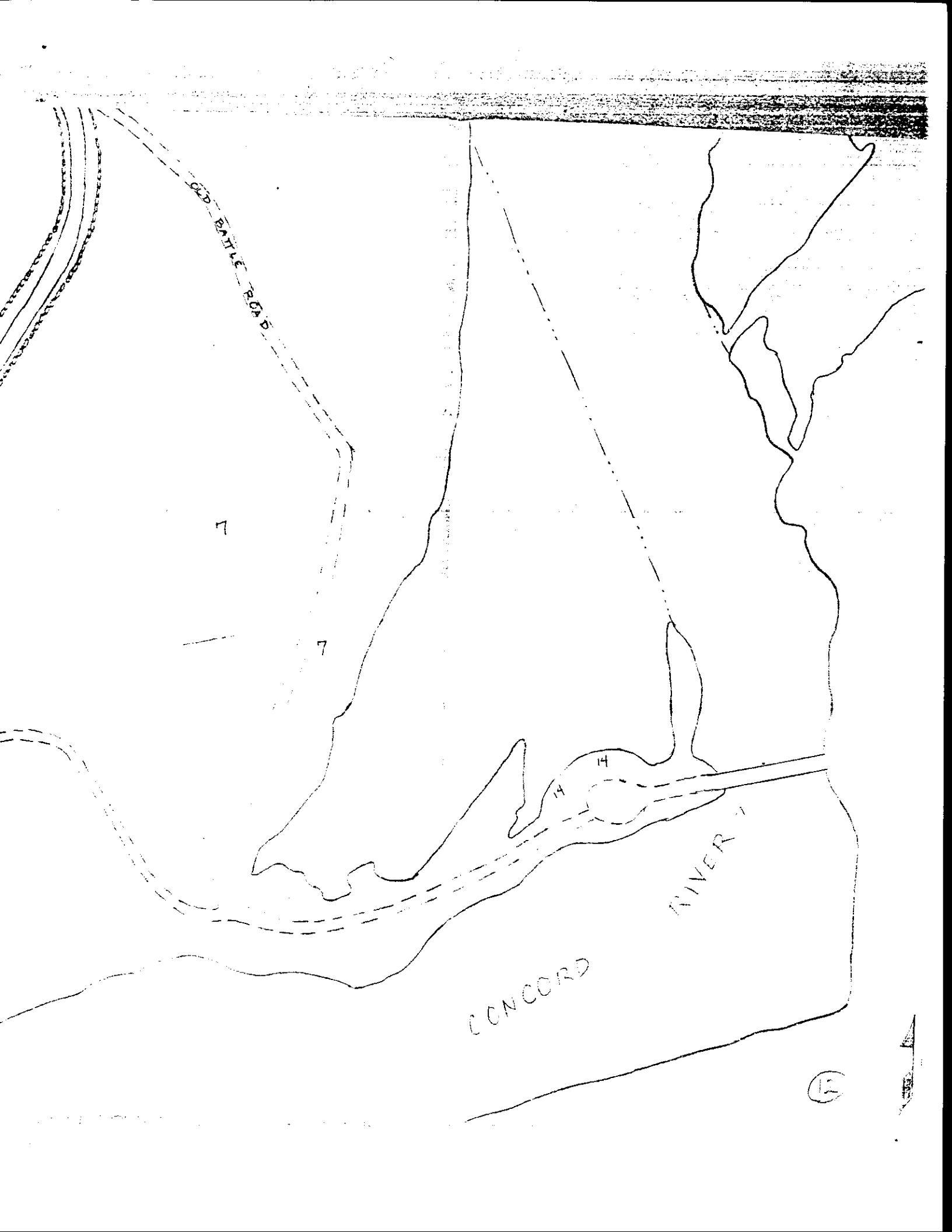
LORD RIVER →



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APPENDIX

Founded 1875



1319 Eighteenth Street NW Washington DC 20036 telephone (202) 467-5810

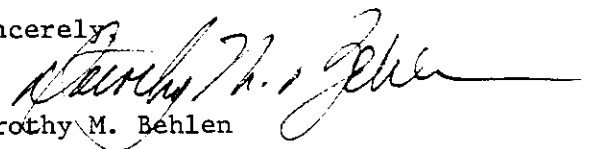
January 3, 1980

Dear Ms. Bellows:

The enclosed contains the handwritten notes of DR. E. L. Little, Jr., the retired chief dendrologist for the US Forest Service. I think that should answer all your questions.

Please let me know if I can provide any additional information.

Sincerely,


Dorothy M. Behlen



United States Department of the Interior

NATIONAL PARK SERVICE

MINUTE MAN NATIONAL HISTORICAL PARK

POST OFFICE BOX 160

CONCORD, MASSACHUSETTS 01742

November 8, 1979

IN REPLY REFER TO:

American Forestry Association
Washington, D.C.

NOV 26 1979

Dear sir:

I am currently working on a site evaluation project at Minute Man National Historical Park in Concord, Massachusetts. Part of this evaluation requires that I know the introduction dates of several nonnative (naturalized) tree and shrub species. More specifically, I am looking for documented information to determine whether or not these species would have been found in the landscape on April 19, 1775. *All very probably were not in landscape in 1775. If introduced earlier, they would not have been naturalized in 1775.*

The species for which I require this information are:

- Scotch Pine - Pinus Sylvestris L. (1753)
- European Larch - Larix Decidua Mill. (1768). (Pinus larix - 1753)
- European Mountain Ash - Sorbus Aucuparia L. (1753)
- Norway Spruce - Picea Abies (L.) Karst. (1858). *Boschniakia Picea 1012 L. (1753)*
- Norway Maple - Acer Platanoides L. (1753)
- European White Poplar - Populus Alba L. (1753)
- Buckthorn - Common - Rhamnus Cathartica L. (1753)
- Glossy - Rhamnus Frangula L. (1753)
- Winged Euonymus - Euonymus Alatus (Thunb.) Seibold, Verh. Braun. Gesells. Kuntz. Herb. 12: 45
- Multiflora Rose - Rosa Multiflora Thunberg, Fl. Jap. 214. 1754.
- Japanese Barberry - Berberis Thunbergii DC., Rep. Veg. Syst. 219. 821.

Any information you send me regarding these species must include a bibliography. Additional documented information you may have pertaining to the historic landscape of Concord and the Battle Road on April 19, 1775, will be greatly appreciated.

Thank you for your cooperation and help in this project.

Sincerely,

Leslie Bellows

Leslie Bellows
Park Technician



Years refer to publication of documents beginning with introduction in 1753.



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

MINUTE MAN NATIONAL HISTORICAL PARK

POST OFFICE BOX 160

CONCORD, MASSACHUSETTS 01742

November 8, 1979

Mr. Donald Wyman
Brooklyn Botanical Garden
Brooklyn, New York

Dear Mr. Wyman:

I am currently working on a site evaluation project at Minute Man National Historical Park in Concord, Massachusetts. Part of this evaluation requires that I know the introduction dates of several nonnative (naturalized) tree and shrub species. More specifically, I am looking for documented information to determine whether or not these species would have been found in the landscape on April 19, 1775.

The species for which I require this information are:

- ✓ Scotch Pine - Pinus Sylvestris
- ? European Larch - Larix Decidua
- ✓ European Mountain Ash - Sorbus Aucuparia
- ✓ Norway Spruce - Picea Abies
- ✓ Norway Maple - Acer Platanoides
- ✓ European White Poplar - Populus Alba
- ✓ Buckthorn - Common - Rhamnus Cathartica
- ? Glossy - Rhamnus Frangula
- ~~no~~ Winged Euonymous - Euonymous Alatus
- ~~no~~ Multiflora Rose - Rosa Multiflora
- ~~no~~ Japanese Barberry - Berberis Thunbergii

Any information you send me regarding these species must include a bibliography. Additional documented information you may have pertaining to the historic landscape of Concord and the Battle Road on April 19, 1775, will be greatly appreciated.

Thank you for your cooperation and help in this project.

Sincerely,

Leslie Bellows

Leslie Bellows
Park Technician



Those checked were used in Colonial Williamsburg gardens prior to 1750. I have marked no were discussed, later introductions. The ~~three~~ with ? I do not know about.
(over)



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

MINUTE MAN NATIONAL HISTORICAL PARK

POST OFFICE BOX 160

CONCORD, MASSACHUSETTS 01742

November 8, 1979

Dr. Bruce Hamilton
Department of Landscape Architecture
Rutgers University
New Brunswick, NJ 07102

Dear Dr. Hamilton:

Your name was given to me by one of your former students, Debbie Murphy, as a reference source for information regarding trees and shrubs of North America. I am currently working on a site evaluation project at Minute Man National Historical Park in Concord, Massachusetts. Part of this evaluation requires that I know the introduction dates of several nonnative (naturalized) tree and shrub species. More specifically, I am looking for documented information to determine whether or not these species would have been found in the landscape on April 19, 1775.

The species for which I require this information are:

Scotch Pine - Pinus Sylvestris ← *probably Early Colonial Times*
European Larch - Larix Decidua ← *Early Colonial Times*
Colonial Times European Mountain Ash - Sorbus Aucuparia ← *Early Colonial Times*
Norway Spruce - Picea Abies
Norway Maple - Acer Platanoides ← *Early Colonial Times*
European White Poplar - Populus Alba Var Bolleana 184
Introduced Early Colonial Times → Buckthorn - Common - Rhamnus Cathartica *Struck to sp. Early Colonial Times*
Glossy - Rhamnus Frangula
1860 Winged Euonymus - Euonymus Alatus
1886 Multiflora Rose - Rosa Multiflora
1875 Japanese Barberry - Berberis Thunbergii

Any information you send me regarding these species must include a bibliography. Additional documented information you may have pertaining to the historic landscape of Concord and the Battle Road on April 19, 1775, will be greatly appreciated.

Thank you for your cooperation and help in this project.

Sincerely,

Leslie Bellows

Leslie Bellows
Park Technician



COOK COLLEGE • DEPARTMENT OF HORTICULTURE AND FORESTRY
P.O. BOX 231 • NEW BRUNSWICK • NEW JERSEY 08903

Ms Leslie Bellow
Minute Man Nat. Hist. Park
PO Box 160
Concord, Mass 01742

Nov 16

Dear Mrs. Bellow

In his books, Donald Wyman,
Trees for American Gardens and Shrubs for
American Gardens lists the dates of
introduction to American landscapes. I've
noted his information on your list. Euonymus,
Muetiflor Rose and Japanese Barberry are
well beyond the 1775 cut off date. Arnold
Arboretum should be able to help you if you
need to know more precise data. If they
don't know I don't know who can help you.

Sincerely
Bruce Hamilton

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